

Solid Waste Management Plan

Capital Region Solid Waste Management Partnership Planning Unit

CHA Project #: 19283



Prepared For:

**Capital Region Solid Waste Management Partnership
Albany, NY**

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January 2014

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VOLUME 2

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Appendix A

Steering Committee Comments on the Preliminary Draft SWMP

Steering Committee Member Comments of Preliminary Draft SWMP

Summary and Response

The Preliminary Draft Solid Waste Management Plan (SWMP) was distributed to members of the Steering Committee on December 15, 2009 for their review and comment before the Draft SWMP is finalized for public review and comment. Committee members were requested to provide their comments in writing by no later than January 29, 2010.

These comments have been summarized by subject area. When multiple comments were made on a single topic, the substance of the comment has been summarized. In these cases, the individual member comment (with name in parentheses) is presented in the bullets following the comment summary. The summarized and individual comments are presented in *italic type*.

A response to each comment is presented after each comment. The response includes a note regarding whether a change was made to the Draft SWMP as a result of the comment. Discussion of the comments and responses took place at the Steering Committee meeting held on February 9, 2010. Some of those discussions have resulted in amendments to the response to comments section and in the manner in which revisions to the Preliminary Draft SWMP will be made.

Distribution and Review

Comment DI: *Several commentators thought that the Appendices to the Preliminary Draft SWMP should be provided to the entire the Steering Committee. Other commentators thought this was unnecessary, but that copies could be supplied to those who request them or direct specific questions to CHA.*

- *The Appendices are an integral part of the Preliminary Report and contain information that should be accessible to the Steering Committee. Each member of the Steering Committee should immediately be provided with the Appendices in order to make a proper study of the preliminary report (Kernan).*
- *I feel that it is important that all members of the SWMP Steering Committee receive copies of the appendices, in order to make informed comments. These were omitted from the preliminary draft for Steering Committee review and were not sent to the members unless they requested them (Cummings).*
- *Please send an electronic copy of the appendices to Cashawana Parker at the Albany Common Council so they are available to all council members and to the City Clerk. Also please send her three paper copies (O'Brien).*
- *Any Committee member that wanted the appendices got a copy. The detailed information in these is summarized in the preliminary draft SWMP the Committee members received. The appendices contain valuable back up and technical information, but the Committee should really focus on the draft SWMP, the*

diversion rates, alternative scenarios, policy and program recommendations (Bruce).

- *I'm sure if a few individuals have specific questions that could be answered by material in the appendices, it would be a time and paper savings to have these individuals address those specific question directly to you (Reynolds).*

Response D1: There are presently four appendices to the Preliminary Draft SWMP which contain voluminous detailed supporting information on topics that are fully presented and discussed in the full body of the preliminary draft SWMP. As such, they were not distributed to the Steering Committee as part of the Preliminary Draft. Our intent was to request feedback from the Steering Committee on the substantive issues presented in the Preliminary Draft, particularly if there were any omissions or misrepresentations with respect to issues that were discussed by the Steering Committee.

Members of the Steering Committee who requested an electronic or paper copy of the appendices were provided with them.

It is not anticipated that a change will be made to the Draft SWMP as a result of this comment.

Comment D2: *The timeframe for review of the Preliminary Draft should be extended.*

- *Since the Appendices are very large and the Preliminary Draft was very large, I feel that CHA should extend the comment deadline until March 15th (Cumplings).*
- *Since the requested review is to get "preliminary" feed back prior to full release and not what would be considered a full technical review, your timetable seems appropriate. Not looking for a perfect document at this point, better to get it out to a wider audience for review as soon as possible. From what I've read so far, the information in the body of the SWMP seems adequate to perform the level of review requested (Reynolds).*
- *I feel that it is premature to extend the comment deadline until March 15th. Let's have the meeting in early February and see what the consensus is. I know that although the appendices were missing from the electronic copies, they were available from CHA when asked for (O'Brien).*
- *I am not in favor of an extension of time for submission of Committee member comments. We discussed the process and timetable at the last Committee meeting, and there was agreement on proceeding along these lines (Bruce)*
- *I must also agree with Bill & Ken, the time frame was clearly defined in the last few meetings. We need to keep to the schedule and submit this to the Common Council as stated. It is important for Sally to remember that this is a preliminary draft. After committee members submit their comments a final draft will be*

submitted to the Council where it will then be subject to public comment and SECOR review. This is not the final draft that some people seem to think it is (Zeoli).

Response D2: Only one committee member requested an extension in the timeframe for the review of the Preliminary Draft SWMP. Four other committee members who expressed an opinion on this issue thought that it was unnecessary to extend the timeframe. Because there appears to be no compelling reason to extend the timeframe and because extending the timeframe would delay the formal issuance of a Draft SWMP for review and comment by the general public, the comment period for the Preliminary Draft SWMP has not been extended.

It is not anticipated that a change will be made to the Draft SWMP as a result of this comment.

Comment D3: *A Steering Committee meeting should be scheduled in February to discuss committee member comments.*

- *It is also important to schedule a meeting in February at which Steering Committee members may discuss the draft plan and also get questions answered. How can the committee have a consensus opinion when members do not know the opinions of other members?(Cummings)*
- *I think the request for a meeting to discuss comments is a good idea (Dimino).*
- *I agree with Sally that we should have a meeting in February (preferably early in February) to discuss the draft ... It would also be helpful if you would share members' comments with other members although I am choosing to send this comment directly to all the members. (O'Brien)*
- *We were planning to have a summary of the comments for the final meeting for discussion in late February, so Committee members would know about any changes made to the draft based on comments received. If there are any major issues were there is a significant split of opinion on a draft plan policy or program element, that will be noted in a transmittal letter to the Common Council. We are trying to stick to a reasonable time schedule and get the Draft Plan to the Common Council at which time the formal, and more important, public review, comment and evaluation process will begin (Bruce).*
- *I would be happy to schedule a second February meeting early in February, if Committee members want to hear about the comments that have been submitted, and discuss them. (Bruce)*

Response D3: A Steering Committee Meeting has been scheduled for February 9, 2010 to present and discuss comments from the committee members that have been submitted.

As a result of the discussions that took place at this meeting, changes were made to the Draft SWMP, as noted under individual comment responses listed in this summary.

Comment D4: *The Preliminary Draft SWMP should be distributed to the citizens who have attended the Steering Committee meetings.*

- *While the 12/15/09 email from CHA advises that “this Preliminary Draft is for review by the Steering Committee only,” CHA sent it to select others. At each meeting of the Steering Committee, there were citizens sitting in the gallery who attended many of the meetings, some who were quite knowledgeable on the topic, some who asked very pertinent questions or who provided information to the group. Prior to issuance of a SWMP for formal review, these members of the public should be provided the Preliminary Report in full. (Kernan)*

Response D4: The citizens who have attended SWMP committee meetings will be able to review the Draft SWMP when it is issued for public comment.

During discussions at the Steering Committee meeting on February 9th it was determined that the Preliminary Draft SWMP should be posted on the Committee’s internet site, so that interested parties could view it there.

It is not anticipated that a change will be made to the Draft SWMP as a result of this comment.

Comment D5: *One Committee member (Cummings) requested that all comments from steering committee members on the preliminary draft be included in an appendix to the final draft that is to be forwarded to the Albany Common Council.*

Response D5: Comment noted. Prior to the submission of this comment, the Chairman of the Steering Committee had determined that the committee member comments and the responses presented in this summary will be included as an Appendix in the Draft SWMP to be submitted to the Common Council.

Comment D6: *One Committee member (Larson) informed that our comments on the Preliminary Draft of the Capital District Solid Waste Management Plan are being reviewed by our executive staff. Therefore, they will not be received by you as requested by your date of January 29, 2010, but we will send them as soon as possible.*

Response D6: Comment noted. Any comments that are received can be addressed along with any public comment received during the formal public comment period.

Comments from this member were subsequently received on February 3, 2010 and indicated concurrence with the following components of the Preliminary Draft SWMP.

- 1) Expand the planning unit by implementation of a regional solid waste management authority, and the use of flow control

- 2) Waste Minimization – emphasis on consumer education on waste reduction, promote PAYT (Pay as you throw) implementation, and back yard composting for yard and food waste.
- 3) Promote Product Stewardship – working to reduce the amount and toxicity of packaging and materials that are left for disposal at the end of their useful lives.
- 4) Continue to promote and expand recycling infrastructure. Looking to mandate such items as electronics and HHW.
- 5) Developing a Source Separated Organic Waste (SSOW) facility .

The commentator express concern with the use of waste to energy as part of the regional solid waste treatment facility, and that comment is now noted and addressed as part of Comment A1.

Editorial/Additions

Comment E1: The SWMP Needs an Index of Acronyms (O'Brien)

Response E1: Comment noted. An Index of Acronyms will be prepared for Draft SWMP that will be issued for Public Review.

Comment E2: Sally Cummings does not officially represent Save the Pine Bush.

- *When I was first asked to be on the SWMP Steering Committee I signed in as a citizen and thereafter signed in differently each time, i.e. once as an environmentalist (any gardener is an environmentalist) and also as a resident of Westmere. I believe I did once sign in as STPB but when I asked Lynne Jackson about this she told me not to sign in this way. I asked her if I should write and tell you, she said "not to bother". I did not know that you would put my title as this on the SWMP Preliminary document. Please change my name to "citizen" or Westmere resident, or some such.(Cummings)*

Response E2: Comment noted. Sally Cumming's affiliation will be changed to "citizen" in the Draft SWMP that will be submitted to the Common Council and issued for Public Review. It was also noted at the Steering Committee meeting of February 9, 2010 that Michael Franchini from Albany County was not included in the Committee member listing in Table 1-4. His name will be added to this Table for the final Draft.

Regional Solid Waste Management Authority

Comment R1: Two Committee members disagreed with the recommendation to form a Regional Solid Waste Management Authority.

- *I disagree with the assumption (p20) that a "Regional Solid Waste Management Authority (RSWMA)...is critical to successful implementation of the SWMP."*

There is no need for a “public authority” to gather the resources of the fourteen municipalities in the Planning Unit. This area has had a consortium for several years and the 14 municipalities have recently entered into a more formalized “Inter-municipal Agreement” (IMA) to hire and fund a Planning Unit Recycling Coordinator (p27). This is a formal consortium supported by a written document binding, according to its terms, on the various municipalities. It should not be difficult, with the proper initiative, to expand the IMA to include other aspects of finding a solution to the solid waste problem. And there would be bureaucratic savings. The court cases presented to us do not require a public authority and do not bar the use of a consortium to achieve the goals (Kernan).

- *There are many disadvantages to another public authority. It will take years and expense to get legislative approval; it will be opposed by the citizens/taxpayers. Generally, public authorities have their directors appointed by the municipalities, no matter the lack of experience in matters of solid waste. In appointments, the public is generally ignored or allotted a minimum number; these also are appointed by the politicians. Rates are determined by a group which has no responsibility to its citizens. [We have seen that with the water authority here in Albany, whose minimum charge does not encourage water conservation; in fact the declining rates encourage excessive water use.] To create a new organization means an additional bureaucratic structure with departments in personnel, human resources, finance, budgeting, etc. NYS and this region have too many authorities and the NYS Comptroller periodically issues reports critical of the abuses inherent (Kernan).*
- *While CHA and, apparently, DEC seem to favor an Authority approach I strongly oppose creation of an Authority. Authorities tend to be huge, and governed by people who do not know anything about the technology being undertaken. They are great at administration and making more work for more administrators. Authorities remove the power from local government to control what the taxpayers are paying for and allow one or more municipalities to shift their own debt to that of the authority, thus making every taxpayer in the authority’s region liable for debt they did not create. In addition, authorities can prohibit local municipalities from enacting and implementing solid waste negotiations which are more stringent than those of the authority. Also, Authorities often have, or can be granted, power of eminent domain over local municipalities and private landowners. I feel that the solid waste management plan should be kept small, taking care of Albany and the townships, so there is more control for Albany and less expense for its tax payers. I also feel that the general public are more likely to comply if their waste is being handled by a local consortium than with a gigantic Authority (Cummings).*
- *During Steering Committee meetings Willard Bruce... said that we examined the best institutional structures nationwide that achieve the highest diversion rates. They were all authorities. Where is the data to support this? (Cummings)*

Response R1: While one commentator notes that “There is no need for a “public authority” to gather the resources of the fourteen municipalities in the Planning Unit”,

the service area of the recommended Regional Solid Waste Management Authority (RSWMA) would be considerably larger than the 14 municipalities of the existing Planning Unit. As shown on the detailed analysis of Alternative Implementation Scenario # 3, there are significant economy of scale and other benefits that can be achieved for a larger regional planning unit, when compared to the existing planning unit comprised of 14 municipalities.

Besides the economic benefits, as noted in Section 5.5.2, one of the more significant advantages of the authority structure is the ability to provide reliable solid waste management facilities and programs, including robust waste reduction and recycling efforts, and to ensure adequate staffing and funding for these efforts. A solid waste authority could also be empowered with waste flow control, which could assure the necessary volume of waste to generate revenue for funding of the reduction, reuse and recycling programs that are necessary in a fully integrate solid waste management program. Flow control might not be possible with a consortium of municipalities as suggested by the commentator. It should be noted that under the current Planning Unit structure, less than 30% of the waste stream is controlled by municipal government. In addition, a regional solid waste authority would be a single purpose entity with all revenue generated being dedicated to the implementation of solid waste management programs.

Many of the commentator's observations about the potential disadvantages of the forming a solid waste management authority (SWMA) are pointed out in Section 5.5.2 of the SWMP.

Regarding the commentator's contention that the terms of the existing IMA could be extended to include other mechanisms for finding solution to the solid waste problem, it should be noted that this alternative implementation mechanism was analyzed in the SWMP as a part of Alternative Implementation Scenario #1. (See page 5-28) The terms of the existing IMA allow participating municipalities to terminate their participation upon the 30 days written notice to the other parties to the IMA. Even assuming that this provision could be amended to provide for more definitive long term commitment, the use of the IMA structure would still require that one of the participating municipalities take the lead role in developing the new facilities and programs envisioned by the SWMP. After the City of Albany Landfill reaches capacity, we know of no individual municipality that is willing to assume this obligation for either the existing Planning Unit or a larger regional Planning Unit.

Finally, it is worth noting that, excluding New York City and Long Island (which are dominated by municipally managed solid waste management programs), the most successful publicly owned integrated solid waste management systems in New York State are operated by County-wide or regional solid waste management authorities. These include the Onondaga Resources Recovery Authority (OCRRA), and the Oneida-Herkimer Solid Waste management Authority. Similarly successful authorities (or authority-like organizations) have been identified in other states. For example, during a Steering Committee Meeting in May 2009, Albany Common Council President Shawn

Morris, made a presentation about the Chittenden County Solid Waste District (CSWD) in Vermont, based on a recent visit she made there with Councilmember Cathy Fahey and several environmental advocates from the Capital Region, including Tom Ellis and Tim Truscott. Ms Morris reported very favorably on the waste reduction and recycling programs undertaken by this agency, which is structured similar to a public authority in New York, and is able to subsidize much of its waste reduction and recycling with a tipping fee surcharge on all solid waste for disposal which originates in the District.

Albany County was recently awarded a grant from the New York State Department of State to conduct a detailed study on the feasibility of a regional solid waste management authority, as noted in Section 6.2 of the Preliminary Draft SWMP. It is expected that this study will include an examination of the factors that have resulted in success and/or failure for the regional solid waste authorities. The results of the study will help identify the future actions necessary to advance the formation of a regional SWMA to successfully implement the programs, policies and facilities envisioned by the SWMP.

A change has been made to the discussion of institutional alternatives in Section 5.4 of the Draft SWMP as a result of this comment.

Based upon discussions at the Steering Committee meeting on February 9, 2010, it was reiterated that a stronger case needs to be made about why the authority structure is expected to benefit efforts of reduction and recycling. During that discussion a Committee member also suggested that the Draft SWMP should address the concerns about accountability and management of public authorities in New York that have been raised by some citizen groups and elected officials. These discussions are now included in the revised Section 5.4.2. In response to further discussions at the Steering Committee meeting on February 9, 2010, Section 5.6.5.1, which addresses the effectiveness of a local solid waste management authority, has been now been revised to include a discussion of how Alternative Scenario #2 could be implemented with a continuation of the Planning Unit consortium instead of with an Authority.

Comment R2: *One Committee member asked if solid wastes will be prohibited from coming into the capital region solid waste district from outside the district? This needs to be clarified before the organization is formed. (Cummings)*

Response R2: The recommended formation of a regional solid waste management authority is intended to provide sufficient economy of scale to service an expanded planning unit. However, because the boundaries of that expanded unit have not yet been established it would be premature at this time establish a prohibition on the importation of waste from outside the planning unit.

It is not anticipated that a change will be made to the Draft SWMP as a result of this comment.

Alternative Solid Waste Management Technologies

Comment A1: *One Committee member noted his opinion that it is the duty of the Steering Committee to weigh the merits of each technology, and consider whether each technology would be appropriate in our situation. Several other committee members expressed concern about a specifically endorsing a particular solid waste treatment technology*

- *CHA is due credit for bringing before the Steering Committee presentations by companies from North America and Europe who are involved with alternative technologies such as pyrolysis, gasification, biological/mechanical, anaerobic digestion and WTE. The Steering Committee had the opportunity to question the presenters. But the Steering Committee has not held discussion on the merits of each technology. CHA has shown its decisions in the Preliminary Report and CHA's analyses are contained in that elusive Appendix E. It is not sufficient to deny a technology on the basis that there are no American factories, while a technology has been proven in Europe for more than a decade. It is the duty of the Steering Committee to weigh the merits of each technology, with technical assistance from CHA and other experts, and consider whether each technology would be appropriate in our situation (Kernan).*
- *The concept of "waste to energy" has been, and continues to be, a controversial topic that raises issues of environmental justice as well as health and environmental concerns. OGS is supportive of a plan that includes the investigation of all strategies and technologies to reduce waste. Therefore, instead of stating to "Develop a regional facility utilizing a mixed solid waste treatment technology. Such a facility would recovery additional materials, energy, bio-fuels and other byproducts from the post-recyclable solid waste stream using either the conventional waste-to-energy technologies or one of the emerging technologies, which develops a successful commercial facility somewhere in the United States in the near future", we believe the plan should focus on continuing to investigate and evaluate emerging technologies, including "waste to energy" initiatives. It is our understanding that there have been a number of advances in "waste to energy" technology to reduce toxins in the air and in the residue. However, none of the groups that made presentations to the Committee on "waste to energy" proposals adequately addressed the issues of environmental and health concerns or provided statistics to back their claims. Therefore, there is not enough information at this point in time for OGS to endorse the recommendation to develop a regional solid waste treatment facility to further minimize landfill disposal requirements. (Larson)*

Response A1: Presentations and discussions about the merits of various alternative solid waste management technologies were held at almost every steering committee meetings fro February through October of 2009. Over the course of the year committee members were also invited to participate in visits to solid waste management facility sites around New York State which including one or more of the alternative technologies. Summaries of the visits were prepared and were discussed at the meetings of the Steering Committee,

for the benefit of those who were unable to participate in the visits. These discussions included the merits of the technologies observed at the respective sites.

As part of the evaluation of alternative technologies conducted as part of the SWMP, a request for information (RFI) was prepared and distributed to solicit preliminary statement of interest and background information from parties wishing to participate in the process. The Steering Committee participated in the formulation of the RFI. Fifteen companies provided submittals in response to the RFI. The Steering Committee participated in the review of documents, prepared by CHA, which summarized these submittals in response to the RFI. At the request of the Steering Committee, CHA invited company representatives from respondents from the following technologies to make presentations to the Steering Committee:

- Norterra Organics – SSOW Composting technology – June 23, 2009
- EcoDeco – Mechanical and Biological Treatment – July 21, 2009
- Covanta – Waste-to-Energy – July 21, 2009
- Nature’s Fuel – Pyrolytic Gasification – August 18, 2009

In addition, a presentation was made by EnerKem (not an RFI respondent, but a company with a technology to turn waste biomass into ethanol) at the September 22, 2009 meeting. Information from these presentations, along with all meeting minutes, agenda and presentations has been posted on the SWMP website.

Among other measures, the preliminary Draft SWMP includes the development of a SSOW Composting facility. It also calls for the development of regional solid waste treatment facility to further minimize landfill disposal requirements for post-recyclable solid waste. As noted in Section 6.1.2 of the Preliminary Draft WMP, such a facility would use either conventional waste-to-energy technology or one of the emerging technologies which develops a successful commercial facility somewhere in the United States. It may be in this context that the commentator notes. *“It is not sufficient to deny a technology on the basis that there are no American factories, while a technology has been proven in Europe for more than a decade.”* In response to this comment, it should be noted that the recommended requirement for a successful commercial facility in the U.S. is based upon an anticipated desire of the implementing communities to minimize financial and performance risk associated with the development of a waste treatment facility. It is further noted that regional SWMA (or other implementing agency) which ultimately pursues the development of this regional solid waste treatment facility will be free to develop appropriate financial and performance criteria at that time.

At the Steering Committee meeting on February 9th 2010, several members asked about the definition of waste to energy (WTE) and whether it should be clarified to include other technologies beside conventional mass burn incineration. This is now clarified in Section 5.3.1.8 where the conventional WTE facility is more clearly defined.

Several committee members also thought the Preliminary Draft SWMP needed to better articulate that the recommendation to pursue the development of a regional solid waste treatment facility was not an endorsement of conventional mass burn WTE technology.

As a result of these comments, the language of Section 6.1.2 of the Draft SWMP has been changed to clarify that the SWMP does not endorse conventional WTE over any of the other emerging technologies.

During discussions at the Steering Committee meeting on February 9, 2010, it was requested that a distinction be drawn between emerging technologies that have been well established in other countries (Mechanical/Biological Processing in Europe was cited as an example) and those emerging technologies that are not well established. As a result of this discussion, the Section 5.3.2 on emerging technologies and (some of the text of Appendix E) has been now supplemented to make this distinction.

At the February 9th meeting, another Steering Committee member asked if a table could be prepared to compare the various “solid waste treatment” technologies with landfilling based on a number of environmental and health criteria. This table is now presented as a new Table 5-4, as part of the expanded discussion and comparison of emerging solid waste management technologies that is now presented in Section 5.3.

***Comment A2:** One Committee member (Cummings) strongly opposes construction of a trash incinerator. She notes that existing waste-to-energy facilities are a magnet for items best reduced, reused or, recycled, ruining incentives to maximize reduction, reuse, and recycling. The incentive for the 3 R's would be drastically cut because amounts for such a facility must be guaranteed or paid for anyway.*

Response A2: The Preliminary Draft SWMP calls for the development of a regional solid waste treatment facility to further minimize landfill disposal requirements for post recyclable solid waste beyond what would be achievable with the implementation of the waste reduction and recycling programs elements. Such a facility could use either the conventional waste-to-energy technology (of which there are currently ten operating in the State of New York) or one of the emerging technologies to recover energy, biofuels, or other recyclable materials.

The development of such a facility would not be a disincentive to reduction, reuse and recycling efforts because the facility would be sized to process only the materials that will remain after maximizing the 3Rs. In fact, it is the planning units that operate as public authorities that generally have the highest waste reduction and recycling achievement as well as their solid waste treatment facilities. This is already noted in Section 6.1.2, so no revisions to the Preliminary Draft SWMP will be made as a result of this comment.

Alternative Scenario

***Comment Alt1:** One committee member (Kernan) proposed a Scenario #4 for the Steering Committee's consideration, which may include the following:*

- *regional formal consortium;*
- *strict enforcement of existing recycling laws, with penalties;*
- *innovative approaches to recycling as shown in other regions;*
- *PAYT if a small first bag weekly is provided free by the municipality;*
- *product stewardship;*
- *consider a SSOW facility since food waste is 19% of MSW (didn't the City of Albany collect food waste from residents as part of regular trash pickup in the 1960-70s);*
- *further evaluation of emerging technologies, as opposed to a WTE plant.*

Response Alt1: All of the elements of this alternative are also included as elements of the Preliminary Draft SWMP, with two important variations.

A Regional Solid Waste Management Authority (RSWMA) is included as the preferred implementation mechanism in the Preliminary Draft SWMP because it is a more effective administrative structure than a regional consortium established by inter-municipal agreement (IMA). For reasons noted previously in response to comment R1, the regional consortium would not be as effective, these reasons include that a municipality would be required to take the lead role in developing new facilities and programs in the proposed SWMP, and after the City of Albany Landfill reaches capacity, we know of no individual municipality that is willing to assume this obligation for either the existing Planning Unit or a larger regional planning unit. Without the benefit of a guaranteed waste stream from the entire Planning Unit, which would be easier to obtain via flow control under an Authority, it is doubtful that an individual municipality would be able to finance all the required components of a complete solid waste management system.

The Preliminary Draft SWMP also includes provisions for the implementation of a SSOW facility, not just consideration of a facility, as noted in the commentator's alternative. The Preliminary Draft SWMP also calls for the development of a regional solid waste treatment facility to further minimize the landfill disposal requirements for waste that cannot be reduced, reused or recycled, and will include the future evaluation of emerging technologies as well as conventional waste-to-energy (WTE) technology. The Preliminary Draft SWMP does not endorse WTE or any of the emerging technologies which could potentially meet the objective of minimizing future landfill disposal requirements.

Incorporating this fourth Alternative Implementation Scenario into the detailed analysis of alternatives presented in Section 5 appears to overlap existing scenarios and would significantly delay the issuance of the Draft SWMP to the Common Council and for public comment.

A change has been made to section 6 the Draft SWMP to make it more clear that the SWMP does not endorse WTE or any of the emerging technologies which could potentially meet the objective of minimizing future landfill disposal requirements, and that a formal selection of a waste treatment technology would be made at a later date by the regional SWMA (or other implementing agency).

Single Stream Recycling

Comment SS1: *One committee member (Cummings) noted that single stream should be abandoned by the steering committee because it is a less effective method than dual stream and it creates more waste than does the dual stream method. A recent study by the Container Recycling Institute was forwarded in support of this position. The committee should recommend the practice of source separated dual stream collection methods be adopted regionally.*

Response SS1: Consideration of Single Stream Recycling (along with other methods of material re-use waste reduction and recycling) is one element of the Goals and Objectives of the SWMP.

The advantages and disadvantages of dual stream and single stream recycling were presented at a Steering Committee meeting and a discussion of these is included in Section 5.3.1.3 and Section 5.3.1.4 of the Preliminary Draft SWMP, respectively. The discussion includes the disadvantages mentioned in the study cited by the commentator including:

- processing costs may increase compared to multiple stream systems
- possible reduced commodity prices due to contamination of paper;
- increased “downcycling” of paper, i.e., use of high quality fibers for low-end uses like boxboard due to presence of contaminants;
- possible increase in residual rates after processing (due chiefly to increased breakage of glass)

Among the advantages of Single Stream recycling noted in Section 5.3.1.4 are the following:

- more resident participation;
- increased efficiency and reduced cost of recyclable collection;
- worker injuries may decrease because the switch to single stream is often accompanied by a switch from bins to cart-based collection.

While the development of a single stream recycling facility is not an explicit element of the SWMP, as set forth in Section 6, it is an implicit component. All of the Alternative Implementation Scenarios presented in Section 5 include the maximization of currently designated recyclables. In Section 5.6.1, describing Alternative Scenario #1, it is noted that “maximizing the recovery of currently designated recyclables will also include the implementation of single stream recyclables collection along with a local MRF which can accommodate and process the single stream recyclables. This alternative scenario assumes that the single stream MRF would be developed by the private sector as a commercial venture.” While a single stream MRF would be available under the SWMP, communities would be free to continue their use dual stream recycling if they believe that method is maximizing material recovery and recycling.

It is also worth noting that since the distribution of the Preliminary Draft SWMP, County Waste has announced its intention to develop a single stream MRF at its existing dual stream MRF on South Pearl Street in Albany (Sierra Fibers) and also intends to provide single stream recyclables collection to all of its residential customers in the Capital District.

A change has been made to the Draft SWMP as a result of this comment. Language will be added to Section 5.3.1.4 to include the recently announced Single stream facility and programs being implemented by County Waste. Section 5.7.1 has also been amended to clarify that communities would be free to continue their use dual stream recycling if they believe that method is maximizing material recovery and recycling.

Zero Waste

***Comment Z1:** One Committee member (Cummings) noted that the Capital District Solid Waste Management Plan should begin with a statement that the goal of the new plan is zero waste. Zero waste is defined as "If it can't be reduced, reused, repaired, rebuilt, refurbished, refinished, resold, recycled, or composted, then it should be restricted, redesigned, or removed from production. The goal is to combine aggressive resource recovery and industrial redesign to eliminate the very concept of waste. Eventually, the community's resource-use system will emulate natural cyclical processes, where no waste exists. [This definition is from the Berkeley City Council's resolution]"*

Response Z1: The concept of a zero waste, as defined by the commentator, is not an appropriate goal for this SWMP because many of the restrictions and limitations on commercial products could not be realistically achieved on a local or regional level; they will require state or national policies to implement them. However, key components of zero waste include reduction, reuse, recycling and composting, and the preliminary Draft SWMP already include these components to meet the goal of minimizing the amount of waste requiring land disposal in the future by :

- Maintaining and expanding waste reduction, reuse and recycling efforts, as set forth in the SWMP Modification;
- Increasing the effectiveness of public education and enforcement of existing recycling requirements;
- Considering more emphasis on material re-use and alternatives such as PAYT, single stream recycling, and foodwaste composting as mechanisms to achieve future reductions in waste requiring disposal;
- Considering alternatives which recover energy from waste, including proven technologies as well as new and emerging technologies.

These goals and objectives are not significantly different from the zero waste goals noted in the comment, and are consistent with current New York State DEC solid waste management policy as well as the policies that are expected to be espoused in the NYSDEC's forthcoming Beyond Waste Plan.

Based on discussion of this comment at the Steering Committee meeting on February 9, 2010, Section 6.0 and Section 6.1.1. have been revised to incorporate a discussion of the concept of zero waste as an aspirational goal, and the continuous improvement in waste reduction and recycling (beyond the 65% achievement already noted for the year 2020).

Sean Ward and Dick Forgea both noted concern that these waste reduction and recycling goals should not be construed as enforceable permit conditions. Because there is already language in the approved SWMP Mod which addresses this concern, it is clear that NYSDEC does not intend to use these goals as enforceable permit conditions, it is not necessary to include that limiting language in the new SWMP at this time.

Contingency Plan

Comment C1: One Committee member (Griffin) had a comment that relates to the reliance on the formation of an authority for the plan to come to fruition. Time passes rapidly and the need for a long-term solution for the region's future solid waste issues will reach a critical point soon. Should the formation of a regional authority be delayed or the authority not be conceived then the Capital Region could be without sufficient local disposal capacity for a longer period of time than anticipated. I believe that the Plan, when finalized, should contain parallel time lines for development of permanent as well as temporary means for handling the area's waste post-Rapp Rd. The Plan should also contain a contingency for a solid waste management structure along the lines of the scenarios described in prior meetings, i.e. maintaining the current consortium, a smaller consortium or the City of Albany alone. The way the current Draft Plan is structured the failure of one point, the formation of the Authority, means the Plan itself will fail.

Response C1:

Section 6.1.4 of the Preliminary Draft Plan discusses interim measures that will be undertaken to implement certain provisions of the SWMP until the Regional Solid Waste Management Authority (RSWMA) that is recommended is developed. Section 6.1.4 also recognizes that local landfill capacity may be depleted before a regional solid waste treatment facility can be developed by the RSWMA, and that it may be necessary to be temporarily more reliant on commercial landfill capacity located a long distance from the planning unit. As such, the Preliminary Draft SWMP acknowledges that the City of Albany would develop a transfer station in the future, if one is needed, at the Rapp Road Landfill site.

The Implementation Schedule shown in Section 6.3 of the Preliminary Draft SWMP, notes that if enabling legislation for the RSWMA is not enacted by the end of calendar year 2011 due to lack of regional consensus, then a modification to the SWMP will need to be developed to account for that change in circumstances. The details of those modifications, if they are required, as well as alternative contingency measures, will be evaluated at that time in the future.

Reduction Reuse and Recycling

Comment RRR1: *One Committee member (Cummings) commented that during the steering committee meetings, Bill Bruce and CHA representatives often said that the new plan will have strict enforcement and a good education component to stimulate high compliance rates. Few details are provided in the preliminary draft about how these transformations will be implemented.*

Although a schedule for reducing the amount requiring disposal at a facility (which has yet to be determined), there was no indication as to how this reduction is to be accomplished. Without knowing how it is going to be done, how can you make a schedule? No ideas were put forth.

Response RRR1: Section 6.1.1 of the Preliminary Draft SWMP discussed the program elements related to reduction and recovery of materials. Increased enforcement and education is specifically discussed in Section 6.1.1.3, which includes a re-statement of many of the provisions set forth in the May 2009 SWMP Modification, which will be carried forward as part of the new SWMP.

Steering Committee

Two Committee members made comments about the make-up of the Steering Committee and how the meetings were conducted. These comments are not substantive regarding the content of the Preliminary Draft SWMP, and as a result, responses are not provided.

In the interest of full disclosure, however, the comments are enumerated here.

- *At the first meeting of the Steering Committee on November 24, 2008, 18 members were announced. In the Preliminary Report there are 23 members listed (p32). I do not recall any meeting in which new members were announced. I attended most of the meetings (Kernan).*
- *Attendance by actual Steering Committee members diminished as the year progressed.(Kernan)*
- *There was very little participation from most of the other municipalities in the consortium(Cummings)*
- *At the first few monthly meetings, CHA prepared only enough copies of documents for members of Steering Committee and others who sat at the table in the front of the room. At the April 23, 2009 Meeting there was a motion to provide enough copies so that the public, who sat in seats to the rear of the room and who were there although not being paid by their employers, would have sufficient*

copies in order to follow complex discussions. [Only three Steering Committee members are not employed by municipalities, the industry or consultants.] This was the only formal motion in the year of the Steering Committee and it passed unanimously, 14-0. It included a provision that the Steering Committee (not CHA) would decide what material would be distributed. This formal motion was not included in the Minutes following the meeting. At the May meeting, again there was discussion and the Minutes were corrected. However there were many meetings in which a sufficient number of copies was not provided to the public.(Kernan)

- *This problem of incomplete Minutes occurred again when a discussion on the creation of a “consortium” instead of a public authority was not transcribed. Until the October Meeting, a “consortium” was not discussed in detail. CHA promised to have the attorneys research the issue. Now, in the Preliminary Report, there are several references to an “informal consortium” or a “loose consortium” already existing. It may be appropriate to make it a “formal written consortium”, using the IMA as a basis.*
- *Mike Kernan’s vigorous comments of October 20th, 2009 in opposition to an authority, and in favor of a consortium, were not included in the minutes of that meeting distributed at the next meeting, on December 8.. There was considerable discussion at that October meeting about the need for and desirability of an authority. This was an important discussion and why was this not included in the minutes?(Cummnings)*
- *The 12/15/09 email also states that the Preliminary Report “has been compiled based on the many months of input and guidance that you have provided as part of the committee.” Let’s be frank: CHA prepared the Preliminary Report, as much as CHA led and controlled the discussion throughout the year. The Steering Committee should discuss the Preliminary Report among its members, having access to the viewpoints of other members of the Steering Committee. (Kernan)*
- *The stipulation in the December 15th 2009 letter from Ken Gallagher that accompanied the preliminary draft plan, and asserted that the report represented the “consensus view of the committee regarding the future of solid waste management”, is not correct. Mike Kernan and I dispute that there is a consensus. There was never a steering committee vote as to who favored an authority. To me, this is a very important concern. (Cummings)*
- *Willard Bruce said that the Steering Committee is creating the plan but it appeared that CHA is creating the plan. The preliminary draft closely resembles the modification of an earlier plan that DEC approved in September, 2008, before the Steering Committee was created. (Cummings)*
- *Clough Harbor never brought in experts on how to maximize reduction, reuse, or recycling. Why? There are so many examples today of municipalities that are striving towards zero waste or high recycling rates. (Cummings)*

- *During meetings, committee members witnessed presentations from industry representatives about their various technologies, but no opposing expert opinions were sought out on any of these controversial technologies. Though Albany is home to several state wide and national environmental organizations, no expert opinion from any of these organizations was sought (Cummings)*
- *One committee member asked for clarification on why we were shown different “emerging technologies” when we have not been charged with choosing the kind of technology. What was the point? In fact, what was the point of the whole Steering Committee when it appears that the steering committee was “steered” from the start. Will we really have any input into what choices will be made? (Cummings)*

**Draft SWMP
Appendix A
Part 2
Steering Committee Comments of the Preliminary Draft SWMP**

Presented below are the verbatim transcriptions of the e-mail correspondence from Steering Committee members conveying comments on the Preliminary Draft SWMP. The transcriptions were copied directly from the e-mails sent, but e-mail addresses were deleted if they appeared and were replaced with the person's name only.

The e-mail transmitting the Preliminary Draft SWMP is presented first, followed by the responses received on or before January 29, 2010 and then the responses received after January 29, 2010.

Transmittal of the Preliminary Draft SWMP

From: Christopher, Suzanne
Sent: Tuesday, December 15, 2009 2:05 PM
To: Bob Griffin; David Phaff; Dick Forgea; Doug Melnick; Frank Zeoli; Gregg Sagendorph; Jack Cunningham; James Gaughan; Jim Sano; Joe Giebelhaus; Kevin G. Crosier; Kurt Larson; Mark Gleason; Mary Ellen Mallia; Meghan Ruby; Michael Franchini; Michael Kernan; Mike O'Brien; Resa Dimino; Robert Conway; Ruth Leistensnider; Sally Cummings; Sean Ward; Tom Reynolds; Willard (Bill) Bruce; William Hill
Cc: LaVardera, Frank; Gallagher, Ken
Subject: FW: Preliminary Draft SWMP

Dear Committee Members

On behalf of Committee Chairman Bill Bruce, I am please to transmit for your review and comment a copy of the Preliminary Draft of the SWMP. It has been compiled based on the many months of input and guidance that you have provided as part of the committee. While we believe that the elements of the SWMP presented herein represent the consensus view of the Committee regarding the future of solid waste management in the Planning Unit, we want to get your comments before the Draft SWMP is finalized for public review and comment. This Preliminary Draft is for review by the Steering Committee only. Based on your comments, a final Draft SWMP will be prepared for discussion at a late February meeting, and then forwarded to the Common Council as a final draft to start the public review and SEQR process

The SWMP presents a significant amount of information and analysis, but we have sought to make sure that the presentation is concise and readable. Nevertheless, it is still over 180 pages long. Most of the information in the Preliminary Draft SWMP has already been presented to and discussed by the Steering Committee at one or more of its meetings. The Preliminary Draft also contains additional discussion and more nuanced presentation that has not been presented previously. While you should feel free to comment on any typos or grammatical errors, we are not expecting that you catch any of those mistakes as those will be corrected during final editing. More important to us are your comments on substantive issues, particularly if you believe there are any omissions or misrepresentations with respect to issues that were discussed by the Steering Committee.

We are requesting that you review the enclosed document and provide any comments you have in writing by no later than January 29, 2010. Any method of written commentary is acceptable, including a mark-up of printed pages, a separate document enumerating your comments, or a simple e-mail. Comments should be directed to my attention, preferable via e-mail, with attachments if necessary.

We sincerely appreciate your ongoing participation in this process and look forward to receiving your comments. In the meantime do not hesitate to contact me if any questions or concerns.

Extending my best wishes for the Holiday Season!

Ken

Kenneth G. Gallagher, P.P., AICP

Principal Planner

<<Draft Letter of Transmittal for Preliminary Draft SWMP.doc>>

Comments provided on or before January 29, 2010

From: MICHAEL KERNAN

> Sent: Saturday, January 09, 2010 12:09 PM

> To: Gallagher, Ken

> Subject: draft

>

>

Ken,

Thank you for sending me Appendices C-F of the Preliminary Report to the SWMP. It is unfortunate that CHA did not respond or acknowledge my three emails (six days) until I sent an email to Bill Bruce. I find that the Appendices are an integral part of the Preliminary Report and contain information that should be accessible to the Steering Committee.

I note that today CHA emailed a reminder copy of the Preliminary Report to members of the Steering Committee and select others, but the Appendices are not included. In my opinion, each member of the Steering Committee should be immediately provided with the Appendices in order to make a proper study of the Preliminary Report.

Mike

From: Michael O'Brien

Sent: Saturday, January 16, 2010 7:17 PM

To: Christopher, Suzanne

Subject: Re: Preliminary Draft SWMP

My principle comment is that the report needs an index of all acronyms. Otherwise I think the report is good.

Mike O'Brien

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From: Sally Cummings
Sent: Thursday, January 21, 2010 8:26 PM
To: Bob Griffin; David Phaff; Dick Forgea; Doug Melnick; Frank Zeoli; Gregg Sagendorph; James Gaughan; Jim Sano; Joe Giebelhaus; Kevin G. Crosier; Kurt Larson; Mark Gleason; Mary Ellen Mallia; Meghan Ruby; Michael Franchini; Michael Kernan; Mike O'Brien; Resa Dimino; Robert Conway; Ruth Leistensnider; Sally Cummings; Sam Messina; Sean Ward; Tom Reynolds; Willard (Bill) Bruce; William Hill; LaVardera, Frank; Gallagher, Ken
Subject: SWMP Preliminary comments

To the SWMP Steering Committee members:

I feel that it is important that all members of the SWMP Steering Committee receive copies of the appendices, in order to make informed comments. These were omitted from the preliminary draft for Steering Committee review and were not sent to the members unless they requested them.

Since they are very large and the preliminary draft was very large, I feel that CHA should extend the comment deadline until March 15th.

It is also important to schedule a meeting in February at which Steering Committee members may discuss the draft plan and also get questions answered. How can the committee have a consensus opinion when members do not know the opinions of other members?

Thank you.

Sally Cummings
Steering Committee Member.
Citizen of Westmere

From: Ken Gallagher
To: 'Sally Cummings'; Bob Griffin; David Phaff; Dick Forgea; Doug Melnick; Frank Zeoli; Gregg Sagendorph; James Gaughan; Jim Sano; Joe Giebelhaus; Kevin G. Crosier; Kurt Larson; Mark Gleason; Mary Ellen Mallia; Meghan Ruby; Michael Franchini; Michael Kernan; Mike O'Brien; Resa Dimino; Robert Conway; Ruth Leistensnider; Sam Messina; Sean Ward; Tom Reynolds; Willard (Bill) Bruce; William Hill; LaVardera, Frank

Sent: 1/22/2010 11:10:46 AM
Subject: RE: SWMP Preliminary comments

All,

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There are presently four appendices to the Preliminary Draft SWMP which contain voluminous detailed supporting information on topics that are fully presented and discussed in the full body of the preliminary draft SWMP. As such, they were not distributed to the steering committee as part of the Preliminary Draft. Our intent was to request feedback from the Steering Committee on the substantive issues presented in the Preliminary Draft, particularly if you believe there were any omissions or misrepresentations with respect to issues that were discussed by the Steering Committee. That said, if any other member of the Steering Committee would like an electronic or paper copy of the appendices please let me know ; two members have already requested and been supplied with a copy.

Regarding Sally's comment that CHA should extend the comment period on the Preliminary Draft, I would note that her requested extension would result in additional delay in the submission of a draft document to the Common Council and would further delay the public's opportunity to begin review and comment on the Draft SWMP. Such a delay would also have a negative impact on our anticipated completion schedule for the SWMP, which is memorialized with the NYSDEC as a permit condition for the approved landfill expansion. I also recall that the duration of this Steering Committee's review of the Preliminary Draft was discussed at several of the Steering Committee's most recent meetings.

Thank you for your ongoing participation and feedback on this important project. And once again, if any member of the Steering Committee would like an electronic or paper copy of the appendices (or any individual appendix) please let me know.

Sincerely,

Kenneth G. Gallagher, P.P., AICP
Principal Planner
CHA ~ Imagine What We Can Do For You!
973.267.9029 Ext. 252
kgallagher@chacompanies.com<mailto:kgallagher@chacompanies.com>
www.chacompanies.com<http://www.chacompanies.com>

From: Resa Dimino
Sent: Friday, January 22, 2010 11:46 AM
To: Gallagher, Ken; Bill Bruce
Subject: Re: SWMP Preliminary comments

Hi Ken-
You didn't respond to her request for a meeting to discuss comments.
For what it's worth, I think that's a good idea.
Resa

From: Thomas Reynolds
Sent: Friday, January 22, 2010 12:18 PM
To: Gallagher, Ken; Richard Forgea
Subject: RE: SWMP Preliminary comments

Since the requested review is to get "preliminary" feed back prior to full release and not what would be considered a full technical review, your timetable seems appropriate. Not looking for a perfect document at this point, better to get it out to a wider audience for review as soon as possible. From what I've read so far, the information in the body of the SWMP seems adequate to perform the level of review requested. I'm sure if a few individuals have specific questions that could be answered by material in the appendices, it would be a time and paper savings to have these individuals address those specific question directly to you.

From: Sally Cummings
Sent: Friday, January 22, 2010 1:33 PM
To: Gallagher, Ken
Cc: Bob Griffin; David Phaff; Dick Forgea; Doug Melnick; Frank Zeoli; Gregg Sagendorph; James Gaughan; Jim Sano; Joe Giebelhaus; Kevin G. Crosier; Kurt Larson; Mark Gleason; Mary Ellen Mallia; Meghan Ruby; Michael Franchini; Michael Kernan; Mike O'Brien; Resa Dimino; Robert Conway; Ruth Leistensnider; Sam Messina; Sean Ward; Tom Reynolds; Willard (Bill) Bruce; William Hill; LaVardera, Frank
Subject: Re: SWMP Preliminary comments

Hi Ken,

You did not comment on the request for a meeting of the SWMP Steering Committee members to discuss the Preliminary Draft with each other and to ask questions.

From: Michael O'Brien
Sent: Friday, January 22, 2010 11:08 PM
To: Gallagher, Ken; 'Sally Cummings'; Bob Griffin; David Phaff; Dick Forgea; Doug Melnick; Frank Zeoli; Gregg Sagendorph; James Gaughan; Jim Sano; Joe Giebelhaus; Kevin G. Crosier; Kurt Larson; Mark Gleason; Mary Ellen Mallia; Meghan Ruby; Michael Franchini; Michael Kernan; Mike O'Brien; Resa Dimino; Robert Conway; Ruth Leistensnider; Sam Messina; Sean Ward; Tom Reynolds; Willard (Bill) Bruce; William Hill; LaVardera, Frank
Cc: Cashawana Parker
Subject: Re: SWMP Preliminary comments

Ken,

Please send an electronic copy of the appendices to Cashawana Parker (parker@ci.albany.ny.us) at the Albany Common Council so they

are available to all council members and to the City Clerk. Also please send her three paper copies.

I agree with Sally that we should have a meeting in February (preferably early in February) to discuss the draft. It would also be helpful if you would create a glossary of acronyms. It would also be helpful if you would share members' comments with other members although I am choosing to send this comment directly to all the members.

I feel that it is premature to extend the comment deadline until March 15th. Let's have the meeting in early February and see what the consensus is. I know that although the appendices were missing from the electronic copies, they were available from CHA when asked for.
Mike O'Brien

From: Willard Bruce
Sent: Sunday, January 24, 2010 12:39 PM
To: Sally Cummings
Cc: Bob Griffin; David Phaff; Dick Forgea; Doug Melnick; Frank Zeoli; Gregg Sagendorph; James Gaughan; Jim Sano; Joe Giebelhaus; Kevin G. Crosier; Kurt Larson; Mark Gleason; Mary Ellen Mallia; Meghan Ruby; Michael Franchini; Michael Kernan; Mike O'Brien; Resa Dimino; Robert Conway; Ruth Leistensnider; Sam Messina; Sean Ward; Tom Reynolds; William Hill; LaVardera, Frank; Gallagher, Ken
Subject: Re: SWMP Preliminary comments

Sally,
As per the comments from Ken and Mike, any Committee member that wanted the appendices got a copy. The detailed information in these is summarized in the preliminary draft SWMP the Committee members received. The appendices contain valuable back up and technical information, but the Committee should really focus on the draft SWMP, the diversion rates, alternative scenarios, policy and program recommendations. We were planning to have a summary of the comments for the final meeting for discussion in late February, so Committee members would know about any changes made to the draft based on comments received. If there are any major issues were there is a significant split of opinion on a draft plan policy or program element, that will be noted in a transmittal letter to the Common Council. We are trying to stick to a reasonable time schedule and get the Draft Plan to the Common Council at which time the formal, and more important, public review, comment and evaluation process will begin.

I would be happy to schedule a second February meeting early in February, if Committee members want to hear about the comments that have been submitted, and discuss them. I am, however, not in favor of an extension of time for submission of Committee member comments. We discussed the process and timetable at the last Committee meeting, (you were absent), and there was agreement on proceeding along these lines.....Bill

From: **MICHAEL KERNAN**
Date: Sun, Jan 24, 2010 at 1:23 PM
Subject: SWMP Response
To: Bill Bruce, MICHAEL KERNAN <mkrn2@verizon.net>

January 24, 2010
Bill Bruce, Chair
SWMP Steering Committee

Re: My response to SWMP Preliminary Report

While I was nominated for appointment to the SWMP Steering Committee by CANA, the views I express herein are mine and do not necessarily represent those of CANA. CANA has not yet formally discussed the document. I have dutifully read the Preliminary Report and the Appendices C-F. The Preliminary Report is full of data and I do not have the resources to check all the data. I do not agree with all of the conclusions reached by CHA.

PRELIMINARY REPORT CONCLUSIONS

1_. Public authority vs formal consortium_

I disagree with the assumption (p20) that a “Regional Solid Waste Management Authority (RSWMA)...is critical to successful implementation of the SWMP.” There is no need for a “public authority” to gather the resources of the fourteen municipalities in the Planning Unit. This area has had a consortium for several years and the 14 municipalities have recently entered into a more formalized “Inter-municipal Agreement” (IMA) to hire and fund a Planning Unit Recycling Coordinator (p27). This is a formal consortium supported by a written document binding, according to its terms, on the various municipalities. It should not be difficult, with the proper initiative, to expand the IMA to include other aspects of finding a solution to the solid waste problem. And there would be bureaucratic savings. The court cases presented to us do not require a public authority and do not bar the use of a consortium to achieve the goals.

There are many disadvantages to another public authority. It will take years and expense to get legislative approval; it will be opposed by the citizens/taxpayers. Generally, public authorities have their directors appointed by the municipalities, no matter the lack of experience in matters of solid waste. In appointments, the public is generally ignored or allotted a minimum number; these also are appointed by the politicians. Rates are determined by a group which has no responsibility to its citizens. [We have seen that with the water authority here in Albany, whose minimum charge does not encourage water conservation; in fact the declining rates encourage excessive water use.] To create a new organization means an additional bureaucratic structure with departments in personnel, human resources, finance, budgeting, etc. NYS and this region have too many authorities and the NYS Comptroller periodically issues reports critical of the abuses inherent.

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2. Alternative Emerging Technologies

CHA is due credit for bringing before the Steering Committee presentations by companies from North America and Europe who are involved with alternative technologies such as pyrolysis, gasification, biological/mechanical, anaerobic digestion and WTE. The Steering Committee had the opportunity to question the presenters. But the Steering Committee has not held discussion on the merits of each technology. CHA has shown its decisions in the Preliminary Report and CHA's analyses are contained in that elusive Appendix E. It is not sufficient to deny a technology on the basis that there are no American factories, while a technology has been proven in Europe for more than a decade. It is the duty of the Steering Committee to weigh the merits of each technology, with technical assistance from CHA and other experts, and consider whether each technology would be appropriate in our situation.

THE PROCESS OF THE STEERING COMMITTEE

1. Composition of the Steering Committee

At the first meeting of the Steering Committee on November 24, 2008, 18 members were announced. In the Preliminary Report there are 23 members listed (p32). I do not recall any meeting in which new members were announced. I attended most of the meetings. Attendance by actual Steering Committee members diminished as the year progressed.

2. Resource Materials

At the first few monthly meetings, CHA prepared only enough copies of documents for members of Steering Committee and others who sat at the table in the front of the room. At the April 23, 2009 Meeting there was a motion to provide enough copies so that the public, who sat in seats to the rear of the room and who were there although not being paid by their employers, would have sufficient copies in order to follow complex discussions. [Only three Steering Committee members are not employed by municipalities, the industry or consultants.] This was the only formal motion in the year of the Steering Committee and it passed unanimously, 14-0. It included a provision that the Steering Committee (not CHA) would decide what material would be distributed. This formal motion was not included in the Minutes following the meeting. At the May meeting, again there was discussion and the Minutes were corrected. However there were many meetings in which a sufficient number of copies was not provided to the public.

3. Incomplete Minutes

This problem of incomplete Minutes occurred again when a discussion on the creation of a "consortium" instead of a public authority was not transcribed. Until the October Meeting, a "consortium" was not discussed in detail. CHA promised to have the attorneys research the issue. Now, in the Preliminary Report, there are several references to an "informal consortium" or a "loose consortium" already existing. It may be appropriate to make it a "formal written consortium", using the IMA as a basis.

4. Appendices C-F

Appendices C-F are mentioned in the Table of Contents but not included. Over 6 days I sent 3 emails to CHA; I received no response. Finally I emailed Bill Bruce and then CHA sent me the Appendices the next day. To my knowledge no other Steering Committee

members have received the Appendices. As the Appendices are part of the Preliminary Report, they should be distributed to all Steering Committee members before Steering Committee members are asked their opinion. [This paragraph was written before the recent emails by others seeking the Appendices].

5. Distribution of Preliminary Report

While the 12/15/09 email from CHA advises that “this Preliminary Draft is for review by the Steering Committee only,” CHA sent it to select others. At each meeting of the Steering Committee, there were citizens sitting in the gallery who attended many of the meetings, some who were quite knowledgeable on the topic, some who asked very pertinent questions or who provided information to the group. Prior to issuance of a SWMP for formal review, these members of the public should be provided the Preliminary Report in full.

6. Discussion of the Preliminary Report

The 12/15/09 email also states that the Preliminary Report “has been compiled based on the many months of input and guidance that you have provided as part of the committee.” Let’s be frank: CHA prepared the Preliminary Report, as much as CHA led and controlled the discussion throughout the year. The Steering Committee should discuss the Preliminary Report among its members, having access to the viewpoints of other members of the Steering Committee.

RECOMMENDATION

I propose a Scenario #4 for the Steering Committee’s consideration, which may include the following:

- regional formal consortium;
- strict enforcement of existing recycling laws, with penalties;
- innovative approaches to recycling as shown in other regions;
- PAYT if a small first bag weekly is provided free by the municipality;
- product stewardship;
- consider a SSOW facility since food waste is 19% of MSW (didn’t the City of Albany collect food waste from residents as part of regular trash pickup in the 1960-70s);
- further evaluation of emerging technologies, as opposed to a WTE plant.

I make these initial comments, understanding that discussion is needed, and request that they be forwarded directly to Steering Committee members.

Michael J Kernan

From: Frank Zeoli
Sent: Monday, January 25, 2010 9:36 AM
To: 'Willard Bruce'; 'Sally Cummings'
Cc: Bob Griffin; 'David Phaff'; 'Dick Forgea'; 'Doug Melnick'; 'Gregg Sagendorph'; 'James Gaughan'; 'Jim Sano'; 'Joe Giebelhaus'; 'Kevin G. Crosier'; 'Kurt Larson'; 'Mark Gleason'; 'Mary Ellen Mallia'; 'Meghan Ruby'; 'Michael Franchini'; 'Michael Kernan'; 'Mike O'Brien'; 'Resa Dimino';

'Robert Conway'; 'Ruth Leistensnider'; 'Sam Messina'; 'Sean Ward'; 'Tom Reynolds'; 'William Hill';
LaVardera, Frank; Gallagher, Ken

Subject: RE: SWMP Preliminary comments

I must also agree with Bill & Ken, the time frame was clearly defined in the last few meetings. We need to keep to the schedule and submit this to the Common Council as stated. It is important for Sally to remember that this is a preliminary draft. After committee members submit their comments a final draft will be submitted to the Council where it will then be subject to public comment and SECOR review. **This is not the final draft that some people seem to think it is.**

Thanks
Frank

From: Sally Cummings

Sent: Monday, January 25, 2010 10:47 AM

To: Frank Zeoli; Willard Bruce; Sally Cummings; David Phaff; Dick Forgea; Doug Melnick; Gregg Sagendorph; James Gaughan; Jim Sano; Joe Giebelhaus; Kevin G. Crosier; Kurt Larson; Mark Gleason; Mary Ellen Mallia; Meghan Ruby; Michael Franchini; Michael Kernan; Mike O'Brien; Resa Dimino; Robert Conway; Ruth Leistensnider; Sam Messina; Sean Ward; Tom Reynolds; William Hill; LaVardera, Frank; Gallagher, Ken

Subject: Fwd: Why Single Stream Recycling Systems are Inefficient and More Wasteful than Dual Stream Systems

----- Forwarded message -----

From: James Travers >

Date: Mon, Jan 25, 2010 at 5:34 AM

Subject: Why Single Stream Recycling Systems are Inefficient and More Wasteful than Dual Stream Systems

I've pasted below an article from the waste trade magazine Solid Waste & Recycling and attached a report on single stream recycling systems published in December by the Container Recycling Institute that is referred to in the article. The report lays out all of the pros and cons of Single Stream and finds Dual Stream Systems are less costly to operate, are more profitable because they suffer from less contamination of secondary market goods due to co-mingling. It is entitled "Understanding economic and environmental impacts of single-stream collection systems"

Because Dual Stream separation and collection conserves more of our resources and creates less thoroughly unusable waste, costs less to set up and operate and is profitable, at least by enough to recover its operational overhead and sustain its ongoing operation, it should be our goal to see this wise policy instituted regionally.

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The State's mandate to localities is to reduce waste.

Choosing costly single stream over another system proven to create less waste than it does is in fact completely contrary to DEC's directive to find the least wasteful alternative method of managing their waste.

Single Stream should be abandoned by the steering committee because it is a less effective method than Dual Stream and it creates more waste than does the DS method; the committee should recommend the practice of source separated Dual Stream collection methods be adopted regionally.

I recommend that Sally send these documents to Mike Kienan and that she ask him to circulate them to every member of the SWMP steering committee.

(Article follows my signature)

Sally Cummings

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[http://www.solidwastemag.com/issues/isarticle.asp?aid=1000351131&link\\_source=aypr\\_SW&link\\_targ=DailyNews](http://www.solidwastemag.com/issues/isarticle.asp?aid=1000351131&link_source=aypr_SW&link_targ=DailyNews)

## Solid Waste & Recycling, 12/21/2009

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### **Two-stream recycling best, study says**

The Container Recycling Institute has undertaken a study of the impacts of single-stream collection of residential recyclables, with a particular focus on the economic and environmental impacts of this collection method on the final material sent to end-markets for remanufacturing.

To date, the impacts on various collection methods—source-separated curbside, commingled curbside, deposit/return—on the quality of materials destined for recycling have not been formally researched and documented. In fact, rarely is “material quality” or the “end-destination” of the material considered by government decision-makers when choosing an appropriate recycling system.

CRI selected Clarissa Morawski, principal of CM Consulting, to research the issue. Ms. Morawski is a leading expert on Extended Producer Responsibility (EPR), and has authored numerous reports on beverage container recovery systems. For this study, Ms. Morawski reviewed 60 previously-published studies, reports and articles in trade magazines. Ms. Morawski was interested to find that, as a result of the struggling economy and plunging market prices for recyclables, she is seeing increased market sensitivity to quality issues. “End markets are

really starting to quantify their economic losses from poor quality of material, and from a qualitative perspective, they feel this problem is very serious indeed and could have an impact on any future investments of capital to increase capacity of secondary feedstock.”

The report finds that there are many negative downstream impacts of contaminated feedstock due to the mixing of materials through single-stream curbside collection. “Basically, the report confirms that you can’t unscramble an egg,” explains CRI Executive Director Susan Collins. “Once the materials are mixed together in a single-stream recycling system, there will be cross-contamination of materials and significant glass breakage. Those cross-contamination and breakage issues then result in increased costs for the secondary processors.” This report attempts to quantify those costs, but the study acknowledges that there is a need for more comprehensive data.

“Nor are costs calculated on an apples-to-apples basis, because the tons that are handled through various recycling systems are not necessarily the same as the tons recycled” Collins observed. “If you take the contaminants out of the equation, the cost per ton recycled increases. With such high contaminant levels, some of these recycling systems are merely shifting costs to the paper mills, aluminum manufacturers, glass beneficiation facilities and glass manufacturers, and plastics recyclers.”

The report is available for download on the CRI web site:

**[www.container-recycling.org](http://www.container-recycling.org)**

Contacts:

Clarissa Morawski, Report Author: (416) 682-8984

Susan V. Collins, CRI Executive Director: (310) 559-7451

\*\*\*\*\*

**From:** Sally Cummings

**Sent:** Monday, January 25, 2010 1:20 PM

**To:** Gallagher, Ken; Willard Bruce

**Subject:** Please change the way my name is listed on the SWMP document

When I was first asked to be on the SWMP Steering Committee I signed in as a citizen and thereafter signed in differently each time, i.e. once as an environmentalist (any gardener is an environmentalist) and also as a resident of Westmere. I believe I did once sign in as STPB but when I asked Lynne Jackson about this she told me not to sign in this way. I asked her if I should write and tell you, she said "not to bother". I did not know that you would put my title as this on the SWMP Preliminary document. Please change my name to "citizen" or Westmere resident, or some such.

Many thanks!

Sally

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**From:** Sally Cummings  
**Sent:** Thursday, January 28, 2010 10:29 AM  
**To:** Gallagher, Ken; Willard Bruce  
**Subject:** My comments on the Capital Region Solid Waste Management Plan

The Capital District Solid Waste Management Plan should begin with a statement that the goal of the new plan is zero waste. Zero waste is defined as "If it can't be reduced, reused, repaired, rebuilt, refurbished, refinished, resold, recycled, or composted, then it should be restricted, redesigned, or removed from production. The goal is to combine aggressive resource recovery and industrial redesign to eliminate the very concept of waste. Eventually, the community's resource-use system will emulate natural cyclical processes, where no waste exists. [This definition is from the Berkeley City Council's resolution]"

**Comments with the way the SWMP Steering Committee was established and operated:**

1. There was very little participation from most of the other municipalities in the consortium.
2. Willard Bruce said that the Steering Committee is creating the plan but it appeared that CHA is creating the plan. The preliminary draft closely resembles the modification of an earlier plan that DEC approved in September, 2008, before the Steering Committee was created.
3. During Steering Committee meetings Willard Bruce and Ken Gallagher often used the pronoun "we" without saying who "we" is. For example, Mr. Bruce said that "we" examined the best institutional structures nationwide that achieve the highest diversion rates. They were all authorities. Where is the data to support this?
4. Mike Kernan's vigorous comments of October 20<sup>th</sup>, 2009 in opposition to an authority, and in favor of a consortium, were not included in the minutes of that meeting distributed at the next meeting, on December 8.. There was considerable discussion at that October meeting about the need for and desirability of an authority. This was an important discussion and why was this not included in the minutes?
6. The stipulation in the December 15<sup>th</sup> 2009 letter from Ken Gallagher that accompanied the preliminary draft plan, and asserted that the report represented the "consensus view of the committee regarding the future of solid waste management", is not correct. Mike Kernan and I dispute that there is a consensus. There was never a steering committee vote as to who favored an authority. To me, this is a very important concern.

7. Clough Harbor never brought in experts on how to maximize reduction, reuse, or recycling. Why? There are so many examples today of municipalities that are striving towards zero waste or high recycling rates.
8. I request that all comments from steering committee members on the preliminary draft be included in an appendix to the final draft that is to be forwarded to the Albany Common Council.
9. During our meetings, committee members witnessed presentations from industry representatives about their various technologies, but no opposing expert opinions were sought out on any of these controversial technologies. Though Albany is home to several state wide and national environmental organizations, no expert opinion from any of these organizations was sought.
10. I strongly oppose construction of a trash incinerator. Existing waste-to-energy facilities are a magnet for items best reduced, reused or, recycled, ruining incentives to maximize reduction, reuse, and recycling. The incentive for the 3 R's would be drastically cut because amounts for such a facility must be guaranteed or paid for anyway.
11. Will solid wastes be prohibited from coming into the capital region solid waste district from outside the district? This needs to be clarified before the organization is formed.
12. During the steering committee meetings, Bill Bruce and CHA representatives often said that the new plan will have strict enforcement and a good education component to stimulate high compliance rates. Few details are provided in the preliminary draft about how these transformations will be implemented.
13. Although a schedule for reducing the amount requiring disposal at a facility (which has yet to be determined), there was no indication as to how this reduction is to be accomplished. Without knowing how it is going to be done, how can you make a schedule? No ideas were put forth.
14. I need clarification on why we were shown different "emerging technologies" when we have not been charged with choosing the kind of technology. What was the point? In fact, what was the point of the whole Steering Committee when it appears that the steering committee was "steered" from the start. Will we really have any input into what choices will be made?
15. While CHA and, apparently, DEC seem to favor an Authority approach I strongly oppose creation of an Authority. Authorities tend to be huge, and governed by people who do not know anything about the technology being undertaken. They are great at administration and making more work for more administrators. Authorities remove the power from local government to control what the taxpayers are paying for and allow one or more municipalities to shift their own debt to that of the authority, thus making every

taxpayer in the authority's region liable for debt they did not create. In addition, authorities can prohibit local municipalities from enacting and implementing solid waste negotiations which are more stringent than those of the authority. Also, Authorities often have, or can be granted, power of eminent domain over local municipalities and private landowners. I feel that the solid waste management plan should be kept small, taking care of Albany and the townships, so there is more control for Albany and less expense for its tax payers. I also feel that the general public are more likely to comply if their waste is being handled by a local consortium than with a gigantic Authority.

Sally Cummings

Resident of Westmere

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**From:** Larson, Kurt  
**Sent:** Thursday, January 28, 2010 1:21 PM  
**To:** Christopher, Suzanne; Bob Griffin; David Phaff; Dick Forgea; Doug Melnick; Frank Zeoli; George Gebe Jr; Gregg Sagendorph; James Gaughan; Jim Sano; Joe Giebelhaus; Mary Ellen Mallia; Meghan Ruby; Michael Franchini; Michael Kernan; Mike Hammond; Mike Manning; Mike O'Brien; Resa Dimino; Richard Rapp; Robert Conway; Ruth Leistensnider; Sally Cummings; Sam Messina; Sean Ward; Thomas Dolin; Tom Reynolds; Willard (Bill) Bruce; Hill, William  
**Cc:** LaVardera, Frank; Gallagher, Ken; Daley, Richard; Gilroy, Martin  
**Subject:** RE: Notice for next SWMP Steering Committee Meeting

Ken,

I have been asked to inform you that our comments on the Preliminary Draft of the Capital District Solid Waste Management Plan are being reviewed by our executive staff. Therefore, they will not be received by you as requested by your date of January 29, 2010, but we will send them as soon as possible.

Thank you, Kurt

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**From:** Griffin, Bob  
**Sent:** Friday, January 29, 2010 8:42 AM  
**To:** Christopher, Suzanne  
**Subject:** RE: Notice for next SWMP Steering Committee Meeting

Suzanne, my only comment relates to the reliance on the formation of an authority for the plan to come to fruition. Time passes rapidly and the need for a long-term solution for the region's future solid waste issues will reach a critical point soon. Should the formation of a regional authority be delayed or the authority not be conceived then the Capital Region could be without sufficient local disposal capacity for a longer period of time than anticipated. I believe that the Plan, when finalized, should contain parallel time lines for development of permanent as well as

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temporary means for handling the area's waste post-Rapp Rd. The Plan should also contain a contingency for a solid waste management structure along the lines of the scenarios described in prior meetings, i.e. maintaining the current consortium, a smaller consortium or the City of Albany alone. The way the current Draft Plan is structured the failure of one point, the formation of the Authority, means the Plan itself will fail.

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## Comments provided after January 29, 2010

**From:** Larson, Kurt

**Sent:** Wednesday, February 03, 2010 4:08 PM

**To:** Willard (Bill) Bruce; LaVardera, Frank; Gallagher, Ken; Bob Griffin; David Phaff; Dick Forgea; Doug Melnick; Frank Zeoli; George Gebe Jr; Gregg Sagendorph; James Gaughan; Jim Sano; Joe Giebelhaus; Larson, Kurt; Mary Ellen Mallia; Meghan Ruby; Michael Franchini; Michael Kernan; Mike Hammond; Mike Manning; Mike O'Brien; Resa Dimino; Richard Rapp; Robert Conway; Ruth Leistensnider; Sally Cummings; Sam Messina; Sean Ward; Thomas Dolin; Tom Reynolds; Hill, William

**Cc:** Gilroy, Martin; Daley, Richard

**Subject:** Comments on Preliminary draft SWMP

Please see our comments on the Preliminary Draft Capital Region Solid Waste Management Plan (SWMP).

Thank you, Kurt

## Comments from the New York State Office of General Service (OGS) on the Preliminary Draft Capital Region Solid Waste Management Plan (SWMP)

Some of the elements of a SWMP identified in the Executive Summary are:

- 1) Expand the planning unit by implementation of a regional solid waste management authority, and the use of flow control – This would require enabling legislation.
- 2) Waste Minimization – emphasis on consumer education on waste reduction, promote PAYT (Pay as you throw) implementation, and back yard composting for yard and food waste.
- 3) Promote Product Stewardship – working to reduce the amount and toxicity of packaging and materials that are left for disposal at the end of their useful lives.
- 4) Continue to promote and expand recycling infrastructure. Looking to mandate such items as electronics and HHW.
- 5) Developing a Source Separated Organic Waste (SSOW) facility - discusses a *“unique opportunity to forge a partnership with NYSDEC, and other agencies like NYSOGS and SUNY Albany who are working to comply with the Governor’s Executive Order 4 to increase their recycling and reduce their carbon footprint. These agencies are already participating with the City of Albany, the Planning*

*Unit, and others in an Organics Waste Task Force. In addition, the NY SOGS is already implementing a food waste composting program for its facilities at the Empire State Plaza. Materials collected for composting by OGS are currently delivered to the Agri-Cycle Compost Facility in Washington County”.*

- 6) Develop a regional solid waste treatment facility to further minimize landfill disposal requirements. *“Such a facility would recovery additional materials, energy, bio-fuels and other byproducts from the post-recyclable solid waste stream using either the conventional waste-to-energy technologies or one of the emerging technologies, which develops a successful commercial facility somewhere in the United States in the near future”.*

Our department is supportive of items 1-5 above. However, we have the following concern with item 6.

- The concept of “waste to energy” has been, and continues to be, a controversial topic that raises issues of environmental justice as well as health and environmental concerns. OGS is supportive of a plan that includes the investigation of all strategies and technologies to reduce waste. Therefore, instead of stating to “Develop a regional facility utilizing a mixed solid waste treatment technology”. *Such a facility would recovery additional materials, energy, bio-fuels and other byproducts from the post-recyclable solid waste stream using either the conventional waste-to-energy technologies or one of the emerging technologies, which develops a successful commercial facility somewhere in the United States in the near future”*, we believe the plan should focus on continuing to investigate and evaluate emerging technologies, including “waste to energy” initiatives. It is our understanding that there have been a number of advances in “waste to energy” technology to reduce toxins in the air and in the residue. However, none of the groups that made presentations to the Committee on “waste to energy” proposals adequately addressed the issues of environmental and health concerns or provided statistics to back their claims. Therefore, there is not enough information at this point in time for OGS to endorse item 6 above.

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**From:** Jim Sano

**Sent:** Wednesday, February 03, 2010 4:59 PM

**To:** Kurt Larson; Bill Bruce; LaVardera, Frank; Gallagher, Ken; Bob Griffin; David Phaff; Richard Forgea; Doug Melnick; Frank Zeoli; Kevin Crozier; Gregg Sagendorph; James Gaughan; Joe Giebelhaus; Mary Ellen Mallia; Megan Ruby; Mike Franchini; Mike Kernan; Mike Hammond; Mike Manning; Mike O'Brien; Resa Dimino; Richard Rapp; Robert Conway; Ruth Leistensnider; Sally Cummings; Sam Messina; Sean Ward; Thomas Dolin; Tom Reynolds; Hill, William;

**Cc:** Martin Gilroy; Richard Daley

**Subject:** Re: Comments on Preliminary draft SWMP

I am unable to make next weeks meeting but after reading the volumes of appendices in addition to the SWMP I would agree with this summary statement from OGS and believe the report is complete.

We did not advocate any one technology over another, in reality we advocated none, we left it as a task for the hopefully soon to be created Solid Waste Management Authority. I see no reason to delay moving forward.

Jim Sano  
Albany Common Council  
9th Ward

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**From:** Willard Bruce  
**Sent:** Thursday, February 04, 2010 3:28 PM  
**To:** Larson, Kurt; Gallagher, Ken  
**Cc:** LaVardera, Frank; Bob Griffin; David Phaff; Dick Forgea; Doug Melnick; Frank Zeoli; George Gebe Jr; Gregg Sagendorph; James Gaughan; Jim Sano; Joe Giebelhaus; Mary Ellen Mallia; Meghan Ruby; Michael Franchini; Michael Kernan; Mike Hammond; Mike Manning; Mike O'Brien; Resa Dimino; Richard Rapp; Robert Conway; Ruth Leistensnider; Sally Cummings; Sam Messina; Sean Ward; Thomas Dolin; Tom Reynolds; Hill, William; Gilroy, Martin; Daley, Richard  
**Subject:** Re: Comments on Preliminary draft SWMP

Ken,  
I keep reading/ hearing (perhaps you also), that folks are reading into the text and document, here or there, that something in the document is preferential to WTE, when you get past the waste reduction reuse/recycling and begin to talk about "treatment" to further reduce landfill reliance. Mike O'Brien is (I believe) getting the same feedback. First, Waste To Energy (WTE) is an acronym that most people associate with mass burn incineration, from the days when it was the only game in town. Most of the numerous treatment technologies out there include some form of waste to energy, resource recovery. Secondly, if there are any phrases in the document that say something like "WTE and other emerging technologies", perhaps this is being interpreted as preferential to WTE (mass burn incineration). For the meeting next Tuesday, if you could flag any text/language along these lines, and we can make sure the text/language is completely neutral on treatment technologies; that some future entity will have to evaluate them all based on economic and technical feasibility. We can discuss at the meeting next Tuesday. Thanks.....Bill

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**From:** Michael O'Brien  
**Sent:** Thursday, February 04, 2010 7:41 PM  
**To:** Bill Bruce; Kurt Larson; Gallagher, Ken  
**Cc:** LaVardera, Frank; Bob Griffin; David Phaff; Richard Forgea; Doug Melnick; Frank Zeoli; Kevin Crozier; Gregg Sagendorph; James Gaughan; Jim Sano; Joe Giebelhaus; Mary Ellen Mallia;



Megan Ruby; Mike Franchini; Mike Kernan; Mike Hammond; Mike Manning; Mike O'Brien; Resa Dimino; Richard Rapp; Robert Conway; Ruth Leistensnider; Sally Cummings; Sam Messina; Sean Ward; Thomas Dolin; Tom Reynolds; Hill, William; Martin Gilroy; Richard Daley

**Subject:** Re: Comments on Preliminary draft SWMP

Ken,

I agree with Bill Bruce. Let's be neutral on treatment technologies. That decision will be made by what ever entity is created to regionally deal with solid waste.

However, for the near future, I do agree with the draft report that as the consortium and its members currently exist we can push for increased recycling and expanded composting.

Mike O'Brien

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**From:** Jim Sano

**Sent:** Friday, February 05, 2010 4:26 AM

**To:** Mike O'Brien; Bill Bruce; Kurt Larson; Gallagher, Ken

**Cc:** : LaVardera, Frank; Bob Griffin; David Phaff; Richard Forgea; Doug Melnick; Frank Zeoli; Kevin Crozier; Gregg Sagendorph; James Gaughan; Jim Sano; Joe Giebelhaus; Mary Ellen Mallia; Megan Ruby; Mike Franchini; Mike Kernan; Mike Hammond; Mike Manning; Mike O'Brien; Resa Dimino; Richard Rapp; Robert Conway; Ruth Leistensnider; Sally Cummings; Sam Messina; Sean Ward; Thomas Dolin; Tom Reynolds; Hill, William; Martin Gilroy; Richard Daley

**Subject:** Re: Comments on Preliminary draft SWMP

I agree as well, Mike.

Jim Sano



## **Appendix B**

### **SEQRA Documentation**



617.20  
Appendix A  
State Environmental Quality Review  
**FULL ENVIRONMENTAL ASSESSMENT FORM**

**PURPOSE:** The full EAF is designed to help applicants and agencies determine, in an orderly manner, whether a project or action may be significant. The question of whether an action may be significant is not always easy to answer. Frequently, there are aspects of a project that are subjective or unmeasurable. It is also understood that those who determine significance may have little or no formal knowledge of the environment or may not be technically expert in environmental analysis. In addition, many who have knowledge in one particular area may not be aware of the broader concerns affecting the question of significance. The full EAF is intended to provide a method whereby applicants and agencies can be assured that the determination process has been orderly, comprehensive in nature, yet flexible enough to allow introduction of information to fit a project or action.

**FULL EAF COMPONENTS:** The full EAF is comprised of three parts:

- Part 1:** Provides objective data and information about a given project and its site. By identifying basic project data, it assists a reviewer in the analysis that takes place in Part 2 and 3.
- Part 2:** Focuses on identifying the range of possible impacts that may occur from a project or action. It provides guidance as to whether an impact is likely to be considered small to moderate or whether it is a potentially-large impact. The form also identified whether an impact can be mitigated or reduced.
- Part 3:** If any impact in Part 2 is identified as potentially-large, than Part 3 is used to evaluate whether or not the impact is actually important.

**DETERMINATION OF SIGNIFICANCE – Type 1 and Unlisted Actions**

Identify the Portions of EAF completed for this project:     **Part 1**     **Part 2**     **Part 3**

Upon review of the information recorded on this EAF (Parts 1, 2 and 3 if appropriate), and any other supporting information, and considering both the magnitude and importance of each impact, it is reasonably determined by the lead agency that:

- A. The project will not result in any large and important impact(s) and, therefore, is one which **will not** have a significant impact on the environment, therefore, **a negative declaration will be prepared.**
- B. Although the project could have a significant effect on the environment, there will not be a significant effect for this Unlisted Action because the mitigation measures described in PART 3 have been required, therefore, **a CONDITIONED negative declaration will be prepared.\*.**
- C. The project may result in one or more large and important impacts that may have a significant impact on the environment, therefore, **a positive declaration will be prepared.**

\*A Conditioned Negative Declaration is only valid for Unlisted actions.

**Solid Waste Management Plan**

NAME OF ACTION

**City of Albany Common Council**

NAME OF LEAD AGENCY

\_\_\_\_\_  
PRINT OR TYPE NAME OF RESPONSIBLE OFFICER IN LEAD AGENCY

\_\_\_\_\_  
TITLE OF RESPONSIBLE OFFICER

\_\_\_\_\_  
SIGNATURE OF RESPONSIBLE OFFICER IN LEAD AGENCY

\_\_\_\_\_  
SIGNATURE OF PREPARED (IF DIFFERENT FROM RESPONSIBLE OFFICER)

\_\_\_\_\_  
Date

**PART 1 – PROJECT INFORMATION  
PREPARED BY PROJECT SPONSOR**

**Notice:** This document is designed to assist in determining whether the action proposed may have a significant effect on the environment. Please complete the entire form, Parts A through E. Answers to these questions will be considered as part of the application for approval and may be subject to further verification and public review. Provide any additional information you believe will be needed to complete Parts 2 and 3.

It is expected that completion of the full EAF will be dependent on information currently available and will not involve new studies, research or investigation. If information requiring such additional work is unavailable, so indicate and specify each instance.

|                                                                                                                                                                                                                                                                               |                |               |                           |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------|---------------|---------------------------|
| <b>NAME OF ACTION:</b> Solid Waste Management Plan                                                                                                                                                                                                                            |                |               |                           |
| <b>LOCATION OF ACTION:</b> Multiple municipalities in Albany and Rensselaer counties<br><small>(include street address, municipality and County)</small>                                                                                                                      |                |               |                           |
| <b>NAME OF APPLICANT/SPONSOR:</b> City of Albany, Department of General Services on behalf of the Capital Region Solid Waste Management Partnership Planning Unit                                                                                                             |                |               | (518) 427-7480            |
|                                                                                                                                                                                                                                                                               |                |               | <b>BUSINESS TELEPHONE</b> |
| One Connors Blvd.                                                                                                                                                                                                                                                             | Albany         | NY            | 12204                     |
| <b>STREET ADDRESS</b>                                                                                                                                                                                                                                                         | <b>CITY/PO</b> | <b>S TATE</b> | <b>ZIP</b>                |
| <b>NAME OF OWNER (IF DIFFERENT):</b>                                                                                                                                                                                                                                          |                |               |                           |
|                                                                                                                                                                                                                                                                               |                |               | <b>BUSINESS TELEPHONE</b> |
| <b>DESCRIPTION OF ACTION:</b> A new Solid Waste Management Plan (SWMP) for the Capital Region Solid Waste Management Partnership Planning Unit defines the key elements of the future solid waste management program for the region, through the year 2030. See Attachment 1. |                |               |                           |

Please complete each question –Indicate N.A. if not applicable.

**A. SITE DESCRIPTION - NOT APPLICABLE (SEE ATTACHMENT 2)**

Physical setting of overall project, both developed and undeveloped areas.

1. Present land use:  Urban  Industrial  Commercial  Residential(suburban)  Rural (non-farm)  
 Forest  Agriculture  Other N.A. Not Applicable (see attachment 2)

2. Total acreage of project area: N.A. acres.

| <u>APPROXIMATE ACREAGE</u>                                 | <u>PRESENTLY</u> | <u>AFTER COMPLETION</u> |
|------------------------------------------------------------|------------------|-------------------------|
| Meadow or Brushland (Non-agricultural)                     | _____ acres      | _____ acres             |
| Forested                                                   | _____ acres      | _____ acres             |
| Agricultural (includes orchards, cropland, pasture, etc.)  | _____ acres      | _____ acres             |
| Wetland (Freshwater or tidal as per Articles 24,25 of ECL) | _____ acres      | _____ acres             |
| Water Surface Area                                         | _____ acres      | _____ acres             |
| Unvegetated (Rock, earth or fill)                          | _____ acres      | _____ acres             |
| Roads, buildings and other paved surfaces                  | _____ acres      | _____ acres             |
| Other (Indicate type)                                      | _____ acres      | _____ acres             |

3. What is predominant soil type(s) on project site? N.A.
- a. Soil drainage:  
 well drained \_\_\_\_\_% of site  
 Moderately well drained \_\_\_\_\_% of site  
 Poorly drained \_\_\_\_\_% of site
- b. If any agricultural land is involved, how many acres of soil are classified within soil group 1 through 4 of the NYS Land Classification System? \_\_\_\_\_ Acres (See 1 NYCRR 370).:
4. Are there bedrock outcroppings on project site?  Yes  No.
- a. What is depth to bedrock? \_\_\_\_\_ (in feet):

5. Approximate percentage of proposed project site with slopes?  
 0-10% \_\_\_\_\_ %     10-15% \_\_\_\_\_ %     15% or greater \_\_\_\_\_ %.
6. Is project substantially contiguous to, or contain a building, site, or district, listed on the State or the National Registers of Historic Places?     Yes     No
7. Is project substantially contiguous to, to a site listed on the Register of National Natural Landmarks?  
 Yes     No
8. What is the depth of the water table: \_\_\_\_\_ (in feet)
9. Is the site located over a primary, principal, or sole source aquifer?     Yes     No.
10. Do hunting, fishing or shall fishing opportunities presently exist in the project area?     Yes     No.
11. Does project site contain any species of plant or animal life that is identified as threatened or endangered?  
 Yes     No.    According to: \_\_\_\_\_  
 Identify each species:
12. Are there any unique or unusual land forms on the project site? (i.e., cliffs, dunes, other geological formations)?     Yes     No.  
 Describe:
13. Is the project site presently used by the community or neighborhood as an open space or recreation area?  
 Yes     No.  
 If yes, explain:
14. Does the present site include scenic views known to be important to the community?     Yes     No.
15. Streams within or contiguous to project area? \_\_\_\_\_.
16. Lakes, ponds, wetland areas within or contiguous to project area?

|       |                       |
|-------|-----------------------|
| Name: | Size (in acres) _____ |
| Name: | Size (in acres) _____ |
| Name: | Size (in acres) _____ |

17. Is the site served by existing public utilities?     Yes     No.  
 a. If yes, does sufficient capacity exist to allow connection:     Yes     No.  
 b. If yes, will improvements be necessary to allow connection:     Yes     No.
18. Is the site located in an agricultural district certified pursuant to Agriculture and Markets Law, Article 25-AA, Section 303 and 304?     Yes     No.
19. Is the site located in or substantially contiguous to a Critical Environmental Area designated pursuant to Article 8 of the ECL, and 6 NYCRR 617?     Yes     No.
20. Has the site ever been used for the disposal of solid or hazardous wastes?     Yes     No.

**B. PROJECT DESCRIPTION**

1. Physical dimensions and scale of project (fill in dimensions as appropriate).     Not Applicable

- a. Total contiguous acreage owned or controlled by project sponsor \_\_\_\_\_ acres.
- b. Project acreage to be developed: \_\_\_\_\_ acres initially; \_\_\_\_\_ acres ultimately.
- c. Project acreage to remain undeveloped \_\_\_\_\_ acres.
- d. Length of project, in miles: \_\_\_\_\_ (if appropriate).
- e. If the project is an expansion, indicate percent of expansion proposed \_\_\_\_\_ %
- f. Number of off-street parking spaces existing \_\_\_\_\_; proposed \_\_\_\_\_.
- g. Maximum vehicular trips generated per hour \_\_\_\_\_ (upon completion of project).
- h. If residential, number and type of housing units:

|            | One family | Two family | Multiple family | Condominium |
|------------|------------|------------|-----------------|-------------|
| Initially  |            |            |                 |             |
| Ultimately |            |            |                 |             |

- i. Dimensions (in feet) of largest proposed structure \_\_\_\_ height; \_\_\_\_ width; \_\_\_\_ length.  
j. Linear feet of frontage along a public thoroughfare project will occupy is? \_\_\_\_ Ft.
2. How much natural material (i.e., rock, earth, etc.) will be removed from the site? N.A. Tons/cubic yards.
3. Will disturbed areas be reclaimed:  Yes  No  N/A  
a. If yes, for what intended purpose is the site being reclaimed? \_\_\_\_  
b. Will topsoil be stockpiled for reclamation?  Yes  No  
c. Will upper subsoil be stockpiled for reclamation?  Yes  No
4. How many acres of vegetation (trees, shrubs, ground covers) will be removed from site? N.A. acres.
5. Will any mature forest (over 100 years old) or other locally-important vegetation be removed by this project?  
 Yes  No  Not Applicable
6. If single phase project: Anticipated period of construction N.A. months, (including demolition).
7. If multi-phased:  
a. Total number of phases anticipated N.A. (number).  
b. Anticipated date of commencement phase 1 \_\_\_\_ month \_\_\_\_ year, (including demolition).  
c. Approximate completion date of final phase \_\_\_\_ month \_\_\_\_ year.  
d. Is phase 1 functionally dependent on subsequent phases?  Yes  No
8. Will blasting occur during construction?  Yes  No  Not Applicable
9. Number of jobs generated: during construction? N.A.; after project is complete? N.A.
10. Number of job eliminated by this project? N.A.
11. Will project require relocation of any projects or facilities:  Yes  No  Not Applicable  
If yes, explain \_\_\_\_
12. Is surface liquid waste disposal involved?  Yes  No  Not Applicable  
a. If yes, indicate type of waste (sewage, industrial, etc.) and amount \_\_\_\_  
b. Name of water body into which effluent will be discharged \_\_\_\_
13. Is subsurface liquid waste disposal involved?  Yes  No Type: \_\_\_\_  Not Applicable
14. Will surface area of an existing water body increase or decrease by proposal?  Yes  No  Not Applicable  
Explain: \_\_\_\_
15. Is project, or any portion of project, located in a 100 year flood plain?  Yes  No  Not Applicable
16. Will the project generate solid waste?  Yes  No  Not Applicable  
a. If yes, what is the amount per month? \_\_\_\_ Tons.  
b. If yes, will an existing solid waste facility be used:  Yes  No  
c. If yes, give name \_\_\_\_; location \_\_\_\_  
d. Will any wastes not go into a sewage disposal system or into a sanitary landfill?  Yes  No  
e. If yes, explain: \_\_\_\_
17. Will the project involve the disposal of solid waste:  Yes  No.  
a. If yes, what is the anticipated rate of disposal: N.A. See Attachment 3.  
b. If yes, what is the anticipated site life: N.A. years.
18. Will project use herbicides or pesticides?  Yes  No.  Not Applicable
19. Will project routinely produce odors (more than one hour per day)?  Yes  No  Not Applicable
20. Will project produce operating noise exceeding the local ambient noise levels?  Yes  No  Not Applicable
21. Will project result in an increase in energy use?  Yes  No  Not Applicable  
If yes, indicate type(s) \_\_\_\_
22. If water supply is from wells, indicate pumping capacity \_\_\_\_ gallons/minute  Not Applicable
23. Total anticipated water usage per day \_\_\_\_ gallons/day.  Not Applicable
24. Does project involve Local, State or Federal funding?  Yes  No  
If yes, explain Implementation of the SWMP will require both state and local funding.



25. Approvals Required:

|                                 |                                                                     | Type                   | Submittal Date |
|---------------------------------|---------------------------------------------------------------------|------------------------|----------------|
| City, Town, Village Board       | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No | Resolution of Approval | Pending        |
| City, Town, Village Plng. Board | <input type="checkbox"/> Yes <input type="checkbox"/> No            |                        |                |
| City, Town, Zoning Board        | <input type="checkbox"/> Yes <input type="checkbox"/> No            |                        |                |
| City, County Health Department  | <input type="checkbox"/> Yes <input type="checkbox"/> No            |                        |                |
| Other Local Agencies            | <input type="checkbox"/> Yes <input type="checkbox"/> No            |                        |                |
| Other Regional Agencies         | <input type="checkbox"/> Yes <input type="checkbox"/> No            |                        |                |
| State Agencies                  | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No | NYSDEC Approval        | Pending        |
| Federal Agencies                | <input type="checkbox"/> Yes <input type="checkbox"/> No            |                        |                |

**C. ZONING and PLANNING INFORMATION**

1. Does proposed action involve a planning or zoning decision?  Yes  No

If yes, indicate decision required:

|                                                      |                                                   |                                                                        |                                      |                                    |
|------------------------------------------------------|---------------------------------------------------|------------------------------------------------------------------------|--------------------------------------|------------------------------------|
| <input type="checkbox"/> zoning amendment            | <input type="checkbox"/> zoning variance          | <input type="checkbox"/> special use permit                            | <input type="checkbox"/> subdivision | <input type="checkbox"/> site plan |
| <input type="checkbox"/> new/revision of master plan | <input type="checkbox"/> resource management plan | <input checked="" type="checkbox"/> Other: Solid Waste Management Plan |                                      |                                    |

2. What is the zoning classification(s) of the site? N.A.

3. What is the maximum potential development of the site if developed as permitted by the present zoning? N.A.

4. What is the proposed zoning of the site? N.A.

5. What is the maximum potential development of the site if developed as permitted by the proposed zoning? N.A.

6. Is the proposed action consistent with the recommended uses in adopted local land use plans?

Yes  No  Not Applicable

7. What are the predominant land use(s) and zoning classifications within a ¼ mile radius of proposed action? N.A.

8. Is the proposed action compatible with adjoining/surrounding land uses within a ¼ mile?

Yes  No  Not Applicable

9. If the proposed action is the subdivision of land, how many lots are proposed? N.A.

a. What is the minimum lot size proposed? \_\_\_\_\_

10. Will proposed action require any authorization(s) for the formation of sewer or water districts?  Yes  No

11. Will the proposed action create a demand for any community provided serviced (recreation, education, police, fire protection)?  Yes  No

a. If yes, is existing capacity sufficient to handle projected demand?  Yes  No

12. Will the proposed action result in the generation of traffic significantly above present levels?  Yes  No

a. If yes, is the existing road network adequate to handle the additional traffic?  Yes  No

**D. INFORMATIONAL DETAILS**

Attach any additional information as may be needed to clarify your project. If there are, or may be, any adverse impacts associated with your proposal, please discuss such impacts and measures which you propose to mitigate or avoid them.

**E. VERIFICATION**

I certify that the information provided above is true to the best of my knowledge.

Applicant/Sponsor Name: City of Albany Department of General Services Date: \_\_\_\_\_

Signature: \_\_\_\_\_ Title: Commissioner

*If the action is in the Coastal Area, and you are a state agency, complete the Coastal Assessment Form before proceeding with this assessment.*

**PART 2 – PROJECT IMPACTS AND THEIR MAGNITUDE  
RESPONSIBILITY OF LEAD AGENCY**

**GENERAL INFORMATION (Read Carefully)**

- In completing the form, the reviewer should be guided by the question: *Have my responses and determinations been reasonable?* The reviewer is not expected to be an expert environmental analyst.
- The examples provided are to assist the reviewer by showing types of impacts and, wherever possible, the threshold of magnitude that would trigger a response in column 2. The examples are generally applicable throughout the State and for most situations. But, for any specific project or site other examples and/or lower thresholds may be appropriate for a Potential large Impact response, thus requiring evaluation in Part 3.
- The impacts of each project, on each site, in each locality, will vary. Therefore, the examples are illustrative and have been offered as guidance. They do not constitute an exhaustive list of impacts and thresholds to answer each question.
- The number of examples per question does not indicate the importance of each question.
- In identifying impacts, consider long term, short term and cumulative effects .

**INSTRUCTIONS (Read Carefully)**

- a. Answer each of the 20 questions in PART 2. Answer *Yes* if there will be *any* impact.
- b. **Maybe** answers should be considered as **Yes** answers.
- c. If answering *Yes* to a question, check the appropriate box (column 1 or 2) to indicate the potential size of the impact. If impact threshold equals or exceeds any example provided, check column 2. If impact will occur, but threshold is lower than example, check column 1.
- d. Identifying that an impact will be potentially large (column 2) does not mean that it is also necessarily significant. Any large impact must be evaluated in PART 3 to determine significance. Identifying an impact in column 2 simply asks that it be looked at further.
- e. If reviewer has doubt about size of the impact, then consider the impact as potentially large and proceed to PART 3.
- f. If a potentially large impact checked in column 2 can be mitigated by change(s) in the project to a small to moderate impact, also check the *Yes* box in column 3. A *No* response indicates that such a reduction is not possible. This must be explained in Part 3.

|                                                                                                                                                                                                  | 1<br>Small to<br>Moderate<br>Impact | 2<br>Potential<br>Large<br>Impact | 3<br>Can Impact be<br>Mitigated by<br>Project Change     |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------|-----------------------------------|----------------------------------------------------------|
| <b>IMPACT ON LAND</b>                                                                                                                                                                            |                                     |                                   |                                                          |
| 1. Will the proposed action result in a physical change to the project site?<br><input type="checkbox"/> Yes <input type="checkbox"/> No <b>Examples</b> that would apply to column 2:           |                                     |                                   |                                                          |
| ■ Any construction on slopes of 15% or greater, (15 foot rise per 100 foot of length), or where the general slopes in the project area exceed 10%.                                               | <input type="checkbox"/>            | <input type="checkbox"/>          | <input type="checkbox"/> Yes <input type="checkbox"/> No |
| ■ Construction of paved parking area for 1,000 or more vehicles.                                                                                                                                 | <input type="checkbox"/>            | <input type="checkbox"/>          | <input type="checkbox"/> Yes <input type="checkbox"/> No |
| ■ Construction of land where the depth to the water table is less than 3 feet.                                                                                                                   | <input type="checkbox"/>            | <input type="checkbox"/>          | <input type="checkbox"/> Yes <input type="checkbox"/> No |
| ■ Construction on land where bedrock is exposed or generally within 3 feet of existing ground surface.                                                                                           | <input type="checkbox"/>            | <input type="checkbox"/>          | <input type="checkbox"/> Yes <input type="checkbox"/> No |
| ■ Construction that will continue for more than 1 year or involve more than one phase or stage.                                                                                                  | <input type="checkbox"/>            | <input type="checkbox"/>          | <input type="checkbox"/> Yes <input type="checkbox"/> No |
| ■ Excavation for mining purposes that would remove more than 1,000 tons of natural material (i.e., rock or soil) per year.                                                                       | <input type="checkbox"/>            | <input type="checkbox"/>          | <input type="checkbox"/> Yes <input type="checkbox"/> No |
| ■ Construction or expansion of a sanitary landfill.                                                                                                                                              | <input type="checkbox"/>            | <input type="checkbox"/>          | <input type="checkbox"/> Yes <input type="checkbox"/> No |
| ■ Construction in a designated floodway.                                                                                                                                                         | <input type="checkbox"/>            | <input type="checkbox"/>          | <input type="checkbox"/> Yes <input type="checkbox"/> No |
| ■ Other impacts:                                                                                                                                                                                 | <input type="checkbox"/>            | <input type="checkbox"/>          | <input type="checkbox"/> Yes <input type="checkbox"/> No |
| 2. Will there be an effect to any unique or unusual land forms found on the site?<br>(i.e., cliffs, dunes, geological formations, etc.) <input type="checkbox"/> Yes <input type="checkbox"/> No |                                     |                                   |                                                          |
| ■ Specific land forms:                                                                                                                                                                           | <input type="checkbox"/>            | <input type="checkbox"/>          | <input type="checkbox"/> Yes <input type="checkbox"/> No |

|                                                                                                                                                                                                                                                         | 1<br>Small to<br>Moderate<br>Impact | 2<br>Potential<br>Large<br>Impact | 3<br>Can Impact be<br>Mitigated by<br>Project Change     |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------|-----------------------------------|----------------------------------------------------------|
| 3. Will proposed action affect any water body designated as protected? (Under articles 15, 24, 25 of the Environmental Conservation Law, ECL)<br><input type="checkbox"/> Yes <input type="checkbox"/> No <b>Examples</b> that would apply to column 2: |                                     |                                   |                                                          |
| ■ Developable area of site contains a protected water body.                                                                                                                                                                                             | <input type="checkbox"/>            | <input type="checkbox"/>          | <input type="checkbox"/> Yes <input type="checkbox"/> No |
| ■ Dredging more than 100 cubic yards of material from channel of a protected stream.                                                                                                                                                                    | <input type="checkbox"/>            | <input type="checkbox"/>          | <input type="checkbox"/> Yes <input type="checkbox"/> No |
| ■ Extension of utility distribution facilities through a protected water body.                                                                                                                                                                          | <input type="checkbox"/>            | <input type="checkbox"/>          | <input type="checkbox"/> Yes <input type="checkbox"/> No |
| ■ Construction in a designated freshwater or tidal wetland.                                                                                                                                                                                             | <input type="checkbox"/>            | <input type="checkbox"/>          | <input type="checkbox"/> Yes <input type="checkbox"/> No |
| ■ Other impacts:                                                                                                                                                                                                                                        | <input type="checkbox"/>            | <input type="checkbox"/>          | <input type="checkbox"/> Yes <input type="checkbox"/> No |
| 4. Will proposed action affect any non-protected existing or new body of water? <input type="checkbox"/> Yes <input type="checkbox"/> No <b>Examples</b> that would apply to column 2:                                                                  |                                     |                                   |                                                          |
| ■ A 10% increase or decrease in the surface area of any body of water or more than a 10 acre increase or decrease.                                                                                                                                      | <input type="checkbox"/>            | <input type="checkbox"/>          | <input type="checkbox"/> Yes <input type="checkbox"/> No |
| ■ Construction of a body of water that exceeds 10 acres of surface area.                                                                                                                                                                                | <input type="checkbox"/>            | <input type="checkbox"/>          | <input type="checkbox"/> Yes <input type="checkbox"/> No |
| ■ Other impacts:                                                                                                                                                                                                                                        | <input type="checkbox"/>            | <input type="checkbox"/>          | <input type="checkbox"/> Yes <input type="checkbox"/> No |
| 5. Will Proposed Action affect surface surface or groundwater quality or quantity? <input type="checkbox"/> Yes <input type="checkbox"/> No <b>Examples</b> that would apply to column 2:                                                               |                                     |                                   |                                                          |
| ■ Proposed action will require a discharge permit.                                                                                                                                                                                                      | <input type="checkbox"/>            | <input type="checkbox"/>          | <input type="checkbox"/> Yes <input type="checkbox"/> No |
| ■ Proposed action requires use of a source of water that does not have approval to serve proposed (project) action.                                                                                                                                     | <input type="checkbox"/>            | <input type="checkbox"/>          | <input type="checkbox"/> Yes <input type="checkbox"/> No |
| ■ Proposed action requires water supply from wells with greater than 45 gallons per minute pumping capacity.                                                                                                                                            | <input type="checkbox"/>            | <input type="checkbox"/>          | <input type="checkbox"/> Yes <input type="checkbox"/> No |
| ■ Construction or operation causing contamination of a water supply system.                                                                                                                                                                             | <input type="checkbox"/>            | <input type="checkbox"/>          | <input type="checkbox"/> Yes <input type="checkbox"/> No |
| ■ Proposed action will adversely affect groundwater.                                                                                                                                                                                                    | <input type="checkbox"/>            | <input type="checkbox"/>          | <input type="checkbox"/> Yes <input type="checkbox"/> No |
| ■ Liquid affluent will be conveyed off the site to facilities which presently do not exist or have inadequate capacity.                                                                                                                                 | <input type="checkbox"/>            | <input type="checkbox"/>          | <input type="checkbox"/> Yes <input type="checkbox"/> No |
| ■ Proposed action would use water in excess of 20,000 gallons per day.                                                                                                                                                                                  | <input type="checkbox"/>            | <input type="checkbox"/>          | <input type="checkbox"/> Yes <input type="checkbox"/> No |
| ■ Proposed action would likely cause siltration or other discharge into an existing body of water to the extent that there will be an obvious visual contrast to natural conditions.                                                                    | <input type="checkbox"/>            | <input type="checkbox"/>          | <input type="checkbox"/> Yes <input type="checkbox"/> No |
| ■ Proposed action will require the storage of petroleum or chemical products greater than 1,100 gallons.                                                                                                                                                | <input type="checkbox"/>            | <input type="checkbox"/>          | <input type="checkbox"/> Yes <input type="checkbox"/> No |
| ■ Proposed action will allow residential uses in areas without water and/or sewer services.                                                                                                                                                             | <input type="checkbox"/>            | <input type="checkbox"/>          | <input type="checkbox"/> Yes <input type="checkbox"/> No |
| ■ Proposed action locates commercial and/or industrial uses which may require new or expansion of existing waste treatment and/or storage facilities.                                                                                                   | <input type="checkbox"/>            | <input type="checkbox"/>          | <input type="checkbox"/> Yes <input type="checkbox"/> No |
| ■ Other impacts:                                                                                                                                                                                                                                        | <input type="checkbox"/>            | <input type="checkbox"/>          | <input type="checkbox"/> Yes <input type="checkbox"/> No |
| 6. Will proposed action alter drainage flow or patterns, or surface water runoff?<br><input type="checkbox"/> Yes <input type="checkbox"/> No <b>Examples</b> that would apply to column 2:                                                             |                                     |                                   |                                                          |
| ■ Proposed action would change flood water flows.                                                                                                                                                                                                       | <input type="checkbox"/>            | <input type="checkbox"/>          | <input type="checkbox"/> Yes <input type="checkbox"/> No |
| ■ Proposed action may cause substantial erosion.                                                                                                                                                                                                        | <input type="checkbox"/>            | <input type="checkbox"/>          | <input type="checkbox"/> Yes <input type="checkbox"/> No |
| ■ Proposed action is incompatible with existing drainage patterns.                                                                                                                                                                                      | <input type="checkbox"/>            | <input type="checkbox"/>          | <input type="checkbox"/> Yes <input type="checkbox"/> No |
| ■ Proposed action will allow development in a designated floodway.                                                                                                                                                                                      | <input type="checkbox"/>            | <input type="checkbox"/>          | <input type="checkbox"/> Yes <input type="checkbox"/> No |
| ■ Other impacts:                                                                                                                                                                                                                                        |                                     |                                   |                                                          |
| <b>IMPACT ON AIR</b>                                                                                                                                                                                                                                    |                                     |                                   |                                                          |
| 7. Will proposed action affect air quality? <input type="checkbox"/> Yes <input type="checkbox"/> No<br><b>Examples</b> that would apply to column 2:                                                                                                   |                                     |                                   |                                                          |
| ■ Proposed action will induce 1,000 or more vehicle trips in any given hour.                                                                                                                                                                            | <input type="checkbox"/>            | <input type="checkbox"/>          | <input type="checkbox"/> Yes <input type="checkbox"/> No |
| ■ Proposed action will result in the incineration of more than 1 ton of refuse per hour.                                                                                                                                                                | <input type="checkbox"/>            | <input type="checkbox"/>          | <input type="checkbox"/> Yes <input type="checkbox"/> No |
| ■ Emission rate of total contaminants will exceed 5 lbs. per hour or a heat source producing more than 10 million BTU's per hour.                                                                                                                       | <input type="checkbox"/>            | <input type="checkbox"/>          | <input type="checkbox"/> Yes <input type="checkbox"/> No |
| ■ Proposed action will allow an increase in the amount of land committed to industrial use.                                                                                                                                                             | <input type="checkbox"/>            | <input type="checkbox"/>          | <input type="checkbox"/> Yes <input type="checkbox"/> No |
| ■ Proposed action will allow an increase in the density of industrial development within existing industrial areas.                                                                                                                                     | <input type="checkbox"/>            | <input type="checkbox"/>          | <input type="checkbox"/> Yes <input type="checkbox"/> No |
| ■ Other impacts:                                                                                                                                                                                                                                        | <input type="checkbox"/>            | <input type="checkbox"/>          | <input type="checkbox"/> Yes <input type="checkbox"/> No |

|                                                                                                                                                                                                                                                                        | 1<br>Small to<br>Moderate<br>Impact | 2<br>Potential<br>Large<br>Impact | 3<br>Can Impact be<br>Mitigated by<br>Project Change     |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------|-----------------------------------|----------------------------------------------------------|
| <b>IMPACT ON PLANTS AND ANIMALS</b>                                                                                                                                                                                                                                    |                                     |                                   |                                                          |
| 8. Proposed action affect any threatened or endangered species?<br><input type="checkbox"/> Yes <input type="checkbox"/> No <b>Examples</b> that would apply to column 2:                                                                                              |                                     |                                   |                                                          |
| ■ Reduction of one or more species listed on the New York or Federal list, using the site, over or near site, or found on the site.                                                                                                                                    | <input type="checkbox"/>            | <input type="checkbox"/>          | <input type="checkbox"/> Yes <input type="checkbox"/> No |
| ■ Removal of any portion of a critical or significant wildlife habitat.                                                                                                                                                                                                | <input type="checkbox"/>            | <input type="checkbox"/>          | <input type="checkbox"/> Yes <input type="checkbox"/> No |
| ■ Application of pesticide or herbicide more than twice a year, other than for agricultural purposes.                                                                                                                                                                  | <input type="checkbox"/>            | <input type="checkbox"/>          | <input type="checkbox"/> Yes <input type="checkbox"/> No |
| ■ Other impacts:                                                                                                                                                                                                                                                       | <input type="checkbox"/>            | <input type="checkbox"/>          | <input type="checkbox"/> Yes <input type="checkbox"/> No |
| 9. Will Proposed action substantially affect non-threatened or non-endangered species? <input type="checkbox"/> Yes <input type="checkbox"/> No <b>Examples</b> that would apply to column 2:                                                                          |                                     |                                   |                                                          |
| ■ Proposed action would substantially interfere with any resident or migratory fish, shellfish or wildlife species.                                                                                                                                                    | <input type="checkbox"/>            | <input type="checkbox"/>          | <input type="checkbox"/> Yes <input type="checkbox"/> No |
| ■ Proposed action requires the removal of more than 10 acres of mature forest (over 100 years of age) or other locally important vegetation.                                                                                                                           | <input type="checkbox"/>            | <input type="checkbox"/>          | <input type="checkbox"/> Yes <input type="checkbox"/> No |
| <b>IMPACT ON AGRICULTURAL LAND RESOURCES</b>                                                                                                                                                                                                                           |                                     |                                   |                                                          |
| 10. Will the Proposed action affect agricultural land resources? <input type="checkbox"/> Yes <input type="checkbox"/> No<br><b>Examples</b> that would apply to column 2:                                                                                             |                                     |                                   |                                                          |
| ■ Proposed action would sever, cross or limit access to agricultural land (includes cropland, hayfields, pasture, vineyard, orchard, etc.)                                                                                                                             | <input type="checkbox"/>            | <input type="checkbox"/>          | <input type="checkbox"/> Yes <input type="checkbox"/> No |
| ■ Construction activity would excavate or compact the soil profile of agricultural land.                                                                                                                                                                               | <input type="checkbox"/>            | <input type="checkbox"/>          | <input type="checkbox"/> Yes <input type="checkbox"/> No |
| ■ Proposed action would irreversibly convert more than 10 acres of agricultural land or if located in an Agricultural District, more than 2.5 acres of agricultural land.                                                                                              | <input type="checkbox"/>            | <input type="checkbox"/>          | <input type="checkbox"/> Yes <input type="checkbox"/> No |
| ■ Proposed action would disrupt or prevent installation of agricultural land management systems (e.g., subsurface drain lines, outlet ditches, strip cropping); or create a need for such measures (e.g., cause a farm field to drain poorly due to increased runoff). | <input type="checkbox"/>            | <input type="checkbox"/>          | <input type="checkbox"/> Yes <input type="checkbox"/> No |
| ■ Other impacts:                                                                                                                                                                                                                                                       |                                     |                                   |                                                          |
| <b>IMPACT ON AESTHETIC RESOURCES</b>                                                                                                                                                                                                                                   |                                     |                                   |                                                          |
| 11. Will proposed action affect aesthetic resources? <input type="checkbox"/> Yes <input type="checkbox"/> No<br>(if necessary, use the Visual EAF Addendum in Section 617.20, Appendix B.) <b>Examples</b> that would apply to column 2:                              |                                     |                                   |                                                          |
| ■ Proposed land uses, or project components obviously different from, or in sharp contrast to current surrounding land use patterns, whether man-made or natural.                                                                                                      | <input type="checkbox"/>            | <input type="checkbox"/>          | <input type="checkbox"/> Yes <input type="checkbox"/> No |
| ■ Proposed land uses or project components visible to users of aesthetic resources which will eliminate, or significantly reduce, their enjoyment of the aesthetic qualities of that resource.                                                                         | <input type="checkbox"/>            | <input type="checkbox"/>          | <input type="checkbox"/> Yes <input type="checkbox"/> No |
| ■ Proposed components that will result in the elimination, or significant screening, of scenic views known to be important to the area.                                                                                                                                | <input type="checkbox"/>            | <input type="checkbox"/>          | <input type="checkbox"/> Yes <input type="checkbox"/> No |
| ■ Other impacts:                                                                                                                                                                                                                                                       | <input type="checkbox"/>            | <input type="checkbox"/>          | <input type="checkbox"/> Yes <input type="checkbox"/> No |
| <b>IMPACT ON HISTORIC AND ARCHAEOLOGICAL RESOURCES</b>                                                                                                                                                                                                                 |                                     |                                   |                                                          |
| 12. Will proposed action impact any site or structure of historic, pre-historic or paleontological importance? <input type="checkbox"/> Yes <input type="checkbox"/> No<br><b>Examples</b> that would apply to column 2:                                               |                                     |                                   |                                                          |
| ■ Proposed action occurring wholly or partially within or substantially contiguous to any facility or site listed on the State or national Register of historic places.                                                                                                | <input type="checkbox"/>            | <input type="checkbox"/>          | <input type="checkbox"/> Yes <input type="checkbox"/> No |
| ■ Any impact to an archaeological site or fossil bed located within the project site.                                                                                                                                                                                  | <input type="checkbox"/>            | <input type="checkbox"/>          | <input type="checkbox"/> Yes <input type="checkbox"/> No |
| ■ Proposed action will occur in an area designated as sensitive for archaeological sites on the NYS Site Inventory.                                                                                                                                                    | <input type="checkbox"/>            | <input type="checkbox"/>          | <input type="checkbox"/> Yes <input type="checkbox"/> No |
| ■ Other impacts:                                                                                                                                                                                                                                                       | <input type="checkbox"/>            | <input type="checkbox"/>          | <input type="checkbox"/> Yes <input type="checkbox"/> No |

|                                                                                                                                                                                                                                                                                                                   | 1<br>Small to<br>Moderate<br>Impact | 2<br>Potential<br>Large<br>Impact | 3<br>Can Impact be<br>Mitigated by<br>Project Change     |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------|-----------------------------------|----------------------------------------------------------|
| <b>IMPACT ON OPEN SPACE AND RECREATION</b>                                                                                                                                                                                                                                                                        |                                     |                                   |                                                          |
| 13. Will proposed action affect the quantity of quality of existing or future open spaces or recreational opportunities? <input type="checkbox"/> Yes <input type="checkbox"/> No<br><b>Examples</b> that would apply to column 2:                                                                                |                                     |                                   |                                                          |
| ■ The permanent foreclosure of a future recreational opportunity.                                                                                                                                                                                                                                                 | <input type="checkbox"/>            | <input type="checkbox"/>          | <input type="checkbox"/> Yes <input type="checkbox"/> No |
| ■ A major reduction of an open space important to the community.                                                                                                                                                                                                                                                  | <input type="checkbox"/>            | <input type="checkbox"/>          | <input type="checkbox"/> Yes <input type="checkbox"/> No |
| ■ Other impacts:                                                                                                                                                                                                                                                                                                  | <input type="checkbox"/>            | <input type="checkbox"/>          | <input type="checkbox"/> Yes <input type="checkbox"/> No |
| <b>IMPACT ON CRITICAL ENVIRONMENTAL AREAS</b>                                                                                                                                                                                                                                                                     |                                     |                                   |                                                          |
| 14. Will proposed action impact the exceptional or unique characteristics of a critical environmental area (CEA) established pursuant to subdivision 6 NYCRR 617.14(g)? <input type="checkbox"/> Yes <input type="checkbox"/> No. List the environmental characteristics that caused the designation of the CEA.: |                                     |                                   |                                                          |
| <b>Examples</b> that would apply to column 2:                                                                                                                                                                                                                                                                     |                                     |                                   |                                                          |
| ■ Proposed action to locate within the CEA.                                                                                                                                                                                                                                                                       | <input type="checkbox"/>            | <input type="checkbox"/>          | <input type="checkbox"/> Yes <input type="checkbox"/> No |
| ■ Proposed action will result in a reduction in the quantity of the resource.                                                                                                                                                                                                                                     | <input type="checkbox"/>            | <input type="checkbox"/>          | <input type="checkbox"/> Yes <input type="checkbox"/> No |
| ■ Proposed action will result in a reduction in the quality of the resource.                                                                                                                                                                                                                                      | <input type="checkbox"/>            | <input type="checkbox"/>          | <input type="checkbox"/> Yes <input type="checkbox"/> No |
| ■ Proposed action will impact the use, function or enjoyment of the resource.                                                                                                                                                                                                                                     | <input type="checkbox"/>            | <input type="checkbox"/>          | <input type="checkbox"/> Yes <input type="checkbox"/> No |
| ■ Other impacts:                                                                                                                                                                                                                                                                                                  | <input type="checkbox"/>            | <input type="checkbox"/>          | <input type="checkbox"/> Yes <input type="checkbox"/> No |
| <b>IMPACT ON TRANSPORTATION</b>                                                                                                                                                                                                                                                                                   |                                     |                                   |                                                          |
| 15. Will there be an affect to existing transportation systems? <input type="checkbox"/> Yes <input type="checkbox"/> No.<br><b>Examples</b> that would apply to column 2:                                                                                                                                        |                                     |                                   |                                                          |
| ■ Alteration of present patterns of movement of people and/or goods.                                                                                                                                                                                                                                              | <input type="checkbox"/>            | <input type="checkbox"/>          | <input type="checkbox"/> Yes <input type="checkbox"/> No |
| ■ Proposed action will result in major traffic problems.                                                                                                                                                                                                                                                          | <input type="checkbox"/>            | <input type="checkbox"/>          | <input type="checkbox"/> Yes <input type="checkbox"/> No |
| ■ Other impacts:                                                                                                                                                                                                                                                                                                  | <input type="checkbox"/>            | <input type="checkbox"/>          | <input type="checkbox"/> Yes <input type="checkbox"/> No |
| <b>IMPACT ON ENERGY</b>                                                                                                                                                                                                                                                                                           |                                     |                                   |                                                          |
| 16. Will proposed action affect the community's sources of fuel or energy supply? <input type="checkbox"/> Yes <input type="checkbox"/> No. <b>Examples</b> that would apply to column 2:                                                                                                                         |                                     |                                   |                                                          |
| ■ Proposed action will cause a greater than 5% increase in the use of any form of energy in the municipality.                                                                                                                                                                                                     | <input type="checkbox"/>            | <input type="checkbox"/>          | <input type="checkbox"/> Yes <input type="checkbox"/> No |
| ■ Proposed action will require the creation or extension of an energy transmission or supply system to serve more than 50 single or two family residences or to serve a major commercial or industrial use.                                                                                                       | <input type="checkbox"/>            | <input type="checkbox"/>          | <input type="checkbox"/> Yes <input type="checkbox"/> No |
| ■ Other impacts:                                                                                                                                                                                                                                                                                                  | <input type="checkbox"/>            | <input type="checkbox"/>          | <input type="checkbox"/> Yes <input type="checkbox"/> No |
| <b>NOISE AND ODOR IMPACTS</b>                                                                                                                                                                                                                                                                                     |                                     |                                   |                                                          |
| 17. Will there be objectionable odors, noise, or vibrations as a result of the Proposed Action? <input type="checkbox"/> Yes <input type="checkbox"/> No. <b>Examples</b> that would apply to column 2:                                                                                                           |                                     |                                   |                                                          |
| ■ Blasting within 1,500 feet of a hospital, school or other sensitive facility.                                                                                                                                                                                                                                   | <input type="checkbox"/>            | <input type="checkbox"/>          | <input type="checkbox"/> Yes <input type="checkbox"/> No |
| ■ Odors will occur routinely (more than one hour per day).                                                                                                                                                                                                                                                        | <input type="checkbox"/>            | <input type="checkbox"/>          | <input type="checkbox"/> Yes <input type="checkbox"/> No |
| ■ Proposed action will produce operating noise exceeding the local ambient noise levels for noise outside of structures..                                                                                                                                                                                         | <input type="checkbox"/>            | <input type="checkbox"/>          | <input type="checkbox"/> Yes <input type="checkbox"/> No |
| ■ Proposed action will remove natural barriers that would act as a noise screen                                                                                                                                                                                                                                   | <input type="checkbox"/>            | <input type="checkbox"/>          | <input type="checkbox"/> Yes <input type="checkbox"/> No |
| ■ Other impacts:                                                                                                                                                                                                                                                                                                  | <input type="checkbox"/>            | <input type="checkbox"/>          | <input type="checkbox"/> Yes <input type="checkbox"/> No |
| <b>IMPACT ON PUBLIC HEALTH</b>                                                                                                                                                                                                                                                                                    |                                     |                                   |                                                          |
| 18. Will Proposed action affect public health and safety? <input type="checkbox"/> Yes <input type="checkbox"/> No.<br><b>Examples</b> that would apply to column 2:                                                                                                                                              |                                     |                                   |                                                          |
| ■ Proposed action may cause a risk of explosion or release of hazardous substances (i.e., oil, pesticides, chemicals, radiation, etc.) in the event of accident or upset conditions, or there may be a chronic low level discharge or emission.                                                                   | <input type="checkbox"/>            | <input type="checkbox"/>          | <input type="checkbox"/> Yes <input type="checkbox"/> No |
| ■ Proposed action may result in the burial of "hazardous wastes" in any form (i.e. toxic, poisonous, highly reactive, radioactive, irritating, infectious, etc.)                                                                                                                                                  | <input type="checkbox"/>            | <input type="checkbox"/>          | <input type="checkbox"/> Yes <input type="checkbox"/> No |
| ■ Storage facilities for one million or more gallons of liquified natural gas or other flammable liquids.                                                                                                                                                                                                         | <input type="checkbox"/>            | <input type="checkbox"/>          | <input type="checkbox"/> Yes <input type="checkbox"/> No |
| ■ Proposed action may result in the excavation or other disturbance within 2,000 feet of a site used for the disposal of solid or hazardous waste.                                                                                                                                                                | <input type="checkbox"/>            | <input type="checkbox"/>          | <input type="checkbox"/> Yes <input type="checkbox"/> No |
| ■ Other impacts:                                                                                                                                                                                                                                                                                                  | <input type="checkbox"/>            | <input type="checkbox"/>          | <input type="checkbox"/> Yes <input type="checkbox"/> No |

|                                                                                                                                                                                     | 1<br>Small to<br>Moderate<br>Impact | 2<br>Potential<br>Large<br>Impact | 3<br>Can Impact be<br>Mitigated by<br>Project Change     |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------|-----------------------------------|----------------------------------------------------------|
| <b>IMPACT ON GROWTH AND CHARACTER OF COMMUNITY OR NEIGHBORHOOD</b>                                                                                                                  |                                     |                                   |                                                          |
| 19. Will Proposed action affect the character of the existing community?<br><input type="checkbox"/> Yes <input type="checkbox"/> No. <b>Examples</b> that would apply to column 2: | <input type="checkbox"/>            | <input type="checkbox"/>          | <input type="checkbox"/> Yes <input type="checkbox"/> No |
| ■ The permanent population of the city, town or village in which the project is located is likely to grow by more than 5%.                                                          | <input type="checkbox"/>            | <input type="checkbox"/>          | <input type="checkbox"/> Yes <input type="checkbox"/> No |
| ■ The municipal budget for capital expenditures or operating services will increase by more than 5% per year as a result of this project.                                           | <input type="checkbox"/>            | <input type="checkbox"/>          | <input type="checkbox"/> Yes <input type="checkbox"/> No |
| ■ The Proposed action will conflict with officially adopted plans or goals.                                                                                                         | <input type="checkbox"/>            | <input type="checkbox"/>          | <input type="checkbox"/> Yes <input type="checkbox"/> No |
| ■ The Proposed action will cause a change in the density of land use.                                                                                                               | <input type="checkbox"/>            | <input type="checkbox"/>          | <input type="checkbox"/> Yes <input type="checkbox"/> No |
| ■ The Proposed action will replace or eliminate existing facilities, structures or areas of historic importance to the community.                                                   | <input type="checkbox"/>            | <input type="checkbox"/>          | <input type="checkbox"/> Yes <input type="checkbox"/> No |
| ■ Development will create a demand for additional community services (e.g., schools, police, fire, etc.).                                                                           | <input type="checkbox"/>            | <input type="checkbox"/>          | <input type="checkbox"/> Yes <input type="checkbox"/> No |
| ■ Proposed action will set an important precedent for future projects.                                                                                                              | <input type="checkbox"/>            | <input type="checkbox"/>          | <input type="checkbox"/> Yes <input type="checkbox"/> No |
| ■ Proposed action will create or eliminate employment.                                                                                                                              | <input type="checkbox"/>            | <input type="checkbox"/>          | <input type="checkbox"/> Yes <input type="checkbox"/> No |
| ■ Other impacts:                                                                                                                                                                    | <input type="checkbox"/>            | <input type="checkbox"/>          | <input type="checkbox"/> Yes <input type="checkbox"/> No |
| 20. Is there, or is there likely to be, public controversy related to potential adverse environmental impacts? <input type="checkbox"/> Yes <input type="checkbox"/> No             |                                     |                                   |                                                          |
| <b>If any a ction in Pa rt 2 is identified as a potential large impact, or if yo u cannot determine the magnitude of impact, proceed to Part 3.</b>                                 |                                     |                                   |                                                          |
|                                                                                                                                                                                     |                                     |                                   |                                                          |

**PART 3 – EVALUATION OF THE IMPORTANCE OF IMPACTS  
RESPONSIBILITY OF LEAD AGENCY**

Part 3 must be prepared if one or more impact(s) is considered to be potentially large, even if the impact(s) may be mitigated.

Instructions:

Discuss the following for each impact identified in column 2 of Part 2:

1. Briefly describe the impact.
2. Describe (if applicable) how the impact could be mitigated or reduced to a small to moderate impact by project change(s).
3. Based on the information available, decide if it is reasonable to conclude that this impact is important.

To answer the question of importance, consider:

- The probability of the impact occurring
- The duration of the impact
- Its irreversibility, including permanently lost resources of value
- Whether the impact can or will be controlled
- The regional consequence of the impact
- Its potential divergence from local needs and goals
- Whether known objections to the project relate to this impact

(Continue on attachments)





**Attachments to Long EAF**  
**Solid Waste Management Plan**  
**Capital Region Solid Waste Management Partnership**

Attachment 1 – Project Description

A new Solid Waste Management Plan (SWMP) for the Capital Region Solid Waste Management Partnership Planning Unit defines the key elements of the future solid waste management program for the region, through the year 2030.

The major elements of the new SWMP are:

- the continued utilization of existing solid waste management facilities and programs in the Planning Unit;
- the expansion of existing waste reduction and recycling programs throughout the Planning Unit;
- the development of new capacity for both recycling and for the treatment of post-recyclable solid waste on a regional basis to provide the necessary economies of scale to support a more fully integrated solid waste management program.

This SWMP also recommends the implementation of a regional solid waste management authority (RSWMA) which would operate an expanded planning unit. The RSWMA would expand and strengthen the membership of the planning unit and build on existing public sector and private sector solid waste management resources. It would be able to provide for new infrastructure and programs such as expanded mandatory recycling and an SSOW composting facility. The RSWMA would also provide a more effective administrative structure than currently exists to facilitate the implementation of new facilities and programs.

All of these measures are intended to meet the future solid waste management needs of the Planning Unit, the goals and objectives articulated in the SWMP, and will help achieve the goals of New York State's solid waste management hierarchy.

Attachment 2 – Site Description and Project Description

This new SWMP provides the analysis and policy framework to support its key elements, but it does not propose any specific sites for the new solid waste management facilities that are recommended. Therefore the entire Site Description section and most of the items in the Project Description section of this EAF are not applicable.

### Attachment 3 – Solid Waste Disposal

This SWMP calls for maximization of waste reduction and recycling prior to the use of disposal facilities. For waste that cannot be reduced or recycled, the SWMP calls for the continued utilization of existing solid waste disposal facilities and the development of new capacity for the treatment of post-recyclable waste.

**ALBANY COMMON COUNCIL  
MINUTES OF A REGULAR MEETING**

**Monday, April 19, 2010**

The Common Council was convened at 7:00 p.m. and was called to order by Council President McLaughlin.

The roll being called, the following answered to their names: Council Members Bailey, Calsolaro, Commisso, Conti, Fahey, Freeman, Golby, Herring, Igoe, Jenkins-Cox, Konev, O'Brien, Rosenzweig, Sano, and Smith.

Also present was the following staff: John Marsolais, Barbara Samel, Patrick Jordan, and Cashawna Parker.

Council Member Rosenzweig led the Pledge of Allegiance.

**PUBLIC COMMENT PERIOD**

1. Jose Lopez, Jr., 40B View Ave., Albany, NY 12209 (Resolution 56.42.10)
2. Beth Geragosian, Colonie, NY (Ordinance 59.42.10)
3. Bill Washburn, 177 S, Manning Blvd., Albany, NY 12208 (Albany Police Chief)
4. Yvette Alfonso, 409 Hamilton St., Albany, NY 12210 (Police Chief)
5. Andy Bechard, 27 Forest Ave., Albany, NY 12208 (Police Chief)
6. Slava Rar, 1400 Washington Ave., Albany, NY 12222 (Police Chief)
7. Joel Tirato, 1400 Washington Ave., Albany, NY 12222 (Police Chief)
8. Danielle Sellers, 1400 Washington Ave., Albany, NY 12222 (Police Chief)
9. Ariel Fitterman, 1400 Washington Ave., Albany, NY 12222 (Police Chief)

Council Member Conti made a motion to extend Public Comment Period until 9:00pm, which was approved by unanimous voice vote.

10. Sam Frumkin, 1400 Washington Ave., Albany, NY 12222 (Police Chief)
11. Roger Markovics, 38 Myrtle Ave., Albany, NY 12202 (Community Policing)
12. Judith Mazza, 3 Sand St., Albany, NY 12209 (Police Chief)
13. Kori Robinson, 203 Second St., Albany, NY 12206 (Community Policing)
14. Chrys Ballerano, 143 Berkshire Blvd., Albany, NY 12203 (Support Resolution 39.41.10R)
15. Shirley Bradley, 48 Jennings Dr., Albany, NY 12204 (Police Chief)
16. Mardi Crawford, 28 Elm St., Albany, NY 12202 (Community Policing)
17. Karen Johnson Williams, 33 Elberon Pl., Albany, NY 12203 (Community Policing)
18. Lonnie Ford, 545 Morris St., Albany, NY 12208 (Police Relations in the Community)
19. Vincent Riguso, 13 Beach Ave., Albany, NY 12203 (Various Issues)
20. John Donnelly, 423 Hudson Ave., Albany, NY 12203 (Police Chief)
21. William Payne, 45 Central Ave., Albany, NY 12210 (Police Chief)

There being no further speakers, the President declared the Public Comment Period closed.

**APPROVAL OF MINUTES FROM PREVIOUS MEETING**

Deferred

**CONSIDERATION OF LOCAL LAWS**

Council Member Konev introduced the following, which was referred to the Finance, Taxation and Assessment Committee:

*\*Note: Council Members Calsolaro and Igoe spoke on this resolution prior to passage.*

*Resolution Number 44.42.10R was Co-Sponsored by Council Members Commisso, Conti, Freeman, Golby, Herring, Igoe, Jenkins-Cox, Konev, O'Brien, Rosenzweig, Sano and Smith.*

**Passed by the following vote of all the Council Members elected voting in favor thereof:**

Affirmative – Bailey, Calsolaro, Commisso, Conti, Fahey, Freeman, Golby, Herring, Igoe, Jenkins-Cox, Konev, O'Brien, Rosenzweig, Sano, and Smith

Affirmative 15 Negative 0 Abstain 0

Council Member O'Brien offered the following, asked for passage and a roll call vote thereon:

➔ **Resolution Number 45.42.10R**

**RESOLUTION OF THE COMMON COUNCIL GIVING NOTICE OF INTENT TO ACT AS LEAD AGENCY FOR PURPOSES OF DETERMINING ENVIRONMENTAL SIGNIFICANCE PURSUANT TO ARTICLE 8 OF THE ENVIRONMENTAL CONSERVATION LAW OF THE STATE OF NEW YORK (ECL) AND THE REGULATIONS OF THE DEPARTMENT OF ENVIRONMENTAL CONSERVATION (DEC) PROMULGATED THEREUNDER (SEQRA) FOR THE PURPOSE OF REVIEWING THE DRAFT SOLID WASTE MANAGEMENT PLAN FOR THE CAPITAL REGION SOLID WASTE MANAGEMENT PARTNERSHIP PLANNING UNIT**

**WHEREAS**, on June 25, 2009, the New York State Department of Environmental Conservation (DEC) issued to the City of Albany, permit # 4-0101-00171/00011 for the purpose of operating and expanding the landfill beyond its current capacity; and

**WHEREAS**, Special Condition 26(b) of the Permit calls for the Capital Region Solid Waste Management Partnership Planning Unit to have a new long term Solid Waste Management Plan (SWMP) in effect by January 1, 2011; and

**WHEREAS**, the Common Council has received a long form Environmental Assessment Form (EAF), as well as a Draft Solid Waste Management Plan for the Capital Region Solid Waste Management Partnership Planning Unit; and

**WHEREAS**, the Council has reviewed the EAF and Draft Solid Waste Management Plan and determined to conduct a coordinated review among all involved agencies; and

**WHEREAS**, the Common Council is the most involved agency and, as such, is the most appropriate Lead Agency to conduct a review of the plan in accord with SEQRA regulations.

**NOW, THEREFORE, BE IT RESOLVED**, that the Common Council of the City of Albany shall coordinate review of the plan by issuing a Notice of Intent to act as lead agency to all involved agencies pursuant to and under SEQRA;

**BE IT FURTHER RESOLVED**, that the Common Council hereby authorizes the City Clerk to distribute copies of the Draft Solid Waste Management Plan to all members of the Solid Waste Management Partnership Planning Unit; and

**RESOLVED**, that this resolution shall take effect immediately.

*\*Note: Council Members O'Brien, Calsolaro and Konev spoke on this resolution prior to passage.*

*Resolution Number 45.42.10R was Co-Sponsored by council Member Sano.*

**Passed by the following vote of all the Council Members elected voting in favor thereof:**

Affirmative – Bailey, Calsolaro, Commisso, Conti, Fahey, Freeman, Golby, Herring, Igoe, Jenkins-Cox, Konev, O'Brien, Rosenzweig, Sano, and Smith

Affirmative 15 Negative 0 Abstain 0

**Council Member Conti withdrew Resolution Number 46.42.10R.**

Council Member Smith offered the following, which was referred to the Public Safety Committee:

**Resolution Number 47.42.10R**

**RESOLUTION OF THE COMMON COUNCIL APPROVING NEW INVESTIGATORS FOR THE CITIZENS' POLICE REVIEW BOARD**

**RESOLVED**, that in accordance with Section 42-343 of the Code of the City of Albany the following candidates are approved as investigators for the Citizen's Police Review Board: Jennifer C. Merritt, Salvatore F. Munafò, Thomas R. Neilen, Frank White and William Van Valkenburg.

Council Members Fahey and Calsolaro offered the following, asked passage and a roll call thereon:

**Resolution Number 48.42.10R**

**AUTHORIZING THE IMPLEMENTATION, AND FUNDING IN THE FIRST INSTANCE 100% OF THE FEDERAL-AID AND STATE "MARCHISELLI" PROGRAM-AID ELIGIBLE COSTS, OF A TRANSPORTATION FEDERAL-AID PROJECT, AND APPROPRIATING FUNDS THEREFOR (DELAWARE AVENUE ROAD RECONSTRUCTION PROJECT [P.I.N. 1756.61])**

**WHEREAS**, a Project for the Delaware Avenue Road Reconstruction, P.I.N. 1756.61 (the Project") is eligible for funding under Title 23 U.S. Code, as amended, that calls for the apportionment of the costs of such program to be borne at the ratio of 80% Federal funds and 20% non-federal funds; and

**WHEREAS**, the City of Albany desires to advance the Project by making a commitment of 100% of the non-federal share of the cost of Construction.

**NOW, THEREFORE**, the Common Council, duly convened does hereby

**RESOLVE**, that the Common Council hereby approves the above-subject project; and it is hereby further

**RESOLVED**, that the Common Council hereby authorizes the City of Albany to pay in the first instance 100% of the federal and non-federal share of the cost of Construction work for the Project or portions thereof; and it is further

**RESOLVED**, that the sum of \$841,425.00 (Eight hundred forty one thousand four hundred twenty five dollars and no cents (\$819,725.00 for Preliminary Engineering and \$21,700.00 for Right of Way) has already



**ALBANY COMMON COUNCIL  
MINUTES OF A REGULAR MEETING**

**Monday, July 19, 2010**

The Common Council was convened at 7:00 p.m. and was called to order by Council President McLaughlin.

The roll being called, the following answered to their names: Council Members Bailey, Calsolaro, Commisso, Conti, Fahey, Freeman, Golby, Herring, Igoe, Jenkins-Cox, Konev, O'Brien, Rosenzweig, Sano and Smith.

Also present was the following staff: John Marsolais, Barbara Samel, and Patrick Jordan.

Council Member Igoe led the Pledge of Allegiance.

**PUBLIC COMMENT PERIOD**

1. Alice Green, 509 W. Lawrence St., Albany, NY 12208 (Police Chief Confirmation)
2. Marlon Anderson, 491 Livingston Ave., Albany, NY 12206 (Police Chief)
3. Timothy Carney, 266 Delaware Ave., Albany, NY 12209 (Police Chief)
4. Leonard Morgenbesser, 219 Tampa Ave., Albany, NY 12208 (Police Chief/Poverty)
5. Andrew Harvey, 271 Myrtle Ave., Albany, NY 12208 (Albany Medical Center expansion)
6. Charles Touhey, 509 W. Lawrence St., Albany, NY 12208 (Police Chief)

There being no further speakers, the President declared the Public Comment Period closed.

**APPROVAL OF MINUTES FROM PREVIOUS MEETING**

DEFERRED

**CONSIDERATION OF LOCAL LAWS**

**The Local Laws on the pending agenda were held at the request of Council Member Conti.**

**REPORTS OF STANDING COMMITTEES**

**Public Safety** – Council Member Smith stated the Committee met on July 12, 2010 to interview Mr. Steven Krokoff as Police Chief. The questioning lasted for three and one-half hours and Resolution 69.62.10R appointing Mr. Steven Krokoff was unanimously favorably recommended out of committee.

**Planning, Economic Development and Land Use** – Council Member Herring stated the Committee would be meeting on July 28, 2010 immediately following Caucus to discuss Resolution 80.71.10R(MC) confirming the appointment Sandra Fox as a member of the Planning Board.

**REPORTS OF AD HOC COMMITTEES**

**Cable Access** – Council Member Rosenzweig stated that the Committee met on Thursday, July 15, 2010 at 5:30pm to discuss the RFP regarding the part-time Public Access Aide and the structure of the PEG Access Television oversight board. The Committee would be sending a response to the Albany Public Library's requested five points before agreeing to house the public component of PEG Access at the library.

**Pesticide Ordinance** – Council Member Golby stated that the Committee met on July 14, 2010 immediately following Caucus to discuss the pesticide ordinance, and identified a number of areas where committee members had

The remaining Ordinances on the pending agenda were held at the request of Council Member Conti.

**CONSIDERATION OF RESOLUTIONS**

Council Member O'Brien offered the following, asked for passage and a roll call vote thereon:

**Resolution Number 81.72.10R**

**RESOLUTION OF THE COMMON COUNCIL DECLARING ITSELF LEAD AGENCY FOR PURPOSES OF DETERMINING ENVIRONMENTAL SIGNIFICANCE AND ISSUING A POSITIVE DECLARATION IN ACCORDANCE WITH ARTICLE 8 OF THE ENVIRONMENTAL CONSERVATION LAW (SEQRA) AND THE REGULATIONS PROMULGATED THEREUNDER AND REQUIRING THE PREPARATION AND SUBMISSION OF AN ENVIRONMENTAL IMPACT STATEMENT IN CONNECTION WITH REVIEWING THE DRAFT SOLID WASTE MANAGEMENT PLAN FOR THE CAPITAL REGION SOLID WASTE MANAGEMENT PARTNERSHIP PLANNING UNIT**

**WHEREAS**, on June 25, 2009, the New York State Department of Environmental Conservation (DEC) issued to the City of Albany, permit # 4-0101-00171/00011 for the purpose of operating and expanding the landfill beyond its current capacity; and

**WHEREAS**, Special Condition 26(b) of the Permit calls for the Capital Region Solid Waste Management Partnership Planning Unit to have a new long term Solid Waste Management Plan (SWMP) in effect by January 1, 2011; and

**WHEREAS**, the Common Council has received a long form Environmental Assessment Form (EAF), as well as a Draft Solid Waste Management Plan for the Capital Region Solid Waste Management Partnership Planning Unit; and

**WHEREAS**, the Council has reviewed the EAF and Draft Solid Waste Management Plan and determined to conduct a coordinated review among all involved agencies; and

**WHEREAS**, the Common Council is the most involved agency and, as such, is the most appropriate Lead Agency to conduct a review of the plan in accord with SEQRA regulations; and

**WHEREAS**, more than 30 days have elapsed since the Common Council of the City of Albany issued a Notice of Intent to all members of the Solid Waste Management Partnership Planning Unit and all other involved agencies; and

**WHEREAS**, no member of the Solid Waste Management Partnership Planning Unit or other involved agency has notified the Common Council of any objection to it taking lead agency status; and

**WHEREAS**, the record demonstrates that the project may have a significant adverse environmental impact, and that a Positive Declaration of Environmental Significance should be issued in accordance with 6 NYCRR 617.7 (a).

**NOW, THEREFORE, BE IT RESOLVED**, that the Common Council be and hereby is designated Lead Agency in accordance with SEQRA regulation 6 NYCRR 617.6 (4).



**BE IT FURTHER RESOLVED**, the Common Council, serving as Lead Agency, hereby issues the attached Positive Declaration requiring the preparation of a Draft Generic Environmental Impact Statement in accordance with 6 NYCRR 617.7 (a).

*Resolution Number 81.72.10R was Co-Sponsored by Council Member Freeman*

**Passed by the following vote of all the Council Members elected voting in favor thereof:**

Affirmative – Bailey, Calsolaro, Commisso, Conti, Fahey, Freeman, Herring, Golby, Igoe, Jenkins-Cox, Konev, O’Brien, Rosenzweig, Sano, and Smith

Affirmative 15 Negative 0 Abstain 0

**Council Member Conti asked and received majority consent to add Resolution 82.72.10R to the pending agenda, which was approved by unanimous voice vote.**

Council Member Conti offered the following, asked for passage and a roll call vote thereon:

**RESOLUTION NUMBER 82.72.10R (MC)**

**RESOLUTION OF THE COMMON COUNCIL ESTABLISHING STANDARD WORK DAYS FOR ADDITIONAL COMMON COUNCIL MEMBERS AS REQUIRED BY REGULATION 315.4 OF THE NEW YORK STATE COMPTROLLER EFFECTIVE AUGUST 12, 2009 AMENDING THE MAXIMUM DAYS PER MONTH THAT WILL BE REPORTED FOR SUCH OFFICIALS**

**BE IT RESOLVED**, that the Common Council of the City of Albany hereby establishes the following as standard work days for elected and appointed officials and will report the following days worked to the New York State and Local Employees' Retirement System based on the record of activities maintained and submitted by these officials to the clerk of this body:

| Title                 | Name          | Standard Work Day<br>(Hrs/day) | Term Begins/Ends | Participates in Employer's Time Keeping System<br>(Y/N) | Days/Month<br>(Based on Record of Activities) |
|-----------------------|---------------|--------------------------------|------------------|---------------------------------------------------------|-----------------------------------------------|
| <b>Council Member</b> | Ronald Bailey | 6                              | 1/1/10-12/31/13  | N                                                       | 18.50                                         |
| <b>Council Member</b> | Anton Konev   | 6                              | 1/1/10-12/31/13  | N                                                       | 23.28                                         |

**BE IT FURTHER RESOLVED**, that the Personnel Director submit an adjustment report amending the number of days previously reported to the Retirement System.

**Passed by the following vote of all the Council Members elected voting in favor thereof:**

Affirmative – Bailey, Calsolaro, Commisso, Conti, Fahey, Freeman, Herring, Golby, Igoe, Jenkins-Cox, Konev, O’Brien, Rosenzweig, Sano, and Smith

Affirmative 15 Negative 0 Abstain 0

**Council Member Smith along with Co-Sponsors Council Members Bailey, Calsolaro, Commisso, Conti, Fahey, Freeman, Golby, Herring, Igoe, Jenkins-Cox, Konev, O’Brien, Rosenzweig and Sano asked for passage of Resolution 69.62.10 (RESOLUTION OF THE COMMON COUNCIL CONFIRMING**





CITY OF ALBANY  
COMMON COUNCIL  
ROOM 202, CITY HALL  
ALBANY, NEW YORK 12207  
TELEPHONE (518) 434-5087  
FAX: (518) 434-5081 WWW.Albanyny.org

May 19, 2010

TO: Involved and Interested Agencies on Attached List

Re: *Capital Region Solid Waste Management Partnership  
Draft Solid Waste Management Plan  
City of Albany*

Dear Sir or Madam:

The Capital Region Solid Waste Management Partnership Planning Unit has prepared a Draft Solid Waste Management Plan ("SWMP") for the Planning Unit. The City of Albany has prepared a Full Environmental Assessment Form ("EAF"), with Part 1 completed, to assist in evaluating the environmental impacts from the draft SWMP.

The City of Albany Common Council has tentatively determined that the proposed project is an Unlisted action under the State Environmental Quality Review Act ("SEQR"), that it would like to act as Lead Agency for purposes of review of the project, and desires to coordinate review of the project. Your agency has been identified as a potential involved or interested agency for the project. Accordingly, I am enclosing a copy of the EAF for your review.

As noted above, the City of Albany Common Council would like to act as lead agency under SEQR for this project, and coordinate the review with all Involved Agencies and Interested Agencies. Pursuant to the provisions of 6 NYCRR § 617.6(b), involved agencies have 30 days in which to agree to a lead agency. The Common Council would ask that your agency consent to it acting as lead agency for the project as soon as possible. This may be accomplished by signing a copy of this letter where indicated, and returning it to the undersigned. In addition, please provide us with any comments you may have on the EAF at your earliest convenience.

Thank you in advance for your cooperation in this matter.

Very truly yours,

  
John Marsolais  
City Clerk

The undersigned hereby consents to the City of Albany  
Common Council acting as Lead Agency, and  
waives the 30 day period  
for consent under 6 NYCRR § 617.6(b).

\_\_\_\_\_  
[signature of authorized person]

Capital Region Solid Waste Management Partnership

Draft Solid Waste Management Plan

Involved Agencies

Hon. Gerald D. Jennings, Mayor  
City of Albany  
City Hall, Eagle Street  
Albany, New York 12207

Hon. Samuel Messina, Supervisor  
Town of Bethlehem  
445 Delaware Avenue  
Delmar, New York 12054

Hon. Ellen McNulty Ryan, Mayor  
Village of Green Island  
20 Clinton Street  
Green Island, New York 12183

Hon. James M. Gaughan, Mayor  
Village of Altamont  
Post Office Box 643  
115 Main Street  
Altamont, New York 12009

Hon. Mark Gleason, General Manager  
City of Watervliet  
City Hall, Room 3  
2-15<sup>th</sup> Street  
Watervliet, New York 12189

Hon. Daniel Dwyer, Mayor  
City of Rensselaer  
505 Broadway  
Rensselaer, New York 12144

Hon. Ken Runion, Supervisor  
Town of Guilderland  
Guilderland Town Hall, 2d Floor  
5209 Western Turnpike  
Guilderland, New York 12084

Hon. Thomas Dolin, Supervisor  
Town of New Scotland  
2029 New Scotland Road  
Slingerlands, New York 12159

Hon. Michael Hammond, Supervisor  
Town of Knox  
Knox Town Hall  
Post Office Box 56  
Knox, New York 12107

Hon. Richard Rapp, Supervisor  
Town of Westerlo  
Town Hall  
Post Office Box 148  
Westerlo, New York 12193

Hon. George J. Gebe, Jr., Supervisor  
Town of Berne  
Town Hall  
Post Office Box 57  
Berne, New York 12023

Hon. Jost Nickelsberg, Supervisor  
Town of Rensselaerville  
78 Barger Road  
Medusa, New York 12120

Hon. Robert Conway, Mayor  
Village of Voorheesville  
Post Office Box 367  
Voorheesville, New York 12186

Hon. Richard McCabe, Supervisor  
Town of East Greenbush  
225 Columbia Turnpike  
Rensselaer, New York 12144

New York State Department of Environmental Conservation  
Region 4  
1130 North Westcott Road  
Schenectady, New York 12306

New York State Department of Environmental Conservation  
Division of Solid and Hazardous Materials  
625 Broadway  
Albany, New York 12233-1750

Environmental Notice Bulletin  
625 Broadway  
Albany, NY 12233-1750

FAX 518-402-9167  
[enb@gw.dec.state.ny.us](mailto:enb@gw.dec.state.ny.us)

Capital Region Solid Waste Management Partnership

Draft Solid Waste Management Plan

Interested Agencies

Hon. Paula A. Mahan, Supervisor  
Town of Colonie  
Colonie Town Hall  
534 New Loudon Road  
Loudonville, New York 12128

Hon. John T. McDonald III, Mayor  
City of Cohoes  
97 Mohawk Street  
Cohoes, New York 12047

Hon. Frank Leak, Mayor  
Village of Colonie  
2 Thunder Road  
Albany, New York 12205

Hon. Thomas Coates, Mayor  
Village of Menands  
250 Broadway  
Menands, New York 12204

Hon. Henry C. Traver, Supervisor  
Town of Coeymans  
18 Russell Avenue  
Ravena, New York 12143

Hon. John T. Bruno, Mayor  
Village of Ravena  
15 Mountain Road  
Ravena, New York 12143

Hon. Michael G. Breslin, County Executive  
County of Albany  
112 State Street, Room 200  
Albany, New York 12207

Hon. Kathy Jimino, County Executive  
Rensselaer County Office Building  
1600 7<sup>th</sup> Avenue, 5<sup>th</sup> Floor  
Troy, New York 12180

Hon. Susan Savage, Chair  
Schenectady County Legislature  
Schenectady County Office Building  
620 State Street  
Attention: Manager's Office  
Schenectady, New York 12305

Hon. Willard Peck, Chair  
Saratoga County Board of Supervisors  
40 McMaster Street  
Ballston Spa, New York 12020

Mr. Dennis Heaton, Executive Director  
Montgomery-Otsego-Schoharie Solid Waste Management Authority  
Post Office Box 160  
2783 Route 7  
Howes Cave, New York 12092

Ms. Joanna Redden, Executive Director  
Eastern Rensselaer County Solid Waste Management Authority  
21428 NY 22  
Hoosick Falls, New York 12090

Mr. William Chaberlain  
Solid Waste Management Coordinator  
Bureau of Sanitation  
Department of Public Works  
City of Troy  
City Hall  
1 Monument Square  
Troy, New York 12180

Mr. Bruce Goodall  
Town of Schodack  
Director of Transfer Station  
256 Schuurman Road  
Post Office Box 436  
East Schodack, New York 12163





CITY OF ALBANY  
COMMON COUNCIL  
ROOM 202, CITY HALL  
ALBANY, NEW YORK 12207  
TELEPHONE (518) 434-5087  
FAX: (518) 434-5081 WWW.Albanyny.org

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**TO:** Involved & Interested Agencies on Attached List

**FROM:** John C. Marsolais, *Albany City Clerk & Clerk of the Common Council*

**RE:** *Capital Region Solid Waste Management Partnership, City of Albany  
State Environmental Quality Review (SEQR)  
POSITIVE DECLARATION  
Notice of Intent to Prepare a Draft EIS - Determination of Significance*

**DATE:** September 23, 2010

**PLEASE SEE THE ATTACHED SEQR POSITIVE DECLARATION**

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State Environmental Quality Review  
**POSITIVE DECLARATION**  
Notice of Intent to Prepare a Draft EIS  
Determination of Significance

**Project Number****Date** 09/23/2010

This notice is issued pursuant to Part 617 of the implementing regulations pertaining to Article 8 (State Environmental Quality Review Act) of the Environmental Conservation Law.

The City of Albany Common Council as lead agency, has determined that the proposed action described below may have a significant impact on the environment and that a Draft Environmental Impact Statement will be prepared.

**Name of Action:**

Draft Solid Waste Management Plan for the Capital Region Solid Waste Management Partnership

**SEQR Status:** Type 1 Unlisted **Scoping:** No  Yes  If yes, indicate how scoping will be conducted:**Description of Action:**

A new Solid Waste Management Plan (SWMP) for the Capital Region Solid Waste Management Partnership Planning Unit defines the key elements of the future solid waste management program for the region, through the year 2030.

**Location:** (Include street address and the name of the municipality/county. A location map of appropriate scale is also recommended.)

Multiple municipalities in Albany and Rensselaer Counties.

**Reasons Supporting This Determination:**

The proposed action will set important precedent for future solid waste management projects in the region. The new SWMP for the Planning Unit defines key elements for the future solid waste management program for the region. These elements are likely to result in future changes in local solid waste management programs and may dictate the development of future solid waste management support facilities.

Since the SWMP is a broad policy and planning document, rather than a site specific project, a Draft Generic Environmental Impact Statement will be prepared.

**For Further Information:**

Contact Person: John C. Marsolais, City Clerk

Address: City Hall Room 202, 24 Eagle Street, Albany, NY 12207

Telephone Number: 518. 434.5090

**A copy of this notice must be sent to:**

Department of Environmental Conservation, 625 Broadway, Albany, New York 12233-1750

Chief Executive Officer, Town/City/Village of Planning Unit Member Communities

Any person requesting a copy

All Involved agencies

Applicant (If any)

Environmental Notice Bulletin, 625 Broadway, Albany, NY 12233-1750

Capital Region Solid Waste Management Partnership

Draft Solid Waste Management Plan

Involved Agencies

Hon. Gerald D. Jennings, Mayor  
City of Albany  
City Hall, Eagle Street  
Albany, New York 12207

Hon. Samuel Messina, Supervisor  
Town of Bethlehem  
445 Delaware Avenue  
Delmar, New York 12054

Hon. Ellen McNulty Ryan, Mayor  
Village of Green Island  
20 Clinton Street  
Green Island, New York 12183

Hon. James M. Gaughan, Mayor  
Village of Altamont  
Post Office Box 643  
115 Main Street  
Altamont, New York 12009

Hon. Mark Gleason, General Manager  
City of Watervliet  
City Hall, Room 3  
2-15<sup>th</sup> Street  
Watervliet, New York 12189

Hon. Daniel Dwyer, Mayor  
City of Rensselaer  
505 Broadway  
Rensselaer, New York 12144

Hon. Ken Runion, Supervisor  
Town of Guilderland  
Guilderland Town Hall, 2d Floor  
5209 Western Turnpike  
Guilderland, New York 12084

Hon. Thomas Dolin, Supervisor  
Town of New Scotland  
2029 New Scotland Road  
Slingerlands, New York 12159

Hon. Michael Hammond, Supervisor  
Town of Knox  
Knox Town Hall  
Post Office Box 56  
Knox, New York 12107

Hon. Richard Rapp, Supervisor  
Town of Westerlo  
Town Hall  
Post Office Box 148  
Westerlo, New York 12193

Hon. George J. Gebe, Jr., Supervisor  
Town of Berne  
Town Hall  
Post Office Box 57  
Berne, New York 12023

Hon. Jost Nickelsberg, Supervisor  
Town of Rensselaerville  
78 Barger Road  
Medusa, New York 12120

Hon. Robert Conway, Mayor  
Village of Voorheesville  
Post Office Box 367  
Voorheesville, New York 12186

Hon. Richard McCabe, Supervisor  
Town of East Greenbush  
225 Columbia Turnpike  
Rensselaer, New York 12144

New York State Department of Environmental Conservation  
Region 4  
1130 North Westcott Road  
Schenectady, New York 12306

New York State Department of Environmental Conservation  
Division of Solid and Hazardous Materials  
625 Broadway  
Albany, New York 12233-1750

Environmental Notice Bulletin  
625 Broadway  
Albany, NY 12233-1750

FAX 518-402-9167  
[enb@gw.dec.state.ny.us](mailto:enb@gw.dec.state.ny.us)





Capital Region Solid Waste Management Partnership

Draft Solid Waste Management Plan

Interested Agencies

Hon. Paula A. Mahan, Supervisor  
Town of Colonie  
Colonie Town Hall  
534 New Loudon Road  
Loudonville, New York 12128

Hon. John T. McDonald III, Mayor  
City of Cohoes  
97 Mohawk Street  
Cohoes, New York 12047

Hon. Frank Leak, Mayor  
Village of Colonie  
2 Thunder Road  
Albany, New York 12205

Hon. Thomas Coates, Mayor  
Village of Menands  
250 Broadway  
Menands, New York 12204

Hon. Henry C. Traver, Supervisor  
Town of Coeymans  
18 Russell Avenue  
Ravena, New York 12143

Hon. John T. Bruno, Mayor  
Village of Ravena  
15 Mountain Road  
Ravena, New York 12143

Hon. Michael G. Breslin, County Executive  
County of Albany  
112 State Street, Room 200  
Albany, New York 12207

Hon. Kathy Jimino, County Executive  
Rensselaer County Office Building  
1600 7<sup>th</sup> Avenue, 5<sup>th</sup> Floor  
Troy, New York 12180

Hon. Susan Savage, Chair  
Schenectady County Legislature  
Schenectady County Office Building  
620 State Street  
Attention: Manager's Office  
Schenectady, New York 12305

Hon. Willard Peck, Chair  
Saratoga County Board of Supervisors  
40 McMaster Street  
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Mr. Dennis Heaton, Executive Director  
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2783 Route 7  
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Ms. Joanna Redden, Executive Director  
Eastern Rensselaer County Solid Waste Management Authority  
21428 NY 22  
Hoosick Falls, New York 12090

Mr. William Chaberlain  
Solid Waste Management Coordinator  
Bureau of Sanitation  
Department of Public Works  
City of Troy  
City Hall  
1 Monument Square  
Troy, New York 12180

Mr. Bruce Goodall  
Town of Schodack  
Director of Transfer Station  
256 Schuurman Road  
Post Office Box 436  
East Schodack, New York 12163

**State Environmental Quality Review  
Notice of Completion of Draft Generic Environmental Impact Statement  
And  
Notice of SEQR Hearing**

**Lead Agency:** City of Albany Common Council

**Address:** Albany City Hall, 24 Eagle Street, Albany, New York 12207

**Date: October 5, 2010**

This notice is issued pursuant to Part 617 of the implementing regulations pertaining to Article 8 (State Environmental Quality Review Act) of the Environmental Conservation Law.

A Draft Generic Environmental Impact Statement (DGEIS) has been completed and accepted for the proposed action described below. Written comments are requested and will be accepted by the contact person until November 19, 2010. A public hearing on the DGEIS will be held on October 25, 2010 at 7:00PM in the Common Council Chambers, City Hall, 2<sup>nd</sup> Floor for the purpose of accepting public comment on the DGEIS.

**Name of Action:** Draft Solid Waste Management Plan for the Capital Region Solid Waste Management Partnership

**Description of Action:** A new Solid Waste Management Plan (SWMP) for the Capital Region Solid Waste Management Partnership Planning Unit defines the key elements of the future solid waste management program for the region, through the year 2030.

**Location:** Multiple municipalities in Albany and Rensselaer counties.

**Potential Environmental Impacts:** The elements of the SWMP, along with the preferred administrative structure and implementation schedule are intended to progressively reduce the amount of materials that require disposal through the year 2030. Overall, no significant adverse environmental impacts are anticipated to result from adopting and implementing this SWMP. Beneficial impacts to the community, the environment and the solid waste management system currently in place for the Planning Unit are anticipated.

**A copy of the Draft / Final EIS may be obtained from:**

Contact Person: John Marsolais, City Clerk

Address: City Hall Room 202,  
24 Eagle Street  
Albany, New York 12207

Telephone Number: 518.434.5090

The document may be found at the Capital Region Solid Waste Management Partnership web site at [www.capitalregionlandfill.com](http://www.capitalregionlandfill.com) and the Albany City website at [www.albanyny.gov](http://www.albanyny.gov)

**A copy of this notice must be sent to:**

A newspaper of general circulation in the area of potential impacts (Albany Times-Union)

Department of Environmental Conservation, 625 Broadway Albany, New York 12233-1750

The Mayor or Supervisor of each Town/ City/Village that is a member of the Capital Region Solid Waste Management Partnership Planning Unit

Any person who has requested a copy of the DGEIS

Any other involved agencies

Environmental Notice Bulletin 625Broadway Albany, NY 12233-1750

**Copies of the DGEIS must be distributed according to 6NYCRR 617.12(b).**

# Final Generic Environmental Impact Statement For the Draft Solid Waste Management Plan

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## Capital Region Solid Waste Management Partnership Planning Unit

CHA Project #: 19283

*Prepared For:*

**Capital Region Solid Waste Management Partnership  
Albany, NY**



*Prepared by:*

**CHA**

III Winners Circle  
Albany, NY 12205

February 2011



# Final Generic Environmental Impact Statement For the Draft Solid Waste Management Plan

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## Capital Region Solid Waste Management Partnership Planning Unit

**LEAD AGENCY:**

City of Albany Common Council  
24 Eagle Street  
Albany, NY

**PROJECT SPONSOR:**

City of Albany Department of General Services  
1 Connors Boulevard  
Albany, NY

**CONTACT PERSON:**

John C. Marsolais, City Clerk  
City Hall, Room 202  
24 Eagle Street  
Albany, NY 12207  
(518) 434-5090



**FGEIS ACCEPTED AS COMPLETE:**

February 7, 2011

CHA Project #: 19283

**PREPARED BY:**

**CHA**  
III Winners Circle  
Albany, NY 12205





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### Appendices

Appendix A – Written Comments on the Draft SWMP/DGEIS

Appendix B – Transcript of the Public Hearing Held on October 25, 2010.



## 1.0 INTRODUCTION AND SUMMARY

This document is the Final Generic Environmental Impact Statement (FGEIS) for the Draft Solid Waste Management Plan (SWMP) for the Capital Region Solid Waste Management Partnership Planning Unit (formerly known as ANSWERS). Currently, the Planning Unit operates as an informal consortium with the City of Albany as the lead participant. As of January 2009, the Planning Unit included 2 cities, 7 towns, and 3 villages in Albany County, as well as the City of Rensselaer and the Town of East Greenbush, in Rensselaer County.

The SWMP for the Planning Unit defines the key elements of the future solid waste management program for the region, for the years from 2011 through 2030. It includes all the components of a full solid waste management plan as required by NYSDEC regulations. The major elements of the SWMP are:

- the continued utilization of existing solid waste management facilities and programs in the Planning Unit;
- the expansion of existing waste reduction and recycling programs throughout the Planning Unit; and
- the development of new capacity for both recycling and for the treatment of post-recyclable solid waste on a regional basis to provide the necessary economies of scale to support a more fully integrated solid waste management program.

A Steering Committee consisting of key stakeholders was appointed for purposes of the providing input and guidance assisting in the preparation of the SWMP. The Steering Committee included a representative from each community that is a member of the Planning Unit as well as other stakeholders. After its first meeting in November of 2008, the Steering Committee met on a monthly basis from January 2009 through March of 2010. These meetings were open to the public. The minutes and presentations of these meetings were posted on a website to provide for transparency and broad public access. At its meeting on February 9, 2010, the Steering Committee endorsed the preferred alternative of the SWMP that had been presented to it. At its final meeting on March 9, 2010, the Steering Committee reviewed the changes to the text of the draft SWMP that had been made as per the February meeting, and the SWMP was sent to the City of Albany Common Council. The Common Council is the Lead Agency for the review of the SWMP pursuant to the State Environmental Quality Review Act (SEQR) under Part 617 of the New York Compilation of Codes Rules and Regulations.

The Common Council initiated lead agency coordination for the SWMP on May 19, 2010 and declared itself Lead Agency for this action by adopting Resolution No. 81.71.10R on July 19, 2010. In its resolution of July 19, 2010, the Council also issued a Positive Declaration, determining that a Draft Generic Environmental Impact Statement (DGEIS) was needed for the SWMP. Upon this determination, the DGEIS documents were prepared and submitted to the Common Council on August 24, 2010. The Common Council accepted the SWMP/DGEIS as complete for purposes of SEQR by resolution 90.91.10R on October 4, 2010. The acceptance of the SWMP/DGEIS, its availability for review, and the opportunity to provide comment was noticed in the October 9, 2010 edition of the Albany Times-Union and the October 13, 2010

edition of the Environmental Notice Bulletin. A public hearing was conducted by the Common Council on October 25, 2010, and the public comment period closed on November 19, 2010.

This FGEIS has been prepared and accepted in accordance with the requirements of SEQR. The FGEIS consists of the Draft SWMP/DGEIS (which is incorporated by reference in its entirety), this introduction and summary (Section 1), the response to comments (Section 2), the revisions to the Draft SWMP (Section 3), all written comments on the Draft SWMP/DGEIS (Appendix A), and the transcript of the public Hearing held on October 25, 2010 (Appendix B).

The only change to the SWMP, as presented in Section 3 of this FGEIS, is a revised Figure 6-1 Implementation Schedule. The changes presented in this revised schedule do not have a material effect on the conclusions reached in the Draft SWMP/DGEIS.

As noted in the Draft SWMP/DGEIS, the elements of the SWMP, along with the preferred administrative structure and implementation schedule are intended to progressively reduce the amount of materials that require disposal through the year 2030. Overall, no significant adverse environmental impacts are anticipated to result from adopting and implementing this SWMP. Beneficial impacts to the community, the environment and the solid waste management system currently in place for the Planning Unit are anticipated.

There are several key beneficial impacts that will result from the successful implementation of this SWMP. This SWMP includes long-range plans and strategies that upon implementation will increase the recovery of the currently designated recyclable materials as well as add additional designated materials for mandatory recycling, among other measures, and is expected to result in an overall waste diversion rate of 65% by the year 2020. The development and operation of a regional solid waste treatment facility for post-recyclable solid waste would reduce the amount of waste requiring disposal at a landfill facility to 13.5% of total waste generation, or a landfill diversion rate of almost 87%.

Overall, the beneficial impacts related to the SWMP include the reduction in the need for new disposal infrastructure and associated impacts related to operations, job creation, the reduction of GHG emissions, and energy conservation. Less land will be necessary for disposal and therefore there will be a reduction in the potential for long-term environmental liabilities from these facilities. Enriched soil quality will result from the use of composting, along with reduced energy demands for manufacturing, as well as decreased demand for virgin materials and natural resources and the associated reduction in environmental impacts.

After reviewing the comments and respective responses, there are no substantive changes to the conclusions presented in the DGEIS with respect to the impacts anticipated to result from the SWMP. Therefore, this FGEIS concludes that no significant adverse environmental impacts are anticipated to result from adopting and implementing this SWMP.

## 2.0 RESPONSE TO COMMENTS

This section of the FGEIS presents a summary of the comments made on the SWMP/DGEIS by subject area. When multiple comments were made on a single topic, the substance of the comment has been summarized and excerpts of the individual comments are presented. Both the summarized and individual comments are presented in italic type. A response to each comment is presented after each comment.

For organization purposes the comments and responses have been numbered within each subject area. Each comment has been attributed to one or more individual commentator, also for organizational purposes. Table 2-1 presents an index of commentators.

| TABLE 2-1<br>INDEX OF COMMENTATORS                                                                                                                                                                                                                                     |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <p><b>ORAL COMMENTS</b></p> <p><b>OC1: Tom Ellis</b></p> <p><b>OC2: Russell Ziemba</b></p> <p><b>OC3: Jim Travers</b></p> <p><b>OC4: Greg Bell</b></p> <p><b>OC5: Sally Cummings</b></p>                                                                               |
| <p><b>WRITTEN COMMENTS</b></p> <p><b>WC1: Andy Arthur</b></p> <p><b>WC2: Tom Ellis</b></p> <p><b>WC3: Sally Cummings</b></p> <p><b>WC4: Barbara Warren</b></p> <p><b>WC5: Timothy Truscott</b></p> <p><b>WC6: Bertil K. Schou</b></p> <p><b>WC7: James Travers</b></p> |

## REDUCTION, REUSE AND RECYCLING

### GENERAL

**Comment RRR1: The Plan lacks sufficient detail on how to implement waste reduction and recycling programs.**

*“The plan lacks clear goals and processes for members of the loose coalition community of ANSWERS to effectively increase diversion rates.” WCI*

*“With respect to waste minimization, reuse, and recycling, the report is not really a “plan” as the word is usually understood, with specific strategies, targets and dates to achieve identified goals, but an outline or a series of ideas, often vague, planners can pick and choose from, or ignore as they see fit. If aggressive education, enforcement, waste reduction and recycling programs are going to be set up and utilized, why are precise details of these initiatives so skimpy or nonexistent in the report?” WC2*

**Response:** The SWMP includes all of the elements for both a Comprehensive Recycling Analysis and Local Solid Waste Management Plan as required by NYSDEC Regulations (see 6 NYCRR 360-1.9(f) and 6 NYCRR 360-15.9, respectively). In addition, the SWMP includes all of the waste reduction and recycling elements of the May 2009 SWMP Modification, which is incorporated by reference. Goals and objectives of the SWMP are presented in Section 1.3 of the Draft SWMP/DGEIS.

**Comment RRR2: Government has an important role in promoting efficient markets, by fostering remanufacturing, recycling, and composting.**

*“Landfills and incinerators are most expensive way to dispose of most wastes. It’s almost always cheaper to beneficially use waste and scrap products in the manufacturing of new products”. WCI*

*“Whenever it’s not cost-effective for private businesses to engage in material recovery, government should step in using subsidies from taxes on waste disposal to increase material recovery.” WCI*

*“Transfer stations should remain publicly owned, especially for recycling, composting, and remanufacturing collection, although communities can choose to contract out their administration if it makes sense for them.” WCI*

*“Glass fines, when not marketable should be used for aggregate, road construction, and blasting materials.” WCI*

*“...glass is especially difficult to recycle once it is collected.” Andela Products of Richfield Springs, New York is cited as a company which manufactures products using pulverized glass materials. WC5*

**Response:** The SWMP endorses the promotion of efficient markets for recyclable materials, remanufacturing, and the composting of source separated organic waste to meet its goals of maximizing waste reduction and recycling. The Plan includes an extensive discussion regarding the methods available to subsidize material recovery and recycling programs, which often cost more than programs which simply rely on waste disposal facilities.

With respect to comment on transfer stations, this seems to refer to existing convenience type transfer stations/recycling facilities that are currently operated by several of the municipalities that are members of the Planning Unit. The SWMP assumes that these sites would continue to operate as determined by their respective municipal owners.

Regarding the comment on the use of glass fines, this may refer to the glass residue from the processing of recyclable glass containers. Using this residue for a beneficial purpose, rather than being disposed of, is consistent with the intent of the SWMP.

**Comment RRR3: The SWMP should include a state-of-the-art system for waste reduction re-use and recycling**

*“As far as I know the City of Albany has no formal waste minimization or reuse programs of any type at this time.” OC1*

*“ ..the City of Albany has the opportunity to devise and implement a state-of-the-art system for waste reduction, re-use and recycling which will benefit its residents for decades to come. The City’s leaders should seize the opportunity and lead Albany into a new era.” WC5*

**Response:** The expansion of waste reduction and recycling programs is one of the central themes of the SWMP. Public education and outreach programs have been developed and are being implemented to help achieve the waste reduction and recycling goals of the SWMP (see response to Comment RRR16). Besides the continued expansion of existing programs for recycling and waste reduction, the SWMP also calls for the addition of new mandatory recyclable materials, and the establishment of one or more compost facilities to process source separated organic waste (SSOW). Finally, the SWMP also calls for the development of a regional solid waste treatment facility to further minimize landfill disposal requirements for post recyclable solid waste. With the successful implementation of all these programs and facilities, it is expected that only 13% of total waste generation would require landfill disposal, or a landfill diversion rate of about 87%.

**WASTE REDUCTION**

**Comment RRR4: The SWMP provides few details about how, when, and if, the waste reduction programs it identifies will be implemented**

*“The CHA report has good ideas and others SPB opposes. For example, on pages 6-3 and 6-4 of the March 11, 2010 draft, there is a list of ten steps the planning unit can take to minimize residential waste generation. These include:*

- *Promote PAYT [Pay As You Throw] system implementation;*
- *Educate consumers about how to consider waste reduction and product packaging when they are making purchasing decisions;*
- *Promote the use of existing programs that re-use or redistribute materials in the second-hand marketplace;*
- *Promote the concept of repair instead of replacement;*
- *Aggressive education and enforcement programs; and*
- *Aggressive waste reduction and recycling programs.*

*These ideas are all excellent. However, the report provides very few details about how, when, and if, they could or would ever be implemented.” WC2*

*“More emphasis should be placed on capturing materials discarded by university students”. OC2*

**Response:** See Response to Comment RRR1.

Regarding PAYT, see Page 6-4 of the SWMP.

Consumer education on waste reduction and re-use is and will continue to be undertaken by the PURC through a number of media and venues. See Page 6-4.

Regarding capturing materials discarded by university students for re-use and recycling, as noted on Page 6-4, the PURC will seek to partner with organizations (which could include the local colleges and universities) to promote the use of the existing local reuse infrastructure.

**Comment RRR5: Waste reduction measures should include both legislative measures and local programs.**

*“It is important to look at two approaches to Waste Reduction for our purposes.*

1. *Legislative Measures Geared Toward Extended Producer Responsibility or Product Stewardship.*
2. *Reductions in Waste Collected for Disposal by Municipal Systems.*
  - a. *Backyard Composting*
  - b. *Special Collections*
  - c. *Requirements for Large Deliveries*
  - d. *Web Exchanges and Public Information*
  - e. *Demolition and Renovation*
  - f. *Flea Markets & Backyard Sales*
  - g. *Zero Waste Event promotional Materials” WC5*

*“I ask you to look at a comprehensive approach, perhaps even outlawing some types of things, plastic bags, minor things like that create a hazard, you know, people will change their ways of doing things.” OC2*

**Response:** The SWMP incorporates waste reduction measures already adopted in the 2009 SWMP Modification, and as such the Planning Unit Recycling Coordinator is already implementing many of the specific suggestions made by Commentator WC5.

The SWMP also includes a specific provision to support statewide legislative measures for Product Stewardship.

**Comment RRR6: One commentator noted that long-term waste reduction policies may help address some fiscal challenges being experienced at various levels of government.**

*“At the local government level, beneficial programs which are not optimally funded because of budget constraints will have more opportunity to serve the people they were designed to serve. At the state and national level, not as much of the governments’ annual budgets will be consumed by the need clean up waste sites. Individual Citizens will have more money available in their household budgets to accomplish things which make their lives better.*

*Government budgets at the local, state and national level are being seriously strained today. At all levels of government, ways need to be found to reduce operating costs.*

*“Long-range waste reduction policies are a logical, economically viable and important alternative to today’s situation.” WC5*

**Response:** The comment is noted. Reduction in the expenses associated with waste disposal are among the many benefits of waste reduction.



**RE-USE**

**Comment RRR7: The SWMP should have more discussion of reuse programs.**

*Few details are provided to “promote the use of existing programs that reuse or redistribute materials in the secondhand marketplace...idea to minimize residential waste generation mentioned in the report is to promote the concept of repair instead of replacement, but where are the details on this? OC1*

*“CHA’s use of the word “detailed” is problematic. Where are the details? Reuse is barely discussed in the report.” WC2*

*There is ample infrastructure available to provide opportunities for the re-use of items. These opportunities simply need to be promoted, and the public needs to be educated about them.... Organizations Which Promote and Facilitate Re-use of Items:*

- |                                                                                                                                                                                           |                                                                                                                                                                                       |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <ul style="list-style-type: none"> <li>-The Freecycle Network™</li> <li>-AlbanyNYReUseIt Group</li> <li>-Habitat Re-Store</li> <li>-Historic Albany Foundation Parts Warehouse</li> </ul> | <ul style="list-style-type: none"> <li>-ElFun Society Computer and Peripherals Rehab</li> <li>-Capital City Rescue Mission</li> <li>-Goodwill</li> <li>-Salvation Army WC5</li> </ul> |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

*“Actively promote the organizations in the region which re-use goods and help publicize and promote the services these organizations provide.” WC5*

*“The public needs to be educated as to the value of re-use and how to take advantage of these opportunities.” WC5*

**Response:** Re-use initiatives from the 2009 SWMP Modification are incorporated by reference. We are in general agreement with WC5’s comment that there is ample infrastructure to provide opportunities for re-use, and would note that several of the organizations and facilities are already advertised and promoted on the Planning Unit Recycling website [www.capitalregionrecycling.com](http://www.capitalregionrecycling.com) . There are over 30 companies listed on the website for various reuse categories. More companies and facilities will continue to be listed as the Planning Unit Recycling Coordinator is made aware of them.

**Comment RRR8: More emphasis should be placed on building deconstruction as a means of reducing waste by re-using salvaged building materials.**

*“An emerging industry which has the potential for significantly reducing C&D in the waste stream is that of building deconstruction..... This approach allows renovation projects to be undertaken using recycled materials and actually saves on total project costs. The rate of recycling in these projects may range from 75 percent to 97 percent, and thereby keeps large volumes of material out of landfills” WC5*

*“I would ask that this common council look at an ordinance that requires fifty percent of construction and demolition materials be salvaged.” OC2*

*Building rehab should be favored over deconstruction. OC2*

**Response:** The SWMP recognizes that waste minimization in the construction and demolition sector can be advanced by promoting policies which favor rehabilitation/reconstruction over demolition/new construction, and where building demolition is necessary, policies which favor building deconstruction and material recovery for reuse and recycling over more typical current practices of total teardown.

The City of Albany is leading the way in this effort with its recently enacted Ordinance Number 68.102.09 (as amended) amending chapters 133 (Building Construction) and 375 (Zoning) in relation to demolition procedures. Among other things the ordinance now requires review by the Planning Board prior to the issuance of permits for building demolition. As part of the Board’s review, consideration is given to whether building restoration is a more appropriate alternative. In addition, the ordinance requires a minimum of twenty-five percent (25%) of construction and demolition debris generated from applicable construction, remodeling, or demolition projects shall be diverted from disposal to landfills through recycling, reuse and diversion programs. Separate calculations, plans and reports are required for the construction portion and demolition portion of projects.

**Comment RRR9: Local government should support and subsidize reuse operations and should pick up used furniture for re-use.**

*“Reuse operations can and should be supported by government assistance. Integrating reuse operations with other government programs can maximize the overall benefits to a municipality...Municipalities must overcome the idea that because they are in the waste business they cannot subsidize reuse. It may be useful to find the funds from different departments because of the multiple benefits. The reality is that, over time, small initial subsidizes can benefit the municipality into the future. This is very true of Urban Ore in Berkeley California. This was initially operated as a non-profit and Berkeley provided support. Now it is a profit-making enterprise with quite a few jobs. Yet Berkeley is provided with an outlet for goods that is less costly than trucking them for landfill disposal.” WC5*

*“The City of Albany, as well as other municipalities in the region, could make pick-ups of used furniture and transport it to the Mission storage facility. One might ask, how can the City justify the expense of collections? The answer is that if the furniture is not re-used, the City will collect it anyway as part of its garbage collections and it will end up in the City landfill. Landfilling will be a more expensive solution to the disposal of used furniture than will collection for re-use.” WC5*

**Response:** The commentator suggests that local government should support re-use infrastructure that he had previously noted were ample and adequate (see Comment RRR7). There is no explanation of how this support should be provided, nor is there a budgetary estimate of the amount of support that should be provided or a recommendation on a source of revenue that can be used to provide that support. Therefore, the comment is not substantive.

With respect to the comment about the City of Albany providing collection of used furniture, it should be noted that many of the facilities and organizations which accept reusable furniture donations will provide a pick-up service upon request. It is not reasonable to have the City incur this expense when this alternative is available.

**RECYCLING**

**Comment RRR10: Residential recycling rates will not improve significantly unless organic materials are recycled.**

*“As much as we may try to improve the rate of residential recycling, it is impossible to significantly improve the overall recycling rate of the total non-organic portion of the solid waste stream by more than a few percent. This does not mean that the improvement of residential recycling should not be pursued, but we should recognize its limits in improving the overall recycling rate” WC5*

**Response:** The comment is noted. Maximum recycling rates without the addition of new designated recyclables, including SSOW, was examined as part of Alternative Scenario #1. Under that scenario, the estimated maximum recyclable diversion rate is approximately 49%, about 16 percentage points lower than the estimated maximum diversion of 65% for the proposed SWMP.

**Comment RRR11: More resources should be provided to education and enforcement aimed at increasing recycling in the commercial sector.**

*The city and towns should invest most of it's education money in putting new recycling bins and increasing recycling collection into new areas, such as large apartment buildings and commercial areas. WCI*

*“There is great potential for recovering recyclable materials from the commercial sector of the solid waste stream. The commercial sector deserves as much of the educational and enforcement resources as the residential sector, and more.” WC5*

*“Mandatory source separation of recyclables from commercial, industrial and institutional sources was established when Section 313-16 was added to the City Code on October 1, 1990. ... yet it has never been seriously enforced. In fact, there is not information available on what the recycling rate is for the commercial sector of the solid waste stream.” WC5*

*“In Albany, most of the public discussion about recycling seems to involve residential recycling. While residential recycling is important, that segment of the solid waste stream does not have the greatest potential for recovering significant volumes of discarded material. The largest volume of recyclable material is probably on the commercial recycling area (including multiple-unit dwellings), based upon the experience of other recycling programs” such as in Onondaga County, NY. WC5*

*“While no formal study information is available, anecdotal evidence indicates that New York State government heavily to the problem of solid waste disposal in the Albany area. State employees do not receive enough recycling education and recycling is not enforced. As a consequence, many recyclable materials (especially paper) end up in the landfill when they could be recycled into new products. Similarly, large quantities of organic materials are landfilled when they could be composted.” WC5*

**Response:** As part of the Inter-Municipal Agreement between the Planning Unit municipalities executed in connection with the SWMP Modification, all of the municipalities have enacted local laws or ordinances which mandate recycling from commercial establishments. The SWMP incorporates the SWMP Modification by reference.

In December 2009, the City of Albany sent a written notification to all commercial property owners reminding them of the mandatory source separation requirements. After that letter was circulated, the Department of General Services requested that the major commercial haulers in the City provide information about the number of new accounts for recycling collection at commercial establishments in the City since December 2009. Based upon the response from two commercial haulers, as of June 2010, an additional 175 commercial customers had added recycling services since December 2009

Regarding New York State Government recycling programs, these programs are managed by the New York State Office of General Services (OGS). The OGS issues an annual report on the results of its waste reduction and recycling programs, which can be accessed on the internet at <http://www.ogs.state.ny.us/>. Based on the most recent annual report, over 4,000 tons of recyclable materials are recovered and diverted from landfill disposal from the OGS state office complexes that are located in the Planning Unit. This most recent report does not include the tonnage of source separated food waste that is now being recovered in dining facilities in the Empire State Plaza. That program, which started in April 2009, is described on Pages 5-11 of the SWMP.

**Comment RRR12: “Public space recycling should be standard.**

*Every public trash can in the SWMP must be next to a recycling bin – preferably larger and more visible than the trash can. WC1*

**Response:** The City is in the process of installing recycling containers next to existing trash receptacles in public places and has already done this at 20 locations. More public space recycling containers have been earmarked in the City’s 2011 budget.

**RECYCLING GOALS**

**Comment RRR13: The SWMP’s 65% recycling goal is not aggressive enough.**

*Plan identifies 65% as the maximum achievable reduction; a higher reduction is desirable but not pursued by the plan .... this is done to help justify a new waste disposal facility. OCI*

*“...recycling goals to set and not to meet is just a terrible thing. We had a recycling goal several years ago but we really didn't pay any attention to it, there's no belief that we'll pay attention to it in the future.” OC3*

**Response:** As noted in Section 6.1.1 of the SWMP, the waste diversion and recycling goals reflect both current goals (as set forth through 2011 in the SWMP Modification) and the maximum expected diversion that is achievable with the implementation of the expanded waste reduction and recycling elements that are part of the SWMP. Section 6.1.1 also notes that implementation of a continuous improvement process in connection with both current and future waste reduction and recycling program efforts could help achieve results beyond the stated goals. Discussion and analysis of the maximum expected diversions are presented in Sections 4.3 and 4.5 of the SWMP.

**Comment RRR14: The SWMP should have recycling goals for the years 2021 through 2030.**

*“... the new plan defines the key elements of the future solid waste management program for the region for the years 2011 through 2030. On Page Executive Summary 5 this contains a timeline for each year from 2010 to 2020 for total waste diversion and recycling goals with a goal of 65 percent established for the year 2020 but no numbers are provided for the years 2021 through 2030, this is very a serious omission.” OCI*

*“On the one hand CHA insists the planning unit will pursue "aggressive education and enforcement programs" and "aggressive waste reduction and recycling programs," but then says it will be very difficult to get above a 65 percent rate even twenty years from now. In life we know that if you aim low you achieve low; aim high and you might achieve great things. “If, with "aggressive education and enforcement programs" and "aggressive waste reduction and recycling programs," a 65 percent diversion rate is to be achieved by 2020, then surely diversion rates far above 65 percent should be attainable by 2030?” WC2*

**Response:** Regarding waste diversion and recycling goals beyond the year 2020, there is no need to go beyond the 10 year time horizon at this time. Waste diversion and recycling goals beyond 2020 will be developed in the future as part of a SWMP update. It is worth noting that the new statewide SWMP (Beyond Waste) has proposed a change in the manner in which the achievement of waste reduction and recycling goals are measured. This new metric would look at both disposal and recycling tonnage on a per capita basis, and measure annual increases and decreases in per capita recycling and disposal.

## EDUCATION

**Comment RRR15: Recycling education should be started in the schools.**

*“I just wanted to say that this has been going on for a couple of years, solid waste management plan, and part of it is supposed to be education and I was wondering, since we now have a recycling coordinator, anything has been done about educating our children. This is where we're going to get our future cooperation of people to put all this in action and it seems to me that it should have been started. What is everyone waiting for?” OC5*

*“While it is important and even essential to have a recycling educational effort directed at all age groups in the population, it is especially important to begin recycling education in early grade school.” WC5*

**Response:** As noted by Councilman Sano in his remarks at the public hearing where this comment was made, City of Albany public schools have a recycling container in each classroom. In his school the recyclable material containers are emptied by designated students who collect the material from the classrooms every week.

Recycling has been introduced to all schools in the City of Albany, including public, private, charter and parochial schools. In addition, the Planning Unit Recycling Coordinator (PURC) has created several school models for demonstrations within the schools. Each model is geared toward an age group. To date, 5 demonstrations have been held at schools since the implementation of recycling in the schools in September of 2009. The City’s school recycling program is summarized below:

- Purchased 1500 bins
- 35 schools are participating
- The City of Albany has invested \$30,000.00
- Created and/or obtained educational material and curriculums and distributed them to all schools.
- Introduced the Magic of Recycling, a fun innovative magic show that promotes recycling to kids k-4th, in all elementary schools.

Introduced a waste reduction & recycling curriculum package to all schools, including a poster to be displayed throughout the school.

In addition all materials, models and information has been shared with the each local Recycling Coordinator in the Planning Unit so they may do the same in their municipalities. These materials, as well as information on starting a program in the schools, are located on the PURC’s website.

**Comment RRR16: Public education and outreach are important elements to the success of the recycling program.**

*“Recycling education should not make judgments on people’s lifestyle, but give people straightforward information on how to recycle.” WC1*

*“All of the new Recycling Initiatives are poorly defined and not matched by any information about what is happening within partnership communities. Since a new website with this information was supposed to be developed it would have been nice to mention it in the plan.” WC4*

*“Continued enforcement of the local laws mandating source separation for recycling through a system of public education and outreach is essential to having a successful recycling program....A*



*professional recycling team must be employed to spread the recycling message and bring technical assistance to the residents, schools, and businesses..... A professional recycling team must be employed to spread the recycling message and bring technical assistance to the residents, schools, and businesses...Recycling Specialists will visit any waste generator that may be in violation to determine the source of the problem and to assist in designing a recycling program which will capture the mandated recyclables.” WC5*

**Response:** The SWMP recognizes the importance of public education and outreach to the success of waste reduction and recycling programs. The PURC along with recycling coordinators in each of the municipalities in the Planning Unit have been and will continue to engage in these education and outreach programs to meet the waste reduction and recycling goals of the SWMP.

The PURC and the local recycling coordinators meet frequently to exchange ideas and information. Most recently this group has formulated two new brochures. The first new brochure educates the public about the 4Rs of waste reduction, reuse, recycling, and refusing to buy products that are packaged in non-recyclable materials. The second new brochure promoted backyard composting and gives residents advice on how to get started and successfully compost their garden and kitchen wastes.

These new brochures are being printed for distribution and will also be available on the PURC’s website [www.capitalregionrecycling.com](http://www.capitalregionrecycling.com).

**Comment RRR17: Extensive and frequent communication is necessary to maintain a high recycling rate.**

*“To keep the public informed of the recycling program, an ongoing and extensive public communication program must be established...In order to maintain a high recycling rate, frequent communications from the solid waste organization is necessary to advise those who recently moved to the area as to the local recycling rules, to remind current residents of what’s recyclable, and to inform the public of special events.” WC5*

**Response:** See response to Comment RRR16.

**Comment RRR18: “The value of recycling education is overstated -- the most common reason people do not recycle is the lack of convenient recycling options. WCI**

**Response:** We disagree with this commentator’s opinion about the value of recycling education. See response to Comment RRR16.

**ENFORCEMENT**

**Comment RRR19: The SWMP should provide additional information on enforcement of mandatory recycling.**

*“...there are no details provided in the report about enforcing recycling laws among residents of the partnership municipalities.” OCI*

*“The current plan lacks penalties or formal sanctions for non-compliance.” WCI*

*“Nothing was offered about how enforcement would occur in the residential sector even though the issue of vigorously enforcing existing recycling laws in Albany was raised at several meetings.” WC2*

*“Regulation and Enforcement regarding Commercial haulers is supposed to be an essential part of the new program but there are few details in the Plan and no evidence of a developed program for all of the partnership communities.” WC4*

*“When needed, Enforcement Officers must be available to supplement the efforts of the business and apartment Recycling Specialists. An Enforcement Officer would call on businesses and apartment buildings when it is determined that other approaches have not resulted in cooperation. Each enforcement officer would spend a significant portion of the week inspecting loads of solid waste at the solid waste district’s tipping station(s) or disposal facility to ensure that those loads containing recyclables are issued warnings and/or violations.” WC5*

**Response:** Increased education and enforcement of mandatory recycling requirements, especially for commercial, institutional, and industrial (CII) waste generators (including multi-family residential) are underway as part of the implementation of the SWMP Modification.

The SWMP also notes that random inspections are conducted at Rapp Road Landfill for loads with excessive amounts of designated recyclables. Haulers (and the waste generators they service) discovered to be delivering recyclable materials for disposal at the landfill are now and will continue to be subject to follow-up education and enforcement efforts. Failure to comply and repeated delivery of contaminated loads could result in loss of disposal privileges and imposition of fines. In addition, commercial waste haulers are now required to provide annual reports to the City regarding the nature of the recycling and waste recovery programs being implemented by them in each municipality in the Planning Unit.

The details of a municipality’s enforcement of its mandatory recycling law, such as those suggested by commentator WC5 are beyond the scope of the SWMP. Those details are best left to local jurisdictions, which can determine what programs work in the context of local conditions and circumstances.

## ZERO WASTE

### **Comment RRR20: Zero Waste should be a goal of the SWMP.**

*“The term “zero waste” is mentioned in the report although it receives little attention.” WC2*

*“I think that working towards zero waste and achieving very lower levels of waste are very possible.” OC2*

*“A plan that showed in detail that Albany and its partner communities could expand zero waste programs to reduce, reuse, recycle and compost the majority of the waste as a least cost option is not a plan that Albany’s consultants wanted to produce. A plan that actually showed the environmental benefits of doing so and the social benefits including jobs would then require that the City pursue zero waste programs.” WC4*

*“If recyclables were recycled, this leaves 458 tons per day to be managed...If the compostables are composted this leaves just 259 tons per day... But this doesn’t address the fact that yard waste was not properly counted... WC4*

*...Waste reduction and Reuse have largely been left out of this plan and are essential zero waste programs. All zero waste programs in combination are the key to higher diversion rates and lower costs.... ” WC4*

*“... while it may seem impossible to achieve zero waste, it is a goal we should work toward.” WC5*

**Response:** During the formulation of this SWMP, there has been some discussion about whether a “zero waste” goal should be adopted as part of this Plan. While this concept has various definitions in different places, zero waste typically refers to the minimization of waste that must be ultimately disposed of. Based on discussion that took place at the Steering Committee meeting on February 9, 2010, Section 6.0 and Section 6.1.1. of the SWMP now incorporate a discussion of the concept of zero waste as an aspirational goal, and the continuous improvement in waste reduction and recycling (beyond the 65% achievement already noted for the year 2020).

**Comment RRR21: The SWMP should include the development of a Resource Recovery Park.**

*“A Resource Recovery Park would bring many jobs and putting into practice Zero Waste principles would be wiser than what this plan offers.” WC7*

**Response:** The commentator does not elaborate on how he defines a Resource Recovery Park, but it is assumed he is referring to an eco-industrial park where reuse reduction and remanufacturing facilities can be co-located. A recent study by CalRecycle referred to a Resource Recovery Park as the co-location of reuse, recycling, compost processing, manufacturing, and retail businesses in a central facility: a facility to which the public can bring all their wastes and recoverable materials at one time.

While it was not specifically referred to as a “Resource Recovery Park”, the SWMP calls for the development of one or more drop-off facilities to provide residents and businesses with more complete selection of waste reduction and recycling opportunities. Such a facility would include a one-stop location to accept all designated recyclables, as well as for selected MSW components such as electronics, motor oil, fluorescent light bulbs, a swap shop to promote re-use of second-hand items, as well as a volume-based (PAYT) user charge for solid waste disposal.

The SWMP did not identify potential sites for this resource recovery park. Some existing resource recovery parks are co-located at landfill sites as part of an integrated solid waste management facility operation. Such a location may not be feasible at the Rapp Road landfill site because it may be precluded by the Pine Bush habitat restoration that is being implemented as part of that project.

It also worth pointing out that several private companies and non-profit organizations already provide many standard functions of a resource recovery park. For example, County Waste and Metro Paper, among others, already provide market outlets for recyclable materials in the Planning Unit. Another example is the Habitat for Humanity Re-Store in the City of Albany, which provides an outlet for the donation and sale of used furniture and salvaged building construction materials.

**SOURCE SEPARATED ORGANIC WASTE**

**Comment RRR22: The SWMP should include the development of composting facilities for source separated organic waste.**

*“In-vessel composting of food, kitchen, and other organic wastes in urban areas is highly desirable. The composted product can be used as clean fill and other construction projects.” WCI*

*“Paper wastes recovered through such a problem, if not marketable, should be used as a source of carbon, and shredded for composting at municipal composting facilities.” WCI*

*“It is desirable to collect waste food and compost it in order to remove it from the larger waste stream, as it is one of the most active ingredients in generating methane in landfills and makes recycling other materials in the mixed waste stream more difficult. ... After recycling, the*



*amount of food waste disposed is approximately 37% of all waste disposed. ... with a very strong residential collection program, we are talking about 37% multiplied by about 50% recovery which is approximately 15-20% of the disposed material. It is unknown how much Albany disposes each year.” WC5*

*“In some parts of the country, commercial composting of waste food from food processors, institutions and restaurants has been successfully undertaken. One of the most successful of these is Peninsula Compost Group, which operates a facility in the Port of Wilmington, Delaware. Peninsula’s Wilmington facility has not yet operated a year and designed with a capacity of 600 tons per day.*

*As of June, 2010, they were receiving approximately 300 tons per day and growing. Peninsula receives waste food from a 100 mile radius of Wilmington. It attracts customers by offering tipping fees which are lower than what would be charged at commercial landfills, thereby saving the customers money on disposal. The finished compost, which takes eight weeks to process, is sold by the truckload for landscaping purposes. Peninsula employs the Gore method of composting, which utilizes the patented Gore fabric to cover the composting windrows while they age. The fabric retains the heat generated by the aerobic process, as well as the moisture in the composting material.” WC5*

**Response:** The SWMP recommends the development of a compost facility for SSOW to service the existing planning unit (see Executive Summary page ES-9 and Section 6.1.1.4).

**Comment RRR23: “When food waste/organic composting is rolled out to residential neighborhoods, it should occur in sealed containers that reduce fruit flies and other animals from getting into it, and keep smells in the containers.” WC1**

**Response:** As noted in Section 6.1.1.4, the development of SSOW processing capacity will require modifications to existing waste collection infrastructure and operations. This SWMP envisions an initial focus on large CII generators of food waste and other SSOW. These large SSOW generators will need to provide the critical impetus to support the development of initial SSOW processing capacity in the Capital Region Planning Unit. After that initial SSOW processing capacity is established, incremental expansions into the residential waste sector can be pursued, initially with pilot programs designed to determine the best approach for full scale residential sector implementation.

The details of the residential collection program for SSOW are beyond the scope of the SWMP, but it is likely that such a program would include the use of sealed containers, which have become standard practice in food waste collection.

**Comment RRR24: One commentator suggested two locations to consider as sites for a source separated organic waste composting facility.**

*“The City of Albany should build a food waste and other organics composting plant at the site of their existing Erie Boulevard Composting Plant/former municipal landfill.” WC1*

*“The Town of Bethlehem should build a second food waste and other organics composting plant at the site of their existing composting site on Fuera Bush Road, in this industrial area. This could also be utilized by rural towns and farm businesses.” WC1*

**Response:** The selection of site for the location for the SSOW facility is beyond the scope of this SWMP. Preliminary site determination is an early implementation item shown on the schedule on Figure 6-1, which has been updated as part of the SWMP/FGEIS.

**Comment RRR25: “The SWMP should consider the views of the Albany County Farm Bureau and other farm businesses, food producers, and retailers such as grocery stores more carefully.” WCI**

**Response:** The comment is noted. As mentioned in response to Comment RRR24, large SSOW generators will need to provide the critical impetus to support the development of initial SSOW processing capacity in the Capital Region Planning Unit. It is also worth noting that an informal SSOW task force has been convened and has met on several occasions to promote progress in this area.

**Comment RRR26: “The best way to implement waste food collection is to use an incremental approach, depending upon the sources of waste food.” WC5**

**Response:** We concur with the commentator. As noted in Section 6.1.1.4, the SWMP recommends that the initial focus of the SSOW program focus on large commercial and institutional generators of food waste and other SSOW. After initial SSOW processing capacity is established, incremental expansions into the residential sector can be pursued.

## MUNICIPAL RECYCLABLES COLLECTION

**Comment RRR27: One commentator suggested changes to the City of Albany’s recyclables collection program.**

*“The City of Albany should continue to provide free pick up of recyclables, organic wastes, and consider free or low cost pick up of recyclables from all businesses and apartment buildings.” WCI*

*“The City of Albany should collect all plastic containers and seek to develop markets to sell them to, including subsidizing new businesses that would locate in city to proceed No 3-7 plastics into salable materials.” WCI*

*“The City of Albany once a month should provide free pick up of electronic waste and household hazardous waste to all residents. City residents should be able to call a toll free number and schedule a pick up or schedule one online.” WCI*

**Response:** The SWMP is not intended to prescribe in detail how and from whom the City of Albany or other municipalities in the Planning Unit will provide collection services for recyclables, organics, electronic waste and HHW. Instead the SWMP is intended to provide a broad framework within which each community can develop its own curbside collection program details.

Collection of HHW and electronic waste is currently accomplished at various drop off locations around the Planning Unit, as described in the SWMP. In addition to continuing these programs, a new element of this SWMP will be the development of one or more drop-off facilities to provide residents and businesses with more complete selection of waste reduction and recycling opportunities. Such a facility would include a one-stop location to accept all designated recyclables, as well as for selected MSW components such as electronics, motor oil, fluorescent light bulbs, a swap shop to promote re-use of second-hand items, as well as a volume-based (PAYT) user charge for solid waste disposal.

In addition, the NYS Electronic Equipment Recycling and Reuse Act was signed into law on May 28, 2010. The law requires manufacturers to establish a convenient system for the collection, handling, and recycling or reuse of electronic waste. Manufacturers of covered electronic equipment will be responsible for implementing and maintaining an acceptance program for the discarded electronic waste, with oversight by the NYS Department of Environmental Conservation.

**Comment RRR28: One commentator suggested changes to other towns’ recyclables collection program, while another suggested that the SWMP should allow a more flexible approach.**

*“All other towns should provide free drop off of electronic waste and household hazardous waste at least one Saturday and one weekday evening each month at their respective transfer stations.” WCI*

*“All other towns should be prohibited from charging any fees on their recycling, composting, or remanufacturing programs. They should instead obtain all revenues for running recycling programs through taxes on solid waste disposal.” WCI*

*“Allow different communities to have different resource recovery programs. Rural communities need not implement food waste collection, but instead should work to increase recycling of agricultural plastics and feed bags and similar waste. Suburban communities should put a priority on expanding e-waste materials.” WCI*

**Response:** See response to Comment RRR27.

**SINGLE STREAM RECYCLABLES**

**Comment RRR29: One commentator noted that single stream is the preferred method of recyclables collection. Other commentators questioned single stream as an appropriate method to collect and process recyclables.**

*“While it should not specify a method of collection of recyclables, single stream recycling in urbanized areas is preferable as it's simpler for residents, lowers collection cost.” WCI*

*“Single stream recycling does reduce the value of some materials, but it’s accessibility to the every man and woman far offsets any lost.” WCI*

*“..(the) County Waste (single stream collection program) has a simple solution. Well, that's a terrible message for people to learn” OC4*

*“While single-stream recycling may increase the tonnage of materials going into a MRF, or the percentage of the solid waste stream going into a MRF, that is not the same as the tonnage of sorted material coming out of the other end of the MRF. Potentially recyclable material is lost because of contamination created when paper and cardboard is mixed with the other materials...*

*These claims of contamination of paper and cardboard have been substantiated by paper and cardboard recyclers, as well as by a study conducted by CM Consulting on behalf of the Container Recycling Institute (CRI)...*

*The report finds that there are many negative downstream impacts of contaminated feedstock due to the mixing of materials through single-stream curbside collection...*

*So, the question is, “Are the Citizens being best-served by dual-stream or single-stream recycling?” While more research needs to be done, it appears that single-stream recycling does not have all the advantages claimed by proponents.” WC5*

**Response:** The advantages and disadvantages of single stream recycling and dual stream recycling were presented to and discussed by the Steering Committee in their deliberations leading to the formulation of the SWMP.

Section 5.3.1.4 presents a summary of the advantages and disadvantages of single stream recycling. That section also notes that many of the nation’s largest waste companies are developing single stream recyclables collection and processing capacity. This trend arrived in the Capital Region In January 2010, when County Waste announced its intention to develop a single stream MRF at its existing dual stream MRF on South Pearl Street in Albany (Sierra Fibers) and that it has begun to provide single stream recyclables collection to all of its residential customers in the Capital District. The single stream facility on South Pearl Street reportedly began operation in November 2010.

Single stream recycling is a recommended component of the SWMP. In Section 5.5.1 it is noted that maximizing the recovery of currently designated recyclables will also include the implementation of single stream recyclables collection along with a local MRF which can accommodate and process the single stream recyclables. It is assumed that the single stream MRF would be developed by the private sector as a commercial venture. While a single stream MRF would be available, communities would be free to continue their use dual stream recycling if they believe that method is maximizing material recovery and recycling.

## SOLID WASTE FACILITIES AND TECHNOLOGIES

### RAPP ROAD LANDFILL

**Comment SWF1: Several commentators made specific comments about the City of Albany’s Rapp Road Landfill.**

*“I’m very opposed to the expansion and continued use of Rapp Road as the Albany dump. It’s in the Pine Bush aquifer in a very threatened ecosystem and even though the newer sections are lined, much of the landfill is unlined, there’s a problem there.” OC2*

*“We believe the primary reason for this failure is that Albany has operated the landfill as a cash cow that pays for the City’s operational expenses. Thus the City has little long term motivation to properly manage solid waste. Albany’s need for current income always trumped the need to close the existing landfill.” WC4*

*“I am concerned about what the City of Albany intends to do about is growing Landfill debt for the following reasons: a.) Past and continued use of Landfill Revenues for the general operation of other City services rather than paying off the bonds issued for the landfill, and b.) the discussion at a City of Albany General Services meeting (recorded on videotape) for possibly transferring the (City of Albany’s ) landfill debt to a future Regional Landfill Authority such as discussed in the Solid Waste Management Plan update. The City of Albany should not be allowed to transfer its debt, it would be like someone reaping the benefits from credit card purchases, and then passing the debt onto someone else. The SWMP must be clear that all debt incurred by Albany in the operation/construction of the landfill shall be the sole responsibility of the City.” WC6*

*“If decisions were made to safeguard the remaining landfill space, enforce recycling and remove food and other organic wastes that could be composted, the current expansion would not have been necessary. The members of the Answers community did not benefit from the landfill revenues, rather they have been hurt by the revenue based decision-making by the City which owns and operates the current landfill.” WC6*

*“We need safeguards to prevent the selling off of valuable landfill space by taking in unprecedented volume as done in 2006 when combined ADC and PCS almost doubled the total waste tonnages. During the period when the stench from the current landfill that permeated our area was the highest generating thousands of complaints, there was a decision made to bring in as much revenue as possible by taking in the enormous and unnecessary amount of Alternative Daily Cover. The financial gain by the City of Albany, which received income for each ton of ADC, was at the expense of our health and welfare. Not to mention a profound impact on quality of life issues, especially for the residents, visitors and businesses of the Village of Colonie.” WC6*

**Response:** These issues related to the financing, construction, and operation of the City of Albany’s Rapp Road Landfill are beyond the scope of this SWMP. Furthermore, these issues were already fully addressed during the SEQR process associated with the issuance of the permits for the Eastern Expansion.

## COEYMANS LANDFILL SITE

**Comment SWF2:** ***Several commentators made specific comments about the City of Albany’s property in the Town of Coeymans that had previously been proposed as a landfill site.***

*“And I'm also opposed to the creation of the proposed landfill. I think it's a bad location.” OC2:*

*“If you are thinking of considering to build a waste center later on the parcel of land that Albany owns in Coeymans, you still have the same problems, sites with 25 national historic landmark status, slave cemetery, you have the Army Corp of Engineers to contend with trying to bridge a freshwater creek to gain access to this site or else you have the Thruway authority to build you off ramps to the site, and in these fiscal times I don't think any of this is feasible.” OC3*

*“The SWMP should detail how the City should dispose of the unnecessary Coeymans C-2 parcel that at one time was planned to be used for a municipal landfill for the SWMP.*

- *The City of Albany should sell C-2 Coeymans property to NY State for the creation of a Coeymans Wildlife Management Area/Public Hunting Grounds.*
- *This parcel would provide excellent small game and large game hunting opportunities, along with quality trout fishing in Coeymans Creek.*
- *This purchase could be underwritten by Federal Aid in Wildlife Restoration Fund Program and Pittman-Robertson funds.*
- *The City should ask the DEC to fully fund the Division of Lands and Forests, to provide needed funds to administer the Coeymans Wildlife Management Area.” WCI:*

*“It seems that the City of Albany does not want to get out of the garbage business; otherwise they would have sold the Coeymans site after realizing a landfill cannot be built there. Are there plans to possibly build an incinerator and/or other infrastructure at the (Coeymans) site? Have the residents of the Town of Coeymans been adequately notified of the SWMP effort?” WC6*

**Response:** The SWMP does not propose the development of a landfill at the Coeymans site.

In Section 5.3.1.10 it is noted that there is insufficient landfill capacity is to justify the significant investment in new infrastructure that would be needed to establish a new landfill at this location. While it may be possible



for this site to be developed for one or more of the other waste management facility components that may be proposed by this SWMP, the widespread presence of wetlands and requirement of significant investment in new infrastructure will also make this difficult. Further study will be needed if one of these uses is contemplated at this site in the future.

Comments related to the City’s disposition of this property are beyond the scope of this SWMP.

The Town of Coeymans has been notified as an interested party of the Common Council’s SEQR determinations related to the SWMP and on the availability of the Draft SWMP and DGEIS.

## WASTE TO ENERGY

### **Comment SWF3: Several commentators made specific comments expressing concerns about garbage incineration.**

*“I’m also very opposed to garbage incineration, it’s the worst way of dealing with garbage because it - yes, you can get some income from it but it’s a very small percentage and the pollutants in the form of vapors and ash are very toxic.” OC2*

*Dioxin emissions are a source of public health concern. OC4*

*At the May 19, 2009 steering committee meeting, I asked CHA and Bill Bruce what specifically would be burned in a mass burn waste-to-energy facility such as they had discussed at that meeting, and, despite a follow-up question from me, they could not identify any item or category of items that would be destroyed in such a facility. WC2*

*“I believe that it does not make sense for the City to be saying that it is trying to improve its recycling reduce and reuse, if it is planning on using an incinerator to burn the trash. These are two conflicting objectives - i.e. if you are trying to reduce the amount of trash generated, and you also need to guarantee a certain amount to be burned/treated each day, it would be reasonable to suppose that they would use recyclable materials to make up the amount needed to keep the fires burning.” WC3*

*“Air quality would significantly be impacted by any incineration of wastes, especially on the scale which is referred to in the SWMP.” WC6*

*“For the Onondoga incinerator the Plan somehow manages to leave out payment on the capital costs. This change would make the cost per ton over \$80, not \$41. It is not a surprise to find that the cost analysis for scenario #3 shows the lowest cost per ton. Such pre construction estimates don’t often reflect reality or future maintenance and repairs requiring millions of dollars in further investment.... incineration is the most expensive solid waste management method available and stories in the media are documenting the problems. ...as we know from experience with incinerators built with excess capacity—shortfalls in tonnage are a real problem for the sponsoring community. This has caused Washington and Warren counties to pay for waste shortfalls at the Hudson Falls Incinerator and a similar situation at the Dutchess County Resource Recovery Incinerator” WC4*

**Response:** While the SWMP calls for the development of a regional solid waste treatment facility to further minimize landfill disposal requirements for post-recyclable solid waste beyond what would be achievable with the implementation of the waste reduction and recycling programs elements, it does not endorse conventional waste-to-energy technology over any of the other emerging technologies. The economic analysis that was performed as part of Alternative Scenario 3 was for a conservatively sized facility which would not have excess capacity.

A generic discussion of environmental impacts associated with a regional solid waste treatment facility is included in Section 5.6.6, and are summarized in Tables 5-14 and 5-15. Additional discussion is presented in

Section 6.4.3, where it is noted that many potential impacts will be facility specific and site specific and, as such cannot be fully examined at this time. However, this facility will be subject to the comprehensive regulations of the NYSDEC and as a result it is expected that any potential adverse environmental impacts associated with the development and operation of the facility would be minimized and mitigated to the maximum practical extent. Specific impacts related to construction and operation of such a facility will also be evaluated through the SEQR process.

Commentator WC4 is incorrect in her assertion that the amortization of capital cost is excluded from the data on the OCRRA facility presented on Page 5-14. The estimated solid waste treatment facility costs presented in Table 5-8 include reasonable allowances (in excess of \$1 million annually) for future equipment replacement and repairs.

## ANAEROBIC DIGESTION

**Comment SWF4:** ***One commentator believes that anaerobic digestion (biogas) should have more representation in the SWMP and that anaerobic digestion is a more beneficial process than composting for organic waste disposal.***

*“I didn't count how many pages are in this document but certainly a few hundred but in that I only found one, slightly less than one page, which mentioned anaerobic digestion. I believe that anaerobic digestion, also called biogas is a significant solution to the solid waste problem.” OC4*

*“The problem is compost gives you as a result it gives you soil, I mean, that is a wonderful product but that's all it basically gives us.” OC4*

*“We're the capital city why aren't we running our city buses on biomethane? We don't have the political will for it and that's why I'm here, to try to encourage political will. There's no reason why we can't be source separating our organic waste from hotels, restaurants, hospitals, from universities, from all the different sources for food waste, we can source separate that out, run it into the anaerobic digester, clean it up and run things like buses.” OC4*

**Response:** Anaerobic digestion is summarized in Section 5.3.2.2 and is compared to other alternative technologies in table 5-4. Anaerobic digestion is considered an emerging technology because it does not have widespread application for MSW management in the United States. This technology has been employed with MSW feedstock in Europe by companies that have responded to recent solicitations by other jurisdictions, such as New York City and Los Angeles, and it is also being employed in some European countries to process a source separated organic waste feedstock. The use of this technology is becoming more widespread in Europe because it is supported by waste management policies which ban the disposal of organic waste from landfills and by energy policies which provide economic incentives to generate energy from alternative fuels. The absence of these policies in the United States is likely inhibiting the emergence of this waste management technology in this country.

None of the respondents to the RFI proposed the use of anaerobic digestion technology.

Discussions with representatives of a New York based company, who did not respond to the RFI, and that is seeking to develop projects using anaerobic digestion indicated their interest in projects with organic waste feedstock, but not MSW feedstock.

**ALTERNATIVES**

**Comment SWF5:** ***“Scenario # 1 from the Alternative Implementation Scenarios section, which would retain the size of the existing planning unit, does not include designation of additional recyclable materials as called for in Alternative Scenarios # 2 and 3? Why not?” WC2***

**Response:** Alternative Implementation Scenarios were developed specifically for the purposes of comparative evaluation. Scenario #1 was intentionally developed as a base case against which the other scenarios could be compared.

**Comment SWF6:** ***Several commentators thought that different alternative scenarios should have been examined in the SWMP or that different alternatives should have been recommended for implementation by the SWMP.***

*“Some variation of Scenario # 1 is the best option. It greatly minimizes financial risk to local governments and taxpayers, creates a powerful incentive to quickly and aggressively maximize recycling and reuse, and minimize waste generation. Scenario # 1 allows for the development of a variety of small, low-cost facilities to reuse, exchange, repair, recycle, and compost discarded materials. Such facilities would stimulate economic development, build communities, be more flexible to changing needs, easier to establish and discontinue, generate many more jobs, be less risky financially, and save and/or recover far more energy than a centralized, large or giant-sized disposal (resources destruction) facility.” WC2*

*“...we believe a more realistic scenario could have been constructed with more organic waste composting under For food scraps alone, the amount should be around 200 TPD, and a facility also doing yard waste should have been considered for Scenario #2 that would have shown substantial cost advantages over scenario #3.” WC4*

*“It would seem to me that if the City could concentrate on reduction of trash that needs to be consumed/burned/landfilled or otherwise treated and eventually, with diligent work, reducing the amount left to 80% or more of total amount collected, it would only be necessary to “treat” a small percentage of the generated trash which could then be transported to another facility, and would eliminate the need for a “treatment facility” to be installed and save a huge amount being spent and huge amount of debit being incurred...Suggestions on how further reductions may be achieved include compost facilities, salvage centers for household items, collection centers for specific types of solid waste, building materials collection centers, and expanded hazardous waste pickup operations.” WC3*

*“Dr. Neil Seldman, President of the Washington DC based Institute for Local Self-Reliance offered at no cost his assistance in educating the steering committee and the Albany Common Council on how to establish an economy based in part upon “Waste To Wealth,” but was rejected. All waste alternatives have not been explored and therefore the Plan is insufficient.” WC7*

**Response:** The selection of the Alternative Scenarios to be evaluated and the preferred elements of the SWMP were based on the consensus opinion of the Steering Committee. The commentator’s recommendation that Alternative 1 should be selected is not compelling. He presents no evidence as to how it would be superior to the proposed elements of the SWMP with respect to stimulating economic development, building communities, generating more jobs, and saving and recovering more energy.



Commentator WC4 miscalculates the food waste tonnage available for composting as 200 TPD. The commentator must realize that not all food waste that is generated is recoverable for composting. Considering that food waste represents 18.7% of the MSW delivered for disposal, assuming a very aggressive recovery rate of 75% of this food waste for composting, this would represent approximately 27,000 tons per year, or about 100 tons per day. The commentator is directed to Section 4.3 of the SWMP which includes a materials recovery analysis that indicates a likely maximum 36,700 tons of SSOW per year could be collected from the Planning Unit, which includes food waste, compostable non-recyclable paper, and the yard waste that is not already being recovered for composting. The economic analysis of the SSOW facility in Table 5-7 assumes an annual throughput of 40,000 tons per year.

The comment that Neil Seldman did not have the opportunity to present his alternative to the Steering Committee or the Common Council is without merit. See Response to comment PP1 and PP3.

## MECHANICAL SEPARATION

**Comment SWF7:** **One commentator noted that mechanized waste separation technologies still rely on combustion of their residuals to recover energy and that this combustion can result in harmful environmental impacts.**

*“..it does admit that plastics go into the product which is burned and incinerated. Now I think it should be well known by now, we went through the burn plan over here on Sheridan Avenue, we should know by now what that means. When you burn plastics you get a 100 percent certain result this is -- other results may not be 100 percent certain but the 100 percent certain result is that you will get dioxins out of the system, this is a neurotoxin. We should not be creating a system for putting neurotoxins into the atmosphere, it's just bizarre, it's a total violation of human health....any of these mechanized systems that purport to separate out everything after everybody throws everything, their combined, unseparated in one pile is wrong.” OC4*

**Response:** The commentator is referring to an emerging technology referred to as Mechanical Biological Treatment, which can result in the production of a refuse derived fuel which can then be combusted in a boiler or a cement kiln. See response to Comment SWF3.

## MATERIAL RECOVERY FACILITIES (MRF)

**Comment SWF8:** **One commentator noted that the arrangements for owning and operating the Material Recovery Facilities (MRF's) and the arrangements for the sale of the commodities recycled must be such that the taxpayers' interests are protected.**

*“The arrangements for owning and operating the Material Recovery Facilities (MRF's) and the arrangements for the sale of the commodities recycled must be such that the taxpayers' interests are protected. The cost of accomplishing the recovery of materials must also be low enough to make this task feasible; contracting out the task of operating the MRF may provide the lowest cost of operation. At the same time, there must be sufficient incentive that the contractor is rewarded for his efforts, while the taxpayers interests are protected.” WC5*

**Response:** The SWMP does not have a provision for the public ownership or operation of a new MRF under the sponsorship of the existing Planning Unit or by the Regional Solid Waste Management Authority that is the recommended implementing agency for the SWMP. The Planning Unit communities currently rely on privately operated material recovery facilities to market the recyclable materials that are collected as part of their respective municipal programs.

## RESPONSIBILITY FOR PLAN IMPLEMENTATION

### GENERAL

**Comment RPI1:**      **Several commentators thought that the City of Albany should not be leading this planning effort or the Planning Unit.**

*“But as far as coordination between these fourteen communities, the consortium whatever you want to call it, there's not really the coordination you need to have Albany as lead agent in this matter because even though Albany has passed this comprehensive recycling law the other people dumping on Rapp Road don't have that same law in their communities, so there's not a coordinated effort to really oversee our waste management at our current landfill rather than on twenty years in the future.” OC3*

*“why is it Albany's responsibility, in these fiscally strapped times, to manage the capital district's garbage?” OC3*

*“Absolutely nothing has been included in this waste plan that demonstrates the continued commitment of partnership entities to working together to implement a collective waste plan. The only document we are aware of is the Intermunicipal agreement, which has not been made available in the Plan. Because it has not been made available we cannot determine whether sufficient authority and accountability exists within the partnership currently.” WC4*

*“The City of Albany should not lead the solid waste planning effort.” WC6*

*“...it is clear the City of Albany should not be allowed to lead any waste programs outside the City based on the operation of its Landfill.” WC6*

*“Albany’s only obligation is to plan for disposing appropriately the waste generated by its citizens, its businesses and its institutions. Albany need not plan for the waste disposal needs of anyone else. It is not their obligation to do so and should certainly not be done in any case without the consent of those their planning may impact upon.” WC7*

**Response:** With approval of the Eastern Expansion of the Rapp Road Landfill and the 2009 SWMP Modification, the City is committed to being the lead member of the Capital Region Solid Waste Management Partnership Planning Unit. Special Condition #26 of the Part 360 permit for the Eastern Expansion requires the City to develop a new SWMP.

All of the members of the Planning Unit have executed an intermunicipal agreement which, among other things, commits them to enhance their waste reduction and recycling programs as set forth in the SWMP Modification. The intermunicipal agreement is included in the 2009 SWMP Modification which has been available for review on the Planning Unit’s website since June of 2009.

**Comment RPI2:**      **Several commentators disagreed with the concept of an expanded Planning Unit as recommended by the SWMP.**

*“You want to gather everybody's garbage from nine counties around that's way beyond the scope of your responsibility. It's nice to plan on a reasonable basis but it's not for the politically appointed committee to determine where all of those counties are going to go in the future.” OC3*

*“The solid waste planning unit should be retained as is, allowing municipalities and individual citizens the ability to choose the most cost-effective form of solid waste disposal.*

- *The current system allows towns and cities to define recoverable materials as makes sense for their community’s disposal needs.*

- *Towns and cities should not be required to host any disposal facility or recycling facility that they do not desire within their limits.*
- *Individual towns and cities should have the right to site within their own borders disposal and recovery facilities as they see fit.*
- *No public authority should be created.*
- *No publicly owned or subsidized landfill, incinerator, or other disposal facility should ever be built.” WCI*

*“all that is really needed for the consortium to work together on a long term waste management plan is to adopt matching municipal **ORDINANCES**, which stipulate the solid waste plan and implementation for the consortium and clarify responsibilities, authorities for each partner and overall objectives.” WC4*

*“And here is the major question- who is interested in this larger regional waste authority than (sic) encompasses several counties? Half of the partner communities in the current partnership have not showed much more than minimal interest in the proceedings.” WC4*

*“The SWMP recommends the expansion of the Planning Unit. Based on this and the early drafts of the SWMP, a significant expansion might include as many as 9 counties. Currently, there are eleven members of the current ANSWERS Consortium. The Capital District area consisting of Albany, Rensselaer, Saratoga and Schenectady Counties contain about 78 municipal and county jurisdictions. The Greater Capital District Region referred to in the SWMP update process, would encompass several more counties. The impact of this proposal alone would be a profound impact on the community or communities selected for handling the wastes. The truck traffic alone, from 78 or more than 100 municipal and county jurisdictions calls for an environmental review, including review under Environmental Justice. This Draft and Final Environmental Review does not take this into account, considering the implications of the proposed planning unit expansion, this review is incomplete.” WC6*

*“It would make much more sense to limit the wasteshed to only the County of Albany. The general public nor the many other entities being considered for the four counties of the Capital District, or the Greater Capital District referred to in the plan, have not been adequately apprised of the SWMP being considered. The SWMP should not be approved when most of those affected have not had a say in its development.” WC6*

**Response:** DEC regulations governing the preparation of SWMPs encourage cooperation and dialogue between neighboring planning units. This has occurred throughout the process of formulating this SWMP. Representatives of neighboring planning units, including MOSA and Schenectady County, have attended and participated in Steering Committee meetings. Mayor Jennings convened a meeting of representatives with leaders from Albany, Rensselaer, Saratoga and Schenectady counties to discuss regional cooperation on future solid waste management issues.

Albany County is now in the process of conducting a feasibility study to determine the feasibility of a solid waste management authority for the region. This study will research the economics and viability of a solid waste management authority. Many of the individual comments are related to this study.

**Comment RPI3:** ***“The current partnership is too small to enable the building of a large solid waste facility.” WC4***

**Response:** Comment noted, although this is not the primary consideration for recommending a regional solution. A larger and more formally organized planning unit will allow for more effective waste reduction and recycling programs at a lower cost.

**SOLID WASTE AUTHORITY**

**Comment RPI4:** ***Several commentators were concerned that if a solid waste management authority were created it would assume the City of Albany’s debt for the Rapp Road Landfill.***

*“I was wondering, if a waste authority is formed if the current debt that has been caused by the landfill is going to be inflicted upon all the communities that are going to be part of the authority.”* OC5

*“I feel strongly that the City of Albany should not entertain the idea of forming an authority with other communities to deal with the trash issue. Other communities should not have to burdon themselves with Albany’s trash and the debts that have already been incurred.”* WC3

*“According to one Albany Common Council member, also a member of the SWMP steering committee, Albany could dump its huge landfill-related debt upon the Authority so all the communities involved would be responsible for paying for Albany’s mismanaged landfill and Coeymans C-2 site debt. This is exactly the kind of abuse our Governor-elect is concerned with doing away with.”* WC7

**Response:** See response to Comment RPI2 regarding the Albany County feasibility study for the regional solid waste management authority.

The SWMP does not propose that debts associated with Rapp Road Landfill would be absorbed by Planning Unit municipalities. The question of whether Albany’s landfill debt will be assumed by the Authority is premature and outside the scope of this SWMP.

**Comment RPI5:** ***the State of New York that cannot afford to be responsible for the debt, in case the Authority is disbanded.***

*“The State of NY does not need more public authorities, together they account for over 90% of the entire New York State debt. It is the State that is ultimately responsible for the debt in case the Authority disbanded, and it is unlikely that the State of New York can afford, or even will honor the debt. Consider the problem of faced by the City of Camden whereby that State of New Jersey has indicated it will not help the City make payments on its incinerator debt.”* WC6

**Response:** See response to comment RPI2. Debt of the existing solid waste management authorities created under New York’s Public Authority Law is not the responsibility of the State of New York.

**Comment RPI6:** ***Several commentators expressed concern that creating an Authority will cede local control over solid waste management.***

*“For local governments, the combination of ceding local control and simultaneously being required to make up authority budget shortfalls will be problematic. In this era of tight budgets, such an obligation would make short- and long-term budgeting even more difficult than today.”* WC2

*“Among the problems with authorities are they tend to be anti-democratic and unaccountable. Sometimes they are established for precisely for this reason. Authority directors would likely be appointed by elected officials. The elected officials would then be able to deflect criticism of unpopular authority decisions from themselves, saying they - the elected officials - did not make the decision, the authority did. Authorities are sometimes created to site hugely expensive, controversial, and unnecessary facilities; authorities are convenient mechanisms for borrowing large quantities of money for difficult-to-site facilities. Some unlucky municipality, probably one that is rural and poorly*

*governed, would likely be targeted by the authority for a large treatment facility its residents strongly oppose.” WC2*

*This Plan is advancing an idea for a larger partnership by proceeding from the top down—calling for legislation to establish an authority—rather than by working from the bottom up to establish a basis of support in participating communities. Currently even those within the so-called partnership are uninvolved. WC4*

*“One of the problems in creating a Waste Authority is that once it has been created, communities under its authority will lose control of regulating their own garbage disposal and they will be forever locked in to the Authority, always subject to its whims and cost increases. The only way for a municipality to be removed from such a formal quasi-governmental agency, would be through an act of the NYS Legislature, releasing them.” WC7*

**Response:** The ceding of local control is one of the disadvantages of an authority that was presented to the steering committee and is discussed in Section 5.4.2 of the SWMP. Solid waste authorities are created when the community believes that the benefits of forming an authority will outweigh the disadvantages. For counties or municipalities to become members of such authority, each of their legislative bodies would have to enact home rule messages to the New York State Legislature requesting that they be included. Therefore, such an authority were it created, would not be forced upon unwilling local governments.

See also response to Comment RPI2.

**Comment RPI7: One commentator said the consultants who prepared the plan had a hidden agenda.**

*“A hidden agenda and purpose for Albany’s solid waste management planning effort was to establish another Cash Cow for Albany, a solid waste AUTHORITY and secondarily to build a large solid waste treatment facility that will provide large fees for engineering consultants. The public and taxpayers will not benefit from a \$554 million solid waste facility (likely an INCINERATOR) which will saddle them with capital debt for 30 years.*

*So by calling for an authority Albany consultants are saying they don’t like democracy and democratic processes. Once an authority is established any bad project and any amount of money can be spent on it without voter approval. Thus the entire Long Term Planning Effort was undermined by a hidden agenda, to advance a large solid waste facility for an expanded multi-county waste shed.” WC4*

**Response:** This comment is without merit. See response to Comments PP1, PP2, and PP3.

**Comment RPI8: Several commentators were opposed to the creation of a solid waste authority because they claimed it would lack accountability and transparency. However, one commentator had a favorable comment about the transparency of the Onondaga County Resource Recovery Authority.**

*“I’m opposed to the concept of creation of another authority. Authorities are often not democratic. They are not accountable. They’re generally not elected. They’re appointed and they’re usually not transparent. So they -- I don’t think they’re the best type of body for this type of thing.” OC2*

*“At this time public concerns about the lack of public accountability associated with authorities is actually overwhelmed by financial concerns by well positioned public officials. So it remains at least somewhat surprising that this Solid Waste Plan continued to advance the idea of an Authority....” WC4*



*“...the three municipalities cited above (Tompkins County, Onondaga County’s OCRRA authority and Chittenden County, Vermont’s Solid Waste District all provide transparency with regard to operational information and finances. Information is available on each of their websites as to total tonnages of solid waste, tonnages of recyclables received, revenue from the sale of recyclables and expenses. Transparency with the public helps to encourage public cooperation with regard to recycling and other aspects of the solid waste system.” WC5*

*“Public Authorities do not have sufficient oversight or public involvement. Authority Board members are appointed rather than elected which is another way of removing the public from decision-making. Further, the 90% plus New York State debt incurred by public authorities exemplifies the out-of-control debt with little oversight to control spending/issuing bonds. Every day there is a new article about a State, County or local government that is unable to pay its bills and raising taxes and fees.” WC6*

**Response:** See response to Comments RPI2 and RPI6.

**Comment RPI9: A large public authority which developed an incinerator would create a disincentive to waste reduction and recycling.**

*“I am concerned with the possibility of creating a very large public authority that would not effectively reduce wastes in order to run possible waste incinerators. A large guaranteed flow of garbage is needed for waste to energy facilities, were tipping fees insufficient for the operation of all the elements of this Solid Waste Management Plan, it would likely be the municipal members which would be required to fill the gap.” WC6*

**Response:** The success of the OCRRA program proves that a waste-to-energy facility can be developed and operated without negative effect on waste reduction and recycling programs. Notwithstanding this misplaced concern of the commentator, the SWMP does not propose the development of a waste to energy as a preferred technology for solid waste treatment. Furthermore, the regional solid waste treatment facility recommended by the SWMP will be sized to accept only the post-recyclable waste stream, and as such will not result in the disincentive to waste reduction and recycling.

**Comment RPI10: A solid waste authority is not the only mechanism available to establish waste flow control.**

*“The reason an Authority would be necessary, the Committee was told and the plan explains, was to be able to effortlessly institute Flow Control, a practice mandating all waste within a designated geographic area be directed to a certain governmental owned or operated regulated waste facility, regardless of whether or not another perhaps privately owned facility offered a more affordable option.” WC7*

*“The City of Albany’s Environmental Counsel, Ruth Leistensnider, Esq. was asked to prepare a memo regarding flow control and possible implementing options. She presented those options at a meeting of the Solid Waste Management Committee. Unfortunately the Plan as written chose to selectively remove any reference to other options presented by the City’s own counsel and to present only the option of an authority.” WC4*

**Response:** There are several other mechanisms for establishing flow control besides the formation of a solid waste authority and these were the topic of extensive discussion at numerous steering committee meetings. The commentator WC4 is incorrect in asserting that references to other flow control options that did not involve the formation of an authority have been selectively removed from the discussion. The substance of Ms. Leistensnider’s presentation on Flow Control to the Steering Committee is presented in Section 5.4.3.

The ability to enact flow control legislation is only one of the reasons in the SWMP to support the recommendation of the formation of a regional solid waste management authority. In addition to the discussions in Section 5.4 and Section 6.2, the commentators should review the comments and responses from the Steering Committee on this topic, as shown in Appendix A of Volume 2 of the Draft SWMP/DGEIS.

**Comment RPI11:** ***One commentator recommended that the SWMP should strike any provisions relating to the creation of a public authority or government agency to deal with residual, and instead rely on individual citizens and business contracting for private disposal of residual waste.***

*“The SWMP should strike any provisions relating to the creation of a public authority or government agency to deal with residual, and instead rely on individual citizens and business contracting for private disposal of residual waste – materials that cannot be remanufactured, recycled, or composted.*

- *The solid waste plan should not include residual waste except to say it will be handled by private haulers.*
- *There is more than adequate solid waste disposal facilities in our country, there no need for new incinerators or landfills.*
- *Disposal options may be locally limited within Capital Region and within the borders of NY State, however many other states in our country have an excess of disposal capacity.*
- *The Solid Waste Plan should not specify any solid waste disposal facility or authority, but instead leave the decision to private haulers and privately owned disposal facilities.*
- *It is immoral and wrong for government to be subsidizing waste disposal.*
- *The Solid Waste Plan should make it clear that there should be no government subsidies, no long-term government contracts, no government-backed debt, or any other subsidy for waste disposal.*
- *Landfills and incinerators are a blight on the landscape and produce dangerous toxins that cause cancer, and they should not receive any government support at all.*
- *The SWMP plan should specify waste exploration via private collection, haulers, and facilities as the proposed alternatives.*
- *Many solid waste management units have chosen the private/long haul disposal route for residual wastes, leading to significant savings to citizens.” WCI:*

**Response:** This commentator’s suggestion is similar to the no action alternative presented in Section 5.2 of the SWMP/DGEIS. That is, let the planning unit disband and have each municipality fend for itself in the provision of solid waste management services. The no action alternative was rejected because it did not meet the goals and objectives of the SWMP, particularly the objective of maintaining or expanding the Planning Unit.

**Comment RPI12:** ***At steering committee meetings I attended, CHA and Bill Bruce indicated that creation of a regional authority is necessary for construction for a large treatment facility because a disposal facility such as they envision would not be economical in the much smaller existing planning unit. WC2***

**Response:** The economy of scale associated with a larger planning unit would facilitate the development of a solid waste treatment facility, and this is one of the benefits of a regional solid waste authority that is presented in the SWMP.

**ECONOMY/FUNDING**

**Comment RPI13: Several commentators thought that economic development and job creation were not adequately addressed in the SWMP.**

*Job creation through recycling and reuse is not adequately addressed in the SWMP. OCI*  
*“Given the economic climate, failing to seriously examine the opportunities for economic development is irresponsible to taxpayers but most of all for the many people currently unemployed in the region.”*  
**WC4:**

**Response:** These comments imply the notion that more jobs are created as a result of waste reduction and recycling than are created from waste processing or disposal, but the commentators provide no data to support this notion.

Nevertheless, it should be noted that the primary purpose of the SWMP is to maximize waste reduction and recycling in a coordinated, practicable manner within the Planning Unit, so to the extent that there are preferential employment benefits associated with recycling and reuse, then the programs to be implemented as part of the SWMP will result in those benefits. The SWMP also calls for the continued development and enhancement of the solid waste management infrastructure in the region, and notes that this will require new investments in facility construction and operations. An economic analysis of each alternative was included in Section 5 of the SWMP/DGEIS.

**Comment RPI14: Several commentators had alternative suggestions for how to finance waste reduction, recycling and composting programs.**

*“A new tax on solid waste disposal should be implemented to fund government subsidized remanufacturing, recycling, and composting programs.*

- *Solid Waste disposal should be highly taxed to account for the extranalties and social costs.*
- *A \$40 a ton tax on top of all tipping and disposal fees would provide a predictable source of government supported and/or run recycling, composting, and remanufacturing programs.*
- *I strongly support pay-as-you throw, especially for commercial dumpsters and large generators of waste.*
- *Pay-as-you-throw for low volume producers -- like those who throw out less than 30 gallons per week should not be implemented, but only reserved for larger producers of waste.*
- *Many pay-as-you throw programs are very regressive, as they over charge small producers of waste while exempting large producers of waste. The program must be progressively structured, so smallest generators pay less.*

*Solid waste generation is **NOT AN INDIVIDUAL PROBLEM** but a societal problem, we should be taxing large generators of waste and not harassing individuals.”* **WCI**

*“In Tompkins County an annual **solid waste fee** is levied on residents, businesses and institutions. This annual fee combined with revenues enables funding of an aggressive waste reduction and recycling program. However, the consultants determined that this would not be practical because every municipality would need to agree on an annual fee and a mechanism for collecting it.*



*Apparently the consultants believe that this would represent an impossible task when the municipalities currently are supposed to be coordinating waste reduction and recycling programs, and enforcing recycling requirements. The question is – is it really easier to just cede complete control to an authority and agree to pay whatever bill and whatever shortfall that develops than to work on an agreement on a fee and collection mechanism?” WC4*

**Response:** The imposition of a \$40/ton tax suggested by WC1 is not practical or feasible. Such a tax imposed on waste delivered to the Rapp Road Landfill would cause that waste to be redirected to other facilities which did not levy such a tax. For such a tax to achieve its intended purpose, it needs to be levied on a statewide basis and in such a way that it does not result in the diversion of waste to out-of-state disposal facilities.

Regarding the comment on PAYT, large commercial generators are already somewhat incentivized because typical large commercial disposal accounts involve separate charges for container rental and hauling and disposal of the full containers. The comment on PAYT as a regressive policy has some validity. It has been suggested by some that PAYT is discriminatory against low income households, particularly those with large families, and this is also a legitimate concern that must be addressed when considering the implementation of PAYT.

The annual waste fee levied by Tompkins County has been an effective mechanism for funding that County’s waste reduction and recycling program and in ensuring that tax-exempt educational institutions pay their fare share of the cost of the County’s solid waste management programs. Because the existing Planning Unit is not coterminous with a county government, it is not empowered to levy a solid waste fee similar to Tomkins County.

## DEFICIENCIES IN THE SWMP

### IMPLEMENTATION SCHEDULE

**Comment DIS1: The implementation schedule provides insufficient detail.**

*“The following passage from Pages 6-12 of the SWMP provides insufficient detail: “A detailed implementation schedule for the SWMP is presented in Figure 6-1, through the year 2020. While it contains a detailed listing of activities, and allows for functional dependencies between tasks, the schedule is intended to be a generalized representation of SWMP implementation. The start dates and finish dates are not intended to be actual dates or deadlines, and all dates should be considered approximate. Many of the components of the existing SWMP components related to waste reduction and recycling will be ongoing throughout this period. Many of these activities will be conducted periodically rather than continuously, but for ease of presentation all are shown as a continuous line.*

*The above quoted sentences should be read a few times. How can something be simultaneously detailed and generalized? The matter of “for ease of presentation,” is unacceptable. It allows the planners to avoid presenting precise, specific details about which, how, when, or if recycling programs will be improved. SPB want specifics.” WC2*

**Response:** The rationale for the schedule is explained in the passage quoted by the commentator. More details on the implementation of the waste reduction and recycling measures that were also part of the SWMP Modification can be reviewed in that document.

**Comment DIS2: The Detailed Implementation Schedule does not provide an up-to-date timeline as of the date of the report (March 11, 2010).**

*“The “Detailed Implementation Schedule” has other flaws. Why did CHA not present an up-to-date timeline as of the date (March 11, 2010) of the report? For example, the City of Albany’s Pay As You Throw study is identified in the timeline as having been completed by the end of 2009. At the September 22, 2010, meeting of the ACC General Services Committee, Frank Zeoli, the city’s recycling coordinator, said the city’s consultant had nearly completed the report and “we should have it in a few weeks.” Another flaw is the detailed implementation schedule only extends until the last day of 2020 despite CHA saying the plan runs through 2030.” WC2*

**Response:** The timeline has been updated for the final Draft SWMP and FGEIS.

**DURATION OF PLANNING PERIOD****Comment DIS3: Several commentators claim that the SWMP is deficient because the recycling goals and implementation schedule only cover a ten year period.**

*My question is, are there no waste diversion recycling goals for the year 2021 through 2030 and, if not, why not?” OC1*

*“The SWMP as written is a ten year plan, falling far short of Part 360 statutory requirements for Solid Waste Plans. It must be expanded to fulfill the requirements of statute...”*

- *“The current plan only includes 10 years of projected diversions.*
- *The plan should include goals through 2030, including a minimum target of 90% diversion rate by 2030.”*
- *“While individual communities should be allowed maximize flexibility in how they obtain increased diversion of waste, the goal should be hard goals with clear timetables, set for review by the Solid Waste Management Committee.*
- *The Solid Waste Management Committee should have the power to review individual communities efforts at reaching their goals, and failure to comply should lead to sanctions up and including expulsion from the Planning Unit.” WC1*

*“A major defect in the report is that while CHA asserts (page ES-1) it is a 20-year plan (2011-2030), waste diversion (from disposal facilities) data are provided (pages ES-5 and 6-2) for the years 2010-2020 only. No data for 2021-2030 is provided. Are there no goals for the third decade of this century? If not, why not? If goals for the 2020s have been established, why are they excluded from the report? How can it be a 20-year-plan without this information?” WC2*

*“The failure of CHA to include projections for 2021-2030 is an enormous defect in the report and renders it incomplete. The ACC should not adopt the report, nor should it be forwarded to DEC in its present form.” WC2*

*“While it is said to be a 20 year plan, it really does not go beyond 2020. This is another reason it is incomplete. Is it a 10 year plan or a 20 year plan?” WC7*

**Response:** The SWMP has been prepared to cover the 20 year period from 2010 through 2030, but the implementation schedule and recycling goals only cover the ten year period through 2020. This appears to be a source of confusion for these commentators.

The 10 year implementation schedule is presented because all of the elements of the SWMP are expected to be implemented and operating by that time. Regarding the recycling goals, see response to Comment RRR14.

It is also worth noting that the Part 360 regulations specify a minimum 10-year time horizon for a local solid waste management plan, among other requirements. The Draft SWMP as written meets these requirements.

## WASTE CHARACTERIZATION STUDY

**Comment DIS4: The waste characterization study is inadequate.**

*“The waste characterization study if you can call it that was extremely limited and inadequate for any long term plan. A five day survey in February is not representative of all seasons for an entire year. It especially should not be used to represent the Yard waste for the Capital District, since yard waste is not collected in the middle of winter. The Plan only accounted for yard waste generated in the Town of Bethlehem-14,000 tons and the City of Albany- 5600 tons. In the absence of data the plan should have assumed that other jurisdictions are generating similar quantities and much of it entering the mixed waste stream unless there is evidence to the contrary. Appropriately treating yard waste would increase the maximum recycling possible from designated recyclables.” WC4*

**Response:** Because the waste characterization study was undertaken during the low-season for yard waste generation, CHA was also concerned that the yard waste composition might be underrepresented in this study. As noted in Section 2.2.1, CHA examined the as-discarded yard waste fraction in the context of documented yard waste composting in the Planning Unit, the USEPA estimates of as-generated yard waste and percentage of yard waste generation that is composted, and the comparable yard waste fractions found during the OCRRA waste composition study. This was done to determine whether an upward adjustment might be appropriate to reflect an annual average percentage of yard waste that is discarded.

Over 23,600 tons of yard waste composting was documented in the Planning Unit in 2008. If this were added to an assumed 1.2% fraction of yard waste in the discarded MSW stream, total annual yard waste generation would total about 25,936 tons, or about 10.3% of the total measured MSW stream (recycled plus discarded) attributed to the Planning Unit. Using this result, yard waste accounts for about 13 % of the total MSW generated. This is only slightly more than the USEPA estimate of yard waste at 12.7% of total MSW generated in year 2007. Based on these comparisons, it was determined that no adjustment to the as-discarded yard waste fraction observed during the field study is appropriate.

## BIOSOLIDS MANAGEMENT

**Comment DIS5: The SWMP does not address bio-solids such as sewage sludge.**

*“Management of biosolids is not addressed in the SWMP.” OC3*

*“Although it was pointed out to the SWMP Steering Committee that certain wastes, such as Sludge from water treatment plants, had been omitted from being planned for, nothing was added to the Plan to correct this omission after learning of it.” WC7*

**Response:** Biosolids from waste water treatment facilities in the Planning Unit make up a minor fraction of the solid waste that is presently disposed of in the Planning Unit. Table 3-2 shows the annual amount of

waste accepted for disposal at the Rapp Road Landfill and notes that in both 2007 and 2008, approximately 1,600 tons of sludge were delivered to the landfill. This represents less than 1 percent of the total waste stream accepted for disposal. The primary sources of the sludge sent for disposal are the wastewater treatment plants in Bethlehem and Guilderland. A small amount of sludge is also accepted from the Albany County Sewer District, which disposes of most of its sludge through incineration.

The Albany County Sewer District operates the two largest wastewater treatment plants which service the Planning Unit. The North Plant is located in Menands, is designed to treat an average flow of 35 MGD, and serves the cities of Cohoes, Watervliet, and parts of Albany along with the villages of Menands, Green Island and Colonie, as well as parts of the towns of Guilderland and Colonie. The South Plant is located in the Port of Albany, is permitted for 29 MGD, and treats wastewater only from the City of Albany. Biosolids from each of these facilities are managed by sludge thickening, followed by dewatering with a filter press and combustion in a multiple hearth incinerator.

According to the Sewer District's 2009 Annual Report, the incinerator at the north plant is being upgraded to recover waste heat for electricity generation. This \$8.6 million upgrade is being funded with \$7.9 million in grants from the state and federal governments and is expected to be completed in the summer of 2011. The project will have a long term environmental benefit by reducing greenhouse gas emissions and will provide significant economic benefit to the member communities through millions of dollars of energy cost savings.

In 2009, approximately 10,500 dry tons of sludge was incinerated at both the North Plant and the South Plant. Ash resulting from the incineration of this sludge is delivered to the Rapp Road Landfill where it is used as an alternative daily cover (ADC). Approximately 7,400 tons of ash from the Albany County Sewer District was delivered to the landfill for use as ADC in 2010.

## PUBLIC PARTICIPATION/STEERING COMMITTEE

### GENERAL

**Comment PPI:** **The SWMP Steering Committee should have included members of environmental groups and should have asked more environmental organizations to participate.**

*“None of the environmental groups were consulted at all as far as what they would think and we have statewide and national groups based right near Albany that's baffling.” OC3*

*“Albany desperately needs an economic development plan that creates jobs, and increased income for the city, while replacing the former cash cow that the landfill represents. We have offered to arrange for Neil Seldman of the Institute for Local Self Reliance to come and meet with City officials about the opportunities offered by preserving materials in the waste stream. He has worked for EPA and published numerous reports which are available on the website [www.ilsr.org](http://www.ilsr.org). He is a national leader on the issue of “Waste to Wealth.” He has worked with a number of local communities to develop eco-industrial parks that maximize the recovery and use of materials in the waste stream for remanufacturing.” WC4*

*“So this plan was drawn together by several people, a steering committee without knowledge of waste management practices, many of whom sparsely attended, others not attending even one meeting, under the guidance of Clough Harbour. It is difficult to understand why no environmental organization was asked to participate in the planning process, especially Albany, New York's Capitol City, is home to many widely respected environmental organizations. Citizens' Environmental Coalition, Sierra Club, NYPIRG, Environmental Advocates of NY are all based in Albany, yet none were asked to share their vast expertise and understanding of sustainable waste management practices....It would be wise to*

*reject this plan and call for experts Dr. Paul Connett, Dr. Neil Seldman, Citizens' Environmental Coalition Executive Direct Barbara Warren, an Environmental Health expert, to help redraft it to assure it has achievable and sustainable goals and is wise economically. ” WC7*

**Response:** The Steering Committee consisted of key stakeholders appointed by Mayor Jennings to provide input and guidance in the formulation of the SWMP. These key stakeholders included representatives of every municipality in the Planning Unit, two members of the City of Albany Common Council, two representatives from the NYSDEC, two representatives from the Council of Albany Neighborhood Associations (CANA), a representative of the private sector solid waste management industry, the Commissioner of Public Works of Albany County, and a citizen who is a member of a local environmental group called Save the Pine Bush.

After its first meeting in November of 2008, the Steering Committee met on a monthly basis from January 2009 through March of 2010. These meetings were well publicized and open to the public. Public comment was invited and provided at all meetings except that last two. The minutes and presentations of these meetings were posted on a website to provide for transparency and broad public access. This being the case, environmental groups in the capital district and elsewhere had ample opportunity to provide feedback and comment during the process of preparing the SWMP.

**Comment PP2:** **One commentator notes that some members of the Steering Committee were absent from meetings, and claims that the draft SWMP was issued without the consensus of the Steering Committee.**

*“...CHA and the steering committee met fourteen times between November 2008 and March 2010. I attended thirteen of these meetings. Several steering committee members objected or strongly objected to parts of the report. About one-third of appointed steering committee members ... either did not participate in the process or attended only one or two of the meetings. WC2*

*“CHA continues to misrepresent the views of the steering committee. At both the September 22 ACC general services committee meeting and the October 25 public hearing, CHA asserted there was a "consensus" on the steering committee in favor of the report's major recommendation to establish a regional solid waste management authority. What CHA says is not true. At the February 9, 2010 CHA-Steering Committee meeting at which a vote was taken on the regional authority, eleven voted in favor, two voted no, and three abstained. Eight SC members were absent. ... Several steering committee members attended no steering committee meetings for which minutes were recorded.*

*Less than half of the 24-member Steering Committee appointed by Mayor Jennings voted in favor of a regional authority; less than half of the existing planning unit's municipal partners have endorsed the authority.” WC2*

**Response:** This comment is without merit. The Steering Committee was an ad hoc advisory body whose actions did not require a quorum of the majority of its members. As noted in the comment, the majority of the members in attendance at the Steering Committee meeting of February 9, 2010 voted to endorse the preferred elements of the Draft SWMP, including the formation of a regional solid waste management authority.

**Comment PP3:** **Two commentators thought that the public participation process for the SWMP was too limited.**

*“The limited public participation of this Solid Waste Management Plan process, especially considering the scope of an expanded watershed, together with the implications for waste to energy (incineration), show that the planning process is flawed - the environmental review is incomplete.” WC6*

*“Considering how vast an area is being considered as a watershed in the Plan, anywhere from 3 to 9 counties, (never clearly defined), one must consider the input from citizens to be affected by the plan, before approving it without their knowledge. No effort was made to inform these citizens that in Albany a panel of representatives chosen by Albany Mayor Jerry Jennings was planning their future. Nowhere throughout this plan’s drafting process was feedback sought by the committee members from their home legislative bodies to share with the committee at large.” WC7*

**Response:** These comments are without merit. The process of formulating the draft SWMP was open and transparent with multiple opportunities to accept input from interested parties and the general public. SEQRA notifications have been sent to the surrounding planning units, counties, and municipalities as interested agencies, as shown in Appendix B.



## **3.0 REVISIONS TO THE DRAFT SWMP**





Revised Figure 6-1  
Capital Region Solid Waste Management Plan  
Detailed Implementation Schedule

| ID | Task Name                                                 | Duration   | Start        | Finish       | 2009                                |    | 2010 |    | 2011 |    | 2012 |    | 2013 |    | 2014 |    | 2015 |    | 2016 |    | 2017 |    | 2018 |    | 2019 |    | 2020 |    | 2021 |    | 2022 |    | 2023 |    | 2024 |    | 2025 |  |
|----|-----------------------------------------------------------|------------|--------------|--------------|-------------------------------------|----|------|----|------|----|------|----|------|----|------|----|------|----|------|----|------|----|------|----|------|----|------|----|------|----|------|----|------|----|------|----|------|--|
|    |                                                           |            |              |              | H2                                  | H1 | H2   | H1 | H2   | H1 | H2   | H1 | H2   | H1 | H2   | H1 | H2   | H1 | H2   | H1 | H2   | H1 | H2   | H1 | H2   | H1 | H2   | H1 | H2   | H1 | H2   | H1 | H2   | H1 | H2   | H1 | H2   |  |
| 1  | Continue Existing SWMP Components                         | 3024 days? | Mon 6/1/09   | Thu 12/31/20 | [Gantt bar]                         |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |  |
| 2  | Waste Reduction and Recycling                             | 3024 days? | Mon 6/1/09   | Thu 12/31/20 | [Gantt bar]                         |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |  |
| 3  | Legislative Actions                                       | 326 days?  | Thu 10/1/09  | Thu 12/30/10 | [Gantt bar]                         |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |  |
| 4  | Revise Ordinance to require public space Recycling        | 66 days?   | Thu 10/1/09  | Thu 12/31/09 | [Gantt bar] City of Albany          |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |  |
| 5  | Public Space Recycling Ordinances                         | 260 days   | Fri 1/1/10   | Thu 12/30/10 | [Gantt bar] Municipalities          |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |  |
| 6  | Education and Enforcement                                 | 3024 days  | Mon 6/1/09   | Thu 12/31/20 | [Gantt bar]                         |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |  |
| 7  | Conduct Random Commercial waste inspections               | 3024 days  | Mon 6/1/09   | Thu 12/31/20 | [Gantt bar] DGS, PURC               |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |  |
| 8  | Update Recycling Website                                  | 60 days    | Thu 10/8/09  | Wed 12/30/09 | [Gantt bar] DGS                     |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |  |
| 9  | Publicize municipal recycling programs                    | 2931 days  | Thu 10/8/09  | Thu 12/31/20 | [Gantt bar] Municipalities          |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |  |
| 10 | Enforce municipal recycling programs                      | 2931 days  | Thu 10/8/09  | Thu 12/31/20 | [Gantt bar] Municipalities          |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |  |
| 11 | Letter to notify commercial properties in City            | 60 days    | Fri 10/9/09  | Thu 12/31/09 | [Gantt bar] City of Albany          |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |  |
| 12 | Distribute commercial recyclable brochure and maintain o  | 60 days    | Fri 10/9/09  | Thu 12/31/09 | [Gantt bar] City of Albany          |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |  |
| 13 | Commercial property owners survey                         | 128 days   | Mon 1/4/10   | Wed 6/30/10  | [Gantt bar] DGS                     |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |  |
| 14 | Assemble report of commercial survey and hauler reports   | 128 days   | Thu 7/1/10   | Mon 12/27/10 | [Gantt bar] DGS, PURC               |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |  |
| 15 | Enforce commercial hauler recycling requirement           | 2931 days  | Thu 10/8/09  | Thu 12/31/20 | [Gantt bar] Commercial Haulers, DGS |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |  |
| 16 | Backyard Composting promotion                             | 2675 days  | Fri 10/1/10  | Thu 12/31/20 | [Gantt bar] PURC, NYSDEC            |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |  |
| 17 | Local recycling Program Implementation                    | 3024 days  | Mon 6/1/09   | Thu 12/31/20 | [Gantt bar]                         |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |  |
| 18 | Municipal recycling program operation                     | 2931 days  | Thu 10/8/09  | Thu 12/31/20 | [Gantt bar] Municipalities          |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |  |
| 19 | Public Space Recycling Program                            | 3024 days  | Mon 6/1/09   | Thu 12/31/20 | [Gantt bar] DGS                     |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |  |
| 20 | Albany provides Blue Bins to schools                      | 390 days   | Wed 8/26/09  | Tue 2/22/11  | [Gantt bar] DGS                     |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |  |
| 21 | School District Program Evaluations                       | 390 days   | Thu 10/8/09  | Wed 4/6/11   | [Gantt bar] Municipalities, PURC    |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |  |
| 22 | Develop recycling program improvements                    | 2931 days  | Thu 10/8/09  | Thu 12/31/20 | [Gantt bar]                         |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |  |
| 23 | Assess local programs                                     | 2931 days  | Thu 10/8/09  | Thu 12/31/20 | [Gantt bar] PURC, Municipalities    |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |  |
| 24 | Consider additional materials for recovery                | 2931 days  | Thu 10/8/09  | Thu 12/31/20 | [Gantt bar] Municipalities, PURC    |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |  |
| 25 | Consider ways to increase collection efficiency           | 2931 days  | Thu 10/8/09  | Thu 12/31/20 | [Gantt bar] Municipalities, PURC    |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |  |
| 26 | Consider new incentives for reduction and recycling       | 2931 days  | Thu 10/8/09  | Thu 12/31/20 | [Gantt bar] Municipalities, PURC    |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |  |
| 27 | Implement selected program improvements                   | 2931 days  | Thu 10/8/09  | Thu 12/31/20 | [Gantt bar] Municipalities          |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |  |
| 28 | City of Albany PAYT Study                                 | 156 days   | Mon 6/14/10  | Mon 1/17/11  | [Gantt bar] DGS                     |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |  |
| 29 | PAYT Recommendations                                      | 60 days    | Tue 1/18/11  | Mon 4/11/11  | [Gantt bar] DGS                     |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |  |
| 30 | Implement PAYT if acceptable                              | 130 days   | Tue 4/12/11  | Mon 10/10/11 | [Gantt bar] Municipalities, PURC    |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |  |
| 31 | Local Program Coordination                                | 3002 days  | Wed 7/1/09   | Thu 12/31/20 | [Gantt bar]                         |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |  |
| 32 | Recycling Coordinator Meetings                            | 3002 days  | Wed 7/1/09   | Thu 12/31/20 | [Gantt bar] PURC                    |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |  |
| 33 | Develop Data and Prepare annual reports                   | 3002 days  | Wed 7/1/09   | Thu 12/31/20 | [Gantt bar] PURC                    |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |  |
| 34 | Promotional materials for local programs                  | 3002 days  | Wed 7/1/09   | Thu 12/31/20 | [Gantt bar] PURC                    |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |  |
| 35 | Promotional materials for Schools                         | 3002 days  | Wed 7/1/09   | Thu 12/31/20 | [Gantt bar] PURC                    |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |  |
| 36 | Coordinate local programs w/ local schools                | 3002 days  | Wed 7/1/09   | Thu 12/31/20 | [Gantt bar] PURC                    |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |  |
| 37 | Identify and Pursue Grant Funding opportunities           | 3002 days  | Wed 7/1/09   | Thu 12/31/20 | [Gantt bar] PURC                    |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |  |
| 38 | Establish Regional Recycling Website                      | 34 days    | Mon 11/16/09 | Thu 12/31/09 | [Gantt bar] PURC                    |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |  |
| 39 | Maintain Regional Recycling Website                       | 2870 days  | Fri 1/1/10   | Thu 12/31/20 | [Gantt bar] PURC                    |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |  |
| 40 | Promote shared use of existing yard waste compost facilit | 3002 days  | Wed 7/1/09   | Thu 12/31/20 | [Gantt bar] PURC                    |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |  |
| 41 | Set out Rate Analysis for municipal programs              | 3002 days  | Wed 7/1/09   | Thu 12/31/20 | [Gantt bar] PURC, Municipalities    |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |  |
| 42 | Make PAYT Info available to local programs                | 3002 days  | Wed 7/1/09   | Thu 12/31/20 | [Gantt bar] PURC                    |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |  |
| 43 | SSOW Composting                                           | 583 days   | Thu 9/24/09  | Mon 12/19/11 | [Gantt bar]                         |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |  |
| 44 | Convene Organic Waste Task Force meeting                  | 0 days     | Thu 9/24/09  | Thu 9/24/09  | [Milestone] 9/24                    |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |  |
| 45 | Task Force Meeting #2                                     | 0 days     | Thu 4/15/10  | Thu 4/15/10  | [Milestone] 4/15                    |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |  |







## Appendix A

# Written Comments on the Draft SWMP/DGEIS



# Comments on the ANSWERS Solid Waste Management Plan and DGEIS Statement

Andy Arthur / 15a Elm Ave / Delmar NY 12054 / 518-281-9873 / [andy@andyarthur.org](mailto:andy@andyarthur.org)

**Point 1:** The SWMP should strike any provisions relating to the creation of a public authority or government agency to deal with residual, and instead rely on individual citizens and business contracting for private disposal of residual waste – materials that can not be remanufactured, recycled, or composted. *Private ownership of all disposal facilities is highly desirable.*

- The solid waste plan should not include residual waste except to say it will be handled by private haulers.
- There is more than adequate solid waste disposal facilities in our country, there no need for new incinerators or landfills.
- Disposal options may be locally limited within Capital Region and within the borders of NY State, however many other states in our country have an excess of disposal capacity.
- The Solid Waste Plan should not specify any solid waste disposal facility or authority, but instead leave the decision to private haulers and privately owned disposal facilities.
- It is immoral and wrong for government to be subsidizing waste disposal.
- The Solid Waste Plan should make it clear that there should be no government subsidies, no long-term government contracts, no government-backed debt, or any other subsidy for waste disposal.
- Landfills and incinerators are a blight on the landscape and produce dangerous toxins that cause cancer, and they should not receive any government support at all.
- The SWMP plan should specify waste exproation via private collection, haulers, and facilities as the proposed alternatives.
- Many solid waste management units have chosen the private/long haul disposal route for residual wastes, leading to significant savings to citizens.

**Point 2:** The solid waste planning unit should be retained as is, *allowing municipalities and individual citizens the ability to choose the most cost-effective form of solid waste disposal.*

- The current system allows towns and cities to define recoverable materials as makes sense for their community's disposal needs.
- Towns and cities should not be required to host any disposal facility or recycling facility that they do not desire within their limits.
- Individual towns and cities should have the right to site within their own borders disposal and recovery facilities as they see fit.
- No public authority should be created.

- No publicly owned or subsidized landfill, incinerator, or other disposal facility should ever be built.

**Point 3:** The SWMP as written is a ten year plan, falling far short of Part 360 statutory requirements for Solid Waste Plans. *It must be expanded to fulfill the requirements of statute.*

- The plan lacks clear goals and processes for members of the loose coalition community of ANSWERS to effectively increase diversion rates.
- The current plan only includes 10 years of projected diversions.
- The plan should include goals through 2030, including a minimum target of 90% diversion rate by 2030.
- Diversion rate should not include materials discarded in the remanufacturing, composting, or recycling process.
- The current plan lacks penalties or formal sanctions for non-compliance.
- While individual communities should be allowed maximize flexibility in how they obtain increased diversion of waste, the goal should be hard goals with clear timetables, set for review by the Solid Waste Management Committee.
- The Solid Waste Management Committee should have the power to review individual communities efforts at reaching their goals, and failure to comply should lead to sanctions up and including expulsion from the Planing Unit.

**Point 4:** *A new tax on solid waste disposal should be implemented to fund government subsidized remanufacturing, recycling, and composting programs.*

- Solid Waste disposal should be highly taxed to account for the extranalties and social costs.
- A \$40 a ton tax on top of all tipping and disposal fees would provide a predictable source of government supported and/or run recycling, composting, and remanufacturing programs.
- I strongly support pay-as-you throw, especially for commerical dumpsters and large generators of waste.
- Pay-as-you-throw for low volume producers -- like those who throw out less then 30 gallons per week should not be implemented, but only reserved for larger producers of waste.
- Many pay-as-you throw programs are very regressive, as they over charge small producers of waste while exempting large producers of waste. The program must be progressively structured, so smallest generators pay less.
- Solid waste generation is **NOT AN INDIVIDUAL PROBLEM** but a societal problem, we should be taxing large generators of waste and not harrasing individuals.



**Point 5:** Government has an important role in promoting efficient markets, *by fostering remanufacturing, recycling, and composting.*

- Landfills and incinerators are most expensive way to dispose of most wastes. It's almost always cheaper to beneficially use waste and scrap products in the manufacturing of new products.
- Whenever it's not cost-effective for private businesses to engage in material recovery, government should step in using subsidies from taxes on waste disposal to increase material recovery.
- Transfer stations should remain publicly owned, especially for recycling, composting, and remanufacturing collection, although communities can choose to contract out their administration if it makes sense for them.
- While it should not specify a method of collection of recyclables, single stream recycling in urbanized areas is preferable as it's simpler for residents, lowers collection cost.
- Single stream recycling does reduce the value of some materials, but it's accessibility to the every man and women far offsets any lost.
- Glass fines, when not marketable should be used for aggregate, road construction, and blasting materials.
- Paper wastes recovered through such a problem, if not marketable, should be used as a source of carbon, and shredded for composting at municipal composting facilities.
- In-vessel composting of food, kitchen, and other organic wastes in urban areas is highly desirable. The composted product can be used as clean fill and other construction projects.
- When food waste/organic composting is rolled out to residential neighborhoods, it should occur in sealed containers that reduce fruit flies and other animals from getting into it, and keep smells in the containers.
- The City of Albany should continue to provide free pick up of recyclables, organic wastes, and consider free or low cost pick up of recyclables from all businesses and apartment buildings.
- The City of Albany should collect all plastic containers and seek to develop markets to sell them to, including subsidizing new businesses that would locate in city to proceed No 3-7 plastics into salable materials.
- The City of Albany once a month should provide free pick up of electronic waste and household hazardous waste to all residents. City residents should be able to call a toll free number and schedule a pick up or schedule one online.
- All other towns should provide free drop off of electronic waste and household hazardous waste at least one Saturday and one weekday evening each month at their respective transfer stations.

- All other towns should be prohibited from charging any fees on their recycling, composting, or remanufacturing programs. They should instead obtain all revenues for running recycling programs through taxes on solid waste disposal.
- The City of Albany should build a food waste and other organics composting plant at the site of their existing Erie Boulevard Composting Plant/former municipal landfill.
- The Town of Bethlehem should build a second food waste and other organics composting plant at the site of their existing composting site on Fuera Bush Road, in this industrial area. This could also be utilized by rural towns and farm businesses.
- The SWMP should consider the views of the Albany County Farm Bureau and other farm businesses, food producers, and retailers such as grocery stores more carefully.

**Point 6:** *The SWMP should not penalize hard working individuals and small businesses, but instead encourage material recovery.*

- We are an over-regulated society. We should make the recycling program as simple, easy, and desirable to use.
- While it should not specify a method of collection of recyclables, single stream recycling is preferable as it's simpler for residents, lowers collection cost.
- The city and towns should invest most of its education money in putting new recycling bins and increasing recycling collection into new areas, such as large apartment buildings and commercial areas.
- Public space recycling should be standard. Every public trash can in the SWMP must be next to a recycling bin – preferably larger and more visible than the trash can.
- The value of recycling education is overstated -- the most common reason people do not recycle is the lack of convenient recycling options.
- Recycling education should not make judgements on people's lifestyle, but give people straightforward information on how to recycle.
- Ask the DEC to rescind the open burning regulations they implemented in 2009. They have no benefit to the public besides appeasing to special interest groups, and hurt rural residents and farmers, and increase the amount of waste that has to be disposed of in urban facilities.
- Allow different communities to have different resource recovery programs. Rural communities need not implement food waste collection, but instead should work to increase recycling of agricultural plastics and feed bags and similar waste. Suburban communities should put a priority on expanding e-waste materials.

**Point 7:** The SWMP should detail how the City should dispose of the unnecessary Coeymans C-2 parcel that at one time was planned to be used for a municipal landfill for the SWMP.

- The City of Albany should sell C-2 Coeymans property to NY State for the creation of a Coeymans Wildlife Management Area/Public Hunting Grounds.
- This parcel would provide excellent small game and large game hunting opportunities, along with quality trout fishing in Coeymans Creek.
- This purchase could be under written by Federal Aid in Wildlife Restoration Fund Program and Pittman-Robertson funds.
- The City should ask the DEC to fully fund the Division of Lands and Forests, to provide needed funds to administer the Coeymans Wildlife Management Area.



I feel strongly that the City of Albany should not entertain the idea of forming an authority with other communities to deal with the trash issue. Other communities should not have to burden themselves with Albany's trash and the debts that have already been incurred.

I believe that it does not make sense for the City to be saying that it is trying to improve its recycling reduce and reuse, if it is planning on using an incinerator to burn the trash. These are two conflicting objectives - i.e. if you are trying to reduce the amount of trash generated, and you also need to guarantee a certain amount to be burned/treated each day, it would be reasonable to suppose that they would use recyclable materials to make up the amount needed to "keep the fires burning".

It would seem to me that if the City could concentrate on reduction of trash that needs to be "consumed/burned/landfilled or otherwise treated" and eventually, with diligent work, reducing the amount left to 80% or more of total amount collected, it would only be necessary to "treat" a small percentage of the generated trash which could then be transported to another facility, and would eliminate the need for a "treatment facility" to be installed and save a huge amount being spent and huge amount of debit being incurred.

My suggestions to reduce amount of trash to be "treated", would be:

1. to use the composting method whereby all foodstuff and lawn and garden refuse is composted together, as well as wood and anything else that could be composted in a facility to be built using the same method as the in vessel facility Peninsula Compost in Wilmington. Sell the end product for income. **Income producing.**
2. Operate several salvage centers where household items that can be reused, can be taken to and sold and or repaired to be sold. Sell end product for income or provide useful furnishings for charitable organizations to distribute. Have people make appointments for pick up with amounts set for each type of item. **Income producing.**
3. Make a collection Center for mattresses, rugs, appliances, tires glass (windows). These items can be picked up by the City on an appointment and pay per item schedule. If these items can be reused, the City can take them to a salvage center and if not, they can be taken to a collection center where they can be picked up by companies that can dismantle them and make other useful products with them. These items should be taken to centers that are designed to dismantle and salvage the various materials. **Income producing or just saving on "treatment" if they can be collected but no payment received at this time.**
4. Make Building Materials Collection Centers. Make building contractors separate wood waste from sheet rock waste, and roofing shingles, and bricks/stone. These items must be delivered and deposited in separate containment areas at the collection centers in order to be accepted. These items can be sold. **Income producing.** Check the Delaware site to see how they collect and separate these materials.

5. Currently hazardous waste is not available to all constituents because some of these people work and do not have access to automobiles to transport this waste to a site for proper disposal. Special pick ups should be made, on a quarterly basis or by appointment by people who have no way of complying.

Respectfully submitted by:

Sally Cummings

Gardener and friend of the earth.

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Re: draft EIS on proposed draft solid waste management plan for the Capital Region Solid Waste Management Partnership

Dear Mr. Marsolais:

Below are comments regarding the above-referenced matter. I offer these on behalf of Save the Bush (SPB). Please forward these comments to members of the Albany Common Council. Please confirm receipt of these comments. Thank you.

Tom Ellis

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Dear members of the Albany Common Council,

Early this year, the City of Albany's solid waste consultant, Clough Harbour & Associates (CHA), completed a draft long range solid waste management plan for the Capital Region Solid Waste Management Partnership (the planning unit of Albany and the dozen or so municipalities who now dump trash in the Rapp Road landfill). CHA worked for 16 months with a 24-person "Steering Committee" appointed by Albany Mayor Gerald Jennings. CHA and the steering committee met fourteen times between November 2008 and March 2010. I attended thirteen of these meetings. Several steering committee members objected or strongly objected to parts of the report. About one-third of appointed steering committee members (the mayors or supervisors of mostly Albany County municipalities that use the dump) either did not participate in the process or attended only one or two of the meetings.

The Albany Common Council (ACC), as lead agency, voted October 4 to accept the report as complete and opened up a 45-day public comment period that ends November 19. The ACC held a public hearing October 25 at which five spoke after CHA made a presentation.

A major defect in the report is that while CHA asserts (page ES-1) it is a 20-year plan (2011-2030), waste diversion (from disposal facilities) data are provided (pages ES-5 and 6-2) for the years 2010-2020 only. No data for 2021-2030 is provided. Are there no goals for the third decade of this century? If not, why not? If goals for the 2020s have been established, why are they excluded from the report? How can it be a 20-year-plan without this information?

The CHA report has good ideas and others SPB opposes. For example, on pages 6-3 and 6-4 of the March 11, 2010 draft, there is a list of ten steps the planning unit can take to minimize residential waste generation. These include:

- \* Promote PAYT [Pay As You Throw] system implementation;
- \* Educate consumers about how to consider waste reduction and product packaging when they are making purchasing decisions;
- \* Promote the use of existing programs that re-use or redistribute materials in the second-hand marketplace;
- \* Promote the concept of repair instead of replacement;
- \* Aggressive education and enforcement programs; and
- \* Aggressive waste reduction and recycling programs.

These ideas are all excellent. However, the report provides very few details about how, when, and if, they could or would ever be implemented. Nothing was offered about how enforcement would occur in the residential sector even though the issue of vigorously enforcing existing recycling laws in Albany was raised at several meetings by one - a CANA representative - steering committee member. At the January 13, 2009 meeting, he said, "The Melrose

Neighborhood Association would like to see strict enforcement of existing laws with penalties for people who never put out blue bins with their six trash bags."

In the two-page "Detailed Implementation Schedule" (Figure 6-1) that immediately follows page 6-13, it is clear what the real priorities of CHA are. Precise short timelines are presented for each phase of "Institutional Measures" which concerns establishing and staffing the proposed regional waste authority:

- \* Regional SWMA feasibility study and Consensus Building: March 1, 2010 - February 25, 2011
- \* Enact Enabling Legislation for Regional SWMA: February 28, 2011 - August 26, 2011
- \* Establish SWMA and Appoint directors: August 29, 2011 - February 24, 2012
- \* Hire SWMA Staff and commence operations: February 27, 2012 - August 24, 2012

Compare that to the "Develop recycling program improvements" section timeline:

- \* Assess local programs: October 8, 2009 - December 31, 2020
- \* Consider additional materials for recovery: October 8, 2009 - December 31, 2020
- \* Consider ways to increase collection efficiency: October 8, 2009 - December 31, 2020
- \* Consider new incentives for reduction and recycling: October 8, 2009 - December 31, 2020
- \* Implement selected program improvements: October 8, 2009 - December 31, 2020
- \* City of Albany PAYT Study: July 1, 2009 - December 29, 2009
- \* PAYT Recommendations: December 31, 2009 - March 23, 2010
- \* Implement PAYT if applicable: March 24, 2010 - September 21, 2010

Notice the language: With respect to the authority, the planners will "enact," "establish," and "hire." For recycling, the planners will "assess," "consider," and "if applicable."

On page 6-12, the report states: "A detailed implementation schedule for the SWMP is presented in Figure 6-1, through the year 2020. While it contains a detailed listing of activities, and allows for functional dependencies between tasks, the schedule is intended to be a generalized representation of SWMP implementation. The start dates and finish dates are not intended to be actual dates or deadlines, and all dates should be considered approximate. Many of the components of the existing SWMP components related to waste reduction and recycling will be ongoing throughout this period. Many of these activities will be conducted periodically rather than continuously, but for ease of presentation all are shown as a continuous line."

The above quoted sentences should be read a few times. How can something be simultaneously detailed and generalized? The matter of "for ease of presentation," is unacceptable. It allows the planners to avoid presenting precise, specific details about which, how, when, or if recycling programs will be improved. SPB want specifics.

With respect to waste minimization, reuse, and recycling, the report is not really a "plan" as the word is usually understood, with specific strategies, targets and dates to achieve identified goals, but an outline or a series of ideas, often vague, planners can pick and choose from, or ignore as they see fit. If aggressive education, enforcement, waste reduction and recycling programs are going to be set up and utilized, why are precise details of these initiatives so skimpy or nonexistent in the report?

The "Detailed Implementation Schedule" has other flaws. Why did CHA not present an up-to-date timeline as of the date (March 11, 2010) of the report? For example, the City of Albany's Pay As You Throw study is identified in the timeline as having been completed by the end of 2009. At the September 22, 2010, meeting of the ACC General Services Committee, Frank Zeoli, the city's recycling coordinator, said the city's consultant had nearly completed the report and "we should have it in a few weeks." Another flaw is the detailed implementation schedule only extends until the last day of 2020 despite CHA saying the plan runs through 2030.

CHA's use of the word "detailed" is problematic. Where are the details? Reuse is barely discussed in the report. I recall one steering committee member - the CANA representative - spoke during at least two steering committee meetings urging CHA and Bill Bruce to make reuse a formal goal to be extensively discussed and analyzed. At the second steering committee meeting on January 13, 2009 - the meeting where the establishment of goals was discussed - he said, "We need to explore reuse programs. For example, bicycle parts, furniture. We need to explore this seriously, make it a formal goal...Almost everything is reusable somewhere in the world." Bill Bruce and CHA declined to adopt his recommendation and judging from the incredibly skimpy discussion of reuse in the report, they



are not interested in pursuing reuse in a serious or systematic manner.

The report asserts that by the end of 2020 (ten years from now), 65 percent of what residents, businesses, institutions, and governments discard can be minimized, recycled, composted or reused in some way, compared to 45 percent predicted for 2010. The report states 65 percent is the "maximum expected diversion that is achievable with the implementation of the expanded waste reduction and recycling program elements that are put forth in this SWMP [solid waste management plan]. However, implementation of a continuous improvement process in connection with both current and future waste reduction and recycling program efforts could help push beyond these above-noted waste reduction and recycling goals." (page ES-6)

On the one hand CHA insists the planning unit will pursue "aggressive education and enforcement programs" and "aggressive waste reduction and recycling programs," but then says it will be very difficult to get above a 65 percent rate even twenty years from now. In life we know that if you aim low you achieve low; aim high and you might achieve great things. If, with "aggressive education and enforcement programs" and "aggressive waste reduction and recycling programs," a 65 percent diversion rate is to be achieved by 2020, then surely diversion rates far above 65 percent should be attainable by 2030?

The failure of CHA to include projections for 2021-2030 is an enormous defect in the report and renders it incomplete. The ACC should not adopt the report, nor should it be forwarded to DEC in its present form.

Failure to include projections for the third decade of this century, fuels speculation that CHA, Steering Committee Chairman Bill Bruce, and Mayor Gerald Jennings do not want highly successful waste diversion rates because achieving rates of 85, 90, or 95 percent shatters the justification for the large disposal facility they so clearly desire to have built and operating by the end of 2018. The first (December 15, 2009) version of the CHA report (page ES-11) called for a disposal facility "with a nominal capacity of 1500 TPD" [tons per day]...assuming a 65 percent recyclable material diversion rate is achieved."

The term "zero waste" is mentioned in the report although it receives little attention.

CHA continues to misrepresent the views of the steering committee. At both the September 22 ACC general services committee meeting and the October 25 public hearing, CHA asserted there was a "consensus" on the steering committee in favor of the report's major recommendation to establish a regional solid waste management authority. What CHA says is not true. At the February 9, 2010 CHA-Steering Committee meeting at which a vote was taken on the regional authority, eleven voted in favor, two voted no, and three abstained. Eight SC members were absent.

Less than half of the 24-member Steering Committee appointed by Mayor Jennings voted in favor of a regional authority; less than half of the existing planning unit's municipal partners have endorsed the authority. My review of the CHA-produced and supplied minutes of the first thirteen steering committee meetings - no minutes were produced for the fourteenth and final meeting - showed that steering committee members:

- \* Robert Conway, Mayor, Village of Voorheesville, attended two meetings;
- \* Thomas Dolin, Supervisor, Town of New Scotland, attended zero meetings;
- \* Daniel Dwyer, Mayor, City of Rensselaer, attended zero meetings;
- \* James Gaughan, Mayor, Village of Altamont, attended two meetings;
- \* Mike Hammond, Supervisor, Town of Knox, attended one meeting;
- \* Jost Nickelberg, Supervisor, Town of Rensselaerville, attended zero meetings;
- \* Richard Rapp, Supervisor, Town of Westerlo, attended zero meetings;
- \* Ken Runion, Supervisor, Town of Guilderland, attended zero meetings.

At steering committee meetings I attended, CHA and Bill Bruce indicated that creation of a regional authority is necessary for construction for a large treatment facility because a disposal facility such as they envision would not be economical in the much smaller existing planning unit.

At the May 19, 2009 steering committee meeting, I asked CHA and Bill Bruce what specifically would be burned in a mass burn waste-to-energy facility such as they had discussed at that meeting, and, despite a follow-up question from me, they could not identify any item or category of items that would be destroyed in such a facility.

Among the problems with authorities are they tend to be anti-democratic and unaccountable. Sometimes they are established for precisely for this reason. Authority directors would likely be appointed by elected officials. The elected officials would then be able to deflect criticism of unpopular authority decisions from themselves, saying they - the elected officials - did not make the decision, the authority did. Authorities are sometimes created to site hugely expensive, controversial, and unnecessary facilities; authorities are convenient mechanisms for borrowing large quantities of money for difficult-to-site facilities. Some unlucky municipality, probably one that is rural and poorly governed, would likely be targeted by the authority for a large treatment facility its residents strongly oppose.

The CHA report (page 5-24) identifies four disadvantages of an authority: These are:

- \* "Cedes local control of solid waste management to another layer of government;
- \* Potentially increases costs through this additional layer;
- \* Municipalities subject to shortfalls in Authority budget; and
- \* Financing of facilities is complex and more costly because Authority facilities cannot be financed through general obligation bonds - to be credit-worthy, Authority would likely need to do facility revenue bonds with the municipalities agreeing to guarantee any shortfall."

For local governments, the combination of ceding local control and simultaneously being required to make up authority budget shortfalls will be problematic. In this era of tight budgets, such an obligation would make short- and long-term budgeting even more difficult than today.

The "Alternative Implementation Scenarios" discussion beginning on page 5-27 is written to make Scenario # 3 appear the best. Scenario # 1, which would retain the size of the existing planning unit, does not include designation of additional recyclable materials as called for in Alternative Scenarios # 2 and 3? Why not?

The CHA report states that Scenario # 1 would include implementation of Pay As You Throw. The report also states an advantage of Scenario # 1 is the minimization of future capital costs because no new disposal facilities would need to be constructed. "After the Rapp Road Landfill is at capacity, it is anticipated that disposal cost will increase, perhaps significantly, due to the need for waste exportation. While this cost increase is by itself a disadvantage, it will create a greater avoided cost incentive to increase recycling and waste reduction even further." (page 5-29)

Some variation of Scenario # 1 is the best option. It greatly minimizes financial risk to local governments and taxpayers, creates a powerful incentive to quickly and aggressively maximize recycling and reuse, and minimize waste generation. Scenario # 1 allows for the development of a variety of of small, low-cost facilities to reuse, exchange, repair, recycle, and compost discarded materials. Such facilities would stimulate economic development, build communities, be more flexible to changing needs, easier to establish and discontinue, generate many more jobs, be less risky financially, and save and/or recover far more energy than a centralized, large or giant-sized disposal (resources destruction) facility.

Tom Ellis  
43 North Pine Avenue  
Albany, NY 12203

November 19, 2010

John Marsolais, City Clerk  
City Hall Room 202  
Albany, NY 12207

Re: Comments to the Draft Solid Waste Management Plan for the Capital Region Solid Waste Management Partnership

1. Current Albany Landfill Debt

I am concerned about what the City of Albany intends to do about its growing Landfill debt for the following reasons: a.) Past and continued use of Landfill Revenues for the general operation of other City services rather than paying off the bonds issued for the landfill, and b.) the discussion at a City of Albany General Services meeting (recorded on videotape) for possibly transferring the (City of Albany's) landfill debt to a future Regional Landfill Authority such as discussed in the Solid Waste Management Plan update. The City of Albany should not be allowed to transfer its debt, it would be like someone reaping the benefits from credit card purchases, and then passing the debt onto someone else. The SWMP must be clear that all debt incurred by Albany in the operation/construction of the landfill shall be the sole responsibility of the City.

2. Proposed creation of a public authority.

The State of NY does not need more public authorities, together they account for over 90% of the entire New York State debt. It is the State that is ultimately responsible for the debt in case the Authority disbanded, and it is unlikely that the State of New York can afford, or even will honor the debt. Consider the problem of faced by the City of Camden whereby that State of New Jersey has indicated it will not help the City make payments on its incinerator debt. Public Authorities do not have sufficient oversight or public involvement. Authority Board members are appointed rather than elected which is another way of removing the public from decision-making. Further, the 90% plus New York State debt incurred by public authorities exemplifies the out-of-control debt with little oversight to control spending/issuing bonds. Every day there is a new article about a State, County or local government that is unable to pay its bills and raising taxes and fees.

3. Planning Unit Area.

The SWMP recommends the expansion of the Planning Unit. Based on this and the early drafts of the SWMP, a significant expansion might include as many as 9 counties. Currently, there are

eleven members of the current ANSWERS Consortium. The Capital District area consisting of Albany, Rensselaer, Saratoga and Schenectady Counties contain about 78 municipal and county jurisdictions. The Greater Capital District Region referred to in the SWMP update process, would encompass several more counties. The impact of this proposal alone would be a profound impact on the community or communities selected for handling the wastes. The truck traffic alone, from 78 or more than 100 municipal and county jurisdictions calls for an environmental review, including review under Environmental Justice. This Draft and Final Environmental Review does not take this into account, considering the implications of the proposed planning unit expansion, this review is incomplete.

It would make much more sense to limit the watershed to only the County of Albany. The general public nor the many other entities being considered for the four counties of the Capital District, or the Greater Capital District referred to in the plan, have not been adequately apprised of the SWMP being considered. The SWMP should not be approved when most of those affected have not had a say in its development.

4. Alternative Daily Cover and Petroleum Contaminated Soils.

Whatever the technology, some level of land filling will be needed. We need safeguards to prevent the selling off of valuable landfill space by taking in unprecedented volume as done in 2006 when combined ADC and PCS almost doubled the total waste tonnages. During the period when the stench from the current landfill that permeated our area was the highest generating thousands of complaints, there was a decision made to bring in as much revenue as possible by taking in the enormous and unnecessary amount of Alternative Daily Cover. The financial gain by the City of Albany, which received income for each ton of ADC, was at the expense of our health and welfare. Not to mention a profound impact on quality of life issues, especially for the residents, visitors and businesses of the Village of Colonie.

5. Waste to Energy.

I am concerned with the possibility of creating a very large public authority that would not effectively reduce wastes in order to run possible waste incinerators. A large guaranteed flow of garbage is needed for waste to energy facilities, were tipping fees insufficient for the operation of all the elements of this Solid Waste Management Plan, it would likely be the municipal members which would be required to fill the gap. The Albany area sits in a geographic bowl with the Heldeberg/Catskills to the south, the Adirondacks to the North and the Taconic Range to the east. Air quality would significantly be impacted by any incineration of wastes, especially on the scale which is referred to in the SWMP. It seems that the City of Albany does not want to get out of the garbage business; otherwise they would have sold the Coeymans site after realizing a landfill cannot be built there. Are there plans to possibly build an incinerator and/or other infrastructure at the site? Have the residents of the Town of Coeymans been adequately notified of the SWMP effort?

6. Lastly, it is clear the City of Albany should not be allowed to lead any waste programs outside the City based on the operation of its Landfill. The impact on the public's health, safety and welfare from years of odorous emissions, decisions to place revenues ahead of the public by filling up the landfill early by accepting enormous volumes of Alternative Daily Cover and Petroleum Contaminated soils along with reducing tipping fees to bring in more garbage from outside the ANWERS communities when space was at a premium, the decision to not mitigate the current leachate plume polluting the aquifer and nearby 6 Mile Reservoir, the sale/lease of 6 Mile Reservoir (Rensselaer Lake) to a Water Authority for use as an emergency water supply it cannot use also created most of the Water Authority's debt, are only a few of the many reasons the City is not the entity to lead the Solid Waste Management effort. If decisions were made to safeguard the remaining landfill space, enforce recycling and remove food and other organic wastes that could be composted, the current expansion would not have been necessary. The members of the Answers community did not benefit from the landfill revenues, rather they have been hurt by the revenue based decision-making by the City which owns and operates the current landfill. The limited public participation of this Solid Waste Management Plan process, especially considering the scope of an expanded watershed, together with the implications for waste to energy (incineration), show that the planning process is flawed - the environmental review is incomplete.

Sincerely yours,

Bertil K. Schou  
11 Norwood Street  
Albany, NY 12203



**From:** James Travers [\[mailto:jatrav@yahoo.com\]](mailto:jatrav@yahoo.com)  
**Sent:** Friday, November 19, 2010 4:30 PM  
**To:** John Marsolais  
**Subject:** SWMP Comments

John C. Marsolais  
*Albany City Clerk & Clerk of the Council*  
City Hall - Room 202  
518-434-5088  
[marsoj@ci.albany.ny.us](mailto:marsoj@ci.albany.ny.us)

Dear Mr. Marsolais,

Please find attached my comments on the Capitol Region Solid Waste Management Partnership Planning Unit Draft Solid Waste Management Plan Draft Generic Environmental Impact Statement.

While there are some interesting ideas raised in the plan which I support, such as organic waste diversion for composting, unfortunately, it is at the same time far over-reaching in its scope territorially and yet inadequate and incomplete.

Considering how vast an area is being considered as a watershed in the Plan, anywhere from 3 to 9 counties, (never clearly defined), one must consider the input from citizens to be affected by the plan, before approving it without their knowledge. No effort was made to inform these citizens that in Albany a panel of representatives chosen by Albany Mayor Jerry Jennings was planning their future. Nowhere throughout this plan's drafting process was feedback sought by the committee members from their home legislative bodies to share with the committee at large.

One of the objectives set as a goal is the concept of the creation of a Waste Management Authority. The reason an Authority would be necessary, the Committee was told and the plan explains, was to be able to effortlessly institute Flow Control, a practice mandating all waste within a designated geographic be directed to a certain governmental owned or operated regulated waste facility, regardless of whether or not another perhaps privately owned facility offered a more affordable option.

But the City's own legal counsel on waste management, Nixon Peabody Attorney Ruth Leistensnider explained in her memo of February 3, 2010, an Authority does not need to be created for a consortium of communities or planning unit to establish Flow Control.

One must consider the body that drafted this plan, its history and the history of the consortium of communities formerly known as ANSWERS, Albany New York Solid Waste Energy Recovery System, now known as the Capital Region Solid Waste Management Partnership Planning Unit.

The consortium of ANSWERS communities was formed in order to gather together

enough garbage to feed the ANSWERS Waste Incinerator on Sheridan Ave. in Albany. Wisely, this poisonous incinerator was closed in 1994. After its closing, the communities, continued to dump their waste in Albany at the City's Rapp Road Landfill, but ANSWERS as a consortium of representatives meeting regularly no longer existed. No meeting since had been held nor had any official representative from any community been appointed to serve in this capacity, until Mayor Jennings made his appointments to the steering committee in the Fall of 2008.

So this plan was drawn together by several people, a steering committee without knowledge of waste management practices, many of whom sparsely attended, others not attending even one meeting, under the guidance of Clough Harbour.

It is difficult to understand why no environmental organization was asked to participate in the planning process, especially considering Albany, New York's Capitol City, is home to many widely respected environmental organizations. Citizens' Environmental Coalition, Sierra Club, NYPIRG, Environmental Advocates of NY are all based in Albany, yet none were asked to share their vast expertise and understanding of sustainable waste management practices.

Dr. Neil Seldman, President of the Washington DC based Institute for Local Self Reliance offered at no cost his assistance in educating the steering committee and the Albany Common Council on how to establish an economy based in part upon "Waste To Wealth," but was rejected. All waste alternatives have not been explored and therefore the Plan is insufficient.

DEC's website offers a wealth of information providing assistance to communities engaged in solid waste management planning:  
<http://www.dec.ny.gov/chemical/47861.html>

To the right at the top of the page first listed under "Related Links" is a .pdf power point presentation that clearly outlines the steps a community must take in preparing a SWMP. It is entitled "NYSARO 2008 Conference Presentation on Preparing a LSWMP" (Local Solid Waste Management Plan) Here is a direct link to the 83Kb file:  
[http://www.dec.ny.gov/docs/materials\\_minerals\\_pdf/nysaroct08.pdf](http://www.dec.ny.gov/docs/materials_minerals_pdf/nysaroct08.pdf)

It doesn't take highly paid legal or engineering consultants to learn this information and every member of the steering committee should have been made aware of this helpful website, yet I was never mentioned by the consultants. The above cited power point presentation references Sludge several times.

Although it was pointed out to the SWMP Steering Committee that certain wastes, such as Sludge from water treatment plants, had been omitted from being planned for, nothing was added to the Plan to correct this omission after learning of it. Williard Bruce asked the DEC representative if this was true, that sludge must be planned for and included in the Plan and was told that it was true and needed to be included. Because of this omission, the Plan is incomplete.



Albany's only obligation is to plan for disposing appropriately the waste generated by its citizens, its businesses and its institutions. Albany need not plan for the waste disposal needs of anyone else. It is not their obligation to do so and should certainly not be done in any case without the consent of those their planning may impact upon.

It would be wise to reject this plan and call for experts Dr. Paul Connett, Dr. Neil Seldman, Citizens' Environmental Coalition Executive Director Barbara Warren, an Environmental Health expert, to help redraft it to assure it has achievable and sustainable goals and is wise economically.

One of the problems in creating a Waste Authority is that once it has been created, communities under its authority will lose control of regulating their own garbage disposal and they will be forever locked in to the Authority, always subject to its whims and cost increases. The only way for a municipality to be removed from such a formal quasi-governmental agency, would be through an act of the NYS Legislature, releasing them.

According to one Albany Common Council member, also a member of the SWMP steering committee, Albany could dump its huge landfill-related debt upon the Authority so all the communities involved would be responsible for paying for Albany's mismanaged landfill and Coeymans C-2 site debt.

This is exactly the kind of abuse our Governor-elect is concerned with doing away with.

A Resource Recovery Park would bring many jobs and putting into practice Zero Waste principles would be wiser than what this plan offers.

Zero Waste International Alliance (ZWIA) defines Zero Waste as:

"Zero Waste is a goal that is ethical, economical, efficient and visionary, to guide people in changing their lifestyles and practices to emulate sustainable natural cycles, where all discarded materials are designed to become resources for others to use.

Zero Waste means designing and managing products and processes to systematically avoid and eliminate the volume and toxicity of waste and materials, conserve and recover all resources, and not burn or bury them.

Implementing Zero Waste will eliminate all discharges to land, water or air that are a threat to planetary, human, animal or plant health."

[http://www.zwia.org/joomla/index.php?option=com\\_content&view=article&id=56:zw-definition&catid=31:general&Itemid=64](http://www.zwia.org/joomla/index.php?option=com_content&view=article&id=56:zw-definition&catid=31:general&Itemid=64)

While it is said to be a 20 year plan, it really does not go beyond 2020. This is another

reason it is incomplete. Is it a 10 year plan or a 20 year plan?

Some good ideas, but this plan is unsatisfactory and does not meet the criteria set by DEC for a LSWMP and therefore it must be rejected and redrafted.

Jim Travers  
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*Memorandum*

TO: Willard A. Bruce, Chair  
Capital Region Solid Waste Management Partnership  
Solid Waste Management Plan Steering Committee

FROM: Ruth E. Leistensnider

DATE: February 3, 2010

RE: *Proposed Solid Waste Management Plan  
Mechanisms for Flow Control in Absence of Authority Legislation*

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You have asked for a short memo outlining potential mechanisms which might be available to municipal members of the Capital Region Solid Waste Management Partnership to implement the equivalent to flow control, should legislation establishing a solid waste management authority not be established. This memo is intended to provide a short outline of the mechanisms which might be available to municipalities.

1. Undertake collection of solid waste as a municipal function. This option would entail each municipality to collect solid waste itself, and transfer the cost of managing solid waste within the municipality to the tax rolls. Property taxes could then be used to pay for all costs of collection, recycling, and disposal of residue.

2. For towns with a population in excess of 25,000, those towns can elect to become a suburban town pursuant to Article 3-A of the Town Law, and create special improvement districts for the management of solid waste. Both Babylon and

Smithtown on Long Island created special improvement districts for residential and/or commercial solid waste. The Towns essentially took control/ownership over all of the solid waste generated within the districts, bid out the right to collect solid waste within those districts, and required as a condition in the contract with the successful bidder that the waste be handled at designated facilities. This method of flow control was upheld by the federal courts on the grounds that the Towns were acting as market participants rather than market regulators.

3. Counties have the ability to create a county-wide solid waste district, and can act similar to suburban towns in mechanism #2.

4. Create a permit system within each municipality for the right to collect solid waste. Permits could require either (a) an accounting of waste, with a potential revocation of the permit if demonstration of recycling not made (something akin to what Bethlehem has); or (b) use of a specified facility, where the tip fee at the facility covers both recycling and disposal (something akin to what Onondaga's system looks like).

Methods 1 through 3 result in solid waste management costs being added to tax bills, or separate district bills. Method #4 does not, but has a greater potential for challenge. The creation of a franchise is theoretically possible, but the use of a franchise for the collection of solid waste (and bidding out the franchise) is untested as a legal matter, and may be questionable.

You have also asked whether municipalities could accomplish, through an inter-municipal agreement ("IMA") something akin to flow control. General Municipal Law § 119-0 authorizes municipalities to enter into IMAs for solid waste collection and disposal. However, such contracts are only authorized for a term of five years, unless a project involves issuance of debt by the participating municipalities. In that case, GML § 119-0 authorizes such contracts for a term no longer than the useful life of the project under Section 11.00 of the Local Finance Law. In addition, in order to survive a challenge on either state or federal antitrust grounds, specific state legislation should be sought to authorize such agreements, as they could be construed as being in restraint of trade, depending upon the scope of the agreement. *See, e.g., Waste Stream Management,*

*Inc. v. St. Lawrence County, et al.*, 156 A.D.2d 111 (3d Dept. 1990) (because St. Lawrence County had specific state legislation authorizing local laws in restraint of trade, the local law was immune from challenge on antitrust grounds).

Please let me know if you have any questions.

/rel



**Timothy C. Truscott**  
**131 Jay St.**  
**Albany NY 12210-1805**  
**(518) 449-8450 phone**  
**(518) 689-5923 fax**  
**[empirestate@att.net](mailto:empirestate@att.net)**

November 19, 2010

John Marsolais, City Clerk  
City of Albany  
City Hall  
Albany, NY 12207

& Members of the Albany Common Council

Re: Proposed Solid Waste Management Plan for the Capital Region Solid Waste Management Partnership

Dear Mr. Marsolais and Members of the Albany Common Council:

Please find below my comments which I trust you will thoughtfully consider and find useful in adopting and implementing a Solid Waste Plan for the City of Albany and the Capital Region.

Best regards,

Timothy C. Truscott  
[empirestate@att.net](mailto:empirestate@att.net)

## **What is Waste?**

A simple definition of waste is that it is anything we no longer need or use.

## **Why Do We Want to Reduce or Eliminate Waste?**

By reducing or eliminating waste, we conserve our resources. We conserve not only our natural resources (which is important to do), but we conserve our financial resources. Waste costs money, whether it be by way of our local governments, direct individual Citizens or by other government entities many years in the future. The economic consequences of waste may be short-term or immediate, or they may be long-term and difficult to calculate.

The economic consequences of taking action now are both real and compelling. Garbage collection and disposal costs will continue to rise. The avoided costs associated with an annual community-wide waste reduction will be large and will affect the Citizens in many ways, both directly and indirectly.

At the local government level, beneficial programs which are not optimally funded because of budget constraints will have more opportunity to serve the people they were designed to serve. At the state and national level, not as much of the governments' annual budgets will be consumed by the need clean up waste sites. Individual Citizens will have more money available in their household budgets to accomplish things which make their lives better.

Government budgets at the local, state and national level are being seriously strained today. At all levels of government, ways need to be found to reduce operating costs.

Long-range waste reduction policies are a logical, economically viable and important alternative to today's situation.

On a broader scale, what are the implications for our planet if we do not reduce our waste?

For every ton of waste buried in municipal solid waste landfills, about 71 tons of manufacturing, mining, oil and gas exploration, agricultural, coal combustion and other wastes are produced along the way (Brenda Platt and Neil Seldman, *Wasting and Recycling in the United States 2000*, prepared by the Institute for Local Self-Reliance for the GrassRoots Recycling Network, page 13).

If materials are buried in a landfill or burned in an incinerator, industry must extract and process new virgin materials to make new products. It's as if there is a long shadow of depleted resources and wastes left over for every product and package used that is much larger than the product or package itself.

## **What Is Zero Waste?**

The Zero Waste Alliance International broadly defines Zero Waste as:

“A philosophy and visionary goal that emulates natural cycles, where all outputs are simply an input for another process. It means designing and managing materials and products to conserve and recover all resources and not destroy or bury them, and



eliminate discharges to land, water or air that do not contribute productively to natural systems or the economy.”

Humans are not perfect. And while it may seem impossible to achieve zero waste, it is a goal we should work toward.

## **What Methods Are Available for Solving Our Solid Waste Disposal Problem?**

**A. Waste Reduction or Prevention** is at the top of the Waste Hierarchy.

It is the most efficient, least wasteful option, and it saves the most money for municipalities and residents. However, the savings and efficiencies can be difficult to quantify. Often local jurisdictions believe this method is not part of their responsibility and can only be dealt with at the state or national level. That is not true.

It is important to look at two approaches to Waste Reduction for our purposes.

**1. Legislative Measures Geared Toward Extended Producer Responsibility or Product Stewardship.** Such measures will likely be supported by the new State Solid waste Plan. While some measures might be examined locally, this area is best handled under state or federal governments. It will probably take a number of years before product stewardship programs are fully implemented. However, in 2010 New York State enacted an electronics product stewardship law which has been embraced by the electronics manufacturing industry and is well on its way toward becoming successful.

**2. Reductions in Waste Collected for Disposal by Municipal Systems.** This includes several kinds of local government measures that divert waste before it gets put out at the curb for disposal. The Collection of Waste is usually around 2/3 of the cost of an entire waste management system. Reducing waste at the curb can be very important for lowering costs for municipal collection systems. (Private collection systems charge households through fees, so savings to municipalities are less available here; however, the individual household may save money.)

a. **Backyard Composting** - Backyard Composting Devices can serve most households even with minimal yard space. New designs limit vermin and food scraps and yard materials can degrade quickly. Households need only a small amount of training.

b. **Special Collections** - Municipalities can facilitate special collections by working with non-profits to sponsor clothing pick up days and allowing non-profits to conduct pickups of specially marked bags.

c. **Requirements for Large Deliveries** - Some municipalities require used appliances, carpets and furniture to be picked up at the time of delivery of new purchases.

d. **Web Exchanges and Public Information** - Web exchanges and public information about where to take quality used goods in your area can facilitate the diversion of

materials to higher and better uses—books, magazines, furniture, toys, metal, etc. People must know about these options to be able to utilize these resources.

e. **Demolition and Renovation** - Some municipalities require a fee for all renovation or demolition projects. The deposit fee is returned upon documentation of the amount of material reused and recycled from the project. This stimulates the recycling of construction and demolition debris.

f. **Flea Markets & Backyard Sales** - Municipalities can encourage flea markets and backyard sales.

g. **Zero Waste Event promotional Materials** - Municipalities can prepare Zero Waste Event promotional materials and require all special events to aim for zero waste goals.

**B. Re-use** is at the second level in the hierarchy of waste management.

Re-use also has significant environmental, economic and social benefits. Like waste reduction, reuse is a method of waste reduction which the City of Albany has ignored. Reuse is the second most neglected resource/waste management method. Reuse is different from recycling in that with reuse we are talking about complete products or goods being reused, not just the materials. Because of the important opportunity for the social benefits attended to reuse, reuse must be measured by transferred value, not just tonnage removed from the waste stream. Avoided collection, and disposal costs should be used to identify appropriate levels of financial support.

Re-use can be done informally and effectively. For example, empty egg cartons can be taken to local farmers' markets and given to egg farmers for re-use. A single egg carton can be used many times, and does not need to be disposed of with garbage which is un-re-usable.

Reuse operations can and should be supported by government assistance. Integrating reuse operations with other government programs can maximize the overall benefits to a municipality. Transferring furniture and other goods to families as they are placed in subsidized housing is just one example. Job training is another. Reuse operations can also be an outlet for commercial "seconds" that are still perfectly useable, just not saleable. People love bargains and flock to flea markets. This attraction can help Reuse centers serve important educational functions for recycling as well as providing drop off locations for books, magazines, clothing, furniture, etc. and also serve to provide recycling and composting information.

Municipalities must overcome the idea that because they are in the waste business they cannot subsidize reuse. It may be useful to find the funds from different departments because of the multiple benefits. The reality is that, over time, small initial subsidies can benefit the municipality into the future. This is very true of Urban Ore in Berkeley California. This was initially operated as a non-profit and Berkeley provided support.

Now it is a profit-making enterprise with quite a few jobs. Yet Berkeley is provided with an outlet for goods that is less costly than trucking them for landfill disposal.

### **Organizations Which Promote and Facilitate Re-use of Items:**

#### **The Freecycle Network™:**

The Freecycle Network™ is made up of 4,885 groups with 7,017,000 members across the globe. It's a grassroots and entirely nonprofit movement of people who are giving (& getting) stuff for free in their own towns. It's all about reuse and keeping good stuff out of landfills. Each local group is moderated by a local volunteer or volunteers. Membership is free. The Albany Freecycle group is part of Yahoo! Groups.

Membership:

|                   |      |
|-------------------|------|
| Albany            | 8310 |
| Rensselaer County | 1654 |
| Schenectady       | 395  |
| Schoharie County  | 1097 |
| Montgomery County | 1144 |
| Saratoga County   | 1071 |
| Columbia County   | 2861 |

Total: 16,532

#### **AlbanyNYReUseIt Group:**

The Albany, NY ReUseIt group is an online forum that serves as a tool to make connections between community members who want to help each other, themselves, and their environment. In a disposable society where many items are discarded long before they have actually outlived their use, the ReUseIt Network helps get things from people who have them but don't want them to people who want them but don't have them.

Our goal is to find new uses for unwanted items that would otherwise be thrown into the trash. The ReUseIt Network also provides an opportunity for those looking for an item to ask for it. Requests for items may jog the memory of someone who has an unused item stashed in the garage or basement waiting to be used. It is a great way to help get rid of those things we may have forgotten, giving every member the chance to ReUseIt! AlbanyNYReUseIt is also part of Yahoo! Groups.

Total Membership: 1,635

#### **Habitat Re-Store:**

The Albany Habitat Re-Store, 454 North Pearl St. in Albany, is operated by Habitat for Humanity, a national non-profit organization. The Habitat Re-Store accepts new and used donated building materials and supplies, as well as some furniture and other usable items. The items are then sold at a nominal price to individuals for re-use. Information is not available at this time as to the number of items or the number of transactions performed

annually by the Albany Habitat Re-Store. This excellent method of re-use is not mentioned in the Albany SWMP.

**Historic Albany Foundation Parts Warehouse:**

The AHP Parts Warehouse, located at 89 Lexington Ave. in Albany, is operated by the Historic Albany Foundation, a local non-profit. The Parts Warehouse accepts donations of mostly used (and some new) architectural items such as doors, windows, interior wood trim, plaster ceiling medallions, doorknobs, door locks and many other items. These items are then sold at a nominal price to individuals renovating historic buildings in the Capital Region. Information is not available at this time as to the number of items or the number of transactions performed annually by the Albany Habitat Re-Store. This excellent method of re-use is not mentioned in the Albany SWMP.

**ElFun Society Computer and Peripherals Rehab:**

The ElFun Society, a non-profit group comprised of General Electric retirees in Schenectady, accepts the donation of used computers, printers and other peripherals. The Society's volunteers then evaluate and refurbish the equipment and in turn donate it to schools and other non-profits in the Capital Region. The ElFuns rehab and donate approximately 600 computers per year, as of 2010. This excellent method of re-use is not mentioned in the Albany SWMP.

**Capital City Rescue Mission:**

The Capital City Rescue Mission, as one of its social service activities, accepts used furniture and clothes and makes them available to families and individuals in need. Clothes are inspected for suitability and either distributed, if suitable, or recycled as rags. The Mission has abundant storage capacity for used furniture. However, the Mission does not have the capability of collecting used furniture and moving it to its storage facility. The Mission is tied into an extensive network of social service agencies and does an excellent job of distributing to those individuals and families who need them the most.

**Goodwill:**

Most people are familiar with Goodwill as a charity which will reuse unwanted clothes and shoes. Goodwill has local shops where goods can be dropped off, and there are many drop-off boxes located in the region.

**Salvation Army:**

The Salvation Army is another charity which accepts clothes, shoes and furniture for distribution to needy citizens. The Salvation Army has local shops where goods can be dropped off, and, like Goodwill, there are many drop-off boxes located in the region.

**What Can Be Done to Increase Re-use in the Capital Region?**

As can be seen from the above list of organizations, there is ample infrastructure available to provide opportunities for the re-use of items. These opportunities simply need to be promoted, and the public needs to be educated about them.

- 1) Actively promote the organizations in the region which re-use goods and help publicize and promote the services these organizations provide.
- 2) The public needs to be educated as to the value of re-use and how to take advantage of these opportunities.
- 3) The City of Albany, as well as other municipalities in the region, could make pick-ups of used furniture and transport it to the Mission storage facility. One might ask, how can the City justify the expense of collections? The answer is that if the furniture is not re-used, the City will collect it anyway as part of its garbage collections and it will end up in the City landfill. Landfilling will be a more expensive solution to the disposal of used furniture than will collection for re-use.

**C. Recycling** is at the third next level of the waste management hierarchy.

The concept of recycling is not new and should not be unfamiliar to most people. However, like other forms of solid waste reduction, it will take a great deal of education of the public to maximize this method of solid waste reduction. Many people simply do not have the habit of recycling anything, while others do not think about all the items which could be recycled. On the other hand, some people are very conscientious about recycling.

We are all familiar with recycling plastic, metal and glass beverage containers by returning them to the supermarket or beverage center and receiving the five-cent deposit. These containers are returned and their deposits collected because consumers recognize that they have a monetary value. The container deposit system not only helps to reduce the waste stream, it helps to reduce litter in our communities. Non-deposit containers made from glass, metal and plastic go into the “blue bin” for collection with household trash. Paper and cardboard are also collected.

Metal cans (both steel and aluminum) and plastics are commodities which have a value, though their value fluctuates over time, depending upon global market conditions. Once they are collected within a municipality, there is the opportunity to generate revenue from the sale of these commodities, and to use that revenue to further the goals of waste reduction. In order to accomplish that, the metal, plastics, paper, cardboard and glass are processed at a materials recovery facility (MRF), where they are sorted, prepared for shipment and sold. The business model used by municipalities for operating MRF’s and selling the commodities is very important.

### **Why Should the Arrangement for Processing and Selling Recyclables be Carefully Designed?**

The purpose of recycling is to remove from the waste stream materials which have some value and which can be re-used in some fashion. These materials are known as commodities, and may consist of ferrous metals, aluminum, various types of plastics, glass, cardboard and paper. Some commodities are worth more than others. Commodities

also fluctuate in value over time, depending upon world markets for individual commodities.

The commodities which are collected through recycling programs come from the citizens, the taxpayers. The programs are operated for the benefit of the citizens and taxpayers. In essence, the commodities belong to the citizens and taxpayers.

Therefore, how these commodities are disposed of are of interest to the citizens and taxpayers. It is the responsibility of the government to look out for the interests of the citizens and taxpayers, as those interests are not necessarily the same as the interests of private parties involved in processing and selling the commodities. As is the case with most areas of government, it is the government's responsibility to provide the taxpayers with the best return possible on their tax dollar investment.

The arrangements for owning and operating the Material Recovery Facilities (MRF's) and the arrangements for the sale of the commodities recycled must be such that the taxpayers' interests are protected. The cost of accomplishing the recovery of materials must also be low enough to make this task feasible; contracting out the task of operating the MRF may provide the lowest cost of operation. At the same time, there must be sufficient incentive that the contractor is rewarded for his efforts, while the taxpayers interests are protected..

There are specific arrangements or business models which accomplish this. Tompkins County (New York) and Chittenden Solid Waste District (Vermont) use these models very successfully. The Onondaga County Resource Recovery Agency (OCRRA) was operated this way a few years ago and may still be operating this way, though I am not certain at this point.

The arrangement works this way:

The municipality/solid waste organization owns the MRF and contracts with an experienced private firm to operate it for a negotiated flat fee. The municipality/solid waste organization always has at least one person on-site to monitor operations and to act as the municipality's/solid waste organization's on-site representative in day-to-day operations.

Recovered materials (commodities) are sold by the municipality/solid waste organization for the best price they can get. The commodities must be aggressively marketed and these sales must be conducted thoughtfully.

The municipality/solid waste organization and the contractor split the profit after expenses are paid.

This arrangement has the checks and balances necessary to protect the interests of the two parties involved (municipality/solid waste organization and the operating contractor) and provides the necessary incentives for both parties to do the best job they can do. The risks are shared by both members of the venture, and the rewards are likewise shared. The model is fair for both parties.

The other part of the model which helps it to be successful is transparency with regard to all information. Once again, the three municipalities cited above (Tompkins County, Onondaga County's OCRRA authority and Chittenden County, Vermont's Solid Waste

District all provide transparency with regard to operational information and finances. Information is available on each of their websites as to total tonnages of solid waste, tonnages of recyclables received, revenue from the sale of recyclables and expenses. Transparency with the public helps to encourage public cooperation with regard to recycling and other aspects of the solid waste system.

### **Recycling Glass**

But glass is especially difficult to recycle once it is collected, as uses for it are not widely known and therefore has little monetary value at this point. Most of it is landfilled. However, progress is being made in finding new uses for recycled glass.

Andela Products of Richfield Springs, New York, has developed a patented method for pulverizing glass into different grades so that it can be used for other purposes. Fine grades of pulverized glass can be used as play sand, as well as a medium for sandblasting.

Pulverized glass can also be used as an aggregate to replace sand and gravel in drainage applications, as well as in concrete. In addition, pulverized glass, with a size of 3/16-inch or less, can be used to replace sand in the manufacture of asphalt for the base layer of asphalt paving in an amount of between five and ten percent by weight of the total asphalt product.

Andela also has developed a patented method of pulverizing laminated glass windshields, which should be useful in disposing of waste from autoglass shops.

Andela has developed a second glass collection and pulverizing facility at the Port of Coeymans, on the Hudson River south of Albany. (Contact Cynthia Andela, President, Andela Products, 493 State Route 28, Richfield Springs, NY; 315-858-0055; [candela@andelaproducts.com](mailto:candela@andelaproducts.com); <http://www.andelaproducts.com/>)

### **Dual-stream vs. Single-stream Recycling**

There are two basic methods for collecting and processing recyclable materials at a Materials Recovery Center (MRF): Dual-stream and single-stream.

Under the dual-stream recycling scheme, the citizen separates paper and cardboard from the cans, plastics and glass, either by using two recycling bins, by placing the papers in a paper bag on the top of the other recyclables in the recycling bin, or by simply placing the papers loose on top of the other recyclables in the recycling bin. The two categories of recyclables are kept separate as they are placed in two separate compartments in the truck picking them up, and the two categories of recyclables are dumped separately at the MRF.

Under the single-stream recycling scheme, all of the recyclables (paper and cardboard, plastic, metal and glass) are mixed in one bin by the citizen, the bin is dumped into a truck with one compartment when they are picked up, then dumped into one pile at the MRF. The MRF then sorts these materials into paper, metals, plastics and glass.

While it is true that single-stream recycling decreases the cost of collection of recyclables and makes the collection more convenient for the hauler, advocates of single-stream recycling also claim that the convenience of this method increases the recycling rate, i.e. that citizens recycle more and throw less recyclable material in the trash. However, there

is clear evidence that single-stream recycling results in contamination of paper and cardboard by residual liquids from bottles and cans, as well as by broken glass which becomes embedded in the cardboard and paper. The net result is that the paper and cardboard is less useful to paper and cardboard recyclers at the mills and therefore less valuable financially.

While single-stream recycling may increase the tonnage of materials going into a MRF, or the percentage of the solid waste stream going into a MRF, that is not the same as the tonnage of sorted material coming out of the other end of the MRF. Potentially recyclable material is lost because of contamination created when paper and cardboard is mixed with the other materials.

These claims of contamination of paper and cardboard have been substantiated by paper and cardboard recyclers, as well as by a study conducted by CM Consulting on behalf of the Container Recycling Institute (CRI).

CRI selected Clarissa Morawski, principal of CM Consulting, to research this issue. Ms. Morawski is a leading expert on Extended Producer Responsibility (EPR), and has authored numerous reports on beverage container recovery systems. For this study, Ms. Morawski reviewed 60 previously-published studies, reports and articles in trade magazines. Ms. Morawski was interested to find that, as a result of the struggling economy and plunging market prices for recyclables, she is seeing increased market sensitivity to quality issues.

“End markets are really starting to quantify their economic losses from poor quality of material, and from a qualitative perspective, they feel this problem is very serious indeed and could have an impact on any future investments of capital to increase capacity of secondary feedstock.”

The report finds that there are many negative downstream impacts of contaminated feedstock due to the mixing of materials through single-stream curbside collection.

“Basically, the report confirms that you can’t unscramble an egg,” explains CRI Executive Director Susan Collins. “Once the materials are mixed together in a single-stream recycling system, there will be cross-contamination of materials and significant glass breakage. Those cross-contamination and breakage issues then result in increased costs for the secondary processors.”

The CRI report attempts to quantify those costs, but the study acknowledges that there is a need for more comprehensive data.

“Nor are costs calculated on an apples-to-apples basis, because the tons that are handled through various recycling systems are not necessarily the same as the tons recycled” Collins observed. “If you take the contaminants out of the equation, the cost per ton recycled increases. With such high contaminant levels, some of these recycling systems are merely shifting costs to the paper mills, aluminum manufacturers, glass beneficiation facilities and glass manufacturers, and plastics recyclers.”

“To date, the impacts on various collection methods—source-separated curbside, commingled curbside, deposit/return—on the quality of materials destined for recycling have not been formally researched and documented. In fact, rarely is “material quality” or



the “end-destination” of the material considered by government decision-makers when choosing an appropriate recycling system.”

The report (“Understanding economic and environmental impacts of single-stream collection systems”) is also available for viewing on the Container Recycling Institute’s website: <http://www.container-recycling.org/>

So, the question is, “Are the Citizens being best-served by dual-stream or single-stream recycling?” While more research needs to be done, it appears that single-stream recycling does not have all the advantages claimed by proponents.

**D. Composting** is at the fourth level of the waste management hierarchy.

Composting of organic waste can be performed with yard waste (such as grass clippings, hedge trimmings, leaves, etc.) and with food waste. Collection of yard waste for composting is a common practice nowadays, though no municipalities in New York State currently collect waste food for composting. It is desirable to collect waste food and compost it in order to remove it from the larger waste stream, as it is one of the most active ingredients in generating methane in landfills and makes recycling other materials in the mixed waste stream more difficult. The percentage of waste food which can be collected and composted seems to vary widely, depending upon who is doing it.

After recycling, the amount of food waste disposed is approximately 37% of all waste disposed. (From Beyond Recycling

[http://beyondrecycling.org/pdf\\_files/FinalReport.pdf](http://beyondrecycling.org/pdf_files/FinalReport.pdf))

The big question is, what is a reasonable percentage of recovery of the food waste to composting or other organics recycling system. San Francisco, which most of us think of as so progressive, recovers about 40% of residential food waste. Toronto, Canada recovers about 70%! See ‘Beyond Recycling’ for more information.

So with a very strong residential collection program, we are talking about 37% multiplied by about 50% recovery which is approximately 15-20% of the disposed material. It is unknown how much Albany disposes each year.

**Commercial Composting of Waste Food** - In some parts of the country, commercial composting of waste food from food processors, institutions and restaurants has been successfully undertaken. One of the most successful of these is Peninsula Compost Group, which operates a facility in the Port of Wilmington, Delaware. Peninsula’s Wilmington facility has not yet operated a year and designed with a capacity of 600 tons per day.

As of June, 2010, they were receiving approximately 300 tons per day and growing. Peninsula receives waste food from a 100 mile radius of Wilmington. It attracts customers by offering tipping fees which are lower than what would be charged at commercial landfills, thereby saving the customers money on disposal. The finished compost, which takes eight weeks to process, is sold by the truckload for landscaping

purposes. Peninsula employs the Gore method of composting, which utilizes the patented Gore fabric to cover the composting windrows while they age. The fabric retains the heat generated by the aerobic process, as well as the moisture in the composting material.

(Contact: Scott Woods, CEO, Peninsula Compost Group, (917)678-6947;

[scott.woods@peninsula-compost.com](mailto:scott.woods@peninsula-compost.com); <http://www.peninsulacompostcompany.com/>)

**Collection of residential waste food** (as opposed to institutional and commercial food processors) is the most difficult part of composting. But, it is being done in metropolitan areas like San Francisco and Toronto, so it is possible to do. It just requires more organization and better management than ordinary recycling or trash disposal.

**Incremental Implementation of Waste Food Collection** – The best way to implement waste food collection is to use an incremental approach, depending upon the sources of waste food:

- 1) **Food Processors and Supermarkets** – Food processors, distributors of fresh fruits and vegetables, as well as supermarkets, may provide the easiest opportunity for diversion of organic waste. They generally produce fairly large volumes, the waste has not been cooked and therefore will not putrify as readily during transportation and handling, and the producers have a distinct financial incentive to divert it from the rest of the solid waste stream. Collection from supermarket chains should be fairly easy to organize. Perhaps the largest supplier of food waste to Peninsula Composting at this time is the food processing industry.
- 2) **Institutional Sources of Waste Food** – Since institutions, such as colleges, universities, hospitals, jails and prisons are sources of large volumes of waste food and have a distinct financial incentive to lower their solid waste disposal costs, they should be the next highest priority in implementing a waste food collection program. These sources may also provide some fairly large quantities of organic waste.
- 3) **Restaurants and Bars** – Restaurants and bars also have a distinct financial incentive to lower their solid waste disposal costs, and they should be the next highest priority in implementing a waste food collection program. These sources will probably provide a modest, though important, source of organic waste reduction.
- 4) **Residential Food Waste** – Residential food waste, while it may provide a very large aggregate volume of organic waste, is the most difficult to collect. Each residence provides a fairly small volume of organic waste each week, and the environment in which it is collected is more difficult to control. Because of the large numbers of individual collections of small quantities of organic waste, there is more opportunity for undesirable odors to be created, and more opportunity for the odors to escape into the environment.

**What is Composting** – Composting is a natural biologic process whereby organic material deteriorates into simpler carbon materials because of the action of microbes. Composting is an aerobic process, which means it requires the presence of oxygen and does not produce methane as a byproduct. In contrast, what occurs inside a landfill is anaerobic, i.e. it is a process which does not use oxygen, and its byproduct is methane.

Methane is also produced in a controlled environment in an “anaerobic digester”, a device used to generate methane which, in turn, is used as an energy source.

**How Compost is Processed** – Producing a mature or “finished” compost from organic waste requires careful monitoring of conditions inside the compost pile, or windrow. The monitoring can be accomplished using electronic probes which reach into the center of the windrow and record the temperature and humidity of the material. Maintaining a record of the temperature and humidity during the course of the composting process will also be useful in documenting its quality when it is sold.

The temperature of the center of the windrow should be maintained in a range of 120-150 degrees Fahrenheit. This temperature range not only promotes the biologic processes of composting to proceed expeditiously, it kills pathogens in the composting material. If the temperature at the core of the windrow gets too high (i.e. about 150 degrees F), there is a danger of fire (“spontaneous combustion”) and the temperature should be lowered. The temperature of the material is lowered by turning the windrow so that the hotter, inner material is on the outside and exposed to air, and the cooler outer material is moved to the center of the windrow.

The composting windrow can be additionally aerated by forcing air through the windrow using various arrangements. This will also help to maintain a constant, desirable temperature.

**Categories of Compost** – There are two distinct categories of compost, defined by the sources of the organic materials which are composted:

- 1) Class I Compost – is derived from food waste and yard waste only.
- 2) Class II Compost – is derived from food waste and yard waste, but also includes sewage sludge.

Class II Compost is prohibited from being used for any kind of agricultural purposes. Common uses for it are on golf courses and other landscaping applications. One of the principle reasons Class II compost is prohibited from being used in agriculture is that it may include heavy metals, commonly found in sewage systems.

**The Value of Compost** - Like recyclable commodities, mature or “finished” compost has an economic and socially beneficial value. Compost can be used for agricultural purposes, for landscaping, for erosion control and, if sold in small quantities on the retail market, for individual backyard gardens. It may be sold by the truckload (60-70 cubic yards), or it may be sold by the 20-lb. bag. Depending upon what applications it qualifies for (i.e. is the compost a Class I or a Class II Compost), it may have various monetary values.

Delaware County reports that they sell their Class II compost at their facility for around \$10 per cubic yard, but offer volume discounts for truckload sales for perhaps \$5 per cubic yard. The Cornell University Waste Management Institute, which collects information on compost sales and pricing, reports that Class I compost may range from \$7 per cubic yard (for immature compost) to \$50 per cubic yard (a value-added product which would have fertilizer value). Cornell also reports that the highest-value compost is

vermicompost (compost produced by worms), which may sell for as much as \$300 per cubic yard. The majority of Class I compost sells for \$12-25 per cubic yard.

Compost also has a beneficial environmental value which is not easily quantifiable. Our soils, over time, erode because of human habitation and rainwater. These soils also lose their ability to retain water, as well as minerals and other nutrients needed for plant growth. By applying quality compost to areas appropriately, these desirable qualities are returned to the soil.

### **Public Education, Program Outreach, and Enforcement of Recycling Laws**

Continued enforcement of the local laws mandating source separation for recycling through a system of public education and outreach is essential to having a successful recycling program.

#### **A. The Recycling Team**

A professional recycling team must be employed to spread the recycling message and bring technical assistance to the residents, schools, and businesses.

Depending upon the size of the solid waste district, several Recycling Specialists must be employed to explore inquiries and complaints about business, apartment, and institutional recycling. These personnel visit local businesses, apartment complexes, and schools to offer assistance in designing recycling programs as well as free recycling containers and decals. In addition, a large solid waste district should employ a New York State certified teacher, who should speak to thousands of students in hundreds of classrooms each year.

When needed, Enforcement Officers must be available to supplement the efforts of the business and apartment Recycling Specialists. An Enforcement Officer would call on businesses and apartment buildings when it is determined that other approaches have not resulted in cooperation. Each enforcement officer would spend a significant portion of the week inspecting loads of solid waste at the solid waste district's tipping station(s) or disposal facility to ensure that those loads containing recyclables are issued warnings and/or violations. Recycling Specialists will visit any waste generator that may be in violation to determine the source of the problem and to assist in designing a recycling program which will capture the mandated recyclables.

#### **B. Communications**

In order to maintain a high recycling rate, frequent communications from the solid waste organization is necessary to advise those who recently moved to the area as to the local recycling rules, to remind current residents of what's recyclable, and to inform the public of special events.

To keep the public informed of the recycling program, an ongoing and extensive public communication program must be established. This communication program may consist of an advertising campaign focusing on humor and basic recycling rules, or it may use other approaches.

It has been shown that it is important to provide a public message that promotes the "why" of recycling and the difference one person can make in preserving natural

resources for future generations. The advertising/educational campaign should emphasize the solid waste organization's website as a community resource.

### **C. The Value of Early Childhood Recycling Education**

While it is important and even essential to have a recycling educational effort directed at all age groups in the population, it is especially important to begin recycling education in early grade school. This is the period during which children form their habits of life, including healthcare habits, dental care habits, nutritional habits and so forth. If children are taught the importance of recycling and the basic principles of recycling during this period, what they learn will stick with them for the rest of their lives. It will be important to remind these people of the importance of recycling and the principles of recycling, as they grow and mature, but this will only require reminders. It won't be case of educating them "from scratch".

### **The Importance of Commercial Recycling**

In Albany, most of the public discussion about recycling seems to involve residential recycling. While residential recycling is important, that segment of the solid waste stream does not have the greatest potential for recovering significant volumes of discarded material. The largest volume of recyclable material is probably on the commercial recycling area (including multiple-unit dwellings), based upon the experience of other recycling programs. The Onondaga County (OCRRA) recycling program is a case in point:

For the calendar year 2009, OCRRA calculated a recycling rate of 64 percent. That is, 64 percent of the solid waste stream was recycled, while 36 percent was disposed of in some other fashion.

In addition, OCRRA provides the following breakdown of recycling for residential vs. commercial sources of material:

|                                                      |                    |
|------------------------------------------------------|--------------------|
| Curbside recycling (primarily residential recycling) | 42,014 tons        |
| Commercial recycling (primarily business recycling)  | 539,467 tons       |
| Total                                                | <hr/> 581,481 tons |

$42,014 \text{ tons} / 581,481 \text{ tons} = 7 \text{ percent}$

$539,467 \text{ tons} / 581,467 \text{ tons} = 93 \text{ percent}$

So, for the OCRRA recycling program, which is a decidedly ambitious recycling program, only seven percent of the recycled materials are the result of residential recycling, while 93 percent of the recycled materials are the result of commercial recycling.

To look at this situation in terms of the overall solid waste stream, 581,481 tons is 64 percent. Therefore, OCRRA's total solid waste stream for 2009 was 908,564 tons, of which 42,014 tons was residential recycled material while 539,467 tons was commercial recycled material.

Residential recycled material accounted for 42,014 tons/908,564 tons = 4.6 percent, while commercial recycled material accounted for 539,467 tons/908,564 tons = 59.4 percent of the total solid waste stream. Meanwhile, 327,083 tons was disposed of in some other way.

While there may be some variation from community to community in terms of the percentage of the solid waste stream which is recyclable, the proportions are probably very similar to OCRRA's.

There are conclusions which may be drawn from the above information:

- 1) As much as we may try to improve the rate of residential recycling, it is impossible to significantly improve the overall recycling rate of the total non-organic portion of the solid waste stream by more than a few percent. This does not mean that the improvement of residential recycling should not be pursued, but we should recognize its limits in improving the overall recycling rate.
- 2) There is great potential for recovering recyclable materials from the commercial sector of the solid waste stream. The commercial sector deserves as much of the educational and enforcement resources as the residential sector, and more.

Mandatory source separation of recyclables from commercial, industrial and institutional sources was established when Section 313-16 was added to the City Code on October 1, 1990. Multiple-unit dwellings of more than four units are considered commercial buildings and are subject to this section of the recycling ordinance. Multiple-unit dwellings of four or fewer units are subject to the same provisions of the recycling ordinance which applies to individual residences.

So, Albany's ordinance covering commercial recycling (Section 313-16 of the City Code) has been in effect since 1990 (20 years ago!), yet it has never been seriously enforced. In fact, there is not information available on what the recycling rate is for the commercial sector of the solid waste stream.

### **When Are the Benefits of Recycling the Greatest?**

While the materials recovered by recycling and sold are in fact commodities which have value, there is more to the equation than just the value of the commodities. If there are added costs involved in recycling, these detract from the net value of the individual commodities:

- 1) If the commodities coming out of the MRF are of poor quality because of contamination or some other similar factor, the commodities will not bring as good a price when they are sold.
- 2) If the recycled materials need to be shipped a significant distance for processing at a MRF, the costs involved in that shipping will affect the net value of the commodities. Transportation of low-grade materials over long distances can add significant costs for recycling and solid waste.

The conclusion can be made that recycling's benefits are strongest when the recycling process is local.

## Reduction of Construction and Demolition Waste (C&D)

Construction and demolition waste accounts for a very significant portion of the solid waste stream. An emerging industry which has the potential for significantly reducing C&D in the waste stream is that of “building deconstruction”. There are now firms which specialize in deconstructing (rather than demolishing) buildings, i.e. the buildings are taken apart carefully and as many parts of the buildings as possible are re-used. While some of these projects involve the deconstruction of entire buildings, others involve partial deconstruction of buildings for the purpose of renovation. Building sizes range from residences to large office and university buildings.

One such firm, Institutional Recycling Network (IRN), plans and manages deconstruction projects, and finds end-users for the recycled materials. Some of the items recycled by IRN follow:

|                                   |                                                           |
|-----------------------------------|-----------------------------------------------------------|
| Furniture and Furnishings         | Architectural Salvage, Casework, Cabinetry                |
| Formed Concrete (including rebar) | Ferrous Scrap (Structural Steel, Rebar, Steel Framing)    |
| Brick and Block                   | Non-Ferrous Scrap (Plumbing, HVAC, Electric)              |
| Asphalt Pavement                  | Gypsum Wallboard                                          |
| Dimensional Lumber and Plywood    | Commercial (Membrane), Metal, and Slate Roofing           |
| Engineered Wood Products          | Asphalt Roofing Shingles                                  |
| Treated Wood                      | Wood and Metal Doors and Windows                          |
| Ceramics (sinks, toilets)         | Universal Wastes (Fluorescent Lamps, Ballasts, Batteries) |
| Mixed Construction Debris         |                                                           |

This approach allows renovation projects to be undertaken using recycled materials and actually saves on total project costs. The rate of recycling in these projects may range from 75 percent to 97 percent, and thereby keeps large volumes of material out of landfills.

## The Role of State Government in Recycling and Composting

While no formal study information is available, anecdotal evidence indicates that New York State government heavily to the problem of solid waste disposal in the Albany area. State employees do not receive enough recycling education and recycling is not enforced. As a consequence, many recyclable materials (especially paper) end up in the landfill when they could be recycled into new products. Similarly, large quantities of organic materials are landfilled when they could be composted.

## **Summary**

In summary, the City of Albany has the opportunity to devise and implement a state-of-the-art system for waste reduction, re-use and recycling which will benefit its residents for decades to come. The City's leaders should seize the opportunity and lead Albany into a new era.





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November 19, 2010

John Marsolais  
City Clerk  
City of Albany  
Albany City Hall  
Albany, NY 12207

& Members of the Albany Common Council

Re: Proposed Solid Waste Management Plan for the Capital Region Solid Waste Management Partnership

Dear Mr. Marsolais and Members of the Albany Common Council,

We urge the Common Council to reject this Solid Waste Management Plan and call for specific amendments. First we will delineate some of the most egregious problems with the draft Solid Waste Management Plan.

#### Background

Albany has operated with an informal consortium, known as ANSWERS for a long time. Now the name is being changed to the Capital Region Solid Waste Partnership but little about this arrangement has changed substantively. Albany has operated a landfill under several modified enforcement agreements that have allowed increased capacity for waste disposal. At the same time the consortium was supposed to be making other long term arrangements including another landfill while simultaneously increasing recycling programs. All of Albany's long term planning for another landfill and for creating a waste authority starting in 1989 has failed. Instead as the deadlines for landfill closure loomed, there was always a new "crisis" to justify extending the landfill's life.

We believe the primary reason for this failure is that Albany has operated the landfill as a cash cow that pays for the City's operational expenses. Thus the City has little long term motivation to properly manage solid waste. Albany's need for current income always trumped the need to close the existing landfill. And so we now enter a new phase in which the state is saying you

must change the way you are managing waste and Albany's need for current income has worsened.

### **Current Economic Setting**

The national and global economic crisis has been felt severely at the state level, particularly given the significant role Wall Street plays in New York State's economy. New York State is witnessing deficits never seen before and simultaneously local governments at every level are suffering. The City of Albany needs lower expenses and jobs and economic development now.

Albany desperately needs an economic development plan that creates jobs, and increased income for the city, while replacing the former cash cow that the landfill represents. We have offered to arrange for Neil Seldman of the Institute for Local Self Reliance to come and meet with City officials about the opportunities offered by preserving materials in the waste stream. He has worked for EPA and published numerous reports which are available on the website [www.ilsr.org](http://www.ilsr.org). He is a national leader on the issue of "Waste to Wealth." He has worked with a number of local communities to develop eco-industrial parks that maximize the recovery and use of materials in the waste stream for remanufacturing.

This clearly was not one of the alternatives that was studied in this solid waste management plan. Given the economic climate, failing to seriously examine the opportunities for economic development is irresponsible to taxpayers but most of all for the many people currently unemployed in the region. We include our Jobs Factsheet for information on jobs in reuse, recycling and remanufacturing in the Attachments.

### **Serious Long Term Solid Waste Planning Is Undermined by a hidden agenda**

The mandates of state law and implementing regulations were designed to create a situation where careful and transparent analysis of a community's solid waste situation and the various options would help guide future long term decisions.

Such planning requires careful analyses based on accurate information, honesty and transparent presentation of information to the public and their public officials so that they can make decisions about solid waste management. Albany's case is a particularly egregious example of how planning can go through the motions, but in the end subvert the entire intent of the law.

A plan that showed in detail that Albany and its partner communities could expand zero waste programs to reduce, reuse, recycle and compost the majority of the waste as a least cost option is not a plan that Albany's consultants wanted to produce. A plan that actually showed the environmental benefits of doing so and the social benefits including jobs would then require that the City pursue zero waste programs.

A hidden agenda and purpose for Albany's solid waste management planning effort was to establish another Cash Cow for Albany, a solid waste AUTHORITY and secondarily to build a large solid waste treatment facility that will provide large fees for engineering consultants. The public and taxpayers will not benefit from a \$554 million solid waste facility (likely an INCINERATOR) which will saddle them with capital debt for 30 years.

While the consultants may be telling the City that they will get a Cash Cow, the reality is far different and we refer you to recent news stories regarding the Harrisburg, PA incinerator and the Camden, NJ incinerator. See Attachments to this letter.

Albany's consultants knew at the outset that the public opposed incineration, and newer types of similar thermal technologies- gasification, pyrolysis and plasma arc. They also knew that the public fully supported zero waste programs. So if they wanted to actually build some type of thermal technology, the only way to do so was to propose a Solid Waste Authority. An authority has two unique characteristics—once established it is completely unaccountable to the public. The public gets no say in future decisions and none of their financial dealings are open to the public.

So by calling for an authority Albany consultants are saying they don't like democracy and democratic processes. Once an authority is established any bad project and any amount of money can be spent on it without voter approval.

Thus the entire Long Term Planning Effort was undermined by a hidden agenda, to advance a large solid waste facility for an expanded multi-county waste shed.

### **Advancing Two Proposals the Public does not want: A Solid Waste Authority and a likely Incinerator**

There has been a great deal of focus on authorities in New York State in recent years. The legislature has supported reform measures. In August of 2010 NYS Comptroller DiNapoli issued a report on public authorities in New York State. Outstanding public authority debt totals over \$214 billion. Even more astounding is the fact that 94% of all state-funded debt was issued by public authorities without voter approval, reflecting an average increase of 9% per year since 1985.

At this time public concerns about the lack of public accountability associated with authorities is actually overwhelmed by financial concerns by well positioned public officials. So it remains at least somewhat surprising that this Solid Waste Plan continued to advance the idea of an Authority. Although in this case the Plan does admit that municipalities are on the hook for any budget shortfalls created by authorities. But when viewed in the context of what the consultants really want to propose—a massive incinerator-- it is understandable. The Albany public having succeeded in closing down the terribly polluting ANSWERS incinerator in 1994 would not want to repeat that mistake. If the consultants want to build an incinerator in Albany, they must advance an authority.

**Advancing a Plan that the Public fundamentally does not want and that proposes to exclude the public about future decisions requires misrepresentation of the facts. The first major lie in the Solid Waste Plan is that the only way to proceed with any long term management plan is through a Solid Waste Authority.**

The City of Albany's Environmental Counsel, Ruth Leistensnider, Esq. was asked to prepare a memo regarding flow control and possible implementing options. She presented those options at a meeting of the Solid Waste Management Committee. Unfortunately the Plan as written chose to selectively remove any reference to other options presented by the City's own counsel and to present only the option of an authority.

We wish to emphasize that all that is really needed for the consortium to work together on a long term waste management plan is to adopt matching municipal **ORDINANCES**, which stipulate the solid waste plan and implementation for the consortium and clarify responsibilities,

authorities for each partner and overall objectives. This could be accomplished in as little as 6 months if the partners have the interest.

As the Plan does detail the Towns of Smithtown and Huntington have created **Solid Waste Districts** and exercise contractual flow control to ensure that waste is delivered to designated facilities to ensure that waste reduction and recycling are fully funded. **Solid waste districts** are also used in Vermont.

In Tompkins County an annual **solid waste fee** is levied on residents, businesses and institutions. This annual fee combined with revenues enables funding of an aggressive waste reduction and recycling program. However, the consultants determined that this would not be practical because every municipality would need to agree on an annual fee and a mechanism for collecting it.

Apparently the consultants believe that this would represent an impossible task when the municipalities currently are supposed to be coordinating waste reduction and recycling programs, and enforcing recycling requirements. The question is – is it really easier to just cede complete control to an authority and agree to pay whatever bill and whatever shortfall that develops than to work on an agreement on a fee and collection mechanism?

And here is the major question- who is interested in this larger regional waste authority than encompasses several counties? Half of the partner communities in the current partnership have not showed much more than minimal interest in the proceedings.

Absolutely nothing has been included in this waste plan that demonstrates the continued commitment of partnership entities to working together to implement a collective waste plan. The only document we are aware of is the Intermunicipal agreement, which has not been made available in the Plan. Because it has not been made available we cannot determine whether sufficient authority and accountability exists within the partnership currently

This Plan is advancing an idea for a larger partnership by proceeding from the top down—calling for legislation to establish an authority—rather than by working from the bottom up to establish a basis of support in participating communities. Currently even those within the so-called partnership are uninvolved.

**The Second Problem for any serious solid waste plan is that you have to present factual information and careful analysis.**

Now the Consultants have a serious problem because incineration is the most expensive solid waste management method available and stories in the media are documenting the problems. Please see attachments for these stories Here we list just some of the factual problems with the analyses presented in the Plan.

Total Recycling 118, 645 tons (2008)

Total Disposal 202,727 tons or **664 TPD, tons per day**

31% of garbage delivered for disposal was designated recyclables or 206 tons.

Another 30 % has been estimated by this plan to constitute food waste and other paper, all of which is compostable.

If recyclables were recycled, this leaves 458 tons per day to be managed.

If the compostables are composted this leaves just 259 tons per day. But this doesn't address the fact that yard waste was not properly counted. The current partnership is too small to enable the building of a large solid waste facility.

**Yard waste was not properly accounted for.**

The waste characterization study if you can call it that was extremely limited and inadequate for any long term plan. A five day survey in February is not representative of all seasons for an entire year. It especially should not be used to represent the Yard waste for the Capital District, since yard waste is not collected in the middle of winter. The Plan only accounted for yard waste generated in the Town of Bethlehem-14,000 tons and the City of Albany- 5600 tons. In the absence of data the plan should have assumed that other jurisdictions are generating similar quantities and much of it entering the mixed waste stream unless there is evidence to the contrary. Appropriately treating yard waste would increase the maximum recycling possible from designated recyclables.

**Regulation and Enforcement regarding Commercial haulers** is supposed to be an essential part of the new program but there are few details in the Plan and no evidence of a developed program for all of the partnership communities. 25% of Albany's housing stock is in multifamily buildings with 4+ units that are picked up by private carters.

All of the new Recycling Initiatives are poorly defined and not matched by any information about what is happening within partnership communities. Since a new website with this information was supposed to be developed it would have been nice to mention it in the plan.

**Maximize Recycling.** The Plan says it believes that the maximum that can be reached is 65%. San Francisco is already above 75% recycling. The major element to changing the rate is to target 100% of the waste stream for recycling. But Waste reduction and Reuse have largely been left out of this plan and are essential zero waste programs. All zero waste programs in combination are the key to higher diversion rates and lower costs.

**Cost Distortions in the Analysis**

For the Onondoga incinerator the Plan somehow manages to leave out payment on the capital costs. This change would make the cost per ton over \$80, not \$41. It is not a surprise to find that the cost analysis for scenario #3 shows the lowest cost per ton. Such pre construction estimates don't often reflect reality or future maintenance and repairs requiring millions of dollars in further investment.

However, there is always an advantage to economies of scale and we believe a more realistic scenario could have been constructed with more organic waste composting under For food scraps alone, the amount should be around 200 TPD, and a facility also doing yard waste should have been considered for Scenario #2 that would have shown substantial cost advantages over scenario #3.

However, as we know from experience with incinerators built with excess capacity—shortfalls in tonnage are a real problem for the sponsoring community. This has caused Washington and Warren counties to pay for waste shortfalls at the Hudson Falls Incinerator and a similar situation at the Dutchess County Resource Recovery Incinerator.

**Lastly, we have included the New Yorkers for Zero Waste Platform, which indicates the level of support Zero waste currently has. It also call for a moratorium similar to the one that Massachusetts has and includes newer thermal technologies.**

**Thank you for your attention.**

**Sincerely,**



**Barbara  
Executive**

**J. Warren  
Director**

### **Attachment #1 Harrisburg's Incinerator leads toward bankruptcy**

Harrisburg's Failed Infrastructure Project

A new incinerator was supposed to earn Harrisburg, Pa., \$1 billion. Instead, it's a cautionary tale for what happens when an infrastructure project goes bad. John Buntin | November 2010

Standing atop Market Square Plaza, an 18-story skyscraper that opened in 2005 in downtown Harrisburg, Pa., former Mayor Stephen Reed surveys the city he built.

"That's Harrisburg University," he says, pointing north to an impressive 16-story building that houses the university he almost single-handedly created five years ago. Restaurants and bars stretch west to the state Capitol. Virtually every one was built on his watch. "Three-quarters of the lots on this street were vacant -- unused," says Reed of one restaurant-filled artery. Vacancies lined many other streets too. Things were so desperate in Harrisburg when he took office in 1982 that on his first day as mayor, he found on his desk a plan for declaring municipal bankruptcy. He ignored it and today Harrisburg is a city transformed. Upscale hotels, Class A office buildings, bars and restaurants fill the streets near the Capitol building. The old Holiday Inn, which was on the cusp of being transformed into a complex with a strip club on the bottom two floors and subsidized housing above, is now a Crowne Plaza, one of the city's two convention hotels. Lawyers and lobbyists occupy the historic federalist townhouses that look out over the Susquehanna River. Bicycle-riding hipsters and state employees walking to work share the narrow sidewalks of the historic district. The renaissance is Reed's legacy.

Yet despite the outward signs of prosperity, all is not well in Harrisburg. Last year, after 28 years as mayor, Reed was turned out of office. Several things contributed to his downfall, among them a rising dissatisfaction with Reed's autocratic management style and an economy gone sour. But what really doomed Reed's bid for an eighth term in office was an infrastructure project gone bad.

In 2003, the Harrisburg Authority, a public entity charged with providing solid waste management services and whose board was handpicked by the mayor, approved a plan to retrofit Harrisburg's incinerator for \$120 million. Today Harrisburg, a city of about 49,000, owes more than \$280 million on the project and has amassed a per capita debt burden more than three times the second most indebted city in the state, Philadelphia.

Harrisburg isn't alone in piling up debt. Over the past five years, state and local governments have been on an epic borrowing binge, bringing outstanding debt to a formidable \$2.4 trillion -- that's a 35 percent increase since 2005.

There's nothing inherently wrong with borrowing money, particularly to build infrastructure. Done properly, it's one of the best tools governments have to boost productivity and by extension, raise incomes. Done improperly, there's no better way to destroy a balance sheet. And

that's where Harrisburg is today. Pennsylvania's capital is teetering on the edge of bankruptcy, a prospect that has spooked bond markets and worried Gov. Ed Rendell, who recently warned that "If Harrisburg fails, every other municipality in Pennsylvania is in danger."

The story of Harrisburg's debt-driven downfall is a cautionary tale of how a city -- even one run by a mayor who considers himself a builder -- can fall prey to the vagaries of a large-scale project. It also raises provocative questions about the context in which key decisions are made: Is Harrisburg the victim of fraud and malfeasance? Or is it the victim of a political climate so poisonous as to make problem solving impossible?

#### Harrisburg Gambles on a Resource Recovery Facility

For more than three decades, the city incinerator's lone smokestack has stood in the center of south Harrisburg. Technically it's not an incinerator at all, but a waste-to-energy resource recovery facility that burns garbage and uses the heat released to generate electricity. When it opened in 1972, the plant was seen as a way to convert what is a municipal expense -- garbage disposal -- into a profitable product -- electricity. But the project seemed troubled from the beginning. Breakdowns were frequent. Tests established that the dark plumes of smoke that occasionally wafted over the city were rich in mercury and dioxins, two highly toxic materials. By the time Reed took office, the incinerator was actively losing money.

Reed managed to stabilize operations and return the incinerator to the black by bringing in more professional management. In the early 1990s, the city sold the facility to the Harrisburg Authority. Doing so provided a cash infusion into the city coffers and moved the politically sensitive task of raising trash disposal rates out of elected officials' hands. But the incinerator soon encountered a new problem -- more stringent emissions standards of the newly amended Clean Air Act. At first, the city scrambled for a loophole: It sought to be "derated" by reducing its burn rate to no more than 500 tons a day. But one of its two boiler units continued to struggle to meet U.S. Environmental Protection Agency dioxin guidelines. In December 2003, environmental regulators shut the facility down until standards could be met.

Local environmentalists, worried about the potential health problems associated with the facility, argued for leaving it shuttered. But there was a problem with that approach. The city still owed \$104 million on it. As a result, the city's elected leaders faced a choice. They could shutter or sell the facility at a loss, a course of action that would cause city leaders budgetary pressures. They would either have to reduce spending or increase taxes. Or they could double down on the incinerator, issuing \$120 million in new debt to retrofit and expand the facility in order to generate new revenues that would cover both the old and new notes.

The city decided to double down.

In 2004, the Harrisburg Authority awarded the contract to retrofit the incinerator's two existing boiler trains and build a third unit to Barlow Projects Inc., based in Fort Collins, Colo. Barlow Projects had developed a patented boiler and stoker technology that minimized moving parts (a common cause of breakdowns) and provided innovative pollution controls. But what made Barlow's offer most compelling was its price: The company was willing to build the new facility for \$77 million -- about one-third less than other major players in the industry.

To Reed, Barlow checked out. True, it had never built a project as large as the one Harrisburg envisioned, but the company had a good track record with smaller projects. Its founder and CEO, James Barlow, an electrical engineer and ordained minister, was a man of impressive conviction. Engineering firms hired by the city, authority and county signed off on the technology and certified it at that price, modernizing the incinerator and expanding its capacity would cover the note's costs.

Not everyone was smitten with Barlow's offer. Fred Clark, a Reed protégé and a member of the Harrisburg Authority, was worried by the low-ball bid. "It was \$40 million less than the other bids," says Clark. "You don't have to be a rocket scientist to think, 'What the hell?'"

Another Reed protégé, newly elected councilwoman Linda Thompson, who is now Harrisburg's mayor, was worried too. When the Harrisburg Authority went to the City Council with a request for the city to guarantee a \$120 million bond for the retrofit, Thompson hesitated. Ultimately though, Barlow's bid seemed to offer the only affordable way for the city to proceed. "I kept coming to the conclusion that there was no way we could pay for this, particularly if we had to ask the taxpayers to pay for it," Thompson says.

In short, Harrisburg's residents were simply too poor to pay a higher price. If the plant cost more, the authority wouldn't be able to pay off the note. So despite her reservations, Thompson joined five of her seven colleagues on the City Council in voting "yes." The county signed on too, as a secondary guarantor for some \$95 million in debt. Responsibility for overseeing the retrofit fell to the Harrisburg Authority and its five-member board. But de facto responsibility resided with the mayor, who appointed all of the board members.

By 2005, Reed had become the capital's indispensable man, the Richard Daley of Harrisburg. But the arbitrary nature of his reign was put on display when Reed used Harrisburg Authority money to purchase items for a rather exotic economic development initiative: a Wild West museum that would include a replica of Tombstone, Ariz., on the day of the famous shootout at the OK Corral. Unbeknownst to the public, Reed had spent more than \$7 million purchasing such items as the gates of the OK Corral and gambler Doc Holliday's dentist chair for the museum, using funds provided by the Harrisburg Authority. But even such extravagant rule bending failed to dent Reed's popularity or reputation for competence. A May 2005 editorial in the local Patriot-News described Reed as "practically a legend in his own time" and asked where Harrisburg would be "without the juggler in chief?"

Meanwhile, the incinerator retrofit was falling apart.

#### The Missing Performance Bond

There are numerous ways state and local governments seek to ensure that contractors perform their work correctly on large infrastructure projects. One is to hire a project manager. Unfortunately for Harrisburg, Barlow Projects was its own project manager. From the beginning, it struggled to oversee local subcontractors and manage a project far larger than any it had ever done before.

Another means is to write a contract that fines companies for failing to meet deadlines.

Harrisburg's contract with Barlow included provisions of this sort, but there was a problem the city had not anticipated: The company was too financially shaky to pay such fines.

A third provision is to withhold a retainage fee, typically 10 percent of the total cost of the project, until the job is completed. The Harrisburg Authority's contract included a provision that left \$7 million in its hands. But in late 2005, the authority released the money to the struggling company as part of a desperate effort to help it complete the project.

A fourth provision that most municipalities insist upon -- and probably the most important -- is for a performance bond, which protects against loss in case the contract's terms aren't filled. It was here that the Harrisburg project went terribly wrong. Barlow didn't qualify to be bonded. Rather than stop the process altogether, city officials and the authority devised a workaround. Instead of a performance bond that a bank or insurance company would guarantee up to the bond limit in the event of a default, the city cobbled together a series of less impressive guarantees. According to Thompson, the City Council never knew the performance bond was missing.

"Countless hours of tapes prove that the council went through very intensive public hearings," she says. "How that got away from us is mind-boggling to me." But Clark says the lack of a performance bond was something discussed, and that even though the city's legal counsel OK'ed it, it should have been a red flag. "It didn't have a performance bond, 'Hello!'" he says.

By late 2006, the project's construction was not going well. On-site problems at the incinerator could no longer be ignored. That December at Reed's behest, the board voted to fire Barlow



Projects and bring in a major national player, Covanta Energy, to take over the project. When the Covanta team arrived at the site, it was shocked by what it found.

"I don't want to say I was scared," says Covanta Vice President Jim Klecko, "but I had reservations about physically going through the facility." Streams of water flowed through the facility, amidst piles of ash. Worse of all, the all-important third boiler had been "completely scavenged" to maintain the two existing boiler units. The third boiler was the linchpin of the plan to pay the note by expanding burning capacity from roughly 530 to 800 tons a day. But with the third boiler incomplete, the facility was operating at about two-thirds capacity and losing roughly \$1 million dollars a month.

Rather than address the problem, the City Council and mayor went to war.

Identifying the Root of the Incinerator's Failure

To Reed, the failure of the incinerator retrofit was a regrettable but unforeseeable engineering failure. When asked, "What went wrong?" Reed demures, saying, "to this day, I must tell you candidly, I have yet to hear a rational explanation."

The City Council, led by Thompson, who later became the council president, and then-Councilmember Dan Miller, identified a different root problem -- the mayor's leadership style. To Thompson and Miller, Reed had built a house of cards. "Everybody was so impressed with the new buildings and additional restaurants, and the excitement in the main downtown corridor," Thompson says. "No one was checking the facts."

In January 2007, the City Council, acting on a legal opinion provided by the city solicitor, passed a resolution that stripped the mayor's authority to appoint the Harrisburg Authority's board. Reed vetoed the measure, but the following month, another councilmember came over to the majority, providing a veto-proof majority. A new board was installed. Reed sued. Three years of legal battles followed, which led to the seating and unseating of several boards. (Earlier this year, the state supreme court finally ruled in the mayor's favor.)

Meanwhile, Reed was trying to solve the problem. As a step toward paying off the incinerator debt, he proposed leasing the city-owned garages downtown (which serve state government agencies) for 75 years, a step that would have netted the city around \$100 million. The City Council rejected the measure out of hand. Nor could the mayor and council agree on a new board for the Harrisburg Authority. What had been an engineering project management failure became something more serious -- a political debacle.

In February 2009, Thompson announced that she was running for mayor against Reed.

Emboldened by 3,000 new voters who had registered one year earlier to vote for President Barack Obama, and by a skillful campaign that targeted Harrisburg's ministers and African-American majority, Thompson won the Democratic primary. With a 4-1 Democratic-to-Republican advantage in voter registration, Thompson's election should have been ensured. Instead, she defeated the Republican candidate, a lobbyist, by just more than 800 votes.

As mayor, Thompson slipped with alarming speed into the same groove that had frustrated her successor. An early attempt to sell or lease assets and raise property taxes and water rates was rejected by the City Council. After Thompson vetoed the council's modified version, the budget reverted to what Reed had proposed instead. The City Council expected the mayor to return with a new plan after her initial rejection. She didn't. The city then hired a consulting firm to prepare a detailed plan that outlined the city's options, which went nowhere. Soon councilmembers were openly questioning the new mayor's ability to do the job. It was a skepticism that the mayor herself sometimes seemed to share, noting on at least one occasion, "This is above my pay grade. It's above the City Council's pay grade or the controller's pay grade too."

Meanwhile, the debt payments keep adding up. Harrisburg owes \$34 million on Dec. 14. For the past year, however, the city and authority have failed to make payments on the \$288 million debt, and that has forced its other guarantors, notably Dauphin County and bond insurer Assured Guaranty Municipal Corp., to make millions of dollars in payments on its behalf. Earlier this fall,

Dauphin County commissioners, furious about Harrisburg's failure to craft a solution to the crisis, authorized Assured Guaranty Municipal to file a lawsuit against the city. A majority of Harrisburg's City Council has reacted with defiance, criticizing Wall Street for lending Harrisburg "excessive" sums of money. So dysfunctional has the relationship between the mayor and City Council become that when the state offered to provide the mayor with \$850,000 to hire financial consultant Scott Balice Strategies to advise the city, the City Council rejected the money, infuriating Rendell. In an appearance with Thompson after the vote, Rendell, the man who saved Philadelphia from fiscal failure in the 1990s, attacked the City Council for saying that an outside consultant would want to pay off bondholders first.

"That's what cities do," Rendell said, in a hastily called press conference. "They borrow money, and they meet their obligations: They pay off the bondholders. If you don't do that, a city will have no long-term or short-time viability. The city will crumble."

Indeed, one of the most notable things about Harrisburg's crisis is how little pain the city has endured. Trash disposal rates have been raised. At \$200 per ton, they're now considerably higher for the city than the county. But property taxes haven't gone up, service cuts have been slight and no assets have been sold. And yet, the city owes bondholders more than it can afford to pay. The original \$120 million project has ballooned to more than \$280 million in debt, thanks to the \$104 million the city already owed on the old incinerator, \$25 million for the new operator to complete the incinerator and an additional \$31 million that was borrowed to pay maturing debts and restructure some of the remainder.

A declaration of bankruptcy is one talked about solution to the debt problem. As Thompson sees it, that ought to be "our last option," and she's criticized the City Council for treating it as a first option instead. That ultimately may be Harrisburg's true tragedy. The incinerator's problems are the result of bad choices and bad luck. But the problem's persistence has been caused by poor leadership, including an unwillingness to confront citizens with the reality of the problems Harrisburg faces.

"With [Reed] going down, no one knows how to deal with politics in Harrisburg," says former Councilmember Dan Miller, now the city controller. "He was it. He was the kingmaker."

Sitting in his office off Front Street in the upstairs parlor of a historic home where both former President Abraham Lincoln and Confederate Gen. Thomas "Stonewall" Jackson once slept, Reed sits, wreathed in cigarette smoke. Shades are drawn as Reed, dapper with a pencil thin mustache and wearing an enormous, diamond-encrusted Mason ring, shakes his head in disgust. "Yes, it is frustrating," he says of the city's plight and the criticism directed at him. "But I have moved on." As for the criticism that the closely held way in which decisions were made under his tenure contributed to the problem, Reed dismisses it out of hand.

"Closed door?" he says in response to a question about his management style. "I wouldn't say closed door. 'Autocratic' would be the word. It's an autocratic style based on a certain level of impatience. I am not one who is fond of, 'let's have formal committees and study this problem for the next three years and let's have a hundred people serve on this committee.'"

Reed may not be dwelling on the enormous financial problems wrought by the failed incinerator project -- or on the breakdown in government that has thus far prevented Harrisburg from addressing the issue -- but the rest of the city is. Along with his many accomplishments, these too are Reed's legacies.

This article was printed from: <http://www.governing.com/Harrisburgs-failed-infrastructure-project.html>

**Attachment #2 Camden Incinerator. NJ will no longer subsidize it.**

**[New Jersey pulls plug on Camden trash authority debt support.](#)** New Jersey won't pick up a \$26.1 million payment due Dec. 1 on the Camden County Pollution Control Financing

Authority's incinerator bonds after covering payments since 1999, a spokesman for Treasurer Andrew Sidamon- Eristoff said. [Bloomberg News](#). 13 November 2010.

### **New Jersey Pulls Plug on Camden Trash Authority Debt Support**

November 12, 2010, 4:33 PM EST

*By Dunstan McNichol*

Nov. 12 (Bloomberg) -- New Jersey won't pick up a \$26.1 million payment due Dec. 1 on the Camden County Pollution Control Financing Authority's incinerator bonds after covering payments since 1999, a spokesman for Treasurer Andrew Sidamon- Eristoff said.

"We have been and remain willing to work with the authority to come up with a way to restructure the debt," said Andrew Pratt, the treasurer's spokesman. "However, there is not money in the budget to make a \$26 million-plus payment for them."

Standard & Poor's today lowered its rating on the authority's series 1991A-1991D revenue bonds to CC, the third- lowest, from CCC. The firm warned of "the increased likelihood that the authority will default on its last payment Dec. 1," according to a report explaining the downgrade.

New Jersey has scheduled a special meeting of the Local Finance Board in Trenton on Nov. 23 to review options for managing the Dec. 1 balloon payment, which the authority says cannot be covered without state aid. The board must approve all borrowing by the state's municipal and school agencies.

The authority operates a landfill in Pennsauken, where it is based, and a trash-to-energy incinerator in Camden, a city where more than one-third of the residents live in poverty, according to the U.S. Census Bureau.

#### **Tough Competition**

Since 1999, New Jersey has made almost \$150 million in debt-service payments for the authority, according to S&P. The agency can't charge trash haulers enough to meet its financing costs, due to competition from neighboring Pennsylvania, said David Luthman, deputy executive director of the authority.

The operation generated \$36 million in operating revenue in 2008 against \$28 million in annual costs, according to the most recent annual financial report filed for bondholders. Since at least 2007 it has received \$6 million annually in state aid to cover debt-service expenses, the reports show.

The authority doesn't have enough cash on hand this year to cover the full \$26.1 million that comes due Dec. 1, Luthman said in a telephone interview today from the Pennsauken headquarters.

"We have issued a continuing series of public notices that evidence our concern that without significant state aid we are going to have a problem," he said. Regarding prospects for restructuring the debt he said, "Your guess is as good as mine."

--Editors: Stephen Merelman, Mark Schoifet.

To contact the reporter on this story: Dunstan McNichol in Trenton, New Jersey, at [dmcnichol@bloomberg.net](mailto:dmcnichol@bloomberg.net)

### Attachment #3

## Dutchess County Resource Recovery Agency: Inefficient, expensive & in debt

Obligations, costs exceed 13 other NY, Conn. plants

BY MARY BETH PFEIFFER • POUGHKEEPSIE JOURNAL • MAY 10, 2009

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The Dutchess County trash-burning plant needs millions from taxpayers to break even each year, costs 46 percent more to operate than 13 other plants in New York and Connecticut and has debts stretching years beyond all of them.

The findings come from a Poughkeepsie Journal analysis of the finances and functioning of the 22-year-old Town of Poughkeepsie facility on the Hudson River. In almost every respect, the waste-to-energy plant, which burns about 150,000 tons a year and generates enough electricity to power 10,000 homes, fares poorly when compared to other plants, the Journal found. One bright spot is that it meets state emission limits for seven key pollutants.

"This burn plant uses obsolete technology, and it's very expensive," said R. Stephen Lynch, a newly appointed board member of the Dutchess County Resource Recovery Agency, which oversees the plant. Lynch, a solid waste consultant who is administrator for two of the plants in the Journal's analysis, said the Dutchess facility has been "mismanaged from a financial and taxpayer point of view for many years."

Officials of the trash agency, a public authority whose board is appointed by the county executive and Legislature, defended the plant and said its fiscal picture had been influenced by expensive environmental upgrades, competition for waste from cheaper alternatives and less waste delivered by haulers in a down economy. They questioned whether figures provided by other plants reflected the true cost of waste processing and whether the comparison was "apples to apples."

"This business is full of variables," said William Conners, board chairman. "It all depends on what you're looking at, what number you come up with."

The Journal analysis raises questions about the economics of the trash plant at a time when county leaders have seen revenues decline and have made frequent calls for austerity. Among the findings:

- While the Dutchess plant receives a multimillion-dollar county subsidy every year - one that's grown 250 percent since 2001 - seven other facilities are self-sufficient, operating almost entirely on the sale of electricity and trash-dumping fees. The Dutchess facility receives that money and then some. In 2008, it brought in \$11.1 million in "tipping," or dumping, fees and \$4.2 million in electricity revenues - but still needed a \$3.5 million county subsidy to break even.

The subsidy added \$24.50 to each ton of trash burned, bringing the plant's total per-ton processing fee to a little less than \$102.

The 13 other plants averaged \$70 a ton. As significantly, Dutchess' cost will likely rise about a fifth this year.

- Four other plants are supported by taxes paid to governments that arrange trash pickup, while one, in Hudson Falls, Washington County, gets a municipal subsidy as in Dutchess. However, all five operate far more economically than the Dutchess facility and

cost taxpayers far less. Westchester County's plant, for example, costs \$72 to burn a ton of waste in 2008; with its subsidy, the Washington plant cost \$75.

- Though older than 12 other plants, the Dutchess plant has debt extending years beyond every other facility in the two states. Among the 14 plants, four have paid or will pay their debt by the end of 2009, six more will be debt-free by 2019, as will three more by 2023. The Dutchess plant's debt extends to 2027 - with \$49 million in bond payments remaining.

- The plant also lags behind others in "availability," namely the percentage of hours annually that it operates and thereby produces revenue. The 13 other plants operated an average of 91 percent in 2007 or 2008; Dutchess' figure was 86 percent for 2007 and 85.3 percent for 2008; 85 percent is the lowest acceptable level under state environmental regulations.

### **Operating deficit grows**

The Journal inquiry was prompted by the plant's growing operating deficit, which the county is obligated to cover in the form of a subsidy or "net service fee." In 2001, the facility received \$1.1 million in county support; by last year, the figure had more than tripled to \$3.5 million. For 2009, the county has budgeted \$6.3 million to cover agency deficits, which promise to continue and perhaps worsen as competition for trash intensifies in a slowing economy.

Dutchess County Executive William Steinhaus deferred to agency officials on questions about the burn plant.

"Without looking at the numbers, I can't tell you why" other plants function without subsidies, said Conners, the agency chairman.

William Calogero, the Resource Recovery Agency's executive director, estimated the cost to burn a ton of trash at the plant was \$76 to \$79.

"The comparisons being made can be misleading without complete system understanding and need to be clearly presented to be understood properly," he wrote in an e-mail. However, he acknowledged his figure did not include the additional \$24.50 per ton paid by taxpayers in the form of the county subsidy.

One reason the plant may be costlier than others is its relatively small size, burning 450 tons a day, Calogero said. Indeed, Neil Sheehan, the overseer of a 900-ton-per-day plant in Huntington, Suffolk County, said there are "economies of scale" in trash burning. Both plants have about the same staffing - 44 at Dutchess and a little less than 50 at Huntington - a prime expense.

On another point, Calogero said the Dutchess plant operated less time than other plants because of difficulty obtaining waste, while also noting other plants may overstate their operating time by measuring it in a different way.

"When we're shut down because we don't have fuel ... that's why our numbers are lower," said Calogero, who was a board member for eight years before becoming director in 2006.

### **Landfill fees drop**

Indeed, the plant seldom comes close to operating at its maximum capacity of 164,000 tons per year because there are cheaper places, primarily upstate landfills, for haulers to dump their trash. In 2008, the plant, which takes about half the county's waste, processed its lowest tonnage since at least 2000 - 142,800 - as tipping fees elsewhere dropped.

Ulster County, for example, transports its trash to landfills at a cost, including dumping and transportation, of \$70 a ton. The Ulster County Resource Recovery Agency also receives a government subsidy to offset tipping fee shortfalls but, unlike Dutchess', it is dropping, from an average of \$4 million from 2000-03 to \$1.3 million this year.

While acknowledging that dumping trash in a landfill is cheaper, officials of the Dutchess agency maintained waste-to-energy technology was environmentally superior, a point of debate among environmentalists.

"This whole plant is the most socially responsible approach to waste management this county could have," Conners, a Republican appointee, said. "I personally do not believe putting waste in a truck and hauling it 250 miles and burying it is a solution. It may be cheaper but it's garbage-be-gone."

Conners, who is also an outdoor sports columnist for the Poughkeepsie Journal, estimated 850,000 gallons of diesel fuel were saved annually by not having to truck Dutchess' waste to landfills. If the plant closed, its waste would likely go 245 miles away to Seneca Meadows Landfill in Waterloo, Seneca County, which takes 85 percent of Ulster's 125,000 tons a year of trash. (It should be noted the Dutchess plant produces about 50,000 tons of ash yearly, which is trucked to landfills.)

The Dutchess facility - built with \$40 million in bonds and a \$13.4 million state grant - has been troubled virtually since the agency entered into a construction agreement with Pennsylvania Resource Systems Inc. in 1984. Pennsylvania went belly up in 1988 and construction was completed in 1989 by Westinghouse Electric Corporation. Westinghouse operated the plant until 1998, when it sought to get out of its contract, and Montenay Duchess LLC, now Veolia Environmental Services Dutchess LLC, was hired to take over. The parent company of Veolia operates 10 waste-to-energy plants in the United States; its Dutchess contract expires in 2014.

Standard industry practice is for plants to structure loan payments so debts are paid off simultaneously with the expiration of long-term contracts with plant operators - on the assumption that plants will at least operate through that time. But Dutchess' debt, due largely to \$16.1 million in bonds issued in 2007, will extend to 2027. The bonds were issued in order to pay off short-term notes from 2005, which in turn had funded modifications to the plant's emission-control systems required under the federal Clean Air Act.

"Everything was extended when it were reissued," Calogero said about the bonds.

### **'Dinosaur' tied to county**

Roger Higgins, D-New Hamburg and chairman of the county Legislature, said the findings point "to what appears to be mismanagement" of the facility, which he called a "dinosaur with tremendous implications to the taxpayers."

Dutchess essentially guarantees the plant's debt under its agreement with the agency, extended in 2007, to pay operating shortfalls and assure delivery of 140,000 tons of waste a year.

Based on its current budget, the Dutchess plant's per-ton processing cost will rise 20 percent this year, according to a separate analysis by Lynch, the board member and solid waste consultant. Lynch, a registered independent who was appointed by the Democrat-controlled Legislature in January, compared the Dutchess facility to two similarly sized plants he is contracted to manage as part of his Millbrook-based waste planning and administration business.

He found Dutchess' 2009 per-ton cost will be \$121, based on its adopted budget, compared to \$74 and \$84 for the two other facilities, located in Lisbon, Conn., and Hudson Falls. Significantly, if the Dutchess plant's debt were structured to be paid off in tandem with the expiration of Veolia's contract in 2014, as other plants' do, the cost would be an "astronomical" \$147 per ton, he noted.

Lynch is also a member of the Higgins-appointed Green Ribbon Solid Waste Management Task Force, which began meeting this spring and poses a clear threat to the future of the Resource Recovery Agency. The task force's mandate, along with recommending ways to expand recycling and waste reduction, is to "complete a review of the need and feasibility of continuation of the Resource Recovery Agency."

At the same time, the agency recently hired its own consultant, at a cost of \$60,000, for a mission seemingly at cross purposes with the task force's: to study waste-generation in the county and suggest ways to manage it - ideas that "may include expansion of the Resource Recovery waste-to-energy facility, the construction of an additional facility, the construction or leasing of transfer stations and requiring all carters to bring a percentage of their collected waste to DCRRA," according to an agency document.

Given the plant's cost and performance, any proposal for a new or expanded burn plant would likely be highly controversial.

Shabazz Jackson, president of Greenway Environmental Services in Newburgh and a task force member, said, "It's not sustainable. We're seeing the technology, the mass-burn technology, nearing the end of its life."

"It would be met with resistance - that's a good word," said Higgins, who blamed the agency's poor performance on "lack of oversight by the previous Republican-controlled Legislature of this agency. That's what happens when you have a one-party government."

Connors maintained Dutchess residents pay only \$21 per capita for solid waste disposal while Westchester County residents, who also have a burn plant, pay \$108 per capita in their county taxes.

He acknowledged, however, the \$21 is the taxpayer cost of the Dutchess plant's subsidy alone and does not reflect private trash collection bills paid by most Dutchess residents, generally about \$300 a year for a household. In Westchester, Connors' figure of \$108 per capita pays for municipal trash collection in 36 of 43 communities, although some additional amount may be paid in town or village taxes.

In addition to burning trash, the Resource Recovery Agency manages a recycling center on Fulton Street in the Town of Poughkeepsie - which may exacerbate the agency's fiscal straits this year. While the agency broke even on recyclables last year and made \$650,000 in 2007, Calogero said the agency expects to lose money in 2009 as recycling markets collapse in the economic downturn.

"Right now we're losing money every month," he said.

The economy has also prompted trash volumes to plunge - by about 10,000 tons since 2006 - a constant worry for plant operators. The biggest user of the plant is Royal Carting, which is contracted to deliver 115,000 tons of waste a year in exchange for a discounted tipping fee. The City of Poughkeepsie delivered about 12,000 tons last year - its total output - and Waste Management, another private hauler, delivered about 6,800 tons.

Royal officials defended the plant.

"It's a stable, reliable, locally controlled facility," said James Constantino, general counsel. While asserting there is a "phenomenal amount" of landfill capacity with disposal costs in the mid-20s per ton, he added: "That's what it is today. We don't know in five years ... We have clear recollection of what it was like when we had no place to bring it."

Reach Mary Beth Pfeiffer at 845-437-4869 or [mbpfeiff@poughkeepsiejournal.com](mailto:mbpfeiff@poughkeepsiejournal.com)

## Attachment # 4



### **Reuse & Recycling GROWS JOBS Locally!**

#### **Factsheet**

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#### **National Estimates**

The Reuse and Recycling Industry has had sustained growth for over 30 years nationally. In 1967, there were 8,000 companies employing 79,000 people with sales of \$4.6 billion. As of 2000, the industry had grown to 56,000 public and private sector facilities with 1.1 million people and \$236 billion in gross sales. A total growth of 1300%!

The growth in employment in this sector was 5 times the growth in total employment nationwide.

The "Indirect" effects of this industry on supporting businesses were estimated to provide an additional 1.4 million jobs and \$173 billion in receipts.



(U.S. Recycling Economic Information Study, prepared by RW Beck for the National Recycling Coalition, July 2001, available on the Web at: <http://www.epa.gov/waste/conserve/rrr/rmd/rei-rw/index.htm>)

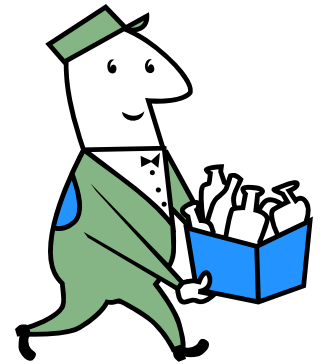
Waste Reduction, Reuse, Recycling and Composting offer the most direct economic development tools available to local communities. Not only are resources and energy saved in the process, but there are new jobs created in the process. Discarded materials provide the local resource to increase local revenues, create jobs, and attract new businesses to the ready supply of materials.

Simply the sorting and processing of recyclables provides 5 to 10 times more jobs than landfilling or incineration. But Reuse and remanufacturing can provide many times more jobs, between 28 and 296 jobs for each one in disposal. (Wasting and Recycling in the US, 2000, Grassroots Recycling Network citing ILSR.)

Manufacturing from locally collected discards adds value by producing finished goods. This picture is more sustainable economically and environmentally than exporting raw materials and importing finished goods.

According to the Institute for Local Self-Reliance, "Closing the loop locally" -- by recovering more materials and developing local remanufacturing, reuse, and composting businesses as markets for these materials -- is the key to maximizing recycling-based economic development.

Consider Philadelphia. This story is provided by the Institute for Local Self-Reliance and available at [www.grrn.org](http://www.grrn.org) Since implementing curbside recycling, between 1986 and 1993, Philadelphia attracted 46 new recycling-related businesses interested in locating in and around the city (with a potential to create 2,000 new jobs). Between 1993 and first of half of 1994 (latest figures available), eight new businesses were established that created 81 jobs, and another 7 businesses, slated to create 284 jobs, were considering locating or expanding in and around the city.



### **In New York State 2009 Data**

Businesses and Jobs associated with the REUSE, RECYCLING AND REMANUFACTURING INDUSTRY.

3,948 businesses

32,240 employees

\$1.39 billion in payroll

\$10.1 billion in total receipts

(Northeast Recycling Council Economic Study for the Northeast, Sept. 2009).

**The DEC estimates that the NEW State Solid Waste Plan would create more than 74,000 new jobs as the result of DEC's proposed major expansion of material recovery efforts.**



### **Not Yet Adequately Quantified**

Jobs in some areas are not adequately quantified yet. Recycling educators and outreach workers, those involved in oversight, and planning tasks, and those that utilize compost materials in nursery businesses, farms and greenhouses are not regularly included in job estimates. We do know however that the supply of compost runs out in the early summer, while there is a demand for this valuable soil amendment for 3-4 more months.

### **Tons vs. Value**

Solid Waste is most often measured in Tons. Yet when we purchase goods at a store, we are paying in dollars. Remanufacturing sells products for dollars. Where this gets tricky is in the

REUSE arena. Too often former solid waste managers want to count reusable goods as tons diverted rather than for value-added goods sold and the benefits provided. The overall social benefits of reuse to schools, charitable organizations and those on fixed incomes can be extraordinary. For Reuse operations- Count Value Not Tons!

Prepared for NY Zero Waste Alliance, managed by Citizens' Environmental Coalition, 33 Central Ave. Albany, NY 12210, 518-462-5527. Contact Barbara Warren also at 845-754-7951 or [warrenba@msn.com](mailto:warrenba@msn.com)

Attachment #5

## New Yorkers for Zero Waste Platform 2010

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The N.Y.S. Department of Environmental Conservation (DEC) has prepared a new State Solid Waste Plan that recognizes that materials in our waste stream are valuable and need to be preserved. We strongly endorse its preference for waste reduction, reuse, recycling and composting over disposal. The less waste we dispose of the more environmental, economic and social benefits that we will enjoy.

Unfortunately, millions of tons of garbage are still being wasted through disposal in landfills or incinerators. The DEC estimates New York's recycling rate to be only 20%, far short of the 50% reduction and recycling goal that was to be met by 1997 under the State Solid Waste Management Act of 1988. A large portion of waste headed for disposal is recyclable (50%) or compostable (30%).

To achieve the goals of the Plan, we must stop trashing our resources through disposal!

- Incinerators emit toxic air emissions and produce toxic incinerator ash that needs landfilling. They also emit more CO<sub>2</sub> than coal burning plants per MWh. Incinerators must have burnable materials and therefore compete with recycling.
- Recycling saves 4-5 times the energy an incinerator recovers.<sup>1</sup> Incineration is not renewable energy.

To address climate change we must address waste in our society!

- For every trash bag we put at the curb, 70 bags of trash were generated by industry to make the products we buy. The production of products and packaging is associated with 44% of all greenhouse gas emissions.<sup>2</sup>
- Biodegradable materials in landfills emit methane, a gas that has 72 times the global warming potential of CO<sub>2</sub>, over a 20 year period.<sup>3</sup> Landfill gas collection systems capture only about 20% of landfill gas.<sup>4</sup>
- The best strategy is to divert biodegradable organic material away from landfills and incinerators to composting. Compost provides nutrients for healthy soils and plants.



Burning and burying garbage wastes money, energy, and natural resources; it contributes to climate change and places an unfair pollution and health burden on nearby communities. Diversion saves energy and resources, and creates many more jobs in collection, processing, reuse of goods and remanufacturing of materials.

Maximizing waste reduction and diversion will dramatically decrease waste sent for disposal over time by 70%, 80%, 90% and more, enabling New York to achieve the significant benefits of a more sustainable system. The ultimate goal should be Zero Waste being sent to Disposal or very close to it.

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<sup>1</sup> EPA's WARM Model.

<sup>2</sup> A recent EPA report found that non-food products are associated with 37 percent of U.S. greenhouse gas emissions. Joshua Stolaroff, PhD worked on the EPA report and subsequently extended the analysis to include products produced abroad and consumed in the US. This white paper states total GHG emissions of products and packaging is 44%. Both reports can be accessed at [www.productpolicy.org](http://www.productpolicy.org)

<sup>3</sup> IPCC, 4th Assessment Report.

<sup>4</sup> Ibid., Working Group III, Mitigation, 10.4.2.

**We call on the Governor, the NYS DEC and the NY State Legislature to support a new, sustainable direction for reducing waste, recovering resources and growing jobs as well as obtaining other benefits for New Yorkers by doing the following:**

- Establish a moratorium on construction of all new waste incinerators or combustors as well as expansions of existing incinerators. This would include newer, commercially unproven thermal technologies such as gasification, pyrolysis and plasma arc.
- Ban waste haulers and municipalities from sending recyclable materials for disposal, and instead require recyclables to be source separated and transported to recycling processing facilities.
- Halt all increases in capacity at the state's largest landfills.
- Require all local solid waste planning units and haulers sending garbage for disposal to demonstrate the presence of adequate programs of waste reduction, recycling and composting in the service area.
- Rapidly implement organics collection programs and develop the needed composting and anaerobic digestion infrastructure. Ban yard trimmings from disposal now and ensure the ban's enforcement. Establish a statewide ban on the disposal of food scraps by 2013.
- Require all communities to adopt incentive/disincentive programs, such as Pay-As-You-Throw, which are proven to increase diversion rates.
- Adopt Extended Producer Responsibility (EPR) legislation (also known as product stewardship) to engage manufacturers and importers in the design of products and packaging to reduce waste and toxicity and remove the burden from government and taxpayers. Producers of products and packaging must be part of the solution. Ten to fifteen percent of the waste stream should be reduced through EPR measures.
- Regulate solid waste generated by all sectors – residential, commercial, institutional and industrial. Bring waste haulers and transporters under the jurisdiction of the DEC through licensing, requiring reporting of all waste and recyclable collections and disposal, and providing for oversight and compliance.
- Require local solid waste planning units to prepare implementation plans that increase waste reduction and diversion and decrease disposal. State and local plans must decrease disposal by 50% by 2015, and 85% by 2020 for all waste streams. The implementation plans must be enforceable by DEC.



- Ensure accurate measurements of diversion and waste quantities in order to measure progress toward goals. Plan to reassess goals and progress and adjust programs under a revised 2020 statewide plan.
- Ensure that Zero Waste Programs and their greenhouse gas benefits become a substantial part of the new state Climate Action Plan and its implementation.
- Establish a secure funding stream to fund more sustainable solid waste programs over the long term and achieve job benefits and needed greenhouse gas emission reductions. Licensing fees, facility permit fees and surcharges on disposal should all be used to provide dedicated funding. A surcharge of at least \$20 per ton of MSW generated could provide \$5 per ton to the state for solid waste activities and \$15 to local planning units to support needed recycling and composting facilities as well as educational programs.

**To support this platform or for more information, contact: Barbara Warren, NY Zero Waste Alliance, project of Citizens Environmental Coalition, [warrenba@msn.com](mailto:warrenba@msn.com) or 845-754-7951/518-462-5527.**

#### Organizational Supporters

#### Listed Below

### New York Statewide Organizations

Atlantic States Legal Foundation  
 Citizens' Environmental Coalition  
 Clean New York  
 Clearwater  
 Environmental Advocates of New York  
 New York Public Interest Research Group  
 Sierra Club Atlantic Chapter

### Local and Regional Organizations

Adirondack Communities Advisory League  
 Capital District Branch of NY Apollo Alliance  
 Concerned Citizens of Seneca County, Inc.  
 Concerned Citizens of Cattaraugus County  
 Concerned Residents of Portland, NY + People Like Us (Crop Plus)  
 Finger Lakes Citizen's for the Environment  
 Finger Lakes Zero Waste Coalition, Inc.  
 Freshwater Future  
 Greenwich Citizens Committee, Inc.  
 Jamesville Positive Action Committee  
 NYC Apollo Alliance  
 people's Environmental Network of NY  
 Residents For the Preservation of Lowman and Chemung (RFPLC, Inc)  
 Save the Pine Bush  
 Selkirk, Coeymans, Ravena Against Pollution  
 Sure We Can  
 Sustainable Flatbush

Sustainable South Bronx  
The Solidarity Committee of the Capital District  
Village Independent Democrats  
Washington County Democratic Committee

**National**

American Environmental Health Studies Project  
Center for Health, Environment & Justice  
Institute for Local Self-Reliance



## Appendix B

Transcript of the Public Hearing Held  
on October 25, 2010.





P R O C E E D I N G S

PUBLIC HEARING

CITY OF ALBANY COMMON COUNCIL  
Albany, New York

\*\*\*\*\*

A Public Hearing

- in the matter of -

Part 617 of Article 8

State Environmental Quality Review Act

Of the Environmental Conservation Law

\*\*\*\*\*

October 25, 2010  
7:00 p.m.

Common Council Chamber  
City Hall - Second Floor  
Eagle Street  
Albany, New York 12204

REPORTED BY: LAUREL STEPHENSON

LAUREL STEPHENSON  
(518) 885 - 1148

**PRESENT :****FOR THE ALBANY COMMON COUNCIL:**

CAROLYN McLAUGHLIN  
President

RICHARD R. CONTI  
President Pro Tempore

DANIEL HERRING  
Majority Leader

DOMINICK CALSOLARO  
Ward 1

RONALD E. BAILEY  
Ward 3

CATHERINE M. FAHEY  
Ward 7

JAMES P. SANO  
Ward 9

LEAH GOLBY  
Ward 10

ANTON A. KONEV  
Ward 11

MICHAEL O'BRIEN  
Ward 12

JOSEPH IGOE  
Ward 14

FRANK COMMISSO, Jr.  
Ward 15

**ALSO PRESENT:**

KENNETH G. GALLAGHER, PP, AICP  
Clough Harbour Associates

BILL BRUCE  
Chairman of Steering Committee

**MEMBERS OF THE PUBLIC:****INDEX of PROCEEDINGS/COMMENTS**

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**PRESIDENT McLAUGHLIN:** I'd like to welcome the public to this public hearing on the Draft Solid Waste Management Plan, Draft Environmental Impact Statement for the Capital Region Solid Waste Management Partnership Planning Unit. Will the clerk, please, call the roll.

(The roll was called)

**MR. MARSOLAIS:** We have eleven present, at the moment, four absent.

**PRESIDENT McLAUGHLIN:** Good evening, thank you. My name is Carolyn McLaughlin. I'm the common council president. The common council has been designated the lead agency for the review of this Draft Solid Waste Management Plan pursuant to the State Environmental Quality Review Act, Part 617 of the New York Compilation of Law Rules and Regulations. And the common council accepted the draft solid waste management plan draft and generic environmental impact statement as complete for purposes of state environmental quality review.

This hearing was noticed in the October 9th, 2000 [sic], addition of the Times Union and October 13th, 2010, of the Environmental Notice Bulletin. Tonight we are here to receive your comments on the plan and the impact statement.

We will start the hearing with a brief

summary of the solid waste management plan which will be presented by Bill Bruce, the chairman of the steering committee which formulated the plan and by Ken Gallagher of Clough Harbour and Associates who compiled the documentation and analysis of the plan. This will be followed by comments of anyone who asked for the opportunity to speak.

Were these individuals required to submit a registration card or anything?

**MR. MARSOLAIS:** I have two and there may be two more speakers.

**PRESIDENT McLAUGHLIN:** We have two that are signed up to speak, if there are any others, please submit your cards at this time. When your name is called, please come forward to the podium, state your name and address and speak slowly and distinctly so that the court reporter can take your testimony verbatim.

I would ask that your comments be limited to five minutes so that as many people as possible have the opportunity to speak. Comments may also be presented in writing and they will have equal weight with any that are given orally this evening. Written comments may be submitted until November 19th to John Marsolais, City Clerk, City Hall, Room 202, 24 Eagle Street.

Like to start now by calling on Mr. Bruce and Mr. Gallagher to provide their summary of the plan, thank

you.

**MR. BRUCE:** Carolyn, I'm going to defer to Ken Gallagher to do the presentation because he did the PowerPoint presentation for tonight. It's a scaled down version of the one that we have presented before to the whole council and to the committee meetings. So for the sake of brevity so that you can get to the public comment which is why we are really here tonight, I'm going to let Ken do a very brief presentation.

**PRESIDENT McLAUGHLIN:** Thank you.

**MR. GALLAGHER:** Thank you, Bill. Thank you, Madam Chairman. I hope everyone can see the presentation adequately. It's a very brief presentation, should take no more than ten minutes. Basically I'll present a background and overview of the solid waste management plan process, the goals and objectives of the plan, the alternatives that are examined and the majority of the presentation will focus on the elements of the draft solid waste management plan.

By way of background, this solid waste management plan was prepared as a condition of the New York State DEC Part 360 Permit for the Rapp Road Landfill Expansion. The draft plan was prepared with extensive input from the steering committee, appointed steering committee, which consisted of 24 members from the communities throughout the planning unit and also other stakeholders in

the process. Fourteen meetings were held from November 2008 to March 2010 and all members were invited to comment on the preliminary draft of the plan and the resulting final draft represents the group's consensus.

There were two primary goals of the solid waste management plan, these goals and objectives were worked out in connection with the steering committee. The first goal was to continue to provide reliable and reasonably priced solid waste management services through the year 2030, and the plan intended to do that by maintaining and expanding membership in the planning unit, maintaining and building on existing infrastructure and by identifying new infrastructure and programs and administrative structures to continue to provide that reliable service.

The second goal of the solid waste management plan was to minimize the amount of solid waste requiring land disposal in the future and to do that by maintaining and expanding reduction and reuse and recycling programs; increasing the effectiveness of public education and enforcement by placing more emphasis on the reuse alternatives and pay as you throw and single stream recycling, as well as food waste composting; also by considering alternatives that recover energy from waste. And as a final point to note, all of these objectives are



consistent with this concept of zero waste that's getting a lot of consideration lately.

We looked at a wide range of alternatives as part of this planning process. We looked at alternative technologies, both proven technologies and emerging technologies. We looked at institutional alternatives including the aforementioned of the solid waste management authority and waste flow control. And pursuant to state environmental quality review, we also looked at the no action alternative.

Based on those alternative technologies and those alternative institutional arrangements we structured a series of three alternate scenarios that were examined in some detail. The first scenario consisted of retaining the current planning unit membership as it is, supporting New York State product stewardship legislation to encourage waste reduction, maximize recovery of currently designated recyclable materials and no new landfill capacity to be developed after the Rapp Road landfill reaches capacity.

By way of footnote that would mean post-recyclable waste that requires disposal will be need to be exported from the planning unit to some commercially available disposal capacity.

Alternative Scenario Number 2 consisted of all of those elements of the first alternative scenario but

in addition also involved the establishment of a mechanism for waste flow control, the designation of additional mandatory recyclable materials such as Plastics Numbers 3 through 7 and source separated organic waste, and it also develops source separated organic waste processing facility or capacity for both commercial, industrial and institutional waste and for residential source separated organic waste.

Now, Alternative Scenario Number 3 incorporated all of those alternatives in Scenario Number 2 components, supporting product stewardship, maximizing recyclable recovery, designating additional recyclables and developing the SSOW capacity but in addition that Alternative Number 3 was different in that it considered the expanded size of the planning unit to establish a regional solid waste management authority, also with waste flow control, develop a regional facility to process or treat mixed municipal solid waste to recover additional materials, energy or byproducts so that landfill could be further minimized and finally landfill disposal of treatment facility residue and any other waste at available disposal facilities either inside or outside the planning unit, the expanded planning unit.

Now the rest of the presentation I will highlight some of the key elements of the draft solid waste

management plan. They are highlighted here, waste reduction and recycling measures, a solid waste treatment facility, land disposal elements, implementing agency, interim measures, new laws and regulations and implementation schedule of key elements.

With respect to waste reduction and material recovery, the plan calls for promoting waste minimization in all sectors, commercial, residential, institutional, industrial; supporting products stewardship initiatives at the state level, continuing to promote and expand the local recycling infrastructure, developing the source separator organic waste processing capacity and a designation of additional mandatory recyclables. All of these were components of that Alternative Scenario Number 3.

With respect to waste diversion and recycling goals the implementation of the measures that are called for in this draft plan are expected to result in an increase of recycling from a 45 percent goal in the year 2010 which is our current goal from our existing plan to a 65 percent diversion recycling goal in ten years, in the year 2020.

The development of source separated organic waste processing capacity would involve both development of the facility and development of collection infrastructure to supply that facility. So the facility, we estimate, would need a nominal capacity of about 40,000 tons per year from

the existing planning unit and that facility, if developed, would be developed incrementally to allow for the program to grow as it comes into -- these programs typically do not come into effect all at one time.

The source separated organic waste collection program would initially focus on large commercial and institutional generators, supermarkets, colleges, the state office of general services, generators like that. Pilot programs for residential solid waste -- residential source separated organic waste collection, excuse me, would need to be started up and fine tuned before full-scale residential programs could get rolled out.

The plan also calls for designating additional mandatory recyclable materials. City of Albany has already designated Numbers 3 through 7 of part of its program but not all the communities in the planning unit have done that. Film plastics are another material that the plan considers for designation as it does source separated organic waste and electronics and household hazardous waste.

Solid waste treatment facility component of the draft solid waste management plan would recover additional materials, energy bio-fuels and or other byproducts from the post-recyclable waste stream. Important to note that the term post-recyclable waste stream means the waste that's available after the full implementation of the

recycling programs; it's not to compete with the recycling programs.

The facility would also reduce the amount of the post-recyclable waste which requires land disposal that's the primary purpose. The draft solid waste management plan does not endorse conventional waste-to-energy technologies over any other emerging technology for this facility. And finally the facility would need to be sized based on the size of the regional waste shed and developed as part of the regional arrangements that I'm discussing in a minute.

With respect to land disposal, the Rapp Road landfill expansion is expected to provide capacity at least through the year 2016, maybe a year longer depending on waste flows. No new landfill capacity is proposed for the planning unit as part of this new solid waste management plan. After the Rapp Road landfill closes it will be necessary to use commercial solid waste disposal capacity outside of the planning unit. Now, because this alternative involves expanding the planning unit into other jurisdictions that surround us there is the opportunity for continued use of some of that regional disposal capacity if any of those other surrounding planning units decide to join with us.

The implementation model called for by the

plan is a regional solid waste management authority. This would involve the consolidation of several existing planning units. The participants in that expanded planning unit would be determined by ongoing discussions and further studies. My understanding is the counties are currently undertaking a study of the feasibility of regional solid waste management authority and engaged input of most of the surrounding planning units and will be completing that study sometime in the next six months or so.

That regional solid waste management authority, however it gets formulated, will manage the development and operation of the regional facility and programs that are called for by this plan. Local governments, however, will retain their jurisdiction over local solid waste collection and recycling programs.

Quickly, just to note, the advantages of the proposed implementation model, the regional solid waste management authority would create a sustainable business model for providing these solid waste services and the waste reduction and recyclable programs have a funding mechanism for that. Economies of scale will be provided by a larger service area and that will result in reduced user fees, and waste flow control will provide an effective mechanism to finance capital expenditures as well as to subsidize the programs that don't pay for themselves like the waste

reduction, reuse and recycling programs.

The plan also -- the solid waste management plan also includes interim measures, three are shown here: One is the existing planning unit will continue to function until a regional solid waste authority becomes operational, the existing planning unit will continue to implement waste reduction and recycling by incrementally increasing enforcement and diversion rates, and the procurement of the source separated organic waste facility capacity will occur or commence in advance of the formulation of the regional solid waste management authority.

The implementation of the draft solid waste management plan will require new laws and regulations enabling legislation by the state legislation to establish a regional solid waste management authority. Localities would need to enact flow control pursuant to that enabling legislation. Localities will need to revise the local laws to designate additional mandatory recyclable materials, and state and federal governments will need to enact product stewardship legislation.

And finally that concludes my presentation on the draft plan. This last slide is just showing, highlighting, the public review process as it sits now. As Council President McLaughlin noted the public comment period on this draft plan is open until November 19th of this year

after which time a final solid waste management plan and generic environmental impact statement will be prepared to address any comments from the public and then a final solid waste management plan/DGEIS will be submitted, upon approval by the council, will be submitted to the DEC for its approval and to the member municipalities for endorsement. Thank you very much.

**PRESIDENT McLAUGHLIN:** Thank you. Will the clerk please call our first speaker.

**MR. MARSOLAIS:** Tom Ellis.

**MR. ELLIS:** Good evening. My name is Tom Ellis.

I welcome this opportunity to discuss the Draft Generic Environmental Impact Statement on the proposed solid waste management plan for the Capital Region Solid Waste Management Partnership. I will also submit written comments.

The plan is incomplete in parts. While the document provided considerable details on its authors' recommendations to establish a regional solid waste management authority, a disposal facility and a source separator organic waste facility, it provides few, if any, details about some of the other recommendations.

Few details are provided about how people will be educated to minimize waste generation or to maximize



reuse and recycling programs and services. As far as I know the City of Albany has no formal waste minimization or reuse programs of any type at this time.

On Pages 6-3 and 6-4 in a section on waste minimization a list of ten items to minimize residential waste generation includes: One of them is to promote a pay as you throw system but few details are provided in the report.

Second of them -- these are good recommendations -- the second one is to educate consumers about how to consider waste reduction and product packaging when they are making purchasing decisions. Again, few details are provided.

A third one is to promote the use of existing programs that reuse or redistribute materials in the secondhand marketplace, again few details.

I recall one steering committee member at at least two steering committee meetings urging Clough Harbour and Bill Bruce to make reuse a formal goal to be extensively discussed and annualized without any success. At a second steering committee meeting on January 13th, 2009, the same meeting where Clough Harbour proposed capital district waste authority, the steering committee member stated: "We need to explore reuse programs, for example bicycle parts and furniture. We need to explore this seriously, make this a

formal goal. Almost everything is reusable somewhere in this world."

The fourth idea to minimize residential waste generation mentioned in the report is to promote the concept of repair instead of replacement, but where are the details on this?

A fifth one, aggressive education and enforcement programs, there are no details provided in the report about enforcing recycling laws among residents of the partnership municipalities. This issue of enforcement came up during many steering committee meetings I attended. I attended thirteen of the fourteen meetings from beginning to end. At the same January 13th, 2009, steering committee meeting the same steering committee member referred to a minute ago said, "Melrose Neighborhood Association would like to see strict enforcement of existing laws with penalties for people who never put out bins with their six trash bags."

The sixth item mentioned in the report, aggressive waste reduction and recycling programs but very few details. If something is going to be performed or pursued aggressively why are the details so skimpy or absent all together?

Page Executive Summary 1 states the new plan defines the key elements of the future solid waste

management program for the region for the years 2011 through 2030. On Page Executive Summary 5 this contains a timeline for each year from 2010 to 2020 for total waste diversion and recycling goals with a goal of 65 percent established for the year 2020 but no numbers are provided for the years 2021 through 2030, this is very a serious omission.

My question is, are there no waste diversion recycling goals for the year 2021 through 2030 and, if not, why not? If there are goals, why are they not included in the report. The report Executive Summary Page 6 states a 65 percent goal is the "Maximum expected diversion that is achievable with the implementation of the expanded waste reduction and recycling program elements that are put forth in this solid waste management plan."

After considerable pressure from the interested citizens and three steering committee members that December document, December 2009, was modified so that the final version which you have added a new sentence which says: "However -- this is quote -- "However, implementation of a continuous improvements process in connection with both current and future waste reduction and recycling program efforts could help push beyond these above-noted waste reduction and recycling goals."

So there's a contradiction here, on the one hand the plan authors say the planning unit will pursue

aggressive education and enforcement programs and aggressive waste reduction and recycling programs and on the other they tell us that they don't think we can ever make it beyond 65 percent or much beyond it.

In life we all know that, if you aim low, you achieve low and that, if you aim high, you may possibly achieve great things. I tell my students that 65 is a passing grade but it's hardly a good grade. If you aim for 100, you may get 90 or 85; aim for a 65, you'll be lucky to get 65. I believe that Clough Harbour and Bill Bruce and probably Mayor Jenkins do not want to have highly successful waste diversion rates because, if the diversion rates of 85 percent or 90 or 95 percent can be achieved, it reduces the need for and possibly shatters the justification for the recommended waste disposal facility, and they made it perfectly clear they want a large disposal facility.

As you recall the December 15th, 2009, draft of the report being discussed tonight, the first draft, called for -- this is on Page Executive Summary 11 of the original report -- "A disposal facility with a nominal capacity of 1,500 tons per day assuming a 65 percent recyclable material diversion rate is achieved."

Another weakness with the report is the lack of the details about the employment impact of the various alternatives. The Beyond Waste: A Sustainable Materials

Management Strategy for New York, a draft report released by the DEC earlier this year, states on Page 18, this is a quote, "The state can also fuel economic development and job creation using the materials that are not currently recycled but ultimately could be with new programs and policy. In general terms, on a per-ton basis, for every job required to operate a landfill or municipal waste combustor, ten jobs can be created to process recyclable materials and prepare them for market. In the case of organics, four jobs can be created in composing those materials for every one job in disposal. Once recycled materials are used in manufacturing, the jobs ratio becomes even greater and the quality and pay scales of those jobs is higher. Remanufacturing industries are the most significant job creators, with between 28 and 296 jobs depending on the type of remanufacturing for every one disposal."

So while a discussion of employment impacts may not have been required by DEC for inclusion in the report job creation should be a key concern for city planners. Thank you very much, I appreciate that you gave me a little extra time here.

**PRESIDENT McLAUGHLIN:** Thank you, Mr. Ellis. Next speaker -- are there any questions from council members? Mr. Calsolaro?

**MR. CALSOLARO:** Mr. Ellis, this plan it's

supposed to be a twenty-year, right, solid waste management plan? It's supposed to be twenty years yet you quoted recycling numbers are only going to 2021, so it was only a ten-year plan.

**MR. ELLIS:** The plan was providing ten years only, so the second half is a time period we don't have any numbers.

**MR. CALSOLARO:** I just want to be clear because I thought it was a twenty-year plan and as you know I voted against it for being complete. I didn't think it was complete.

Now, they brought up the number -- the plan brings up a number of proposals, increasing recycling and composting and things but I don't remember hearing or reading the phrase resource recovery parts, total just about zero waste processed for our waste. I know they're doing it in Alameda, California, and they have created, you know, hundred of jobs. They have cut their rates and the whole goal is to go zero waste.

**MR. O'BRIEN:** Madam President, is there a question?

**MR. CALSOLARO:** Yes, Mike. I wanted to know did you, in your reading of this proposal, come across references or studies on establishing resource recovery?

**MR. O'BRIEN:** Madam President, my point of

order is this is not a draft plan for the State of California zero waste and I see no document of that.

**PRESIDENT McLAUGHLIN:** You are supposed to be asking for any comments -- you're not supposed to be making comments. You are supposed to be asking questions that either Mr. Ellis can answer or maybe Mr. Gallagher.

**MR. CALSOLARO:** Right. I just asked a question, was there any references in this document that you saw that references creating a resource recovery park?

**MR. ELLIS:** Possibly there were a few sentences in there which could be interpreted along those lines but there were no details about it.

**MR. CALSOLARO:** Thank you.

**PRESIDENT McLAUGHLIN:** Any other questions?  
(There was no response)

**PRESIDENT McLAUGHLIN:** Again, thank you, Mr. Ellis.

**MR. ELLIS:** Thank you.

**PRESIDENT McLAUGHLIN:** The next speaker --  
Mr. Gallagher, did you have a comment?  
(There was no response)

**PRESIDENT McLAUGHLIN:** Thank you.

**MR. MARSOLAIS:** Russell Ziemba.

**MR. ZIEMBA:** Good evening. My name is  
Russell Ziemba. I live at 1813 Highland Avenue in the City

of Troy. I work in Albany and I live in the capital district and was a student at Albany State, so I'm fairly familiar with the garbage situation in the capital district and the City of Albany.

Garbage is very complicated because it consists of everything as a society that we discard and mix together and throw away and that's a problem. We need to look at garbage more comprehensively than on the back end. So much is disposable, one-use -- one-use items, things that can't be fixed and or planned obsolescence and it's very hard to avoid that.

Just in recording music I can think of at least a dozen different forms and all of the other -- some people collect the other ones but generally they get rid of them and go to the next form, so it's difficult. But I think the key is keeping the components separate.

I'm opposed to the concept of creation of another authority. Authorities are often not democratic. They are not accountable. They're generally not elected. They're appointed and they're usually not transparent. So they -- I don't think they're the best type of body for this type of thing.

I'm also very opposed to garbage incineration, it's the worst way of dealing with garbage because it -- yes, you can get some income from it but it's



a very small percentage and the pollutants in the form of vapors and ash are very toxic.

And I'm very opposed to the expansion and continued use of Rapp Road as the Albany dump. It's in the Pine Bush aquifer in a very threatened ecosystem and even though the newer sections are lined, much of the landfill is unlined, there's a problem there.

When I go by there on the Thruway, I don't have to open my eyes. I know where I am without opening my eyes and that's a very bad way to become familiar with Albany to be noted for something that foul. When I pass by, this is years ago, I could smell the bag plant from miles away. And even though Savannah is -- I come from Savannah, it's a very wonderful place, full of both interesting and beautiful historic buildings, my first impression was a very bad one and I don't think we should do that with Albany.

And I'm also opposed to the creation of the proposed landfill. I think it's a bad location. Landfills, yeah, there is a need for a very small landfill but landfilling is a very poor concept. One way of getting away from garbage is promotion of local economy. I work in a grocery business and a local dairy, they use reusable bottles, there's very little waste connected with that and that was the model up until 1960's when plastic bottles came into use because the bottling industry became regionalized.

If we went back to making more use of the local economy, reusing bottles may be feasible.

I'm very much -- I'm a member of Save the Pine Bush. I'm very much for the concept of zero waste. I think this plan -- I confess, I haven't read the DGEIS yet but I will but just listening to the presentation I think there are some improvements, looking at expanding the recycling program more aggressively, municipal composting program are very good ideas but I'd like to make some further suggestions.

Recycling is good but reuse or not using, not -- recycling is still a process. You have to collect it, treat it in some way, ship, it has to go through some heating or, you know, there are number of processes involved and there's energy used and toxins emitted, so it's much better if you can reuse something.

Albany is a college town. I went to school here and when college students move out, generally in the middle of May sometimes in the middle of December, all kinds of apartments -- everything that filled their apartments, many of them, ends up on the street and that happens, you know, every year sometimes twice a year, and there's no effort made to try to capture any of that.

And the same stuff, furniture, some white goods, some carpets in the dormitories, when I was at Albany

State, we tried to -- back in the early 70's as part of an environmental studies program -- tried to analyze and capture the reusables from the dormitory. We did a pretty good job of it. But, you know, composting is good, municipal system is good idea but it should allow for also household composting and neighborhood composting.

But getting back to reuse I think that furniture and all those things there should be some program to try to capture those and give them back to the students, sell them back to the students and keep them out of the waste stream and the money involved isn't a big thing, it's the waste stream. And I would suggest using -- well, if it's possible the old storage building that -- it may be still be burning but if we put the fire out and I don't know if it's possible but it's built, has huge timbers and made to hold fantastic loads, and there are other vacant buildings of that nature, even if it's not that one, those would be places to store these things.

In California and the State of Iowa many of the municipalities require fifty percent of construction and demolition waste be either reused or salvaged. We have no requirement for that, I believe, in Albany or in the City of Troy. I'm trying to promote it there.

Years ago I was involved in taking apart buildings and, you know, if you are willing to take the

time, you can salvage ninety percent of the building, fifty percent isn't that hard. Usually there all the woodwork, framing lumber, foundation that's made of brick the brick can be reused, the roofing material, the copper. We all know copper is being taken out of buildings. So I would ask that this common council look at an ordinance that requires fifty percent of construction and demolition materials be salvaged.

But more important than that, Albany and many of the cities, wonderful cities I love in upstate New York, have many vacant buildings and rather than salvaging components of the building, much more important rehabilitating those buildings, allowing opportunities for people, for first-time home owners to buy those, to become parts of neighborhoods because the buildings, many vacant lots are created and will never be built on, not within our lifetime, so the buildings that are built now, yes, they meet energy efficiency and getting rid of that asbestos, lead but often made of better materials, virgin forests are in these buildings that once covered New York and the types of materials that we find are not available these days.

So, you know, I ask you to look at a comprehensive approach, perhaps even outlawing some types of things, plastic bags, minor things like that create a hazard, you know, people will change their ways of doing

things. I think that working towards zero waste and achieving very lower levels of waste are very possible. Thank you.

**PRESIDENT McLAUGHLIN:** Thank you very much. Questions for Mr. Ziemba?

**PRESIDENT PRO TEMPORE CONTI:** Yes. I just wanted to ask, Mr. Ziemba, are you familiar with the demolition ordinance that the common council passed earlier this year?

**MR. ZIEMBA:** No, I'm not.

**PRESIDENT PRO TEMPORE CONTI:** Then you're not familiar with the construction waste provision that's in there?

**MR. ZIEMBA:** No. I will take a look at it.

**PRESIDENT PRO TEMPORE CONTI:** Okay.

**PRESIDENT McLAUGHLIN:** Are there any other questions?

(There was no response)

**PRESIDENT McLAUGHLIN:** If not, we'll go on with the next speaker.

**MR. MARSOLAIS:** Jim Travers.

**PRESIDENT McLAUGHLIN:** Mr. Travers is the last speaker that is signed up. Is there anyone else who wishes to be heard after?

(There was one hand raised)

**PRESIDENT McLAUGHLIN:** I've been very lenient with the time because I knew that there were only a few speakers so I was allowing people to get their full statement out.

**MR. TRAVERS:** Thank you. My name is Jim Travers. I live in Ravena, New York. I said at the last common council meeting, when the vote was taken to decide to consider this plan complete, I said that the plan was not complete. It doesn't contain waste management for biosolids which is the sewage sludge, is not included in there. And as I said -- this was asked of -- by Bill Bruce if it needed to be included and he said, yes, it did.

Now, afterward Mike O'Brien had a comment that I couldn't respond to at that point in time. He said that the fellow from the DEC who also sat on this steering committee said it did not need to be included. Well, recently it's been revealed that that man's superior, and I think that considering that she's the author, the primary author of Beyond Waste: The State Solid Waste Plan, she knows what she's talking about. So the plan is not complete, it doesn't deal with biosolids.

Again, it's almost a misnomer to call it a plan. It's a bunch of good ideas. It's not all good ideas, believe me, but there are a couple of really good ideas. The separation of organic waste was something that was

decided upon by the steering committee beforehand, they weren't going to, so that's really to be admired.

But as far as coordination between these fourteen communities, the consortium whatever you want to call it, there's not really the coordination you need to have Albany as lead agent in this matter because even though Albany has passed this comprehensive recycling law the other people dumping on Rapp Road don't have that same law in their communities, so there's not a coordinated effort to really oversee our waste management at our current landfill rather than on twenty years in the future.

So that brings up the other question, why is it Albany's responsibility, in these fiscally strapped times, to manage the capital district's garbage; it's not. Your only responsibility is to your own taxpayers. As I said 93.26 percent of the state's debt has been incurred upon the tax payers by public authority and, yes, there are good public authorities, power company, but there are many failures in this plan and quite frankly it does a lot of steering towards ideas but what are the goals.

Can't somebody please rattle off five goals for this plan, I mean, we've been working on it for two years, can anybody here do that? I don't know. It's a bunch of ideas. Let's create a waste authority, let's defer all decision-making to this as yet uncreated waste

authority. No, it's your job to take care of the garbage and you want to be lead agent for these fourteen communities you have to do it responsibly.

A lot of you look at me as an adversary, I'm just trying to help you do this the most economical way that you can do this and a way you can actually profit off of, through resource recovery, through reuse and comprehensive recycling and waste reduction. Pay as you throw is a component of that that's another admired thing that they've mentioned but recycling goals to set and not to meet is just a terrible thing. We had a recycling goal several years ago but we really didn't pay any attention to it, there's no belief that we'll pay attention to it in the future.

So I'll have more extensive comments in my written comments, but I have to say too that it is not all that much different from the prepared draft plan that was submitted to Clough Harbour before this steering committee set out and with this final project.

If you are thinking of considering to build a waste center later on on the parcel of land that Albany owns in Coeymans, you still have the same problems, sites with national historic landmark status, slave cemetery, you have the Army Corp of Engineers to contend with with trying to bridge a freshwater creek to gain access to this site or else you have the Thruway authority to build you off ramps



to the site, and in these fiscal times I don't think any of this is feasible. As I said many, many years ago to you, drive by the Saratoga dump, you know, the Glens Falls or the Hudson Falls incinerator is up for sale you might want to buy that.

You have a mandate from the state to reduce waste and what do you want to do, you want to increase it. You want to gather everybody's garbage from nine counties around that's way beyond the scope of your responsibility. It's nice to plan on a reasonable basis but it's not for the politically appointed committee to determine where all of those counties are going to go in the future.

So I have to say that I'm very disappointed with this plan that it didn't go nearly far enough and although the free expert advice was offered it wasn't sought out and that's really a shame. You would have had a much stronger plan; you would have had a plan.

So whatever happens here with this I don't see how the DEC could possibly consider this a completed plan. If you remember early in the process a couple of years ago the DEC kept throwing things back on the landfill expansion and they finally put their foot down and this plan is a reaction to it and part of the modification of the landfill and, again, trying to kill two birds with one stone. Really you need to really think this out, really

need to research this stuff by going to a few different industries to see what is out there.

None of the environmental groups were consulted at all as far as what they would think and we have statewide and national groups based right near Albany that's baffling. Even people who are building incinerators ultimately come to the environmentalists and say how can we work with you, you know. Anyway, that's all I have to say, thank you very much.

**PRESIDENT McLAUGHLIN:** Thank you. Any questions -- Mr. Calsolaro has a question for you, Mr. Travers.

**MR. CALSOLARO:** Mr. Travers, are you familiar with the Dutchess County Resource Recovery Agency?

**MR. TRAVERS:** Yes, I am.

**MR. CALSOLARO:** Are you aware that just this month alone that they -- the meeting -- Dutchess County and the legislative branches there are meeting to impose a fee on residents to help cover the costs of running that facility now, the facility that was supposed to at one time take care of all the garbage problems in Dutchess County?

**MR. TRAVERS:** Yes, I am.

**MR. CALSOLARO:** Thank you.

**MR. TRAVERS:** Yes, I'm familiar with the legislator, he's asked me to come down to speak to him on

those issues, Joel Tyner.

**PRESIDENT McLAUGHLIN:** Thank you, Mr. Travers.

**MR. TRAVERS:** Thank you very much.

**PRESIDENT McLAUGHLIN:** Yes, we have one other speaker, one other person wanted to speak. Please come forward, state your name and address for the record.

**MR. BELL:** Good evening. My name is Greg Bell. I live at 536 Providence Street in Albany. I would like to -- well, first before I make any real comments let me just disclose for those who might be concerned that until recently I did actually work for a company which was promoting anaerobic digestion. I do want to talk about that tonight but I'm not here representing that or any other company. I'm going to represent what I believe to be a solution to the organic portion of the waste stream but not any specific company's technology to do that.

I believe that the plan is, like the previous speaker said, it's deficient and yet in a different way. I didn't count how many pages are in this document but certainly a few hundred but in that I only found one, slightly less than one page, which mentioned anaerobic digestion. I believe that anaerobic digestion, also called biogas is a significant solution to the solid waste problem. It does not solve a majority of the content of the landfill,

but it does solve a pretty problematic portion of the waste stream that is anything that, you know, any kind of food waste, things like that that can decay. They cause much of the problem in a landfill.

Now there's lots of problems with landfill, this does not solve all of those but does solve that one. The decay of food waste is what caused most of the smell, also caused most of the Methane which escapes directly into the atmosphere. Methane is a greenhouse gas which is generally described as having an impact of about 23 times the negative impact as carbon dioxide as a global warming agent. In reality, if you look at the decay rates over a twenty-year period instead of a hundred-year period, the impact of Methane coming out of a landfill is actually more like seventy times the impact, the negative impact, of carbon dioxide. So Methane needs to be taken out of the landfill.

You can do it partly by putting pipes in like we're doing out there and flaring but that's really not going to do the trick. It captures a relatively small portion, maybe ten to fifteen percent, of what's coming out of there that is not really a solution. It's part of the solution and it looks good but it doesn't solve the problem. The way to solve the problem is to keep the organic portion of the stream from going into the landfill.

Now, as quite a lot of things, technical, Europe is well ahead of us on this topic. In all of Europe there is roughly 8,000 commercial scale anaerobic digesters. Within that 8,000 4,000 roughly are located in Germany alone. Germany has a population of about one fifth of the United States and yet 4,000 of these digesters, some of which deal with waste from municipalities, most of which deal with farm waste but anaerobic can be used for both, either or a combination of both those types of waste streams.

In comparison to 4,000 anaerobic digesters commercial scale ones, in the relatively medium-sized country of Germany, you want to know how many in the United States we have? We have 125 operating anaerobic digesters compared to 8,000 in all of Europe and 4,000 in Germany alone.

Now anaerobic digestion, this is a little bit of background, is the process basically like composting only one difference, with composting the material is exposed to the air and specifically oxygen within the air. Anaerobic means no oxygen; aerobic means with oxygen, anaerobic means without oxygen. So you can't do composting in the open air with no oxygen so you have to put the same materials into this big tank, and basically there's various control systems and temperatures and all kinds of balances and which

microbes go in but basically it's a way to breakdown food waste, things like cow manure, sewer treatment sludge that create Methane.

Now the gas which comes out of -- the raw biogas which comes out of the anaerobic digester is roughly 65 percent Methane that 65 percent mixture -- and then about 30 percent carbon dioxide -- that mixture by itself can be burned in an internal combustion engine which creates both heat and electricity that electricity can be fed into the grid. It can be fed into nearby houses, nearby businesses, whatever, there are various grid connection issues which are a problem under our regulatory system here which they don't have in Europe that's why we don't see it here because we don't pay enough to get the electricity into the grid but there are ways to get around that.

There's also another route to using this gas -- now, for those of you who don't happen to know the gas composition of natural gas. Let me just explain that natural gas is basically Methane, it's about 95 to 97 percent Methane. Raw biogas is 65 percent Methane so it isn't really natural gas as it's coming out of an anaerobic digester, however, it can be brought up to that standard by removing various things. Basically, if you take out the 30 percent carbon dioxide and there's also hydrogen sulfide which also has to be taken out and then you can use it for

certain purposes.

Now, if you do those two steps after producing the gas, and there's well-known technology on how you do that but, if you clean up the gas to a higher Methane standard, you're going to get the chemical equivalent of natural gas. We don't use the word natural gas for this because it's not coming out of the ground. Natural gas is a fossil fuel it's finite, it's going to be used up, there are all kinds of problems of extracting that.

This is called within the field, particularly within Europe, it's called biomethane. It's just a different way to describe it. You get the bio is the root from which you derive the biomethane, so biomethane basically means an anaerobic digester derives Methane. Now, if you clean up the biogas to a point where it is chemically equivalent to natural gas, what can you do with that.

Now turns out you can do some other things besides just make heat and electricity. I brought along some things that I want to just give to the secretary to hand out to the common council. Just as an example, I just received today an e-mail from the Baltic Biogas Bus Project. I have been familiar with these folks for about a year. And the Germans really are ahead and are doing the best anaerobic digester technology for producing the gas. Now the Swedes have taken that a step further and making the

fuel. They're cleaning up the biogas and the City of Stockholm is now running many of its city buses on biogas. A city in Sweden has about 70 to 75 buses in the entire system and about 70 percent of those buses, probably around 15 of their buses are running on 100 percent biomethane.

Now this is a way to show the world leadership. We're the capital city why aren't we running our city buses on biomethane? We don't have the political will for it and that's why I'm here, to try to encourage political will. There's no reason why we can't be source separating our organic waste from hotels, restaurants, hospitals, from universities, from all the different sources for food waste, we can source separate that out, run it into the anaerobic digester, clean it up and run things like buses.

Linkoping in Sweden also runs taxis and cars on it, they even run a train, a commuter train. These are things that are totally vacant, absent from the few hundred pages of this report, so I really -- I really feel that this should be looked into more.

Now there was a vague sort of mention that there was outreach to one company and they wanted to do other kinds of anaerobic digestion but, if the common council wants -- and there was a comment in the report that there was no company that responded for the request for



proposals.

Now there is now an organization called American Biogas Council and I was at one of the -- there were two, two groups decided to form a national coalition of biogas companies and within about a month last year I was at one of the conferences in Syracuse and within that group is now about fifteen or twenty companies as members, there are a lot of other companies that are not members yet but, if the council actually wants some proposals then all they have to do is go to AmericanBiogasCouncil.com [sic] and you'll find yourself at least fifteen companies right there. Just send them a letter, see if they are actually interested in it, most of them probably have no clue that there was any of these request for proposals.

I want to just turn briefly to another part which is in the plan and that's this whole idea of mechanical separation. There is mention of the Delaware County mechanical separation system, there is also a video on the web page, sort of background web page, about the city's solid waste draft plan and I don't know if anybody has looked at that video or not but I would certainly recommend that you look at it. It's a very interesting -- yet again, another German technology but this is a German technology that I think is a bad idea, the other, the anaerobic, I think is a good idea.

Now this was one on the video, I'm not sure why it's on this website exactly but it's your website as well as the DEC's site about your plan, and it's a razzle-dazzle, high-technology source separation system which basically crushes up everything. They have all kinds of machines that glow and light stuff materials, even has electric eyes to separate out the green glass from clear glass, it's really razzle-dazzle stuff. Now I really -- this sort of technology, that type on the website and the Greene County -- not Greene -- the Delaware County site which is less sophisticated but very similar, these are not good systems and I want to explain why.

First off, especially the German one, millions of dollars to make possible for people not to take their bottles out of their food waste and not to take their newspapers out of food waste, not to do any separation, I mean, this is one of the problems we have in the first place. Americans are taught in numerous ways -- and these systems are technological ways of enforcing this idea -- they're taught just throw everything away. Now humans have to be responsible and these systems teach people to not be responsible.

County Waste right now is advertising on local television their new system when everyone can have one can, now it's easier to throw away everything in one can. I

think this goes to the Colonie landfill which is not part of the Rapp Road landfill which is I think that's where they're aiming at but they don't explain that. The people of the City of Albany and all the other twelve municipalities going to the Albany landfill are seeing the same advertisements the people in Colonie see and they're being taught that it's hard to separate and County Waste has a simple solution. Well, that's a terrible message for people to learn.

**PRESIDENT McLAUGHLIN:** Mr. Bell, I have given you ten minutes. I have given everybody else twelve minutes, so I'm going to --

**MR. BELL:** All right. Very good. So I think it's really a bad message. Also, I think it's just sort of technology gone awry, just way too crazy.

Now on the German video, you know, the website for this plan it does actually give a little chart that talks about the final residue material that they then burn. In that chart it does admit that plastics go into the product which is burned and incinerated. Now I think it should be well known by now, we went through the burn plan over here on Sheridan Avenue, we should know by now what that means. When you burn plastics you get a 100 percent certain result this is -- other results may not be 100 percent certain but the 100 percent certain result is that you will get dioxins out of the system, this is a

neurotoxin. We should not be creating a system for putting neurotoxins into the atmosphere, it's just bizarre, it's a total violation of human health.

So any of these mechanized systems that purport to separate out everything after everybody throws everything, their combined, unseparated in one pile is wrong, so that's all I have to say. I would like to hand out the Biogas Bus newsletter for today. If there's any questions.

**PRESIDENT McLAUGHLIN:** Mr. Calsolaro?

**MR. CALSOLARO:** Mr. Bell, are you -- is biogasification, is that different than what you're talking about?

**MR. BELL:** Yes, yeah, unfortunately there is about three or four different words and it gets all very confused. Gasification is not biogas, it's different technology and it's also not bio-fuels. Biogas -- in Europe they use the word biogas just to mean anaerobic digestion and it's the process as I explained. Here in the United States the technology is not known well enough, so people do confuse these words. Gasification is a totally different technology making gas by heat. The biogas product is not a heat process, these digestive tanks do generate their own heat, usually 120 degrees, not hundreds and hundreds of degrees that creates this vaporization.

**MR. CALSOLARO:** The reason I asked is I saw Orange County may be building a hundred million dollar gasification plant to turn solid waste.

**MR. BELL:** Gasification is another what I call a pretty bad technology.

**MR. CALSOLARO:** Thank you.

**MR. BELL:** These are all these high-tech space-aged things which sound cool but are really kind of crazy.

**PRESIDENT McLAUGHLIN:** Ms. Fahey?

**MS. FAHEY:** Are you familiar with any biogas facilities in New York State or this area?

**MR. BELL:** There are biogas facilities in New York State but they are agricultural based, they're not the solid, municipal waste. There's only 125 biogas facilities in the entire United States. This is not counting sewer treatment plants, sewer treatment plants, actually, there's quite a few -- several hundred, I don't know how many, three or four found in the United States that do have biogas plants.

**MS. FAHEY:** Sewage?

**MR. BELL:** Sewage treatment plants, yes, so they basically take the Methane out of the sewer system and make it into usable Methane.

**MS. FAHEY:** Do you have any estimate of the

cost of this process, the composting process?

**MR. BELL:** Well, it's a little hard to know exactly, depending on the scale, but a typical biogas plant is in the range of about \$3 million, these would be smaller than probably what we would need. Depending on the degree of source separation we achieve we probably need three of those, you know, but a \$3 million or \$4 million biogas plant will generate usually one to two megawatts of electricity, plus an equal amount of one to two megawatts, that's an electric measure but taking that same energy equivalent in heat that generates approximately an equivalent amount of heat. So a lot of times people will just look at electric output but if you vent off the heat, you throw away half the energy. In fact, you can use that heat for other things, for running, heating houses, heating factories, greenhouses, there's all kinds of things.

In terms of composting, I'm sorry you asked about composting, yes composting is the cheapest of all these things, there's no question about it, but composting doesn't really -- I'm a big believer of compost. I don't know, I've given talks on this and people think I'm somehow anti-compost. I'm absolutely not anti-compost. Compost is wonderful as far as it goes, the problem is it doesn't go very far.

You can do a compost facility, you know, in

your backyard and it cost nothing but, you know, there's a speaker here in Albany Public Library about a company running a brand new compost plant from municipal compost in Wilton, Delaware, don't remember what that cost, I think it was in the range of \$15 or \$20 million, there are people here who were at that same presentation and probably know that answer. The problem is compost gives you as a result it gives you soil, I mean, that is a wonderful product but that's all it basically gives us.

An anaerobic digestion process gives heat, it gives Methane which can be used for various things, and I didn't even mention this but it also produces a compost as well, so out of that process does become a product that is essentially the same as compost and is actually a higher grade than regular compost that's been through this process around 120 degrees of self-generated heat that kills the pathogens which regular compost often does not, so that's why it's a higher grade compost. And somehow it manages to retain it's nutrient values of the stuff that went in there, the same as compost does.

**MS. FAHEY:** Thank you.

**PRESIDENT McLAUGHLIN:** Thank you. Yes ma'am.

**MS. CUMMINGS:** Would it be possible to speak for less than one minute?

**PRESIDENT McLAUGHLIN:** Yes, ma'am. I'm going

to ask for the last time is there anybody else who wants to speak?

(There was no response)

**PRESIDENT McLAUGHLIN:** So this will be our last speaker for the evening, and she has said she has just a minute or two to speak her comments. Please give us your name and your address, please.

**MS. CUMMINGS:** Yes, my name is Sally Cummings and I live in West Menands, within smelling distance of the current landfill. I just wanted to say that this has been going on for a couple of years, solid waste management plan, and part of it is supposed to be education and I was wondering, since we now have a recycling coordinator, anything has been done about educating our children. This is where we're going to get our future cooperation of people to put all this in action and it seems to me that it should have been started. What is everyone waiting for?

We still need to recycle even if you put in all these different plans that you have. I just think it should be -- a lot more should be done. And also I was wondering, if a waste authority is formed if the current debt that has been caused by the landfill is going to be inflicted upon all the communities that are going to be part of the authority.

**PRESIDENT McLAUGHLIN:** Thank you. Questions,



Mr. Sano?

**MR. SANO:** I can only speak to the question of what was being done in my school, I believe it's true for all the public schools, is that each classroom now has a recycling container and maintenance people do not empty those, there are kids, certain kids, that are designated to come around with larger bins and take the paper and the other recyclable goods every week, in my school, and that's all new and all been done by the city.

**MS. CUMMINGS:** And --

**MR. SANO:** And that's the new --

**MS. CUMMINGS:** Are they being taught not just to recycle in the class but what to do at home?

**MR. SANO:** I believe so.

**MS. CUMMINGS:** Okay.

**PRESIDENT McLAUGHLIN:** Mr. O'Brien.

**MR. O'BRIEN:** I was going to suggest she should contact her school ask to be invited to one of the training classes that is given on a regular basis.

**MS. CUMMINGS:** That is great, thank you.

**PRESIDENT McLAUGHLIN:** Mr. Calsolaro.

**MR. CALSOLARO:** Were you a member of the solid waste planning group?

**MS. CUMMINGS:** Yes, I was.

**MR. CALSOLARO:** This is kind of a question

that I think you answered, can you just give a quick opinion on the needs, you know, of perhaps, you know, those water bottles and canned soda and putting promoting and marketing to try to get the students to start recycling --

**MR. O'BRIEN:** Madam President --

**MR. CALSOLARO:** -- do you think that could be part of the education program, something like marketing, you know, a proposal program not to just the elementary or secondary schools but on the university level?

**MS. CUMMINGS:** I think it would be great, I mean, everything. I think it should be started now. It is the future. We can't go on having landfills filling up all the time. We need to do something about reducing and recycling and reusing, there's lots of groups now that will do -- they have swaps and this recycle and Craig's List where they have recycle and lots and lots of stuff that's still usable is exchanged and given away and we need to make that in the schools as well and -- and let's get our children very much involved.

**PRESIDENT McLAUGHLIN:** Thank you, Ms. Cummings.

This concludes the public hearing. Thank you very much.

(Whereupon at 8:23 p.m. the proceedings in the above-entitled matter were concluded.)

C E R T I F I C A T I O N

I, LAUREL STEPHENSON, a Court Reporter and Notary Public in and for the State of New York, do hereby certify that the foregoing record taken by me at the time and place as noted in the heading hereof is a true and accurate transcript of same, to the best of my ability and belief.

---

Laurel Stephenson

Date: \_\_\_\_\_





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GERALD D. JENNINGS  
MAYOR

JOHN C. MARSOLAIS  
CLERK OF THE COUNCIL

March 15, 2011

Mr. Kenneth G. Gallagher, P.P., AICP  
Principal Planner  
Clough Harbour & Associates  
6 Campus Drive  
Parsippany, NJ 07054-4406

**Re: Albany Common Council – Adoption of Resolution Number 11.31.11R**

Dear Mr. Gallagher:

The Albany Common Council adopted Resolution Number 11.31.11R, a copy of which is attached, on March 7, 2011. You are receiving this correspondence as an involved agency in connection with the Solid Waste Management Plan (SWMP) for the Capital Region Solid Waste Management Partnership Planning Unit.

**RESOLUTION OF THE COMMON COUNCIL ADOPTING THE STATEMENT OF FINDINGS UNDER THE NEW YORK STATE ENVIRONMENTAL QUALITY REVIEW ACT (SEQRA) IN CONNECTION WITH THE SOLID WASTE MANAGEMENT PLAN FOR THE CAPITAL REGION SOLID WASTE MANAGEMENT PARTNERSHIP PLANNING UNIT**

Please do not hesitate to contact me if you have any questions.

Sincerely,

John C. Marsolais  
City Clerk & Clerk of the Council  
[marsoj@ci.albany.ny.us](mailto:marsoj@ci.albany.ny.us)



**Common Council Member O'Brien introduced the following, which was approved:**

**Resolution Number 11.31.11R**

**RESOLUTION OF THE COMMON COUNCIL ADOPTING THE STATEMENT OF FINDINGS UNDER THE NEW YORK STATE ENVIRONMENTAL QUALITY REVIEW ACT (SEQRA) IN CONNECTION WITH THE SOLID WASTE MANAGEMENT PLAN FOR THE CAPITAL REGION SOLID WASTE MANAGEMENT PARTNERSHIP PLANNING UNIT**

**WHEREAS**, on June 25, 2009, the New York State Department of Environmental Conservation (DEC) issued to the City of Albany, permit # 4-0101-00171/00011 for the purpose of operating and expanding the landfill beyond its current capacity; and

**WHEREAS**, Special Condition 26(b) of the Permit calls for the Capital Region Solid Waste Management Partnership Planning Unit to have a new long term Solid Waste Management Plan (SWMP) in effect by January 1, 2011; and

**WHEREAS**, the Common Council had received a long form Environmental Assessment Form (EAF), as well as a Draft Solid Waste Management Plan for the Capital Region Solid Waste Management Partnership Planning Unit; and

**WHEREAS**, the Council had reviewed the EAF and Draft Solid Waste Management Plan and determined to conduct a coordinated review among all involved agencies; and

**WHEREAS**, the Common Council passed a resolution on July 17, 2010 declaring itself Lead Agency in accordance with SEQRA regulation 6 NYCRR 617.6 (4); and

**WHEREAS**, the Common Council as designated lead agency issued a positive declaration requiring the preparation of a Draft Generic Environmental Impact Statement (DGEIS) in accordance with 6 NYCRR 617.7(a); and

**WHEREAS**, the Common Council passed a resolution on October 4, 2010 declaring the DGEIS complete and adequate for public review in accordance with SEQRA regulations 6 NYCRR 617.9 (a), and establishing a 45 day public comment period during which written comments were submitted; and

**WHEREAS**, a public hearing was held pursuant to the provisions of 6 NYCRR 617.12 on October 25, 2010; and

**WHEREAS**, written comments regarding the DGEIS were accepted until November 19, 2010; and

**WHEREAS**, upon the expiration of the public comment period, the City prepared a Final Generic Environmental Impact Statement (FGEIS), including responses to all comments, in accordance with SEQRA regulations 6 NYCRR 617.10 and submitted a copy of the FGEIS to each member of the Common Council; and

**WHEREAS**, the Common Council passed a resolution on February 7, 2011 declaring the FGEIS complete in accordance with SEQRA regulations 6 NYCRR 617.10; and

**WHEREAS**, as Lead Agency, the Common Council is required to make its own findings under SEQRA, a copy of the Statement of Findings being attached hereto as Exhibit "A".

**NOW, THEREFORE, BE IT RESOLVED**, that the Common Council, as Lead Agency, hereby adopts and issues this Statement of Findings pursuant to 6 NYCRR Part 617.11 of the New York State Environmental Quality Review Act (SEQRA). Specifically, the Common Council hereby finds:

First. The requirements of 6 NYCRR 617 have been met.

Second. Consistent with social, economic and other essential considerations from among the reasonable alternatives available, the action is one that avoids or minimizes adverse environmental impacts to the maximum extent practicable.

Third. Adverse environmental impacts will be avoided or minimized to the maximum extent practicable by incorporating as conditions to the decision those mitigation measures that were identified as practicable.

Fourth. The FGEIS is comprehensive and contains the facts and conclusions relied upon to support the Common Council's Statement of Findings and indicates the social, economic and other factors, which formed the basis of its findings.

Fifth. The basis for this decision is the SWMP and the FGEIS, and the documents incorporated by reference therein, the Statement of Findings being attached hereto and made a part hereof in Exhibit "A", and such other documents that the Common Council deemed necessary or appropriate.

**BE IT FURTHER RESOLVED**, this resolution shall take effect immediately.



## EXHIBIT A

### State Environmental Quality Review Findings Statement Solid Waste Management Plan and Final GEIS For the Capital Region Solid Waste Management Partnership Planning Unit

Pursuant to Article 8 (State Environmental Quality Review Act – SEQR) of the Environmental Conservation Law and 6 NYCRR Part 617, the City of Albany Common Council, as Lead Agency, makes the following findings:

#### I. NAME OF ACTION

Draft Solid Waste Management Plan and Final Generic Environmental Impact Statement for the Capital Region Solid Waste Management Partnership Planning Unit.

#### II. DESCRIPTION OF THE ACTION

The Solid Waste Management Plan (SWMP) presents the long range solid waste strategy for the Capital Region Solid Waste Management Partnership Planning Unit. The current Planning Unit members include the City of Albany (the lead participant), along with the cities of Rensselaer and Watervliet, the towns of Berne, Bethlehem, East Greenbush, Guilderland, Knox, New Scotland, Rensselaerville, and Westerlo, and the villages of Altamont, Green Island and Voorheesville. The population of the Planning Unit was approximately 215,000 persons in the year 2000, and is projected to grow to 222,000 and 230,600 by the years 2010 and 2030, respectively.

The major elements of the SWMP are:

- the continued utilization of existing solid waste management facilities and programs in the Planning Unit;
- the expansion of existing waste reduction and recycling programs throughout the Planning Unit;
- The development of new capacity for both recycling and for the treatment of post-recyclable solid waste on a regional basis to provide the necessary economies of scale to support a more fully integrated solid waste management program.

The SWMP also recommends the implementation of a regional solid waste management authority (RSWMA) which would operate an expanded planning unit.

Implementation of the RSWMA will require the enactment of state enabling legislation to create and empower the authority. Before the legislation can be enacted, local or regional consensus will need to be established to provide the basis for enactment. Albany County is undertaking a detailed study to evaluate the feasibility of a regional solid waste management authority.

Pursuant to the State Environmental Quality Review Act (SEQR), the City of Albany prepared a new SWMP and Generic Environmental Impact Statement (GEIS) for the purpose of evaluating and identifying the key elements of the future solid waste management plan for the region for the

years 2011 through 2030. It includes all the components of a full solid waste management plan as required by subpart 360-15 of the NYSDEC regulations. It also includes components of a comprehensive recycling analysis in accordance with Section 360-1.9(f) of the regulations. The SWMP and corresponding GEIS provide the best opportunity to outline and evaluate a comprehensive Solid Waste Management Plan.

This document does not replace the need for SEQR review as it relates to other specific courses of action, including any specific facilities that are recommended as part of the SWMP. Additionally the plan, and the implementation recommendations outlined, is typically beneficial having been identified after an evaluation of a wide range of alternatives.

The City of Albany Common Council is the Lead Agency for the review of the SWMP pursuant to the State Environmental Quality Review Act (SEQR) under Part 617 of the New York Compilation of Codes Rules and Regulations. The Common Council initiated lead agency coordination for the SWMP on May 19, 2010 and declared itself Lead Agency for this action by adopting Resolution No. 81.71.10R on July 19, 2010. In its resolution of July 19, 2010, the Council also issued a Positive Declaration, determining that a Draft Generic Environmental Impact Statement (DGEIS) was needed for the SWMP

Pursuant to the requirements of SEQR, the Draft Solid Waste Management Plan and Generic Environmental Impact Statement (DGEIS) was prepared and determined complete on October 4, 2010 and subsequently filed along with a Notice of Completion and Hearing Notice pursuant to 6 NYCRR 617.8(d). A public hearing was held on October 25, 2010 and public comment period closed on November 19, 2010. A Final Generic Environmental Impact Statement (FGEIS) was prepared and adopted on February 7, 2011.

### **III. LOCATION**

Multiple municipalities in Albany and Rensselaer counties

### **IV. AGENCY JURISDICTION**

City of Albany Common Council

### **V. DATE FGEIS FILED**

February 7, 2011

### **VI. FACTS AND CONCLUSIONS RELIED ON TO SUPPORT DECISION**

#### **A. Background**

- 1) In the Planning Unit, MSW is generally collected in one of three ways. It can be collected by the local municipality using its own forces, it can be collected by a private waste collection company, or it can be self hauled by the waste generator to an approved disposal or transfer site. The method of MSW collection varies by municipality and by the type of waste generator (e.g. residential, commercial, industrial or institutional).
  - 2) Estimated Solid Waste Disposal from the Planning Unit was approximately 217,135 tons and 202,727 tons in the years 2007 and 2008, respectively. The largest portion of waste from the Planning Unit is disposed at the City of Albany's Rapp Road Landfill. As a result of the NYSDEC's June 2009 approval of the Eastern Expansion of the Rapp Road Landfill, that facility is anticipated to be able to continue to provide disposal capacity for post-recyclable solid waste from the Planning Unit through the year 2016. Some solid waste from the Planning Unit is disposed of at facilities located outside the Planning Unit.
  - 3) The collection of designated recyclables is mandatory in the Planning Unit and is often carried out by the same party providing MSW collection service. Estimated material recovery and recycling from the Planning Unit was approximately 118,645 tons in 2008, or a total diversion rate of 37%. Designated mandatory recyclable materials are specified by each municipality, but generally include:
    - Paper, including:
      - Newspaper
      - Magazines
      - Corrugated Cardboard
      - Paper Board
      - Office Paper
      - Gable-top Cartons and Drink Boxes
    - Plastic, including:
      - PET containers
      - HDPE containers
      - Some communities now collect Plastics #3-7
    - Metals, including:
      - Ferrous and bi-metal cans
      - Other ferrous metals
      - Aluminum cans
      - Other non-ferrous metal
    - Glass Bottles and containers
    - Yard Waste
    - Lead Acid Batteries
  - 4) While the existing material diversion rate represents a significant accomplishment for the Planning Unit, there is still a substantial amount of currently designated recyclable material in the waste stream that is delivered for disposal. A waste characterization study undertaken as part of this SWMP found that about 31% of the MSW delivered for disposal during the study period consisted of designated recyclable materials.
-

Increasing the recovery rate for these designated recyclables will result in a reduction of waste disposal tonnage and is one of the objectives of this SWMP.

- 5) The Planning Unit adopted a SWMP modification, approved by the NYSDEC in June 2009 that provides for significant recycling program enhancements. Even with the successful achievement of the goals of the SWMP Modification, there will still be a significant amount of post-recyclable waste that will require disposal after the Rapp Road Landfill reaches capacity in 2016.

## **B. Goals and Objectives**

- 6) The goals and objectives for this SWMP were developed with input from the Solid Waste Management Plan Steering Committee.
- 7) The goals and objectives of the SWMP are as follows:
  - o To continue to provide reliable and reasonably priced solid waste management facilities and services, for MSW, C&D, and non-hazardous industrial waste, for the period from 2011 until 2030, by:
    - Maintaining or expanding the membership of the planning unit;
    - Maintaining and building on existing public sector and private sector solid waste management resources;
    - Identifying new infrastructure and programs that should be developed to meet future needs; and
    - Identifying the administrative structure by which new facilities and programs should be implemented.
  - o To minimize the amount of solid waste requiring land disposal in the future by:
    - Maintaining and expanding waste reduction, reuse and recycling efforts, as set forth in the SWMP Modification;
    - Increasing the effectiveness of public education and enforcement of existing recycling requirements;
    - Considering more emphasis on material re-use and alternatives such as PAYT, single stream recycling, and food waste composting as mechanisms to achieve future reductions in waste requiring disposal;
    - Considering alternatives which recover energy from waste, including proven technologies as well as new and emerging technologies.
- 8) Based on the selected elements of the new SWMP, a waste diversion and recycling goal of 65% has been established for the year 2020. This is reflected in the annual (end of year) diversion and recycling goals, noted below.
  - o 2010 – 45%
  - o 2011 – 47%
  - o 2012 – 48%
  - o 2013 – 50%
  - o 2014 – 52%

- 2015 – 54%
- 2016 – 56%
- 2017 – 58%
- 2018 – 60%
- 2019 – 62%
- 2020 – 65%

9) The above-noted waste diversion and recycling goals reflect both the current goals (as set forth in the SWMP Modification) and the maximum expected diversion that is achievable with the implementation of the expanded waste reduction and recycling program, elements that are part of this SWMP. However, implementation of a continuous improvement process in connection with both current and future waste reduction and recycling program efforts could help push beyond these above-noted waste reduction and recycling goals.

**C. Elements of the SWMP**

10) Waste minimization in the residential waste generation sector will be promoted with a primary focus on the following:

- The use of back yard composting for both yard waste and food waste will be promoted wherever feasible;
- The use of other waste-reducing methods (except burning) for managing yard waste on-site will be promoted wherever feasible;
- Promote PAYT system implementation;
- Promote the use of reusable grocery bags;
- Educate consumers about how to consider waste reduction and product packaging when they are making purchasing decision;
- Promote the use of existing programs that re-use or redistribute materials in the second-hand marketplace;
- Promote the concept of repair instead of replacement;
- Support product stewardship initiatives;
- Aggressive education and enforcement programs;
- Aggressive waste reduction and recycling programs.

11) To promote waste minimization in the commercial, industrial, and institutional (CII) sector, the Planning Unit will seek to form alliances with major employers to increase awareness about the economic and environmental benefits of waste reduction. In addition, if funding can be secured through the NYSDEC Environmental Protection Fund grant program, or other sources, the Planning Unit can also offer waste audits to CII waste generators to help identify specific opportunities for waste reduction (and recycling) at the audited establishment. Such a program can be important either as a

first step in developing of a business recycling program or as a way to identify improvements to take an existing program to the next level.

- 12) Waste minimization in the construction and demolition sector can be advanced by promoting policies which favor rehabilitation/reconstruction over demolition/new construction, and where building demolition is necessary, policies which favor building deconstruction and material recovery for reuse and recycling over more typical current practices of total teardown. The City of Albany is leading the way in this effort with its recently enacted Ordinance Number 68.102.09 (as amended) amending chapters 133 (Building Construction) and 375 (Zoning) in relation to demolition procedures. Among other things the ordinance now requires review by the Planning Board prior to the issuance of permits for building demolition. As part of the Board's review, consideration is given to whether building restoration is a more appropriate alternative. In addition, the ordinance requires a minimum of twenty-five percent (25%) of construction and demolition debris generated from applicable construction, remodeling, or demolition projects shall be diverted from disposal to landfills through recycling, reuse and diversion programs.
- 13) While the Planning Unit Recycling Coordinator (PURC) will take the lead with these efforts to promote waste minimization, success will depend on the active participation by the municipal recycling coordinators, as well as a high level of cooperation between the constituent municipalities of the Planning Unit. Member municipalities of the Planning Unit fund the PURC position in proportion to their population share, in accordance with the terms of a 3-year Inter-municipal Agreement which will expire on December 31, 2011.
- 14) The Planning Unit will work with the NYSDEC, the recently formed New York Product Stewardship Council and others to advance an agenda of product stewardship initiatives that can reduce the amount and toxicity of materials that are left for disposal at the end of their useful lives. In addition, the Planning Unit will engage local stakeholders (such as major retailers) to raise awareness about product stewardship and to help identify and overcome potential obstacles.
- 15) The continued expansion of existing waste reduction and recycling programs in the Planning Unit is one of the central themes of this SWMP. The expansion of these program elements was set forth in the May 2009 SWMP Modification, and will be carried forward as part of this new SWMP. These measures include:
  - Increased education and enforcement of mandatory recycling requirements, especially for CII waste generators (including multi-family residential), including:
  - Website to publicize Planning unit recycling programs information and information on waste reduction;
  - Promote increased recycling in schools;
  - Public Space Recycling;
- 16) In addition to continuing these programs to promote and expand existing recycling infrastructure, a new element of this SWMP will be the development of one or more drop-off facilities to provide residents and businesses with more complete selection of

waste reduction and recycling opportunities. Such a facility would include a one-stop location to accept all designated recyclables, as well as for selected MSW components such as electronics, motor oil, fluorescent light bulbs, a swap shop to promote re-use of second-hand items, as well as a volume-based (PAYT) user charge for solid waste disposal. This facility could be developed as either an expansion of an existing recycling and transfer facility, as a newly developed facility site, or in more than one location. It is envisioned that such a facility would be available for any resident or small business in the Planning Unit.

- 17) Another new element of this SWMP is the development of processing and collection capacity for source separated organic waste (SSOW). This SWMP envisions the development of a SSOW facility with a capacity to process up to 40,000 tons per year, sized for the existing Planning Unit. Such a facility would be developed incrementally to account for a ramp-up of SSOW collection programs. The development of the SSOW facility should also consider sufficient capacity for expansion to provide SSOW capacity for a larger regional planning unit. Alternatively, full SSOW capacity for the larger regional could be provided at two or more different locations throughout an enlarged planning unit.
- 18) The development of SSOW processing capacity will also require modifications to existing waste collection infrastructure and operations. This SWMP envisions an initial focus on large CII generators of food waste and other SSOW. These large SSOW generators will need to provide the critical impetus to support the development of initial SSOW processing capacity in the Capital Region Planning Unit. After that initial SSOW processing capacity is established, incremental expansions into the residential waste sector can be pursued, initially with pilot programs designed to determine the best approach for full scale residential sector implementation.
- 19) Capital cost associated with the development of SSOW processing capacity and residential collection equipment may be eligible for grant funding from the NYSDEC Environmental Protection Fund. This grant can provide matching funds for up to 50% of capital cost, and as such provide a significant cost incentive that will be important to the success of this program implementation.
- 20) This SWMP envisions the designation of additional mandatory recyclable materials at unspecified dates in the future, when local recovery and recycling opportunities and markets for these materials are more fully established. The following material streams are seen as potential candidates for designation as mandatory recyclables:
  - Electronic Waste and HHW
  - Plastic Containers #3-7
  - Film Plastic
  - SSOW, consisting of food waste, miscellaneous paper, and other organic waste
- 21) The SWMP calls for the development of a regional solid waste treatment facility to further minimize landfill disposal requirements for post-recyclable solid waste beyond what would be achievable with the implementation of the waste reduction and recycling programs elements. Such a facility could recovery additional materials, energy, bio-

fuels and other byproducts from the post-recyclable solid waste stream. This SWMP does not endorse conventional waste-to-energy technology over any of the other emerging technologies. A facility would need to be sized according to the size of the regional watershed. Economies of scale would occur with a larger watershed.

- 22) The SWMP envisions that this regional solid waste treatment facility would be developed by a Regional Solid Waste Management Authority (RSWMA) which would be formed to implement this project as well as other elements of a fully integrated regional solid waste management system. The selection of the appropriate solid waste treatment technology will be made by the RSWMA.
- 23) The inclusion of a treatment technology for the post recyclable material is fully consistent with a zero waste policy and goal. The planning units coming closest to zero waste to landfills are those in States and countries with product stewardship legislation, with very aggressive waste reduction, reuse and recycling programs, aggressive education and enforcement, and a treatment technology for the last component of the waste stream, thereby minimizing the fraction that needs to be landfilled.
- 24) Implementation of this regional solid waste treatment facility would not occur until after the RSWMA is formed, and would be expected to occur pursuant to a procurement process described in Section 120w of New York General Municipal Law. Under this approach, the project would seek a developer to design build and operate the facility on behalf of the regional planning unit and RSWMA. The earliest that such a facility could be ready for operation is 2018.
- 25) The Solid Waste Management Plan includes the continued use of the Rapp Road Landfill, until its capacity is exhausted.
- 26) No new landfill capacity in the Planning Unit is envisioned by this SWMP, and after the closure of the Rapp Road Landfill, post-recyclable waste from the Planning Unit that requires landfill disposal will need to be exported to commercially available disposal facilities. It is possible that with the development of the expanded regional planning unit envisioned by this SWMP, that there will be an opportunity to use another existing landfill facility in the region for the disposal of residue from a regional solid waste management system. This opportunity will need to be explored as the feasibility of a regional solid waste management authority is subject to further evaluation in the future.
- 27) Because waste will not need to be exported for disposal until 2016, it is not practical to secure contractual commitments any of the commercially available facilities at this time. It is expected that any needed capacity can be secured through bid solicitation and contractual commitment within a year of the anticipated closure of the Rapp Road Landfill.
- 28) Because the development of the new institutions and infrastructure called for in the SWMP may take a significant amount of time, it will be necessary for the existing Planning Unit to continue to implement certain the elements of the SWMP until the RSWMA is developed. The existing Planning Unit will provide for continued implementation of most of the waste reduction and recycling elements of the SWMP.



This will provide for continued progress in incrementally increasing enforcement and recyclable diversion rates while the other elements of the SWMP are being developed.

- 29) The existing Planning Unit will also move forward with the implementation of an SSOW facility prior to the formation of the RSWMA. The following implementation activities for that facility will be pursued on an interim basis:
  - Facility Siting
  - Development and Issuance of a Request for Proposals
  - Consideration of, and if appropriate, promotion of a privatized or merchant SSOW facility.
- 30) Another interim measure will include an evaluation, to be completed by July 2011, to assess progress in establishing the RSWMA which is critical to the successful implementation of the SWMP. If unforeseeable events have occurred which are determined will prevent the implementation of the RWSMA, then it may be necessary to prepare a modification to this SWMP at that time.
- 31) Since local landfill capacity at the Rapp Road Landfill may be depleted before the regional solid waste treatment facility can be developed, it may be necessary to be temporarily more reliant on commercial landfill facilities located a long distance from the Planning Unit. The SWMP Modification included a provision noting that when the Eastern Expansion of the Rapp Road Landfill is approved, the City of Albany intends to acquire land immediately adjacent to the landfill and relocate the existing transfer station structure to that parcel. This existing structure has already been demolished in connection with the construction of the first phase of the Landfill Expansion. The SWMP acknowledges that the City of Albany would develop a transfer station in the future, if one is needed, at the Rapp Road Landfill site.

#### **D. Environmental Impacts**

- 32) Overall, no significant adverse environmental impacts are anticipated to result from adopting and implementing this SWMP. Beneficial impacts to the community, the environment and the solid waste management system currently in place for the Planning Unit are anticipated.
- 33) Environmental impacts associated with an SSOW facility, a regional waste treatment facility, or other facilities to be developed as part of the SWMP cannot be quantified until such time as specific sites or facility designs have been identified. No specific sites or facility designs have been identified as part of the SWMP. Moreover, the development and operation of any of these solid waste facilities will be subject to extensive regulation by the NYSDEC, which will require that any potentially significant environmental impacts be minimized and mitigated.
- 34) The successful implementation of the SWMP will increase the recovery of the currently designated recyclable materials, as well as add additional designated materials for

mandatory recycling, among other measures, and is expected to result in an overall waste diversion rate of 65% by the year 2020.

- 35) The development and operation of a regional solid waste treatment facility for post-recyclable solid waste would reduce the amount of waste requiring disposal at a landfill facility to 13.5% of total waste generation, or a landfill diversion rate of almost 87%.
- 36) Overall, the beneficial impacts related to the SWMP include the reduction in the need for new disposal infrastructure and associated impacts related to operations, job creation, the reduction of GHG emissions, and energy conservation. Less land will be necessary for disposal and therefore there will be a reduction in the potential for long-term environmental liabilities from these facilities. Enriched soil quality will result from the use of composting, along with reduced energy demands for manufacturing, as well as decreased demand for virgin materials and natural resources and the associated reduction in environmental impacts.
- 37) The expansion of waste reduction and recycling programs will reduce the potential for adverse environmental impacts by minimizing dependence on landfill disposal. This is particularly important because the SWMP does not provide for any new landfill capacity and after Rapp Road landfill closes, the Planning Unit will rely on disposal capacity located outside of its area, which may require long-distance transport. The continued expansion of waste reduction and recycling programs will also minimize the capacity requirements for the regional solid waste treatment facility for post recyclable waste that is proposed as part of this SWMP and this will reduce future costs related to construction and operation of such a facility.
- 38) Programs to reduce waste will primarily rely on government policies, legislative and regulatory actions, economic incentives and public education to achieve their goals. As such there will rarely be any primary environmental impacts that result from these activities. The secondary or indirect impacts that result from these actions are anticipated to be primarily beneficial.
- 39) The SWMP calls for the continued promotion and expansion of existing recycling infrastructure and adding new items to the list of mandatory recyclable materials. Many of these activities are institutional in nature and as such do not result in the potential for any direct adverse environmental impacts.
- 40) The development of one or more drop off facilities to provide residents and businesses with a one-stop location for waste reduction and recycling activities could have the potential to result in some adverse environmental impacts. These potential impacts would be site and facility specific and cannot be evaluated at this time but would be evaluated through future SEQR actions and permitting. Overall, these program elements of the SWMP are expected to result in long-term beneficial impact.
- 41) The continued growth of the waste reduction and recycling program elements of the SWMP will require expanded infrastructure and the expenditure of additional capital and operating expenses that will be partially offset by avoided costs of solid waste disposal. The programs will also provide employment opportunities in both the construction of facilities, the implementation of programs and development of new markets for the reuse and new use of materials. Increasing recycling and reducing waste

generation are also expected to reduce GHG emissions from the landfill and product and packaging manufacturing while conserving energy. These beneficial impacts are both cumulative and growth inducing.

- 42) The SWMP calls for the development of programs and facilities to compost SSOW, and this is expected to have an overall beneficial impact on the environment. The SSOW facility sized for the Planning Unit could reduce landfill disposal by 38,000 tons per year. Aside from the beneficial impact of the diversion waste from landfill disposal, the SSOW composting facility will create a usable product that can be marketed and sold as an environmentally beneficial soil amendment. The increase in organics recovery will require an increase in expenditures for organics collection and processing infrastructure. The development of infrastructure to collect and process SSOW will require new capital and operating expenditures and will be partly offset by avoided collection and disposal cost of waste destined for disposal.
- 43) The development and operation of a SSOW composting facility will result in employment opportunities as it relates to facility design, construction, and operation. The development and operation of an SSOW facility for the Planning Unit will require the development of a 15-acre site, and most of the site acreage would be developed with impervious surfaces for building area, internal road network, parking, and paved areas for compost windrows.
- 44) The separate collection of SSOW could result in additional truck trips, and associated costs, along with emissions and other impacts related to an increase in truck traffic. Both the economic and environmental impacts are expected to be short-term and minor because over the long-term, the costs and impacts of regular solid waste collection will be reduced by an equivalent amount. The success of this type of program and related infrastructure could be both growth inducing and cumulative as it relates to "green-economy" related employment and the development of additional facilities to serve a growing SSOW market.
- 45) The continued growth of recycling, SSOW and other waste reduction programs however, will require the development of new infrastructure to service these programs. These facilities may have impacts related to noise, odors, and visual and increased truck traffic. Mitigation measures are currently available for all of the management and operational practices, environmental impacts resulting from full implementation of the Plan as recommendations can be both mitigated and minimized. Specific impacts related to construction and operation of facilities will also be evaluated individually through SEQR process. In general, the potential adverse impacts related to the implementation of the programs and facilities that are elements of this SWMP are expected to be less significant than alternative waste management methods evaluated which would include more significant continued reliance on waste disposal.
- 46) The development of a regional solid waste treatment facility would reduce the amount of waste requiring disposal at a landfill facility to 13.5% of total waste generation, or a landfill diversion rate of almost 87%. Without this element of the SWMP, the maximum landfill diversion rate would be on the order of 65%. In addition to the beneficial impact of the diversion of large amounts of waste from landfill disposal, the solid waste treatment facility will also recover additional materials, energy, bio-fuels

and/or other byproducts that will displace the need for virgin materials or energy derived from fossil fuels.

- 47) The development and operation of the regional solid waste treatment facility is expected to require an approximately 15 acre site. Most of the site acreage would be developed with impervious surfaces for building area, internal road network, parking, and other paved areas.
- 48) The development and operation of a regional solid waste treatment facility will require new capital and operating expenditures, and will result in employment opportunities in connection with facility design, construction, and operation.
- 49) The development and operation of a regional solid waste treatment facility may have impacts related to noise, odors, and visual and increased truck traffic. These will be facility specific and site specific and, as such cannot be fully examined at this time. Such a facility will be subject to the comprehensive regulations of the NYSDEC and as a result it is expected that any potential adverse environmental impacts associated with the development and operation of such a facility would be minimized and mitigated to the maximum practical extent. Specific impacts related to construction and operation of such a facility will also be evaluated through the SEQR process.
- 50) In general, the potential adverse impacts related to the development and operation of a regional solid waste treatment facility are expected to be less significant than alternative waste management methods evaluated which would include more significant continued reliance on landfill disposal at facilities outside of the planning unit.
- 51) The SWMP envisions the continued use of the Rapp Road Landfill, until its permitted capacity is exhausted. The environmental impacts associated with the Eastern Expansion of the Rapp Road Landfill have already been fully examined during the SEQR process associated with the issuance of the permits for that facility. Potential adverse environmental impacts associated with that facility have been minimized and mitigated to the maximum practical extent. No new landfill capacity in the Planning Unit is envisioned by this SWMP. After the closure of the Rapp Road Landfill, post-recyclable waste from the Planning Unit that requires landfill disposal will need to be exported to commercially available disposal facilities located outside of the Planning Unit.
- 52) By minimizing land disposal requirements, the SWMP is also minimizing the need to transport solid waste to commercially available landfills located outside of the Planning Unit. Because the SWMP does not include the development of any new landfill disposal capacity, the capital and operating costs associated with a new landfill are avoided.
- 53) The development and operation of the commercially available landfill facilities that may be utilized by the Planning Unit as part of this SWMP have the potential for adverse impacts related to water resources, air resources, and other impacts such as noise, odors, and increased truck traffic. It is expected that any potential adverse environmental impacts associated with the use of a commercially available landfill facility would be minimized and mitigated to the maximum practical extent. This can be further assured through contractual provisions and through the appropriate due

diligence during the future procurement process that will be used to secure disposal capacity.

- 54) There will be no direct or primary environmental impacts associated with the establishment or operation of the RSWMA. There may be some indirect or secondary impacts due to the creation of the RSWMA and these will generally be beneficial, as it will provide a more efficient mechanism to administer and fund the SWMP elements. It will increase the effectiveness of program delivery and information dissemination, as well as provide the economy of scale necessary to develop a solid waste treatment facility to recover additional materials, energy and/or bio-fuels, and other by-products from the post-recyclable solid waste stream and minimize future reliance on landfills. The implementation of the RSWMA will result in a per capita cost savings on the administration of programs and facilities called for in the SWMP.
- 55) The SWMP will have beneficial impacts on the use and conservation of energy. By prioritizing waste prevention, reuse and recycling, the SWMP eliminates or diverts materials from disposal facilities that may generate methane and other greenhouse gases. Waste reduction, reuse and recycling also play key roles in reducing energy use related to mining of raw materials and the energy consumed in transportation and manufacture of the finished products.
- 56) The development of local capacity for composting SSOW will divert significant quantities of waste from disposal and will decrease methane gas production at landfills.
- 57) The solid waste treatment facility for post-recyclable solid waste could recover valuable materials for industrial feed stocks; reduce energy needed for other production methods, and produce biofuels, electricity, or other forms of energy which will reduce reliance on fossil fuels.
- 58) Providing local capacity for processing SSOW and for the treatment of other post-recyclable waste will minimize the amount of waste that must be transported long distances to disposal facilities located outside of the planning unit. This will reduce energy use and greenhouse gas emission associated with long haul transport and waste disposal.

## **VII. CERTIFICATION**

The City of Albany Common Council, as Lead Agency, is issuing this Statement of Findings pursuant to 6NYCRR Part 617.11 of SEQR. Specifically, the Common Council hereby finds:

- a. The requirements of 6 NYCRR 617 have been met.
- b. Consistent with social, economic and other essential considerations from among the reasonable alternatives available, the action is one that avoids or minimizes adverse environmental impacts to the maximum extent practicable,
- c. Adverse environmental impacts will be avoided or minimized to the maximum extent practicable by incorporating as conditions to the decision those mitigation measures that were identified as practicable.

- d. The FGEIS is comprehensive and contains the facts and conclusions relied upon to support the Common Council's Statement of Findings and indicates the social, economic and other factors, which formed the basis of its findings.

Pursuant to 6NYCRR Part 617.10, the Draft SWMP and GEIS represents a broad course of actions and policies that address solid waste management within the Planning Unit. This Statement of Findings does not replace the need for SEQR review as it relates to specific courses of action recommended in the SWMP, including any specific facilities that are recommended as part of the SWMP. The Plan and the implementation recommendations are typically beneficial based on an evaluation of a wide range of alternatives. The FGEIS and Statement of Findings are applicable to all projects implemented as a direct result of the implementation of the SWMP that are subject to SEQR review (Type I or Unlisted Actions).

**SWMP APPENDIX C**

**INDUSTRIAL WASTE SURVEY RESULTS**





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## **1.0 INTRODUCTION AND SUMMARY**

CHA has been retained by the City of Albany for preparation of a new Solid Waste Management Plan (SWMP) for the Capital Region Solid Waste Management Partnership (the Planning Unit). As part of the SWMP, CHA has studied several types of waste in the total solid waste stream of Planning Unit in order to determine waste generation rates and other data. One of the waste streams studied to obtain such data is non-hazardous industrial solid waste.

According to Census data, there were 260 manufacturing facilities in Albany County in 2002, employing a total of more than 9,000 people. Not all of these facilities or employees are located in the planning unit communities, but a substantial number are believed to be, as well as manufacturing establishments in the City of Rensselaer and the Town of East Greenbush in Rensselaer County.

In order to better understand the waste management practices among these industrial establishments a survey was prepared and distributed to major manufacturing employers in the planning unit. CHA compiled information about these facilities obtained from the 2008 New York Manufacturers Register (Manufacturers' News, Inc. 2008) and survey forms and cover letters were sent to approximately 135 establishments which had more than 10 employees. Of these, 45 had more than 50 employees and 25 had more than 100 employees. The letters were sent on February 10, 2009.

A copy of the Industrial Waste Survey Form and Cover Letter are presented in Section 2. The survey included questions regarding current solid waste management and recycling practices, as well as any special problems or issues faced with either solid waste management or recycling.

The survey responses were compiled into a summary table, presented in Section 3.

## **2.0 SURVEY FORM AND COVER LETTER**

This Section presents a copy of the Industrial Waste Survey Form and Cover Letter.



February 10, 2009

RE: Industrial Solid Waste Survey  
Capital Region SWMP

Dear Plant Manager:

Our firm is working with the City of Albany to assist with the development of a new Solid Waste Management Plan (SWMP) for the Capital Region for the next 10 to 20 years. Part of the SWMP is focused on solid waste/recycling collection practices of the industrial sector within the Planning Unit. You are being contacted because your business is believed to be among the largest industrial establishments located in the Planning Unit.

The purpose of the attached survey is to identify current solid waste management practices, including recycling, reuse, and other waste reduction programs for the non-hazardous solid wastes generated at your facility. This data will be used to determine waste generation rates as well as to evaluate changes that could be implemented to increase the overall effectiveness of solid waste management programs. Your completion of this information will allow us to more accurately characterize the waste stream and to plan for future needs.

If we have not directed this correspondence to the appropriate person, please forward it to their attention. The survey response should be completed and returned by February 27, 2009 as indicated on the attached survey. Should you have any questions regarding the enclosed survey, or the project in general, please feel free to contact the undersigned at (518) 453-8287.

Very truly yours,



Valerie Spies  
Assistant Project Engineer



Kenneth G. Gallagher, P.P., AICP  
Principal Planner



**INDUSTRIAL MANUFACTURERS SOLID WASTE/RECYCLING COLLECTION PRACTICES SURVEY**

**Part I. General Information**

**Firm name** \_\_\_\_\_ **Facility name** \_\_\_\_\_

**Street address** \_\_\_\_\_ **Mailing address** \_\_\_\_\_

**Contact Person/Survey Respondent** \_\_\_\_\_

**Title** \_\_\_\_\_

**Contact telephone #** \_\_\_\_\_

**Principal Product Your Facility Produces** \_\_\_\_\_

**Number of Employees: Full time** \_\_\_\_\_ **Part time** \_\_\_\_\_

**Hours of Operation:** \_\_\_\_\_

**SIC Code(s):** \_\_\_\_\_

**Part II. Solid Waste/Recyclable Information**

**1. How is non-hazardous solid waste collected for recycling or disposal (note all that apply)?**

- Self haul to disposal or recycling facilities? (name/contact information of facility)

\_\_\_\_\_

- Private hauler contracted by your business? (name/contact information of hauler)

\_\_\_\_\_

**2. Which solid waste management facility(s) are used by your business?**

\_\_\_\_\_

**3. Approximately how much non-hazardous solid waste did you dispose of in 2008?**  
\_\_\_\_\_ tons.

**4. What percentage of non-hazardous solid waste was disposed of onsite in 2008?**  
\_\_\_\_\_ %

5. Please describe any unique or problematic elements of your waste:

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6. How much do you expect your waste volume to increase or decrease over the next five (5) years? \_\_\_\_\_% per year

Reason for increase/decrease: \_\_\_\_\_

7. Do you anticipate any significant changes in your waste management practices in the next five (5) years? If so, please describe:

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**Part III. Reuse and Recycling Program Questions**

1. Please describe any material reuse or recycling at your facility:

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2. What percentage of non-hazardous solid waste is recycled or reused on-site in 2008?  
\_\_\_\_\_%

3. Do you keep records or prepare reports regarding your waste reduction and recycling program? Please describe:

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4. Are there barriers that reduce your recycling program's effectiveness or result in no recycling at your business? Please describe:

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5. Suggestions to improve the recycling program?

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**Part IV. Waste Characterization**

**1. Waste stream/recyclable composition information**

Please estimate the composition of your non-hazardous solid waste stream and the amount you reused, or recycled, and disposed for the following categories, in **tons/year** if possible. If other units of measurement are used please specify.

|                                                        | A                     | =        | B                                 | +        | C                    |
|--------------------------------------------------------|-----------------------|----------|-----------------------------------|----------|----------------------|
|                                                        | Material<br>Generated |          | Material<br>Recycled<br>or Reused |          | Material<br>Disposed |
| ❖ Aluminum                                             | _____                 |          | _____                             |          | _____                |
| ❖ Ferrous Metals                                       | _____                 |          | _____                             |          | _____                |
| ❖ Other metals (specify) _____                         | _____                 |          | _____                             |          | _____                |
| ❖ Newspaper                                            | _____                 |          | _____                             |          | _____                |
| ❖ Office paper                                         | _____                 |          | _____                             |          | _____                |
| ❖ Corrugated Cardboard                                 | _____                 |          | _____                             |          | _____                |
| ❖ Plate Glass                                          | _____                 |          | _____                             |          | _____                |
| ❖ Tempered Glass                                       | _____                 |          | _____                             |          | _____                |
| ❖ Ceramics                                             | _____                 |          | _____                             |          | _____                |
| ❖ Glass bottles & jars                                 | _____                 |          | _____                             |          | _____                |
| ❖ Other Glass (specify) _____                          | _____                 |          | _____                             |          | _____                |
| ❖ Plastic (HDPE and PET)                               | _____                 |          | _____                             |          | _____                |
| ❖ Plastic (PVC)                                        | _____                 |          | _____                             |          | _____                |
| ❖ Other Plastic (specify) _____                        | _____                 |          | _____                             |          | _____                |
| ❖ Rubber/Tires                                         | _____                 |          | _____                             |          | _____                |
| ❖ Dry cell or other batteries                          | _____                 |          | _____                             |          | _____                |
| ❖ Lead acid batteries                                  | _____                 |          | _____                             |          | _____                |
| ❖ Oil/oil filters                                      | _____                 |          | _____                             |          | _____                |
| ❖ Textiles                                             | _____                 |          | _____                             |          | _____                |
| ❖ Construction & Demolition Debris                     | _____                 |          | _____                             |          | _____                |
| ❖ Yard Waste                                           | _____                 |          | _____                             |          | _____                |
| ❖ Food Waste                                           | _____                 |          | _____                             |          | _____                |
| ❖ Wooden Pallets                                       | _____                 |          | _____                             |          | _____                |
| ❖ Medical Waste                                        | _____                 |          | _____                             |          | _____                |
| ❖ Electronics (Specify)                                | _____                 |          | _____                             |          | _____                |
| ❖ Mixed Refuse (such as cafeteria<br>and office waste) | _____                 |          | _____                             |          | _____                |
| ❖ Other (specify) _____                                | _____                 |          | _____                             |          | _____                |
| ❖ Other (specify) _____                                | _____                 |          | _____                             |          | _____                |
| <b>TOTAL</b>                                           | _____                 | <b>=</b> | _____                             | <b>+</b> | _____                |
|                                                        | <b>A</b>              |          | <b>B</b>                          |          | <b>C</b>             |

Note: The total disposed should equal the value entered in Part II, Question 3.

**THANK YOU FOR YOUR TIME.**

**Please FAX or email completed survey form by February 27, 2009 to:**

**CHA, LLP**

**Attn: Valerie Spies, Assistant Project Engineer**

**Fax Number: 973.299.1123**

**vspies@chacompanies.com**

**Telephone: (518) 453-8287**

### **3.0 SURVEY RESPONSE SUMMARY**

CHA set a survey response deadline of February 27, 2009, approximately three weeks from the time the surveys were sent out. During that time, CHA staff was available to answer any questions regarding the survey. Five surveys were returned to CHA as undeliverable from the Post Office, and 14 survey responses were received before the deadline. In the following weeks, CHA continued to receive several additional survey responses from the industrial firms.

CHA then telephoned the 25 largest firms, those with 100 employees or more, to determine the status of the industrial waste surveys and to inquire whether the firm had any additional questions or comments that would assist them with completion of the survey. Additional surveys were sent via email or fax based upon these telephone discussions and this effort yielded 3 additional survey responses. In total, CHA received 19 industrial waste survey responses.

The survey responses were compiled into a summary table, presented in this Section 3 so the information from each firm could be compared side by side with the other firms. Most firms were able to provide information about their current solid waste management practices on a descriptive level, however, many were not able to provide quantities of solid waste generated, recycled and discarded, and instead provided estimates of percentages of each material component or other means of reporting their solid waste management. Some indicated that the categorization of materials was handled by the solid waste hauler, or that the tonnage generated, recycled and disposed was unknown.

The table summarizing the industrial solid waste survey results is attached below:



**Industrial Waste Survey Data**

| Company                                      | Company #1                               | Company #2                  | Company #3                                           | Company #4                  | Company #5                                                            |
|----------------------------------------------|------------------------------------------|-----------------------------|------------------------------------------------------|-----------------------------|-----------------------------------------------------------------------|
| <b>General Information</b>                   |                                          |                             |                                                      |                             |                                                                       |
| Product                                      | not indicated                            | metal parts                 | asphalt concrete                                     | dental manufacturing        | installation of sun rooms                                             |
| Employees                                    | 25                                       | 75                          | 4 FT/ 20 PT                                          | 40                          | 13                                                                    |
| SIC Code                                     | 3678 - NAICS 334417                      | 3449 - NAICS 332114         | 2951 - NAICS 324121                                  | 3843 - NAICS 339114         | 3448 - NAICS 332311                                                   |
| <b>Solid Waste/Recyclable Information</b>    |                                          |                             |                                                      |                             |                                                                       |
| Non-hazardous solid waste collection         | private hauler - thru lessor             | private hauler              | private hauler                                       | private hauler              | private hauler                                                        |
| Solid Waste Management facilities            | Waste Management - contracted by Arsenal | Waste Management            | Allied Waste Services, Safety Kleen, TCI Tire Center | Allied Waste                | County Waste                                                          |
| Disposed in 2008 (tons)                      | 156 (approx)                             | unknown                     | 160                                                  | not indicated               | 112                                                                   |
| Percentage disposed onsite in 2008           | not indicated                            | 100%                        | 0                                                    | not indicated               | 0                                                                     |
| Unique or problematic elements?              | not indicated                            | none                        | not indicated                                        | not indicated               | none                                                                  |
| Volume increase or decrease in next 5 yrs?   | 0                                        | 0 - should stay same        | 0                                                    | 5% - business volume        | 0                                                                     |
| Significant changes in next 5 years?         | none                                     | none                        | no significant changes expected                      | No                          | No                                                                    |
| <b>Reuse and Recycling Program Questions</b> |                                          |                             |                                                      |                             |                                                                       |
| Material reuse or recycling at facility      | cardboard and paper                      | metal scrap                 | no recycling of solid waste                          | cardboard and paper         | aluminum cut off extrusions                                           |
| Percentage reused or recycled onsite in 2008 | 0                                        | 100                         | 0                                                    | not indicated               | 10% recycled                                                          |
| Records or reports for recycling/reduction?  | No                                       | No                          | No                                                   | No                          | Records regarding aluminum cutoffs that are brought to recycling yard |
| Barriers to reduce effectiveness?            | not indicated                            | N/A                         | No                                                   | No                          | would like to recycle expanded polystyrene foam                       |
| Suggestions for improvement                  | not indicated                            | not indicated               | not indicated                                        | not indicated               | not indicated                                                         |
| <b>Waste Characterization (tons)</b>         |                                          |                             |                                                      |                             |                                                                       |
|                                              | Information not provided                 | generated recycled disposed | generated recycled disposed                          | generated recycled disposed | generated recycled disposed                                           |
| Aluminum                                     |                                          | 0 100 0                     |                                                      |                             | 1.4 1.4 0                                                             |
| Ferrous Metals                               |                                          | 0 100 0                     | min min min                                          |                             | 0 0 0                                                                 |
| Other Metals (specify)                       |                                          |                             |                                                      |                             | 0.35 0 0.35                                                           |
| Newspaper                                    |                                          |                             |                                                      |                             | 0 0 0                                                                 |
| Office paper                                 |                                          | 0 0 100                     |                                                      | 21 21                       | 5 0 0                                                                 |
| Corrugated Cardboard                         |                                          | 0 0 100                     |                                                      |                             | 0 0 0                                                                 |
| Plate Glass                                  |                                          |                             |                                                      |                             | 0 0 0                                                                 |
| Tempered Glass                               |                                          |                             |                                                      |                             | 0.125 0 0.125                                                         |
| Ceramics                                     |                                          |                             |                                                      |                             | 0 0 0                                                                 |
| Glass Bottles & Jars                         |                                          |                             | min min                                              |                             | 0 0 0                                                                 |
| Other Glass (specify)                        |                                          |                             |                                                      |                             | 0 0 0                                                                 |
| Plastic (HDPE and PET)                       |                                          |                             |                                                      |                             | 0 0 0                                                                 |
| Plastic (PVC)                                |                                          |                             | 2 2                                                  |                             | 0 0 0                                                                 |
| Other Plastic (specify)                      |                                          |                             |                                                      |                             | 0 0 0                                                                 |
| Rubber/Tires                                 |                                          |                             | 5 5                                                  |                             | 0 0 0                                                                 |
| Dry cell or other batteries                  |                                          |                             |                                                      |                             | 0 0 0                                                                 |
| Lead acid batteries                          |                                          |                             |                                                      |                             | 0 0 0                                                                 |
| Oil/oil filters                              |                                          | 0 100 0                     | 1 1                                                  |                             | 0 0 0                                                                 |
| Textiles                                     |                                          |                             |                                                      |                             | 0 0 0                                                                 |
| Construction & Demolition Debris             |                                          |                             |                                                      |                             | 110 0 110                                                             |
| Yard Waste                                   |                                          |                             |                                                      |                             | 0 0 0                                                                 |
| Food Waste                                   |                                          |                             | min                                                  |                             | 0 0 0                                                                 |
| Wooden Pallets                               |                                          | 0 0 100                     | 2 2                                                  |                             | 0.125 0 0.125                                                         |
| Medical Waste                                |                                          |                             |                                                      |                             | 0 0 0                                                                 |
| Electronics (specify)                        |                                          |                             |                                                      |                             | 0 0 0                                                                 |
| Mixed Refuse (such as cafeteria and office)  |                                          |                             | 150 150                                              | 75                          | 0 0 0                                                                 |
| Other (specify)                              |                                          |                             |                                                      |                             |                                                                       |
| Other (specify)                              |                                          |                             |                                                      |                             |                                                                       |
| <b>Total</b>                                 |                                          |                             | 160 10 150                                           |                             | 112 1.4 110.6                                                         |

**Industrial Waste Survey Data**

| Company                                      | Company #6                                  |          |          | Company #7                                                                              |          |          | Company #8                                                                    |          |          | Company #9                           |          |          | Company #10                                                          |          |          |
|----------------------------------------------|---------------------------------------------|----------|----------|-----------------------------------------------------------------------------------------|----------|----------|-------------------------------------------------------------------------------|----------|----------|--------------------------------------|----------|----------|----------------------------------------------------------------------|----------|----------|
| <b>General Information</b>                   |                                             |          |          |                                                                                         |          |          |                                                                               |          |          |                                      |          |          |                                                                      |          |          |
| Product                                      | pre-built sheds                             |          |          | paint, roof coatings, driveway sealers                                                  |          |          | wallboard, joint compound                                                     |          |          | stone                                |          |          | animal feed                                                          |          |          |
| Employees                                    | 15                                          |          |          | 35                                                                                      |          |          | 9                                                                             |          |          | 19                                   |          |          | 25                                                                   |          |          |
| SIC Code                                     | not indicated - NAICS 321992                |          |          | 2851 - NAICS 325510                                                                     |          |          | 3275 - NAICS 327420                                                           |          |          | NAICS 327900                         |          |          | 2048 - NAICS 311119                                                  |          |          |
| <b>Solid Waste/Recyclable Information</b>    |                                             |          |          |                                                                                         |          |          |                                                                               |          |          |                                      |          |          |                                                                      |          |          |
| Non-hazardous solid waste collection         | private hauler                              |          |          | private hauler                                                                          |          |          | private hauler                                                                |          |          | private hauler                       |          |          | private hauler                                                       |          |          |
| Solid Waste Management facilities            | BFI - Allied Waste                          |          |          | Waste Management, Allied Waste                                                          |          |          | Waste Management of Eastern New York                                          |          |          | Waste Management of Upstate New York |          |          | Allied Waste                                                         |          |          |
| Disposed in 2008 (tons)                      | not indicated                               |          |          | unknown                                                                                 |          |          | 611.5                                                                         |          |          | 156 cy (estimate)                    |          |          | 146                                                                  |          |          |
| Percentage disposed onsite in 2008           | 0                                           |          |          | 0                                                                                       |          |          | 0                                                                             |          |          | 0                                    |          |          | 0                                                                    |          |          |
| Unique or problematic elements?              | scrap lumber, vinyl and shingles siding     |          |          | none                                                                                    |          |          | none                                                                          |          |          | not indicated                        |          |          | N/A                                                                  |          |          |
| Volume increase or decrease in next 5 yrs?   | 10% decrease - business down                |          |          | 0                                                                                       |          |          | unknown - slowdown due to economy                                             |          |          | not indicated                        |          |          | not indicated - trying to decrease waste                             |          |          |
| Significant changes in next 5 years?         | No                                          |          |          | none                                                                                    |          |          | no                                                                            |          |          | no                                   |          |          | no                                                                   |          |          |
| <b>Reuse and Recycling Program Questions</b> |                                             |          |          |                                                                                         |          |          |                                                                               |          |          |                                      |          |          |                                                                      |          |          |
| Material reuse or recycling at facility      | cardboard recycling                         |          |          | some latex paint reprocessed; metal cans & corrugated boxes sent to recycler via vendor |          |          | wallboard ground and reused; joint compound pumped to reclaim tank and reused |          |          | not indicated                        |          |          | all paper/plastic sent to recycler                                   |          |          |
| Percentage reused or recycled onsite in 2008 | 5% recycled                                 |          |          | unknown                                                                                 |          |          | greater than 99%                                                              |          |          | not indicated                        |          |          | 100                                                                  |          |          |
| Records or reports for recycling/reduction?  | not indicated                               |          |          | no                                                                                      |          |          | track production waste; misc plant waste tracked through WM records           |          |          | not indicated                        |          |          | Included in monthly report sent out by Cargill; all waste is tracked |          |          |
| Barriers to reduce effectiveness?            | used to recycle vinyl siding, but no longer |          |          | no                                                                                      |          |          | not indicated                                                                 |          |          | not indicated                        |          |          | no                                                                   |          |          |
| Suggestions for improvement                  | not indicated                               |          |          | not indicated                                                                           |          |          | not indicated                                                                 |          |          | not indicated                        |          |          | reduce flushing at mill; use less packaging                          |          |          |
| <b>Waste Characterization (tons)</b>         |                                             |          |          |                                                                                         |          |          |                                                                               |          |          |                                      |          |          |                                                                      |          |          |
|                                              | generated                                   | recycled | disposed | generated                                                                               | recycled | disposed | generated                                                                     | recycled | disposed | generated                            | recycled | disposed | generated                                                            | recycled | disposed |
| Aluminum                                     | 1%                                          | 1%       | 0%       |                                                                                         |          |          |                                                                               |          |          |                                      |          |          |                                                                      |          |          |
| Ferrous Metals                               |                                             |          |          | X                                                                                       |          |          | 5                                                                             |          | 5        |                                      |          |          |                                                                      |          |          |
| Other Metals (specify)                       |                                             |          |          |                                                                                         |          |          |                                                                               |          |          |                                      |          |          |                                                                      |          |          |
| Newspaper                                    |                                             |          |          |                                                                                         |          |          |                                                                               |          |          |                                      |          |          |                                                                      | 0        |          |
| Office paper                                 |                                             |          |          |                                                                                         |          |          |                                                                               |          |          |                                      |          |          |                                                                      | 1        |          |
| Corrugated Cardboard                         | 5%                                          | 5%       | 0%       | X                                                                                       |          |          | 108                                                                           |          | 108      |                                      |          |          |                                                                      | 1        |          |
| Plate Glass                                  |                                             |          |          |                                                                                         |          |          |                                                                               |          |          |                                      |          |          |                                                                      |          |          |
| Tempered Glass                               |                                             |          |          |                                                                                         |          |          |                                                                               |          |          |                                      |          |          |                                                                      |          |          |
| Ceramics                                     |                                             |          |          |                                                                                         |          |          |                                                                               |          |          |                                      |          |          |                                                                      |          |          |
| Glass Bottles & Jars                         |                                             |          |          |                                                                                         |          |          |                                                                               |          |          |                                      |          |          |                                                                      |          |          |
| Other Glass (specify)                        |                                             |          |          |                                                                                         |          |          |                                                                               |          |          |                                      |          |          |                                                                      |          |          |
| Plastic (HDPE and PET)                       |                                             |          |          | X                                                                                       |          |          |                                                                               |          |          |                                      |          |          |                                                                      |          |          |
| Plastic (PVC)                                |                                             |          |          |                                                                                         |          |          |                                                                               |          |          |                                      |          |          |                                                                      |          |          |
| Other Plastic (specify)                      | 15%                                         | 0%       | 15%      |                                                                                         |          |          |                                                                               |          |          |                                      |          |          |                                                                      |          |          |
| Rubber/Tires                                 | 45%                                         | 0%       | 45%      |                                                                                         |          |          |                                                                               |          |          |                                      |          |          |                                                                      | 0        |          |
| Dry cell or other batteries                  |                                             |          |          |                                                                                         |          |          |                                                                               |          |          |                                      |          |          |                                                                      | 0.01     |          |
| Lead acid batteries                          |                                             |          |          |                                                                                         |          |          |                                                                               |          |          |                                      |          |          |                                                                      | 0        |          |
| Oil/oil filters                              |                                             |          |          |                                                                                         |          |          |                                                                               |          |          |                                      |          |          |                                                                      | 0.5      |          |
| Textiles                                     |                                             |          |          |                                                                                         |          |          |                                                                               |          |          |                                      |          |          |                                                                      | 0.5      |          |
| Construction & Demolition Debris             |                                             |          |          |                                                                                         |          |          |                                                                               |          |          |                                      |          |          |                                                                      | 0        |          |
| Yard Waste                                   |                                             |          |          |                                                                                         |          |          |                                                                               |          |          |                                      |          |          |                                                                      | 0        | 1        |
| Food Waste                                   |                                             |          |          |                                                                                         |          |          |                                                                               |          |          |                                      |          |          |                                                                      |          | 1        |
| Wooden Pallets                               | 2%                                          | 0%       | 2%       |                                                                                         |          |          | 30                                                                            |          | 30       |                                      |          |          |                                                                      | 24       |          |
| Medical Waste                                |                                             |          |          |                                                                                         |          |          |                                                                               |          |          |                                      |          |          |                                                                      | 0        |          |
| Electronics (specify)                        |                                             |          |          |                                                                                         |          |          | 0.5                                                                           |          | 0.5      |                                      |          |          |                                                                      | 0.05     |          |
| Mixed Refuse (such as cafeteria and office)  | 2%                                          | 0%       | 2%       |                                                                                         |          |          | 468                                                                           |          | 468      | X                                    |          | X        |                                                                      |          | 146      |
| Other (specify)                              |                                             |          |          |                                                                                         |          |          | 5550                                                                          | 5550     |          |                                      |          |          |                                                                      |          |          |
| Other (specify)                              | 20%                                         | 0%       | 20%      |                                                                                         |          |          | 10                                                                            | 10       |          |                                      |          |          |                                                                      | 100      |          |
| <b>Total</b>                                 |                                             |          |          |                                                                                         |          |          | 6171.5                                                                        | 5560     | 611.5    |                                      |          |          | 275.06                                                               | 127.06   | 148      |

**Industrial Waste Survey Data**

| Company                                      | Company #11                                                                                                     |          |          | Company #12                               |          |          | Company #13                                                                                                                    |          |          | Company #14                                                                            |          |           | Company #15                                                                              |          |          |
|----------------------------------------------|-----------------------------------------------------------------------------------------------------------------|----------|----------|-------------------------------------------|----------|----------|--------------------------------------------------------------------------------------------------------------------------------|----------|----------|----------------------------------------------------------------------------------------|----------|-----------|------------------------------------------------------------------------------------------|----------|----------|
| <b>General Information</b>                   |                                                                                                                 |          |          |                                           |          |          |                                                                                                                                |          |          |                                                                                        |          |           |                                                                                          |          |          |
| Product                                      | sodium hypochlorite (bleach)                                                                                    |          |          | recycled paper                            |          |          | portland cement concrete                                                                                                       |          |          | mfg. industrial ceramics, engineering design                                           |          |           | printed material                                                                         |          |          |
| Employees                                    | 56                                                                                                              |          |          | 45-55                                     |          |          | 56                                                                                                                             |          |          | 75                                                                                     |          |           | 27                                                                                       |          |          |
| SIC Code                                     | 2819; 2842; 5169; NAICS 325998                                                                                  |          |          | NAICS 322110                              |          |          | not indicated - NAICS 327320                                                                                                   |          |          | 3255 - NAICS 327124                                                                    |          |           | 2759 - NAICS 323117                                                                      |          |          |
| <b>Solid Waste/Recyclable Information</b>    |                                                                                                                 |          |          |                                           |          |          |                                                                                                                                |          |          |                                                                                        |          |           |                                                                                          |          |          |
| Non-hazardous solid waste collection         | private hauler                                                                                                  |          |          | self-haul                                 |          |          | private hauler                                                                                                                 |          |          | private hauler                                                                         |          |           | private hauler                                                                           |          |          |
| Solid Waste Management facilities            | Waste Management, Inc. (Rapp Road Landfill)                                                                     |          |          | Company is high-grade paper recycling co. |          |          | County Waste - office waste; CF Van Hall<br>Scrap Metal - disposal of scrap metal                                              |          |          | County Waste                                                                           |          |           | Northstar Recycling Group/DeBoer Recovery                                                |          |          |
| Disposed in 2008 (tons)                      | 20                                                                                                              |          |          | not indicated                             |          |          | 10                                                                                                                             |          |          | 832 cy (estimate)                                                                      |          |           | 20                                                                                       |          |          |
| Percentage disposed onsite in 2008           | 1                                                                                                               |          |          | not indicated                             |          |          | 0                                                                                                                              |          |          | 100                                                                                    |          |           | 0                                                                                        |          |          |
| Unique or problematic elements?              | not indicated                                                                                                   |          |          | not indicated                             |          |          | N/A                                                                                                                            |          |          | none                                                                                   |          |           | none indicated                                                                           |          |          |
| Volume increase or decrease in next 5 yrs?   | should stay approx. same                                                                                        |          |          | -10% due to economy                       |          |          | 0                                                                                                                              |          |          | 10% - tough to determine, economy                                                      |          |           | 5% - Increased business                                                                  |          |          |
| Significant changes in next 5 years?         | would like to recycle cardboard, plastic if no cost                                                             |          |          | not indicated                             |          |          | no                                                                                                                             |          |          | no                                                                                     |          |           | No                                                                                       |          |          |
| <b>Reuse and Recycling Program Questions</b> |                                                                                                                 |          |          |                                           |          |          |                                                                                                                                |          |          |                                                                                        |          |           |                                                                                          |          |          |
| Material reuse or recycling at facility      | plastic containers/drums are reused after cleaning;<br>obsolete computers recycled; office<br>paper/periodicals |          |          | not indicated                             |          |          | waste concrete placed in forms and sold to<br>contractors, also used for stackable wall units;<br>waste oil combusted for heat |          |          | separate 8 cy dumpster used for paper &<br>cardboard; any steel is sent to scrap yards |          |           | paper & cardboard collected in carts for on-site<br>compactor; aluminum plates collected |          |          |
| Percentage reused or recycled onsite in 2008 | 1                                                                                                               |          |          | not indicated                             |          |          | 100                                                                                                                            |          |          | 0                                                                                      |          |           | 0                                                                                        |          |          |
| Records or reports for recycling/reduction?  | N/A                                                                                                             |          |          | not indicated                             |          |          | Not directly                                                                                                                   |          |          | 5S program at the plant                                                                |          |           | monthly tonnage tracked through reports when<br>compactor storage container is changed   |          |          |
| Barriers to reduce effectiveness?            | cost prohibitive to recycle                                                                                     |          |          | not indicated                             |          |          | No                                                                                                                             |          |          | discipline of employees; plastic soda disposal                                         |          |           | No                                                                                       |          |          |
| Suggestions for improvement                  | would separate waste if no cost to company                                                                      |          |          | not indicated                             |          |          | None                                                                                                                           |          |          | incentives                                                                             |          |           | none indicated                                                                           |          |          |
| <b>Waste Characterization (tons)</b>         |                                                                                                                 |          |          |                                           |          |          |                                                                                                                                |          |          |                                                                                        |          |           |                                                                                          |          |          |
|                                              | generated                                                                                                       | recycled | disposed | generated                                 | recycled | disposed | generated                                                                                                                      | recycled | disposed | generated                                                                              | recycled | disposed  | generated                                                                                | recycled | disposed |
| Aluminum                                     |                                                                                                                 |          |          |                                           | 60       |          |                                                                                                                                |          |          |                                                                                        |          |           |                                                                                          |          |          |
| Ferrous Metals                               |                                                                                                                 |          |          |                                           |          |          | 100                                                                                                                            | 100      | 0        |                                                                                        |          |           |                                                                                          |          |          |
| Other Metals (specify)                       |                                                                                                                 |          |          |                                           |          |          |                                                                                                                                |          |          |                                                                                        |          |           |                                                                                          |          |          |
| Newspaper                                    |                                                                                                                 |          |          |                                           | 400      |          |                                                                                                                                |          |          |                                                                                        |          |           |                                                                                          |          |          |
| Office paper                                 |                                                                                                                 |          |          |                                           | 14000    |          | 2                                                                                                                              | 0        | 2        |                                                                                        |          |           | 250                                                                                      | 250      |          |
| Corrugated Cardboard                         |                                                                                                                 |          |          |                                           | 6000     |          | 1                                                                                                                              | 1        | 0        |                                                                                        |          | 416 cy/yr | 10                                                                                       | 10       |          |
| Plate Glass                                  |                                                                                                                 |          |          |                                           |          |          |                                                                                                                                |          |          |                                                                                        |          |           |                                                                                          |          |          |
| Tempered Glass                               |                                                                                                                 |          |          |                                           |          |          |                                                                                                                                |          |          |                                                                                        |          |           |                                                                                          |          |          |
| Ceramics                                     |                                                                                                                 |          |          |                                           |          |          |                                                                                                                                |          |          |                                                                                        |          | 832 cy/yr |                                                                                          |          |          |
| Glass Bottles & Jars                         |                                                                                                                 |          |          |                                           |          |          |                                                                                                                                |          |          |                                                                                        |          |           |                                                                                          |          |          |
| Other Glass (specify)                        |                                                                                                                 |          |          |                                           |          |          |                                                                                                                                |          |          |                                                                                        |          |           |                                                                                          |          |          |
| Plastic (HDPE and PET)                       |                                                                                                                 |          |          |                                           | 100      |          |                                                                                                                                |          |          |                                                                                        |          |           |                                                                                          |          |          |
| Plastic (PVC)                                |                                                                                                                 |          |          |                                           | 50       |          |                                                                                                                                |          |          |                                                                                        |          |           |                                                                                          |          |          |
| Other Plastic (specify)                      |                                                                                                                 |          |          |                                           |          |          |                                                                                                                                |          |          |                                                                                        |          |           |                                                                                          |          |          |
| Rubber/Tires                                 |                                                                                                                 |          |          |                                           |          |          | 5                                                                                                                              | 5        | 0        |                                                                                        |          |           |                                                                                          |          |          |
| Dry cell or other batteries                  |                                                                                                                 |          |          |                                           |          |          |                                                                                                                                |          |          |                                                                                        |          |           |                                                                                          |          |          |
| Lead acid batteries                          |                                                                                                                 |          |          |                                           |          |          | 2                                                                                                                              | 2        | 0        |                                                                                        |          |           |                                                                                          |          |          |
| Oil/oil filters                              |                                                                                                                 |          |          |                                           |          |          | 8                                                                                                                              | 7.5      | 0.5      |                                                                                        |          |           |                                                                                          |          |          |
| Textiles                                     |                                                                                                                 |          |          |                                           |          |          |                                                                                                                                |          |          |                                                                                        |          |           |                                                                                          |          |          |
| Construction & Demolition Debris             |                                                                                                                 |          |          |                                           |          |          |                                                                                                                                |          |          |                                                                                        |          |           |                                                                                          |          |          |
| Yard Waste                                   |                                                                                                                 |          |          |                                           |          |          |                                                                                                                                |          |          |                                                                                        |          |           |                                                                                          |          |          |
| Food Waste                                   |                                                                                                                 |          |          |                                           |          |          |                                                                                                                                |          |          |                                                                                        |          |           |                                                                                          |          |          |
| Wooden Pallets                               |                                                                                                                 |          |          |                                           | 75       |          |                                                                                                                                |          |          |                                                                                        |          |           |                                                                                          |          |          |
| Medical Waste                                |                                                                                                                 |          |          |                                           |          |          |                                                                                                                                |          |          |                                                                                        |          |           |                                                                                          |          |          |
| Electronics (specify)                        |                                                                                                                 |          |          |                                           |          |          |                                                                                                                                |          |          |                                                                                        |          |           |                                                                                          |          |          |
| Mixed Refuse (such as cafeteria and office)  |                                                                                                                 |          |          |                                           |          |          | 0.5                                                                                                                            | 0        | 0.5      |                                                                                        |          |           |                                                                                          |          |          |
| Other (specify)                              |                                                                                                                 |          |          |                                           |          |          |                                                                                                                                |          |          |                                                                                        |          |           |                                                                                          |          |          |
| Other (specify)                              |                                                                                                                 |          |          |                                           |          |          |                                                                                                                                |          |          |                                                                                        |          |           |                                                                                          |          |          |
| <b>Total</b>                                 |                                                                                                                 |          |          |                                           | 20685    |          | 118.5                                                                                                                          | 115.5    | 3        |                                                                                        |          |           | 260                                                                                      | 260      |          |

**Industrial Waste Survey Data**

| Company                                      | Company #16                                        |            |           | Company #17                                               |               |           | Company #18                                                                     |          |          | Company #19                                                  |          |          |
|----------------------------------------------|----------------------------------------------------|------------|-----------|-----------------------------------------------------------|---------------|-----------|---------------------------------------------------------------------------------|----------|----------|--------------------------------------------------------------|----------|----------|
| <b>General Information</b>                   |                                                    |            |           |                                                           |               |           |                                                                                 |          |          |                                                              |          |          |
| Product                                      | fabricates reinforcing steel                       |            |           | ready mix concrete                                        |               |           | cannons                                                                         |          |          | do not produce a product                                     |          |          |
| Employees                                    | 40                                                 |            |           | 40                                                        |               |           | 600                                                                             |          |          | 600                                                          |          |          |
| SIC Code                                     | NAICS 332900                                       |            |           | NAICS 327320                                              |               |           | 0630-1430 (NAICS 332994)                                                        |          |          | 4225 - NAICS 493110                                          |          |          |
| <b>Solid Waste/Recyclable Information</b>    |                                                    |            |           |                                                           |               |           |                                                                                 |          |          |                                                              |          |          |
| Non-hazardous solid waste collection         | private hauler                                     |            |           | private hauler                                            |               |           | private hauler                                                                  |          |          | private hauler                                               |          |          |
| Solid Waste Management facilities            | Heritage Crystal Clean Environmental Services, LLC |            |           | Allied Waste Systems                                      |               |           | Waste Management - Colonie Landfill                                             |          |          | Allied Waste - Rapp Road Landfill                            |          |          |
| Disposed in 2008 (tons)                      | 403                                                |            |           | 20                                                        |               |           | 613                                                                             |          |          | 286                                                          |          |          |
| Percentage disposed onsite in 2008           | 0                                                  |            |           | 0                                                         |               |           | 0                                                                               |          |          | 0                                                            |          |          |
| Unique or problematic elements?              | none                                               |            |           | none                                                      |               |           | none                                                                            |          |          | not indicated                                                |          |          |
| Volume increase or decrease in next 5 yrs?   | 0 - expect zero change                             |            |           | 10% - growth                                              |               |           | 0                                                                               |          |          | 0                                                            |          |          |
| Significant changes in next 5 years?         | no                                                 |            |           | no                                                        |               |           | no                                                                              |          |          | no                                                           |          |          |
| <b>Reuse and Recycling Program Questions</b> |                                                    |            |           |                                                           |               |           |                                                                                 |          |          |                                                              |          |          |
| Material reuse or recycling at facility      | none                                               |            |           | crush and reuse concrete for fill material & waste blocks |               |           | source separate recyclables                                                     |          |          | recycle cardboard, cans, bottles                             |          |          |
| Percentage reused or recycled onsite in 2008 | 96.8                                               |            |           | 99                                                        |               |           | 0                                                                               |          |          | 50                                                           |          |          |
| Records or reports for recycling/reduction?  | no                                                 |            |           | sales receipts; crushing reports                          |               |           | Solid Waste Annual Report (SWARs) U.S. Army; no separate records of recyclables |          |          | monitor the recycle amounts sent to vendor for reimbursement |          |          |
| Barriers to reduce effectiveness?            | no                                                 |            |           | None                                                      |               |           | No                                                                              |          |          | No                                                           |          |          |
| Suggestions for improvement                  | better paper recycling within Co.                  |            |           | None                                                      |               |           | None                                                                            |          |          | not indicated<br>(respondent provided in %)                  |          |          |
| <b>Waste Characterization (tons)</b>         |                                                    |            |           |                                                           |               |           |                                                                                 |          |          |                                                              |          |          |
|                                              | generated                                          | recycled   | disposed  | generated                                                 | recycled      | disposed  | generated                                                                       | recycled | disposed | generated                                                    | recycled | disposed |
| Aluminum                                     |                                                    |            |           | 0.5                                                       | 0.5           | 0         |                                                                                 |          |          |                                                              |          |          |
| Ferrous Metals                               | 387                                                | 387        | 0         | 2                                                         | 2             | 0         |                                                                                 |          |          |                                                              |          |          |
| Other Metals (specify)                       |                                                    |            |           |                                                           |               |           |                                                                                 |          |          |                                                              |          |          |
| Newspaper                                    |                                                    |            |           |                                                           |               |           |                                                                                 |          |          |                                                              |          |          |
| Office paper                                 |                                                    |            |           |                                                           |               |           |                                                                                 |          |          | 5%                                                           | 5%       | 0%       |
| Corrugated Cardboard                         | 3                                                  | 3          | 0         | 2                                                         | 2             | 0         |                                                                                 |          |          | 90%                                                          | 90%      | 0%       |
| Plate Glass                                  |                                                    |            |           |                                                           |               |           |                                                                                 |          |          |                                                              |          |          |
| Tempered Glass                               |                                                    |            |           |                                                           |               |           |                                                                                 |          |          |                                                              |          |          |
| Ceramics                                     |                                                    |            |           |                                                           |               |           |                                                                                 |          |          |                                                              |          |          |
| Glass Bottles & Jars                         |                                                    |            |           |                                                           |               |           |                                                                                 |          |          |                                                              |          |          |
| Other Glass (specify)                        |                                                    |            |           |                                                           |               |           |                                                                                 |          |          |                                                              |          |          |
| Plastic (HDPE and PET)                       |                                                    |            |           |                                                           |               |           |                                                                                 |          |          |                                                              |          |          |
| Plastic (PVC)                                |                                                    |            |           | 0.5                                                       | 0.5           | 0         |                                                                                 |          |          |                                                              |          |          |
| Other Plastic (specify)                      |                                                    |            |           |                                                           |               |           |                                                                                 |          |          |                                                              |          |          |
| Rubber/Tires                                 |                                                    |            |           | 2                                                         | 2             | 0         |                                                                                 |          |          |                                                              |          |          |
| Dry cell or other batteries                  |                                                    |            |           | 0.2                                                       | 0.2           | 0         |                                                                                 |          |          |                                                              |          |          |
| Lead acid batteries                          |                                                    |            |           | 1                                                         | 1             | 0         |                                                                                 |          |          |                                                              |          |          |
| Oil/oil filters                              |                                                    |            |           | 2                                                         | 2             | 0         |                                                                                 |          |          |                                                              |          |          |
| Textiles                                     |                                                    |            |           |                                                           |               |           |                                                                                 |          |          |                                                              |          |          |
| Construction & Demolition Debris             |                                                    |            |           | 1                                                         | 0             | 1         |                                                                                 |          |          |                                                              |          |          |
| Yard Waste                                   |                                                    |            |           |                                                           |               |           |                                                                                 |          |          |                                                              |          |          |
| Food Waste                                   |                                                    |            |           |                                                           |               |           |                                                                                 |          |          |                                                              |          |          |
| Wooden Pallets                               |                                                    |            |           | 2                                                         | 0             | 2         |                                                                                 |          |          |                                                              |          |          |
| Medical Waste                                |                                                    |            |           |                                                           |               |           |                                                                                 |          |          |                                                              |          |          |
| Electronics (specify)                        |                                                    |            |           |                                                           |               |           |                                                                                 |          |          |                                                              |          |          |
| Mixed Refuse (such as cafeteria and office)  | 13                                                 | 0          | 13        | 17                                                        | 0             | 17        |                                                                                 |          |          | 5%                                                           | 0        | 5%       |
| Other (specify)                              |                                                    |            |           |                                                           |               |           |                                                                                 |          |          |                                                              |          |          |
| Other (specify)                              |                                                    |            |           | 7650                                                      | 7650          | 0         |                                                                                 |          |          |                                                              |          |          |
| <b>Total</b>                                 | <b>403</b>                                         | <b>390</b> | <b>13</b> | <b>7680.2</b>                                             | <b>7660.2</b> | <b>20</b> |                                                                                 |          |          |                                                              |          |          |



**SWMP APPENDIX D**  
**WASTE CHARACTERIZATION FIELD STUDY**



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## 1.0 EXECUTIVE SUMMARY

CHA has been retained by the City of Albany for preparation of a new Solid Waste Management Plan (SWMP) for the Capital Region Solid Waste Management Partnership (the Planning Unit). As part of the SWMP, a field study was conducted to characterize the solid waste stream and recyclable stream of the Planning Unit. This study will assist with development of improvements to the current solid waste management and recycling practices. Characterization of the solid waste and recyclables stream will also assist the development of future practices and the consideration of new technologies for use by the Planning Unit. To this end, CHA designed and conducted a field study to determine the percent composition of a variety of material components within the solid waste and recyclables stream within the Planning Unit.

Randomly selected samples were collected from solid waste collection vehicles arriving at the Rapp Road Landfill in Albany over a five-day period at the end of February 2009. Vehicles were selected based upon collection routes within the Planning Unit. Each of the representative solid waste samples was then sorted into 39 material categories, and the weight of each material category was recorded. Samples were collected from City of Albany Department of General Services (DGS) vehicles, commercial waste haulers, and collection vehicles from several other municipalities and organizations.

Representative samples of recyclable materials were obtained from collection vehicles re-routed from the Sierra Fibers recycling facility to the Rapp Road Landfill, where sampling and sorting occurred. All of the recyclable samples collected were from Albany DGS vehicles. These vehicles are compartmentalized into two recyclable streams: one for mixed paper, and another for metals, glass and plastic (MGP). Two samples were collected from each vehicle containing recyclables: one from each category as above, and the paper stream and MGP stream were sorted and analyzed separately. Each sample was sorted using the same material categories used for the solid waste sampling, and the data was also recorded and calculated in a similar manner.

The sampling and sorting program was generally conducted and analyzed according to Standard Test Method for Determination of the Composition of Unprocessed Municipal Solid Waste, ASTM D5231-92 (Reapproved 2003). The mean mass fraction and average composition percentages were calculated for each material component for each sample, and then a mean mass fraction for each material category was calculated across multiple samples. The standard

deviation for each material category was also calculated. Results for the solid waste sampling are presented with the combined total of all samples, as well as separate results for the DGS vehicles only and the commercial vehicles only.

The largest single material component in the solid waste stream as sampled is food waste, at an average of 19% of the total mass sampled. All paper categories combined represent 31% of the waste deliveries, but this includes eight separate categories of paper. The largest single paper category is classified as other paper, at 11% of the total mass sampled. The combined plastics category was the third largest major component of the solid waste stream with approximately 13% of the total mass of the sample. The largest single plastics category was film plastic and plastic bags totaling 4% of the solid waste stream. The proportional share of all of the material components measures are presented in Table 2 – Solid Waste Composition Summary.

The solid waste composition data was also analyzed to compare waste delivered by DGS to waste delivered by commercial haulers. The data for all vehicles, as indicated above, was divided by vehicle operator into subsets to obtain the solid waste composition of the DGS waste stream and commercial hauler stream separately, and determine differences between these two waste streams. For these subsets, the combination of all paper categories is the largest material component category from the commercial waste vehicles at 41% composition by weight, and from the DGS vehicles at 25% by weight. For both the DGS and Commercial waste streams, the largest paper category was other paper, with approximately 7% and 17% of the total mass of the sample, respectively. Food wastes were the largest single material category from both waste streams, with compositions of approximately 23% and 21%, each for DGS and commercial vehicles. As above, film plastic and plastic bags were the largest single plastics category. This material category constituted 6% of the DGS waste stream, and 4.5% of the commercial waste stream. Other significant waste component categories varied between the DGS samples and the commercial samples; these included textiles and leather, disposable diapers, and wood, with the DGS samples, and dirt/fines, and glass, for the commercial samples. Table 4 presents the comparison of the composition of the DGS collected waste with the commercial collection vehicles.

The solid waste stream contained a significant number of designated recyclable materials, as indicated in Table 5 – Designated Recyclable Materials within the Solid Waste Stream. This is particularly true of paper products in the commercial vehicles sampled, where the mixed office paper and corrugated categories each consisted of more than 5% of the total waste stream; the

DGS solid waste stream contained significant amounts of recyclable paper as well, particularly paperboard.

For the recyclable materials, a majority of the paper stream consisted of newspaper, at over 52% of the total sample, followed by books (including telephone directories) and magazines, at 13% and 11%, respectively. Other significant categories included paperboard, mixed office paper, and corrugated (see Table 6 – Recyclable Materials Composition Summary). Only 1.4% of the paper stream consisted of non-paper products. Nearly 60% of the MGP stream consisted of glass. The largest fraction of the glass material category was comprised of clear glass bottles, which accounted for 29% of the total MGP sample. Green glass bottles were also a significant fraction at 17% of the entire MGP sample. Ferrous metals consisted of approximately 12%, and all plastic categories combined included 19% of the MGP stream. Various paper products constituted 7.9% of the MGP stream, which could be viewed as a contaminant in this recyclable material stream.

The data from the waste characterization field study for the Planning Unit were compared to data from a similar 2005 study for the Onondaga County Resource Recovery Agency (OCRRA), as well as from national data collected by the United States Environmental Protection Agency (USEPA) for the year 2007. Table 7 – Solid Waste Composition in Other Studies presents the Capital Region data alongside the OCRRA and USEPA data. The data are consistent across several material categories such as food wastes, and textiles and leather; however, the waste stream composition of other material categories reflects differences between the solid waste stream of the Capital Region, and the OCRRA and USEPA data. These differences include a higher percentage of paper products, and other material categories such as electronics, and dirt/fines, and lower percentages of categories such as yard waste and rubber. Comparison of the Capital Region results with other studies will also assist in the planning and preparation of the future management of solid waste and recyclable materials.

Yard waste only represented 1.2% of the solid waste discarded during this study. While there are numerous yard waste composting programs in place within the planning unit, the waste characterization study was conducted during the low season for yard waste generation. Therefore, an upward adjustment might be needed to reflect an annual average percentage of yard waste that is discarded. This should be examined further in the context of the overall waste stream analysis being conducted for the new SWMP.

## 2.0 PURPOSE AND SCOPE

The purpose and objective of this field study is to characterize the constituents of the solid waste and recycled materials stream for the Capital Region Solid Waste Planning Unit. Characterizing the local waste stream will provide valuable information for planning future improvements to local recycling efforts as well as for evaluating the feasibility of alternative solid waste management systems. Another purpose of the study is to examine differences in solid waste composition collected by a municipal agency (such as the City of Albany DGS) and commercial haulers servicing commercial, industrial or institutional customers as well as multi-family dwellings.

In order to categorize the solid waste and recyclable materials stream within the Planning Unit, CHA developed a field study involving the sampling of solid waste and recyclables collection vehicles, and sorting the materials contained in each sample to determine the mass percentage composition. The field study was conducted between February 23-27, 2009, for solid waste and from March 2-4, 2009, for recyclable materials. Both solid waste deliveries to the Rapp Road Landfill as well curbside recyclables collected by the City of Albany DGS were sampled and characterized during this time period. Detailed methodology and results for this field study are presented in the following sections.



## 3.0 METHODOLOGY

### 3.1 SAMPLING PREPARATION

The solid waste and recyclables sampling and sorting program generally followed procedures established by the American Society of Testing Materials *Standard Test Method for Determination of the Composition of Unprocessed Municipal Solid Waste*, ASTM D5231-92 (Reapproved 2003). The solid waste sampling and sorting program took place at the Rapp Road Landfill between February 23 and February 27, 2009. The sampling and sorting of recyclables took place also at the Rapp Road Landfill between March 2, and March 4, 2009.

Prior to beginning the waste sorting program, a protocol was developed for the procedure with a total of 39 material sort categories used, based upon knowledge of the potential waste stream at the landfill. Appendix A presents a definition of each material category. Forms and data sheets to assist with the solid waste sampling data collection were also prepared for use in the field. These data sheets included driver interview forms for each of the collection trucks that were sampled, as well as tables containing listings of each material category to facilitate the input of solid waste information during field sampling. The driver interview forms were prepared for both the solid waste sampling and recyclables sampling, while the data tables utilized the same material categories for both solid waste and recyclables. The completed driver interview forms and sampling data sheets are presented in Appendix B and Appendix C, respectively.

Additional preparations prior to the solid waste and recyclables sampling in the field included obtaining appropriate bins for each of the material categories to be sorted. Based upon the proposed sample size, and potential volume of waste for each category from other similar studies, plastic garbage containers were obtained in a sufficient size to be used for the sorting.

A sorting table was also constructed using a wire screen over a box constructed of plywood. The sorting table helped to contain the dirt and fines so that a measurable quantity of this waste category could be determined.

### 3.2 SOLID WASTE SAMPLING AND SORTING AT THE RAPP ROAD LANDFILL

Solid waste sampling and sorting at the Rapp Road Landfill was conducted by a crew of 7 people, including a Site Manager and a Crew Chief. The Site Manager was responsible for the selection of appropriate collection vehicles from which to sample, and for interviewing the drivers of the vehicles regarding the geographic origin and type of waste contained in the collection vehicle. The Site Manager and Crew Chief communicated via two-way radio, so that once the sorting of one collection vehicle was nearly completed, another vehicle could be selected for sampling. The Crew Chief was responsible for leading the crew during the manual sorting effort pertaining to general sorting operations and any issues regarding material sort categories. Generally, the procedure for sampling and sorting occurred as follows:

Solid waste collection vehicles arriving at the landfill facility were randomly selected by the Site Manager. Selection was based on the communications between the Site Manager and the Crew Chief, who advised if the sort crew was ready to accept another load. Upon selection of the next available vehicle, eligibility for the waste sampling and sorting study was determined through driver interviews, which were conducted by the Site Manager from the scale house. Vehicles were determined to be eligible for sampling based upon collections or a collection route within the Planning Unit. Vehicles that did not have a collection route within the Planning Unit were ineligible for sampling, and were sent to empty their loads in accordance with regular operating procedure. Collection vehicles that were delivering industrial solid wastes or construction and demolition debris were also ineligible for the sampling program. Eligible trucks from within the Planning Unit were then diverted to the processing building where the waste sampling and sorting occurred. The selected eligible collection vehicle load was emptied onto the floor of the processing building. A front-end loader operated by DGS personnel was used to scrape a load of waste from one edge of the discharged waste. This waste was mixed and divided into quarters. The waste sample to be sorted was collected from a randomly selected quarter using the front-end loader. The sample size was approximately 1 cubic yard of waste by volume, with a target sample size of approximately 200-300 pounds by weight. The sample was emptied onto the sorting table, and then the waste was sorted into the bins for each of the 39 material categories. The bins were weighed before and after the sort to determine the net weight composition of the solid waste sample; the weight of material for each waste category was entered into the prepared data sheets for each vehicle. One data sheet was used for each collection vehicle/sample. The data sheets with results for each vehicle are presented in Appendix C.

The landfill facility closed early due to high winds on both Monday and Friday, thereby decreasing the number of samples obtained during the week due to time considerations. During the course of the week, a total of 36 waste samples were collected, as follows:

2/23/09 Monday – 5 samples

2/24/09 Tuesday – 8 samples

2/25/09 Wednesday – 8 samples

2/26/09 Thursday – 8 samples

2/27/09 Friday – 7 samples

The average sample weight for these 36 waste samples was approximately 215 lbs.

### **3.3 RECYCLABLE MATERIALS SAMPLING AND SORTING AT THE RAPP ROAD LANDFILL**

The original intention of the sampling and sorting program was to characterize both the solid waste and recyclables in the waste stream at separate facilities. The solid waste was sampled at the Rapp Road Landfill, and the recyclables were to be sampled and sorted at the Sierra Fibers facility. However, the Sierra Fibers facility was not able to be used for the sampling and sorting; therefore, sampling and sorting of the recyclable waste stream was also completed at the Rapp Road Landfill. The procedure for the selection of collection vehicles for sampling was different from the procedure used for the solid waste sorting. Instead of the procedure outlined above, DGS recyclable collection vehicles were diverted en route from the Sierra Fibers facility to the Rapp Road Landfill by the City of Albany dispatcher. Collection vehicles were diverted at various points along the collection route to ensure a continuous stream of vehicles arrived at the landfill for sampling and sorting. There were no driver interviews conducted as part of the recyclables sampling program, as all vehicles sampled were DGS vehicles from within the Planning Unit.

The collection vehicles used for the recyclables were internally divided into two compartments: paper, and metals, glass and plastic (MGP). Therefore, two samples were taken from each vehicle: a paper sample, and an MGP sample based upon the contents of each compartment. The samples were then collected with the same procedure as outlined above for the solid waste sampling and sorting, and sorted into the same material categories. Also as above, the material bins were weighed before and after the sorting to obtain the weight of each material component in the sample of recyclables.

A total of 46 recycling samples were collected during the sampling period, as follows:

|                    |                 |               |
|--------------------|-----------------|---------------|
| 3/2/09 Monday –    | 7 Paper samples | 7 MGP samples |
| 3/3/09 Tuesday –   | 8 Paper samples | 8 MGP samples |
| 3/4/09 Wednesday – | 8 Paper samples | 8 MGP samples |

The sampling and sorting protocol developed prior to the field study is presented in Appendix D. The average sample weight for these 46 waste samples was 136 lbs.

## 4.0 DATA ANALYSIS AND RESULTS

### 4.1 DATA PROCESSING

In order to determine the percentage of each waste or recyclable component in the sample, and in the waste stream or recyclable stream, the mass fraction of each component was calculated for each sample. That is, the net weight of each material component was divided by the total weight of the sample. The mass fraction of each component for the entire waste stream was obtained by taking the mean of each of the mass fractions of each sample for a given material component. The standard deviation for each mass fraction was calculated both on an individual sample level, and on an aggregate waste/recyclable stream level. These calculation methods are outlined in the *Standard Test Method for Determination of the Composition of Unprocessed Municipal Solid Waste*, ASTM D5231-92.

Solid waste collection vehicles were randomly sampled during the 5-day field operations. Sampled vehicles included City of Albany Department of General Services (DGS), as well as from a variety of commercial and institutional haulers and other municipalities. A total of 36 samples were collected over the course of the week to represent the solid waste stream. Table 1: Sampling Distribution presents the number of samples from each waste hauler, shown below.

**Table 1: Sampling Distribution**

| <i>Vehicle</i>                              | <i>Number of samples</i> |
|---------------------------------------------|--------------------------|
| Albany Department of General Services (DGS) | 9                        |
| County Waste                                | 4                        |
| Allied Waste                                | 6                        |
| Waste Management                            | 5                        |
| Accurate Disposal                           | 1                        |
| City of Rensselaer                          | 2                        |
| Village of Green Island                     | 1                        |
| Town of Knox                                | 2                        |
| Town of Guilderland                         | 1                        |
| Town of Rensselaerville                     | 1                        |
| Albany County                               | 1                        |
| Salvation Army                              | 2                        |
| SUNY- University of Albany                  | 1                        |
| <b>Total</b>                                | <b>36</b>                |

In addition to the summary of results for the total aggregate waste stream, results were also tabulated separately for both the DGS collection vehicles and the commercial waste haulers. The commercial solid waste haulers included the vehicles from County Waste, Allied Waste, Waste Management, and Accurate Disposal. The vehicles from the municipalities and other organizations were not included in the commercial waste results.

As indicated in the methodology, all of the collection vehicles sampled to characterize the recyclable stream were DGS vehicles. Therefore, the analysis of the recyclable stream presented below represents primarily the residential component of the recyclable stream within the City of Albany. An analysis of the commercial recyclable stream was not studied.

We offer the following about the limitations of the study:

- A total of 36 samples were sorted from collection vehicles within the planning unit for the solid waste portion of the study
- A total of 46 samples of recyclables were sorted, including 23 samples each of the paper stream and metals, glass and plastic (MGP) stream
- Vehicles delivering municipal solid waste to the Rapp Road Landfill were randomly selected and were interviewed to determine that the waste originated on a collection route within the planning unit. Industrial solid waste, and construction and demolition debris (C&D), was not included as part of this study.
- Differences in types of commercial solid waste were not studied (ie. waste streams specific to restaurants, the retail sector, offices, etc.)
- As indicated above, solid waste characterization results are from a single week of sampling and sorting, and recyclable characterization results are from a three-day period of sampling and sorting. Therefore, the results presented herein may not be indicative of seasonal, monthly, or other time-dependent variations in the solid waste or recyclable stream.

### **Notes on the Results**

In the analysis of the results for the solid waste stream, some categories may show differing percentages between the DGS component, commercial component, and aggregate total. For example, the fraction of food waste averages 18.7% for all samples, but 23% for DGS, and 21% for the commercial samples. Note that the results for the vehicles from municipalities or other organizations were not included in either the DGS or commercial category. Therefore, the addition of samples from these vehicles adjusts the total average composition for each material component.

As can be seen from the tables of results, the standard deviation of some of the material categories is greater than the mean percent composition. This indicates a high degree of variability and large range in percent composition within the samples for these material categories. This may also be due to the limited number of samples and timeframe of the study: greater numbers of samples may have led to greater precision and a lower standard deviation for some of these material categories. It may also be due to the variety of commercial waste generators, as explained above.

It is important to note that this study analyzed the components of both the solid waste stream and the recyclables stream by weight and not by volume; therefore, items of relatively low weight may not appear significant to the results, but may have been present in large quantity in the waste stream by volume. A typical example of this is seen in the recyclables stream with glass and plastics. Anecdotally, plastic bags and film plastics appeared to be abundant during the waste sorting. However, the total weight of these items was insignificant in comparison to items of greater density, such as glass jars. Incidentally, the glass constituted the greatest fraction of the MGP recyclables stream; however, glass is also significantly denser and heavier than the plastics in the waste stream. This may also occur with the solid waste stream, with differences in densities between food waste, paper products, metals, or other categories.

## **4.2 SOLID WASTE CHARACTERIZATION RESULTS**

Table 2 – Solid Waste Composition Summary provides each material component and the mean composition percentage (mean mass fraction), and the standard deviation for each material category. In order of greatest to least mean composition percentage, the largest individual categories of the solid waste stream are as follows: food waste, other paper, dirt/fines, textiles and leather, corrugated, film plastic and plastic bags, paperboard, mixed office paper, miscellaneous, and wood. Table 3 below presents each of these material categories and the corresponding component fraction in the solid waste stream.

**Capital Region Solid Waste Management Plan - Waste Characterization Field Study**  
**Table 2 - Solid Waste Composition Summary**

| Material Components                           | Average Composition (%) | Mass Fraction Standard Deviation (%) |
|-----------------------------------------------|-------------------------|--------------------------------------|
| <b><u>PAPER</u></b>                           |                         |                                      |
| Newspaper                                     | 2.0%                    | 2.6%                                 |
| Magazines                                     | 2.1%                    | 4.2%                                 |
| Corrugated                                    | 4.5%                    | 3.6%                                 |
| Gable Top Cartons & Drink Boxes               | 0.4%                    | 0.7%                                 |
| Paper Board                                   | 4.2%                    | 2.7%                                 |
| Books (including phone directories)           | 2.8%                    | 4.2%                                 |
| Mixed Office Paper                            | 4.1%                    | 7.2%                                 |
| Other Paper                                   | 11.1%                   | 13.5%                                |
| <b>SUBTOTALS</b>                              | <b>31.3%</b>            | <b>16.7%</b>                         |
| <b><u>PLASTICS</u></b>                        |                         |                                      |
| Plastic Containers (PET) #1 Non-Bottle Bill   | 1.7%                    | 3.0%                                 |
| Plastic #1 (Bottle Bill Containers)           | 0.3%                    | 0.4%                                 |
| Plastic Containers (HDPE) #2                  | 0.8%                    | 0.7%                                 |
| Other Plastic Containers                      | 2.5%                    | 2.1%                                 |
| Film Plastic & Plastic Bags                   | 4.4%                    | 2.4%                                 |
| Other Plastics                                | 2.8%                    | 2.9%                                 |
| <b>SUBTOTALS</b>                              | <b>12.5%</b>            | <b>5.1%</b>                          |
| <b><u>FOOD WASTE</u></b>                      |                         |                                      |
|                                               | <b>18.7%</b>            | <b>19.9%</b>                         |
| <b><u>TEXTILES &amp; LEATHER</u></b>          |                         |                                      |
|                                               | <b>5.7%</b>             | <b>7.2%</b>                          |
| <b><u>RUBBER</u></b>                          |                         |                                      |
|                                               | <b>0.5%</b>             | <b>1.3%</b>                          |
| <b><u>DISPOSABLE DIAPERS</u></b>              |                         |                                      |
|                                               | <b>2.3%</b>             | <b>3.3%</b>                          |
| <b><u>FERROUS METALS</u></b>                  |                         |                                      |
| Ferrous Metal/Bimetal Cans                    | 0.7%                    | 1.0%                                 |
| Aerosol Cans                                  | 0.1%                    | 0.1%                                 |
| Other Ferrous Metal                           | 1.9%                    | 3.2%                                 |
| <b>SUBTOTALS</b>                              | <b>2.8%</b>             | <b>3.2%</b>                          |
| <b><u>NON-FERROUS METALS</u></b>              |                         |                                      |
| Aluminum Cans (Non-Bottle Bill)               | 0.2%                    | 0.2%                                 |
| Aluminum Cans (Bottle Bill)                   | 0.2%                    | 0.4%                                 |
| Other Non-Ferrous Metal                       | 1.0%                    | 1.4%                                 |
| <b>SUBTOTALS</b>                              | <b>1.3%</b>             | <b>1.4%</b>                          |
| <b><u>ELECTRONICS</u></b>                     |                         |                                      |
|                                               | <b>2.7%</b>             | <b>3.8%</b>                          |
| <b><u>GLASS</u></b>                           |                         |                                      |
| Glass Bottles (Bottle Bill)                   | 0.5%                    | 1.0%                                 |
| Glass Bottle - Clear                          | 1.8%                    | 5.1%                                 |
| Glass Bottle - Amber                          | 0.9%                    | 3.8%                                 |
| Glass Bottle - Green                          | 0.1%                    | 0.3%                                 |
| Flat Glass & Other Glass                      | 1.4%                    | 3.4%                                 |
| <b>SUBTOTALS</b>                              | <b>4.7%</b>             | <b>9.2%</b>                          |
| <b><u>WOOD</u></b>                            |                         |                                      |
|                                               | <b>3.6%</b>             | <b>6.5%</b>                          |
| <b><u>RUBBLE</u></b>                          |                         |                                      |
|                                               | <b>0.6%</b>             | <b>2.7%</b>                          |
| <b><u>YARD WASTE</u></b>                      |                         |                                      |
|                                               | <b>1.2%</b>             | <b>4.3%</b>                          |
| <b><u>DIRT/FINES</u></b>                      |                         |                                      |
|                                               | <b>7.9%</b>             | <b>16.9%</b>                         |
| <b><u>HAZARDOUS WASTE</u></b>                 |                         |                                      |
| Household Hazardous Waste (HHW)               | 0.0%                    | 0.0%                                 |
| Lead Acid Batteries                           | 0.0%                    | 0.0%                                 |
| Other Batteries                               | 0.0%                    | 0.1%                                 |
| <b>SUBTOTALS</b>                              | <b>0.1%</b>             | <b>0.1%</b>                          |
| <b><u>MEDICAL OR PHARMACEUTICAL WASTE</u></b> |                         |                                      |
|                                               | <b>0.2%</b>             | <b>0.8%</b>                          |
| <b><u>MISCELLANEOUS</u></b>                   |                         |                                      |
|                                               | <b>3.8%</b>             | <b>4.3%</b>                          |
| <b>TOTAL</b>                                  | <b>100%</b>             | <b>0.0%</b>                          |



**Table 3: Largest Single Material Categories in the Solid Waste Stream**

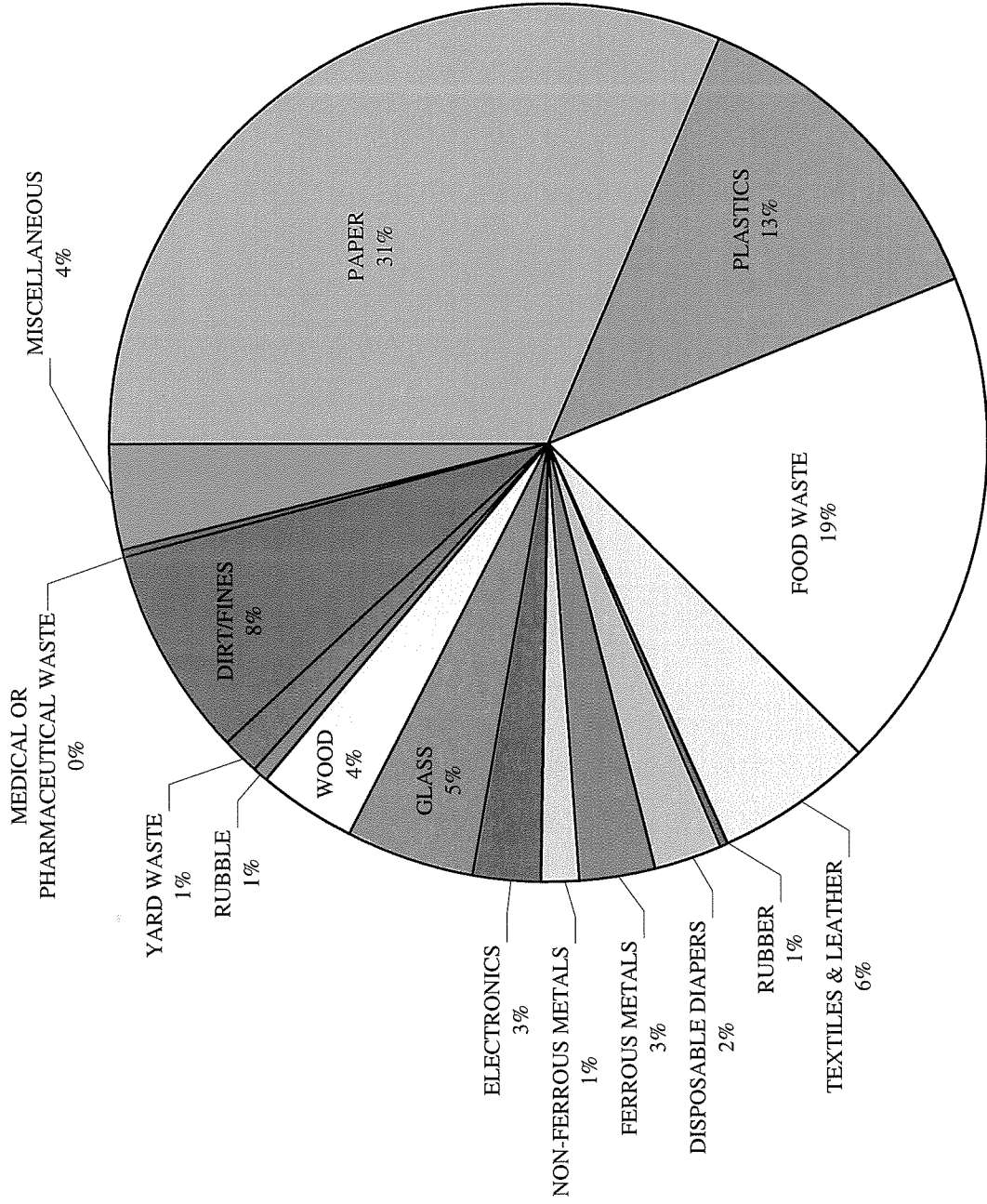
| <i>Material</i>             | <i>Component Fraction</i> |
|-----------------------------|---------------------------|
| Food Waste                  | 18.7%                     |
| Other Paper                 | 11.1%                     |
| Dirt/Fines                  | 7.9%                      |
| Textiles & Leather          | 5.7%                      |
| Corrugated                  | 4.5%                      |
| Film Plastic & Plastic Bags | 4.4%                      |
| Paper Board                 | 4.2%                      |
| Mixed Office Paper          | 4.1%                      |
| Miscellaneous               | 3.8%                      |
| Wood                        | 3.6%                      |

Food wastes constitute the largest single component percentage for a single material component category, with a fraction of 18.7%. Paper products constitute a significant portion of the solid waste stream sampled in the study, with a component fraction greater than 30%. This fraction is for all paper categories combined, including: newspaper, magazines, corrugated, gable top cartons and drink boxes, paperboard, books (including telephone directories), mixed office paper, and other paper. The largest paper category consisted of other paper, at 11.1% of the total waste stream. This is a non-recyclable paper component containing tissue paper and paper towels. Approximately 20% of the discarded solid waste stream consisted of recyclable paper categories, the largest of which were corrugated, paperboard, and mixed office paper, which constituted 4.6%, 4.2% and 4.1% respectively. Figure 1 – Total Waste Stream Composition presents the total waste stream by major material category or individual material category, as applicable.

Plastics also constitute a significant portion of the waste stream at 12.5% mean composition for all plastic categories, the largest of which is film plastic and plastic bags at 4.4% of the total waste stream.

Recyclable glass, metal, and plastic containers in the solid waste stream include Plastic Containers #1 and #2, ferrous metal cans, aluminum cans, and the various colors of glass bottles. Combined, these categories account for an average of about 7.2 % of the discarded solid waste stream.

**Figure 1 - Total Waste Stream Composition**



### **Comparison of DGS and Commercial Samples**

The compositions of the DGS and Commercial collection vehicles were evaluated separately to examine any differences from the overall waste stream composition. Table 4 – DGS and Commercial Collection Vehicles Summary presents the composition of each of the 39 material categories in each of these two sample subsets. The DGS is responsible for municipal curbside pick-up of solid waste in residential areas in the City of Albany: single family homes, and dwellings up to four units per building. Therefore, these vehicles largely represent the residential waste stream component. The percentages of paper and food waste in the DGS vehicles are similar, at 25% and 23%, respectively, followed by the plastics category at 15%. Within the paper fraction, the largest category of paper waste was other paper, with a fraction of 7.4% of the total DGS waste stream. The largest single plastics category was film plastic and plastic bags, at 6.4% of the total DGS waste stream. Textiles and leather, disposable diapers, and wood also constitute significant fractions at 6%, 5%, and 5%, respectively. The six categories of paper, food waste, plastics, textiles and leather, disposable diapers, and wood, comprise nearly 80% of the DGS waste stream, with smaller categories filling in the remaining 20% including glass, dirt/fines, miscellaneous, ferrous metals, and electronics as indicated in Figure 2 – DGS Solid Waste Summary.

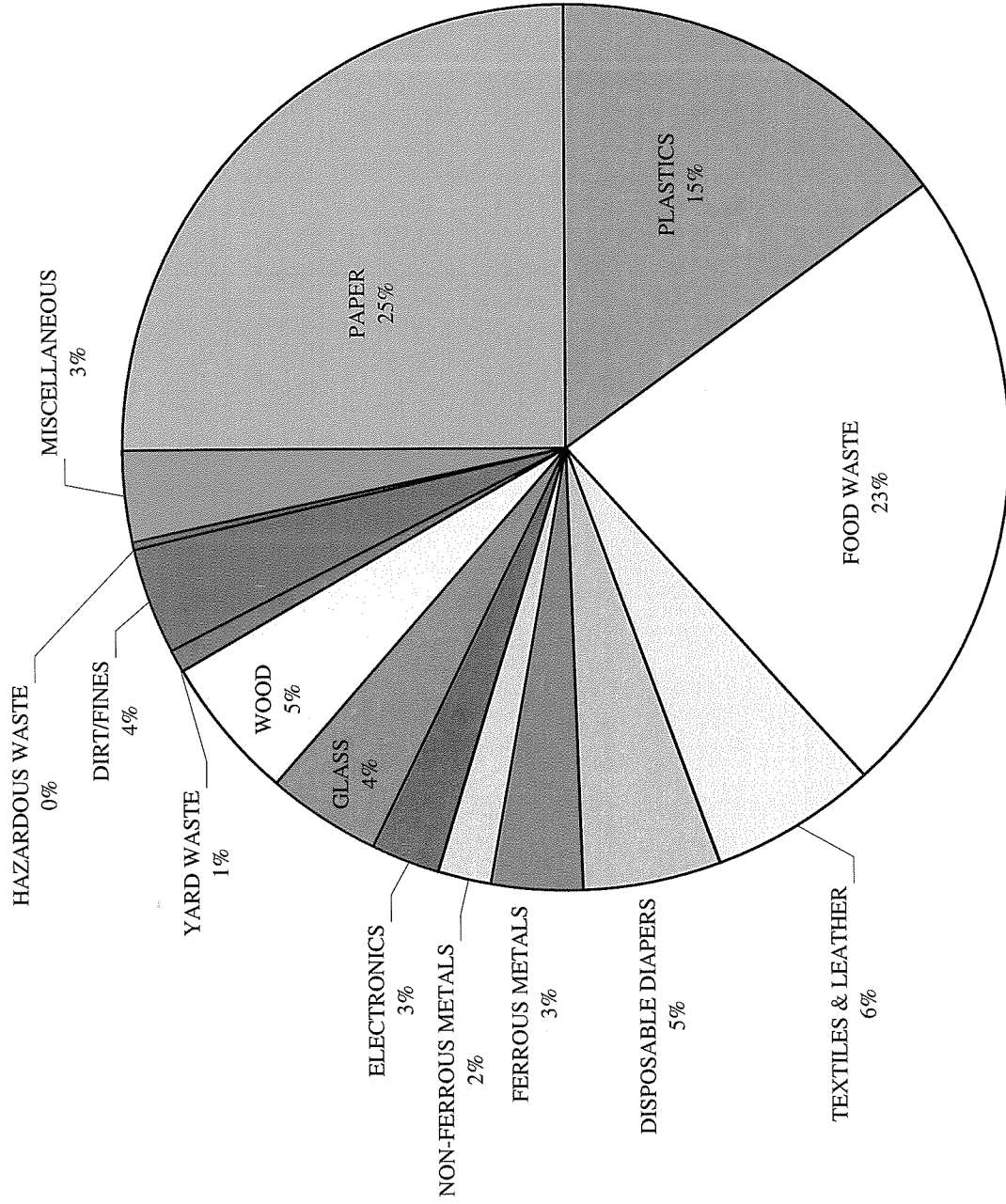
By contrast, the solid waste sampled from the commercial vehicles contains a greater percentage of paper products, at 41% of the total waste stream composition across all paper categories. Like the DGS vehicles, and the aggregate total of all samples, the largest single paper category is other paper, at 16.6% of the commercial waste stream. This is the largest single paper category by a significant margin, as the next largest category of mixed office paper represents 6.3% of the total commercial waste stream. The composition of food waste and plastics remains relatively consistent with the DGS vehicles at 21% and 12%, respectively. Within the plastics fraction, the largest single category was film plastic and plastic bags, at 4.5% of the total waste stream. This result is also consistent with the composition of plastics in the DGS waste stream and overall for all vehicles sampled. The paper, food waste, and plastics categories comprise nearly 75% of the commercial solid waste stream, with additional categories including dirt/fines (6%), glass (5%), and textiles and leather (3%) as indicated in Figure 3 – Commercial Waste Summary.

There was less designated recyclable paper in the discarded solid waste delivered by the DGS than was present in the commercial solid waste discards. Designated recyclable paper consisted of 17.6% of the DGS waste compared to 24.2% in the commercial waste stream. Both the DGS and commercial waste streams contained similar amounts of recyclable plastic, metal, and glass containers, although these was slightly less metal in the commercial waste samples. Table 5 –

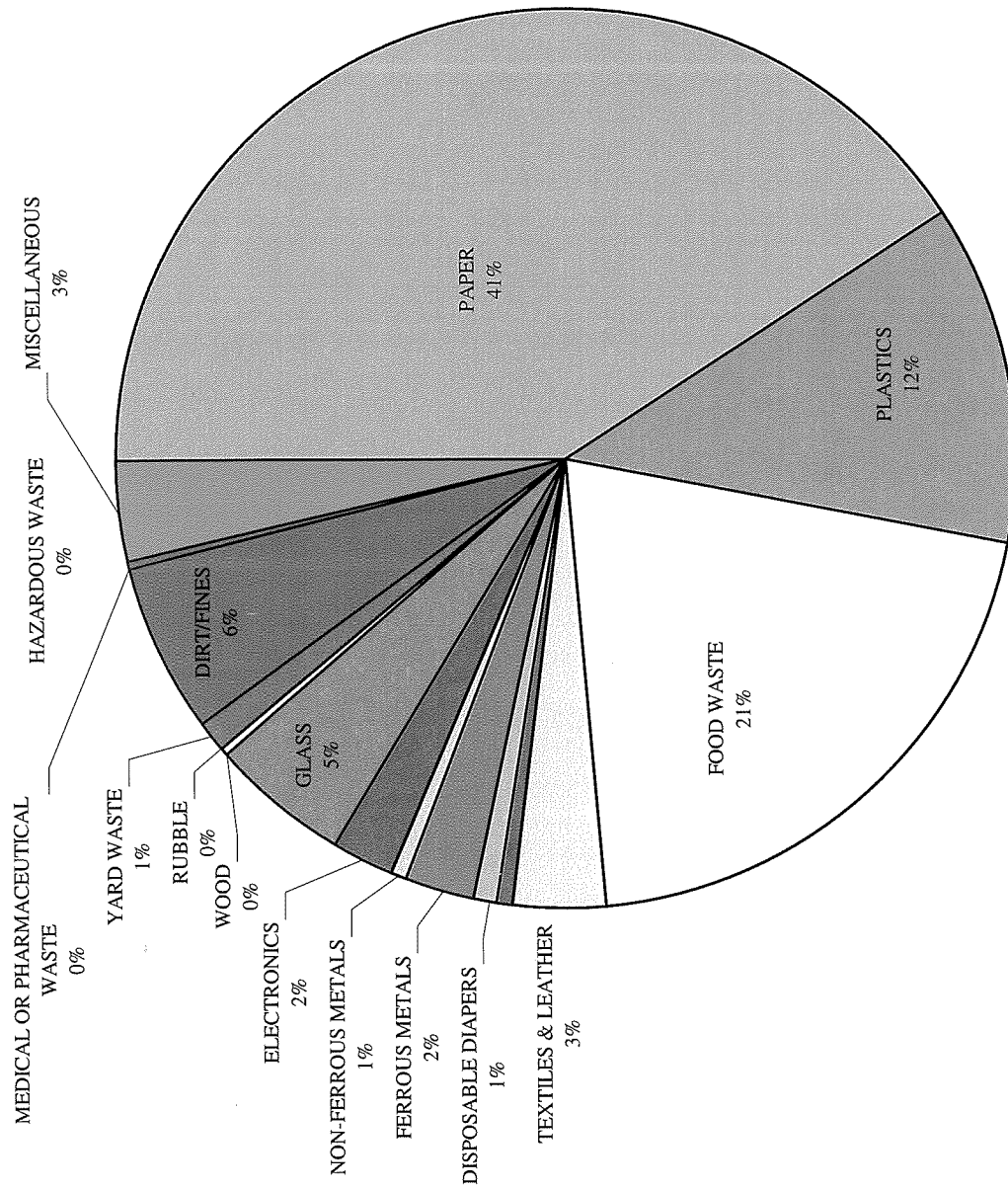
**Capital Region Solid Waste Management Plan - Waste Characterization Field Study**  
**Table 4 - DGS and Commercial Collection Vehicles Summary**

| Material Components                           | DGS Mean Mass Fraction | Mean Mass Fraction Std. Dev. | Commercial Mean Mass Fraction | Mean Mass Fraction Std. Dev. |
|-----------------------------------------------|------------------------|------------------------------|-------------------------------|------------------------------|
| <b><u>PAPER</u></b>                           |                        |                              |                               |                              |
| Newspaper                                     | 2.7%                   | 2.4%                         | 2.1%                          | 3.4%                         |
| Magazines                                     | 1.4%                   | 1.1%                         | 3.5%                          | 6.0%                         |
| Corrugated                                    | 3.4%                   | 2.9%                         | 5.6%                          | 4.2%                         |
| Gable Top Cartons & Drink Boxes               | 0.3%                   | 0.2%                         | 0.5%                          | 1.1%                         |
| Paper Board                                   | 5.3%                   | 2.2%                         | 3.9%                          | 3.1%                         |
| Books (including phone directories)           | 2.5%                   | 3.8%                         | 2.4%                          | 4.2%                         |
| Mixed Office Paper                            | 2.1%                   | 1.5%                         | 6.3%                          | 10.3%                        |
| Other Paper                                   | 7.4%                   | 2.8%                         | 16.6%                         | 19.1%                        |
| <b>SUBTOTALS</b>                              | <b>25.0%</b>           | <b>6.4%</b>                  | <b>40.8%</b>                  | <b>21.1%</b>                 |
| <b><u>PLASTICS</u></b>                        |                        |                              |                               |                              |
| Plastic Containers (PET) #1 Non-Bottle Bill   | 2.0%                   | 1.6%                         | 2.2%                          | 4.4%                         |
| Plastic #1 (Bottle Bill Containers)           | 0.3%                   | 0.3%                         | 0.3%                          | 0.4%                         |
| Plastic Containers (HDPE) #2                  | 1.0%                   | 1.0%                         | 0.6%                          | 0.5%                         |
| Other Plastic Containers                      | 2.7%                   | 1.2%                         | 2.6%                          | 2.8%                         |
| Film Plastic & Plastic Bags                   | 6.4%                   | 1.9%                         | 4.5%                          | 2.4%                         |
| Other Plastics                                | 2.7%                   | 2.6%                         | 2.0%                          | 2.4%                         |
| <b>SUBTOTALS</b>                              | <b>15.2%</b>           | <b>4.8%</b>                  | <b>12.2%</b>                  | <b>5.8%</b>                  |
| <b><u>FOOD WASTE</u></b>                      | <b>23.2%</b>           | <b>15.0%</b>                 | <b>20.5%</b>                  | <b>24.4%</b>                 |
| <b><u>TEXTILES &amp; LEATHER</u></b>          | <b>6.2%</b>            | <b>4.9%</b>                  | <b>3.4%</b>                   | <b>4.2%</b>                  |
| <b><u>RUBBER</u></b>                          | <b>0.2%</b>            | <b>0.4%</b>                  | <b>0.5%</b>                   | <b>0.9%</b>                  |
| <b><u>DISPOSABLE DIAPERS</u></b>              | <b>4.9%</b>            | <b>4.2%</b>                  | <b>1.0%</b>                   | <b>1.6%</b>                  |
| <b><u>FERROUS METALS</u></b>                  |                        |                              |                               |                              |
| Ferrous Metal/Bimetal Cans                    | 0.9%                   | 0.5%                         | 0.5%                          | 0.5%                         |
| Aerosol Cans                                  | 0.1%                   | 0.2%                         | 0.1%                          | 0.2%                         |
| Other Ferrous Metal                           | 2.4%                   | 5.1%                         | 1.9%                          | 2.8%                         |
| <b>SUBTOTALS</b>                              | <b>3.5%</b>            | <b>4.9%</b>                  | <b>2.5%</b>                   | <b>3.0%</b>                  |
| <b><u>NON-FERROUS METALS</u></b>              |                        |                              |                               |                              |
| Aluminum Cans (Non-Bottle Bill)               | 0.3%                   | 0.4%                         | 0.1%                          | 0.1%                         |
| Aluminum Cans (Bottle Bill)                   | 0.2%                   | 0.2%                         | 0.3%                          | 0.5%                         |
| Other Non-Ferrous Metal                       | 1.2%                   | 1.3%                         | 0.2%                          | 0.3%                         |
| <b>SUBTOTALS</b>                              | <b>1.8%</b>            | <b>1.3%</b>                  | <b>0.6%</b>                   | <b>0.7%</b>                  |
| <b><u>ELECTRONICS</u></b>                     | <b>2.6%</b>            | <b>3.2%</b>                  | <b>2.1%</b>                   | <b>3.6%</b>                  |
| <b><u>GLASS</u></b>                           |                        |                              |                               |                              |
| Glass Bottles (Bottle Bill)                   | 1.5%                   | 1.7%                         | 0.2%                          | 0.3%                         |
| Glass Bottle - Clear                          | 1.8%                   | 2.1%                         | 2.6%                          | 7.6%                         |
| Glass Bottle - Amber                          | 0.4%                   | 0.5%                         | 1.6%                          | 5.7%                         |
| Glass Bottle - Green                          | 0.1%                   | 0.3%                         | 0.1%                          | 0.3%                         |
| Flat Glass & Other Glass                      | 0.5%                   | 0.4%                         | 0.5%                          | 0.8%                         |
| <b>SUBTOTALS</b>                              | <b>4.3%</b>            | <b>3.8%</b>                  | <b>4.9%</b>                   | <b>13.2%</b>                 |
| <b><u>WOOD</u></b>                            | <b>5.2%</b>            | <b>5.4%</b>                  | <b>0.2%</b>                   | <b>0.4%</b>                  |
| <b><u>RUBBLE</u></b>                          | <b>0.0%</b>            | <b>0.0%</b>                  | <b>0.2%</b>                   | <b>0.9%</b>                  |
| <b><u>YARD WASTE</u></b>                      | <b>0.7%</b>            | <b>1.1%</b>                  | <b>1.0%</b>                   | <b>4.0%</b>                  |
| <b><u>DIRT/FINES</u></b>                      | <b>4.1%</b>            | <b>4.5%</b>                  | <b>6.0%</b>                   | <b>17.9%</b>                 |
| <b><u>HAZARDOUS WASTE</u></b>                 |                        |                              |                               |                              |
| Household Hazardous Waste (HHW)               | 0.0%                   | 0.1%                         | 0.0%                          | 0.0%                         |
| Lead Acid Batteries                           | 0.0%                   | 0.0%                         | 0.0%                          | 0.0%                         |
| Other Batteries                               | 0.1%                   | 0.2%                         | 0.0%                          | 0.0%                         |
| <b>SUBTOTALS</b>                              | <b>0.1%</b>            | <b>0.2%</b>                  | <b>0.0%</b>                   | <b>0.0%</b>                  |
| <b><u>MEDICAL OR PHARMACEUTICAL WASTE</u></b> | <b>0.0%</b>            | <b>0.1%</b>                  | <b>0.5%</b>                   | <b>1.3%</b>                  |
| <b><u>MISCELLANEOUS</u></b>                   | <b>3.4%</b>            | <b>3.1%</b>                  | <b>3.5%</b>                   | <b>4.3%</b>                  |
| <b>TOTAL</b>                                  | <b>100.0%</b>          | <b>0.0%</b>                  | <b>100.0%</b>                 | <b>0.0%</b>                  |

Figure 2 - DGS Solid Waste Summary



**Figure 3 - Commercial Waste Summary**



Designated Recyclable Materials within the Solid Waste Stream presents the percentage of each recyclable material category found in the solid waste stream for the following classifications: all solid waste samples, DGS samples, commercial samples, and the SUNY Albany sample.

For comparison, the solid waste composition of one of the independent vehicles was also examined separately. The waste composition of the commercial collection vehicles contrasts with the waste composition of the vehicle from SUNY Albany. From the SUNY vehicle, the paper composition and plastics composition was similar to the DGS results, at 21% paper composition (12% other paper), and 12% for plastics composition (4% film plastic and plastic bags), as presented in Figure 4 – SUNY Solid Waste Summary. The main difference, however, between the SUNY sample and the DGS and commercial waste streams, is in the quantity of food waste, which represents the single largest material category at 49% of the SUNY waste stream. In addition, multiple material categories had no waste from the SUNY vehicle, including: disposable diapers, non-ferrous metals, electronics, rubble, yard waste, dirt/fines, hazardous waste, medical/pharmaceutical waste, and miscellaneous. The waste stream of the SUNY vehicle contained primarily food waste, paper, and plastics, as indicated, wood at 9% of the waste stream, and ferrous metals at 6% of the waste stream. Ferrous metal/bimetal cans comprised the entire ferrous metals category. Glass, rubber, and textiles and leather were each represented at 1%. It is important to note, however, that only a single SUNY Albany vehicle was sampled. Therefore, this analysis does not provide a waste composition analysis for SUNY Albany; however, it represents contrast in waste composition between different commercial waste generators, and hence accounts for some of the large standard deviations present with some of the material categories.

### **4.3 RECYCLABLE MATERIALS CHARACTERIZATION RESULTS**

The collection vehicles for recyclable materials were divided into two compartments: paper, and metals, glass and plastic (MGP). The composition of each recyclable stream was analyzed in the same manner as described above, including calculating the mass fraction of each component, the mean mass fraction for a particular component in the recyclable stream from an aggregate total of all of the samples, and the standard deviation of each component percentage. In the paper stream, total paper products comprised an average of 98.56% of the paper stream; however, most samples contained trace amounts of plastics (with an average composition of 0.5%), ferrous metals (0.2%) and glass (0.6%), as indicated in Table 6 – Recyclable Materials Composition Summary. Within the paper stream, the largest component of recyclable paper was newspaper at

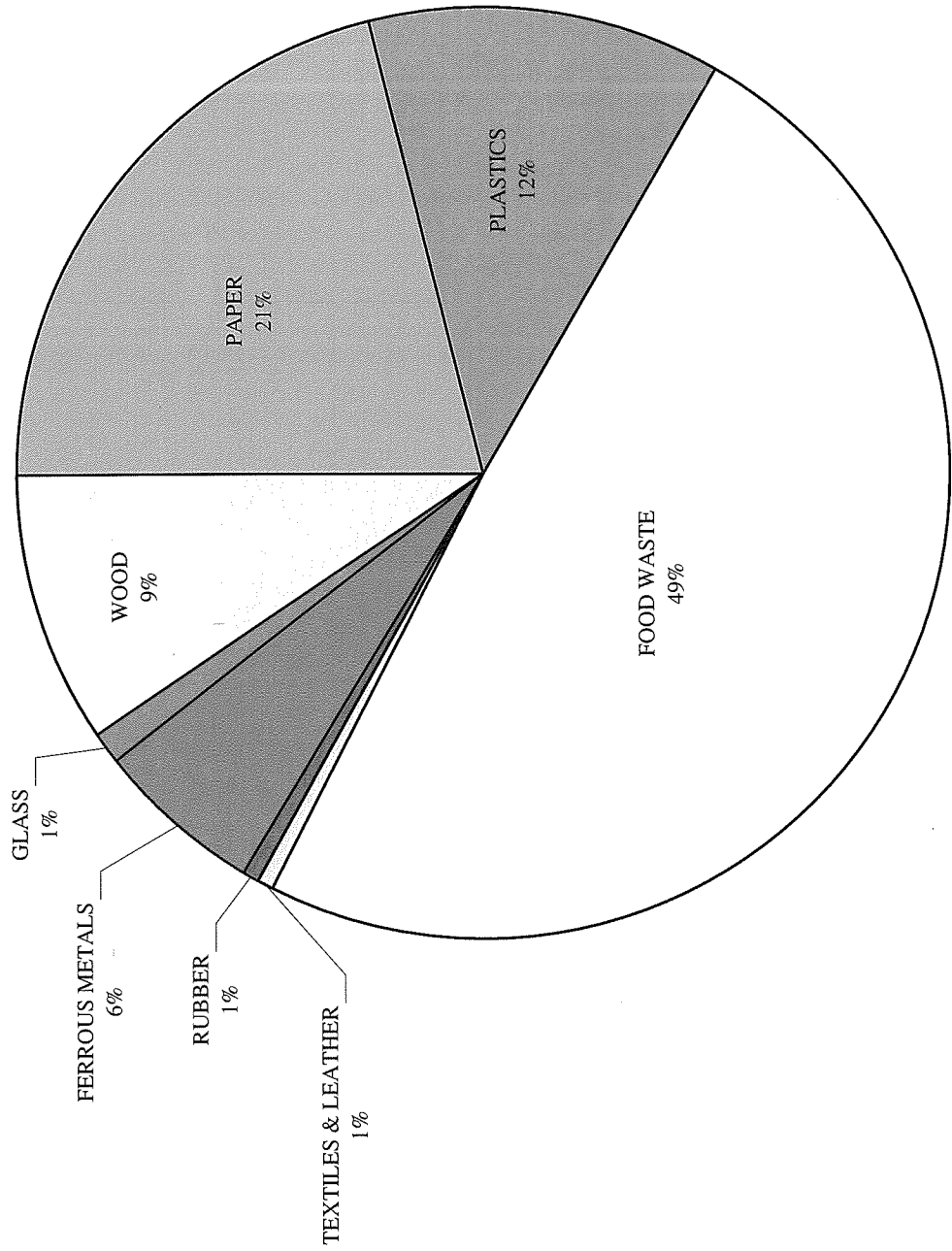
**Capital Region Solid Waste Management Plan - Waste Characterization Field Study**

**Table 5 - Designated Recyclable Materials within the Solid Waste Stream**

| <b>Material Components</b>                  | <b>Total Mean Mass Fraction for All Samples</b> | <b>DGS Mean Mass Fraction</b> | <b>Commercial Mean Mass Fraction</b> | <b>SUNY Albany Mass Fraction</b> |
|---------------------------------------------|-------------------------------------------------|-------------------------------|--------------------------------------|----------------------------------|
| <b><u>PAPER</u></b>                         |                                                 |                               |                                      |                                  |
| Newspaper                                   | 2.0%                                            | 2.7%                          | 2.1%                                 | 1.0%                             |
| Magazines                                   | 2.1%                                            | 1.4%                          | 3.5%                                 | 0.0%                             |
| Corrugated                                  | 4.5%                                            | 3.4%                          | 5.6%                                 | 1.1%                             |
| Gable Top Cartons & Drink Boxes             | 0.4%                                            | 0.3%                          | 0.5%                                 | 0.1%                             |
| Paper Board                                 | 4.2%                                            | 5.3%                          | 3.9%                                 | 6.2%                             |
| Books (including phone directories)         | 2.8%                                            | 2.5%                          | 2.4%                                 | 0.0%                             |
| Mixed Office Paper                          | 4.1%                                            | 2.1%                          | 6.3%                                 | 0.7%                             |
| <b>SUBTOTAL</b>                             | <b>20.2%</b>                                    | <b>17.6%</b>                  | <b>24.2%</b>                         | <b>9.0%</b>                      |
| <b><u>PLASTICS</u></b>                      |                                                 |                               |                                      |                                  |
| Plastic Containers (PET) #1 Non-Bottle Bill | 1.7%                                            | 2.0%                          | 2.2%                                 | 2.6%                             |
| Plastic #1 (Bottle Bill Containers)         | 0.3%                                            | 0.3%                          | 0.3%                                 | 0.6%                             |
| Plastic Containers (HDPE) #2                | 0.8%                                            | 1.0%                          | 0.6%                                 | 0.7%                             |
| <b>SUBTOTAL</b>                             | <b>2.8%</b>                                     | <b>3.3%</b>                   | <b>3.1%</b>                          | <b>3.9%</b>                      |
| <b><u>FERROUS METALS</u></b>                |                                                 |                               |                                      |                                  |
| Ferrous Metal/Bimetal Cans                  | 0.7%                                            | 0.9%                          | 0.5%                                 | 5.8%                             |
| Other Ferrous Metal                         | 1.9%                                            | 2.4%                          | 1.9%                                 | 0.0%                             |
| <b>SUBTOTAL</b>                             | <b>2.7%</b>                                     | <b>3.3%</b>                   | <b>2.4%</b>                          | <b>5.8%</b>                      |
| <b><u>NON-FERROUS METALS</u></b>            |                                                 |                               |                                      |                                  |
| Aluminum Cans (Non-Bottle Bill)             | 0.2%                                            | 0.3%                          | 0.1%                                 | 0.0%                             |
| Aluminum Cans (Bottle Bill)                 | 0.2%                                            | 0.2%                          | 0.3%                                 | 0.1%                             |
| Other Non-Ferrous Metal                     | 1.0%                                            | 1.2%                          | 0.2%                                 | 0.3%                             |
| <b>SUBTOTAL</b>                             | <b>1.3%</b>                                     | <b>1.8%</b>                   | <b>0.6%</b>                          | <b>0.4%</b>                      |
| <b><u>GLASS</u></b>                         |                                                 |                               |                                      |                                  |
| Glass Bottles (Bottle Bill)                 | 0.5%                                            | 1.5%                          | 0.2%                                 | 0.3%                             |
| Glass Bottle - Clear                        | 1.8%                                            | 1.8%                          | 2.6%                                 | 0.5%                             |
| Glass Bottle - Amber                        | 0.9%                                            | 0.4%                          | 1.6%                                 | 0.0%                             |
| Glass Bottle - Green                        | 0.1%                                            | 0.1%                          | 0.1%                                 | 0.0%                             |
| <b>SUBTOTAL</b>                             | <b>3.2%</b>                                     | <b>3.7%</b>                   | <b>4.4%</b>                          | <b>0.8%</b>                      |
| <b><u>YARD WASTE</u></b>                    | <b>1.2%</b>                                     | <b>0.7%</b>                   | <b>1.0%</b>                          | <b>0.0%</b>                      |
| <b>Grand Total</b>                          | <b>31.4%</b>                                    | <b>30.4%</b>                  | <b>35.7%</b>                         | <b>19.9%</b>                     |



Figure 4 - SUNY Solid Waste Summary



53%, followed by books (including phone directories) at 13%, and magazines at 11% (Figure 5 – Recyclables: Paper Stream). Other significant components included paperboard at 8%, mixed office paper at 7%, and corrugated at 6%. The component percentage of gable top cartons and drink boxes was minimal at an average of 0.24%.

The majority of the MGP stream included plastic, ferrous metals, non-ferrous metals, and glass; however, the mean mass fraction of all samples included approximately 8% paper (all paper categories combined). This paper fraction included newspaper, gable top cartons and drink boxes, paperboard, and books. The paper fraction has been included within the analysis of the MGP stream, below.

Greater than half of the MGP stream, at 58.8%, consisted of glass (Figure 6 – Recyclables: Metals, Glass and Plastic). Within this material category, the largest components of glass were clear glass bottles and green glass bottles. These two categories comprised 29% and 17%, respectively, of the total MGP stream. The second largest major material category within the MGP stream was plastics at 18.9%; the largest material categories within the plastics family were PET #1 plastic containers at 8% of the total MGP stream, HDPE #2 plastic containers at 6% of the total MGP stream, and other plastic containers at 3% of the total MGP stream. The remaining plastic categories were present in smaller quantities. The third largest MGP component fraction consisted of ferrous metals (12%), of which nearly all were ferrous metal/bimetal cans (11.52%). The MGP stream also has approximately 2% non-ferrous metals, more than half of which was the material category of other non-ferrous metal.

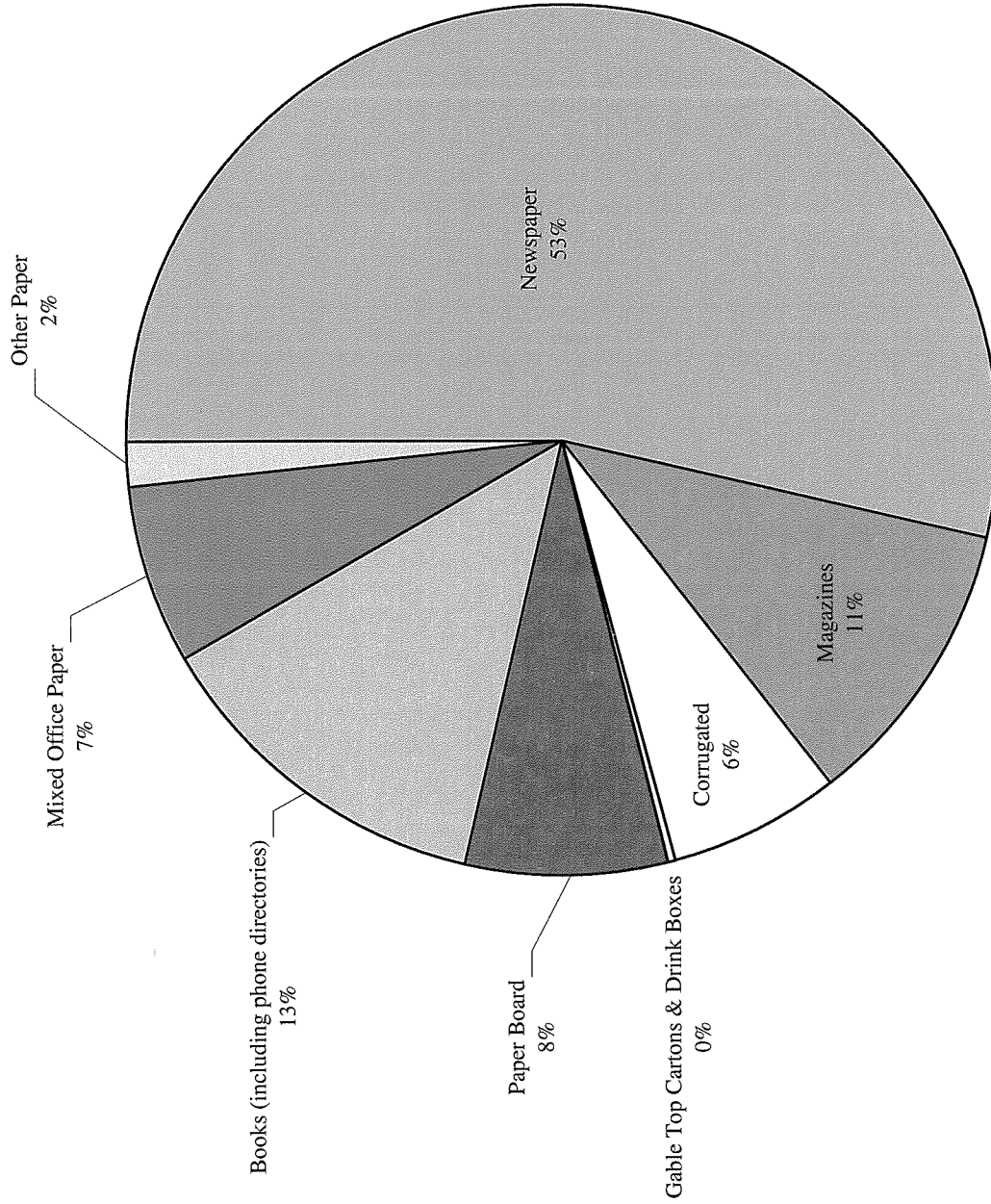
#### 4.4 COMPARISON WITH OTHER STUDIES

Table 7 – Solid Waste Composition in Other Studies compares the solid waste composition obtained in this study of the Capital Region with data from two other sources: the Onondaga County Resource Recovery Agency (OCRRA), and the United States Environmental Protection Agency (USEPA). OCRRA conducted a similar study in 2005 for the characterization of the solid waste and recyclable stream within the county (OCRRA, 2005). USEPA collects and publishes data on the generation, recovery, and disposal of municipal solid waste (MSW) on an annual basis. This data is collected for the entire United States; therefore, the percentages provided represent a national average across all regions and areas. The USEPA data for the year 2007 were collected from Tables 14, 17, and 23 in *Municipal Solid Waste in the United States: 2007 Facts and Figures* (USEPA, 2008). It is important to note that some material categories

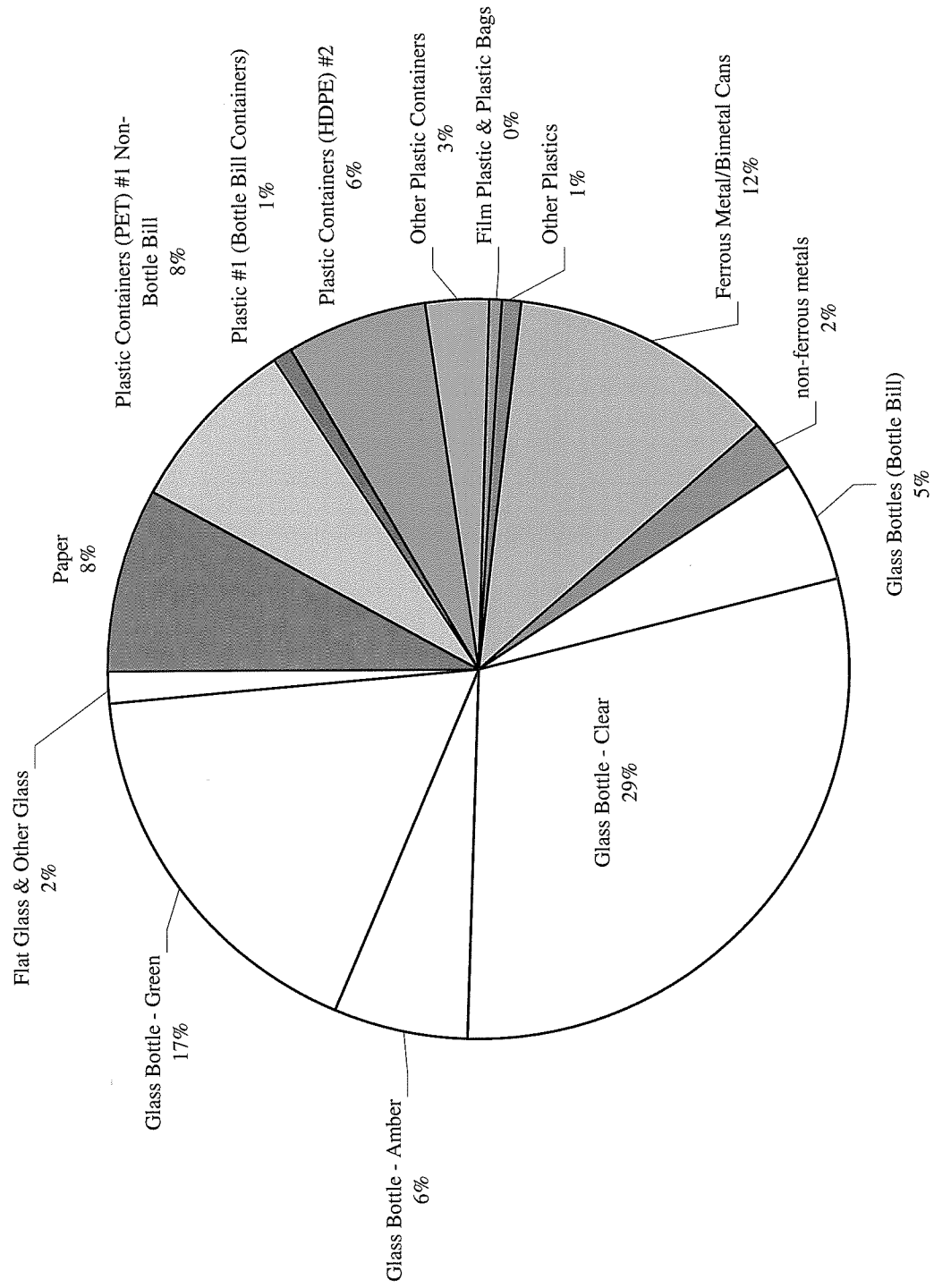
**Capital Region Solid Waste Management Plan - Waste Characterization Field Study**  
**Table 6 - Recyclable Materials Composition Summary**

| Material Components                         | Mean mass fraction - Paper | Standard deviation - Paper | Mean mass fraction - Metals, Glass & Plastics | Standard Deviation - Metals, Glass & Plastics |
|---------------------------------------------|----------------------------|----------------------------|-----------------------------------------------|-----------------------------------------------|
| <b>PAPER</b>                                |                            |                            |                                               |                                               |
| Newspaper                                   | 52.7%                      | 13.8%                      | 2.0%                                          | 2.9%                                          |
| Magazines                                   | 10.8%                      | 4.7%                       | 0.5%                                          | 0.6%                                          |
| Corrugated                                  | 6.2%                       | 3.5%                       | 0.2%                                          | 0.4%                                          |
| Gable Top Cartons & Drink Boxes             | 0.2%                       | 0.3%                       | 1.3%                                          | 0.8%                                          |
| Paper Board                                 | 7.5%                       | 3.6%                       | 1.6%                                          | 1.0%                                          |
| Books (including phone directories)         | 12.8%                      | 7.3%                       | 1.7%                                          | 2.9%                                          |
| Mixed Office Paper                          | 6.6%                       | 4.8%                       | 0.2%                                          | 0.3%                                          |
| Other Paper                                 | 1.7%                       | 0.8%                       | 0.4%                                          | 0.4%                                          |
| <b>SUBTOTALS</b>                            | <b>98.6%</b>               | <b>1.4%</b>                | <b>7.9%</b>                                   | <b>5.2%</b>                                   |
| <b>PLASTICS</b>                             |                            |                            |                                               |                                               |
| Plastic Containers (PET) #1 Non-Bottle Bill | 0.1%                       | 0.2%                       | 7.9%                                          | 4.4%                                          |
| Plastic #1 (Bottle Bill Containers)         | 0.0%                       | 0.1%                       | 0.8%                                          | 0.7%                                          |
| Plastic Containers (HDPE) #2                | 0.1%                       | 0.1%                       | 6.1%                                          | 4.2%                                          |
| Other Plastic Containers                    | 0.1%                       | 0.2%                       | 2.7%                                          | 0.9%                                          |
| Film Plastic & Plastic Bags                 | 0.1%                       | 0.1%                       | 0.4%                                          | 0.2%                                          |
| Other Plastics                              | 0.1%                       | 0.1%                       | 1.0%                                          | 0.9%                                          |
| <b>SUBTOTALS</b>                            | <b>0.5%</b>                | <b>0.4%</b>                | <b>18.9%</b>                                  | <b>9.1%</b>                                   |
| <b>FOOD WASTE</b>                           | <b>0.1%</b>                | <b>0.2%</b>                | <b>0.0%</b>                                   | <b>0.2%</b>                                   |
| <b>TEXTILES &amp; LEATHER</b>               | <b>0.1%</b>                | <b>0.2%</b>                | <b>0.1%</b>                                   | <b>0.2%</b>                                   |
| <b>RUBBER</b>                               | <b>0.0%</b>                | <b>0.0%</b>                | <b>0.0%</b>                                   | <b>0.0%</b>                                   |
| <b>DISPOSABLE DIAPERS</b>                   | <b>0.0%</b>                | <b>0.1%</b>                | <b>0.0%</b>                                   | <b>0.0%</b>                                   |
| <b>FERROUS METALS</b>                       |                            |                            |                                               |                                               |
| Ferrous Metal/Bimetal Cans                  | 0.2%                       | 0.2%                       | 11.5%                                         | 4.1%                                          |
| Aerosol Cans                                | 0.0%                       | 0.0%                       | 0.3%                                          | 0.8%                                          |
| Other Ferrous Metal                         | 0.0%                       | 0.0%                       | 0.1%                                          | 0.4%                                          |
| <b>SUBTOTALS</b>                            | <b>0.2%</b>                | <b>0.2%</b>                | <b>12.0%</b>                                  | <b>4.4%</b>                                   |
| <b>NON-FERROUS METALS</b>                   |                            |                            |                                               |                                               |
| Aluminum Cans (Non-Bottle Bill)             | 0.0%                       | 0.1%                       | 0.3%                                          | 0.2%                                          |
| Aluminum Cans (Bottle Bill)                 | 0.0%                       | 0.0%                       | 0.6%                                          | 0.3%                                          |
| Other Non-Ferrous Metal                     | 0.0%                       | 0.1%                       | 1.2%                                          | 0.9%                                          |
| <b>SUBTOTALS</b>                            | <b>0.0%</b>                | <b>0.1%</b>                | <b>2.1%</b>                                   | <b>0.9%</b>                                   |
| <b>ELECTRONICS</b>                          | <b>0.0%</b>                | <b>0.0%</b>                | <b>0.0%</b>                                   | <b>0.1%</b>                                   |
| <b>GLASS</b>                                |                            |                            |                                               |                                               |
| Glass Bottles (Bottle Bill)                 | 0.1%                       | 0.1%                       | 5.3%                                          | 3.4%                                          |
| Glass Bottle - Clear                        | 0.4%                       | 0.8%                       | 29.2%                                         | 7.5%                                          |
| Glass Bottle - Amber                        | 0.0%                       | 0.0%                       | 5.9%                                          | 3.7%                                          |
| Glass Bottle - Green                        | 0.1%                       | 0.2%                       | 16.9%                                         | 9.7%                                          |
| Flat Glass & Other Glass                    | 0.0%                       | 0.0%                       | 1.5%                                          | 2.1%                                          |
| <b>SUBTOTALS</b>                            | <b>0.6%</b>                | <b>0.9%</b>                | <b>58.8%</b>                                  | <b>13.5%</b>                                  |
| <b>WOOD</b>                                 | <b>0.0%</b>                | <b>0.1%</b>                | <b>0.0%</b>                                   | <b>0.0%</b>                                   |
| <b>RUBBLE</b>                               | <b>0.0%</b>                | <b>0.0%</b>                | <b>0.0%</b>                                   | <b>0.0%</b>                                   |
| <b>YARD WASTE</b>                           | <b>0.0%</b>                | <b>0.0%</b>                | <b>0.0%</b>                                   | <b>0.0%</b>                                   |
| <b>DIRT/FINES</b>                           | <b>0.0%</b>                | <b>0.0%</b>                | <b>0.0%</b>                                   | <b>0.0%</b>                                   |
| <b>HAZARDOUS WASTE</b>                      |                            |                            |                                               |                                               |
| Household Hazardous Waste (HHW)             | 0.0%                       | 0.0%                       | 0.0%                                          | 0.0%                                          |
| Lead Acid Batteries                         | 0.0%                       | 0.0%                       | 0.0%                                          | 0.0%                                          |
| Other Batteries                             | 0.0%                       | 0.0%                       | 0.0%                                          | 0.1%                                          |
| <b>SUBTOTALS</b>                            | <b>0.0%</b>                | <b>0.0%</b>                | <b>0.0%</b>                                   | <b>0.1%</b>                                   |
| <b>MEDICAL OR PHARMACEUTICAL WASTE</b>      | <b>0.0%</b>                | <b>0.0%</b>                | <b>0.2%</b>                                   | <b>0.8%</b>                                   |
| <b>MISCELLANEOUS</b>                        | <b>0.0%</b>                | <b>0.0%</b>                | <b>0.0%</b>                                   | <b>0.0%</b>                                   |
| <b>TOTAL</b>                                | <b>100.0%</b>              | <b>0.0%</b>                | <b>100.0%</b>                                 | <b>0.0%</b>                                   |

**Figure 5 - Recyclables: Paper Stream**



**Figure 6 - Recyclables: Metals, Glass and Plastic**



have been combined with other categories, or were not used for the particular study. Therefore, some of the “other” categories have been used to categorize multiple materials not otherwise listed.

Several of the material categories were consistent across the three studies, including food wastes, textiles and leather, disposable diapers, non-ferrous metals, electronics, wood, and rubble. In several more of the material categories, two of the three studies indicate similar fractions of a particular material category, with the third study as the exception with a greater or lesser component fraction. This is true of the ferrous metals category, glass, and yard waste, as indicated in Table 7. The Capital Region and OCRRA studies contained larger fractions of ferrous metals, at 2.8% and 2.5% of the waste stream, than in the USEPA data, at 0.6% of the waste stream. Yard wastes, while not a significant fraction of the Capital Region or OCRRA studies, at 1.2% and 1.1%, respectively, constituted 6.9% of the discarded waste stream based upon USEPA data. The glass fraction was also significantly higher in the Capital Region and USEPA studies than in the OCRRA study, with component percentages of 4.7%, 4.9%, and 1.8%, respectively.

As the table indicates, the total combined paper fraction is higher in the Capital Region than in the OCRRA study and the USEPA data, but only by several percentage points. This increase is due to larger fractions of paperboard, books, and other paper present in the Capital Region waste stream. The OCRRA solid waste stream contained larger fractions of plastic than both the Capital Region and USEPA data. The largest single plastics category in the OCRRA data was other plastic containers, which comprised 11% of the total waste stream.

The comparison with these studies indicates that the data obtained in the Capital Region waste characterization field study is relatively consistent with other studies on a regional and national level, while still retaining some differences specific to the Capital Region. As noted above, knowledge of the area’s waste stream composition and recyclable materials composition will assist the Planning Unit in the further development of solid waste and recyclables management, as well a present and future practices.

**Capital Region Solid Waste Management Plan - Waste Characterization Field Study**  
**Table 7 - Solid Waste Composition in Other Studies**

| <b>Material Components</b>                  | <b>Capital Region Average Composition 2009 (%)</b> | <b>Onondaga County Waste Characterization Study 2005 - Exhibit 3-1 (%)</b> | <b>USEPA Products Discarded in the Municipal Waste Stream 2007: Tables 14, 17, &amp; 23 (%)</b> |
|---------------------------------------------|----------------------------------------------------|----------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------|
| <b>PAPER</b>                                |                                                    |                                                                            |                                                                                                 |
| Newspaper                                   | 2.0%                                               | 3.4%                                                                       | 1.4%                                                                                            |
| Magazines                                   | 2.1%                                               | 1.6%                                                                       | 0.9%                                                                                            |
| Corrugated                                  | 4.5%                                               | 4.6%                                                                       | 4.9%                                                                                            |
| Gable Top Cartons & Drink Boxes             | 0.4%                                               | 0.2%                                                                       | 0.3%                                                                                            |
| Paper Board                                 | 4.2%                                               | 1.7%                                                                       | 4.0%                                                                                            |
| Books (including phone directories)         | 2.8%                                               | 0.6%                                                                       | 0.9%                                                                                            |
| Mixed Office Paper                          | 4.1%                                               | 3.3%                                                                       | 4.7%                                                                                            |
| Other Paper                                 | 11.1%                                              | 12.8%                                                                      | 6.7%                                                                                            |
| <b>SUBTOTALS</b>                            | <b>31.3%</b>                                       | <b>28.2%</b>                                                               | <b>23.8%</b>                                                                                    |
| <b>PLASTICS</b>                             |                                                    |                                                                            |                                                                                                 |
| Plastic Containers (PET) #1 Non-Bottle Bill | 1.7%                                               | 1.1%                                                                       | n/a                                                                                             |
| Plastic #1 (Bottle Bill Containers)         | 0.3%                                               | 0.3%                                                                       | n/a                                                                                             |
| Plastic Containers (HDPE) #2                | 0.8%                                               | 2.1%                                                                       | 0.0%                                                                                            |
| Other Plastic Containers                    | 2.5%                                               | 11.0%                                                                      | 2.6%                                                                                            |
| Film Plastic & Plastic Bags                 | 4.4%                                               | n/a                                                                        | 3.2%                                                                                            |
| Other Plastics                              | 2.8%                                               | 4.6%                                                                       | 3.1%                                                                                            |
| <b>SUBTOTALS</b>                            | <b>12.5%</b>                                       | <b>19.1%</b>                                                               | <b>8.9%</b>                                                                                     |
| <b>FOOD WASTE</b>                           | <b>18.7%</b>                                       | <b>14.6%</b>                                                               | <b>18.2%</b>                                                                                    |
| <b>TEXTILES &amp; LEATHER</b>               | <b>5.7%</b>                                        | <b>5.8%</b>                                                                | <b>4.7%</b>                                                                                     |
| <b>RUBBER</b>                               | <b>0.5%</b>                                        | <b>1.0%</b>                                                                | <b>1.9%</b>                                                                                     |
| <b>DISPOSABLE DIAPERS</b>                   | <b>2.3%</b>                                        | <b>2.4%</b>                                                                | <b>2.2%</b>                                                                                     |
| <b>FERROUS METALS</b>                       |                                                    |                                                                            |                                                                                                 |
| Ferrous Metal/Bimetal Cans                  | 0.7%                                               | 1.0%                                                                       | 0.5%                                                                                            |
| Aerosol Cans                                | 0.1%                                               | n/a                                                                        | 0.0%                                                                                            |
| Other Ferrous Metal                         | 1.9%                                               | 2.4%                                                                       | 0.0%                                                                                            |
| <b>SUBTOTALS</b>                            | <b>2.8%</b>                                        | <b>3.5%</b>                                                                | <b>0.6%</b>                                                                                     |
| <b>NON-FERROUS METALS</b>                   |                                                    |                                                                            |                                                                                                 |
| Aluminum Cans (Non-Bottle Bill)             | 0.2%                                               | 0.1%                                                                       | 0.4%                                                                                            |
| Aluminum Cans (Bottle Bill)                 | 0.2%                                               | 0.2%                                                                       | 0.0%                                                                                            |
| Other Non-Ferrous Metal                     | 1.0%                                               | 0.8%                                                                       | 0.2%                                                                                            |
| <b>SUBTOTALS</b>                            | <b>1.3%</b>                                        | <b>1.1%</b>                                                                | <b>0.7%</b>                                                                                     |
| <b>ELECTRONICS</b>                          | <b>2.7%</b>                                        | <b>1.2%</b>                                                                | <b>1.5%</b>                                                                                     |
| <b>GLASS</b>                                |                                                    |                                                                            |                                                                                                 |
| Glass Bottles (Bottle Bill)                 | 0.5%                                               | 0.3%                                                                       | 3.0%                                                                                            |
| Glass Bottle - Clear                        | 1.8%                                               | 0.7%                                                                       | n/a                                                                                             |
| Glass Bottle - Amber                        | 0.9%                                               | 0.1%                                                                       | n/a                                                                                             |
| Glass Bottle - Green                        | 0.1%                                               | 0.2%                                                                       | n/a                                                                                             |
| Flat Glass & Other Glass                    | 1.4%                                               | 0.5%                                                                       | 1.9%                                                                                            |
| <b>SUBTOTALS</b>                            | <b>4.7%</b>                                        | <b>1.8%</b>                                                                | <b>4.9%</b>                                                                                     |
| <b>WOOD</b>                                 | <b>3.6%</b>                                        | <b>3.2%</b>                                                                | <b>4.3%</b>                                                                                     |
| <b>RUBBLE</b>                               | <b>0.6%</b>                                        | <b>0.6%</b>                                                                | <b>n/a</b>                                                                                      |
| <b>YARD WASTE</b>                           | <b>1.2%</b>                                        | <b>1.1%</b>                                                                | <b>6.9%</b>                                                                                     |
| <b>DIRT/FINES</b>                           | <b>7.9%</b>                                        | <b>4.3%</b>                                                                | <b>n/a</b>                                                                                      |
| <b>HAZARDOUS WASTE</b>                      |                                                    |                                                                            |                                                                                                 |
| Household Hazardous Waste (HHW)             | 0.0%                                               | 0.4%                                                                       | n/a                                                                                             |
| Lead Acid Batteries                         | 0.0%                                               | 0.0%                                                                       | 0.0%                                                                                            |
| Other Batteries                             | 0.0%                                               | 0.1%                                                                       | n/a                                                                                             |
| <b>SUBTOTALS</b>                            | <b>0.1%</b>                                        | <b>0.5%</b>                                                                | <b>0.0%</b>                                                                                     |
| <b>MEDICAL OR PHARMACEUTICAL WASTE</b>      | <b>0.2%</b>                                        | <b>n/a</b>                                                                 | <b>n/a</b>                                                                                      |
| <b>MISCELLANEOUS</b>                        | <b>3.8%</b>                                        | <b>11.7%</b>                                                               | <b>21.4%</b>                                                                                    |
| <b>TOTAL</b>                                | <b>100%</b>                                        | <b>100%</b>                                                                | <b>100%</b>                                                                                     |

## 5.0 CONCLUSIONS

Significant quantities of designated recyclables are present in the discarded solid waste stream, as indicated in Table 5 – Designated Recyclable Materials within the Solid Waste Stream. While this is evident in all the waste streams delivered, it is most evident in the commercial waste stream.

Yard waste only represented 1.2% of the solid waste discarded during this study. While there are numerous yard waste composting programs in place within the planning unit, the waste characterization study was conducted during the low season for yard waste generation. Therefore, an upward adjustment might be needed to reflect an annual average percentage of yard waste that is discarded. This should be examined further in the context of the overall waste stream analysis being conducted for the new SWMP.

Food waste is the largest single component of the discarded solid waste stream, totaling almost 19%. When combined with the yard waste and other compostable elements of the some other waste material categories, the compostable organic waste fraction may equal or exceed 30% of the MSW discarded.



## REFERENCES

United States Environmental Protection Agency. *Municipal Solid Waste Generation, Recycling, and Disposal in the United States: Facts and Figures for 2007*. Tables 14, 17, and 23. EPA-530-F-07-030. November 2007. Reviewed on October 30, 2008, from <http://www.epa.gov/osw/nonhaz/municipal/msw99.htm>

Onondaga County Resource Recovery Agency. 2005 Onondaga County Waste Quantification and Characterization Study. Dvirka and Bartilucci Consulting Engineers. Syracuse, NY. 2005

Standard Test Method for Determination of the Composition of Unprocessed Municipal Solid Waste, ASTM D5231-92 (Reapproved 2003)



# APPENDICES



# **APPENDIX A**

# **MATERIAL CATEGORY DEFINITIONS**



## PAPER

1. **Newspaper (ONP):** Consists of all paper products printed on daily or weekly newspapers, advertising, catalogs, and other similar items. Includes any glossy, shiny, or other coated newspaper inserts. Publications can be one color (e.g., black and white) or multicolor.
2. **Magazines (OMG):** Publications, which are printed on glossy paper. This does not include magazines, catalogs, etc., which do not consist of glossy paper throughout (e.g., comic books).
3. **Corrugated (OCC):** Paperboard containers consisting of Kraft (brown) linerboard with corrugated (fluted medium) fillings. This category includes waxed corrugated boxes; does not include non-corrugated paperboard such as cereal, shoe, or gift boxes.
4. **Gable Top Cartons & Drink Boxes:** Consists of plastic or waxed paper containers, such as milk and juice containers. This category also includes single serve juice boxes and multi-serve packaging, such as soup, soymilk, and chai tea drinks.
5. **Paperboard:** Non-corrugated boxes and containers typically used for holding food products, detergents, shoes, and other similar packaged goods. Outside of box or container can be printed. Inside surface is typically a dull gray, brown, or white color.
6. **Books:** Paper products consisting of printed pages, which are glued or stitched between soft or hard outside covers, including telephone directories, reference manuals, and textbooks.
7. **Mixed Office Paper:** High-grade and colored paper products originating as household "junk mail" or from an office environment, such as white printing, writing or copier paper (colored and white); computer printout (with or without green bars); computer tab cards, colored printing, writing or copier paper; file folders, envelopes, carbonless paper forms, and tissue (tracing) paper.
8. **Other Paper:** Typically, non-recyclable paper items, including all products not covered by the above categories, including soiled and unsoiled tissues, paper towels, and napkins, paper plates, and paper cups. Also includes items which are composites of paper (where paper is the major component), metal, or plastics. Does not include non-corrugated paperboard products.

## PLASTIC

9. **Plastic Containers (PET #1) – Non-bottle Bill Containers:** Rigid clear or colored cylindrical bottles or containers with or without base cups for holding vegetable oil, mouthwash, liquor, juice, water, cooking oil, and other food ingredients, etc. that are not

designated by wording on the container for inclusion in the used beverage container deposit system. It should be noted that some PET containers, which normally would be assumed to be the type subject to the bottle bill, such as soda bottles, may not have such wording, and those bottles are included in this category.

10. **Plastic (PET #1) Bottle Bill Containers:** PET containers that are designated by wording on the container for inclusion in the Used Beverage Container Deposit System.
11. **Plastic Containers (HDPE #2) (High Density Polyethylene):** Bottles are moderately flexible to stiff, commonly used for windshield washer fluids, cleaning solutions and syrup, milk, juice, spring water products, shampoos, detergents, motor oils, antifreeze, transmission, and fluids. The bottom of the container usually has a seam and often has handles.
12. **Other Plastic Containers:** Includes the following plastics:
  - PVC #3 (Polyvinyl Chloride) - stiff, transparent glossy containers may have a slightly blue or gray tint, such as baby oil bottles;
  - LDPE #4 (Low Density Polyethylene) - soft and very pliable plastic, primarily used in film, trays, and plastic bags (food and non-food) and lids (for food containers);
  - Polypropylene #5 – includes materials such as yogurt and margarine containers, and flexible materials such as shrink-wrap packaging;
  - Polystyrene #6 – hard, brittle products with a gloss like finish, such as VCR and CD cases, packaging for compact disks, clear plastic caps, or "foamed" products, such as egg cartons, fast food packaging, and "Styrofoam" cups;
  - Plastics #7 – multi-composite materials that may contain more than one (1) type of plastic and/or metal, such as ketchup bottles
13. **Film Plastic & Plastic Bags:** Includes both LHDPE #2 (Linear High Density Polyethylene) and LLDPE #4 (Linear Low Density Polyethylene) film and bags as follows:
  - LHDPE #2 (Linear High Density Polyethylene) Film and Bags: Linear, translucent to opaque films/bags. Does not stretch appreciably, but creases (crinkles) when folded, such as grocery bags.
  - LLDPE #4 (Linear Low Density Polyethylene) Film and Bags: Linear transparent to opaque films/bags. Stretches when pulled and does not crease (crinkle) when folded, such as grocery, dry cleaning, trash and garbage bags, toys, buckets, and pipe. Also used as wrapping for large bales or pallets holding goods when they are delivered to commercial establishments.
14. **Other Plastics:** All other plastics not otherwise described. This includes bulky plastics, such as spackle and paint buckets, crates and carriers for packaged items, and items such as toys, furniture and kitchen utensils, wire sheathing, and plastics whose polymer type (#1, 2, 3, etc.) could not be determined.



15. **FOOD WASTE**

Putrescible organic materials, which are the by-products of activities connected with the growing, preparation, cooking, processing, or consumption of food by human beings or domesticated animals.

16. **TEXTILES AND LEATHER**

Fabric materials, including natural and synthetic fibers, such as cotton, wool, silk, nylon, rayon, or polyester. Products included within this category would be woven clothing, curtains, carpets, stuffed toys, pillows, rags, rugs, upholstery, shoes, leather goods, and other fabric products.

17. **RUBBER**

Products consisting of natural or synthetic rubber, such as vehicle and bicycle tires, clothing, or house wares.

18. **DIAPERS**

Disposable diapers and incontinence aids, including fecal materials.

19. **FERROUS METAL/BIMETAL CANS**

Fabricated, magnetizable metal containers, such as steel cans designed to hold food or beverage products, such as soups, vegetables, pet food, or fruit juices. Also includes two (2) piece containers with aluminum tops.

20. **AEROSOL CANS**

Consists of metallic aerosol spray cans designed to be pressurized for products, such as hair sprays, insecticides, disinfectants, cleaners, etc. Empty aerosol cans were combined with food/bimetal cans during the sorting and weighing. Aerosol cans that are not empty and contain paint. Insecticide, herbicide, or other household hazardous waste are placed into that sort category.

21. **OTHER FERROUS METAL**

Ferrous and alloyed ferrous scrap materials originating from residential, commercial, or institutional sources, which are attracted to a magnet. This category includes wire coat hangers and white or enameled ferrous products derived from household furnishings. This category also includes magnetizable products derived from cars, trucks, motorcycles, boat motors, lawn mowers, airplanes and other motorized products.

22. **ALUMINUM CANS (NON-BOTTLE BILL)**

Non-magnetic containers used for holding non-carbonated soft drinks, such as iced tea and juice, and cat food cans, that are not designated by wording on the container for inclusion in the Used Beverage Container Deposit System.

23. **ALUMINUM CANS (BOTTLE BILL)**

Aluminum cans that are designated by wording on the container for inclusion in the Used Beverage Container Deposit System commonly containing carbonated beverage containers, such as soft drinks and beer.

24. **OTHER NON-FERROUS METALS**

This category includes all other aluminum and non-ferrous products, such as lawn chairs, tables, carts, house siding, rain gutters, window frames, cookware, flatware, pots, pans, and other kitchen utensils small enough to fit in a blue recycling bin, other miscellaneous utensils, and die cast aluminum or machine parts. This category also includes gold, brass, bronze, copper, lead, platinum, silver, and zinc.

25. **ELECTRONICS**

Computer monitors, CPUs, keyboards, and peripherals; audio equipment, televisions, CD and DVD players.

**GLASS**

26. **GLASS BOTTLES -BOTTLE BILL**

This category includes broken or unbroken glass containers that are designated by wording on the container for inclusion in the Used Beverage Container Deposit System. Containers are to be segregated with metal lids removed and emptied of their contents. Broken shards, without labeling designating them for inclusion in the deposit system, are assumed to be non-bottle bill and placed with the appropriate color of non-bottle bill glass.

**OTHER GLASS BOTTLES (NON-BOTTLE BILL)**

This category includes broken or unbroken glass container products designed to hold beverages, other liquids and food products. Containers are to be segregated by category as follows with metal lids removed and generally emptied of their contents, and will be sorted into one of the three colors noted below.

- 27. **Clear Glass Containers:** Uncolored, transparent glass containers that are not designated for inclusion in the Used Beverage Container Deposit System. Some containers for certain spring water or wine products may appear clear, but are actually very light green and are placed together with the green glass.
- 28. **Amber Glass Containers:** Amber (brown) translucent glass containers that are not designated for inclusion in the Used Beverage Container Deposit System.
- 29. **Green Glass Containers:** Green, translucent glass containers that are not designated for inclusion in the Used Beverage Container Deposit System.

30. **FLAT GLASS & OTHER GLASS**

Primarily window type glass from buildings, furniture, or automobiles. Includes window glass, which contains materials to prevent or reduce shattering. Also includes a variety of miscellaneous glass products, such as mirrors, leaded crystal, eyeglasses, and brown glass, such as light bulbs, TV tubes or heat resistant cookware (Pyrex), pottery, and drinking glasses.

31. **WOOD**

Pallets, dimensional lumber, plywood and particleboard. Furniture, cabinets and other objects made from wood are also included in this category.

32. **RUBBLE**

Asphalt, concrete, brick, and rock.

33. **YARD WASTE**

Leaves, grass clippings, and brush.

34. **DIRT AND FINES**

Soil, sand, and material that fit through a one-half (1/2) inch screen.

35. **HOUSEHOLD HAZARDOUS WASTE (HHW)**

Paints, oils, solvents, cleansers, herbicides and pesticides. Fluorescent bulbs, if intact, would be placed into this category.

36. **LEAD ACID BATTERIES**

Batteries from automobiles, trucks, buses, boats, motorcycles, etc.

37. **OTHER BATTERIES**

Disposable products which are designed to create small electric currents. This includes household dry-cell batteries from flashlights, transistor radios, hearing aids, calculators, and other products requiring small electric currents for their operation.

**38. MEDICAL OR PHARMACEUTICAL WASTE**

Includes syringes and other pharmaceutical products.

**39. MISCELLANEOUS**

Items that do not fit into any of the other waste categories.

**APPENDIX B**  
**COLLECTION VEHICLE DRIVER INTERVIEWS**



#1

CITY OF ALBANY

WASTE CHARACTERIZATION ANALYSIS

WASTE ORIGIN SURVEY FORM

RAPP ROAD LANDFILL

FEBRUARY 9-13, 2009

Date: 2/23/09

CHA Staff Name: Sarah Johnston

Hauler: D6S

Truck ID Number: 5349

Truck Type: Rear load packer

Arrival Number: 7

Sampled: Y Not Sampled: \_\_\_\_\_

Waste Origin (municipality(s)): Albany D6S

| <u>Waste Type (ask driver)</u> | <u>(Check for Yes)</u>              | <u>Approximate % of Load</u> |
|--------------------------------|-------------------------------------|------------------------------|
| Residential Single Family      | <input checked="" type="checkbox"/> | <u>100</u>                   |
| Residential Multi-Family       | <input type="checkbox"/>            | _____                        |
| Office Buildings               | <input type="checkbox"/>            | _____                        |
| Stores                         | <input type="checkbox"/>            | _____                        |
| Industry                       | <input type="checkbox"/>            | _____                        |
| Hospital                       | <input type="checkbox"/>            | _____                        |
| Other                          | <input type="checkbox"/>            | _____                        |

Weather

Clear

Precipitation \_\_\_\_\_

Temperature 24

Payload Weight

Gross 64380

Tare 41200

Net 23180

CITY OF ALBANY

WASTE CHARACTERIZATION ANALYSIS

#2

WASTE ORIGIN SURVEY FORM  
RAPP ROAD LANDFILL  
FEBRUARY 9-13, 2009

Date: 2/23/09  
 CHA Staff Name: Sarah Johnston  
 Hauler: County Waste  
 Truck ID Number: 5223  
 Truck Type: Roll off R442  
 Arrival Number: 25  
 Sampled: Y Not Sampled: \_\_\_\_\_  
 Waste Origin (municipality(s)): Fuller Rd Alb (Petra)  
(Special waste) Paper Shred

| Waste Type (ask driver)   | (Check for Yes) | Approximate % of Load |
|---------------------------|-----------------|-----------------------|
| Residential Single Family | _____           | _____                 |
| Residential Multi-Family  | _____           | _____                 |
| Office Buildings          | _____           | _____                 |
| Stores                    | _____           | _____                 |
| Industry                  | <u>X</u>        | _____                 |
| Hospital                  | _____           | _____                 |
| Other                     | <u>XX</u>       | <u>1</u>              |

Weather

Clear ✓  
 Precipitation \_\_\_\_\_  
 Temperature 24

Payload Weight

Gross 60400  
 Tare 40340  
 Net 20120



CITY OF ALBANY

A3

WASTE CHARACTERIZATION ANALYSIS

WASTE ORIGIN SURVEY FORM  
RAPP ROAD LANDFILL  
FEBRUARY 9-13, 2009

Date: 2/23/09

CHA Staff Name: Sarah Johnston

Hauler: DGS

Truck ID Number: 5349

Truck Type: Rear load packer

Arrival Number: 36

Sampled: Y Not Sampled: \_\_\_\_\_

Waste Origin (municipality(s)): Albany

| Waste Type (ask driver)   | (Check for Yes)    | Approximate % of Load |
|---------------------------|--------------------|-----------------------|
| Residential Single Family | <u>X</u>           | <u>90</u>             |
| Residential Multi-Family  | <u>X</u>           | <u>10</u>             |
| Office Buildings          | _____              | _____                 |
| Stores                    | _____              | _____                 |
| Industry                  | _____              | _____                 |
| Hospital                  | _____              | _____                 |
| Other                     | <u>X firehouse</u> | _____                 |

Weather

Clear ✓

Precipitation \_\_\_\_\_

Temperature 24

Payload Weight

Gross 43820

Tare 41200

Net 2620

CITY OF ALBANY

A4

WASTE CHARACTERIZATION ANALYSIS

WASTE ORIGIN SURVEY FORM

RAPP ROAD LANDFILL

FEBRUARY 9-13, 2009

Date: 2/29/09

CHA Staff Name: Sarah Johnston

Hauler: D65

Truck ID Number: 5391

Truck Type: Rear-load packer

Arrival Number: 47

Sampled: Y Not Sampled: \_\_\_\_\_

Waste Origin (municipality(s)): Albany (2nd Ave)

| Waste Type (ask driver)   | (Check for Yes)                     | Approximate % of Load |
|---------------------------|-------------------------------------|-----------------------|
| Residential Single Family | <input checked="" type="checkbox"/> | <u>20</u>             |
| Residential Multi-Family  | <input checked="" type="checkbox"/> | <u>80 (2 family)</u>  |
| Office Buildings          | <input type="checkbox"/>            | _____                 |
| Stores                    | <input type="checkbox"/>            | _____                 |
| Industry                  | <input type="checkbox"/>            | _____                 |
| Hospital                  | <input type="checkbox"/>            | _____                 |
| Other                     | <input type="checkbox"/>            | _____                 |

Weather

Clear ✓

Precipitation \_\_\_\_\_

Temperature 25

Payload Weight

Gross 65870

Tare 41660

Net 24190

**CITY OF ALBANY**  
**WASTE CHARACTERIZATION ANALYSIS**

#5

**WASTE ORIGIN SURVEY FORM**  
**RAPP ROAD LANDFILL**  
**FEBRUARY 9-13, 2009**

Date: 2/23/09  
 CHA Staff Name: Sarah Johnston  
 Hauler: Allied Waste  
 Truck ID Number: 5404  
 Truck Type: Roll off R0679  
 Arrival Number: 80  
 Sampled: Y Not Sampled: \_\_\_\_\_  
 Waste Origin (municipality(s)): Price chopper Waterbury (# 21)

| <u>Waste Type (ask driver)</u> | <u>(Check for Yes)</u>              | <u>Approximate % of Load</u> |
|--------------------------------|-------------------------------------|------------------------------|
| Residential Single Family      | _____                               | _____                        |
| Residential Multi-Family       | _____                               | _____                        |
| Office Buildings               | _____                               | _____                        |
| Stores                         | <input checked="" type="checkbox"/> | 100                          |
| Industry                       | _____                               | _____                        |
| Hospital                       | _____                               | _____                        |
| Other                          | _____                               | _____                        |

Weather

Clear ✓  
 Precipitation \_\_\_\_\_  
 Temperature -30

Payload Weight

Gross 6480  
 Tare 4280  
 Net 2200

**CITY OF ALBANY  
WASTE CHARACTERIZATION ANALYSIS**

*Not Sampled*

**WASTE ORIGIN SURVEY FORM  
RAPP ROAD LANDFILL  
FEBRUARY 9-13, 2009**

Date: 2/23/09  
 CHA Staff Name: Sarah Johnston  
 Hauler: Allied Waste Services  
 Truck ID Number: 554  
 Truck Type: \_\_\_\_\_  
 Arrival Number: \_\_\_\_\_  
 Sampled: \_\_\_\_\_ Not Sampled: NV  
 Waste Origin (municipality(s)): East Greenwich Bloomington East

| <u>Waste Type (ask driver)</u> | <u>(Check for Yes)</u> | <u>Approximate % of Load</u> |
|--------------------------------|------------------------|------------------------------|
| Residential Single Family      | _____                  | _____                        |
| Residential Multi-Family       | _____                  | _____                        |
| Office Buildings               | _____                  | _____                        |
| Stores                         | _____                  | _____                        |
| Industry                       | _____                  | _____                        |
| Hospital                       | _____                  | _____                        |
| Other                          | _____                  | _____                        |

Weather

Clear ✓  
 Precipitation \_\_\_\_\_  
 Temperature \_\_\_\_\_

Payload Weight

Gross \_\_\_\_\_  
 Tare \_\_\_\_\_  
 Net \_\_\_\_\_

CITY OF ALBANY

#1

WASTE CHARACTERIZATION ANALYSIS

WASTE ORIGIN SURVEY FORM  
RAPP ROAD LANDFILL  
FEBRUARY 9-13, 2009

Date: 2/24/09  
 CHA Staff Name: Sarah Johnston  
 Hauler: County Waste  
 Truck ID Number: 5414  
 Truck Type: Packer  
 Arrival Number: 4  
 Sampled: Y Not Sampled: \_\_\_\_\_  
 Waste Origin (municipality(s)): downtown Albany  
inc. central ave

| Waste Type (ask driver)   | (Check for Yes)        | Approximate % of Load |
|---------------------------|------------------------|-----------------------|
| Residential Single Family | <u>X</u>               | _____                 |
| Residential Multi-Family  | <u>X (apartments)</u>  | _____                 |
| Office Buildings          | _____                  | _____                 |
| Stores                    | <u>X</u>               | _____                 |
| Industry                  | _____                  | _____                 |
| Hospital                  | _____                  | _____                 |
| Other                     | <u>X (restaurants)</u> | _____                 |

Weather

Clear ✓  
 Precipitation -  
 Temperature 620

Payload Weight

Gross 59580  
 Tare 37920  
 Net 21660

CITY OF ALBANY

#2

WASTE CHARACTERIZATION ANALYSIS

WASTE ORIGIN SURVEY FORM  
 RAPP ROAD LANDFILL  
 FEBRUARY 9-13, 2009

Date: 2/24/09 ~ 8:30 am  
 CHA Staff Name: Sarah Johnston  
 Hauler: Allied Waste  
 Truck ID Number: 5333  
 Truck Type: Roll off  
 Arrival Number: 24  
 Sampled: Y Not Sampled: \_\_\_\_\_  
 Waste Origin (municipality(s)): Albany (Cargill/Port of Albany)  
Driver said was carrying grain, etc

| Waste Type (ask driver)   | (Check for Yes) | Approximate % of Load |
|---------------------------|-----------------|-----------------------|
| Residential Single Family | _____           | _____                 |
| Residential Multi-Family  | _____           | _____                 |
| Office Buildings          | _____           | _____                 |
| Stores                    | _____           | _____                 |
| Industry                  | <u>X</u>        | <u>100</u>            |
| Hospital                  | _____           | _____                 |
| Other                     | _____           | _____                 |

Weather

Clear ✓  
 Precipitation -  
 Temperature 16

Payload Weight

Gross 52960  
 Tare 39560  
 Net 13400

CITY OF ALBANY

WASTE CHARACTERIZATION ANALYSIS

#3

WASTE ORIGIN SURVEY FORM  
 RAPP ROAD LANDFILL  
 FEBRUARY 9-13, 2009

Date: 2/24/09 9:04 am  
 CHA Staff Name: Sarah Johnston  
 Hauler: Allied Waste  
 Truck ID Number: 5337  
 Truck Type: Roll off  
 Arrival Number: 37  
 Sampled: Y Not Sampled: \_\_\_\_\_  
 Waste Origin (municipality(s)): Guildford Price Chapter

| Waste Type (ask driver)   | (Check for Yes) | Approximate % of Load |
|---------------------------|-----------------|-----------------------|
| Residential Single Family | _____           | _____                 |
| Residential Multi-Family  | _____           | _____                 |
| Office Buildings          | _____           | _____                 |
| Stores                    | <u>X</u>        | <u>100</u>            |
| Industry                  | _____           | _____                 |
| Hospital                  | _____           | _____                 |
| Other                     | _____           | _____                 |

Weather

Clear ✓  
 Precipitation ~  
 Temperature 18

Payload Weight

Gross 52840  
 Tare 42520  
 Net 10320

#4

CITY OF ALBANY  
WASTE CHARACTERIZATION ANALYSIS  
WASTE ORIGIN SURVEY FORM  
RAPP ROAD LANDFILL  
FEBRUARY 9-13, 2009

Date: 2/24/09 9:38 am  
CHA Staff Name: Sarah Johnston  
Hauler: DGS  
Truck ID Number: 5328  
Truck Type: Packer -> rear load  
Arrival Number: 46  
Sampled: Y Not Sampled: \_\_\_\_\_  
Waste Origin (municipality(s)): City of Albany

| Waste Type (ask driver)   | (Check for Yes) | Approximate % of Load |
|---------------------------|-----------------|-----------------------|
| Residential Single Family | <u>X</u>        | <u>30</u>             |
| Residential Multi-Family  | <u>X</u>        | <u>70</u>             |
| Office Buildings          | _____           | _____                 |
| Stores                    | _____           | _____                 |
| Industry                  | _____           | _____                 |
| Hospital                  | _____           | _____                 |
| Other                     | <u>X</u>        | _____                 |

1 dumpster Water Dept.

Weather  
Clear ✓  
Precipitation —  
Temperature 18

Payload Weight  
Gross 61020  
Tare 41300  
Net 19720



CITY OF ALBANY

#5

WASTE CHARACTERIZATION ANALYSIS

WASTE ORIGIN SURVEY FORM  
RAPP ROAD LANDFILL  
FEBRUARY 9-13, 2009

Date: 2/24/09 10:48 am

CHA Staff Name: Sarah Johnston

Hauler: DGS

Truck ID Number: 5874

Truck Type: Rear load packer

Arrival Number: 74

Sampled: Y Not Sampled: \_\_\_\_\_

Waste Origin (municipality(s)): City of Albany

| Waste Type (ask driver)   | (Check for Yes)                     | Approximate % of Load |
|---------------------------|-------------------------------------|-----------------------|
| Residential Single Family | <input checked="" type="checkbox"/> | <u>99</u>             |
| Residential Multi-Family  | <input type="checkbox"/>            | _____                 |
| Office Buildings          | <input type="checkbox"/>            | _____                 |
| Stores                    | <input type="checkbox"/>            | _____                 |
| Industry                  | <input type="checkbox"/>            | _____                 |
| Hospital                  | <input type="checkbox"/>            | _____                 |
| Other                     | <input checked="" type="checkbox"/> | _____                 |

1 dumpster -> City Mission

Weather

Clear ✓  
Precipitation -  
Temperature 18

Payload Weight

Gross 66600  
Tare 41700  
Net 24900

CITY OF ALBANY

#6

WASTE CHARACTERIZATION ANALYSIS

WASTE ORIGIN SURVEY FORM  
RAPP ROAD LANDFILL  
FEBRUARY 9-13, 2009

Date: 2/24/09 1:02 pm  
CHA Staff Name: Sarah Johnston  
Hauler: Allied Waste / BFI  
Truck ID Number: 5194  
Truck Type: Front load packer  
Arrival Number: 106  
Sampled: Y Not Sampled: \_\_\_\_\_  
Waste Origin (municipality(s)): Albany (Everett Rd / Central Ave)

| <u>Waste Type (ask driver)</u> | <u>(Check for Yes)</u> | <u>Approximate % of Load</u> |
|--------------------------------|------------------------|------------------------------|
| Residential Single Family      | _____                  | _____                        |
| Residential Multi-Family       | _____                  | _____                        |
| Office Buildings               | <u>X</u>               | <u>50</u>                    |
| Stores                         | <u>X</u>               | <u>50</u>                    |
| Industry                       | _____                  | _____                        |
| Hospital                       | _____                  | _____                        |
| Other                          | _____                  | _____                        |

Weather

Clear X  
Precipitation -  
Temperature 22

Payload Weight

Gross 58060  
Tare 39120  
Net 18940

#7

CITY OF ALBANY

WASTE CHARACTERIZATION ANALYSIS

WASTE ORIGIN SURVEY FORM  
RAPP ROAD LANDFILL  
FEBRUARY 9-13, 2009

Date: 2/24/09 1:35 pm

CHA Staff Name: Sarah Johnston

Hauler: Albany County

Truck ID Number: 5299

Truck Type: pick up

Arrival Number: 119

Sampled: Y Not Sampled: \_\_\_\_\_

Waste Origin (municipality(s)): Albany County

Highway building, other (roadside)

| Waste Type (ask driver)   | (Check for Yes)     | Approximate % of Load |
|---------------------------|---------------------|-----------------------|
| Residential Single Family | _____               | _____                 |
| Residential Multi-Family  | _____               | _____                 |
| Office Buildings          | <u>X</u>            | <u>95</u>             |
| Stores                    | _____               | _____                 |
| Industry                  | _____               | _____                 |
| Hospital                  | _____               | _____                 |
| Other                     | <u>X along road</u> | <u>10</u>             |

Weather

Clear X  
Precipitation -  
Temperature 24

Payload Weight

Gross 9580  
Tare 8180  
Net 1400

CITY OF ALBANY

#8

WASTE CHARACTERIZATION ANALYSIS

WASTE ORIGIN SURVEY FORM  
RAPP ROAD LANDFILL  
FEBRUARY 9-13, 2009

Date: 2/24/09 2:20 pm

CHA Staff Name: Sarah Johnston

Hauler: Allied

Truck ID Number: 5205

Truck Type: front loader packer

Arrival Number: 130

Sampled: Y Not Sampled: \_\_\_\_\_

Waste Origin (municipality(s)): Guildford (Attament (20 mail))

| Waste Type (ask driver)   | (Check for Yes) | Approximate % of Load |
|---------------------------|-----------------|-----------------------|
| Residential Single Family | _____           | _____                 |
| Residential Multi-Family  | _____           | _____                 |
| Office Buildings          | _____           | _____                 |
| Stores                    | <u>X</u>        | <u>100</u>            |
| Industry                  | _____           | _____                 |
| Hospital                  | _____           | _____                 |
| Other                     | _____           | _____                 |

e.g. Stewarts

Weather

Clear ✓  
Precipitation \_\_\_\_\_  
Temperature 24

Payload Weight

Gross 52580  
Tare 39500  
Net 13080

CITY OF ALBANY  
 WASTE CHARACTERIZATION ANALYSIS  
 WASTE ORIGIN SURVEY FORM  
 RAPP ROAD LANDFILL  
 FEBRUARY 9-13, 2009

NOT  
SAMPLED

Date: 2/24/09 9:00 am  
 CHA Staff Name: Sarah Johnston  
 Hauler: Allied Waste  
 Truck ID Number: 5351  
 Truck Type: Roll off  
 Arrival Number: 36  
 Sampled: \_\_\_\_\_ Not Sampled: X  
 Waste Origin (municipality(s)): Clifton Park

| <u>Waste Type (ask driver)</u> | <u>(Check for Yes)</u> | <u>Approximate % of Load</u> |
|--------------------------------|------------------------|------------------------------|
| Residential Single Family      | _____                  | _____                        |
| Residential Multi-Family       | _____                  | _____                        |
| Office Buildings               | _____                  | _____                        |
| Stores                         | _____                  | _____                        |
| Industry                       | _____                  | _____                        |
| Hospital                       | _____                  | _____                        |
| Other                          | _____                  | _____                        |

Weather

Clear ✓  
 Precipitation -  
 Temperature 18

Payload Weight

Gross \_\_\_\_\_  
 Tare \_\_\_\_\_  
 Net \_\_\_\_\_

**CITY OF ALBANY**  
**WASTE CHARACTERIZATION ANALYSIS**  
**WASTE ORIGIN SURVEY FORM**  
**RAPP ROAD LANDFILL**  
**FEBRUARY 9-13, 2009**

Not  
Sampled

Date: 2/24/09  
 CHA Staff Name: Sarah Johnston  
 Hauler: Allied Waste  
 Truck ID Number: 5154  
 Truck Type: Roll off  
 Arrival Number: \_\_\_\_\_  
 Sampled: \_\_\_\_\_ Not Sampled:   
 Waste Origin (municipality(s)): Wyantskill

| <u>Waste Type (ask driver)</u> | <u>(Check for Yes)</u> | <u>Approximate % of Load</u> |
|--------------------------------|------------------------|------------------------------|
| Residential Single Family      | _____                  | _____                        |
| Residential Multi-Family       | _____                  | _____                        |
| Office Buildings               | _____                  | _____                        |
| Stores                         | _____                  | _____                        |
| Industry                       | _____                  | _____                        |
| Hospital                       | _____                  | _____                        |
| Other                          | _____                  | _____                        |

Weather

Clear   
 Precipitation   
 Temperature 20

Payload Weight

Gross \_\_\_\_\_  
 Tare \_\_\_\_\_  
 Net \_\_\_\_\_

**CITY OF ALBANY**  
**WASTE CHARACTERIZATION ANALYSIS**  
**WASTE ORIGIN SURVEY FORM**  
**RAPP ROAD LANDFILL**  
**FEBRUARY 9-13, 2009**

Not  
Sampled

Date: 2/24/09  
 CHA Staff Name: Sarah Johnston  
 Hauler: County Waste  
 Truck ID Number: 5242  
 Truck Type: \_\_\_\_\_  
 Arrival Number: 91  
 Sampled: \_\_\_\_\_ Not Sampled: N  
 Waste Origin (municipality(s)): Rotterdam

| <u>Waste Type (ask driver)</u> | <u>(Check for Yes)</u> | <u>Approximate % of Load</u> |
|--------------------------------|------------------------|------------------------------|
| Residential Single Family      | _____                  | _____                        |
| Residential Multi-Family       | _____                  | _____                        |
| Office Buildings               | _____                  | _____                        |
| Stores                         | _____                  | _____                        |
| Industry                       | _____                  | _____                        |
| Hospital                       | _____                  | _____                        |
| Other                          | _____                  | _____                        |

Weather

Clear ✓  
 Precipitation ✓  
 Temperature 20

Payload Weight

Gross \_\_\_\_\_  
 Tare \_\_\_\_\_  
 Net \_\_\_\_\_

CITY OF ALBANY

WASTE CHARACTERIZATION ANALYSIS

#1

WASTE ORIGIN SURVEY FORM  
RAPP ROAD LANDFILL  
FEBRUARY 9-13, 2009

Date: 2/25/09 7:02 am  
CHA Staff Name: Sarah Johnston  
Hauler: DGS  
Truck ID Number: 5349  
Truck Type: Rear load packer  
Arrival Number: 1  
Sampled: Y Not Sampled: \_\_\_\_\_  
Waste Origin (municipality(s)): Albany

| Waste Type (ask driver)   | (Check for Yes) | Approximate % of Load |
|---------------------------|-----------------|-----------------------|
| Residential Single Family | <u>X</u>        | <u>80</u>             |
| Residential Multi-Family  | <u>X</u>        | <u>20</u>             |
| Office Buildings          | _____           | _____                 |
| Stores                    | _____           | _____                 |
| Industry                  | _____           | _____                 |
| Hospital                  | _____           | _____                 |
| Other                     | _____           | _____                 |

Weather

Clear ✓  
Precipitation \_\_\_\_\_  
Temperature 21

Payload Weight

Gross 62160  
Tare 41200  
Net 20960



CITY OF ALBANY

WASTE CHARACTERIZATION ANALYSIS

#2

WASTE ORIGIN SURVEY FORM  
RAPP ROAD LANDFILL  
FEBRUARY 9-13, 2009

Date: 2/25/09

CHA Staff Name: Sarah Johnston

Hauler: City of Rensselaer 7:50 am

Truck ID Number: 5358/5361

Truck Type: Rear Load

Arrival Number: 9

Sampled: Y Not Sampled: \_\_\_\_\_

Waste Origin (municipality(s)): City of Rensselaer

| Waste Type (ask driver)   | (Check for Yes) | Approximate % of Load |
|---------------------------|-----------------|-----------------------|
| Residential Single Family | <u>X</u>        | <u>60</u>             |
| Residential Multi-Family  | <u>X</u>        | <u>40 (39)</u>        |
| Office Buildings          | _____           | _____                 |
| Stores                    | _____           | _____                 |
| Industry                  | _____           | _____                 |
| Hospital                  | _____           | _____                 |
| Other                     | <u>X</u>        | <u>1</u>              |

City Hall

Weather

Clear ✓

Precipitation \_\_\_\_\_

Temperature 21

Payload Weight

Gross 56580

Tare 37780

Net 18800

**CITY OF ALBANY**  
**WASTE CHARACTERIZATION ANALYSIS**

#3

**WASTE ORIGIN SURVEY FORM**  
**RAPP ROAD LANDFILL**  
**FEBRUARY 9-13, 2009**

Date: 2/25/09 8:34 am  
 CHA Staff Name: Sarah Johnston  
 Hauler: Waste Management  
 Truck ID Number: 4914  
 Truck Type: Roll off  
 Arrival Number: 17  
 Sampled: Y Not Sampled: \_\_\_\_\_  
 Waste Origin (municipality(s)): St. Peters Albany

| <u>Waste Type (ask driver)</u> | <u>(Check for Yes)</u> | <u>Approximate % of Load</u> |
|--------------------------------|------------------------|------------------------------|
| Residential Single Family      | _____                  | _____                        |
| Residential Multi-Family       | _____                  | _____                        |
| Office Buildings               | _____                  | _____                        |
| Stores                         | _____                  | _____                        |
| Industry                       | _____                  | _____                        |
| Hospital                       | <u>X</u>               | <u>100</u>                   |
| Other                          | _____                  | _____                        |

Weather

Clear ✓  
 Precipitation \_\_\_\_\_  
 Temperature 21

Payload Weight

Gross 58200  
 Tare 40700  
 Net 17500

CITY OF ALBANY

WASTE CHARACTERIZATION ANALYSIS

(#4)

WASTE ORIGIN SURVEY FORM  
RAPP ROAD LANDFILL  
FEBRUARY 9-13, 2009

Date: 2/25/09 9:55 am

CHA Staff Name: Sarah Johnston

Hauler: Waste Management

Truck ID Number: 35195

Truck Type: Roll off

Arrival Number: 34

Sampled: Y Not Sampled: \_\_\_\_\_

Waste Origin (municipality(s)): Crossgates Commons (Alb)

| Waste Type (ask driver)   | (Check for Yes) | Approximate % of Load |
|---------------------------|-----------------|-----------------------|
| Residential Single Family | _____           | _____                 |
| Residential Multi-Family  | _____           | _____                 |
| Office Buildings          | _____           | _____                 |
| Stores                    | <u>X</u>        | <u>100</u>            |
| Industry                  | _____           | _____                 |
| Hospital                  | _____           | _____                 |
| Other                     | _____           | _____                 |

Weather

Clear ✓

Precipitation \_\_\_\_\_

Temperature 22

Payload Weight

Gross 47040

Tare 40860

Net 6180

CITY OF ALBANY

#15

WASTE CHARACTERIZATION ANALYSIS

WASTE ORIGIN SURVEY FORM  
RAPP ROAD LANDFILL  
FEBRUARY 9-13, 2009

Date: 2/25/08 10:52 am  
 CHA Staff Name: Sarah Johnston  
 Hauler: Accurate  
 Truck ID Number: 5442  
 Truck Type: Packer (side arm)  
 Arrival Number: 50  
 Sampled: Y Not Sampled: \_\_\_\_\_  
 Waste Origin (municipality(s)): Guilderland

| Waste Type (ask driver)   | (Check for Yes) | Approximate % of Load |
|---------------------------|-----------------|-----------------------|
| Residential Single Family | <u>X</u>        | <u>95</u>             |
| Residential Multi-Family  | <u>X</u>        | <u>5</u>              |
| Office Buildings          | _____           | _____                 |
| Stores                    | _____           | _____                 |
| Industry                  | _____           | _____                 |
| Hospital                  | _____           | _____                 |
| Other                     | _____           | _____                 |

Weather

Clear ✓  
 Precipitation -  
 Temperature 22

Payload Weight

Gross 56600  
 Tare 36340  
 Net 20260

#6

CITY OF ALBANY

WASTE CHARACTERIZATION ANALYSIS

WASTE ORIGIN SURVEY FORM  
RAPP ROAD LANDFILL  
FEBRUARY 9-13, 2009

Date: 2/25/09 11:54 am

CHA Staff Name: Sarah Johnston

Hauler: Green Island Public Works

Truck ID Number: 5365

Truck Type: Rear load packer

Arrival Number: 68

Sampled: Y Not Sampled: \_\_\_\_\_

Waste Origin (municipality(s)): Green Island

| Waste Type (ask driver)   | (Check for Yes) | Approximate % of Load |
|---------------------------|-----------------|-----------------------|
| Residential Single Family | <u>+</u>        | <u>30</u>             |
| Residential Multi-Family  | <u>+</u>        | <u>70</u>             |
| Office Buildings          | <u>x</u>        | _____                 |
| Stores                    | _____           | _____                 |
| Industry                  | _____           | _____                 |
| Hospital                  | _____           | _____                 |
| Other                     | <u>+</u>        | _____                 |

*firehouse, police, village office*

Weather

Clear X

Precipitation \_\_\_\_\_

Temperature 28

Payload Weight

Gross 52420

Tare 39970

Net 12440

CITY OF ALBANY

#7

WASTE CHARACTERIZATION ANALYSIS

WASTE ORIGIN SURVEY FORM  
RAPP ROAD LANDFILL  
FEBRUARY 9-13, 2009

Date: 2/25/09

CHA Staff Name: Sarah Johnston

Hauler: Town of Knox Highway Dept.

Truck ID Number: 5339

Truck Type: trailer open box

Arrival Number: 82

Sampled: Y Not Sampled: \_\_\_\_\_

Waste Origin (municipality(s)): Town of Knox Transfer

| Waste Type (ask driver)   | (Check for Yes) | Approximate % of Load |
|---------------------------|-----------------|-----------------------|
| Residential Single Family | _____           | _____                 |
| Residential Multi-Family  | _____           | _____                 |
| Office Buildings          | _____           | _____                 |
| Stores                    | _____           | _____                 |
| Industry                  | _____           | _____                 |
| Hospital                  | _____           | _____                 |
| Other                     | <u>X</u>        | <u>100</u>            |

transfer station

Weather

Clear X  
Precipitation \_\_\_\_\_  
Temperature 30

Payload Weight

Gross 33880  
Tare 31460  
Net 2420

#8

CITY OF ALBANY

WASTE CHARACTERIZATION ANALYSIS

WASTE ORIGIN SURVEY FORM  
RAPP ROAD LANDFILL  
FEBRUARY 9-13, 2009

Date: 2/25/09 2:25 pm

CHA Staff Name: Sarah Johnston

Hauler: Waste Management

Truck ID Number: 5157

Truck Type: Roll off

Arrival Number: 93

Sampled: Y Not Sampled: \_\_\_\_\_

Waste Origin (municipality(s)): Empire State Plaza / Port of Albany

| <u>Waste Type (ask driver)</u> | <u>(Check for Yes)</u> | <u>Approximate % of Load</u> |
|--------------------------------|------------------------|------------------------------|
| Residential Single Family      | _____                  | _____                        |
| Residential Multi-Family       | _____                  | _____                        |
| Office Buildings               | <u>X</u>               | <u>100</u>                   |
| Stores                         | _____                  | _____                        |
| Industry                       | _____                  | _____                        |
| Hospital                       | _____                  | _____                        |
| Other                          | _____                  | _____                        |

Weather

|               |           |
|---------------|-----------|
| Clear         | <u>X</u>  |
| Precipitation | <u>-</u>  |
| Temperature   | <u>32</u> |

Payload Weight

|       |              |
|-------|--------------|
| Gross | <u>61340</u> |
| Tare  | <u>41300</u> |
| Net   | <u>20040</u> |

**CITY OF ALBANY**  
**WASTE CHARACTERIZATION ANALYSIS**

Not  
Sampled

**WASTE ORIGIN SURVEY FORM**  
**RAPP ROAD LANDFILL**  
**FEBRUARY 9-13, 2009**

Date: 2/25/09 Time: 10:50  
 CHA Staff Name: Sarah Johnston  
 Hauler: Allied Waste  
 Truck ID Number: 5373  
 Truck Type: Roll off  
 Arrival Number: 49  
 Sampled: \_\_\_\_\_ Not Sampled: X  
 Waste Origin (municipality(s)): Colore

| <u>Waste Type (ask driver)</u> | <u>(Check for Yes)</u> | <u>Approximate % of Load</u> |
|--------------------------------|------------------------|------------------------------|
| Residential Single Family      | _____                  | _____                        |
| Residential Multi-Family       | _____                  | _____                        |
| Office Buildings               | _____                  | _____                        |
| Stores                         | _____                  | _____                        |
| Industry                       | _____                  | _____                        |
| Hospital                       | _____                  | _____                        |
| Other                          | _____                  | _____                        |

Weather

Clear ✓  
 Precipitation \_\_\_\_\_  
 Temperature 22

Payload Weight

Gross \_\_\_\_\_  
 Tare \_\_\_\_\_  
 Net \_\_\_\_\_



**CITY OF ALBANY**  
**WASTE CHARACTERIZATION ANALYSIS**  
**WASTE ORIGIN SURVEY FORM**  
**RAPP ROAD LANDFILL**  
**FEBRUARY 9-13, 2009**

Not  
Sampled

Date: 2/25/09  
 CHA Staff Name: Sarah Johnston  
 Hauler: County Waste  
 Truck ID Number: 5416  
 Truck Type: Packer  
 Arrival Number: 62  
 Sampled: \_\_\_\_\_ Not Sampled: \_\_\_\_\_  
 Waste Origin (municipality(s)): Kenns. County outside of unit

| <u>Waste Type (ask driver)</u> | <u>(Check for Yes)</u> | <u>Approximate % of Load</u> |
|--------------------------------|------------------------|------------------------------|
| Residential Single Family      | _____                  | _____                        |
| Residential Multi-Family       | _____                  | _____                        |
| Office Buildings               | _____                  | _____                        |
| Stores                         | _____                  | _____                        |
| Industry                       | _____                  | _____                        |
| Hospital                       | _____                  | _____                        |
| Other                          | _____                  | _____                        |

Weather

Clear  \_\_\_\_\_  
 Precipitation \_\_\_\_\_  
 Temperature \_\_\_\_\_

Payload Weight

Gross \_\_\_\_\_  
 Tare \_\_\_\_\_  
 Net \_\_\_\_\_

CITY OF ALBANY  
WASTE CHARACTERIZATION ANALYSIS

Not  
Sampled

WASTE ORIGIN SURVEY FORM  
RAPP ROAD LANDFILL  
FEBRUARY 9-13, 2009

Date: 2/25/09 time: 11:50  
CHA Staff Name: Sarah Johnston  
Hauler: Allied Waste  
Truck ID Number: 5351  
Truck Type: Front load packer  
Arrival Number: 66  
Sampled: \_\_\_\_\_ Not Sampled: X  
Waste Origin (municipality(s)): Colonie

| <u>Waste Type (ask driver)</u> | <u>(Check for Yes)</u> | <u>Approximate % of Load</u> |
|--------------------------------|------------------------|------------------------------|
| Residential Single Family      | _____                  | _____                        |
| Residential Multi-Family       | _____                  | _____                        |
| Office Buildings               | _____                  | _____                        |
| Stores                         | _____                  | _____                        |
| Industry                       | _____                  | _____                        |
| Hospital                       | _____                  | _____                        |
| Other                          | _____                  | _____                        |

Weather

Clear \_\_\_\_\_  
Precipitation \_\_\_\_\_  
Temperature \_\_\_\_\_

Payload Weight

Gross \_\_\_\_\_  
Tare \_\_\_\_\_  
Net \_\_\_\_\_

CITY OF ALBANY

WASTE CHARACTERIZATION ANALYSIS

Not sampled

WASTE ORIGIN SURVEY FORM  
RAPP ROAD LANDFILL  
FEBRUARY 9-13, 2009

Date: 2/25/09 Time: \_\_\_\_\_

CHA Staff Name: Sarah Johnston

Hauler: County Waste

Truck ID Number: \_\_\_\_\_

Truck Type: Front loading packer

Arrival Number: \_\_\_\_\_

Sampled: \_\_\_\_\_ Not Sampled: \_\_\_\_\_

Waste Origin (municipality(s)): Albany Colonie

| <u>Waste Type (ask driver)</u> | <u>(Check for Yes)</u> | <u>Approximate % of Load</u> |
|--------------------------------|------------------------|------------------------------|
| Residential Single Family      | _____                  | _____                        |
| Residential Multi-Family       | _____                  | _____                        |
| Office Buildings               | _____                  | _____                        |
| Stores                         | <u>x</u>               | _____                        |
| Industry                       | <u>x</u>               | _____                        |
| Hospital                       | _____                  | _____                        |
| Other                          | _____                  | _____                        |

Weather

Clear x  
Precipitation \_\_\_\_\_  
Temperature 39

Payload Weight

Gross \_\_\_\_\_  
Tare \_\_\_\_\_  
Net \_\_\_\_\_

#1

CITY OF ALBANY

WASTE CHARACTERIZATION ANALYSIS

WASTE ORIGIN SURVEY FORM  
RAPP ROAD LANDFILL  
FEBRUARY 9-13, 2009

Date: 2/26/09

CHA Staff Name: Sarah Johnston

Hauler: Waste Management

Truck ID Number: 5402

Truck Type: front loading packer

Arrival Number: 3

Sampled: Y Not Sampled: \_\_\_\_\_

Waste Origin (municipality(s)): Albany (Everett Rd Wash Ave Ext.)

| <u>Waste Type (ask driver)</u> | <u>(Check for Yes)</u> | <u>Approximate % of Load</u> |
|--------------------------------|------------------------|------------------------------|
| Residential Single Family      | _____                  | _____                        |
| Residential Multi-Family       | _____                  | _____                        |
| Office Buildings               | <u>+</u>               | <u>30 40</u>                 |
| Stores                         | <u>+</u>               | <u>30</u>                    |
| Industry                       | <u>+</u>               | <u>25</u>                    |
| Hospital                       | <u>x</u>               | <u>5</u>                     |
| Other                          | _____                  | _____                        |

Weather

Clear \_\_\_\_\_

Precipitation Freezing rain

Temperature 32

Payload Weight

Gross 63920

Tare 43680

Net 20240

#2

CITY OF ALBANY

WASTE CHARACTERIZATION ANALYSIS

WASTE ORIGIN SURVEY FORM  
RAPP ROAD LANDFILL  
FEBRUARY 9-13, 2009

Date: 2/26/09 Time: 8:22 am

CHA Staff Name: Sarah Johnston

Hauler: Town of Guilderland

Truck ID Number: 4769

Truck Type: open box (dumpster)

Arrival Number: 13

Sampled: Y Not Sampled: \_\_\_\_\_

Waste Origin (municipality(s)): Town of Guilderland Transfer station

| <u>Waste Type (ask driver)</u> | <u>(Check for Yes)</u> | <u>Approximate % of Load</u> |
|--------------------------------|------------------------|------------------------------|
| Residential Single Family      | _____                  | _____                        |
| Residential Multi-Family       | _____                  | _____                        |
| Office Buildings               | _____                  | _____                        |
| Stores                         | _____                  | _____                        |
| Industry                       | _____                  | _____                        |
| Hospital                       | _____                  | _____                        |
| Other                          | <u>X</u>               | <u>100</u>                   |

transfer

Weather

Clear \_\_\_\_\_  
Precipitation light rain  
Temperature 33

Payload Weight

Gross 50160  
Tare 36660  
Net 13500

CITY OF ALBANY

#3

WASTE CHARACTERIZATION ANALYSIS

WASTE ORIGIN SURVEY FORM  
RAPP ROAD LANDFILL  
FEBRUARY 9-13, 2009

Date: 8/26/09 Time: 8:57

CHA Staff Name: Sarah Johnston

Hauler: Salvation Army

Truck ID Number: 5191

Truck Type: open dumpster

Arrival Number: 22

Sampled: Y Not Sampled: \_\_\_\_\_

Waste Origin (municipality(s)): Salvation Army Clinton Ave, Alb

| <u>Waste Type (ask driver)</u> | <u>(Check for Yes)</u> | <u>Approximate % of Load</u> |
|--------------------------------|------------------------|------------------------------|
| Residential Single Family      | _____                  | _____                        |
| Residential Multi-Family       | _____                  | _____                        |
| Office Buildings               | _____                  | _____                        |
| Stores                         | <u>X</u>               | <u>100</u>                   |
| Industry                       | _____                  | _____                        |
| Hospital                       | _____                  | _____                        |
| Other                          | _____                  | _____                        |

Weather

Clear overcast  
Precipitation -  
Temperature 34

Payload Weight

Gross 25660  
Tare 18760  
Net 6900

#4

CITY OF ALBANY

WASTE CHARACTERIZATION ANALYSIS

WASTE ORIGIN SURVEY FORM  
RAPP ROAD LANDFILL  
FEBRUARY 9-13, 2009

Date: 2/26/09 Time: 9:45

CHA Staff Name: Sarah Johnston

Hauler: Town of Rensselaerville

Truck ID Number: 4072

Truck Type: Roll off

Arrival Number: 39

Sampled: Y Not Sampled: \_\_\_\_\_

Waste Origin (municipality(s)): Town of Rensselaerville transfer station

| <u>Waste Type (ask driver)</u> | <u>(Check for Yes)</u> | <u>Approximate % of Load</u> |
|--------------------------------|------------------------|------------------------------|
| Residential Single Family      | _____                  | _____                        |
| Residential Multi-Family       | _____                  | _____                        |
| Office Buildings               | _____                  | _____                        |
| Stores                         | _____                  | _____                        |
| Industry                       | _____                  | _____                        |
| Hospital                       | _____                  | _____                        |
| Other                          | <u>X</u>               | _____                        |

transfer

Weather

Clear overcast  
 Precipitation none  
 Temperature 35

Payload Weight

Gross 42600  
 Tare 35660  
 Net 6940

#5

CITY OF ALBANY  
WASTE CHARACTERIZATION ANALYSIS

WASTE ORIGIN SURVEY FORM  
RAPP ROAD LANDFILL  
FEBRUARY 9-13, 2009

Date: 2/26/09 Time: 10:53 am  
CHA Staff Name: Sarah Johnston  
Hauler: 48 U. Albany  
Truck ID Number: 4754  
Truck Type: rear load packer  
Arrival Number: 61  
Sampled: Y Not Sampled: \_\_\_\_\_  
Waste Origin (municipality(s)): Albany (SUNY)

| Waste Type (ask driver)               | (Check for Yes) | Approximate % of Load |
|---------------------------------------|-----------------|-----------------------|
| Residential Single Family             | _____           | _____                 |
| Residential Multi-Family              | _____           | _____                 |
| Office Buildings (academic buildings) | <u>X</u>        | <u>50</u>             |
| Stores                                | _____           | _____                 |
| Industry                              | _____           | _____                 |
| Hospital                              | _____           | _____                 |
| Other                                 | <u>X</u>        | <u>50</u>             |

Residential → dorms

Weather

Clear overcast  
Precipitation none  
Temperature 37

Payload Weight

Gross 39960  
Tare 31380  
Net 8580



CITY OF ALBANY  
WASTE CHARACTERIZATION ANALYSIS

WASTE ORIGIN SURVEY FORM  
RAPP ROAD LANDFILL  
FEBRUARY 9-13, 2009

Date: 2/26/09 Time: 11:20  
CHA Staff Name: Sarah  
Hauler: DGS  
Truck ID Number: 5240  
Truck Type: Rear load packer  
Arrival Number: 71  
Sampled: Y Not Sampled: \_\_\_\_\_  
Waste Origin (municipality(s)): Albany (Western Ave)

| Waste Type (ask driver)   | (Check for Yes) | Approximate % of Load |
|---------------------------|-----------------|-----------------------|
| Residential Single Family | <u>+</u>        | <u>80</u>             |
| Residential Multi-Family  | <u>+</u>        | <u>20</u>             |
| Office Buildings          | _____           | _____                 |
| Stores                    | _____           | _____                 |
| Industry                  | _____           | _____                 |
| Hospital                  | _____           | _____                 |
| Other                     | _____           | _____                 |

Weather

Clear ✓  
Precipitation none  
Temperature 38

Payload Weight

Gross 56340  
Tare 37500  
Net 18840

#7

CITY OF ALBANY

WASTE CHARACTERIZATION ANALYSIS

WASTE ORIGIN SURVEY FORM  
RAPP ROAD LANDFILL  
FEBRUARY 9-13, 2009

Date: 2/26/09 Time: 1:55

CHA Staff Name: S. Johnston

Hauler: County Waste

Truck ID Number: 5406

Truck Type: front loading packer

Arrival Number: 107

Sampled: Y Not Sampled: \_\_\_\_\_

Waste Origin (municipality(s)): Bethlehem, also Glenmont/Delmar area

| Waste Type (ask driver)   | (Check for Yes) | Approximate % of Load |
|---------------------------|-----------------|-----------------------|
| Residential Single Family | <u>X</u>        | <u>40</u>             |
| Residential Multi-Family  | <u>X</u>        | <u>30</u>             |
| Office Buildings          | <u>X</u>        | <u>30</u>             |
| Stores                    | _____           | _____                 |
| Industry                  | _____           | _____                 |
| Hospital                  | _____           | _____                 |
| Other                     | _____           | _____                 |

Weather

Clear ✓

Precipitation None

Temperature 42

Driver said he picked up  
in a lot of different places,  
everything but hospital, single  
family.

Payload Weight

Gross 52720

Tare 37860

Net 14860

# 8

CITY OF ALBANY

WASTE CHARACTERIZATION ANALYSIS

WASTE ORIGIN SURVEY FORM  
RAPP ROAD LANDFILL  
FEBRUARY 9-13, 2009

Date: 2/29/09 2:25 pm

CHA Staff Name: S. Johnston

Hauler: Waste Management

Truck ID Number: 4914

Truck Type: Roll off

Arrival Number: 111

Sampled: Y Not Sampled: \_\_\_\_\_

Waste Origin (municipality(s)): Albany. (Albany Molecular)

| Waste Type (ask driver)   | (Check for Yes)                     | Approximate % of Load |
|---------------------------|-------------------------------------|-----------------------|
| Residential Single Family | _____                               | _____                 |
| Residential Multi-Family  | _____                               | _____                 |
| Office Buildings          | <input checked="" type="checkbox"/> | <del>100</del>        |
| Stores                    | _____                               | _____                 |
| Industry                  | <input checked="" type="checkbox"/> | 100                   |
| Hospital                  | _____                               | _____                 |
| Other                     | _____                               | _____                 |

Weather

Clear ✓

Precipitation none

Temperature 43

Payload Weight

Gross 45520

Tare 40000

Net 5520

**CITY OF ALBANY**  
**WASTE CHARACTERIZATION ANALYSIS**

*Not Sampled*

**WASTE ORIGIN SURVEY FORM**  
**RAPP ROAD LANDFILL**  
**FEBRUARY 9-13, 2009**

Date: 2/26/09  
 CHA Staff Name: Sarah Johnston  
 Hauler: Allied Waste  
 Truck ID Number: 5331  
 Truck Type: Packer  
 Arrival Number: 2  
 Sampled: \_\_\_\_\_ Not Sampled: \_\_\_\_\_  
 Waste Origin (municipality(s)): Iatham

| <u>Waste Type (ask driver)</u> | <u>(Check for Yes)</u> | <u>Approximate % of Load</u> |
|--------------------------------|------------------------|------------------------------|
| Residential Single Family      | _____                  | _____                        |
| Residential Multi-Family       | _____                  | _____                        |
| Office Buildings               | _____                  | _____                        |
| Stores                         | _____                  | _____                        |
| Industry                       | _____                  | _____                        |
| Hospital                       | _____                  | _____                        |
| Other                          | _____                  | _____                        |

Weather

Clear \_\_\_\_\_  
 Precipitation Freezing rain  
 Temperature 32

Payload Weight

Gross \_\_\_\_\_  
 Tare \_\_\_\_\_  
 Net \_\_\_\_\_

CITY OF ALBANY  
WASTE CHARACTERIZATION ANALYSIS

Not Sampled

WASTE ORIGIN SURVEY FORM  
RAPP ROAD LANDFILL  
FEBRUARY 9-13, 2009

Date: 2/26/09  
CHA Staff Name: Sarah Johnston  
Hauler: Allied  
Truck ID Number: 5194  
Truck Type: \_\_\_\_\_  
Arrival Number: \_\_\_\_\_  
Sampled: \_\_\_\_\_ Not Sampled: \_\_\_\_\_  
Waste Origin (municipality(s)): City of Albany Fuller Rd / Railroad

| <u>Waste Type (ask driver)</u> | <u>(Check for Yes)</u> | <u>Approximate % of Load</u> |
|--------------------------------|------------------------|------------------------------|
| Residential Single Family      | _____                  | _____                        |
| Residential Multi-Family       | _____                  | _____                        |
| Office Buildings               | _____                  | _____                        |
| Stores                         | _____                  | _____                        |
| Industry                       | _____                  | _____                        |
| Hospital                       | _____                  | _____                        |
| Other                          | _____                  | _____                        |

Weather  
Clear \_\_\_\_\_  
Precipitation \_\_\_\_\_  
Temperature \_\_\_\_\_

Payload Weight  
Gross \_\_\_\_\_  
Tare \_\_\_\_\_  
Net \_\_\_\_\_

CITY OF ALBANY

WASTE CHARACTERIZATION ANALYSIS

Not Sampled

WASTE ORIGIN SURVEY FORM

RAPP ROAD LANDFILL

FEBRUARY 9-13, 2009

Date: 2/26/09

CHA Staff Name: Sarah Johnston

Hauler: Allied

Truck ID Number: 5154

Truck Type: Roll off

Arrival Number: \_\_\_\_\_

Sampled: \_\_\_\_\_ Not Sampled:

Waste Origin (municipality(s)): North Greenbush

Waste Type (ask driver)

(Check for Yes)

Approximate % of Load

|                           |       |       |
|---------------------------|-------|-------|
| Residential Single Family | _____ | _____ |
| Residential Multi-Family  | _____ | _____ |
| Office Buildings          | _____ | _____ |
| Stores                    | _____ | _____ |
| Industry                  | _____ | _____ |
| Hospital                  | _____ | _____ |
| Other                     | _____ | _____ |

Weather

Clear ✓

Precipitation none

Temperature 40

Payload Weight

Gross \_\_\_\_\_

Tare \_\_\_\_\_

Net \_\_\_\_\_

CITY OF ALBANY  
 WASTE CHARACTERIZATION ANALYSIS  
 WASTE ORIGIN SURVEY FORM  
 RAPP ROAD LANDFILL  
 FEBRUARY 9-13, 2009

Not  
Sampled

Date: 2/26/09 Time: 1:18 pm  
 CHA Staff Name: Sarah Johnston  
 Hauler: Albany County Waste  
 Truck ID Number: 5245  
 Truck Type: Roll off  
 Arrival Number: \_\_\_\_\_  
 Sampled: \_\_\_\_\_ Not Sampled: \_\_\_\_\_  
 Waste Origin (municipality(s)): Schenectady  
 \_\_\_\_\_  
 \_\_\_\_\_

| <u>Waste Type (ask driver)</u> | <u>(Check for Yes)</u> | <u>Approximate % of Load</u> |
|--------------------------------|------------------------|------------------------------|
| Residential Single Family      | _____                  | _____                        |
| Residential Multi-Family       | _____                  | _____                        |
| Office Buildings               | _____                  | _____                        |
| Stores                         | _____                  | _____                        |
| Industry                       | _____                  | _____                        |
| Hospital                       | _____                  | _____                        |
| Other                          | _____                  | _____                        |

Weather

Clear ✓  
 Precipitation none  
 Temperature 40

Payload Weight

Gross \_\_\_\_\_  
 Tare \_\_\_\_\_  
 Net \_\_\_\_\_

CITY OF ALBANY  
 WASTE CHARACTERIZATION ANALYSIS  
 WASTE ORIGIN SURVEY FORM  
 RAPP ROAD LANDFILL  
 FEBRUARY 9-13, 2009

(Not Sampled)\*

Date: 2/26/09 Time: 1:23 pm  
 CHA Staff Name: Sarah Johnston  
 Hauler: Allied waste  
 Truck ID Number: 5331  
 Truck Type: Front loading packer  
 Arrival Number: 103  
 Sampled: \_\_\_\_\_ Not Sampled: \_\_\_\_\_  
 Waste Origin (municipality(s)): Colore (central Ar)

| <u>Waste Type (ask driver)</u> | <u>(Check for Yes)</u> | <u>Approximate % of Load</u> |
|--------------------------------|------------------------|------------------------------|
| Residential Single Family      | _____                  | _____                        |
| Residential Multi-Family       | _____                  | _____                        |
| Office Buildings               | _____                  | _____                        |
| Stores                         | _____                  | _____                        |
| Industry                       | _____                  | _____                        |
| Hospital                       | _____                  | _____                        |
| Other                          | _____                  | _____                        |

Weather

Clear x  
 Precipitation none  
 Temperature 40

Payload Weight

Gross \_\_\_\_\_  
 Tare \_\_\_\_\_  
 Net \_\_\_\_\_



**CITY OF ALBANY**  
**WASTE CHARACTERIZATION ANALYSIS**  
**WASTE ORIGIN SURVEY FORM**  
**RAPP ROAD LANDFILL**  
**FEBRUARY 9-13, 2009**

(Not sampled)

Date: 2/26/09 Time: \_\_\_\_\_  
 CHA Staff Name: Sarah Johnston  
 Hauler: Allied  
 Truck ID Number: 5373  
 Truck Type: \_\_\_\_\_  
 Arrival Number: 104  
 Sampled: \_\_\_\_\_ Not Sampled: \_\_\_\_\_  
 Waste Origin (municipality(s)): Colonie (Newkern/Central)

| <u>Waste Type (ask driver)</u> | <u>(Check for Yes)</u> | <u>Approximate % of Load</u> |
|--------------------------------|------------------------|------------------------------|
| Residential Single Family      | _____                  | _____                        |
| Residential Multi-Family       | _____                  | _____                        |
| Office Buildings               | _____                  | _____                        |
| Stores                         | _____                  | _____                        |
| Industry                       | _____                  | _____                        |
| Hospital                       | _____                  | _____                        |
| Other                          | _____                  | _____                        |

Weather

Clear \_\_\_\_\_  
 Precipitation \_\_\_\_\_  
 Temperature 40

Payload Weight

Gross \_\_\_\_\_  
 Tare \_\_\_\_\_  
 Net \_\_\_\_\_

**CITY OF ALBANY**  
**WASTE CHARACTERIZATION ANALYSIS**  
**WASTE ORIGIN SURVEY FORM**  
**RAPP ROAD LANDFILL**  
**FEBRUARY 9-13, 2009**

(Not Sampled)

Date: 2/26/09 Time: 1:32  
 CHA Staff Name: S. Johnston  
 Hauler: Allied Waste  
 Truck ID Number: 5194  
 Truck Type: Front-loading Packer  
 Arrival Number: \_\_\_\_\_  
 Sampled: \_\_\_\_\_ Not Sampled: \_\_\_\_\_  
 Waste Origin (municipality(s)): Canton (Railroad)

| <u>Waste Type (ask driver)</u> | <u>(Check for Yes)</u> | <u>Approximate % of Load</u> |
|--------------------------------|------------------------|------------------------------|
| Residential Single Family      | _____                  | _____                        |
| Residential Multi-Family       | _____                  | _____                        |
| Office Buildings               | _____                  | _____                        |
| Stores                         | _____                  | _____                        |
| Industry                       | _____                  | _____                        |
| Hospital                       | _____                  | _____                        |
| Other                          | _____                  | _____                        |

Weather

Clear \_\_\_\_\_  
 Precipitation none  
 Temperature 42

Payload Weight

Gross \_\_\_\_\_  
 Tare \_\_\_\_\_  
 Net \_\_\_\_\_

CITY OF ALBANY

#1

WASTE CHARACTERIZATION ANALYSIS

WASTE ORIGIN SURVEY FORM  
RAPP ROAD LANDFILL  
FEBRUARY 9-13, 2009

Date: 2/27/09 7:01

CHA Staff Name: Sarah Johnston

Hauler: DGS

Truck ID Number: 5328

Truck Type: rear loading packer

Arrival Number: 1

Sampled: Y Not Sampled: \_\_\_\_\_

Waste Origin (municipality(s)): Albany (Washington & Western)

| Waste Type (ask driver)   | (Check for Yes) | Approximate % of Load |
|---------------------------|-----------------|-----------------------|
| Residential Single Family | <u>X</u>        | <u>20</u>             |
| Residential Multi-Family  | <u>X</u>        | <u>80</u>             |
| Office Buildings          | _____           | _____                 |
| Stores                    | _____           | _____                 |
| Industry                  | _____           | _____                 |
| Hospital                  | _____           | _____                 |
| Other                     | _____           | _____                 |

Weather

Clear p. cloudy

Precipitation \_\_\_\_\_

Temperature 40

Payload Weight

Gross 62620

Tare 41300

Net 21320

#2

CITY OF ALBANY

WASTE CHARACTERIZATION ANALYSIS

WASTE ORIGIN SURVEY FORM  
RAPP ROAD LANDFILL  
FEBRUARY 9-13, 2009

Date: 2/27/09 7:57 am

CHA Staff Name: Sarah Johnston

Hauler: City of Rensselaer

Truck ID Number: 5361

Truck Type: Rear loading packer

Arrival Number: 19

Sampled: Y Not Sampled: \_\_\_\_\_

Waste Origin (municipality(s)): City of Rensselaer

| <u>Waste Type (ask driver)</u> | <u>(Check for Yes)</u> | <u>Approximate % of Load</u> |
|--------------------------------|------------------------|------------------------------|
| Residential Single Family      | <u>X</u>               | <u>50</u>                    |
| Residential Multi-Family       | <u>X</u>               | <u>50</u>                    |
| Office Buildings               | _____                  | _____                        |
| Stores                         | _____                  | _____                        |
| Industry                       | _____                  | _____                        |
| Hospital                       | _____                  | _____                        |
| Other                          | <u>X</u>               | _____                        |

Fridays → Bulk pickup;  
City Hall; Police Station

Weather

Clear X

Precipitation -

Temperature 40

Payload Weight

Gross 54520

Tare 37780

Net 16740

#3

CITY OF ALBANY

WASTE CHARACTERIZATION ANALYSIS

WASTE ORIGIN SURVEY FORM  
RAPP ROAD LANDFILL  
FEBRUARY 9-13, 2009

Date: 2/27/09

CHA Staff Name: Sarah Johnston

Hauler: Town of Knox Highway Dept

Truck ID Number: 5339

Truck Type: Roll off

Arrival Number: 36

Sampled: Y Not Sampled: \_\_\_\_\_

Waste Origin (municipality(s)): Town of Knox

| Waste Type (ask driver)   | (Check for Yes) | Approximate % of Load |
|---------------------------|-----------------|-----------------------|
| Residential Single Family | _____           | _____                 |
| Residential Multi-Family  | _____           | _____                 |
| Office Buildings          | _____           | _____                 |
| Stores                    | _____           | _____                 |
| Industry                  | _____           | _____                 |
| Hospital                  | _____           | _____                 |
| Other                     | <u>X</u>        | <u>100</u>            |

transfer station

Weather

Clear: overcast

Precipitation: —

Temperature: 41

Payload Weight

Gross: 46240

Tare: 33860

Net: 12380

#4

CITY OF ALBANY

WASTE CHARACTERIZATION ANALYSIS

WASTE ORIGIN SURVEY FORM  
RAPP ROAD LANDFILL  
FEBRUARY 9-13, 2009

Date: 2/27/09 9:18 am

CHA Staff Name: Sarah Johnston

Hauler: Salvation Army

Truck ID Number: 4671

Truck Type: Roll off

Arrival Number: 49

Sampled: Y Not Sampled: \_\_\_\_\_

Waste Origin (municipality(s)): Salvation Army Clinton and Albany

| <u>Waste Type (ask driver)</u> | <u>(Check for Yes)</u> | <u>Approximate % of Load</u> |
|--------------------------------|------------------------|------------------------------|
| Residential Single Family      | _____                  | _____                        |
| Residential Multi-Family       | _____                  | _____                        |
| Office Buildings               | _____                  | _____                        |
| Stores                         | <u>X</u>               | _____                        |
| Industry                       | _____                  | _____                        |
| Hospital                       | _____                  | _____                        |
| Other                          | <u>X</u>               | <u>100</u>                   |

Salvation Army

Weather

Clear overcast

Precipitation -

Temperature 42

Payload Weight

Gross 21660

Tare 16660

Net 5000

CITY OF ALBANY

#5

WASTE CHARACTERIZATION ANALYSIS

WASTE ORIGIN SURVEY FORM  
RAPP ROAD LANDFILL  
FEBRUARY 9-13, 2009

Date: 2/27/09 Time: 10:04 am

CHA Staff Name: S. Johnston

Hauler: DGS

Truck ID Number: 5374

Truck Type: rear loading packer

Arrival Number: 61

Sampled: Y Not Sampled: \_\_\_\_\_

Waste Origin (municipality(s)): City of Albany (Washington + western Ave)

| <u>Waste Type (ask driver)</u> | <u>(Check for Yes)</u> | <u>Approximate % of Load</u> |
|--------------------------------|------------------------|------------------------------|
| Residential Single Family      | <u>+</u>               | <u>90</u>                    |
| Residential Multi-Family       | <u>+</u>               | <u>10</u>                    |
| Office Buildings               | _____                  | _____                        |
| Stores                         | _____                  | _____                        |
| Industry                       | _____                  | _____                        |
| Hospital                       | _____                  | _____                        |
| Other                          | <u>+</u>               | _____                        |

City Mission - 1 dumpster

Weather

Clear overcast  
Precipitation -  
Temperature 44

Payload Weight

Gross 69920  
Tare 41700  
Net 28220

#6

CITY OF ALBANY

WASTE CHARACTERIZATION ANALYSIS

WASTE ORIGIN SURVEY FORM  
RAPP ROAD LANDFILL  
FEBRUARY 9-13, 2009

Date: 2/27/09 Time: 10:58

CHA Staff Name: S. Johnston

Hauler: County Waste

Truck ID Number: ~~5405~~ 5406

Truck Type: Front load packer

Arrival Number: 76

Sampled: Y Not Sampled: \_\_\_\_\_

Waste Origin (municipality(s)): Albany, Delmar, Guildford

| <u>Waste Type (ask driver)</u> | <u>(Check for Yes)</u> | <u>Approximate % of Load</u> |
|--------------------------------|------------------------|------------------------------|
| Residential Single Family      | <u>+</u>               | <u>30</u>                    |
| Residential Multi-Family       | <u>+</u>               | <u>30</u>                    |
| Office Buildings               | <u>x</u>               | <u>30</u>                    |
| Stores                         | _____                  | _____                        |
| Industry                       | _____                  | _____                        |
| Hospital                       | _____                  | <u>10</u>                    |
| Other                          | <u>+</u>               | _____                        |
|                                | <u>Restaurant</u>      |                              |

Weather

Clear overcast

Precipitation \_\_\_\_\_

Temperature 45

Payload Weight

Gross 59680

Tare 37860

Net 21820



CITY OF ALBANY

#7 7

WASTE CHARACTERIZATION ANALYSIS

WASTE ORIGIN SURVEY FORM  
RAPP ROAD LANDFILL  
FEBRUARY 9-13, 2009

Date: 2/27/09 Time 11:16

CHA Staff Name: S. Johnston

Hauler: Allied (BFI container)

Truck ID Number: 5194

Truck Type: Front load packer

Arrival Number: 85

Sampled: Y Not Sampled: \_\_\_\_\_

Waste Origin (municipality(s)): Broadway to Northern to Everett  
(Downtown Albany)

| Waste Type (ask driver)   | (Check for Yes) | Approximate % of Load                                                          |
|---------------------------|-----------------|--------------------------------------------------------------------------------|
| Residential Single Family | _____           | _____                                                                          |
| Residential Multi-Family  | _____           | _____                                                                          |
| Office Buildings          | <u>x</u>        | <u>25</u>                                                                      |
| Stores                    | <u>x</u>        | <u>25</u>                                                                      |
| Industry                  | <u>x</u>        | <u>25</u>                                                                      |
| Hospital                  | _____           | _____                                                                          |
| Other                     | <u>x</u>        | <u>25</u>                                                                      |
| <u>Weather</u>            |                 |                                                                                |
| Clear                     | <u>overcast</u> | <u>Dunkin Doughnuts</u><br><u>Hotels, Dialysis Center</u><br><u>(Formerly)</u> |
| Precipitation             | <u>—</u>        |                                                                                |
| Temperature               | <u>45</u>       |                                                                                |
| <u>Payload Weight</u>     |                 |                                                                                |
| Gross                     | <u>57800</u>    |                                                                                |
| Tare                      | <u>39120</u>    |                                                                                |
| Net                       | <u>18680</u>    |                                                                                |



**APPENDIX C**  
**COLLECTION VEHICLE DATA SHEETS**



(# 1)

CITY OF ALBANY  
WASTE CHARACTERIZATION ANALYSIS  
SORT DATA SHEET

~~Some Plastic Bottles~~  
+  
~~Shredded Metals~~  
out of Bottles  
~~mostly - shredded Labels~~

Day/Date: Monday 2/23/09  
 CHA Staff Name: J. Hearnick  
 Truck ID Number: 5349 Arrival Number: 7  
 Hauler: City of Albany DGS Truck Type: packer  
 Location: \_\_\_\_\_  
 Arrival Time: 7:50 A.M. \_\_\_\_\_ P.M.  
 Origin (Municipality): Albany

| Material Components                         | Gross Weight (Lbs.) | Tare Weight Of Sort Container | Net Weight (Lbs.) |
|---------------------------------------------|---------------------|-------------------------------|-------------------|
| <b>PAPER</b>                                |                     |                               |                   |
| Newspaper                                   | 5.8                 | 4.7                           | 1.1               |
| Magazines                                   |                     | 4.7                           |                   |
| Corrugated                                  | 15.1                | 4.7                           | 10.4              |
| Gable Top Cartons & Drink Boxes             | 5.7                 | 4.9                           | 0.8               |
| Paper Board                                 | 13.9                | 4.9                           | 9                 |
| Books (including phone directories)         |                     | 4.7                           |                   |
| Mixed Office Paper                          | 8.2                 | 4.7                           | 3.5               |
| Other Paper                                 | 9.5                 | 4.4                           | 4.1               |
| <b>PLASTICS</b>                             |                     |                               |                   |
| Plastic Containers (PET) #1 Non-Bottle Bill | 10.9                | 4.7                           | <del>6.2</del>    |
| Plastic #1 (Bottle Bill Containers)         |                     | 4.7                           |                   |
| Plastic Containers (HDPE) #2                |                     | 4.7                           |                   |
| Other Plastic Containers                    | 5.5                 | 4.6                           | 0.9               |
| Film Plastic & Plastic Bags                 | 14.4                | 4.7                           | 9.7               |
| Other Plastics                              | 10.2 / 8.7          | 4.7 / 4.3                     | 9.9               |
| <b>FOOD WASTE</b>                           | 23.3                | 4.4                           | 18.9              |
| <b>TEXTILES &amp; LEATHER</b>               | 12.5                | 4.6                           | 7.9               |
| <b>RUBBER</b>                               |                     | 4.7                           |                   |
| <b>DISPOSABLE DIAPERS</b>                   |                     | 4.7                           |                   |
| <b>FERROUS METALS</b>                       |                     |                               |                   |
| Ferrous Metal/Bimetal Cans                  | 5.8                 | 4.7                           | 1.1               |
| Aerosol Cans                                |                     | 4.7                           |                   |
| Other Ferrous Metal                         | 5.0                 | 4.6                           | 0.4               |
| <b>NON-FERROUS METALS</b>                   |                     |                               |                   |
| Aluminum Cans (Non-Bottle Bill)             | 5.6                 | 4.7                           | 0.9               |
| Aluminum Cans (Bottle Bill)                 | 5.0                 | 4.5                           | 0.5               |
| Other Non-Ferrous Metal                     | 5.3                 | 4.5                           | 0.4               |
| <b>ELECTRONICS</b>                          | 6.1                 | 4.7                           | 1.4               |
| <b>GLASS</b>                                |                     |                               |                   |
| Glass Bottles (Bottle Bill)                 | 9.5                 | 4.7                           | 4.8               |
| Glass Bottle - Clear                        | 12.0                | 4.4                           | 7.6               |
| Glass Bottle - Amber                        | 5.7                 | 4.4                           | 1.3               |
| Glass Bottle - Green                        |                     | 4.7                           |                   |
| Flat Glass & Other Glass                    | 5.1                 | 4.7                           | 0.4               |
| <b>WOOD</b>                                 | 5.5                 | 4.5                           | 1.0               |
| <b>RUBBLE</b>                               |                     | 4.4                           |                   |
| <b>YARD WASTE</b>                           | 8.6                 | 4.7                           | 3.9               |
| <b>DIRT/FINES</b>                           |                     | 4.5                           |                   |
| <b>HAZARDOUS WASTE</b>                      |                     |                               |                   |
| Household Hazardous Waste (HHW)             |                     | 4.4                           |                   |
| Lead Acid Batteries                         |                     | 4.8                           |                   |
| Other Batteries                             | 4.7                 | 4.4                           | 0.3               |
| <b>MEDICAL OR PHARMACEUTICAL WASTE</b>      | 5.0                 | 4.7                           | 0.3               |
| <b>MISCELLANEOUS</b>                        | 6.8                 | 4.6                           | <del>2.2</del>    |

2 CONTAINERS

1089

CITY OF ALBANY  
WASTE CHARACTERIZATION ANALYSIS  
SORT DATA SHEET

Some plastic Bottles  
\*but mostly  
shredded bottles (paper)  
off of bottles

#2

Day/Date: Monday 2/23/09  
 CHA Staff Name: \_\_\_\_\_  
 Truck ID Number: 5223 Arrival Number: 25  
 Hauler: County Waste Truck Type: Packer  
 Location: \_\_\_\_\_  
 Arrival Time: 9:00 AM A.M. \_\_\_\_\_ P.M.  
 Origin (Municipality): \_\_\_\_\_

15-1  
69.9  
-----  
750  
21.7

| Material Components                         | Gross Weight (Lbs.) | Tare Weight Of Sort Container | Net Weight (Lbs.) |
|---------------------------------------------|---------------------|-------------------------------|-------------------|
| <b>PAPER</b>                                |                     |                               |                   |
| Newspaper                                   |                     | 4.6                           |                   |
| Magazines                                   |                     | 4.7                           |                   |
| Corrugated                                  |                     | 4.2                           |                   |
| Gable Top Cartons & Drink Boxes             |                     | 4.9                           |                   |
| Paper Board                                 |                     | 4.9                           |                   |
| Books (including phone directories)         | 8.2                 | 4.7                           | 3.5               |
| Mixed Office Paper                          |                     | 4.7                           |                   |
| Other Paper                                 | 75.0                | 4.2                           | 70.8              |
| <b>PLASTICS</b>                             |                     |                               |                   |
| Plastic Containers (PET) #1 Non-Bottle Bill | 21.7                | 4.7                           | 17.0              |
| Plastic #1 (Bottle Bill Containers)         |                     | 4.7                           |                   |
| Plastic Containers (HDPE) #2                |                     | 4.7                           |                   |
| Other Plastic Containers                    | 5.4                 | 4.6                           | 0.8               |
| Film Plastic & Plastic Bags                 | 5.3                 | 4.5                           | 0.8               |
| Other Plastics                              |                     | 5.0/4.7                       | 0.3               |
| <b>FOOD WASTE</b>                           |                     | 4.7                           |                   |
| <b>TEXTILES &amp; LEATHER</b>               |                     | 4.9                           |                   |
| <b>RUBBER</b>                               |                     | 4.7                           |                   |
| <b>DISPOSABLE DIAPERS</b>                   |                     | 4.7                           |                   |
| <b>FERROUS METALS</b>                       |                     |                               |                   |
| Ferrous Metal/Bimetal Cans                  |                     | 5.0                           |                   |
| Aerosol Cans                                |                     | 4.7                           |                   |
| Other Ferrous Metal                         |                     | 4.8                           |                   |
| <b>NON-FERROUS METALS</b>                   |                     |                               |                   |
| Aluminum Cans (Non-Bottle Bill)             |                     | 4.9                           |                   |
| Aluminum Cans (Bottle Bill)                 |                     | 4.7                           |                   |
| Other Non-Ferrous Metal                     |                     | 4.9                           |                   |
| <b>ELECTRONICS</b>                          | 5.2                 | 4.9                           | 0.3               |
| <b>GLASS</b>                                |                     |                               |                   |
| Glass Bottles (Bottle Bill)                 |                     | 4.7                           |                   |
| Glass Bottle - Clear                        |                     | 4.2                           |                   |
| Glass Bottle - Amber                        |                     | 4.2                           |                   |
| Glass Bottle - Green                        |                     | 4.7                           |                   |
| Flat Glass & Other Glass                    |                     | 4.7                           |                   |
| <b>WOOD</b>                                 |                     | 4.6                           |                   |
| <b>RUBBLE</b>                               |                     |                               |                   |
| <b>YARD WASTE</b>                           |                     | 4.6                           |                   |
| <b>DIRT/FINES</b>                           |                     |                               |                   |
| <b>HAZARDOUS WASTE</b>                      |                     |                               |                   |
| Household Hazardous Waste (HHW)             |                     | 4.4                           |                   |
| Lead Acid Batteries                         |                     | 4.8                           |                   |
| Other Batteries                             |                     | 4.4                           |                   |
| <b>MEDICAL OR PHARMACEUTICAL WASTE</b>      |                     | 4.7                           |                   |
| <b>MISCELLANEOUS</b>                        |                     | 4.9                           |                   |

93.2

73

**CITY OF ALBANY  
WASTE CHARACTERIZATION ANALYSIS  
SORT DATA SHEET**

Day/Date: 2/23/09  
 CHA Staff Name: \_\_\_\_\_  
 Truck ID Number: 5349 Arrival Number: 36  
 Hauler: CTY 016 DG5 Truck Type: rear load packer  
 Location: \_\_\_\_\_  
 Arrival Time: 9:35 A.M. \_\_\_\_\_ P.M.  
 Origin (Municipality): Albany

| Material Components                         | Gross Weight (Lbs.) | Tare Weight Of Sort Container | Net Weight (Lbs.) |
|---------------------------------------------|---------------------|-------------------------------|-------------------|
| <b>PAPER</b>                                |                     |                               |                   |
| Newspaper                                   | 19.3                | 4.6                           | 14.7              |
| Magazines                                   | 7.2                 | 4.7                           | 2.5               |
| Corrugated                                  | 11.1                | 4.7                           | 6.4               |
| Gable Top Cartons & Drink Boxes             | 5.4                 | 4.9                           | 0.5               |
| Paper Board                                 | 14.1                | 4.9                           | 9.2               |
| Books (including phone directories)         |                     | 4.7                           |                   |
| Mixed Office Paper                          | 5.7                 | 4.7                           | 1                 |
| Other Paper                                 | 11.8                | 4.2                           | 7.6               |
| <b>PLASTICS</b>                             |                     |                               |                   |
| Plastic Containers (PET) #1 Non-Bottle Bill | 9.0                 | 4.7                           | 4.3               |
| Plastic #1 (Bottle Bill Containers)         | 5.4                 | 4.7                           | 0.7               |
| Plastic Containers (HDPE) #2                | 5.5                 | 4.7                           | 0.8               |
| Other Plastic Containers                    | 9.3                 | 4.6                           | 4.7               |
| Film Plastic & Plastic Bags                 | 14.7                | 4.5                           | 10.2              |
| Other Plastics                              | 8.9                 | 4.7                           | 4.2               |
| <b>FOOD WASTE</b>                           | 62.5                | 4.7                           | 57.8              |
| <b>TEXTILES &amp; LEATHER</b>               | 6.6                 | 4.9                           | 1.7               |
| <b>RUBBER</b>                               |                     | 4.7                           |                   |
| <b>DISPOSABLE DIAPERS</b>                   | 16.3                | 4.7                           | 11.6              |
| <b>FERROUS METALS</b>                       |                     |                               |                   |
| Ferrous Metal/Bimetal Cans                  | 6.0                 | 5.0                           | 1.0               |
| Aerosol Cans                                | 5.4                 | 4.7                           | 0.7               |
| Other Ferrous Metal                         | 9.1                 | 4.8                           | 4.3               |
| <b>NON-FERROUS METALS</b>                   |                     |                               |                   |
| Aluminum Cans (Non-Bottle Bill)             | 6.0                 | 4.9                           | 1.1               |
| Aluminum Cans (Bottle Bill)                 | 4.9                 | 4.7                           | 0.2               |
| Other Non-Ferrous Metal                     | 5.1                 | 4.9                           | 0.2               |
| <b>ELECTRONICS</b>                          | 5.0                 | 4.9                           | 0.1               |
| <b>GLASS</b>                                |                     |                               |                   |
| Glass Bottles (Bottle Bill)                 | 12.2                | 4.7                           | 7.5               |
| Glass Bottle - Clear                        | 6.2                 | 4.2                           | 2.0               |
| Glass Bottle - Amber                        | 5.1                 | 4.2                           | 0.9               |
| Glass Bottle - Green                        |                     | 4.7                           |                   |
| Flat Glass & Other Glass                    | 6.0                 | 4.7                           | 1.3               |
| <b>WOOD</b>                                 | 14.3                | 4.6                           | 9.7               |
| <b>RUBBLE</b>                               |                     | 4.4                           |                   |
| <b>YARD WASTE</b>                           | 5.0                 | 4.7                           | 0.3               |
| <b>DIRT/FINES</b>                           | 10.3                | 4.7                           | 5.6               |
| <b>HAZARDOUS WASTE</b>                      |                     | 4.4                           |                   |
| Household Hazardous Waste (HHW)             |                     | 4.8                           |                   |
| Lead Acid Batteries                         |                     | 4.4                           |                   |
| Other Batteries                             | 4.7                 | 4.7                           | 0.0               |
| <b>MEDICAL OR PHARMACEUTICAL WASTE</b>      | 4.9                 | 4.9                           | 0.0               |
| <b>MISCELLANEOUS</b>                        | 5.2                 | 4.7                           | 0.5               |

173.3

CITY OF ALBANY  
WASTE CHARACTERIZATION ANALYSIS  
SORT DATA SHEET

16:30

Day/Date: 2/23/09 mor

CHA Staff Name: \_\_\_\_\_

Truck ID Number: 5397 5391 Arrival Number: 47

Hauler: CT/ALB D&S Truck Type: rear load packer

Location: \_\_\_\_\_

Arrival Time: 16:30 A.M. \_\_\_\_\_ P.M.

Origin (Municipality): Albany (2nd Ave)

| Material Components                         | Gross Weight (Lbs.) | Tare Weight Of Sort Container | Net Weight (Lbs.) |
|---------------------------------------------|---------------------|-------------------------------|-------------------|
| <b>PAPER</b>                                |                     |                               |                   |
| Newspaper                                   | 11.1                | 4.6                           | 6.5               |
| Magazines                                   | 14.7                | 4.7                           | 10.0              |
| Corrugated                                  | 7.8                 | 4.7                           | 3.1               |
| Gable Top Cartons & Drink Boxes             | 5.1                 | 4.9                           | 0.2               |
| Paper Board                                 | 18.3                | 4.9                           | 13.4              |
| Books (including phone directories)         | 5.7                 | 4.7                           | 1.0               |
| Mixed Office Paper                          | 14.0                | 4.7                           | 9.3               |
| Other Paper                                 | 23.1                | 4.2                           | 18.9              |
| <b>PLASTICS</b>                             |                     |                               |                   |
| Plastic Containers (PET) #1 Non-Bottle Bill | 11.8                | 5.0                           | 6.8               |
| Plastic #1 (Bottle Bill Containers)         | 6.6                 | 4.9                           | 1.7               |
| Plastic Containers (HDPE) #2                | 7.7                 | 4.9                           | 2.8               |
| Other Plastic Containers                    | 9.4                 | 4.9                           | 4.5               |
| Film Plastic & Plastic Bags                 | 22.7                | 5.0                           | 17.7              |
| Other Plastics                              | 7.1                 | 4.7                           | 2.4               |
| <b>FOOD WASTE</b>                           | 61.5                | 4.7                           | 56.8              |
| <b>TEXTILES &amp; LEATHER</b>               | 8.8                 | 5.0                           | 3.8               |
| <b>RUBBER</b>                               |                     | 4.7                           |                   |
| <b>DISPOSABLE DIAPERS</b>                   | 22.6                | <del>5.0</del> 4.6            | 18.0              |
| <b>FERROUS METALS</b>                       |                     |                               |                   |
| Ferrous Metal/Bimetal Cans                  | 10.0                | <del>4.7</del> 4.9            | 5.1               |
| Aerosol Cans                                | 5.1                 | 4.9                           | 0.2               |
| Other Ferrous Metal                         | 5.0                 | 4.8                           | 0.2               |
| <b>NON-FERROUS METALS</b>                   |                     |                               |                   |
| Aluminum Cans (Non-Bottle Bill)             | 5.2                 | 4.9                           | 0.3               |
| Aluminum Cans (Bottle Bill)                 | 5.8                 | 4.8                           | 1.0               |
| Other Non-Ferrous Metal                     | 6.0                 | 4.9                           | 1.1               |
| <b>ELECTRONICS</b>                          | 10.6                | 4.9                           | 5.7               |
| <b>GLASS</b>                                |                     |                               |                   |
| Glass Bottles (Bottle Bill)                 | 6.1                 | 4.6                           | 1.5               |
| Glass Bottle - Clear                        | 7.9                 | 4.7                           | 3.2               |
| Glass Bottle - Amber                        |                     | 4.6                           |                   |
| Glass Bottle - Green                        | 4.8                 | 4.7                           | 0.1               |
| Flat Glass & Other Glass                    | 5.2                 | 4.7                           | 0.5               |
| <b>WOOD</b>                                 | 50.2                | 4.7                           | 45.5              |
| <b>RUBBLE</b>                               |                     | 4.4                           |                   |
| <b>YARD WASTE</b>                           | 7.6                 | 4.7                           | 2.9               |
| <b>DIRT/FINES</b>                           | 23.5                | 4.7                           | 18.8              |
| <b>HAZARDOUS WASTE</b>                      |                     |                               |                   |
| Household Hazardous Waste (HHW)             | 5.4                 | 4.8                           | 0.6               |
| Lead Acid Batteries                         |                     | 4.4                           |                   |
| Other Batteries                             | 4.8                 | 4.7                           | 0.1               |
| <b>MEDICAL OR PHARMACEUTICAL WASTE</b>      | 5.0                 | 4.9                           | 0.1               |
| <b>MISCELLANEOUS</b>                        | 5.5                 | 4.7                           | 0.8               |

264.6



CITY OF ALBANY  
WASTE CHARACTERIZATION ANALYSIS  
SORT DATA SHEET

Price Chopper  
grocery store

#5

Day/Date: 2/23/09  
 CHA Staff Name: \_\_\_\_\_  
 Truck ID Number: 5404 Arrival Number: 80  
 Hauler: pillow waste Truck Type: Roll off  
 Location: \_\_\_\_\_  
 Arrival Time: 12:55 A.M. P.M.  
 Origin (Municipality): Water vliet (Price Chopper #21)

| Material Components                         | Gross Weight (Lbs.)   | Tare Weight Of Sort Container | Net Weight (Lbs.) |
|---------------------------------------------|-----------------------|-------------------------------|-------------------|
| <b>PAPER</b>                                |                       |                               |                   |
| Newspaper                                   | 39.6                  | 4.7                           | 34.9              |
| Magazines                                   | 4.9                   | 4.7                           | 0.2               |
| Corrugated                                  | 19.3                  | 4.7                           | 14.6              |
| Gable Top Cartons & Drink Boxes             |                       | 4.9                           |                   |
| Paper Board                                 | 6.0                   | 4.9                           | 1.1               |
| Books (including phone directories)         |                       | 4.7                           |                   |
| Mixed Office Paper                          | 9.2                   | 4.6                           | 4.6               |
| Other Paper                                 | 6.4                   | 4.7                           | 1.7               |
| <b>PLASTICS</b>                             |                       |                               |                   |
| Plastic Containers (PET) #1 Non-Bottle Bill | <del>33.9</del> 7.8   | 5.0                           | 28.9              |
| Plastic #1 (Bottle Bill Containers)         | <del>6.0</del>        | 5.0                           |                   |
| Plastic Containers (HDPE) #2                | 9.2 <del>7.7</del>    | 5.0                           | 4.2               |
| Other Plastic Containers                    | <del>6.4</del> 9.4    | <del>4.7</del> 4.9            | 1.5               |
| Film Plastic & Plastic Bags                 | 23.0                  | 4.9                           | 18.1              |
| Other Plastics                              | 9.9                   | 4.7                           | 5.2               |
| FOOD WASTE <u>134.3 + 104 + 144.8</u>       | <del>104</del> (5238) | 4.7                           | 505.0             |
| TEXTILES & LEATHER                          | 8.5                   | 5.0                           | 3.5               |
| <b>RUBBER</b>                               |                       |                               |                   |
| DISPOSABLE DIAPERS                          |                       | 4.7                           |                   |
| <b>FERROUS METALS</b>                       |                       |                               |                   |
| Ferrous Metal/Bimetal Cans                  | 5.3                   | 4.9                           | 0.4               |
| Aerosol Cans                                |                       | 4.9                           |                   |
| Other Ferrous Metal                         |                       | 4.9                           |                   |
| <b>NON-FERROUS METALS</b>                   |                       |                               |                   |
| Aluminum Cans (Non-Bottle Bill)             | 6.2                   | 4.9                           | 1.3               |
| Aluminum Cans (Bottle Bill)                 | 13.9                  | 4.7                           | 9.2               |
| Other Non-Ferrous Metal                     |                       | 4.9                           |                   |
| <b>ELECTRONICS</b>                          |                       |                               |                   |
| <b>GLASS</b>                                |                       |                               |                   |
| Glass Bottles (Bottle Bill)                 | 9.2                   | 4.7                           | 3.5               |
| Glass Bottle - Clear                        | 7.6                   | 4.7                           | 2.9               |
| Glass Bottle - Amber                        |                       | 4.6                           |                   |
| Glass Bottle - Green                        |                       | 4.7                           |                   |
| Flat Glass & Other Glass                    |                       | 4.7                           |                   |
| WOOD                                        | 8.0                   | 4.7                           | 3.3               |
| <b>RUBBLE</b>                               |                       |                               |                   |
| YARD WASTE                                  |                       | 4.7                           |                   |
| DIRT/FINES                                  | <del>2.5</del>        | 4.7                           |                   |
| <b>HAZARDOUS WASTE</b>                      |                       |                               |                   |
| Household Hazardous Waste (HHW)             |                       | 4.7                           |                   |
| Lead Acid Batteries                         |                       | 4.7                           |                   |
| Other Batteries                             |                       | 4.7                           |                   |
| <b>MEDICAL OR PHARMACEUTICAL WASTE</b>      |                       |                               |                   |
| <b>MISCELLANEOUS</b>                        |                       |                               |                   |
|                                             |                       | 4.7                           |                   |

104.0  
+ 140.7  
144.8  
134.3  

---

523.8

- 4.7 x 4  
18.8  
505

← empty

CITY OF ALBANY  
WASTE CHARACTERIZATION ANALYSIS  
SORT DATA SHEET

# 1

Day/Date: Tuesday 2/24/09  
 CHA Staff Name: \_\_\_\_\_  
 Truck ID Number: 5414 Arrival Number: 4  
 Hauler: County work Truck Type: Recycler  
 Location: \_\_\_\_\_  
 Arrival Time: 7:10 A.M. P.M.  
 Origin (Municipality): Albany

| Material Components                         | Gross Weight (Lbs.) | Tare Weight Of Sort Container | Net Weight (Lbs.) |
|---------------------------------------------|---------------------|-------------------------------|-------------------|
| <b>PAPER</b>                                |                     |                               |                   |
| Newspaper                                   | 6.8                 | 4.7                           | 2.1               |
| Magazines                                   | 34.3                | 4.7                           | 29.6              |
| Corrugated                                  | 17.0                | 4.7                           | 12.3              |
| Gable Top Cartons & Drink Boxes             | 5.4                 | 4.9                           | 0.5               |
| Paper Board                                 | 10.3                | 4.9                           | 5.4               |
| Books (including phone directories)         | 7.2                 | 4.7                           | 2.5               |
| Mixed Office Paper                          | <del>4.7</del> 11.6 | 4.7                           | 6.9               |
| Other Paper                                 | <del>6.4</del> 15.9 | 4.7                           | 11.2              |
| <b>PLASTICS</b>                             |                     |                               |                   |
| Plastic Containers (PET) #1 Non-Bottle Bill | <del>5.0</del> 6.9  | 5.0                           | 0.9               |
| Plastic #1 (Bottle Bill Containers)         | <del>8.3</del> 5.1  | 5.0                           | 0.1               |
| Plastic Containers (HDPE) #2                | <del>5.0</del> 7.0  | 5.0                           | 2.0               |
| Other Plastic Containers                    | <del>7.7</del> 7.8  | 4.9                           | 2.9               |
| Film Plastic & Plastic Bags                 | 11.7                | 5.0                           | 6.7               |
| Other Plastics                              |                     | 4.7                           |                   |
| <b>FOOD WASTE</b>                           | 22.9                | 5.7                           | 17.2              |
| <b>TEXTILES &amp; LEATHER</b>               | 21.6                | 5.0                           | 16.6              |
| <b>RUBBER</b>                               |                     |                               |                   |
| <b>DISPOSABLE DIAPERS</b>                   | 5.1                 | 4.7                           | 0.4               |
| <b>FERROUS METALS</b>                       |                     |                               |                   |
| Ferrous Metal/Bimetal Cans                  | <del>5.3</del> 7.4  | 4.9                           | 2.5               |
| Aerosol Cans                                | <del>5.2</del> 5.0  | 4.9                           | 0.1               |
| Other Ferrous Metal                         | 5.0                 | 4.9                           | 0.1               |
| <b>NON-FERROUS METALS</b>                   |                     |                               |                   |
| Aluminum Cans (Non-Bottle Bill)             | 5.3                 | 5.0                           | 0.3               |
| Aluminum Cans (Bottle Bill)                 | <del>13.9</del> 4.9 | 4.9                           | 0.0               |
| Other Non-Ferrous Metal                     | 6.1                 | 4.9                           | 1.2               |
| <b>ELECTRONICS</b>                          | 5.0                 | 4.9                           | 0.1               |
| <b>GLASS</b>                                |                     |                               |                   |
| Glass Bottles (Bottle Bill)                 | 5.8                 | 4.8                           | 1.0               |
| Glass Bottle - Clear                        | 5.5                 | 4.8                           | 0.7               |
| Glass Bottle - Amber                        | 5.5                 | 4.6                           | 0.9               |
| Glass Bottle - Green                        | 4.9                 | 4.7                           | 0.2               |
| Flat Glass & Other Glass                    | 5.7                 | 4.7                           | 1.0               |
| <b>WOOD</b>                                 | 5.7                 | 4.8                           | 0.9               |
| <b>RUBBLE</b>                               |                     | 4.7                           |                   |
| <b>YARD WASTE</b>                           |                     | 4.7                           |                   |
| <b>DIRT/FINES</b>                           |                     | 4.7                           |                   |
| <b>HAZARDOUS WASTE</b>                      |                     |                               |                   |
| Household Hazardous Waste (HHW)             |                     | 4.7                           |                   |
| Lead Acid Batteries                         |                     | 4.7                           |                   |
| Other Batteries                             |                     | 4.7                           |                   |
| <b>MEDICAL OR PHARMACEUTICAL WASTE</b>      | 5.1                 | 5.0                           | 0.1               |
| <b>MISCELLANEOUS</b>                        | 9.6                 | 4.7                           | 4.9               |

131.3

42

CITY OF ALBANY  
WASTE CHARACTERIZATION ANALYSIS  
SORT DATA SHEET

Day/Date: 2/24/09 Tuesday  
 CHA Staff Name: \_\_\_\_\_  
 Truck ID Number: 5333 Arrival Number: 24  
 Hauler: \_\_\_\_\_ Truck Type: Roll-off  
 Location: Allied Waste  
 Arrival Time: 8:30 A.M. \_\_\_\_\_ P.M.  
 Origin (Municipality): Albany (Cargill)

| Material Components                         | Gross Weight (Lbs.) | Tare Weight Of Sort Container | Net Weight (Lbs.) |
|---------------------------------------------|---------------------|-------------------------------|-------------------|
| <b>PAPER</b>                                |                     |                               |                   |
| Newspaper                                   | 4.7                 | 4.7                           | 0.0               |
| Magazines                                   | 5.1                 | 4.7                           | 0.4               |
| Corrugated                                  | 15.5                | 4.7                           | 10.8              |
| Gable Top Cartons & Drink Boxes             | 5.3                 | 5.0                           | 0.3               |
| Paper Board                                 | 6.5                 | 4.9                           | 1.6               |
| Books (including phone directories)         | 8.5                 | 4.7                           | 3.8               |
| Mixed Office Paper                          | 7.1                 | 4.7                           | 2.4               |
| Other Paper                                 | 12.4                | 4.7                           | 7.7               |
| <b>PLASTICS</b>                             |                     |                               |                   |
| Plastic Containers (PET) #1 Non-Bottle Bill | 5.3                 | 5.0                           | 0.3               |
| Plastic #1 (Bottle Bill Containers)         | 5.1                 | 5.0                           | 0.1               |
| Plastic Containers (HDPE) #2                |                     | 5.2                           |                   |
| Other Plastic Containers                    | 7.2                 | <del>5.0</del> 4.7            | 2.5               |
| Film Plastic & Plastic Bags                 | 7.1                 | 5.0                           | 2.1               |
| Other Plastics                              | 5.9                 | 4.7                           | 1.2               |
| <b>FOOD WASTE</b>                           | 8.0                 | 5.3                           | 2.7               |
| <b>TEXTILES &amp; LEATHER</b>               | 9.6                 | 4.9                           | 4.7               |
| <b>RUBBER</b>                               | 8.1                 | 4.7                           | 3.4               |
| <b>DISPOSABLE DIAPERS</b>                   |                     | 4.7                           |                   |
| <b>FERROUS METALS</b>                       |                     |                               |                   |
| Ferrous Metal/Bimetal Cans                  | 5.8                 | 4.9                           | 0.9               |
| Aerosol Cans                                |                     | 4.9                           |                   |
| Other Ferrous Metal                         | 5.1                 | 4.9                           | 0.2               |
| <b>NON-FERROUS METALS</b>                   |                     |                               |                   |
| Aluminum Cans (Non-Bottle Bill)             |                     | 5.0                           |                   |
| Aluminum Cans (Bottle Bill)                 |                     | 4.8                           |                   |
| Other Non-Ferrous Metal                     | 5.0                 | 4.9                           | 0.1               |
| <b>ELECTRONICS</b>                          |                     | 4.9                           |                   |
| <b>GLASS</b>                                |                     |                               |                   |
| Glass Bottles (Bottle Bill)                 |                     | 4.7                           |                   |
| Glass Bottle - Clear                        |                     | 4.7                           |                   |
| Glass Bottle - Amber                        |                     | 4.7                           |                   |
| Glass Bottle - Green                        |                     | 4.7                           |                   |
| Flat Glass & Other Glass                    |                     | 4.7                           |                   |
| <b>WOOD</b>                                 |                     | 4.8                           |                   |
| <b>RUBBLE</b>                               | 12.3                | 4.7                           | 7.6               |
| <b>YARD WASTE</b>                           |                     | 4.7                           |                   |
| <b>DIRT/FINES</b>                           | 106.1 / 56.4        | 4.7                           | 153.1             |
| <b>HAZARDOUS WASTE</b>                      |                     |                               |                   |
| Household Hazardous Waste (HHW)             |                     | 4.7                           |                   |
| Lead Acid Batteries                         |                     | 4.7                           |                   |
| Other Batteries                             |                     | 4.7                           |                   |
| <b>MEDICAL OR PHARMACEUTICAL WASTE</b>      | 8.3                 | 4.9                           | 3.4               |
| <b>MISCELLANEOUS</b>                        | 7.8                 | <del>5.3</del> 4.7            | 3.1               |

Cargill

shucked corn!

131.4  
51.7  
153.1

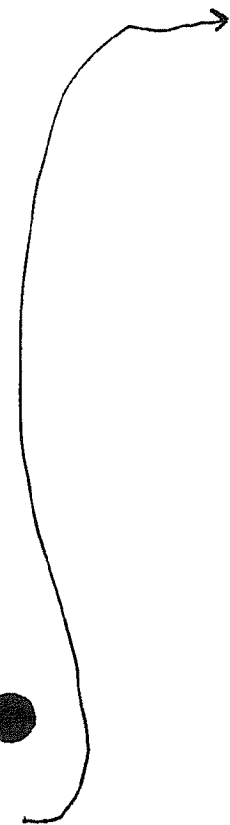
212.4

#3

**CITY OF ALBANY  
WASTE CHARACTERIZATION ANALYSIS  
SORT DATA SHEET**

Day/Date: 2/24/09 Tuesday  
 CHA Staff Name: \_\_\_\_\_  
 Truck ID Number: 5337 Arrival Number: 37  
 Hauler: Allied Waste Truck Type: \_\_\_\_\_  
 Location: \_\_\_\_\_  
 Arrival Time: 9:10 A.M. \_\_\_\_\_ P.M.  
 Origin (Municipality): Price Chopper - Guildersland

| Material Components                         | Gross Weight (Lbs.) | Tare Weight Of Sort Container | Net Weight (Lbs.) |
|---------------------------------------------|---------------------|-------------------------------|-------------------|
| <b>PAPER</b>                                |                     |                               |                   |
| Newspaper                                   | 5.5                 | 4.7                           | 0.8               |
| Magazines                                   |                     | 4.7                           |                   |
| Corrugated                                  | 13.8                | 4.7                           | 9.1               |
| Gable Top Cartons & Drink Boxes             | 5.9                 | 4.9                           | 1.0               |
| Paper Board                                 | 7.6                 | 4.9                           | 2.7               |
| Books (including phone directories)         |                     | 4.7                           |                   |
| Mixed Office Paper                          |                     | 4.7                           |                   |
| Other Paper                                 | 21.4                | 4.7                           | 16.7              |
| <b>PLASTICS</b>                             |                     |                               |                   |
| Plastic Containers (PET) #1 Non-Bottle Bill | 6.3                 | 5.0                           | 1.3               |
| Plastic #1 (Bottle Bill Containers)         | 5.2                 | 5.0                           | 0.2               |
| Plastic Containers (HDPE) #2                | 5.8                 | 5.2                           | 0.6               |
| Other Plastic Containers                    | 9.9                 | 5.0                           | 4.9               |
| Film Plastic & Plastic Bags                 | 33.6                | 5.0                           | 28.6              |
| Other Plastics                              | 7.4                 | 4.7                           | 2.7               |
| <b>FOOD WASTE</b>                           | 295.8               | 5.4                           | 290.4             |
| <b>TEXTILES &amp; LEATHER</b>               | 5.2                 | 5.0                           | 0.2               |
| <b>RUBBER</b>                               |                     | 4.7                           |                   |
| <b>DISPOSABLE DIAPERS</b>                   |                     | 4.7                           |                   |
| <b>FERROUS METALS</b>                       |                     |                               |                   |
| Ferrous Metal/Bimetal Cans                  | 6.8                 | 4.9                           | 1.9               |
| Aerosol Cans                                |                     | 4.9                           |                   |
| Other Ferrous Metal                         | 5.3                 | 4.9                           | 0.4               |
| <b>NON-FERROUS METALS</b>                   |                     |                               |                   |
| Aluminum Cans (Non-Bottle Bill)             | 4.8                 | 5.0                           |                   |
| Aluminum Cans (Bottle Bill)                 | 5.3                 | 4.8                           | 0.5               |
| Other Non-Ferrous Metal                     | 5.2                 | 4.9                           | 0.3               |
| <b>ELECTRONICS</b>                          |                     | 4.9                           |                   |
| <b>GLASS</b>                                |                     |                               |                   |
| Glass Bottles (Bottle Bill)                 | 5.3                 | 4.7                           | 0.6               |
| Glass Bottle - Clear                        | 5.6                 | 4.7                           | 0.9               |
| Glass Bottle - Amber                        |                     | 4.7                           |                   |
| Glass Bottle - Green                        | 5.9                 | 4.7                           | 1.2               |
| Flat Glass & Other Glass                    | 5.5                 | 4.7                           | 0.8               |
| <b>WOOD</b>                                 |                     | 4.8                           |                   |
| <b>RUBBLE</b>                               |                     | 4.7                           |                   |
| <b>YARD WASTE</b>                           |                     | 4.7                           |                   |
| <b>DIRT/FINES</b>                           |                     | 4.6                           |                   |
| <b>HAZARDOUS WASTE</b>                      |                     |                               |                   |
| Household Hazardous Waste (HHW)             |                     | 4.7                           |                   |
| Lead Acid Batteries                         |                     | 4.7                           |                   |
| Other Batteries                             |                     | 4.7                           |                   |
| <b>MEDICAL OR PHARMACEUTICAL WASTE</b>      |                     | 4.9                           |                   |
| <b>MISCELLANEOUS</b>                        | 5.3                 | 4.7                           | 0.6               |



① Food waste = 84.4  
 89.8 / 5.4      ② 79.9 / 5.2      ③ 80.6 / 5.5      ④ 67.2 / 5.6      295.8      total 366.9

#4

CITY OF ALBANY  
WASTE CHARACTERIZATION ANALYSIS  
SORT DATA SHEET

Day/Date: 2/24/09 Tuesday  
 CHA Staff Name: \_\_\_\_\_  
 Truck ID Number: 5328 Arrival Number: 46  
 Hauler: City 216. DCS Truck Type: pacher  
 Location: \_\_\_\_\_  
 Arrival Time: 9:40 (AM) P.M.  
 Origin (Municipality): City of Albany

| Material Components                         | Gross Weight (Lbs.) | Tare Weight Of Sort Container | Net Weight (Lbs.) |
|---------------------------------------------|---------------------|-------------------------------|-------------------|
| <b>PAPER</b>                                |                     |                               |                   |
| Newspaper                                   | 5.9                 | 4.7                           | 1.2               |
| Magazines                                   | 8.0                 | 4.7                           | 3.3               |
| Corrugated                                  | 12.0                | 4.7                           | 7.3               |
| Gable Top Cartons & Drink Boxes             | 5.4                 | 4.9                           | 0.5               |
| Paper Board                                 | 11.3                | 5.0                           | 6.3               |
| Books (including phone directories)         | 7.9                 | 4.7                           | 3.2               |
| Mixed Office Paper                          | 8.5                 | 4.7                           | 3.8               |
| Other Paper                                 | 32.0                | 4.7                           | 27.3              |
| <b>PLASTICS</b>                             |                     |                               |                   |
| Plastic Containers (PET) #1 Non-Bottle Bill | 6.7                 | 5.0                           | 1.7               |
| Plastic #1 (Bottle Bill Containers)         | 5.2                 | 5.2                           | 0.0               |
| Plastic Containers (HDPE) #2                | 6.6                 | 5.3                           | 1.3               |
| Other Plastic Containers                    | 9.8                 | 5.0                           | 4.8               |
| Film Plastic & Plastic Bags                 | 16.7                | 4.8                           | 11.9              |
| Other Plastics                              | 5.8                 | 4.7                           | 1.1               |
| <b>FOOD WASTE</b>                           | 77.1                | 5.6                           | 71.5              |
| <b>TEXTILES &amp; LEATHER</b>               | 25.5                | 4.9                           | 20.6              |
| <b>RUBBER</b>                               | 7.3                 | 4.7                           | 2.6               |
| <b>DISPOSABLE DIAPERS</b>                   | 33.4                | 4.7                           | 28.7              |
| <b>FERROUS METALS</b>                       |                     |                               |                   |
| Ferrous Metal/Bimetal Cans                  | 5.6                 | 4.9                           | 0.7               |
| Aerosol Cans                                | 5.4                 | 4.9                           | 0.5               |
| Other Ferrous Metal                         | 6.9                 | 4.8                           | 2.1               |
| <b>NON-FERROUS METALS</b>                   |                     |                               |                   |
| Aluminum Cans (Non-Bottle Bill)             |                     | 4.8                           |                   |
| Aluminum Cans (Bottle Bill)                 | 5.0                 | 4.8                           | 0.2               |
| Other Non-Ferrous Metal                     | 10.6                | 4.9                           | 5.7               |
| <b>ELECTRONICS</b>                          | 6.2                 | 4.9                           | 1.3               |
| <b>GLASS</b>                                |                     |                               |                   |
| Glass Bottles (Bottle Bill)                 |                     | 4.8                           |                   |
| Glass Bottle - Clear                        | 6.1                 | 4.7                           | 1.4               |
| Glass Bottle - Amber                        |                     | 4.7                           |                   |
| Glass Bottle - Green                        | 6.6                 | 4.7                           | 1.9               |
| Flat Glass & Other Glass                    | 5.1                 | 4.7                           | 0.4               |
| <b>WOOD</b>                                 | 17.6                | 4.8                           | 12.8              |
| <b>RUBBLE</b>                               |                     | 4.7                           |                   |
| <b>YARD WASTE</b>                           |                     | 4.7                           |                   |
| <b>DIRT/FINES</b>                           | 10.2                | 4.6                           | 5.6               |
| <b>HAZARDOUS WASTE</b>                      |                     |                               |                   |
| Household Hazardous Waste (HHW)             |                     | 4.7                           |                   |
| Lead Acid Batteries                         |                     | 4.7                           |                   |
| Other Batteries                             | 4.9                 | 4.7                           | 0.2               |
| <b>MEDICAL OR PHARMACEUTICAL WASTE</b>      | 5.0                 | 4.9                           | 0.1               |
| <b>MISCELLANEOUS</b>                        | 7.1                 | 4.7                           | 2.4               |

FOODWASTE 77.1/5.6

232.4

(H) 5

CITY OF ALBANY  
WASTE CHARACTERIZATION ANALYSIS  
SORT DATA SHEET

Day/Date: 2/24/09 Tues  
 CHA Staff Name: \_\_\_\_\_  
 Truck ID Number: 5374 Arrival Number: 79  
 Hauler: CYA/16 PGS Truck Type: Packer  
 Location: \_\_\_\_\_  
 Arrival Time: 10:50 A.M. \_\_\_\_\_ P.M.  
 Origin (Municipality): Albany

| Material Components                         | Gross Weight (Lbs.) | Tare Weight Of Sort Container | Net Weight (Lbs.) |
|---------------------------------------------|---------------------|-------------------------------|-------------------|
| <b>PAPER</b>                                |                     |                               |                   |
| Newspaper                                   | 10.3                | 4.7                           | 5.6               |
| Magazines                                   | 6.3                 | 4.7                           | 1.6               |
| Corrugated                                  | 18.6                | 4.7                           | 13.9              |
| Gable Top Cartons & Drink Boxes             | 5.7                 | 4.9                           | 0.8               |
| Paper Board                                 | 19.1                | 4.9                           | 14.2              |
| Books (including phone directories)         | 30.3                | 4.7                           | 25.6              |
| Mixed Office Paper                          | 5.2                 | 4.7                           | 0.5               |
| Other Paper                                 | 21.1                | 4.7                           | 16.4              |
| <b>PLASTICS</b>                             |                     |                               |                   |
| Plastic Containers (PET) #1 Non-Bottle Bill | 6.2                 | 5.0                           | 1.2               |
| Plastic #1 (Bottle Bill Containers)         | 6.1                 | 4.9                           | 1.2               |
| Plastic Containers (HDPE) #2                | 6.2                 | 5.3                           | 0.9               |
| Other Plastic Containers                    | 16.0                | 5.0                           | 11.0              |
| Film Plastic & Plastic Bags                 | 13.9                | 4.9                           | 9.0               |
| Other Plastics                              | 10.9                | 4.7                           | 6.2               |
| <b>FOOD WASTE</b>                           |                     |                               |                   |
| <b>TEXTILES &amp; LEATHER</b>               |                     |                               |                   |
|                                             | 37.0                | 4.9                           | 32.1              |
| <b>RUBBER</b>                               |                     |                               |                   |
|                                             |                     | 4.7                           |                   |
| <b>DISPOSABLE DIAPERS</b>                   |                     |                               |                   |
|                                             | 7.1                 | 4.7                           | 2.4               |
| <b>FERROUS METALS</b>                       |                     |                               |                   |
| Ferrous Metal/Bimetal Cans                  | 6.1                 | 4.9                           | 1.2               |
| Aerosol Cans                                | 5.1                 | 5.0                           | 0.1               |
| Other Ferrous Metal                         | 38.7                | 4.9                           | 33.8              |
| <b>NON-FERROUS METALS</b>                   |                     |                               |                   |
| Aluminum Cans (Non-Bottle Bill)             |                     | 4.8                           |                   |
| Aluminum Cans (Bottle Bill)                 | 5.6                 | 4.7                           | 0.9               |
| Other Non-Ferrous Metal                     | 10.9                | 4.7                           | 6.2               |
| <b>ELECTRONICS</b>                          |                     |                               |                   |
|                                             | 9.1                 | 4.9                           | 4.2               |
| <b>GLASS</b>                                |                     |                               |                   |
| Glass Bottles (Bottle Bill)                 | 7.3                 | 4.8                           | 2.5               |
| Glass Bottle - Clear                        |                     | 4.7                           |                   |
| Glass Bottle - Amber                        |                     | 4.7                           |                   |
| Glass Bottle - Green                        |                     | 4.7                           |                   |
| Flat Glass & Other Glass                    | 5.9                 | 4.7                           | 1.2               |
| <b>WOOD</b>                                 |                     |                               |                   |
|                                             | 5.2                 | 4.8                           | 0.4               |
| <b>RUBBLE</b>                               |                     |                               |                   |
|                                             |                     | 4.7                           |                   |
| <b>YARD WASTE</b>                           |                     |                               |                   |
|                                             | 5.1                 | 4.7                           | 0.4               |
| <b>DIRT/FINES</b>                           |                     |                               |                   |
|                                             | 9.9                 | 4.7                           | 5.2               |
| <b>HAZARDOUS WASTE</b>                      |                     |                               |                   |
| Household Hazardous Waste (HHW)             |                     | 4.7                           |                   |
| Lead Acid Batteries                         |                     | 4.7                           |                   |
| Other Batteries                             |                     | 4.7                           |                   |
| <b>MEDICAL OR PHARMACEUTICAL WASTE</b>      |                     |                               |                   |
|                                             |                     | 4.9                           |                   |
| <b>MISCELLANEOUS</b>                        |                     |                               |                   |
|                                             | 19.5                | 4.7                           | 14.8              |

213.2

Food Waste 60.9 / 5.2

#6

CITY OF ALBANY  
WASTE CHARACTERIZATION ANALYSIS  
SORT DATA SHEET

Day/Date: 2/24/09 Tuesday  
 CHA Staff Name: \_\_\_\_\_  
 Truck ID Number: 5194 Arrival Number: 106  
 Hauler: BFI Truck Type: Pecker  
 Location: \_\_\_\_\_  
 Arrival Time: 1:00 A.M. P.M.  
 Origin (Municipality): Albany

| Material Components                         | Gross Weight (Lbs.) | Tare Weight Of Sort Container | Net Weight (Lbs.) |
|---------------------------------------------|---------------------|-------------------------------|-------------------|
| <b>PAPER</b>                                |                     |                               |                   |
| Newspaper                                   | 9.2                 | 4.7                           | 4.5               |
| Magazines                                   | 9.4                 | 4.7                           | 4.7               |
| Corrugated                                  | 6.7                 | 4.7                           | 2.0               |
| Gable Top Cartons & Drink Boxes             | 5.3                 | 4.9                           | 0.4               |
| Paper Board                                 | 9.8                 | 4.9                           | 4.9               |
| Books (including phone directories)         | 33.8                | 4.8                           | 29.0              |
| Mixed Office Paper                          | 29.9                | 4.7                           | 25.2              |
| Other Paper                                 | 15.3                | 4.7                           | 10.6              |
| <b>PLASTICS</b>                             |                     |                               |                   |
| Plastic Containers (PET) #1 Non-Bottle Bill | 7.1                 | 5.0                           | 2.1               |
| Plastic #1 (Bottle Bill Containers)         | 6.3                 | 5.0                           | 1.3               |
| Plastic Containers (HDPE) #2                | 7.3                 | 5.2                           | 2.1               |
| Other Plastic Containers                    | 6.9                 | <del>4.7</del> 5.1            | 1.8               |
| Film Plastic & Plastic Bags                 | 8.0                 | <del>5.0</del> 4.7            | 3.3               |
| Other Plastics                              | 6.5                 | 4.7                           | 1.8               |
| <b>FOOD WASTE</b>                           | 19.1                | 5.4                           | 13.7              |
| <b>TEXTILES &amp; LEATHER</b>               | 11.7                | 4.9                           | 6.8               |
| <b>RUBBER</b>                               |                     | 4.7                           |                   |
| <b>DISPOSABLE DIAPERS</b>                   | 6.5                 | 4.7                           | 1.8               |
| <b>FERROUS METALS</b>                       |                     |                               |                   |
| Ferrous Metal/Bimetal Cans                  | 5.4                 | 4.9                           | 0.5               |
| Aerosol Cans                                | 5.6                 | 5.0                           | 0.6               |
| Other Ferrous Metal                         | 12.6                | 4.7                           | 7.8               |
| <b>NON-FERROUS METALS</b>                   |                     |                               |                   |
| Aluminum Cans (Non-Bottle Bill)             |                     | 4.8                           |                   |
| Aluminum Cans (Bottle Bill)                 | 4.9                 | <del>4.8</del>                | 0.1               |
| Other Non-Ferrous Metal                     | 5.1                 | 4.9                           | 0.2               |
| <b>ELECTRONICS</b>                          | 15.3                | 4.9                           | 10.4              |
| <b>GLASS</b>                                |                     |                               |                   |
| Glass Bottles (Bottle Bill)                 | 6.0                 | 4.8                           | 1.2               |
| Glass Bottle - Clear                        | 7.2                 | 4.7                           | 2.5               |
| Glass Bottle - Amber                        | 8.5                 | 4.7                           | 3.8               |
| Glass Bottle - Green                        |                     | 4.7                           |                   |
| Flat Glass & Other Glass                    | 5.2                 | 4.7                           | 0.5               |
| <b>WOOD</b>                                 |                     | 4.8                           |                   |
| <b>RUBBLE</b>                               |                     |                               |                   |
| <b>YARD WASTE</b>                           | 32.5                | 4.7                           | 27.8              |
| <b>DIRT/FINES</b>                           |                     | 4.6                           |                   |
| <b>HAZARDOUS WASTE</b>                      |                     | 4.7                           |                   |
| Household Hazardous Waste (HHW)             |                     | 4.7                           |                   |
| Lead Acid Batteries                         |                     | 4.7                           |                   |
| Other Batteries                             |                     | 4.7                           |                   |
| <b>MEDICAL OR PHARMACEUTICAL WASTE</b>      |                     | 4.9                           |                   |
| <b>MISCELLANEOUS</b>                        |                     | 4.7                           |                   |

FOOD WASTE 19.1 / 5.4

171.4

#7

**CITY OF ALBANY  
WASTE CHARACTERIZATION ANALYSIS  
SORT DATA SHEET**

Day/Date: 2/24/09 Tuesday  
 CHA Staff Name: \_\_\_\_\_  
 Truck ID Number: 5299 Arrival Number: 119  
 Hauler: CNY/DK Truck Type: \_\_\_\_\_  
 Location: \_\_\_\_\_  
 Arrival Time: 1:45 A.M. 1:45 P.M.  
 Origin (Municipality): Albany

| Material Components                         | Gross Weight (Lbs.) | Tare Weight Of Sort Container | Net Weight (Lbs.) |
|---------------------------------------------|---------------------|-------------------------------|-------------------|
| <b>PAPER</b>                                |                     |                               |                   |
| Newspaper                                   | 5.7                 | 4.7                           | 1.0               |
| Magazines                                   | 5.2                 | 4.7                           | 0.5               |
| Corrugated                                  | 6.2                 | 4.7                           | 1.5               |
| Gable Top Cartons & Drink Boxes             | 5.6                 | 4.9                           | 0.7               |
| Paper Board                                 | 10.0                | 5.1                           | 4.9               |
| Books (including phone directories)         |                     | 4.7                           |                   |
| Mixed Office Paper                          | 8.1                 | 4.7                           | 3.4               |
| Other Paper                                 | 20.0                | 4.7                           | 15.3              |
| <b>PLASTICS</b>                             |                     |                               |                   |
| Plastic Containers (PET) #1 Non-Bottle Bill | 5.2                 | 5.0                           | 0.2               |
| Plastic #1 (Bottle Bill Containers)         | 5.2                 | 5.0                           | 0.2               |
| Plastic Containers (HDPE) #2                | 7.9                 | 5.3                           | 2.6               |
| Other Plastic Containers                    | 9.0                 | 5.0                           | 4.0               |
| Film Plastic & Plastic Bags                 | 8.8                 | 4.7                           | 4.1               |
| Other Plastics                              | 6.3                 | 4.7                           | 1.6               |
| <b>FOOD WASTE</b>                           | 14.2                | 5.5                           |                   |
| <b>TEXTILES &amp; LEATHER</b>               | 6.7                 | 4.9                           | 1.8               |
| <b>RUBBER</b>                               | 4.8                 | 4.7                           | 0.1               |
| <b>DISPOSABLE DIAPERS</b>                   | 4.8                 | 4.7                           | 0.1               |
| <b>FERROUS METALS</b>                       |                     |                               |                   |
| Ferrous Metal/Bimetal Cans                  | 5.2                 | 4.9                           | 0.3               |
| Aerosol Cans                                |                     | 4.9                           |                   |
| Other Ferrous Metal                         | 9.3                 | 4.9                           | 4.4               |
| <b>NON-FERROUS METALS</b>                   |                     |                               |                   |
| Aluminum Cans (Non-Bottle Bill)             |                     | 4.8                           |                   |
| Aluminum Cans (Bottle Bill)                 | 4.9                 | 4.8                           | 0.1               |
| Other Non-Ferrous Metal                     | 5.1                 | 4.9                           | 0.2               |
| <b>ELECTRONICS</b>                          | 5.3                 | 4.9                           | 0.4               |
| <b>GLASS</b>                                |                     |                               |                   |
| Glass Bottles (Bottle Bill)                 |                     | 4.9                           |                   |
| Glass Bottle - Clear                        |                     | 4.7                           |                   |
| Glass Bottle - Amber                        |                     | 4.7                           |                   |
| Glass Bottle - Green                        | 5.1                 | 4.7                           | 0.4               |
| Flat Glass & Other Glass                    | 4.8                 | 4.7                           | 0.1               |
| <b>WOOD</b>                                 |                     | 4.8                           |                   |
| <b>RUBBLE</b>                               |                     |                               |                   |
| <b>YARD WASTE</b>                           |                     | 4.7                           |                   |
| <b>DIRT/FINES</b>                           | 180.7               | 4.6                           | 176.1             |
| <b>HAZARDOUS WASTE</b>                      |                     | 4.7                           |                   |
| Household Hazardous Waste (HHW)             |                     | 4.7                           |                   |
| Lead Acid Batteries                         |                     | 4.7                           |                   |
| Other Batteries                             | 4.7                 | 4.7                           | 0.0               |
| <b>MEDICAL OR PHARMACEUTICAL WASTE</b>      | 5.0                 | 4.9                           | 0.1               |
| <b>MISCELLANEOUS</b>                        | 9.2                 | 4.7                           | 4.5               |

FOODWASTE ~~14.2~~ / 5.5  
14.2



CITY OF ALBANY  
WASTE CHARACTERIZATION ANALYSIS  
SORT DATA SHEET

78

Day/Date: 2/24/09 Tuesday  
 CHA Staff Name: \_\_\_\_\_  
 Truck ID Number: 5205 Arrival Number: 130  
 Hauler: Allied Truck Type: Pack  
 Location: \_\_\_\_\_  
 Arrival Time: \_\_\_\_\_ A.M. 2:25 P.M.  
 Origin (Municipality): Guilderland/Altamont

| Material Components                         | Gross Weight (Lbs.) | Tare Weight Of Sort Container | Net Weight (Lbs.) |
|---------------------------------------------|---------------------|-------------------------------|-------------------|
| <b>PAPER</b>                                |                     |                               |                   |
| Newspaper                                   | 6.1                 | 4.7                           | 1.4               |
| Magazines                                   |                     | 4.7                           |                   |
| Corrugated                                  | 12.1                | 4.7                           | 7.4               |
| Gable Top Cartons & Drink Boxes             |                     | 5.0                           |                   |
| Paper Board                                 | 10.3                | 5.1                           | 5.2               |
| Books (including phone directories)         |                     | 4.7                           |                   |
| Mixed Office Paper                          | 33.2                | 4.7                           | 28.5              |
| Other Paper                                 | 14.3                | 4.8                           | 9.5               |
| <b>PLASTICS</b>                             |                     |                               |                   |
| Plastic Containers (PET) #1 Non-Bottle Bill | 5.9                 | 5.1                           | 0.8               |
| Plastic #1 (Bottle Bill Containers)         | 6.3                 | 5.0                           | 1.3               |
| Plastic Containers (HDPE) #2                | 5.5                 | 5.3                           | 0.2               |
| Other Plastic Containers                    | 7.1                 | 5.0                           | 2.1               |
| Film Plastic & Plastic Bags                 | 9.5                 | 4.7                           | 4.8               |
| Other Plastics                              | 5.3                 | 4.7                           | 0.6               |
| <b>FOOD WASTE</b>                           | 15.8                | 5.5                           | 10.3              |
| <b>TEXTILES &amp; LEATHER</b>               | 5.5                 | 5.0                           | 0.5               |
| <b>RUBBER</b>                               |                     | 4.7                           |                   |
| <b>DISPOSABLE DIAPERS</b>                   | 9.5                 | 4.7                           | 4.8               |
| <b>FERROUS METALS</b>                       |                     |                               |                   |
| Ferrous Metal/Bimetal Cans                  | 5.5                 | 4.9                           | 0.6               |
| Aerosol Cans                                |                     | 4.9                           |                   |
| Other Ferrous Metal                         |                     | 4.9                           |                   |
| <b>NON-FERROUS METALS</b>                   |                     |                               |                   |
| Aluminum Cans (Non-Bottle Bill)             | 5.0                 | 4.8                           | 0.2               |
| Aluminum Cans (Bottle Bill)                 | 5.0                 | 4.8                           | 0.2               |
| Other Non-Ferrous Metal                     | 5.5                 | 4.9                           | 0.6               |
| <b>ELECTRONICS</b>                          | 9.4                 | 4.9                           | 4.5               |
| <b>GLASS</b>                                |                     |                               |                   |
| Glass Bottles (Bottle Bill)                 |                     | 4.9                           |                   |
| Glass Bottle - Clear                        | 5.9                 | 4.7                           | 1.2               |
| Glass Bottle - Amber                        |                     | 4.7                           |                   |
| Glass Bottle - Green                        |                     | 4.7                           |                   |
| Flat Glass & Other Glass                    |                     | 4.7                           |                   |
| <b>WOOD</b>                                 |                     | 4.8                           |                   |
| <b>RUBBLE</b>                               |                     |                               |                   |
| <b>YARD WASTE</b>                           |                     | 4.7                           |                   |
| <b>DIRT/FINES</b>                           |                     | 4.6                           |                   |
| <b>HAZARDOUS WASTE</b>                      |                     | 4.7                           |                   |
| Household Hazardous Waste (HHW)             |                     | 4.7                           |                   |
| Lead Acid Batteries                         |                     | 4.7                           |                   |
| Other Batteries                             |                     | 4.7                           |                   |
| <b>MEDICAL OR PHARMACEUTICAL WASTE</b>      | 5.1                 | 4.9                           | 0.1               |
| <b>MISCELLANEOUS</b>                        | 6.2                 | 4.7                           | 1.5               |

Food Waste 15.8 / 5.5

86.3

111

CITY OF ALBANY  
WASTE CHARACTERIZATION ANALYSIS  
SORT DATA SHEET

Day/Date: 2/25/09 wed  
 CHA Staff Name: \_\_\_\_\_  
 Truck ID Number: 5349 Arrival Number: 1  
 Hauler: city 216 PGS Truck Type: Packer  
 Location: \_\_\_\_\_  
 Arrival Time: 7:00 A.M. \_\_\_\_\_ P.M.  
 Origin (Municipality): \_\_\_\_\_

| Material Components                         | Gross Weight (Lbs.) | Tare Weight Of Sort Container | Net Weight (Lbs.) |
|---------------------------------------------|---------------------|-------------------------------|-------------------|
| <b>PAPER</b>                                |                     |                               |                   |
| Newspaper                                   | 13.3                | 4.7                           | 8.6               |
| Magazines                                   | 7.0                 | 4.7                           | 2.3               |
| Corrugated                                  | 7.9                 | 4.7                           | 3.2               |
| Gable Top Cartons & Drink Boxes             | 5.5                 | 5.0                           | 0.5               |
| Paper Board                                 | 15.7                | 5.2                           | 10.5              |
| Books (including phone directories)         | 5.1                 | 4.7                           | 0.4               |
| Mixed Office Paper                          | 7.8                 | 4.7                           | 3.1               |
| Other Paper                                 | 16.4                | 4.7                           | 11.7              |
| <b>PLASTICS</b>                             |                     |                               |                   |
| Plastic Containers (PET) #1 Non-Bottle Bill | 8.8                 | 5.0                           | 3.8               |
| Plastic #1 (Bottle Bill Containers)         | 5.1                 | 4.9                           | 0.2               |
| Plastic Containers (HDPE) #2                | 7.6                 | 5.2                           | 2.4               |
| Other Plastic Containers                    | 10.4                | 5.0                           | 5.4               |
| Film Plastic & Plastic Bags                 | 14.9                | 4.7                           | 10.2              |
| Other Plastics                              | 6.8                 | 4.7                           | 2.1               |
| <b>FOOD WASTE</b>                           | 47.0                | 5.5                           | 41.5              |
| <b>TEXTILES &amp; LEATHER</b>               | 7.9                 | 5.0                           | 2.9               |
| <b>RUBBER</b>                               | 4.7                 | 4.7                           | 0.0               |
| <b>DISPOSABLE DIAPERS</b>                   | 22.8                | 4.7                           | 18.1              |
| <b>FERROUS METALS</b>                       |                     |                               |                   |
| Ferrous Metal/Bimetal Cans                  | 7.0                 | 5.0                           | 2.0               |
| Aerosol Cans                                |                     | 4.9                           |                   |
| Other Ferrous Metal                         | 5.6                 | 4.9                           | 0.7               |
| <b>NON-FERROUS METALS</b>                   |                     |                               |                   |
| Aluminum Cans (Non-Bottle Bill)             | 6.6                 | 4.9                           | 1.7               |
| Aluminum Cans (Bottle Bill)                 | 5.0                 | 4.9                           | 0.1               |
| Other Non-Ferrous Metal                     | 5.5                 | 4.9                           | 0.6               |
| <b>ELECTRONICS</b>                          | 5.1                 | 4.9                           | 0.2               |
| <b>GLASS</b>                                |                     |                               |                   |
| Glass Bottles (Bottle Bill)                 | 7.9                 | 4.9                           | 3.0               |
| Glass Bottle - Clear                        | 9.4                 | <del>5.0</del> 4.7            | 4.7               |
| Glass Bottle - Amber                        | 5.3                 | 4.7                           | 0.6               |
| Glass Bottle - Green                        |                     | 4.7                           |                   |
| Flat Glass & Other Glass                    | 7.5                 | 4.7                           | 2.8               |
| <b>WOOD</b>                                 | 23.0                | 4.8                           | 18.2              |
| <b>RUBBLE</b>                               |                     |                               |                   |
| <b>YARD WASTE</b>                           | 4.8                 | 4.7                           | 0.1               |
| <b>DIRT/FINES</b>                           | 33.8                | 4.6                           | 29.2              |
| <b>HAZARDOUS WASTE</b>                      |                     |                               |                   |
| Household Hazardous Waste (HHW)             |                     | 4.7                           |                   |
| Lead Acid Batteries                         |                     | 4.7                           |                   |
| Other Batteries                             | 4.8                 | 4.7                           | 0.1               |
| <b>MEDICAL OR PHARMACEUTICAL WASTE</b>      |                     | 4.9                           |                   |
| <b>MISCELLANEOUS</b>                        | 12.6                | 4.7                           | 7.9               |

FOOD WASTE 47.0 / 5.5

#2

**CITY OF ALBANY  
WASTE CHARACTERIZATION ANALYSIS  
SORT DATA SHEET**

Day/Date: Wednesday 2/25/09  
 CHA Staff Name: \_\_\_\_\_  
 Truck ID Number: 5358 Arrival Number: 9  
 Hauler: City of Russell Ave Truck Type: packer  
 Location: \_\_\_\_\_  
 Arrival Time: 7:55 A.M. \_\_\_\_\_ P.M.  
 Origin (Municipality): \_\_\_\_\_

| Material Components                         | Gross Weight (Lbs.) | Tare Weight Of Sort Container | Net Weight (Lbs.) |
|---------------------------------------------|---------------------|-------------------------------|-------------------|
| <b>PAPER</b>                                |                     |                               |                   |
| Newspaper                                   | 9.7                 | 4.7                           | 5.0               |
| Magazines                                   | 4.8                 | 4.6                           | 0.2               |
| Corrugated                                  | 20.1                | 4.7                           | 15.4              |
| Gable Top Cartons & Drink Boxes             | 5.3                 | 4.9                           | 0.4               |
| Paper Board                                 | 16.0                | 5.1                           | 10.9              |
| Books (including phone directories)         |                     | 4.7                           |                   |
| Mixed Office Paper                          | 7.0                 | 4.7                           | 2.3               |
| Other Paper                                 | 19.7                | 4.7                           | 15.0              |
| <b>PLASTICS</b>                             |                     |                               |                   |
| Plastic Containers (PET) #1 Non-Bottle Bill | 6.9                 | 5.0                           | 1.9               |
| Plastic #1 (Bottle Bill Containers)         | 5.9                 | 4.9                           | 1.0               |
| Plastic Containers (HDPE) #2                | 2.3                 | 5.2                           | 2.1               |
| Other Plastic Containers                    | 10.4                | 5.0                           | 5.4               |
| Film Plastic & Plastic Bags                 | 10.7                | 4.7                           | 6.0               |
| Other Plastics                              | 8.7                 | 4.7                           | 4.0               |
| <b>FOOD WASTE</b>                           | 31.0                | 5.4                           | 25.6              |
| <b>TEXTILES &amp; LEATHER</b>               | 7.1                 | 5.0                           | 2.1               |
| <b>RUBBER</b>                               |                     | 4.7                           |                   |
| <b>DISPOSABLE DIAPERS</b>                   | 17.9                | 4.7                           | 13.2              |
| <b>FERROUS METALS</b>                       |                     |                               |                   |
| Ferrous Metal/Bimetal Cans                  | 6.8                 | 4.9                           | 1.9               |
| Aerosol Cans                                | 5.2                 | 4.9                           | 0.3               |
| Other Ferrous Metal                         | 5.2                 | 4.9                           | 0.3               |
| <b>NON-FERROUS METALS</b>                   |                     |                               |                   |
| Aluminum Cans (Non-Bottle Bill)             | 5.9                 | 4.9                           | 1.0               |
| Aluminum Cans (Bottle Bill)                 | 5.0                 | 4.8                           | 0.2               |
| Other Non-Ferrous Metal                     | 5.9                 | 4.9                           | 1.0               |
| <b>ELECTRONICS</b>                          |                     | 4.9                           |                   |
| <b>GLASS</b>                                |                     |                               |                   |
| Glass Bottles (Bottle Bill)                 |                     | 4.8                           |                   |
| Glass Bottle - Clear                        | 5.3                 | 4.7                           | 0.6               |
| Glass Bottle - Amber                        |                     | 4.8                           |                   |
| Glass Bottle - Green                        |                     | 4.7                           |                   |
| Flat Glass & Other Glass                    | 5.5                 | 4.7                           | 0.8               |
| <b>WOOD</b>                                 | 7.3                 | 4.8                           | 2.5               |
| <b>RUBBLE</b>                               |                     |                               |                   |
| <b>YARD WASTE</b>                           |                     | 4.7                           |                   |
| <b>DIRT/FINES</b>                           | 6.3                 | 4.7                           | 1.6               |
| <b>HAZARDOUS WASTE</b>                      |                     | 4.7                           |                   |
| Household Hazardous Waste (HHW)             |                     | 4.7                           |                   |
| Lead Acid Batteries                         |                     | 4.7                           |                   |
| Other Batteries                             |                     | 4.7                           |                   |
| <b>MEDICAL OR PHARMACEUTICAL WASTE</b>      |                     | 4.9                           |                   |
| <b>MISCELLANEOUS</b>                        | 29.6                | 4.7                           | 24.9              |

Food Waste 31.0 / 5.4

#3

CITY OF ALBANY  
WASTE CHARACTERIZATION ANALYSIS  
SORT DATA SHEET

Day/Date: 2/25/09 Wednesday  
 CHA Staff Name: \_\_\_\_\_  
 Truck ID Number: 4914 Arrival Number: \_\_\_\_\_  
 Hauler: Waste mgmt. Truck Type: Pull-off  
 Location: \_\_\_\_\_  
 Arrival Time: 8:45 (A.M.) \_\_\_\_\_ P.M.  
 Origin (Municipality): \_\_\_\_\_

St. Peter's Hospital

| Material Components                         | Gross Weight (Lbs.) | Tare Weight Of Sort Container | Net Weight (Lbs.) |
|---------------------------------------------|---------------------|-------------------------------|-------------------|
| <b>PAPER</b>                                |                     |                               |                   |
| Newspaper                                   | 5.1                 | 4.7                           | 0.4               |
| Magazines                                   | 5.3                 | 4.7                           | 0.6               |
| Corrugated                                  | 8.4                 | 4.8                           | 3.6               |
| Gable Top Cartons & Drink Boxes             | 5.2                 | 4.9                           | 0.3               |
| Paper Board                                 | 7.7                 | 5.1                           | 2.6               |
| Books (including phone directories)         |                     | 4.7                           |                   |
| Mixed Office Paper                          | 7.3                 | 4.7                           | 2.6               |
| Other Paper                                 | 25.1                | 4.7                           | 20.4              |
| <b>PLASTICS</b>                             |                     |                               |                   |
| Plastic Containers (PET) #1 Non-Bottle Bill | 6.2                 | 5.0                           | 1.2               |
| Plastic #1 (Bottle Bill Containers)         | 5.1                 | 4.9                           | 0.2               |
| Plastic Containers (HDPE) #2                | 9.4 5.9             | 5.2                           | 0.7               |
| Other Plastic Containers                    | 9.4                 | 5.0                           | 4.4               |
| Film Plastic & Plastic Bags                 | 14.3                | 4.7                           | 9.6               |
| Other Plastics                              | 13.6                | 4.7                           | 8.9               |
| <b>FOOD WASTE</b>                           | 42.8                | 5.4                           | 37.4              |
| <b>TEXTILES &amp; LEATHER</b>               | 22.7                | 5.0                           | 17.7              |
| <b>RUBBER</b>                               | 8.8                 | 4.7                           | 4.1               |
| <b>DISPOSABLE DIAPERS</b>                   | 5.8                 | 4.7                           | 1.1               |
| <b>FERROUS METALS</b>                       |                     |                               |                   |
| Ferrous Metal/Bimetal Cans                  | 5.4                 | 4.9                           | 0.5               |
| Aerosol Cans                                |                     | 5.0                           |                   |
| Other Ferrous Metal                         |                     | 4.9                           |                   |
| <b>NON-FERROUS METALS</b>                   |                     |                               |                   |
| Aluminum Cans (Non-Bottle Bill)             | 5.1                 | 5.0                           | 0.1               |
| Aluminum Cans (Bottle Bill)                 | 4.8                 | 4.8                           | 0.1               |
| Other Non-Ferrous Metal                     | 5.1                 | 4.9                           | 0.2               |
| <b>ELECTRONICS</b>                          | 4.9                 | 4.9                           | 0.0               |
| <b>GLASS</b>                                |                     |                               |                   |
| Glass Bottles (Bottle Bill)                 |                     | 4.8                           |                   |
| Glass Bottle - Clear                        |                     | 4.7                           |                   |
| Glass Bottle - Amber                        |                     | 4.8                           |                   |
| Glass Bottle - Green                        |                     | 4.7                           |                   |
| Flat Glass & Other Glass                    |                     | 4.7                           |                   |
| <b>WOOD</b>                                 |                     | 4.8                           |                   |
| <b>RUBBLE</b>                               |                     |                               |                   |
| <b>YARD WASTE</b>                           |                     | 4.7                           |                   |
| <b>DIRT/FINES</b>                           |                     | 4.7                           |                   |
| <b>HAZARDOUS WASTE</b>                      |                     | 4.7                           |                   |
| Household Hazardous Waste (HHW)             |                     | 4.7                           |                   |
| Lead Acid Batteries                         |                     | 4.7                           |                   |
| Other Batteries                             |                     | 4.7                           |                   |
| <b>MEDICAL OR PHARMACEUTICAL WASTE</b>      | 11.7                | 4.9                           | 6.8               |
| <b>MISCELLANEOUS</b>                        | 18.8                | 4.7                           | 14.1              |

Notes on Back

Food Waste 42.8 / 5.4

74

**CITY OF ALBANY  
WASTE CHARACTERIZATION ANALYSIS  
SORT DATA SHEET**

Day/Date: 2/25/09 Wednesday  
 CHA Staff Name: \_\_\_\_\_  
 Truck ID Number: 5195 Arrival Number: 34  
 Hauler: Waste Mgmt. Truck Type: Ro  
 Location: \_\_\_\_\_  
 Arrival Time: 10:00 A.M. \_\_\_\_\_ P.M.  
 Origin (Municipality): \_\_\_\_\_

| Material Components                         | Gross Weight (Lbs.)   | Tare Weight Of Sort Container | Net Weight (Lbs.) |
|---------------------------------------------|-----------------------|-------------------------------|-------------------|
| <b>PAPER</b>                                |                       |                               |                   |
| Newspaper                                   |                       | 4.7                           |                   |
| Magazines                                   |                       | 4.7                           |                   |
| Corrugated                                  | 7.3                   | 4.7                           | 2.6               |
| Gable Top Cartons & Drink Boxes             | 5.3                   | 4.9                           | 0.4               |
| Paper Board                                 | 16.4                  | 5.1                           | 11.3              |
| Books (including phone directories)         |                       | 4.7                           |                   |
| Mixed Office Paper                          | 4.9                   | 4.7                           | 0.2               |
| Other Paper                                 | $56.0 + 48.2 = 104.2$ | 4.7(22)                       | 94.8              |
| <b>PLASTICS</b>                             |                       |                               |                   |
| Plastic Containers (PET) #1 Non-Bottle Bill | 6.7                   | 5.0                           | 1.7               |
| Plastic #1 (Bottle Bill Containers)         | 5.2                   | 4.9                           | 0.3               |
| Plastic Containers (HDPE) #2                | 6.8                   | 5.2                           | 1.6               |
| Other Plastic Containers                    | 8.0                   | 5.0                           | 3.0               |
| Film Plastic & Plastic Bags                 | 15.9                  | 4.7                           | 11.2              |
| Other Plastics                              | 13.2                  | 4.7                           | 8.5               |
| <b>FOOD WASTE</b>                           | 72.4                  | 5.5                           | 66.9              |
| <b>TEXTILES &amp; LEATHER</b>               | 5.5                   | 4.9                           | 0.6               |
| <b>RUBBER</b>                               |                       | 4.7                           |                   |
| <b>DISPOSABLE DIAPERS</b>                   | 12.9                  | 4.7                           | 8.2               |
| <b>FERROUS METALS</b>                       |                       |                               |                   |
| Ferrous Metal/Bimetal Cans                  | 5.9                   | 4.9                           | 1.0               |
| Aerosol Cans                                | 5.3                   | 5.0                           | 0.3               |
| Other Ferrous Metal                         | 16.5                  | 4.9                           | 11.6              |
| <b>NON-FERROUS METALS</b>                   |                       | 4.9                           |                   |
| Aluminum Cans (Non-Bottle Bill)             | 5.2                   | 5.0                           | 0.2               |
| Aluminum Cans (Bottle Bill)                 | 4.8                   | 4.8                           | 0.0               |
| Other Non-Ferrous Metal                     |                       | 4.9                           |                   |
| <b>ELECTRONICS</b>                          |                       |                               |                   |
| <b>GLASS</b>                                |                       |                               |                   |
| Glass Bottles (Bottle Bill)                 |                       | 4.8                           |                   |
| Glass Bottle - Clear                        |                       | 4.7                           |                   |
| Glass Bottle - Amber                        |                       | 4.8                           |                   |
| Glass Bottle - Green                        |                       | 4.7                           |                   |
| Flat Glass & Other Glass                    | 6.5                   | 4.7                           | 1.8               |
| <b>WOOD</b>                                 |                       | 4.8                           |                   |
| <b>RUBBLE</b>                               |                       |                               |                   |
| <b>YARD WASTE</b>                           |                       | 4.7                           |                   |
| <b>DIRT/FINES</b>                           |                       | 4.7                           |                   |
| <b>HAZARDOUS WASTE</b>                      |                       | 4.7                           |                   |
| Household Hazardous Waste (HHW)             |                       | 4.7                           |                   |
| Lead Acid Batteries                         |                       | 4.7                           |                   |
| Other Batteries                             |                       | 4.7                           |                   |
| <b>MEDICAL OR PHARMACEUTICAL WASTE</b>      |                       | 4.9                           |                   |
| <b>MISCELLANEOUS</b>                        | 5.5                   | 4.7                           | 0.8               |

72.4  
 Food Waste 5.5

#5

**CITY OF ALBANY  
WASTE CHARACTERIZATION ANALYSIS  
SORT DATA SHEET**

| Day/Date: <u>Wednesday 2/25/09</u>          |                     |                               |                   |
|---------------------------------------------|---------------------|-------------------------------|-------------------|
| CHA Staff Name: _____                       |                     |                               |                   |
| Truck ID Number: <u>5442</u>                |                     | Arrival Number: <u>50</u>     |                   |
| Hauler: <u>Accurate</u>                     |                     | Truck Type: <u>recycle</u>    |                   |
| Location: _____                             |                     |                               |                   |
| Arrival Time: <u>11:00</u> A.M. _____ P.M.  |                     |                               |                   |
| Origin (Municipality): _____                |                     |                               |                   |
| Material Components                         | Gross Weight (Lbs.) | Tare Weight Of Sort Container | Net Weight (Lbs.) |
| <b>PAPER</b>                                |                     |                               |                   |
| Newspaper                                   | 8.9                 | 4.7                           | 4.2               |
| Magazines                                   | 15.7                | 4.7                           | 11.0              |
| Corrugated                                  | 10.0                | 4.7                           | 5.3               |
| Gable Top Cartons & Drink Boxes             | 6.0                 | 4.9                           | 1.1               |
| Paper Board                                 | 20.6                | 5.1                           | 15.5              |
| Books (including phone directories)         | 9.9                 | 4.7                           | 5.2               |
| Mixed Office Paper                          | 6.0                 | 4.7                           | 1.3               |
| Other Paper <u>5604</u>                     | 25.7                | 4.8                           | 20.9              |
| <b>PLASTICS</b>                             |                     |                               |                   |
| Plastic Containers (PET) #1 Non-Bottle Bill | 6.8                 | 5.0                           | 1.8               |
| Plastic #1 (Bottle Bill Containers)         | 5.3                 | 4.9                           | 0.4               |
| Plastic Containers (HDPE) #2                | 6.1                 | 5.2                           | 0.9               |
| Other Plastic Containers                    | 9.1                 | 5.0                           | 4.1               |
| Film Plastic & Plastic Bags                 | 10.6                | 4.7                           | 5.9               |
| Other Plastics                              | 15.5                | 4.7                           | 10.8              |
| <b>FOOD WASTE</b>                           | 39.7                | 5.5                           | 34.2              |
| <b>TEXTILES &amp; LEATHER</b>               | 14.1                | 4.9                           | 9.2               |
| <b>RUBBER</b>                               |                     | 4.7                           |                   |
| <b>DISPOSABLE DIAPERS</b>                   | 7.8                 | 4.7                           | 3.1               |
| <b>FERROUS METALS</b>                       |                     |                               |                   |
| Ferrous Metal/Bimetal Cans                  | <del>5.9</del> 7.4  | 4.9                           | 2.5               |
| Aerosol Cans                                | 5.3                 | 4.9                           | 0.4               |
| Other Ferrous Metal                         | 18.3                | 4.9                           | 13.4              |
| <b>NON-FERROUS METALS</b>                   |                     |                               |                   |
| Aluminum Cans (Non-Bottle Bill)             |                     | 4.9                           |                   |
| Aluminum Cans (Bottle Bill)                 | 4.9                 | 4.7                           | 0.2               |
| Other Non-Ferrous Metal                     | 5.3                 | 4.9                           | 0.4               |
| <b>ELECTRONICS</b>                          | 7.7                 | 4.9                           | 2.8               |
| <b>GLASS</b>                                |                     |                               |                   |
| Glass Bottles (Bottle Bill)                 |                     | 4.8                           |                   |
| Glass Bottle - Clear                        | 9.5                 | 4.7                           | 4.8               |
| Glass Bottle - Amber                        |                     | 4.8                           |                   |
| Glass Bottle - Green                        | 6.5                 | 4.7                           | 1.8               |
| Flat Glass & Other Glass                    | 8.8                 | 4.7                           | 4.1               |
| <b>WOOD</b>                                 | 6.7                 | 4.8                           | 1.9               |
| <b>RUBBLE</b>                               |                     |                               |                   |
| <b>YARD WASTE</b>                           | 5.3                 | 4.7                           | 0.6               |
| <b>DIRT/FINES</b>                           | 9.9                 | 4.7                           | 5.2               |
| <b>HAZARDOUS WASTE</b>                      |                     |                               |                   |
| Household Hazardous Waste (HHW)             |                     | 4.7                           |                   |
| Lead Acid Batteries                         |                     | 4.7                           |                   |
| Other Batteries                             | 4.8                 | 4.7                           | 0.1               |
| <b>MEDICAL OR PHARMACEUTICAL WASTE</b>      | 5.0                 | 4.9                           | 0.1               |
| <b>MISCELLANEOUS</b>                        | 6.7                 | 4.7                           | 2.0               |

FOOD WASTE | 5.5

#6

**CITY OF ALBANY  
WASTE CHARACTERIZATION ANALYSIS  
SORT DATA SHEET**

Day/Date: Wednesday 2/25/09  
 CHA Staff Name: \_\_\_\_\_  
 Truck ID Number: 5365 Arrival Number: 68  
 Hauler: City of Green Island Truck Type: packer  
 Location: \_\_\_\_\_  
 Arrival Time: 12:00 A.M. \_\_\_\_\_ P.M.  
 Origin (Municipality): \_\_\_\_\_

| Material Components                         | Gross Weight (Lbs.) | Tare Weight Of Sort Container | Net Weight (Lbs.) |
|---------------------------------------------|---------------------|-------------------------------|-------------------|
| <b>PAPER</b>                                |                     |                               |                   |
| Newspaper                                   | 8.7                 | 4.7                           | 4.0               |
| Magazines                                   | 5.7                 | 4.7                           | 1.0               |
| Corrugated                                  | 9.2                 | 4.7                           | 4.5               |
| Gable Top Cartons & Drink Boxes             | 5.2                 | 4.9                           | 0.3               |
| Paper Board                                 | 17.3                | 5.1                           | 12.2              |
| Books (including phone directories)         | 8.1                 | 4.7                           | 3.4               |
| Mixed Office Paper                          | 5.9                 | 4.7                           | 1.2               |
| Other Paper                                 | 19.2                | 4.7                           | 14.5              |
| <b>PLASTICS</b>                             |                     |                               |                   |
| Plastic Containers (PET) #1 Non-Bottle Bill | 8.8                 | 4.9                           | 3.9               |
| Plastic #1 (Bottle Bill Containers)         |                     | 4.9                           |                   |
| Plastic Containers (HDPE) #2                | 9.1                 | 5.2                           | 3.9               |
| Other Plastic Containers                    | 7.8                 | 5.0                           | 2.8               |
| Film Plastic & Plastic Bags                 | 10.3                | 4.7                           | 5.6               |
| Other Plastics                              | 10.0                | 4.6                           | 5.4               |
| <b>FOOD WASTE</b>                           |                     |                               |                   |
|                                             | 8                   | 5.5                           |                   |
| <b>TEXTILES &amp; LEATHER</b>               |                     |                               |                   |
|                                             | 9.1                 | 4.9                           | 4.2               |
| <b>RUBBER</b>                               |                     |                               |                   |
|                                             |                     | 4.7                           |                   |
| <b>DISPOSABLE DIAPERS</b>                   |                     |                               |                   |
|                                             | 18.0                | 4.7                           | 13.3              |
| <b>FERROUS METALS</b>                       |                     |                               |                   |
| Ferrous Metal/Bimetal Cans                  | 5.6                 | 4.9                           | 0.7               |
| Aerosol Cans                                | 5.5                 | 4.9                           | 0.6               |
| Other Ferrous Metal                         | 5.4                 | 4.9                           | 0.5               |
| <b>NON-FERROUS METALS</b>                   |                     |                               |                   |
| Aluminum Cans (Non-Bottle Bill)             | 5.4                 | 4.9                           | 0.5               |
| Aluminum Cans (Bottle Bill)                 | 5.0                 | 4.7                           | 0.3               |
| Other Non-Ferrous Metal                     | 5.0                 | 4.9                           | 0.1               |
| <b>ELECTRONICS</b>                          |                     |                               |                   |
|                                             | 5.3                 | 4.9                           | 0.4               |
| <b>GLASS</b>                                |                     |                               |                   |
| Glass Bottles (Bottle Bill)                 | 6.5                 | 4.8                           | 1.7               |
| Glass Bottle - Clear                        | 6.2                 | 4.7                           | 1.5               |
| Glass Bottle - Amber                        |                     | 4.8                           |                   |
| Glass Bottle - Green                        |                     | 4.7                           |                   |
| Flat Glass & Other Glass                    | 6.2                 | 4.7                           | 1.5               |
| <b>WOOD</b>                                 |                     |                               |                   |
|                                             | 10.3                | 4.7                           | 5.6               |
| <b>RUBBLE</b>                               |                     |                               |                   |
| <b>YARD WASTE</b>                           |                     |                               |                   |
|                                             | 37.1                | 4.7                           | 32.4              |
| <b>DIRT/FINES</b>                           |                     |                               |                   |
|                                             | 26.8                | 4.7                           | 22.1              |
| <b>HAZARDOUS WASTE</b>                      |                     |                               |                   |
| Household Hazardous Waste (HHW)             |                     | 4.7                           |                   |
| Lead Acid Batteries                         |                     | 4.7                           |                   |
| Other Batteries                             | 5.0                 | 4.7                           | 0.3               |
| <b>MEDICAL OR PHARMACEUTICAL WASTE</b>      |                     |                               |                   |
|                                             |                     | 4.9                           |                   |
| <b>MISCELLANEOUS</b>                        |                     |                               |                   |
|                                             | 9.7                 | 4.6                           | 5.1               |

CITY OF ALBANY  
WASTE CHARACTERIZATION ANALYSIS  
SORT DATA SHEET

47

Day/Date: 2/25/09 wed  
 CHA Staff Name: \_\_\_\_\_  
 Truck ID Number: 5339 Arrival Number: 82  
 Hauler: Turn of Knox Truck Type: Roll-off  
 Location: \_\_\_\_\_  
 Arrival Time: 4 A.M. 1:25 P.M.  
 Origin (Municipality): \_\_\_\_\_

| Material Components                         | Gross Weight (Lbs.) | Tare Weight Of Sort Container | Net Weight (Lbs.) |
|---------------------------------------------|---------------------|-------------------------------|-------------------|
| <b>PAPER</b>                                |                     |                               |                   |
| Newspaper                                   | 5.5                 | 4.7                           | 0.8               |
| Magazines                                   |                     | 4.7                           |                   |
| Corrugated                                  | 14.7                | 4.7                           | 10.0              |
| Gable Top Cartons & Drink Boxes             |                     | 4.9                           |                   |
| Paper Board                                 | 10.7                | <del>2</del> 3.5.1            | 5.6               |
| Books (including phone directories)         | 14.5                | 4.7                           | 9.8               |
| Mixed Office Paper                          | 12.9                | 4.8                           | 8.1               |
| Other Paper                                 | <del>72.9</del> 5.0 | 4.7                           | 0.3               |
| <b>PLASTICS</b>                             |                     |                               |                   |
| Plastic Containers (PET) #1 Non-Bottle Bill | 5.3                 | 5.0                           | 0.3               |
| Plastic #1 (Bottle Bill Containers)         |                     | 4.9                           |                   |
| Plastic Containers (HDPE) #2                |                     | 5.2                           |                   |
| Other Plastic Containers                    | 11.8                | 5.0                           | 6.8               |
| Film Plastic & Plastic Bags                 | 5.5                 | 4.7                           | 0.8               |
| Other Plastics                              | 9.7                 | 4.7                           | 5.0               |
| <b>FOOD WASTE</b>                           |                     |                               |                   |
| <b>TEXTILES &amp; LEATHER</b>               |                     |                               |                   |
| <b>RUBBER</b>                               |                     |                               |                   |
| <b>DISPOSABLE DIAPERS</b>                   |                     |                               |                   |
| <b>FERROUS METALS</b>                       |                     |                               |                   |
| Ferrous Metal/Bimetal Cans                  |                     | 4.9                           |                   |
| Aerosol Cans                                |                     | 4.9                           |                   |
| Other Ferrous Metal                         |                     | 4.9                           |                   |
| <b>NON-FERROUS METALS</b>                   |                     |                               |                   |
| Aluminum Cans (Non-Bottle Bill)             |                     | 4.9                           |                   |
| Aluminum Cans (Bottle Bill)                 |                     | 4.8                           |                   |
| Other Non-Ferrous Metal                     | 5.3                 | 4.8                           | 0.5               |
| <b>ELECTRONICS</b>                          |                     |                               |                   |
| <b>GLASS</b>                                |                     |                               |                   |
| Glass Bottles (Bottle Bill)                 |                     | 4.8                           |                   |
| Glass Bottle - Clear                        |                     | 4.7                           |                   |
| Glass Bottle - Amber                        |                     | 4.8                           |                   |
| Glass Bottle - Green                        |                     | 4.7                           |                   |
| Flat Glass & Other Glass                    |                     | 4.7                           |                   |
| <b>WOOD</b>                                 |                     |                               |                   |
| <b>RUBBLE</b>                               |                     |                               |                   |
| <b>YARD WASTE</b>                           |                     |                               |                   |
| <b>DIRT/FINES</b>                           |                     |                               |                   |
| <b>HAZARDOUS WASTE</b>                      |                     |                               |                   |
| Household Hazardous Waste (HHW)             |                     | 4.7                           |                   |
| Lead Acid Batteries                         |                     | 4.7                           |                   |
| Other Batteries                             |                     | 4.7                           |                   |
| <b>MEDICAL OR PHARMACEUTICAL WASTE</b>      |                     |                               |                   |
| <b>MISCELLANEOUS</b>                        |                     |                               |                   |
|                                             | 6.5                 | 4.7                           | 1.8               |

F411 →  
20 gal can  
of styro foam  
pellets



778

**CITY OF ALBANY  
WASTE CHARACTERIZATION ANALYSIS  
SORT DATA SHEET**

|                                           |  |                           |  |
|-------------------------------------------|--|---------------------------|--|
| Day/Date: <u>Wednesday 2/25/09</u>        |  |                           |  |
| CHA Staff Name: _____                     |  |                           |  |
| Truck ID Number: <u>5157</u>              |  | Arrival Number: <u>93</u> |  |
| Hauler: <u>Waste Mgmt.</u>                |  | Truck Type: _____         |  |
| Location: _____                           |  |                           |  |
| Arrival Time: _____ A.M. <u>2:35</u> P.M. |  | _____                     |  |
| Origin (Municipality): _____              |  |                           |  |

| Material Components                         | Gross Weight (Lbs.) | Tare Weight Of Sort Container | Net Weight (Lbs.) |
|---------------------------------------------|---------------------|-------------------------------|-------------------|
| <b>PAPER</b>                                |                     |                               |                   |
| Newspaper                                   | 6.0                 | 4.7                           | 1.3               |
| Magazines                                   | 6.2                 | 4.7                           | 1.5               |
| Corrugated                                  | 17.6                | 4.7                           | 12.9              |
| Gable Top Cartons & Drink Boxes             | 11.0                | 4.9                           | 6.1               |
| Paper Board                                 | 22.0                | 5.1                           | 16.9              |
| Books (including phone directories)         |                     | 4.7                           |                   |
| Mixed Office Paper                          |                     | 4.7                           |                   |
| Other Paper                                 | $7.8 + 46.8 = 54.6$ | $4.7 \times 2$                | 45.2              |
| <b>PLASTICS</b>                             |                     |                               |                   |
| Plastic Containers (PET) #1 Non-Bottle Bill | 6.7                 | 5.0                           | 1.7               |
| Plastic #1 (Bottle Bill Containers)         | 5.6                 | 4.9                           | 0.7               |
| Plastic Containers (HDPE) #2                | 6.2                 | 5.2                           | 1.0               |
| Other Plastic Containers                    | 16.1                | 4.9                           | 11.2              |
| Film Plastic & Plastic Bags                 | 18.1                | 4.6                           | 13.5              |
| Other Plastics                              | 8.5                 | 4.7                           | 3.8               |
| <b>FOOD WASTE</b>                           | 33.8                | 5.6                           | 28.2              |
| <b>TEXTILES &amp; LEATHER</b>               | 6.2                 | 4.9                           | 1.3               |
| <b>RUBBER</b>                               | 5.7                 | 4.6                           | 1.1               |
| <b>DISPOSABLE DIAPERS</b>                   |                     | 4.7                           |                   |
| <b>FERROUS METALS</b>                       |                     |                               |                   |
| Ferrous Metal/Bimetal Cans                  | 5.2                 | 4.9                           | 0.3               |
| Aerosol Cans                                | 5.7                 | 4.9                           | 0.8               |
| Other Ferrous Metal                         | 5.4                 | 4.9                           | 0.5               |
| <b>NON-FERROUS METALS</b>                   |                     |                               |                   |
| Aluminum Cans (Non-Bottle Bill)             | 5.0                 | 4.9                           | 0.1               |
| Aluminum Cans (Bottle Bill)                 |                     | 4.8                           |                   |
| Other Non-Ferrous Metal                     |                     | 4.8                           |                   |
| <b>ELECTRONICS</b>                          |                     | 4.9                           |                   |
| <b>GLASS</b>                                |                     |                               |                   |
| Glass Bottles (Bottle Bill)                 |                     | 4.8                           |                   |
| Glass Bottle - Clear                        | 5.2                 | 4.7                           | 0.5               |
| Glass Bottle - Amber                        |                     | 4.8                           |                   |
| Glass Bottle - Green                        |                     | 4.7                           |                   |
| Flat Glass & Other Glass                    |                     | 4.7                           |                   |
| <b>WOOD</b>                                 |                     | 4.7                           |                   |
| <b>RUBBLE</b>                               |                     | 4.7                           |                   |
| <b>YARD WASTE</b>                           |                     | 4.7                           |                   |
| <b>DIRT/FINES</b>                           |                     | 4.7                           |                   |
| <b>HAZARDOUS WASTE</b>                      |                     | 4.7                           |                   |
| Household Hazardous Waste (HHW)             |                     | 4.7                           |                   |
| Lead Acid Batteries                         |                     | 4.7                           |                   |
| Other Batteries                             |                     | 4.7                           |                   |
| <b>MEDICAL OR PHARMACEUTICAL WASTE</b>      | 4.9                 | 4.8                           | 0.1               |
| <b>MISCELLANEOUS</b>                        | 5.8                 | 4.7                           | 1.1               |

II 1

**CITY OF ALBANY  
WASTE CHARACTERIZATION ANALYSIS  
SORT DATA SHEET**

Day/Date: Thursday 2/26/09  
 CHA Staff Name: \_\_\_\_\_  
 Truck ID Number: 5402 Arrival Number: 8  
 Hauler: waste mgmt. Truck Type: packer  
 Location: \_\_\_\_\_  
 Arrival Time: 7:35 A.M. \_\_\_\_\_ P.M.  
 Origin (Municipality): \_\_\_\_\_

| Material Components                         | Gross Weight (Lbs.) | Tare Weight Of Sort Container | Net Weight (Lbs.) |
|---------------------------------------------|---------------------|-------------------------------|-------------------|
| <b>PAPER</b>                                |                     |                               |                   |
| Newspaper                                   | 7.2                 | 4.6                           |                   |
| Magazines                                   | 16.8                | 4.7                           |                   |
| Corrugated                                  | 14.0                | 4.7                           |                   |
| Gable Top Cartons & Drink Boxes             | 5.3                 | 4.9                           |                   |
| Paper Board                                 | 11.0                | 5.1                           |                   |
| Books (including phone directories)         | 6.2                 | 4.7                           |                   |
| Mixed Office Paper                          | 42.3                | 4.7                           |                   |
| Other Paper                                 | 17.8                | 4.7                           |                   |
| <b>PLASTICS</b>                             |                     |                               |                   |
| Plastic Containers (PET) #1 Non-Bottle Bill | 6.5                 | 5.0                           |                   |
| Plastic #1 (Bottle Bill Containers)         | 5.5                 | 4.9                           |                   |
| Plastic Containers (HDPE) #2                | 6.8                 | 5.2                           |                   |
| Other Plastic Containers                    | 7.4                 | 5.0                           |                   |
| Film Plastic & Plastic Bags                 | 11.8                | 4.7                           |                   |
| Other Plastics                              | 13.9                | 4.7                           |                   |
| <b>FOOD WASTE</b>                           | 12.8                | 5.7                           |                   |
| <b>TEXTILES &amp; LEATHER</b>               | 5.3                 | 5.0                           |                   |
| <b>RUBBER</b>                               | 4.9                 | 4.7                           |                   |
| <b>DISPOSABLE DIAPERS</b>                   | 5.2                 |                               |                   |
| <b>FERROUS METALS</b>                       |                     |                               |                   |
| Ferrous Metal/Bimetal Cans                  | 5.0                 | 4.9                           |                   |
| Aerosol Cans                                |                     | 4.9                           |                   |
| Other Ferrous Metal                         | 9.6                 | 4.9                           |                   |
| <b>NON-FERROUS METALS</b>                   |                     |                               |                   |
| Aluminum Cans (Non-Bottle Bill)             |                     | 4.9                           |                   |
| Aluminum Cans (Bottle Bill)                 | 7.3                 | 4.8                           |                   |
| Other Non-Ferrous Metal                     | 5.7                 | 4.9                           |                   |
| <b>ELECTRONICS</b>                          | 6.0                 | 4.9                           |                   |
| <b>GLASS</b>                                |                     |                               |                   |
| Glass Bottles (Bottle Bill)                 | 5.3                 | 4.8                           |                   |
| Glass Bottle - Clear                        |                     | 4.7                           |                   |
| Glass Bottle - Amber                        | 5.4                 | 4.8                           |                   |
| Glass Bottle - Green                        |                     | 4.7                           |                   |
| Flat Glass & Other Glass                    | 7.7                 | 4.7                           |                   |
| <b>WOOD</b>                                 |                     | 4.7                           |                   |
| <b>RUBBLE</b>                               |                     | 4.7                           |                   |
| <b>YARD WASTE</b>                           | 4.7                 | 4.7                           |                   |
| <b>DIRT/FINES</b>                           | 7.2                 | 4.7                           |                   |
| <b>HAZARDOUS WASTE</b>                      |                     | 4.7                           |                   |
| Household Hazardous Waste (HHW)             |                     | 4.7                           |                   |
| Lead Acid Batteries                         |                     | 4.7                           |                   |
| Other Batteries                             | 4.9                 | 4.7                           |                   |
| <b>MEDICAL OR PHARMACEUTICAL WASTE</b>      |                     | 4.8                           |                   |
| <b>MISCELLANEOUS</b>                        | 10.2                | 4.7                           |                   |

CITY OF ALBANY  
WASTE CHARACTERIZATION ANALYSIS  
SORT DATA SHEET

#2

Day/Date: Thursday 2/26/09  
 CHA Staff Name: Tiff, Brad, Leah, Blair, Mike, Sarah, James  
 Truck ID Number: 4769 Arrival Number: 13  
 Hauler: Town of Guilford Truck Type: Roll-off  
 Location: \_\_\_\_\_  
 Arrival Time: 8:25 A.M. \_\_\_\_\_ P.M.  
 Origin (Municipality): \_\_\_\_\_

| Material Components                         | Gross Weight (Lbs.) | Tare Weight Of Sort Container | Net Weight (Lbs.) |
|---------------------------------------------|---------------------|-------------------------------|-------------------|
| <b>PAPER</b>                                |                     |                               |                   |
| Newspaper                                   | 5.7                 | 4.7                           |                   |
| Magazines                                   | 8.1                 | 4.8                           |                   |
| Corrugated                                  | 12.8                | 4.7                           |                   |
| Gable Top Cartons & Drink Boxes             |                     | 4.9                           |                   |
| Paper Board                                 | 10.3                | 5.1                           |                   |
| Books (including phone directories)         | 20.4                | 4.7                           |                   |
| Mixed Office Paper                          | 30.1                | 4.8                           |                   |
| Other Paper                                 | 8.3                 | 4.7                           |                   |
| <b>PLASTICS</b>                             |                     |                               |                   |
| Plastic Containers (PET) #1 Non-Bottle Bill | 5.1                 | 5.0                           |                   |
| Plastic #1 (Bottle Bill Containers)         |                     | 4.9                           |                   |
| Plastic Containers (HDPE) #2                | 6.8                 | 5.2                           |                   |
| Other Plastic Containers                    | <del>5.0</del> 5.7  | 5.0                           |                   |
| Film Plastic & Plastic Bags                 | 7.6                 | 4.7                           |                   |
| Other Plastics                              | 6.6                 | 4.7                           |                   |
| <b>FOOD WASTE</b>                           |                     |                               |                   |
| <b>TEXTILES &amp; LEATHER</b>               |                     |                               |                   |
|                                             | 12.6                | 4.9                           |                   |
| <b>RUBBER</b>                               |                     |                               |                   |
|                                             |                     | 4.7                           |                   |
| <b>DISPOSABLE DIAPERS</b>                   |                     |                               |                   |
|                                             | 5.2                 | 4.7                           |                   |
| <b>FERROUS METALS</b>                       |                     |                               |                   |
| Ferrous Metal/Bimetal Cans                  |                     | 4.9                           |                   |
| Aerosol Cans                                |                     | 4.9                           |                   |
| Other Ferrous Metal                         | 6.5                 | 4.9                           |                   |
| <b>NON-FERROUS METALS</b>                   |                     |                               |                   |
| Aluminum Cans (Non-Bottle Bill)             | 5.1                 | 4.9                           |                   |
| Aluminum Cans (Bottle Bill)                 |                     | 4.8                           |                   |
| Other Non-Ferrous Metal                     | 15.4                | 4.9                           |                   |
| <b>ELECTRONICS</b>                          |                     |                               |                   |
|                                             | 36.6                | 4.9                           |                   |
| <b>GLASS</b>                                |                     |                               |                   |
| Glass Bottles (Bottle Bill)                 |                     | 4.8                           |                   |
| Glass Bottle - Clear                        |                     | 4.7                           |                   |
| Glass Bottle - Amber                        |                     | 4.8                           |                   |
| Glass Bottle - Green                        |                     | 4.7                           |                   |
| Flat Glass & Other Glass                    | 10.5                | 4.7                           |                   |
| <b>WOOD</b>                                 |                     |                               |                   |
|                                             | 35.0                | 4.7                           |                   |
| <b>RUBBLE</b>                               |                     |                               |                   |
|                                             | 10.8                | 4.7                           |                   |
| <b>YARD WASTE</b>                           |                     |                               |                   |
|                                             |                     | 4.7                           |                   |
| <b>DIRT/FINES</b>                           |                     |                               |                   |
|                                             | 49.1                | 4.8                           |                   |
| <b>HAZARDOUS WASTE</b>                      |                     |                               |                   |
| Household Hazardous Waste (HHW)             |                     | 4.7                           |                   |
| Lead Acid Batteries                         |                     | 4.7                           |                   |
| Other Batteries                             |                     | 4.7                           |                   |
| <b>MEDICAL OR PHARMACEUTICAL WASTE</b>      |                     |                               |                   |
|                                             |                     | 4.8                           |                   |
| <b>MISCELLANEOUS</b>                        |                     |                               |                   |
|                                             | 37.6                | 4.9                           |                   |

Lead Included  
 - wood  
 - mattress  
 - Box spring  
 - wooden barrel

mostly  
 sheet rock

#3

CITY OF ALBANY  
WASTE CHARACTERIZATION ANALYSIS  
SORT DATA SHEET

Day/Date: Thursday 2/26/09  
 CHA Staff Name: \_\_\_\_\_  
 Truck ID Number: 5191 Arrival Number: 22  
 Hauler: Salvation Army Truck Type: Box/Dump  
 Location: \_\_\_\_\_  
 Arrival Time: 9:00 A.M. \_\_\_\_\_ P.M.  
 Origin (Municipality): \_\_\_\_\_

| Material Components                         | Gross Weight (Lbs.) | Tare Weight Of Sort Container | Net Weight (Lbs.) |
|---------------------------------------------|---------------------|-------------------------------|-------------------|
| <b>PAPER</b>                                |                     |                               |                   |
| Newspaper                                   |                     | 4.7                           |                   |
| Magazines                                   | 4.9                 | 4.7                           |                   |
| Corrugated                                  | 6.7                 | 4.8                           |                   |
| Gable Top Cartons & Drink Boxes             |                     | 4.9                           |                   |
| Paper Board                                 | 9.2                 | 5.1                           |                   |
| Books (including phone directories)         | 35.5                | 4.7                           |                   |
| Mixed Office Paper                          | 4.9                 | 4.8                           |                   |
| Other Paper                                 | 7.4                 | 4.7                           |                   |
| <b>PLASTICS</b>                             |                     |                               |                   |
| Plastic Containers (PET) #1 Non-Bottle Bill |                     | 5.0                           |                   |
| Plastic #1 (Bottle Bill Containers)         |                     | 4.9                           |                   |
| Plastic Containers (HDPE) #2                | 5.4                 | 5.2                           |                   |
| Other Plastic Containers                    | 6.8                 | 5.0                           |                   |
| Film Plastic & Plastic Bags                 | 5.5                 | 4.7                           |                   |
| Other Plastics                              | 24.5                | 4.7                           |                   |
| <b>FOOD WASTE</b>                           | 5.8                 | 5.6                           |                   |
| <b>TEXTILES &amp; LEATHER 29.2+</b>         | 93.4                | 5.0                           |                   |
| <b>RUBBER</b>                               | 6.0                 | 4.7                           |                   |
| <b>DISPOSABLE DIAPERS</b>                   |                     | 4.7                           |                   |
| <b>FERROUS METALS</b>                       |                     |                               |                   |
| Ferrous Metal/Bimetal Cans                  |                     | 4.9                           |                   |
| Aerosol Cans                                |                     | 4.9                           |                   |
| Other Ferrous Metal                         | 18.3                | 4.9                           |                   |
| <b>NON-FERROUS METALS</b>                   |                     |                               |                   |
| Aluminum Cans (Non-Bottle Bill)             |                     | 5.0                           |                   |
| Aluminum Cans (Bottle Bill)                 |                     | 4.8                           |                   |
| Other Non-Ferrous Metal                     | 9.9                 | 4.9                           |                   |
| <b>ELECTRONICS</b>                          | 30.2                | 4.9                           |                   |
| <b>GLASS</b>                                |                     |                               |                   |
| Glass Bottles (Bottle Bill)                 |                     | 4.8                           |                   |
| Glass Bottle - Clear                        |                     | 4.7                           |                   |
| Glass Bottle - Amber                        |                     | 4.8                           |                   |
| Glass Bottle - Green                        |                     | 4.7                           |                   |
| Flat Glass & Other Glass                    | 42.8                | 4.7                           |                   |
| <b>WOOD</b>                                 | 7.5                 | 4.7                           |                   |
| <b>RUBBLE</b>                               |                     | 4.7                           |                   |
| <b>YARD WASTE</b>                           |                     | 4.7                           |                   |
| <b>DIRT/FINES</b>                           |                     | 4.6                           |                   |
| <b>HAZARDOUS WASTE</b>                      |                     | 4.7                           |                   |
| Household Hazardous Waste (HHW)             |                     | 4.7                           |                   |
| Lead Acid Batteries                         |                     | 4.7                           |                   |
| Other Batteries                             |                     | 4.7                           |                   |
| <b>MEDICAL OR PHARMACEUTICAL WASTE</b>      |                     | 4.8                           |                   |
| <b>MISCELLANEOUS</b>                        | 10.1                | 4.8                           |                   |

29.2+ / 5.0  
 24.1 / 5.0  
 23.6 / 5.0  
 16.5 / 5.0  
 ---  
 93.4

#4

CITY OF ALBANY  
WASTE CHARACTERIZATION ANALYSIS  
SORT DATA SHEET

waited for operator  
for 20 min

Day/Date: Thursday 2/26/09  
 CHA Staff Name: Sara  
 Truck ID Number: 407A 9072 Arrival Number: 39  
 Hauler: Town of Rensselaerville Truck Type: Pull-off  
 Location: \_\_\_\_\_  
 Arrival Time: 9:50 A.M. \_\_\_\_\_ P.M.  
 Origin (Municipality): \_\_\_\_\_

| Material Components                         | Gross Weight (Lbs.) | Tare Weight Of Sort Container | Net Weight (Lbs.) |
|---------------------------------------------|---------------------|-------------------------------|-------------------|
| <b>PAPER</b>                                |                     |                               |                   |
| Newspaper                                   | 16.3                | 4.7                           |                   |
| Magazines                                   | 13.2                | 4.7                           |                   |
| Corrugated                                  | 10.8                | 4.7                           |                   |
| Gable Top Cartons & Drink Boxes             | 5.9                 | 4.9                           |                   |
| Paper Board                                 | 17.2                | 5.1                           |                   |
| Books (including phone directories)         |                     | 4.8                           |                   |
| Mixed Office Paper                          | 7.3                 | 4.8                           |                   |
| Other Paper                                 | 26.6                | 4.7                           |                   |
| <b>PLASTICS</b>                             |                     |                               |                   |
| Plastic Containers (PET) #1 Non-Bottle Bill | 6.8                 | 5.0                           |                   |
| Plastic #1 (Bottle Bill Containers)         | 5.1                 | 4.9                           |                   |
| Plastic Containers (HDPE) #2                | 8.3                 | 5.3                           |                   |
| Other Plastic Containers                    | 13.5                | 5.0                           |                   |
| Film Plastic & Plastic Bags                 | 16.0                | 4.7                           |                   |
| Other Plastics                              | 8.1                 | 4.7                           |                   |
| <b>FOOD WASTE</b>                           |                     |                               |                   |
|                                             | 91.7                | 5.6                           |                   |
| <b>TEXTILES &amp; LEATHER</b>               |                     |                               |                   |
|                                             | 11.2                | 5.0                           |                   |
| <b>RUBBER</b>                               |                     |                               |                   |
|                                             | 5.7                 | 4.8                           |                   |
| <b>DISPOSABLE DIAPERS</b>                   |                     |                               |                   |
|                                             | 5.3                 | 4.7                           |                   |
| <b>FERROUS METALS</b>                       |                     |                               |                   |
| Ferrous Metal/Bimetal Cans                  | 6.2                 | 4.9                           |                   |
| Aerosol Cans                                | 5.4                 | 4.9                           |                   |
| Other Ferrous Metal                         | 7.9                 | 4.9                           |                   |
| <b>NON-FERROUS METALS</b>                   |                     |                               |                   |
| Aluminum Cans (Non-Bottle Bill)             | 6.0                 | 5.0                           |                   |
| Aluminum Cans (Bottle Bill)                 | 4.9                 | 4.8                           |                   |
| Other Non-Ferrous Metal                     | 6.3                 | 4.9                           |                   |
| <b>ELECTRONICS</b>                          |                     |                               |                   |
|                                             | 9.1                 | 4.9                           |                   |
| <b>GLASS</b>                                |                     |                               |                   |
| Glass Bottles (Bottle Bill)                 | 5.6                 | 4.8                           |                   |
| Glass Bottle - Clear                        | 5.2                 | 4.7                           |                   |
| Glass Bottle - Amber                        |                     | 4.8                           |                   |
| Glass Bottle - Green                        | 6.6                 | 4.7                           |                   |
| Flat Glass & Other Glass                    | 5.9                 | 4.5                           |                   |
| <b>WOOD</b>                                 |                     |                               |                   |
|                                             | 6.2                 | 4.8                           |                   |
| <b>RUBBLE</b>                               |                     |                               |                   |
|                                             |                     | 4.7                           |                   |
| <b>YARD WASTE</b>                           |                     |                               |                   |
|                                             | 4.8                 | 4.7                           |                   |
| <b>DIRT/FINES</b>                           |                     |                               |                   |
|                                             | 27.9                | 4.6                           |                   |
| <b>HAZARDOUS WASTE</b>                      |                     |                               |                   |
|                                             |                     | 4.7                           |                   |
| Household Hazardous Waste (HHW)             |                     | 4.7                           |                   |
| Lead Acid Batteries                         |                     | 4.7                           |                   |
| Other Batteries                             | 4.8                 | 4.7                           |                   |
| <b>MEDICAL OR PHARMACEUTICAL WASTE</b>      |                     |                               |                   |
|                                             | 5.4                 | 4.8                           |                   |
| <b>MISCELLANEOUS</b>                        |                     |                               |                   |
|                                             | 10.4                | 4.5                           |                   |

Lead also  
containers  
- 2 mattresses  
- 2 Box springs  
- 1 recliner

Lo

CITY OF ALBANY  
WASTE CHARACTERIZATION ANALYSIS  
SORT DATA SHEET

#5

| Day/Date: <u>Thursday 2/26/09</u>           |                     |                               |                   |
|---------------------------------------------|---------------------|-------------------------------|-------------------|
| CHA Staff Name: _____                       |                     |                               |                   |
| Truck ID Number: <u>4754</u>                |                     | Arrival Number: <u>61</u>     |                   |
| Hauler: <u>Univ. Albany</u>                 |                     | Truck Type: _____             |                   |
| Location: _____                             |                     |                               |                   |
| Arrival Time: <u>11:00</u> A.M.             |                     | P.M.                          |                   |
| Origin (Municipality): _____                |                     |                               |                   |
| Material Components                         | Gross Weight (Lbs.) | Tare Weight Of Sort Container | Net Weight (Lbs.) |
| <b>PAPER</b>                                |                     |                               |                   |
| Newspaper                                   | 6.6                 | 4.7                           |                   |
| Magazines                                   |                     | 4.7                           |                   |
| Corrugated                                  | 6.8                 | 4.7                           |                   |
| Gable Top Cartons & Drink Boxes             | 5.1                 | 5.0                           |                   |
| Paper Board                                 | 16.9                | 5.0                           |                   |
| Books (including phone directories)         |                     | 4.8                           |                   |
| Mixed Office Paper                          | 6.1                 | 4.8                           |                   |
| Other Paper                                 | 27.7                | 4.8                           |                   |
| <b>PLASTICS</b>                             |                     |                               |                   |
| Plastic Containers (PET) #1 Non-Bottle Bill | 9.9                 | 5.0                           |                   |
| Plastic #1 (Bottle Bill Containers)         | 6.1                 | 4.9                           |                   |
| Plastic Containers (HDPE) #2                | 6.6                 | 5.3                           |                   |
| Other Plastic Containers                    | 9.9                 | 5.0                           |                   |
| Film Plastic & Plastic Bags                 | 11.3                | 4.7                           |                   |
| Other Plastics                              | 8.7                 | 4.7                           |                   |
| <b>FOOD WASTE</b>                           |                     |                               |                   |
|                                             | 99.3                | 5.4                           |                   |
| <b>TEXTILES &amp; LEATHER</b>               |                     |                               |                   |
|                                             | 6.1                 | 4.9                           |                   |
| <b>RUBBER</b>                               |                     |                               |                   |
|                                             | 5.9                 | 4.8                           |                   |
| <b>DISPOSABLE DIAPERS</b>                   |                     |                               |                   |
|                                             |                     | 4.7                           |                   |
| <b>FERROUS METALS</b>                       |                     |                               |                   |
| Ferrous Metal/Bimetal Cans                  | 16.0                | 4.9                           |                   |
| Aerosol Cans                                | 5.2                 | 5.0                           |                   |
| Other Ferrous Metal                         |                     | 4.9                           |                   |
| <b>NON-FERROUS METALS</b>                   |                     |                               |                   |
| Aluminum Cans (Non-Bottle Bill)             |                     | 5.0                           |                   |
| Aluminum Cans (Bottle Bill)                 | 4.9                 | 4.8                           |                   |
| Other Non-Ferrous Metal                     | 5.5                 | 4.9                           |                   |
| <b>ELECTRONICS</b>                          |                     |                               |                   |
|                                             |                     | 4.8                           |                   |
| <b>GLASS</b>                                |                     |                               |                   |
| Glass Bottles (Bottle Bill)                 | 5.3                 | 4.8                           |                   |
| Glass Bottle - Clear                        | 5.8                 | 4.8                           |                   |
| Glass Bottle - Amber                        |                     | 4.8                           |                   |
| Glass Bottle - Green                        |                     | 4.7                           |                   |
| Flat Glass & Other Glass                    |                     | 4.7                           |                   |
| <b>WOOD</b>                                 |                     |                               |                   |
|                                             | 23                  | 4.9                           |                   |
| <b>RUBBLE</b>                               |                     |                               |                   |
|                                             |                     | 4.7                           |                   |
| <b>YARD WASTE</b>                           |                     |                               |                   |
|                                             |                     | 4.7                           |                   |
| <b>DIRT/FINES</b>                           |                     |                               |                   |
|                                             |                     | 4.6                           |                   |
| <b>HAZARDOUS WASTE</b>                      |                     |                               |                   |
| Household Hazardous Waste (HHW)             |                     | 4.7                           |                   |
| Lead Acid Batteries                         |                     | 4.7                           |                   |
| Other Batteries                             |                     | 4.7                           |                   |
| <b>MEDICAL OR PHARMACEUTICAL WASTE</b>      |                     |                               |                   |
|                                             |                     | 4.9                           |                   |
| <b>MISCELLANEOUS</b>                        |                     |                               |                   |
|                                             |                     | 4.8                           |                   |

#16

**CITY OF ALBANY  
WASTE CHARACTERIZATION ANALYSIS  
SORT DATA SHEET**

Day/Date: Thursday 2/26/09  
 CHA Staff Name: \_\_\_\_\_  
 Truck ID Number: 5240 Arrival Number: # 71  
 Hauler: City of Albany PWS Truck Type: Packer  
 Location: \_\_\_\_\_  
 Arrival Time: 11:30 A.M. \_\_\_\_\_ P.M.  
 Origin (Municipality): \_\_\_\_\_

| Material Components                         | Gross Weight (Lbs.) | Tare Weight Of Sort Container | Net Weight (Lbs.) |
|---------------------------------------------|---------------------|-------------------------------|-------------------|
| <b>PAPER</b>                                |                     |                               |                   |
| Newspaper                                   | 11.8                | 4.7                           |                   |
| Magazines                                   | 6.8                 | 4.7                           |                   |
| Corrugated                                  | 9.5                 | 4.7                           |                   |
| Gable Top Cartons & Drink Boxes             | 5.3                 | 4.9                           |                   |
| Paper Board                                 | 18.1                | 5.1                           |                   |
| Books (including phone directories)         | 9.0                 | 4.8                           |                   |
| Mixed Office Paper                          | 16.1                | 4.8                           |                   |
| Other Paper                                 | 34.1                | 4.7                           |                   |
| <b>PLASTICS</b>                             |                     |                               |                   |
| Plastic Containers (PET) #1 Non-Bottle Bill | 9.2                 | 5.0                           |                   |
| Plastic #1 (Bottle Bill Containers)         | 5.6                 | 4.9                           |                   |
| Plastic Containers (HDPE) #2                | 7.9                 | 5.2                           |                   |
| Other Plastic Containers                    | 12.2                | 5.0                           |                   |
| Film Plastic & Plastic Bags                 | 18.3                | 4.7                           |                   |
| Other Plastics                              | 12.2                | 4.7                           |                   |
| <b>FOOD WASTE</b>                           | 90.0                | 5.5                           |                   |
| <b>TEXTILES &amp; LEATHER</b>               | 15.0                | 4.9                           |                   |
| <b>RUBBER</b>                               | 4.8                 | 4.7                           |                   |
| <b>DISPOSABLE DIAPERS</b>                   | 15.8                | 4.7                           |                   |
| <b>FERROUS METALS</b>                       |                     |                               |                   |
| Ferrous Metal/Bimetal Cans                  | 8.6                 | 4.9                           |                   |
| Aerosol Cans                                | 5.3                 | 4.9                           |                   |
| Other Ferrous Metal                         | 8.8                 | 4.9                           |                   |
| <b>NON-FERROUS METALS</b>                   |                     |                               |                   |
| Aluminum Cans (Non-Bottle Bill)             | 5.0                 | 4.8                           |                   |
| Aluminum Cans (Bottle Bill)                 | 5.0                 | 4.8                           |                   |
| Other Non-Ferrous Metal                     | 6.4                 | 4.9                           |                   |
| <b>ELECTRONICS</b>                          | 21.9                | 4.8                           |                   |
| <b>GLASS</b>                                |                     |                               |                   |
| Glass Bottles (Bottle Bill)                 |                     | 4.8                           |                   |
| Glass Bottle - Clear                        | 11.3                | 4.7                           |                   |
| Glass Bottle - Amber                        | 8.0                 | 4.8                           |                   |
| Glass Bottle - Green                        | 5.6                 | 4.7                           |                   |
| Flat Glass & Other Glass                    | 5.7                 | 4.7                           |                   |
| <b>WOOD</b>                                 | 20.6                | 4.8                           |                   |
| <b>RUBBLE</b>                               |                     | 4.7                           |                   |
| <b>YARD WASTE</b>                           | 6.1                 | 4.7                           |                   |
| <b>DIRT/FINES</b>                           | 16.7                | 4.6                           |                   |
| <b>HAZARDOUS WASTE</b>                      |                     | 4.7                           |                   |
| Household Hazardous Waste (HHW)             |                     | 4.7                           |                   |
| Lead Acid Batteries                         |                     | 4.7                           |                   |
| Other Batteries                             |                     | 4.7                           |                   |
| <b>MEDICAL OR PHARMACEUTICAL WASTE</b>      | 5.1                 | 4.9                           |                   |
| <b>MISCELLANEOUS</b>                        | 8.7                 | 4.8                           |                   |

#7

CITY OF ALBANY  
WASTE CHARACTERIZATION ANALYSIS  
SORT DATA SHEET

Day/Date: Thursday 2/26/09  
 CHA Staff Name: \_\_\_\_\_  
 Truck ID Number: 5406 Arrival Number: 107  
 Hauler: County Waste Truck Type: Packer  
 Location: \_\_\_\_\_  
 Arrival Time: \_\_\_\_\_ A.M. 2:00 P.M.  
 Origin (Municipality): \_\_\_\_\_

| Material Components                         | Gross Weight (Lbs.) | Tare Weight Of Sort Container | Net Weight (Lbs.) |
|---------------------------------------------|---------------------|-------------------------------|-------------------|
| <b>PAPER</b>                                |                     |                               |                   |
| Newspaper                                   | 7.9                 | 4.7                           |                   |
| Magazines                                   |                     | 4.7                           |                   |
| Corrugated                                  | 24.6                | 4.7                           |                   |
| Gable Top Cartons & Drink Boxes             | 5.0                 | 4.9                           |                   |
| Paper Board                                 | 10.7                | 5.1                           |                   |
| Books (including phone directories)         | 8.7                 | 4.8                           |                   |
| Mixed Office Paper                          | 9.8                 | 4.8                           |                   |
| Other Paper                                 | 21.5                | 4.8                           |                   |
| <b>PLASTICS</b>                             |                     |                               |                   |
| Plastic Containers (PET) #1 Non-Bottle Bill | 6.1                 | 5.0                           |                   |
| Plastic #1 (Bottle Bill Containers)         | 6.1                 | 4.9                           |                   |
| Plastic Containers (HDPE) #2                | 6.5                 | 5.2                           |                   |
| Other Plastic Containers                    | 8.5 <del>12.1</del> | 5.0                           |                   |
| Film Plastic & Plastic Bags                 | 10.7                | 4.7                           |                   |
| Other Plastics                              |                     | 4.6                           |                   |
| <b>FOOD WASTE</b>                           | 24.4                | 5.5                           |                   |
| <b>TEXTILES &amp; LEATHER</b>               | 9.0                 | 4.9                           |                   |
| <b>RUBBER</b>                               |                     | 4.7                           |                   |
| <b>DISPOSABLE DIAPERS</b>                   |                     | 4.8                           |                   |
| <b>FERROUS METALS</b>                       |                     |                               |                   |
| Ferrous Metal/Bimetal Cans                  | 5.5                 | 4.9                           |                   |
| Aerosol Cans                                | 5.3                 | 4.9                           |                   |
| Other Ferrous Metal                         | 16.2                | 4.9                           |                   |
| <b>NON-FERROUS METALS</b>                   |                     |                               |                   |
| Aluminum Cans (Non-Bottle Bill)             |                     | 5.0                           |                   |
| Aluminum Cans (Bottle Bill)                 | 5.3                 | 4.8                           |                   |
| Other Non-Ferrous Metal                     | 5.0                 | 4.9                           |                   |
| <b>ELECTRONICS</b>                          | 14.5                | 4.9                           |                   |
| <b>GLASS</b>                                |                     |                               |                   |
| Glass Bottles (Bottle Bill)                 |                     | 4.8                           |                   |
| Glass Bottle - Clear                        | 7.0                 | 4.7                           |                   |
| Glass Bottle - Amber                        |                     | 4.4                           |                   |
| Glass Bottle - Green                        | 4.8                 | 4.7                           |                   |
| Flat Glass & Other Glass                    | 5.7                 | 4.8                           |                   |
| <b>WOOD</b>                                 | 6.4                 | 4.8                           |                   |
| <b>RUBBLE</b>                               |                     | 4.8                           |                   |
| <b>YARD WASTE</b>                           |                     | 4.7                           |                   |
| <b>DIRT/FINES</b>                           | 12.8                | 4.6                           |                   |
| <b>HAZARDOUS WASTE</b>                      |                     | 4.7                           |                   |
| Household Hazardous Waste (HHW)             |                     | 4.7                           |                   |
| Lead Acid Batteries                         |                     | 4.7                           |                   |
| Other Batteries                             |                     | 4.7                           |                   |
| <b>MEDICAL OR PHARMACEUTICAL WASTE</b>      |                     | 4.9                           |                   |
| <b>MISCELLANEOUS</b>                        | 27.7                | 4.7                           |                   |



CITY OF ALBANY  
WASTE CHARACTERIZATION ANALYSIS  
SORT DATA SHEET

118

Day/Date: Thursday 2/26/09  
 CHA Staff Name: \_\_\_\_\_  
 Truck ID Number: 4914 Arrival Number: 111  
 Hauler: waste mgmt Truck Type: Roll-off  
 Location: \_\_\_\_\_  
 Arrival Time: \_\_\_\_\_ A.M. 2:30 P.M.  
 Origin (Municipality): \_\_\_\_\_

NOT TARE  
 L 14.54  
 TARE 18.5  
 33.0

| Material Components                         | Gross Weight (Lbs.) | Tare Weight Of Sort Container | Net Weight (Lbs.) |
|---------------------------------------------|---------------------|-------------------------------|-------------------|
| <b>PAPER</b>                                |                     |                               |                   |
| Newspaper                                   |                     | 4.6                           |                   |
| Magazines                                   |                     | 4.7                           |                   |
| Corrugated                                  | 33.0                | 4.8                           |                   |
| Gable Top Cartons & Drink Boxes             |                     | 4.9                           |                   |
| Paper Board                                 | 11.7                | 5.0                           |                   |
| Books (including phone directories)         |                     | 4.4                           |                   |
| Mixed Office Paper                          | 7.4                 | 4.8                           |                   |
| Other Paper                                 | 19.0                | 4.7                           |                   |
| <b>PLASTICS</b>                             |                     |                               |                   |
| Plastic Containers (PET) #1 Non-Bottle Bill | 5.4                 | 5.1                           |                   |
| Plastic #1 (Bottle Bill Containers)         | 5.3                 | 5.0                           |                   |
| Plastic Containers (HDPE) #2                | 5.9                 | 5.3                           |                   |
| Other Plastic Containers                    | 8.4                 | 4.7                           |                   |
| Film Plastic & Plastic Bags                 | 9.9                 | 4.7                           |                   |
| Other Plastics                              | 8.1                 | 4.3                           |                   |
| <b>FOOD WASTE</b>                           |                     |                               |                   |
| <b>TEXTILES &amp; LEATHER</b>               |                     |                               |                   |
| <b>RUBBER</b>                               |                     |                               |                   |
| <b>DISPOSABLE DIAPERS</b>                   |                     |                               |                   |
| <b>FERROUS METALS</b>                       |                     |                               |                   |
| Ferrous Metal/Bimetal Cans                  |                     | 5.0                           |                   |
| Aerosol Cans                                |                     | 4.9                           |                   |
| Other Ferrous Metal                         | 5.1                 | 4.8                           |                   |
| <b>NON-FERROUS METALS</b>                   |                     |                               |                   |
| Aluminum Cans (Non-Bottle Bill)             |                     | 5.0                           |                   |
| Aluminum Cans (Bottle Bill)                 |                     | 4.8                           |                   |
| Other Non-Ferrous Metal                     | 6.2                 | 4.8                           |                   |
| <b>ELECTRONICS</b>                          |                     |                               |                   |
| <b>GLASS</b>                                |                     |                               |                   |
| Glass Bottles (Bottle Bill)                 |                     | 4.9                           |                   |
| Glass Bottle - Clear                        | 83.5                | 4.8                           |                   |
| Glass Bottle - Amber                        | 62.4                | 4.4                           |                   |
| Glass Bottle - Green                        |                     | 4.7                           |                   |
| Flat Glass & Other Glass                    |                     | 4.7                           |                   |
| <b>WOOD</b>                                 |                     |                               |                   |
| <b>RUBBLE</b>                               |                     |                               |                   |
| <b>YARD WASTE</b>                           |                     |                               |                   |
| <b>DIRT/FINES</b>                           |                     |                               |                   |
| <b>HAZARDOUS WASTE</b>                      |                     |                               |                   |
| Household Hazardous Waste (HHW)             |                     | 4.7                           |                   |
| Lead Acid Batteries                         |                     | 4.7                           |                   |
| Other Batteries                             |                     | 4.7                           |                   |
| <b>MEDICAL OR PHARMACEUTICAL WASTE</b>      |                     |                               |                   |
| <b>MISCELLANEOUS</b>                        |                     |                               |                   |
|                                             | 16.9                | 4.7                           |                   |

CITY OF ALBANY  
WASTE CHARACTERIZATION ANALYSIS  
SORT DATA SHEET

#1

| Day/Date: <u>Friday 2/27/09</u>             |                     |                               |                   |
|---------------------------------------------|---------------------|-------------------------------|-------------------|
| CHA Staff Name: _____                       |                     |                               |                   |
| Truck ID Number: <u>5328</u>                |                     | Arrival Number: <u>1</u>      |                   |
| Hauler: <u>CTY 216 DG5</u>                  |                     | Truck Type: <u>Packer</u>     |                   |
| Location: _____                             |                     |                               |                   |
| Arrival Time: <u>7:00</u> A.M. _____ P.M.   |                     |                               |                   |
| Origin (Municipality): _____                |                     |                               |                   |
| Material Components                         | Gross Weight (Lbs.) | Tare Weight Of Sort Container | Net Weight (Lbs.) |
| <b>PAPER</b>                                |                     |                               |                   |
| Newspaper                                   | 5.9                 | 4.6                           |                   |
| Magazines                                   | 7.9                 | 4.7                           |                   |
| Corrugated                                  | 7.0                 | 4.8                           |                   |
| Gable Top Cartons & Drink Boxes             | 5.7                 | 4.9                           |                   |
| Paper Board                                 | 15.4                | 5.1                           |                   |
| Books (including phone directories)         | 9.3                 | 4.4                           |                   |
| Mixed Office Paper                          | 9.8                 | 4.8                           |                   |
| Other Paper                                 | 18.2                | 4.7                           |                   |
| <b>PLASTICS</b>                             |                     |                               |                   |
| Plastic Containers (PET) #1 Non-Bottle Bill | 7.7                 | 5.0                           |                   |
| Plastic #1 (Bottle Bill Containers)         | 5.9                 | 5.0                           |                   |
| Plastic Containers (HDPE) #2                | 9.9                 | 5.3                           |                   |
| Other Plastic Containers                    | 9.4                 | 5.1                           |                   |
| Film Plastic & Plastic Bags                 | 17.1                | 4.7                           |                   |
| Other Plastics                              | 7.4                 | 4.7                           |                   |
| <b>FOOD WASTE</b>                           |                     |                               |                   |
|                                             | 13.1                | 5.5                           |                   |
| <b>TEXTILES &amp; LEATHER</b>               |                     |                               |                   |
|                                             | 19.9                | 5.0                           |                   |
| <b>RUBBER</b>                               |                     |                               |                   |
|                                             | 4.8                 | 4.8                           |                   |
| <b>DISPOSABLE DIAPERS</b>                   |                     |                               |                   |
|                                             | 9.8                 | 4.8                           |                   |
| <b>FERROUS METALS</b>                       |                     |                               |                   |
| Ferrous Metal/Bimetal Cans                  | 6.7                 | 5.0                           |                   |
| Aerosol Cans                                | 5.4                 | 4.9                           |                   |
| Other Ferrous Metal                         |                     | 4.9                           |                   |
| <b>NON-FERROUS METALS</b>                   |                     |                               |                   |
| Aluminum Cans (Non-Bottle Bill)             | 5.1                 | 4.8                           |                   |
| Aluminum Cans (Bottle Bill)                 | 5.4                 | 4.8                           |                   |
| Other Non-Ferrous Metal                     | 9.4                 | 4.9                           |                   |
| <b>ELECTRONICS</b>                          |                     |                               |                   |
|                                             | 16.7                | 4.9                           |                   |
| <b>GLASS</b>                                |                     |                               |                   |
| Glass Bottles (Bottle Bill)                 | 6.4                 | 4.8                           |                   |
| Glass Bottle - Clear                        | 6.6                 | 4.8                           |                   |
| Glass Bottle - Amber                        |                     | 4.7                           |                   |
| Glass Bottle - Green                        |                     | 4.7                           |                   |
| Flat Glass & Other Glass                    |                     | 4.7                           |                   |
| <b>WOOD</b>                                 |                     |                               |                   |
|                                             |                     | 4.8                           |                   |
| <b>RUBBLE</b>                               |                     |                               |                   |
|                                             |                     | 4.8                           |                   |
| <b>YARD WASTE</b>                           |                     |                               |                   |
|                                             |                     | 4.7                           |                   |
| <b>DIRT/FINES</b>                           |                     |                               |                   |
|                                             |                     | 4.6                           |                   |
| <b>HAZARDOUS WASTE</b>                      |                     |                               |                   |
| Household Hazardous Waste (HHW)             |                     | 4.7                           |                   |
| Lead Acid Batteries                         |                     | 4.7                           |                   |
| Other Batteries                             | 5.5                 | 4.1                           |                   |
| <b>MEDICAL OR PHARMACEUTICAL WASTE</b>      |                     |                               |                   |
|                                             |                     | 4.9                           |                   |
| <b>MISCELLANEOUS</b>                        |                     |                               |                   |
|                                             | 15.7                | 4.7                           |                   |

CITY OF ALBANY  
WASTE CHARACTERIZATION ANALYSIS  
SORT DATA SHEET

#2

Day/Date: Friday 2/27/09  
 CHA Staff Name: Mike Lee, Brad Blane, Sarah B., Sarah J., Jane  
 Truck ID Number: 5361 Arrival Number: 19  
 Hauler: City of Rensselaer Truck Type: Packer  
 Location: \_\_\_\_\_  
 Arrival Time: 8:00 A.M. \_\_\_\_\_ P.M.  
 Origin (Municipality): \_\_\_\_\_

Bulk Land  
 2 - couches  
 2 - mattresses  
 - much wood  
 - 1 Recliner

| Material Components                         | Gross Weight (Lbs.) | Tare Weight Of Sort Container | Net Weight (Lbs.) |
|---------------------------------------------|---------------------|-------------------------------|-------------------|
| <b>PAPER</b>                                |                     |                               |                   |
| Newspaper                                   | 5.7                 | 4.6                           |                   |
| Magazines                                   |                     | 4.7                           |                   |
| Corrugated                                  | 18.4                | 4.8                           |                   |
| Gable Top Cartons & Drink Boxes             | 6.1                 | 4.9                           |                   |
| Paper Board                                 | 8.4                 | 5.1                           |                   |
| Books (including phone directories)         | 5.9                 | 4.8                           |                   |
| Mixed Office Paper                          | 5.0                 | 4.8                           |                   |
| Other Paper                                 | 14.9                | 4.7                           |                   |
| <b>PLASTICS</b>                             |                     |                               |                   |
| Plastic Containers (PET) #1 Non-Bottle Bill |                     | 5.1                           |                   |
| Plastic #1 (Bottle Bill Containers)         | 6.6                 | 4.9                           |                   |
| Plastic Containers (HDPE) #2                | 6.6                 | 5.3                           |                   |
| Other Plastic Containers                    | 7.3                 | 4.9                           |                   |
| Film Plastic & Plastic Bags                 | 8.6                 | 4.7                           |                   |
| Other Plastics                              | 25.6                | 4.7                           |                   |
| <b>FOOD WASTE</b>                           |                     |                               |                   |
|                                             | 17.0                | 5.4                           |                   |
| <b>TEXTILES &amp; LEATHER</b>               |                     |                               |                   |
|                                             | 21.2                | 4.8                           |                   |
| <b>RUBBER</b>                               |                     |                               |                   |
|                                             | 4.8                 | 4.7                           |                   |
| <b>DISPOSABLE DIAPERS</b>                   |                     |                               |                   |
|                                             | 7.6                 | 4.8                           |                   |
| <b>FERROUS METALS</b>                       |                     |                               |                   |
| Ferrous Metal/Bimetal Cans                  | 6.0                 | 5.1                           |                   |
| Aerosol Cans                                |                     | 5.0                           |                   |
| Other Ferrous Metal                         | 9.1                 | 4.9                           |                   |
| <b>NON-FERROUS METALS</b>                   |                     |                               |                   |
| Aluminum Cans (Non-Bottle Bill)             |                     | 5.0                           |                   |
| Aluminum Cans (Bottle Bill)                 |                     | 4.8                           |                   |
| Other Non-Ferrous Metal                     | 10.9                | 4.9                           |                   |
| <b>ELECTRONICS</b>                          |                     |                               |                   |
|                                             | 11.1                | 4.9                           |                   |
| <b>GLASS</b>                                |                     |                               |                   |
| Glass Bottles (Bottle Bill)                 | 5.6                 | 4.8                           |                   |
| Glass Bottle - Clear                        | 8.7                 | 4.8                           |                   |
| Glass Bottle - Amber                        |                     | 4.7                           |                   |
| Glass Bottle - Green                        |                     | 4.7                           |                   |
| Flat Glass & Other Glass                    | 9.6                 | 4.7                           |                   |
| <b>WOOD</b>                                 |                     |                               |                   |
|                                             | 45.6                | 4.8                           |                   |
| <b>RUBBLE</b>                               |                     |                               |                   |
|                                             |                     | 4.8                           |                   |
| <b>YARD WASTE</b>                           |                     |                               |                   |
|                                             |                     | 4.7                           |                   |
| <b>DIRT/FINES</b>                           |                     |                               |                   |
|                                             | 17.5                | 4.6                           |                   |
| <b>HAZARDOUS WASTE</b>                      |                     |                               |                   |
| Household Hazardous Waste (HHW)             |                     | 4.7                           |                   |
| Lead Acid Batteries                         |                     | 4.7                           |                   |
| Other Batteries                             | 4.8                 | 4.7                           |                   |
| <b>MEDICAL OR PHARMACEUTICAL WASTE</b>      |                     |                               |                   |
|                                             |                     | 4.9                           |                   |
| <b>MISCELLANEOUS</b>                        |                     |                               |                   |
|                                             | 9.4                 | 4.8                           |                   |

#3

CITY OF ALBANY  
WASTE CHARACTERIZATION ANALYSIS  
SORT DATA SHEET

Day/Date: 2/27/09 Friday  
 CHA Staff Name: \_\_\_\_\_  
 Truck ID Number: 5339 Arrival Number: 36  
 Hauler: Town of Knox Truck Type: Roll-off  
 Location: \_\_\_\_\_  
 Arrival Time: 8:30 A.M. \_\_\_\_\_ P.M.  
 Origin (Municipality): \_\_\_\_\_

| Material Components                         | Gross Weight (Lbs.) | Tare Weight Of Sort Container | Net Weight (Lbs.) |
|---------------------------------------------|---------------------|-------------------------------|-------------------|
| <b>PAPER</b>                                |                     |                               |                   |
| Newspaper                                   | 7.6                 | 4.8                           |                   |
| Magazines                                   | 5.7                 | 4.7                           |                   |
| Corrugated                                  | 6.5                 | 4.7                           |                   |
| Gable Top Cartons & Drink Boxes             | 6.4                 | 5.0                           |                   |
| Paper Board                                 | 13.0                | 5.1                           |                   |
| Books (including phone directories)         | 5.1                 | 4.7                           |                   |
| Mixed Office Paper                          | 9.5                 | 4.7                           |                   |
| Other Paper                                 | 18.2                | 4.7                           |                   |
| <b>PLASTICS</b>                             |                     |                               |                   |
| Plastic Containers (PET) #1 Non-Bottle Bill | 5.8                 | 5.1                           |                   |
| Plastic #1 (Bottle Bill Containers)         | 6.6                 | 5.0                           |                   |
| Plastic Containers (HDPE) #2                | 8.4                 | 5.3                           |                   |
| Other Plastic Containers <u>9.5+8.0</u>     | 17.5                | 5.0x2                         |                   |
| Film Plastic & Plastic Bags                 | 13.0                | 4.7                           |                   |
| Other Plastics                              | 6.0                 | 4.7                           |                   |
| <b>FOOD WASTE</b>                           |                     |                               |                   |
|                                             | 48.5                | 5.5                           |                   |
| <b>TEXTILES &amp; LEATHER</b>               |                     |                               |                   |
|                                             | 14.4                | 5.0                           |                   |
| <b>RUBBER</b>                               |                     |                               |                   |
|                                             | 5.1                 | 4.7                           |                   |
| <b>DISPOSABLE DIAPERS</b>                   |                     |                               |                   |
|                                             | 13.1                | 4.7                           |                   |
| <b>FERROUS METALS</b>                       |                     |                               |                   |
| Ferrous Metal/Bimetal Cans                  | 8.3                 | 5.0                           |                   |
| Aerosol Cans                                |                     | 5.0                           |                   |
| Other Ferrous Metal                         | 6.7                 | 4.9                           |                   |
| <b>NON-FERROUS METALS</b>                   |                     |                               |                   |
| Aluminum Cans (Non-Bottle Bill)             | 5.6                 | 5.0                           |                   |
| Aluminum Cans (Bottle Bill)                 |                     | 4.8                           |                   |
| Other Non-Ferrous Metal                     | 9.9                 | 4.9                           |                   |
| <b>ELECTRONICS</b>                          |                     |                               |                   |
|                                             | 5.1                 | 4.9                           |                   |
| <b>GLASS</b>                                |                     |                               |                   |
| Glass Bottles (Bottle Bill)                 |                     | 4.8                           |                   |
| Glass Bottle - Clear                        | 10.3                | 4.8                           |                   |
| Glass Bottle - Amber                        | 8.6                 | 4.7                           |                   |
| Glass Bottle - Green                        |                     | 4.7                           |                   |
| Flat Glass & Other Glass                    | 7.5                 | 4.7                           |                   |
| <b>WOOD</b>                                 |                     |                               |                   |
|                                             | 5.1                 | 4.8                           |                   |
| <b>RUBBLE</b>                               |                     |                               |                   |
|                                             |                     | 4.8                           |                   |
| <b>YARD WASTE</b>                           |                     |                               |                   |
|                                             |                     | 4.7                           |                   |
| <b>DIRT/FINES</b>                           |                     |                               |                   |
|                                             | 58.6                | 4.7                           |                   |
| <b>HAZARDOUS WASTE</b>                      |                     |                               |                   |
| Household Hazardous Waste (HHW)             |                     | 4.7                           |                   |
| Lead Acid Batteries                         |                     | 4.7                           |                   |
| Other Batteries                             |                     | 4.7                           |                   |
| <b>MEDICAL OR PHARMACEUTICAL WASTE</b>      |                     |                               |                   |
|                                             | 5.0                 | 4.9                           |                   |
| <b>MISCELLANEOUS</b>                        |                     |                               |                   |
|                                             | 14.3                | 4.8                           |                   |

#4

CITY OF ALBANY  
WASTE CHARACTERIZATION ANALYSIS  
SORT DATA SHEET

| Day/Date: <u>Friday 2/27/09</u>             |                     |                               |                   |
|---------------------------------------------|---------------------|-------------------------------|-------------------|
| CHA Staff Name: _____                       |                     |                               |                   |
| Truck ID Number: <u>4671</u>                |                     | Arrival Number: <u>49</u>     |                   |
| Hauler: <u>Selvestic Army (P)</u>           |                     | Truck Type: <u>Box/ump</u>    |                   |
| Location: _____                             |                     |                               |                   |
| Arrival Time: <u>9:30</u> A.M. _____ P.M.   |                     |                               |                   |
| Origin (Municipality): _____                |                     |                               |                   |
| Material Components                         | Gross Weight (Lbs.) | Tare Weight Of Sort Container | Net Weight (Lbs.) |
| <b>PAPER</b>                                |                     |                               |                   |
| Newspaper                                   |                     | 4.8                           |                   |
| Magazines                                   | 6.2                 | 4.8                           |                   |
| Corrugated                                  | 17.1                | 4.8                           |                   |
| Gable Top Cartons & Drink Boxes             |                     | 4.9                           |                   |
| Paper Board                                 | 6.8                 | 5.0                           |                   |
| Books (including phone directories)         | 22.9                | 4.8                           |                   |
| Mixed Office Paper                          | 11.8                | 4.7                           |                   |
| Other Paper                                 | 14.1                | 4.8                           |                   |
| <b>PLASTICS</b>                             |                     |                               |                   |
| Plastic Containers (PET) #1 Non-Bottle Bill | 5.9                 | 5.1                           |                   |
| Plastic #1 (Bottle Bill Containers)         |                     | 5.0                           |                   |
| Plastic Containers (HDPE) #2                |                     | 5.3                           |                   |
| Other Plastic Containers                    | 5.8                 | 5.0                           |                   |
| Film Plastic & Plastic Bags                 | 9.3                 | 4.7                           |                   |
| Other Plastics                              | 18.5                | 4.7                           |                   |
| <b>FOOD WASTE</b>                           | 6.5                 | 5.4                           |                   |
| <b>TEXTILES &amp; LEATHER</b> 23.3+32.9=    | 56.2                | 5.0x2                         |                   |
| <b>RUBBER</b>                               |                     | 4.7                           |                   |
| <b>DISPOSABLE DIAPERS</b>                   |                     | 4.8                           |                   |
| <b>FERROUS METALS</b>                       |                     |                               |                   |
| Ferrous Metal/Bimetal Cans                  |                     | 5.0                           |                   |
| Aerosol Cans                                |                     | 5.0                           |                   |
| Other Ferrous Metal                         | 12.3                | 4.9                           |                   |
| <b>NON-FERROUS METALS</b>                   |                     |                               |                   |
| Aluminum Cans (Non-Bottle Bill)             |                     | 4.9                           |                   |
| Aluminum Cans (Bottle Bill)                 |                     | 4.8                           |                   |
| Other Non-Ferrous Metal                     | 14.8                | 4.9                           |                   |
| <b>ELECTRONICS</b>                          |                     |                               |                   |
|                                             | 12.8                | 4.9                           |                   |
| <b>GLASS</b>                                |                     |                               |                   |
| Glass Bottles (Bottle Bill)                 |                     | 4.8                           |                   |
| Glass Bottle - Clear                        |                     | 4.8                           |                   |
| Glass Bottle - Amber                        |                     | 4.8                           |                   |
| Glass Bottle - Green                        |                     | 4.7                           |                   |
| Flat Glass & Other Glass                    | 27.1                | 4.7                           |                   |
| <b>WOOD</b>                                 | 7.0                 | 4.9                           |                   |
| <b>RUBBLE</b>                               |                     | 4.8                           |                   |
| <b>YARD WASTE</b>                           |                     | 4.7                           |                   |
| <b>DIRT/FINES</b>                           | 5.0                 | 4.7                           |                   |
| <b>HAZARDOUS WASTE</b>                      |                     |                               |                   |
| Household Hazardous Waste (HHW)             |                     | 4.7                           |                   |
| Lead Acid Batteries                         |                     | 4.7                           |                   |
| Other Batteries                             | 5.0                 | 4.7                           |                   |
| <b>MEDICAL OR PHARMACEUTICAL WASTE</b>      |                     |                               |                   |
|                                             |                     | 4.9                           |                   |
| <b>MISCELLANEOUS</b>                        | 6.4                 | 4.8                           |                   |

#5

CITY OF ALBANY  
WASTE CHARACTERIZATION ANALYSIS  
SORT DATA SHEET

Day/Date: Friday 2/27/09  
 CHA Staff Name: \_\_\_\_\_  
 Truck ID Number: 5374 Arrival Number: 61  
 Hauler: City of Albany Truck Type: Poche  
 Location: \_\_\_\_\_  
 Arrival Time: 10:10 A.M. \_\_\_\_\_ P.M.  
 Origin (Municipality): \_\_\_\_\_

| Material Components                         | Gross Weight (Lbs.) | Tare Weight Of Sort Container | Net Weight (Lbs.) |
|---------------------------------------------|---------------------|-------------------------------|-------------------|
| <b>PAPER</b>                                |                     |                               |                   |
| Newspaper                                   | 9.5                 | 4.8                           |                   |
| Magazines                                   | 6.7                 | 4.7                           |                   |
| Corrugated                                  | 9.0                 | 4.6                           |                   |
| Gable Top Cartons & Drink Boxes             |                     | 4.9                           |                   |
| Paper Board                                 | 10.1                | 5.1                           |                   |
| Books (including phone directories)         | 13.4                | 4.8                           |                   |
| Mixed Office Paper                          | 6.7                 | 4.7                           |                   |
| Other Paper                                 | 20.3                | 4.7                           |                   |
| <b>PLASTICS</b>                             |                     |                               |                   |
| Plastic Containers (PET) #1 Non-Bottle Bill | 6.6                 | 5.1                           |                   |
| Plastic #1 (Bottle Bill Containers)         | 6.0                 | 5.0                           |                   |
| Plastic Containers (HDPE) #2                | 7.8                 | 5.3                           |                   |
| Other Plastic Containers                    | 13.7                | 5.0                           |                   |
| Film Plastic & Plastic Bags                 | 31.6                | 4.7 x 2                       |                   |
| Other Plastics                              | 13.8                | 4.7                           |                   |
| <b>FOOD WASTE</b>                           | <del>157.0</del>    | 5.5                           |                   |
| <b>TEXTILES &amp; LEATHER</b>               | 21.4                | 5.0                           |                   |
| <b>RUBBER</b>                               | 5.1                 | 4.7                           |                   |
| <b>DISPOSABLE DIAPERS</b>                   | 5.2                 | 4.8                           |                   |
| <b>FERROUS METALS</b>                       |                     |                               |                   |
| Ferrous Metal/Bimetal Cans                  | 5.7                 | 5.0                           |                   |
| Aerosol Cans                                |                     | 5.0                           |                   |
| Other Ferrous Metal                         | 5.8                 | 4.9                           |                   |
| <b>NON-FERROUS METALS</b>                   |                     |                               |                   |
| Aluminum Cans (Non-Bottle Bill)             | 5.3                 | 4.9                           |                   |
| Aluminum Cans (Bottle Bill)                 |                     | 4.8                           |                   |
| Other Non-Ferrous Metal                     | 6.3                 | 5.0                           |                   |
| <b>ELECTRONICS</b>                          |                     | 4.9                           |                   |
| <b>GLASS</b>                                |                     |                               |                   |
| Glass Bottles (Bottle Bill)                 |                     | 4.8                           |                   |
| Glass Bottle - Clear                        | 5.4                 | 4.8                           |                   |
| Glass Bottle - Amber                        | 5.9                 | 4.8                           |                   |
| Glass Bottle - Green                        |                     | 4.7                           |                   |
| Flat Glass & Other Glass                    | 5.9                 | 4.7                           |                   |
| <b>WOOD</b>                                 | 12.3                | 4.8                           |                   |
| <b>RUBBLE</b>                               |                     | 4.8                           |                   |
| <b>YARD WASTE</b>                           | 6.7                 | 4.7                           |                   |
| <b>DIRT/FINES</b>                           | 11.9                | 4.7                           |                   |
| <b>HAZARDOUS WASTE</b>                      |                     |                               |                   |
| Household Hazardous Waste (HHW)             |                     | 4.7                           |                   |
| Lead Acid Batteries                         |                     | 4.7                           |                   |
| Other Batteries                             |                     | 4.8                           |                   |
| <b>MEDICAL OR PHARMACEUTICAL WASTE</b>      |                     | 4.9                           |                   |
| <b>MISCELLANEOUS</b>                        | 23.2                | 4.8                           |                   |

Film plastic  
 ① 24.8 / 4.7  
 ② 6.8 / 4.7  
 31.6



Feed - ~~117.2~~ 117.2 / 5.5      ② 29.8 / 5.4      117.2 / 39.8

#6

CITY OF ALBANY  
WASTE CHARACTERIZATION ANALYSIS  
SORT DATA SHEET

Day/Date: Friday 2/27/09  
 CHA Staff Name: \_\_\_\_\_  
 Truck ID Number: 5279 5406 Arrival Number: 76  
 Hauler: County Waste Truck Type: Packer  
 Location: \_\_\_\_\_  
 Arrival Time: 11:00 A.M. \_\_\_\_\_ P.M.  
 Origin (Municipality): \_\_\_\_\_

Medical  
Load (partial)

| Material Components                         | Gross Weight (Lbs.) | Tare Weight Of Sort Container | Net Weight (Lbs.) |
|---------------------------------------------|---------------------|-------------------------------|-------------------|
| <b>PAPER</b>                                |                     |                               |                   |
| Newspaper                                   | 5.4                 | 4.7                           |                   |
| Magazines                                   | 14.7                | 4.7                           |                   |
| Corrugated                                  | 11.3                | 4.7                           |                   |
| Gable Top Cartons & Drink Boxes             |                     | 4.9                           |                   |
| Paper Board                                 | 18.2                | 5.1                           |                   |
| Books (including phone directories)         | 13.3                | 4.7                           |                   |
| Mixed Office Paper                          | 24.3                | 4.7                           |                   |
| Other Paper                                 | 58.1                | 4.7 x 2                       |                   |
| <b>PLASTICS</b>                             |                     |                               |                   |
| Plastic Containers (PET) #1 Non-Bottle Bill | 8.0                 | 5.0                           |                   |
| Plastic #1 (Bottle Bill Containers)         | 5.4                 | 5.0                           |                   |
| Plastic Containers (HDPE) #2                | 6.4                 | 5.3                           |                   |
| Other Plastic Containers                    | 28.8                | 5.1                           |                   |
| Film Plastic & Plastic Bags                 | 19.4                | 4.7                           |                   |
| Other Plastics                              | 7.1                 | 4.7                           |                   |
| <b>FOOD WASTE</b>                           | 17.7                | 5.4                           |                   |
| <b>TEXTILES &amp; LEATHER</b>               | 15.4                | 4.9                           |                   |
| <b>RUBBER</b>                               | 9.1                 | 4.8                           |                   |
| <b>DISPOSABLE DIAPERS</b>                   | 6.6                 | 4.8                           |                   |
| <b>FERROUS METALS</b>                       |                     |                               |                   |
| Ferrous Metal/Bimetal Cans                  | 5.2                 | 5.0                           |                   |
| Aerosol Cans                                | 5.4                 | 5.0                           |                   |
| Other Ferrous Metal                         | 7.5                 | 4.9                           |                   |
| <b>NON-FERROUS METALS</b>                   |                     |                               |                   |
| Aluminum Cans (Non-Bottle Bill)             | 5.1                 | 5.0                           |                   |
| Aluminum Cans (Bottle Bill)                 | 4.9                 | 4.8                           |                   |
| Other Non-Ferrous Metal                     | 5.1                 | 5.0                           |                   |
| <b>ELECTRONICS</b>                          |                     |                               |                   |
| <b>GLASS</b>                                |                     |                               |                   |
| Glass Bottles (Bottle Bill)                 |                     | 4.8                           |                   |
| Glass Bottle - Clear                        | 6.0                 | 4.8                           |                   |
| Glass Bottle - Amber                        |                     | 4.8                           |                   |
| Glass Bottle - Green                        |                     | 4.7                           |                   |
| Flat Glass & Other Glass                    |                     | 4.7                           |                   |
| <b>WOOD</b>                                 | 5.0                 | 4.8                           |                   |
| <b>RUBBLE</b>                               |                     | 4.8                           |                   |
| <b>YARD WASTE</b>                           |                     | 4.7                           |                   |
| <b>DIRT/FINES</b>                           | 9.6                 | 4.7                           |                   |
| <b>HAZARDOUS WASTE</b>                      |                     |                               |                   |
| Household Hazardous Waste (HHW)             |                     | 4.7                           |                   |
| Lead Acid Batteries                         |                     | 4.7                           |                   |
| Other Batteries                             |                     | 4.8                           |                   |
| <b>MEDICAL OR PHARMACEUTICAL WASTE</b>      | 6.8                 | 4.9                           |                   |
| <b>MISCELLANEOUS</b>                        | 19.7                | 4.8                           |                   |

Latex gloves →

#7

CITY OF ALBANY  
WASTE CHARACTERIZATION ANALYSIS  
SORT DATA SHEET

Day/Date: Friday 2/27/09  
 CHA Staff Name: \_\_\_\_\_  
 Truck ID Number: 5194 Arrival Number: 85  
 Hauler: \_\_\_\_\_ Truck Type: packer  
 Location: BFI  
 Arrival Time: 11:30 A.M. \_\_\_\_\_ P.M.  
 Origin (Municipality): \_\_\_\_\_

| Material Components                         | Gross Weight (Lbs.) | Tare Weight Of Sort Container | Net Weight (Lbs.) |
|---------------------------------------------|---------------------|-------------------------------|-------------------|
| <b>PAPER</b>                                |                     |                               |                   |
| Newspaper                                   | 47.7                | 4.7                           |                   |
| Magazines                                   | 32.6                | 4.7                           |                   |
| Corrugated                                  | 37.7                | 4.7                           |                   |
| Gable Top Cartons & Drink Boxes             | 6.8                 |                               |                   |
| Paper Board                                 | 16.2                | 5.1                           |                   |
| Books (including phone directories)         | 13.2                | 4.8                           |                   |
| Mixed Office Paper                          | 9.7                 | 4.7                           |                   |
| Other Paper                                 | 26.7                | 4.7                           |                   |
| <b>PLASTICS</b>                             |                     |                               |                   |
| Plastic Containers (PET) #1 Non-Bottle Bill | 6.5                 | 5.1                           |                   |
| Plastic #1 (Bottle Bill Containers)         | 5.6                 | 5.0                           |                   |
| Plastic Containers (HDPE) #2                | 9.0                 | 5.3                           |                   |
| Other Plastic Containers                    | 9.9                 | 5.1                           |                   |
| Film Plastic & Plastic Bags                 | 16.9                | 4.7                           |                   |
| Other Plastics                              | 6.1                 | 4.7                           |                   |
| <b>FOOD WASTE</b>                           | 55.4                | 5.5                           |                   |
| <b>TEXTILES &amp; LEATHER</b>               | 25.6                | 4.9                           |                   |
| <b>RUBBER</b>                               | 5.3                 | 4.8                           |                   |
| <b>DISPOSABLE DIAPERS</b>                   | 9.4                 | 4.7                           |                   |
| <b>FERROUS METALS</b>                       |                     |                               |                   |
| Ferrous Metal/Bimetal Cans                  | 7.1                 | 5.0                           |                   |
| Aerosol Cans                                |                     | 5.0                           |                   |
| Other Ferrous Metal                         | 5.6                 | 4.9                           |                   |
| <b>NON-FERROUS METALS</b>                   |                     |                               |                   |
| Aluminum Cans (Non-Bottle Bill)             | 5.3                 | 5.0                           |                   |
| Aluminum Cans (Bottle Bill)                 | 5.2                 | 4.8                           |                   |
| Other Non-Ferrous Metal                     | 6.4                 | 5.0                           |                   |
| <b>ELECTRONICS</b>                          | 8.4                 |                               |                   |
| <b>GLASS</b>                                |                     |                               |                   |
| Glass Bottles (Bottle Bill)                 |                     | 4.8                           |                   |
| Glass Bottle - Clear                        | 8.5                 | 4.8                           |                   |
| Glass Bottle - Amber                        |                     | 4.8                           |                   |
| Glass Bottle - Green                        |                     | 4.7                           |                   |
| Flat Glass & Other Glass                    | 4.9                 | 4.7                           |                   |
| <b>WOOD</b>                                 |                     | 4.8                           |                   |
| <b>RUBBLE</b>                               |                     | 4.8                           |                   |
| <b>YARD WASTE</b>                           | 5.1                 | 4.7                           |                   |
| <b>DIRT/FINES</b>                           | 40.0                | 4.7                           |                   |
| <b>HAZARDOUS WASTE</b>                      |                     |                               |                   |
| Household Hazardous Waste (HHW)             |                     | 4.7                           |                   |
| Lead Acid Batteries                         |                     | 4.7                           |                   |
| Other Batteries                             |                     | 4.8                           |                   |
| <b>MEDICAL OR PHARMACEUTICAL WASTE</b>      |                     | 4.8                           |                   |
| <b>MISCELLANEOUS</b>                        | 20.6                | 4.9                           |                   |



CITY OF ALBANY  
WASTE CHARACTERIZATION ANALYSIS  
SORT DATA SHEET

#1

Rec

paper

Day/Date: Monday 3/2/09  
 CHA Staff Name: J. Harich, S. Johnston, T. Casella, B. Winnie, L. Lory, B. Co. Penta  
 Truck ID Number: 5915 Arrival Number: 1  
 Hauler: City of Alb DGS Truck Type: Recycling  
 Location: \_\_\_\_\_  
 Arrival Time: 7:00 A.M. \_\_\_\_\_ P.M.  
 Origin (Municipality): City of Albany

89.9/4.8 @ 94.3/4.7 →  
 13.9/4.7  
 13.9/5.0 @ 12.3/5.0 →

| Material Components                         | Gross Weight (Lbs.) | Tare Weight Of Sort Container | Net Weight (Lbs.) |
|---------------------------------------------|---------------------|-------------------------------|-------------------|
| <b>PAPER</b>                                |                     |                               |                   |
| Newspaper                                   |                     | 4.8                           |                   |
| Magazines                                   | 14.5                | 4.7                           |                   |
| Corrugated                                  | 16.2                | 4.8                           |                   |
| Gable Top Cartons & Drink Boxes             | 5.7                 | 5.0                           |                   |
| Paper Board                                 | 1                   | 5.0                           |                   |
| Books (including phone directories)         | 31.8                | 4.8                           |                   |
| Mixed Office Paper                          | 12.6                | 4.8                           |                   |
| Other Paper                                 | 11.3                | 4.8                           |                   |
| <b>PLASTICS</b>                             |                     |                               |                   |
| Plastic Containers (PET) #1 Non-Bottle Bill | 5.4                 | 5.0                           |                   |
| Plastic #1 (Bottle Bill Containers)         |                     | 4.9                           |                   |
| Plastic Containers (HDPE) #2                |                     | 5.3                           |                   |
| Other Plastic Containers                    | 5.2                 | 4.9                           |                   |
| Film Plastic & Plastic Bags                 | 5.5                 | 4.8                           |                   |
| Other Plastics                              |                     | 4.8                           |                   |
| <b>FOOD WASTE</b>                           |                     | 5.7                           |                   |
| <b>TEXTILES &amp; LEATHER</b>               |                     | 5.0                           |                   |
| <b>RUBBER</b>                               |                     | 4.8                           |                   |
| <b>DISPOSABLE DIAPERS</b>                   |                     | 4.8                           |                   |
| <b>FERROUS METALS</b>                       |                     |                               |                   |
| Ferrous Metal/Bimetal Cans                  |                     | 4.9                           |                   |
| Aerosol Cans                                |                     | 5.0                           |                   |
| Other Ferrous Metal                         |                     | 4.9                           |                   |
| <b>NON-FERROUS METALS</b>                   |                     |                               |                   |
| Aluminum Cans (Non-Bottle Bill)             | 5.0                 | 4.9                           |                   |
| Aluminum Cans (Bottle Bill)                 |                     | 4.8                           |                   |
| Other Non-Ferrous Metal                     |                     | 5.0                           |                   |
| <b>ELECTRONICS</b>                          |                     | 5.0                           |                   |
| <b>GLASS</b>                                |                     |                               |                   |
| Glass Bottles (Bottle Bill)                 |                     | 4.8                           |                   |
| Glass Bottle - Clear                        |                     | 4.9                           |                   |
| Glass Bottle - Amber                        |                     | 4.8                           |                   |
| Glass Bottle - Green                        |                     | 4.7                           |                   |
| Flat Glass & Other Glass                    |                     | 4.7                           |                   |
| <b>WOOD</b>                                 |                     | 4.8                           |                   |
| <b>RUBBLE</b>                               |                     | 4.8                           |                   |
| <b>YARD WASTE</b>                           |                     | 4.7                           |                   |
| <b>DIRT/FINES</b>                           |                     | 4.8                           |                   |
| <b>HAZARDOUS WASTE</b>                      |                     |                               |                   |
| Household Hazardous Waste (HHW)             |                     | 4.7                           |                   |
| Lead Acid Batteries                         |                     | 4.7                           |                   |
| Other Batteries                             |                     | 4.8                           |                   |
| <b>MEDICAL OR PHARMACEUTICAL WASTE</b>      |                     | 4.8                           |                   |
| <b>MISCELLANEOUS</b>                        |                     | 4.7                           |                   |

Rec  
47

plastic/glass

CITY OF ALBANY  
WASTE CHARACTERIZATION ANALYSIS  
SORT DATA SHEET

Day/Date: Monday 3/2/09  
 CHA Staff Name: \_\_\_\_\_  
 Truck ID Number: 5315 Arrival Number: 1  
 Hauler: City A16 PFS Truck Type: Recycling  
 Location: \_\_\_\_\_  
 Arrival Time: 7:00 A.M. \_\_\_\_\_ P.M.  
 Origin (Municipality): City A16

| Material Components                         | Gross Weight (Lbs.) | Tare Weight Of Sort Container | Net Weight (Lbs.) |
|---------------------------------------------|---------------------|-------------------------------|-------------------|
| <b>PAPER</b>                                |                     |                               |                   |
| Newspaper                                   | 7.1                 | 4.7                           |                   |
| Magazines                                   | 6.0                 | 5.0                           |                   |
| Corrugated                                  |                     | 4.7                           |                   |
| Gable Top Cartons & Drink Boxes             | 5.5                 | 5.0                           |                   |
| Paper Board                                 | 6.2                 | 5.0                           |                   |
| Books (including phone directories)         | 5.5                 | 4.8                           |                   |
| Mixed Office Paper                          | 5.1                 | 5.0                           |                   |
| Other Paper                                 | 5.9                 | 5.0                           |                   |
| <b>PLASTICS</b>                             |                     |                               |                   |
| Plastic Containers (PET) #1 Non-Bottle Bill | 8.3                 | 5.0                           |                   |
| Plastic #1 (Bottle Bill Containers)         | 6.8                 | 4.9                           |                   |
| Plastic Containers (HDPE) #2                |                     | 5.3                           |                   |
| Other Plastic Containers                    | 7.1                 | 5.0                           |                   |
| Film Plastic & Plastic Bags                 | 5.6                 | 4.8                           |                   |
| Other Plastics                              | 5.4                 | 4.8                           |                   |
| <b>FOOD WASTE</b>                           |                     |                               |                   |
|                                             |                     | 5.7                           |                   |
| <b>TEXTILES &amp; LEATHER</b>               |                     |                               |                   |
|                                             |                     | 5.0                           |                   |
| <b>RUBBER</b>                               |                     |                               |                   |
|                                             |                     | 4.8                           |                   |
| <b>DISPOSABLE DIAPERS</b>                   |                     |                               |                   |
|                                             |                     | 4.8                           |                   |
| <b>FERROUS METALS</b>                       |                     |                               |                   |
| Ferrous Metal/Bimetal Cans                  | 15.8                | 4.9                           |                   |
| Aerosol Cans                                |                     | 5.0                           |                   |
| Other Ferrous Metal                         |                     | 4.9                           |                   |
| <b>NON-FERROUS METALS</b>                   |                     |                               |                   |
| Aluminum Cans (Non-Bottle Bill)             | 5.3                 | 4.9                           |                   |
| Aluminum Cans (Bottle Bill)                 | 5.5                 | 4.8                           |                   |
| Other Non-Ferrous Metal                     |                     | 5.0                           |                   |
| <b>ELECTRONICS</b>                          |                     |                               |                   |
|                                             |                     | 5.0                           |                   |
| <b>GLASS</b>                                |                     |                               |                   |
| Glass Bottles (Bottle Bill)                 | 9.3                 | 4.8                           |                   |
| Glass Bottle - Clear                        | 12.7                | 4.9                           |                   |
| Glass Bottle - Amber                        | 6.0                 | 4.8                           |                   |
| Glass Bottle - Green                        | 5.3                 | 4.7                           |                   |
| Flat Glass & Other Glass                    |                     | 4.7                           |                   |
| <b>WOOD</b>                                 |                     |                               |                   |
|                                             |                     | 4.8                           |                   |
| <b>RUBBLE</b>                               |                     |                               |                   |
|                                             |                     | 4.8                           |                   |
| <b>YARD WASTE</b>                           |                     |                               |                   |
|                                             |                     | 4.7                           |                   |
| <b>DIRT/FINES</b>                           |                     |                               |                   |
|                                             |                     | 4.8                           |                   |
| <b>HAZARDOUS WASTE</b>                      |                     |                               |                   |
| Household Hazardous Waste (HHW)             |                     | 4.7                           |                   |
| Lead Acid Batteries                         |                     | 4.7                           |                   |
| Other Batteries                             |                     | 4.8                           |                   |
| <b>MEDICAL OR PHARMACEUTICAL WASTE</b>      |                     |                               |                   |
|                                             | 7.1                 | 4.8                           |                   |
| <b>MISCELLANEOUS</b>                        |                     |                               |                   |
|                                             |                     | 4.7                           |                   |

① 9.9/5.0 ② -15.0

① 8.8/5.3 ② 10.8/5.2

③ 5.9/5.2

woman's pads →

#2 Rec

CITY OF ALBANY  
WASTE CHARACTERIZATION ANALYSIS  
SORT DATA SHEET

PAPER

Day/Date: Monday 3/2/09  
 CHA Staff Name: \_\_\_\_\_  
 Truck ID Number: 4436 Arrival Number: 2  
 Hauler: City of Albany DGS Truck Type: Recycling  
 Location: \_\_\_\_\_  
 Arrival Time: 8:00 A.M. \_\_\_\_\_ P.M.  
 Origin (Municipality): City of Albany

① 15.5/4.7 ② -/4.7 → 5.7

| Material Components                         | Gross Weight (Lbs.) | Tare Weight Of Sort Container | Net Weight (Lbs.) |
|---------------------------------------------|---------------------|-------------------------------|-------------------|
| <b>PAPER</b>                                |                     |                               |                   |
| Newspaper                                   | 6.6                 | 4.7                           |                   |
| Magazines                                   | 8.8                 | 4.7                           |                   |
| Corrugated                                  |                     | 4.7                           |                   |
| Gable Top Cartons & Drink Boxes             | 5.1                 | 5.0                           |                   |
| Paper Board                                 | 13.1                | 5.0                           |                   |
| Books (including phone directories)         | 15.6                | 4.7                           |                   |
| Mixed Office Paper                          | 9.2                 | 4.7                           |                   |
| Other Paper                                 | 8.4                 | 4.7                           |                   |
| <b>PLASTICS</b>                             |                     |                               |                   |
| Plastic Containers (PET) #1 Non-Bottle Bill | 5.2                 | 5.0                           |                   |
| Plastic #1 (Bottle Bill Containers)         |                     | 4.9                           |                   |
| Plastic Containers (HDPE) #2                | 5.4                 | 5.2                           |                   |
| Other Plastic Containers                    | 5.1                 | 5.0                           |                   |
| Film Plastic & Plastic Bags                 | 4.8                 | 4.7                           |                   |
| Other Plastics                              | 5.4                 | 4.9                           |                   |
| <b>FOOD WASTE</b>                           |                     | 5.7                           |                   |
| <b>TEXTILES &amp; LEATHER</b>               | 5.2                 | 5.0                           |                   |
| <b>RUBBER</b>                               |                     | 4.8                           |                   |
| <b>DISPOSABLE DIAPERS</b>                   |                     | 4.8                           |                   |
| <b>FERROUS METALS</b>                       |                     |                               |                   |
| Ferrous Metal/Bimetal Cans                  | 5.4                 | 4.9                           |                   |
| Aerosol Cans                                |                     | 5.0                           |                   |
| Other Ferrous Metal                         |                     | 4.9                           |                   |
| <b>NON-FERROUS METALS</b>                   |                     | <del>5.0</del>                |                   |
| Aluminum Cans (Non-Bottle Bill)             |                     | 4.9                           |                   |
| Aluminum Cans (Bottle Bill)                 |                     | 4.8                           |                   |
| Other Non-Ferrous Metal                     |                     | 5.0                           |                   |
| <b>ELECTRONICS</b>                          |                     | 5.0                           |                   |
| <b>GLASS</b>                                |                     |                               |                   |
| Glass Bottles (Bottle Bill)                 |                     | 4.8                           |                   |
| Glass Bottle - Clear                        | 6.6                 | 4.9                           |                   |
| Glass Bottle - Amber                        |                     | 4.7                           |                   |
| Glass Bottle - Green                        |                     | 4.7                           |                   |
| Flat Glass & Other Glass                    |                     | 4.7                           |                   |
| <b>WOOD</b>                                 |                     | 4.8                           |                   |
| <b>RUBBLE</b>                               |                     | 4.8                           |                   |
| <b>YARD WASTE</b>                           |                     | 4.7                           |                   |
| <b>DIRT/FINES</b>                           |                     | 4.8                           |                   |
| <b>HAZARDOUS WASTE</b>                      |                     |                               |                   |
| Household Hazardous Waste (HHW)             |                     | 4.7                           |                   |
| Lead Acid Batteries                         |                     | 4.7                           |                   |
| Other Batteries                             |                     | 4.8                           |                   |
| <b>MEDICAL OR PHARMACEUTICAL WASTE</b>      |                     | 5.0                           |                   |
| <b>MISCELLANEOUS</b>                        |                     | 4.7                           |                   |

117

Rec

CITY OF ALBANY  
WASTE CHARACTERIZATION ANALYSIS  
SORT DATA SHEET

glass/plastic

Day/Date: Monday 3/2/09  
 CHA Staff Name: \_\_\_\_\_  
 Truck ID Number: 436 Arrival Number: 2  
 Hauler: cty 216 PGS Truck Type: Recycle  
 Location: \_\_\_\_\_  
 Arrival Time: 8:00 A.M. \_\_\_\_\_ P.M.  
 Origin (Municipality): \_\_\_\_\_

| Material Components                         | Gross Weight (Lbs.) | Tare Weight Of Sort Container | Net Weight (Lbs.) |
|---------------------------------------------|---------------------|-------------------------------|-------------------|
| <b>PAPER</b>                                |                     |                               |                   |
| Newspaper                                   | 5.3                 | 4.7                           |                   |
| Magazines                                   |                     | 4.8                           |                   |
| Corrugated                                  |                     | 4.7                           |                   |
| Gable Top Cartons & Drink Boxes             | 6.6                 | 4.9                           |                   |
| Paper Board                                 | 6.7                 | 5.0                           |                   |
| Books (including phone directories)         |                     | 4.8                           |                   |
| Mixed Office Paper                          |                     | 4.7                           |                   |
| Other Paper                                 | 5.3                 | 4.7                           |                   |
| <b>PLASTICS</b>                             |                     |                               |                   |
| Plastic Containers (PET) #1 Non-Bottle Bill | <del>7.7</del>      | 5.0                           |                   |
| Plastic #1 (Bottle Bill Containers)         | 5.7                 | 4.9                           |                   |
| Plastic Containers (HDPE) #2                | <del>7</del>        | 5.1                           |                   |
| Other Plastic Containers                    | 7.0                 | 5.0                           |                   |
| Film Plastic & Plastic Bags                 | 5.0                 | 4.7                           |                   |
| Other Plastics                              | 6.5                 | 4.6                           |                   |
| <b>FOOD WASTE</b>                           |                     | 3.7                           |                   |
| <b>TEXTILES &amp; LEATHER</b>               | 5.2                 | 4.9                           |                   |
| <b>RUBBER</b>                               |                     | 4.8                           |                   |
| <b>DISPOSABLE DIAPERS</b>                   |                     | 4.8                           |                   |
| <b>FERROUS METALS</b>                       |                     |                               |                   |
| Ferrous Metal/Bimetal Cans                  | 14.5                | 4.8                           |                   |
| Aerosol Cans                                |                     | 5.0                           |                   |
| Other Ferrous Metal                         |                     | 4.9                           |                   |
| <b>NON-FERROUS METALS</b>                   |                     |                               |                   |
| Aluminum Cans (Non-Bottle Bill)             | 5.2                 | 4.9                           |                   |
| Aluminum Cans (Bottle Bill)                 | 5.0                 | 4.8                           |                   |
| Other Non-Ferrous Metal                     | 5.0                 | 5.0                           |                   |
| <b>ELECTRONICS</b>                          |                     | 5.0                           |                   |
| <b>GLASS</b>                                |                     |                               |                   |
| Glass Bottles (Bottle Bill)                 | 8.0                 | 4.8                           |                   |
| Glass Bottle - Clear                        | 19.2                | 4.8                           |                   |
| Glass Bottle - Amber                        | 10.5                | 4.7                           |                   |
| Glass Bottle - Green                        | 8.0                 | 4.7                           |                   |
| Flat Glass & Other Glass                    |                     | 4.7                           |                   |
| <b>WOOD</b>                                 |                     | 4.8                           |                   |
| <b>RUBBLE</b>                               |                     | 4.8                           |                   |
| <b>YARD WASTE</b>                           |                     | 4.7                           |                   |
| <b>DIRT/FINES</b>                           |                     | 4.8                           |                   |
| <b>HAZARDOUS WASTE</b>                      |                     |                               |                   |
| Household Hazardous Waste (HHW)             |                     | 4.7                           |                   |
| Lead Acid Batteries                         |                     | 4.7                           |                   |
| Other Batteries                             |                     | 4.8                           |                   |
| <b>MEDICAL OR PHARMACEUTICAL WASTE</b>      |                     | 5.0                           |                   |
| <b>MISCELLANEOUS</b>                        |                     | 4.7                           |                   |

10.5/5.0 @ 7.7/5.0

11.4/5.1 @ 15.2/9.7

# 3 Rec

Paper

CITY OF ALBANY  
WASTE CHARACTERIZATION ANALYSIS  
SORT DATA SHEET

Day/Date: Monday 3/2/09  
 CHA Staff Name: \_\_\_\_\_  
 Truck ID Number: 4936 Arrival Number: 3  
 Hauler: City of Albany Truck Type: Residential  
 Location: \_\_\_\_\_  
 Arrival Time: 10:20 A.M. \_\_\_\_\_ P.M.  
 Origin (Municipality): \_\_\_\_\_

785/4.7 + 6.2/4.7

| Material Components                         | Gross Weight (Lbs.) | Tare Weight Of Sort Container | Net Weight (Lbs.) |
|---------------------------------------------|---------------------|-------------------------------|-------------------|
| <b>PAPER</b>                                |                     |                               |                   |
| Newspaper                                   |                     | 4.7                           |                   |
| Magazines                                   | 31.3                | 4.8                           |                   |
| Corrugated                                  | 10.8                | 4.7                           |                   |
| Gable Top Cartons & Drink Boxes             |                     | 5.0                           |                   |
| Paper Board                                 | 12.4                | 5.0                           |                   |
| Books (including phone directories)         | 9.8                 | 4.8                           |                   |
| Mixed Office Paper                          | 13.8                | 4.7                           |                   |
| Other Paper                                 | 6.3                 | 4.7                           |                   |
| <b>PLASTICS</b>                             |                     |                               |                   |
| Plastic Containers (PET) #1 Non-Bottle Bill | 5.1                 | 5.0                           |                   |
| Plastic #1 (Bottle Bill Containers)         | 5.0                 | 4.9                           |                   |
| Plastic Containers (HDPE) #2                | 5.6                 | 5.3                           |                   |
| Other Plastic Containers                    |                     | 5.0                           |                   |
| Film Plastic & Plastic Bags                 | 5.2                 | 4.7                           |                   |
| Other Plastics                              | 4.9                 | 4.7                           |                   |
| <b>FOOD WASTE</b>                           |                     |                               |                   |
| <b>TEXTILES &amp; LEATHER</b>               |                     |                               |                   |
| <b>RUBBER</b>                               |                     |                               |                   |
| <b>DISPOSABLE DIAPERS</b>                   |                     |                               |                   |
| <b>FERROUS METALS</b>                       |                     |                               |                   |
| Ferrous Metal/Bimetal Cans                  | 5.2                 | 5.0                           |                   |
| Aerosol Cans                                |                     | 5.0                           |                   |
| Other Ferrous Metal                         |                     | 4.9                           |                   |
| <b>NON-FERROUS METALS</b>                   |                     |                               |                   |
| Aluminum Cans (Non-Bottle Bill)             |                     | 5.0                           |                   |
| Aluminum Cans (Bottle Bill)                 | 4.8                 | 4.8                           |                   |
| Other Non-Ferrous Metal                     |                     | 5.0                           |                   |
| <b>ELECTRONICS</b>                          |                     |                               |                   |
| <b>GLASS</b>                                |                     |                               |                   |
| Glass Bottles (Bottle Bill)                 |                     | 4.8                           |                   |
| Glass Bottle - Clear                        | 6.1                 | 4.8                           |                   |
| Glass Bottle - Amber                        |                     | 4.7                           |                   |
| Glass Bottle - Green                        | 5.7                 | 4.7                           |                   |
| Flat Glass & Other Glass                    |                     | 4.7                           |                   |
| <b>WOOD</b>                                 |                     |                               |                   |
| <b>RUBBLE</b>                               |                     |                               |                   |
| <b>YARD WASTE</b>                           |                     |                               |                   |
| <b>DIRT/FINES</b>                           |                     |                               |                   |
| <b>HAZARDOUS WASTE</b>                      |                     |                               |                   |
| Household Hazardous Waste (HHW)             |                     | 4.7                           |                   |
| Lead Acid Batteries                         |                     | 4.7                           |                   |
| Other Batteries                             |                     | 4.8                           |                   |
| <b>MEDICAL OR PHARMACEUTICAL WASTE</b>      |                     |                               |                   |
| <b>MISCELLANEOUS</b>                        |                     |                               |                   |

#3 Rec

glass/plastic

CITY OF ALBANY  
WASTE CHARACTERIZATION ANALYSIS  
SORT DATA SHEET

Day/Date: Monday 3/2/09  
 CHA Staff Name: \_\_\_\_\_  
 Truck ID Number: # 436 Arrival Number: 3  
 Hauler: City of Alb DGS Truck Type: Recycling  
 Location: \_\_\_\_\_  
 Arrival Time: 10:20 A.M. \_\_\_\_\_ P.M.  
 Origin (Municipality): \_\_\_\_\_

| Material Components                         | Gross Weight (Lbs.) | Tare Weight Of Sort Container | Net Weight (Lbs.) |
|---------------------------------------------|---------------------|-------------------------------|-------------------|
| <b>PAPER</b>                                |                     |                               |                   |
| Newspaper                                   | 9.9                 | 4.7                           |                   |
| Magazines                                   |                     | 4.7                           |                   |
| Corrugated                                  |                     | 4.8                           |                   |
| Gable Top Cartons & Drink Boxes             | 5.8                 | 5.0                           |                   |
| Paper Board                                 | 5.8                 | 5.0                           |                   |
| Books (including phone directories)         |                     | 4.7                           |                   |
| Mixed Office Paper                          |                     | 4.7                           |                   |
| Other Paper                                 | 5.5                 | 4.8                           |                   |
| <b>PLASTICS</b>                             |                     |                               |                   |
| Plastic Containers (PET) #1 Non-Bottle Bill |                     | 5.0                           |                   |
| Plastic #1 (Bottle Bill Containers)         | 5.3                 | 4.9                           |                   |
| Plastic Containers (HDPE) #2                | 5.3                 | 5.3                           |                   |
| Other Plastic Containers                    | 7.0                 | 5.0                           |                   |
| Film Plastic & Plastic Bags                 | 5.2                 | 4.7                           |                   |
| Other Plastics                              | 5.5                 | 4.7                           |                   |
| <b>FOOD WASTE</b>                           | 5.5                 | 5.4                           |                   |
| <b>TEXTILES &amp; LEATHER</b>               |                     | 5.0                           |                   |
| <b>RUBBER</b>                               |                     | 4.8                           |                   |
| <b>DISPOSABLE DIAPERS</b>                   |                     | 4.8                           |                   |
| <b>FERROUS METALS</b>                       |                     |                               |                   |
| Ferrous Metal/Bimetal Cans                  | 14.8                | 5.0                           |                   |
| Aerosol Cans                                | 5.1                 | 5.0                           |                   |
| Other Ferrous Metal                         |                     | 4.9                           |                   |
| <b>NON-FERROUS METALS</b>                   |                     |                               |                   |
| Aluminum Cans (Non-Bottle Bill)             | 5.2                 | 5.0                           |                   |
| Aluminum Cans (Bottle Bill)                 | 5.1                 | 4.8                           |                   |
| Other Non-Ferrous Metal                     | 5.0                 | 5.0                           |                   |
| <b>ELECTRONICS</b>                          |                     | 5.0                           |                   |
| <b>GLASS</b>                                |                     |                               |                   |
| Glass Bottles (Bottle Bill)                 | 6.8                 | 4.8                           |                   |
| Glass Bottle - Clear                        | 36.3                | 4.8                           |                   |
| Glass Bottle - Amber                        | 7.7                 | 4.7                           |                   |
| Glass Bottle - Green                        | 9.3                 | 4.7                           |                   |
| Flat Glass & Other Glass                    | 7.1                 | 4.7                           |                   |
| <b>WOOD</b>                                 |                     | 4.8                           |                   |
| <b>RUBBLE</b>                               |                     | 4.8                           |                   |
| <b>YARD WASTE</b>                           |                     | 4.7                           |                   |
| <b>DIRT/FINES</b>                           |                     | 4.8                           |                   |
| <b>HAZARDOUS WASTE</b>                      |                     |                               |                   |
| Household Hazardous Waste (HHW)             |                     | 4.7                           |                   |
| Lead Acid Batteries                         |                     | 4.7                           |                   |
| Other Batteries                             | 5.0                 | 4.8                           |                   |
| <b>MEDICAL OR PHARMACEUTICAL WASTE</b>      |                     | 5.0                           |                   |
| <b>MISCELLANEOUS</b>                        |                     | 4.7                           |                   |

① 10.4/5.0 ② 5.8/5.0

① 9.1/5.3 ② 8.3/5.3

# 4 Rec

paper

CITY OF ALBANY  
WASTE CHARACTERIZATION ANALYSIS  
SORT DATA SHEET

Day/Date: Monday 3/2/09  
 CHA Staff Name: \_\_\_\_\_  
 Truck ID Number: 433 / 5315 Arrival Number: 4  
 Hauler: D65 Truck Type: \_\_\_\_\_  
 Location: \_\_\_\_\_  
 Arrival Time: 11:19 A.M. \_\_\_\_\_ P.M.  
 Origin (Municipality): \_\_\_\_\_

D94.6/4.7  
246/4.7

| Material Components                         | Gross Weight (Lbs.) | Tare Weight Of Sort Container | Net Weight (Lbs.) |
|---------------------------------------------|---------------------|-------------------------------|-------------------|
| <b>PAPER</b>                                |                     |                               |                   |
| Newspaper                                   |                     | 4.7                           |                   |
| Magazines                                   | 26.3                | 4.7                           |                   |
| Corrugated                                  | 17.7                | 4.8                           |                   |
| Gable Top Cartons & Drink Boxes             | 5.0                 | 5.0                           |                   |
| Paper Board                                 | 13.9                | 5.0                           |                   |
| Books (including phone directories)         | 28.5                | 4.7                           |                   |
| Mixed Office Paper                          | 12.9                | 4.7                           |                   |
| Other Paper                                 | 6.6                 | 4.8                           |                   |
| <b>PLASTICS</b>                             |                     |                               |                   |
| Plastic Containers (PET) #1 Non-Bottle Bill | 5.0                 | 5.0                           |                   |
| Plastic #1 (Bottle Bill Containers)         |                     | 4.9                           |                   |
| Plastic Containers (HDPE) #2                |                     | 5.3                           |                   |
| Other Plastic Containers                    |                     | 5.1                           |                   |
| Film Plastic & Plastic Bags                 | 4.8                 | 4.8                           |                   |
| Other Plastics                              | 4.7                 | 4.7                           |                   |
| <b>FOOD WASTE</b>                           |                     | 5.4                           |                   |
| <b>TEXTILES &amp; LEATHER</b>               |                     | 5.0                           |                   |
| <b>RUBBER</b>                               |                     | 4.8                           |                   |
| <b>DISPOSABLE DIAPERS</b>                   |                     | 4.8                           |                   |
| <b>FERROUS METALS</b>                       |                     |                               |                   |
| Ferrous Metal/Bimetal Cans                  |                     | 5.0                           |                   |
| Aerosol Cans                                |                     | 5.0                           |                   |
| Other Ferrous Metal                         |                     | 4.9                           |                   |
| <b>NON-FERROUS METALS</b>                   |                     |                               |                   |
| Aluminum Cans (Non-Bottle Bill)             |                     | 5.0                           |                   |
| Aluminum Cans (Bottle Bill)                 |                     | 4.8                           |                   |
| Other Non-Ferrous Metal                     |                     | 5.0                           |                   |
| <b>ELECTRONICS</b>                          |                     | 5.0                           |                   |
| <b>GLASS</b>                                |                     |                               |                   |
| Glass Bottles (Bottle Bill)                 |                     | 4.8                           |                   |
| Glass Bottle - Clear                        |                     | 4.8                           |                   |
| Glass Bottle - Amber                        |                     | 4.7                           |                   |
| Glass Bottle - Green                        |                     | 4.7                           |                   |
| Flat Glass & Other Glass                    |                     | 4.7                           |                   |
| <b>WOOD</b>                                 |                     | 4.8                           |                   |
| <b>RUBBLE</b>                               |                     | 4.8                           |                   |
| <b>YARD WASTE</b>                           |                     | 4.7                           |                   |
| <b>DIRT/FINES</b>                           |                     | 4.8                           |                   |
| <b>HAZARDOUS WASTE</b>                      |                     |                               |                   |
| Household Hazardous Waste (HHW)             |                     | 4.7                           |                   |
| Lead Acid Batteries                         |                     | 4.7                           |                   |
| Other Batteries                             |                     | 4.7                           |                   |
| <b>MEDICAL OR PHARMACEUTICAL WASTE</b>      |                     | 5.0                           |                   |
| <b>MISCELLANEOUS</b>                        |                     | 4.7                           |                   |

#4 Rec

glass/plastic

CITY OF ALBANY  
WASTE CHARACTERIZATION ANALYSIS  
SORT DATA SHEET

Day/Date: Monday 3/2/09  
 CHA Staff Name: \_\_\_\_\_  
 Truck ID Number: 433/5315 Arrival Number: 4  
 Hauler: D65 Truck Type: \_\_\_\_\_  
 Location: \_\_\_\_\_  
 Arrival Time: 11:19 A.M. \_\_\_\_\_ P.M.  
 Origin (Municipality): \_\_\_\_\_

| Material Components                         | Gross Weight (Lbs.) | Tare Weight Of Sort Container | Net Weight (Lbs.) |
|---------------------------------------------|---------------------|-------------------------------|-------------------|
| <b>PAPER</b>                                |                     |                               |                   |
| Newspaper                                   | 4.8                 | 4.7                           |                   |
| Magazines                                   |                     | 4.7                           |                   |
| Corrugated                                  |                     | 4.8                           |                   |
| Gable Top Cartons & Drink Boxes             | 5.6                 | 4.9                           |                   |
| Paper Board                                 | 6.2                 | 5.0                           |                   |
| Books (including phone directories)         | 5.5                 | 4.8                           |                   |
| Mixed Office Paper                          |                     | 4.7                           |                   |
| Other Paper                                 | 5.4                 | 4.8                           |                   |
| <b>PLASTICS</b>                             |                     |                               |                   |
| Plastic Containers (PET) #1 Non-Bottle Bill | 7                   | 5.0                           |                   |
| Plastic #1 (Bottle Bill Containers)         | 6.1                 | 4.9                           |                   |
| Plastic Containers (HDPE) #2                |                     | 5.3                           |                   |
| Other Plastic Containers                    | 9.7                 | 5.1                           |                   |
| Film Plastic & Plastic Bags                 | 5.0                 | 4.7                           |                   |
| Other Plastics                              | 5.6                 | 4.7                           |                   |
| <b>FOOD WASTE</b>                           |                     | 5.4                           |                   |
| <b>TEXTILES &amp; LEATHER</b>               | 5.7                 | 5.0                           |                   |
| <b>RUBBER</b>                               |                     | 4.8                           |                   |
| <b>DISPOSABLE DIAPERS</b>                   |                     | 4.8                           |                   |
| <b>FERROUS METALS</b>                       |                     |                               |                   |
| Ferrous Metal/Bimetal Cans                  | 10.1                | 5.0                           |                   |
| Aerosol Cans                                | 6.7                 | 5.0                           |                   |
| Other Ferrous Metal                         | 5                   | 4.9                           |                   |
| <b>NON-FERROUS METALS</b>                   |                     |                               |                   |
| Aluminum Cans (Non-Bottle Bill)             | 5.3                 | 5.0                           |                   |
| Aluminum Cans (Bottle Bill)                 | 5.6                 | 4.8                           |                   |
| Other Non-Ferrous Metal                     | 5.8                 | 5.0                           |                   |
| <b>ELECTRONICS</b>                          |                     | 5.0                           |                   |
| <b>GLASS</b>                                |                     |                               |                   |
| Glass Bottles (Bottle Bill)                 | 7.5                 | 4.8                           |                   |
| Glass Bottle - Clear                        | 26.1                | 4.8                           |                   |
| Glass Bottle - Amber                        | 12.0                | 4.7                           |                   |
| Glass Bottle - Green                        | 14.5                | 4.7                           |                   |
| Flat Glass & Other Glass                    | 4.9                 | 4.7                           |                   |
| <b>WOOD</b>                                 |                     | 4.8                           |                   |
| <b>RUBBLE</b>                               |                     | 4.8                           |                   |
| <b>YARD WASTE</b>                           |                     | 4.7                           |                   |
| <b>DIRT/FINES</b>                           |                     | 4.8                           |                   |
| <b>HAZARDOUS WASTE</b>                      |                     |                               |                   |
| Household Hazardous Waste (HHW)             |                     | 4.7                           |                   |
| Lead Acid Batteries                         |                     | 4.7                           |                   |
| Other Batteries                             |                     | 4.7                           |                   |
| <b>MEDICAL OR PHARMACEUTICAL WASTE</b>      |                     | 5.0                           |                   |
| <b>MISCELLANEOUS</b>                        |                     | 4.7                           |                   |

11.1/5.0 + 13.6/5.0

8.7/5.3 + 6.0/5.2

6.4/5.0 + 10.1/5.0



#5 Rec

Paper

CITY OF ALBANY  
WASTE CHARACTERIZATION ANALYSIS  
SORT DATA SHEET

Day/Date: 3/2/09 Monday  
 CHA Staff Name: \_\_\_\_\_  
 Truck ID Number: 431/5311 Arrival Number: # 5  
 Hauler: 065 Truck Type: \_\_\_\_\_  
 Location: \_\_\_\_\_  
 Arrival Time: 12:15 A.M. \_\_\_\_\_ P.M.  
 Origin (Municipality): \_\_\_\_\_

① 76.3/4.7, ② 12.0/4.7

| Material Components                         | Gross Weight (Lbs.) | Tare Weight Of Sort Container | Net Weight (Lbs.) |
|---------------------------------------------|---------------------|-------------------------------|-------------------|
| <b>PAPER</b>                                |                     |                               |                   |
| Newspaper                                   |                     | 4.7                           |                   |
| Magazines                                   | 17.2                | 4.7                           |                   |
| Corrugated                                  | 7.3                 | 4.8                           |                   |
| Gable Top Cartons & Drink Boxes             |                     | 4.9                           |                   |
| Paper Board                                 | 14.3                | 5.0                           |                   |
| Books (including phone directories)         | 18.1                | 4.8                           |                   |
| Mixed Office Paper                          | 7.3                 | 4.7                           |                   |
| Other Paper                                 | 8.1                 | 4.8                           |                   |
| <b>PLASTICS</b>                             |                     |                               |                   |
| Plastic Containers (PET) #1 Non-Bottle Bill | 6.0                 | 5.0                           |                   |
| Plastic #1 (Bottle Bill Containers)         |                     | 5.0                           |                   |
| Plastic Containers (HDPE) #2                | 5.4                 | 5.3                           |                   |
| Other Plastic Containers                    | 5.1                 | 5.0                           |                   |
| Film Plastic & Plastic Bags                 | 4.9                 | 4.7                           |                   |
| Other Plastics                              |                     | 4.7                           |                   |
| <b>FOOD WASTE</b>                           |                     |                               |                   |
| <b>TEXTILES &amp; LEATHER</b>               |                     |                               |                   |
| <b>RUBBER</b>                               |                     |                               |                   |
| <b>DISPOSABLE DIAPERS</b>                   |                     |                               |                   |
| <b>FERROUS METALS</b>                       |                     |                               |                   |
| Ferrous Metal/Bimetal Cans                  | 5.3                 | 4.9                           |                   |
| Aerosol Cans                                |                     | 4.9                           |                   |
| Other Ferrous Metal                         |                     | 4.9                           |                   |
| <b>NON-FERROUS METALS</b>                   |                     |                               |                   |
| Aluminum Cans (Non-Bottle Bill)             |                     | 5.0                           |                   |
| Aluminum Cans (Bottle Bill)                 |                     | 4.8                           |                   |
| Other Non-Ferrous Metal                     |                     | 4.9                           |                   |
| <b>ELECTRONICS</b>                          |                     |                               |                   |
| <b>GLASS</b>                                |                     |                               |                   |
| Glass Bottles (Bottle Bill)                 |                     | 4.7                           |                   |
| Glass Bottle - Clear                        | 7.2                 | 4.9                           |                   |
| Glass Bottle - Amber                        |                     | 4.7                           |                   |
| Glass Bottle - Green                        |                     | 4.7                           |                   |
| Flat Glass & Other Glass                    |                     | 4.7                           |                   |
| <b>WOOD</b>                                 |                     |                               |                   |
| <b>RUBBLE</b>                               |                     |                               |                   |
| <b>YARD WASTE</b>                           |                     |                               |                   |
| <b>DIRT/FINES</b>                           |                     |                               |                   |
| <b>HAZARDOUS WASTE</b>                      |                     |                               |                   |
| Household Hazardous Waste (HHW)             |                     | 4.7                           |                   |
| Lead Acid Batteries                         |                     | 4.7                           |                   |
| Other Batteries                             |                     | 4.7                           |                   |
| <b>MEDICAL OR PHARMACEUTICAL WASTE</b>      |                     |                               |                   |
| <b>MISCELLANEOUS</b>                        |                     |                               |                   |
|                                             |                     | 4.7                           |                   |

#5/Rec

CITY OF ALBANY  
WASTE CHARACTERIZATION ANALYSIS  
SORT DATA SHEET

glass plastic

Day/Date: 3/2/09 Monday  
 CHA Staff Name: \_\_\_\_\_  
 Truck ID Number: 431/5311 Arrival Number: #5  
 Hauler: D65 Truck Type: \_\_\_\_\_  
 Location: \_\_\_\_\_  
 Arrival Time: 12:15 A.M. \_\_\_\_\_ P.M.  
 Origin (Municipality): \_\_\_\_\_

| Material Components                         | Gross Weight (Lbs.) | Tare Weight Of Sort Container | Net Weight (Lbs.) |
|---------------------------------------------|---------------------|-------------------------------|-------------------|
| <b>PAPER</b>                                |                     |                               |                   |
| Newspaper                                   | 10.7                | 4.7                           |                   |
| Magazines                                   |                     | 4.7                           |                   |
| Corrugated                                  | 5.1                 | 4.7                           |                   |
| Gable Top Cartons & Drink Boxes             | 5.0                 | 4.9                           |                   |
| Paper Board                                 | 7.8                 | 5.0                           |                   |
| Books (including phone directories)         | 12.5                | 4.8                           |                   |
| Mixed Office Paper                          | 5.3                 | 4.7                           |                   |
| Other Paper                                 |                     | 4.7                           |                   |
| <b>PLASTICS</b>                             |                     |                               |                   |
| Plastic Containers (PET) #1 Non-Bottle Bill | 8.28                | 5.0                           |                   |
| Plastic #1 (Bottle Bill Containers)         | 5.8                 | 5.0                           |                   |
| Plastic Containers (HDPE) #2                | 10.3                | 5.2                           |                   |
| Other Plastic Containers                    | 6.7                 | 5.1                           |                   |
| Film Plastic & Plastic Bags                 | 4.8                 | 4.7                           |                   |
| Other Plastics                              | 5.8                 | 4.7                           |                   |
| <b>FOOD WASTE</b>                           |                     |                               |                   |
| <b>TEXTILES &amp; LEATHER</b>               |                     |                               |                   |
| <b>RUBBER</b>                               |                     |                               |                   |
| <b>DISPOSABLE DIAPERS</b>                   |                     |                               |                   |
| <b>FERROUS METALS</b>                       |                     |                               |                   |
| Ferrous Metal/Bimetal Cans                  | 18.8+5.5            | 4.9                           |                   |
| Aerosol Cans                                | 7.7                 | 4.9                           |                   |
| Other Ferrous Metal                         |                     | 4.9                           |                   |
| <b>NON-FERROUS METALS</b>                   |                     |                               |                   |
| Aluminum Cans (Non-Bottle Bill)             | 5.1                 | 5.0                           |                   |
| Aluminum Cans (Bottle Bill)                 | 5.0                 | 4.8                           |                   |
| Other Non-Ferrous Metal                     | 6.6                 | 4.9                           |                   |
| <b>ELECTRONICS</b>                          |                     |                               |                   |
| <b>GLASS</b>                                |                     |                               |                   |
| Glass Bottles (Bottle Bill)                 | 6.3                 | 4.7                           |                   |
| Glass Bottle - Clear                        | 24.1                | 4.8                           |                   |
| Glass Bottle - Amber                        | 8.5                 | 4.7                           |                   |
| Glass Bottle - Green                        | 8.5                 | 4.7                           |                   |
| Flat Glass & Other Glass                    | 6.5                 | 4.7                           |                   |
| <b>WOOD</b>                                 |                     |                               |                   |
| <b>RUBBLE</b>                               |                     |                               |                   |
| <b>YARD WASTE</b>                           |                     |                               |                   |
| <b>DIRT/FINES</b>                           |                     |                               |                   |
| <b>HAZARDOUS WASTE</b>                      |                     |                               |                   |
| Household Hazardous Waste (HHW)             |                     | 4.7                           |                   |
| Lead Acid Batteries                         |                     | 4.7                           |                   |
| Other Batteries                             |                     | 4.7                           |                   |
| <b>MEDICAL OR PHARMACEUTICAL WASTE</b>      |                     |                               |                   |
| <b>MISCELLANEOUS</b>                        |                     |                               |                   |

10.6/5.0 + 8.8/5.0

#76 Rec

CITY OF ALBANY  
WASTE CHARACTERIZATION ANALYSIS  
SORT DATA SHEET

~~City of Albany~~  
paper

Day/Date: Monday, 3/2/09  
 CHA Staff Name: \_\_\_\_\_  
 Truck ID Number: 434 unknown Arrival Number: 76  
 Hauler: city 216 DCS Truck Type: Recycling  
 Location: \_\_\_\_\_  
 Arrival Time: \_\_\_\_\_ A.M. 1:00 P.M.  
 Origin (Municipality): \_\_\_\_\_

| Material Components                         | Gross Weight (Lbs.) | Tare Weight Of Sort Container | Net Weight (Lbs.) |
|---------------------------------------------|---------------------|-------------------------------|-------------------|
| <b>PAPER</b>                                |                     |                               |                   |
| Newspaper                                   |                     | 4.7                           |                   |
| Magazines                                   | 29.3                | 4.8                           |                   |
| Corrugated                                  | 17.5                | 4.8                           |                   |
| Gable Top Cartons & Drink Boxes             | 5.6                 | 5.0                           |                   |
| Paper Board                                 | 18.1                | 5.0                           |                   |
| Books (including phone directories)         | 37.1                | 4.7                           |                   |
| Mixed Office Paper                          | 11.9                | 4.7                           |                   |
| Other Paper                                 | 7.0                 | 4.7                           |                   |
| <b>PLASTICS</b>                             |                     |                               |                   |
| Plastic Containers (PET) #1 Non-Bottle Bill |                     | 5.0                           |                   |
| Plastic #1 (Bottle Bill Containers)         |                     | 4.9                           |                   |
| Plastic Containers (HDPE) #2                |                     | 5.3                           |                   |
| Other Plastic Containers                    | 5.2                 | 5.0                           |                   |
| Film Plastic & Plastic Bags                 | 5.0                 | 4.7                           |                   |
| Other Plastics                              |                     | 4.6                           |                   |
| <b>FOOD WASTE</b>                           |                     | 5.3                           |                   |
| <b>TEXTILES &amp; LEATHER</b>               |                     | 4.9                           |                   |
| <b>RUBBER</b>                               |                     | 4.8                           |                   |
| <b>DISPOSABLE DIAPERS</b>                   |                     | 4.8                           |                   |
| <b>FERROUS METALS</b>                       |                     |                               |                   |
| Ferrous Metal/Bimetal Cans                  |                     | 5.0                           |                   |
| Aerosol Cans                                |                     | 4.9                           |                   |
| Other Ferrous Metal                         |                     | 4.9                           |                   |
| <b>NON-FERROUS METALS</b>                   |                     |                               |                   |
| Aluminum Cans (Non-Bottle Bill)             |                     | 5.0                           |                   |
| Aluminum Cans (Bottle Bill)                 |                     | 4.7                           |                   |
| Other Non-Ferrous Metal                     |                     | 5.0                           |                   |
| <b>ELECTRONICS</b>                          |                     | 5.0                           |                   |
| <b>GLASS</b>                                |                     |                               |                   |
| Glass Bottles (Bottle Bill)                 |                     | 4.8                           |                   |
| Glass Bottle - Clear                        |                     | 4.8                           |                   |
| Glass Bottle - Amber                        |                     | 4.7                           |                   |
| Glass Bottle - Green                        |                     | 4.7                           |                   |
| Flat Glass & Other Glass                    |                     | 4.7                           |                   |
| <b>WOOD</b>                                 |                     | 4.8                           |                   |
| <b>RUBBLE</b>                               |                     | 4.8                           |                   |
| <b>YARD WASTE</b>                           |                     | 4.7                           |                   |
| <b>DIRT/FINES</b>                           |                     | 4.8                           |                   |
| <b>HAZARDOUS WASTE</b>                      |                     |                               |                   |
| Household Hazardous Waste (HHW)             |                     | 4.7                           |                   |
| Lead Acid Batteries                         |                     | 4.7                           |                   |
| Other Batteries                             |                     | 4.7                           |                   |
| <b>MEDICAL OR PHARMACEUTICAL WASTE</b>      |                     | 5.0                           |                   |
| <b>MISCELLANEOUS</b>                        |                     | 4.8                           |                   |

Newspaper  
82.0/4.7 + 33.9/4.7  
+ 39.9/4.7

# 6 RQC

glass plastic

CITY OF ALBANY  
WASTE CHARACTERIZATION ANALYSIS  
SORT DATA SHEET

Day/Date: Monday 3/2/09  
 CHA Staff Name: \_\_\_\_\_  
 Truck ID Number: unknown Arrival Number: \_\_\_\_\_  
 Hauler: D6S Truck Type: \_\_\_\_\_  
 Location: \_\_\_\_\_  
 Arrival Time: 1:00 PM A.M. \_\_\_\_\_ P.M.  
 Origin (Municipality): \_\_\_\_\_

① 9.8/5.0  
② 11.5.0

① 9.9/5.3  
② 7.7/5.3

| Material Components                         | Gross Weight (Lbs.) | Tare Weight Of Sort Container | Net Weight (Lbs.) |
|---------------------------------------------|---------------------|-------------------------------|-------------------|
| <b>PAPER</b>                                |                     |                               |                   |
| Newspaper                                   |                     | 4.8                           |                   |
| Magazines                                   | 5.4                 | 4.8                           |                   |
| Corrugated                                  | 5.3                 | 4.8                           |                   |
| Gable Top Cartons & Drink Boxes             | 7.3                 | 5.0                           |                   |
| Paper Board                                 | 6.7                 | 5.0                           |                   |
| Books (including phone directories)         | 14.3                | 4.7                           |                   |
| Mixed Office Paper                          |                     | 4.7                           |                   |
| Other Paper                                 | 15.0                | 4.8                           |                   |
| <b>PLASTICS</b>                             |                     |                               |                   |
| Plastic Containers (PET) #1 Non-Bottle Bill | 11.0                | 5.0                           |                   |
| Plastic #1 (Bottle Bill Containers)         | 5.1                 | 4.9                           |                   |
| Plastic Containers (HDPE) #2                | 7.4                 | 5.3                           |                   |
| Other Plastic Containers                    | 8.7                 | 5.0                           |                   |
| Film Plastic & Plastic Bags                 | 4.9                 | 4.7                           |                   |
| Other Plastics                              | 6.0                 | 4.6                           |                   |
| <b>FOOD WASTE</b>                           |                     |                               |                   |
| <b>TEXTILES &amp; LEATHER</b>               |                     |                               |                   |
| <b>RUBBER</b>                               |                     |                               |                   |
| <b>DISPOSABLE DIAPERS</b>                   |                     |                               |                   |
| <b>FERROUS METALS</b>                       |                     |                               |                   |
| Ferrous Metal/Bimetal Cans                  | 18.8                | 5.0                           |                   |
| Aerosol Cans                                | 5.1                 | 5.0                           |                   |
| Other Ferrous Metal                         |                     | 4.9                           |                   |
| <b>NON-FERROUS METALS</b>                   |                     |                               |                   |
| Aluminum Cans (Non-Bottle Bill)             | 5.3                 | 4.9                           |                   |
| Aluminum Cans (Bottle Bill)                 | 5.1                 | 4.8                           |                   |
| Other Non-Ferrous Metal                     | 7.0                 | 4.9                           |                   |
| <b>ELECTRONICS</b>                          |                     |                               |                   |
| <b>GLASS</b>                                |                     |                               |                   |
| Glass Bottles (Bottle Bill)                 | 5.7                 | 4.7                           |                   |
| Glass Bottle - Clear                        | 37.9                | 4.8                           |                   |
| Glass Bottle - Amber                        | 10.3                | 4.7                           |                   |
| Glass Bottle - Green                        | 18.14.0             | 4.7                           |                   |
| Flat Glass & Other Glass                    | 8.8                 | 4.7                           |                   |
| <b>WOOD</b>                                 |                     |                               |                   |
| <b>RUBBLE</b>                               |                     |                               |                   |
| <b>YARD WASTE</b>                           |                     |                               |                   |
| <b>DIRT/FINES</b>                           |                     |                               |                   |
| <b>HAZARDOUS WASTE</b>                      |                     |                               |                   |
| Household Hazardous Waste (HHW)             |                     | 4.7                           |                   |
| Lead Acid Batteries                         |                     | 4.7                           |                   |
| Other Batteries                             |                     | 4.7                           |                   |
| <b>MEDICAL OR PHARMACEUTICAL WASTE</b>      |                     |                               |                   |
| <b>MISCELLANEOUS</b>                        |                     |                               |                   |

#7

Paper

CITY OF ALBANY  
WASTE CHARACTERIZATION ANALYSIS  
SORT DATA SHEET

Day/Date: Monday 3/2/09  
 CHA Staff Name: \_\_\_\_\_  
 Truck ID Number: 434 Arrival Number: 7  
 Hauler: City A16 Das Truck Type: Recycling  
 Location: \_\_\_\_\_  
 Arrival Time: \_\_\_\_\_ A.M. 1:30 P.M.  
 Origin (Municipality): \_\_\_\_\_

1) 69.9 / 4.8  
2) 50.1 / 4.8

| Material Components                         | Gross Weight (Lbs.) | Tare Weight Of Sort Container | Net Weight (Lbs.) |
|---------------------------------------------|---------------------|-------------------------------|-------------------|
| <b>PAPER</b>                                |                     |                               |                   |
| Newspaper                                   |                     | 4.8                           |                   |
| Magazines                                   | 17.3                | 4.8                           |                   |
| Corrugated                                  | 12.7                | 4.8                           |                   |
| Gable Top Cartons & Drink Boxes             | 5.1                 | 5.0                           |                   |
| Paper Board                                 | 11.6                | 5.0                           |                   |
| Books (including phone directories)         | 15.8                | 4.7                           |                   |
| Mixed Office Paper                          | 16.2                | 4.7                           |                   |
| Other Paper                                 | 7.0                 | 4.7                           |                   |
| <b>PLASTICS</b>                             |                     |                               |                   |
| Plastic Containers (PET) #1 Non-Bottle Bill | 5.3                 | 5.0                           |                   |
| Plastic #1 (Bottle Bill Containers)         |                     | 4.9                           |                   |
| Plastic Containers (HDPE) #2                | 5.5                 | 5.2                           |                   |
| Other Plastic Containers                    |                     | 5.0                           |                   |
| Film Plastic & Plastic Bags                 | 4.9                 | 4.7                           |                   |
| Other Plastics                              |                     | 4.6                           |                   |
| <b>FOOD WASTE</b>                           |                     | 5.3                           |                   |
| <b>TEXTILES &amp; LEATHER</b>               |                     | 4.9                           |                   |
| <b>RUBBER</b>                               |                     | 4.8                           |                   |
| <b>DISPOSABLE DIAPERS</b>                   |                     | 4.8                           |                   |
| <b>FERROUS METALS</b>                       |                     |                               |                   |
| Ferrous Metal/Bimetal Cans                  | 5.2                 | 5.0                           |                   |
| Aerosol Cans                                |                     | 4.9                           |                   |
| Other Ferrous Metal                         |                     | 4.9                           |                   |
| <b>NON-FERROUS METALS</b>                   |                     |                               |                   |
| Aluminum Cans (Non-Bottle Bill)             |                     | 5.0                           |                   |
| Aluminum Cans (Bottle Bill)                 |                     | 4.7                           |                   |
| Other Non-Ferrous Metal                     |                     | 5.0                           |                   |
| <b>ELECTRONICS</b>                          |                     | 5.0                           |                   |
| <b>GLASS</b>                                |                     |                               |                   |
| Glass Bottles (Bottle Bill)                 |                     | 4.8                           |                   |
| Glass Bottle - Clear                        |                     | 4.8                           |                   |
| Glass Bottle - Amber                        |                     | 4.7                           |                   |
| Glass Bottle - Green                        |                     | 4.7                           |                   |
| Flat Glass & Other Glass                    |                     | 4.7                           |                   |
| <b>WOOD</b>                                 |                     | 4.8                           |                   |
| <b>RUBBLE</b>                               |                     | 4.8                           |                   |
| <b>YARD WASTE</b>                           |                     | 4.7                           |                   |
| <b>DIRT/FINES</b>                           |                     | 4.8                           |                   |
| <b>HAZARDOUS WASTE</b>                      |                     |                               |                   |
| Household Hazardous Waste (HHW)             |                     | 4.7                           |                   |
| Lead Acid Batteries                         |                     | 4.7                           |                   |
| Other Batteries                             |                     | 4.7                           |                   |
| <b>MEDICAL OR PHARMACEUTICAL WASTE</b>      |                     | 5.0                           |                   |
| <b>MISCELLANEOUS</b>                        |                     | 4.7                           |                   |

CITY OF ALBANY  
WASTE CHARACTERIZATION ANALYSIS  
SORT DATA SHEET

#7 Rec

~~ASPA~~  
glass/plastic

Day/Date: Monday 3/2/09  
 CHA Staff Name: \_\_\_\_\_  
 Truck ID Number: unknown 434 Arrival Number: 6  
 Hauler: 065 Truck Type: \_\_\_\_\_  
 Location: \_\_\_\_\_  
 Arrival Time: 1:00-2:00 A.M. 1:30 P.M.  
 Origin (Municipality): \_\_\_\_\_

| Material Components                         | Gross Weight (Lbs.) | Tare Weight Of Sort Container | Net Weight (Lbs.) |
|---------------------------------------------|---------------------|-------------------------------|-------------------|
| <b>PAPER</b>                                |                     |                               |                   |
| Newspaper                                   | 19.1                | 4.7                           |                   |
| Magazines                                   | 5.7                 | 4.7                           |                   |
| Corrugated                                  |                     | 4.7                           |                   |
| Gable Top Cartons & Drink Boxes             | 5.9                 | 5.0                           |                   |
| Paper Board                                 | 7.1                 | 5.0                           |                   |
| Books (including phone directories)         |                     | 4.7                           |                   |
| Mixed Office Paper                          |                     | 4.7                           |                   |
| Other Paper                                 | 6.4                 | 4.7                           |                   |
| <b>PLASTICS</b>                             |                     |                               |                   |
| Plastic Containers (PET) #1 Non-Bottle Bill |                     | 5.0                           |                   |
| Plastic #1 (Bottle Bill Containers)         | <del>5.8</del> 5.8  | 4.9                           |                   |
| Plastic Containers (HDPE) #2                | 7.3                 | 5.2                           |                   |
| Other Plastic Containers                    | 8.4                 | 5.0                           |                   |
| Film Plastic & Plastic Bags                 | 3.9                 | 4.7                           |                   |
| Other Plastics                              | 5.7                 | 4.6                           |                   |
| <b>FOOD WASTE</b>                           |                     |                               |                   |
| <b>TEXTILES &amp; LEATHER</b>               |                     |                               |                   |
| <b>RUBBER</b>                               |                     |                               |                   |
| <b>DISPOSABLE DIAPERS</b>                   |                     |                               |                   |
| <b>FERROUS METALS</b>                       |                     |                               |                   |
| Ferrous Metal/Bimetal Cans                  | 20.3                | <del>5.0</del> 4.9            |                   |
| Aerosol Cans                                | 5.6                 | 4.9                           |                   |
| Other Ferrous Metal                         |                     | 4.9                           |                   |
| <b>NON-FERROUS METALS</b>                   |                     |                               |                   |
| Aluminum Cans (Non-Bottle Bill)             | 5.3                 | 5.0                           |                   |
| Aluminum Cans (Bottle Bill)                 | 5.8                 | 4.8                           |                   |
| Other Non-Ferrous Metal                     | 6.3                 | 4.9                           |                   |
| <b>ELECTRONICS</b>                          |                     |                               |                   |
| <b>GLASS</b>                                |                     |                               |                   |
| Glass Bottles (Bottle Bill)                 |                     | 4.8                           |                   |
| Glass Bottle - Clear                        | 62.2                | 4.9                           |                   |
| Glass Bottle - Amber                        | 37.3                | 4.7                           |                   |
| Glass Bottle - Green                        | 21.6                | 4.7                           |                   |
| Flat Glass & Other Glass                    | 14.6                | 4.7                           |                   |
| <b>WOOD</b>                                 |                     |                               |                   |
| <b>RUBBLE</b>                               |                     |                               |                   |
| <b>YARD WASTE</b>                           |                     |                               |                   |
| <b>DIRT/FINES</b>                           |                     |                               |                   |
| <b>HAZARDOUS WASTE</b>                      |                     |                               |                   |
| Household Hazardous Waste (HHW)             |                     | 4.7                           |                   |
| Lead Acid Batteries                         |                     | 4.7                           |                   |
| Other Batteries                             |                     | 4.7                           |                   |
| <b>MEDICAL OR PHARMACEUTICAL WASTE</b>      |                     |                               |                   |
| <b>MISCELLANEOUS</b>                        |                     |                               |                   |
|                                             |                     | 4.7                           |                   |

①  
10.9/5.0  
28.0/5.6

8.3

#1

PAPER

CITY OF ALBANY  
WASTE CHARACTERIZATION ANALYSIS  
SORT DATA SHEET

Day/Date: Tuesday 3/3/09  
 CHA Staff Name: J. Smith, S. Johnston, T. Cassell, B. King, L. Luby, B. Carpenter  
 Truck ID Number: 5311 1431 Arrival Number: 2  
 Hauler: City of Albany Truck Type: Recycling  
 Location: \_\_\_\_\_  
 Arrival Time: 7:00 A.M. \_\_\_\_\_ P.M.  
 Origin (Municipality): \_\_\_\_\_

118.3/5.0 }  
27.8/5.0 } →

| Material Components                         | Gross Weight (Lbs.) | Tare Weight Of Sort Container | Net Weight (Lbs.) |
|---------------------------------------------|---------------------|-------------------------------|-------------------|
| <b>PAPER</b>                                |                     |                               |                   |
| Newspaper                                   | 64.0                | 4.7                           |                   |
| Magazines                                   | 17.9                | 4.8                           |                   |
| Corrugated                                  | 8.0                 | 4.7                           |                   |
| Gable Top Cartons & Drink Boxes             |                     | 5.0                           |                   |
| Paper Board                                 |                     | 5.0                           |                   |
| Books (including phone directories)         | 20.9                | 4.7                           |                   |
| Mixed Office Paper                          | 11.6                | 4.7                           |                   |
| Other Paper                                 | 6.5                 | 4.7                           |                   |
| <b>PLASTICS</b>                             |                     |                               |                   |
| Plastic Containers (PET) #1 Non-Bottle Bill | 5.1                 | 5.0                           |                   |
| Plastic #1 (Bottle Bill Containers)         |                     | 4.9                           |                   |
| Plastic Containers (HDPE) #2                |                     | 5.3                           |                   |
| Other Plastic Containers                    |                     | 5.0                           |                   |
| Film Plastic & Plastic Bags                 | 4.3                 | 4.7                           |                   |
| Other Plastics                              | 4.8                 | 4.6                           |                   |
| <b>FOOD WASTE</b>                           |                     | 5.3                           |                   |
| <b>TEXTILES &amp; LEATHER</b>               |                     | 4.7                           |                   |
| <b>RUBBER</b>                               |                     | 4.8                           |                   |
| <b>DISPOSABLE DIAPERS</b>                   |                     | 4.8                           |                   |
| <b>FERROUS METALS</b>                       |                     |                               |                   |
| Ferrous Metal/Bimetal Cans                  |                     | 5.0                           |                   |
| Aerosol Cans                                |                     | 4.9                           |                   |
| Other Ferrous Metal                         |                     | 4.9                           |                   |
| <b>NON-FERROUS METALS</b>                   |                     |                               |                   |
| Aluminum Cans (Non-Bottle Bill)             |                     | 5.0                           |                   |
| Aluminum Cans (Bottle Bill)                 |                     | 4.7                           |                   |
| Other Non-Ferrous Metal                     |                     | 5.0                           |                   |
| <b>ELECTRONICS</b>                          |                     | 5.0                           |                   |
| <b>GLASS</b>                                |                     |                               |                   |
| Glass Bottles (Bottle Bill)                 |                     | 4.8                           |                   |
| Glass Bottle - Clear                        | 6.2                 | 4.8                           |                   |
| Glass Bottle - Amber                        |                     | 4.7                           |                   |
| Glass Bottle - Green                        |                     | 4.7                           |                   |
| Flat Glass & Other Glass                    |                     | 4.7                           |                   |
| <b>WOOD</b>                                 | 5.5                 | 4.7                           |                   |
| <b>RUBBLE</b>                               |                     | 4.8                           |                   |
| <b>YARD WASTE</b>                           |                     | 4.7                           |                   |
| <b>DIRT/FINES</b>                           |                     | 4.8                           |                   |
| <b>HAZARDOUS WASTE</b>                      |                     |                               |                   |
| Household Hazardous Waste (HHW)             |                     | 4.7                           |                   |
| Lead Acid Batteries                         |                     | 4.7                           |                   |
| Other Batteries                             |                     | 4.7                           |                   |
| <b>MEDICAL OR PHARMACEUTICAL WASTE</b>      |                     | 5.0                           |                   |
| <b>MISCELLANEOUS</b>                        |                     | 4.7                           |                   |

#11

plastic/glass

CITY OF ALBANY  
WASTE CHARACTERIZATION ANALYSIS  
SORT DATA SHEET

Day/Date: Tuesday 3/3/09  
 CHA Staff Name: same  
 Truck ID Number: 5911/431 Arrival Number: 1  
 Hauler: CITY ALB DCS Truck Type: Recycling  
 Location: \_\_\_\_\_  
 Arrival Time: 7:10 A.M. \_\_\_\_\_ P.M.  
 Origin (Municipality): \_\_\_\_\_

| Material Components                         | Gross Weight (Lbs.) | Tare Weight Of Sort Container | Net Weight (Lbs.) |
|---------------------------------------------|---------------------|-------------------------------|-------------------|
| <b>PAPER</b>                                |                     |                               |                   |
| Newspaper                                   | 5.5                 | 4.7                           |                   |
| Magazines                                   |                     | 4.7                           |                   |
| Corrugated                                  |                     | 4.7                           |                   |
| Gable Top Cartons & Drink Boxes             | 7.9                 | 5.0                           |                   |
| Paper Board                                 | 6.0                 | 5.0                           |                   |
| Books (including phone directories)         |                     | 4.7                           |                   |
| Mixed Office Paper                          |                     | 4.7                           |                   |
| Other Paper                                 |                     | 4.7                           |                   |
| <b>PLASTICS</b>                             |                     |                               |                   |
| Plastic Containers (PET) #1 Non-Bottle Bill | 11.1                | 5.0                           |                   |
| Plastic #1 (Bottle Bill Containers)         | 6.5                 | 4.7                           |                   |
| Plastic Containers (HDPE) #2                |                     | 5.3                           |                   |
| Other Plastic Containers                    | 6.9                 | 5.0                           |                   |
| Film Plastic & Plastic Bags                 | 5.0                 | 4.7                           |                   |
| Other Plastics                              | 5.0                 | 4.7                           |                   |
| <b>FOOD WASTE</b>                           |                     | 5.3                           |                   |
| <b>TEXTILES &amp; LEATHER</b>               |                     | 4.7                           |                   |
| <b>RUBBER</b>                               |                     | 4.7                           |                   |
| <b>DISPOSABLE DIAPERS</b>                   |                     | 4.7                           |                   |
| <b>FERROUS METALS</b>                       |                     |                               |                   |
| Ferrous Metal/Bimetal Cans                  | 13.8                | 5.0                           |                   |
| Aerosol Cans                                |                     | 4.7                           |                   |
| Other Ferrous Metal                         |                     | 4.7                           |                   |
| <b>NON-FERROUS METALS</b>                   |                     |                               |                   |
| Aluminum Cans (Non-Bottle Bill)             | 5.2                 | 5.0                           |                   |
| Aluminum Cans (Bottle Bill)                 | 5.7                 | 4.7                           |                   |
| Other Non-Ferrous Metal                     | 5.2                 | 5.0                           |                   |
| <b>ELECTRONICS</b>                          |                     | 5.0                           |                   |
| <b>GLASS</b>                                |                     |                               |                   |
| Glass Bottles (Bottle Bill)                 | 12.0                | 4.7                           |                   |
| Glass Bottle - Clear                        | 21.8                | 4.7                           |                   |
| Glass Bottle - Amber                        | 12.8                | 4.7                           |                   |
| Glass Bottle - Green                        | 17.2                | 4.7                           |                   |
| Flat Glass & Other Glass                    | 11.7                | 4.7                           |                   |
| <b>WOOD</b>                                 |                     | 4.7                           |                   |
| <b>RUBBLE</b>                               |                     | 4.7                           |                   |
| <b>YARD WASTE</b>                           |                     | 4.7                           |                   |
| <b>DIRT/FINES</b>                           |                     | 4.7                           |                   |
| <b>HAZARDOUS WASTE</b>                      |                     |                               |                   |
| Household Hazardous Waste (HHW)             |                     | 4.7                           |                   |
| Lead Acid Batteries                         |                     | 4.7                           |                   |
| Other Batteries                             |                     | 4.7                           |                   |
| <b>MEDICAL OR PHARMACEUTICAL WASTE</b>      |                     | 5.0                           |                   |
| <b>MISCELLANEOUS</b>                        |                     | 4.7                           |                   |

HDPE  
10.2/53 + 8.1/52



#2

(P 99 02)

**CITY OF ALBANY  
WASTE CHARACTERIZATION ANALYSIS  
SORT DATA SHEET**

Day/Date: Tuesday, 3/3/09  
 CHA Staff Name: same  
 Truck ID Number: 5314 1432 Arrival Number: 2  
 Hauler: CTY 116 DCJ Truck Type: 2-tye  
 Location: \_\_\_\_\_  
 Arrival Time: 7:50 A.M. \_\_\_\_\_ P.M.  
 Origin (Municipality): \_\_\_\_\_

| Material Components                         | Gross Weight (Lbs.) | Tare Weight Of Sort Container | Net Weight (Lbs.) |
|---------------------------------------------|---------------------|-------------------------------|-------------------|
| <b>PAPER</b>                                |                     |                               |                   |
| Newspaper                                   | 16.2                | 4.7                           |                   |
| Magazines                                   | 16.3                | 4.7                           |                   |
| Corrugated                                  | 16.1                | 4.7                           |                   |
| Gable Top Cartons & Drink Boxes             | 5.5                 | 4.9                           |                   |
| Paper Board                                 | 14.0                | 5.0                           |                   |
| Books (including phone directories)         | 34.1                | 4.7                           |                   |
| Mixed Office Paper                          | 17.9                | 4.7                           |                   |
| Other Paper                                 | 7.0                 | 4.7                           |                   |
| <b>PLASTICS</b>                             |                     |                               |                   |
| Plastic Containers (PET) #1 Non-Bottle Bill |                     | 5.0                           |                   |
| Plastic #1 (Bottle Bill Containers)         |                     | 5.0                           |                   |
| Plastic Containers (HDPE) #2                |                     | 5.2                           |                   |
| Other Plastic Containers                    | 5.3                 | 5.0                           |                   |
| Film Plastic & Plastic Bags                 | 4.3                 | 4.7                           |                   |
| Other Plastics                              |                     | 4.7                           |                   |
| <b>FOOD WASTE</b>                           |                     | 5.3                           |                   |
| <b>TEXTILES &amp; LEATHER</b>               |                     | 4.9                           |                   |
| <b>RUBBER</b>                               |                     | 4.8                           |                   |
| <b>DISPOSABLE DIAPERS</b>                   |                     | 4.8                           |                   |
| <b>FERROUS METALS</b>                       |                     |                               |                   |
| Ferrous Metal/Bimetal Cans                  | 5.1                 | 5.0                           |                   |
| Aerosol Cans                                |                     | 4.7                           |                   |
| Other Ferrous Metal                         |                     | 4.9                           |                   |
| <b>NON-FERROUS METALS</b>                   |                     |                               |                   |
| Aluminum Cans (Non-Bottle Bill)             |                     | 5.0                           |                   |
| Aluminum Cans (Bottle Bill)                 |                     | 4.7                           |                   |
| Other Non-Ferrous Metal                     |                     | 4.9                           |                   |
| <b>ELECTRONICS</b>                          |                     | 5.0                           |                   |
| <b>GLASS</b>                                |                     |                               |                   |
| Glass Bottles (Bottle Bill)                 |                     | 4.3                           |                   |
| Glass Bottle - Clear                        |                     | 4.3                           |                   |
| Glass Bottle - Amber                        |                     | 4.7                           |                   |
| Glass Bottle - Green                        |                     | 4.7                           |                   |
| Flat Glass & Other Glass                    |                     | 4.7                           |                   |
| <b>WOOD</b>                                 |                     | 4.8                           |                   |
| <b>RUBBLE</b>                               |                     | 4.8                           |                   |
| <b>YARD WASTE</b>                           |                     | 4.7                           |                   |
| <b>DIRT/FINES</b>                           |                     | 4.8                           |                   |
| <b>HAZARDOUS WASTE</b>                      |                     |                               |                   |
| Household Hazardous Waste (HHW)             |                     | 4.7                           |                   |
| Lead Acid Batteries                         |                     | 4.7                           |                   |
| Other Batteries                             |                     | 4.7                           |                   |
| <b>MEDICAL OR PHARMACEUTICAL WASTE</b>      |                     | 5.0                           |                   |
| <b>MISCELLANEOUS</b>                        |                     | 4.7                           |                   |

plastic/glass

#2

CITY OF ALBANY  
WASTE CHARACTERIZATION ANALYSIS  
SORT DATA SHEET

Day/Date: Tuesday 3/3/09  
 CHA Staff Name: Sama  
 Truck ID Number: 5314/432 Arrival Number: 2  
 Hauler: City 126 PGS Truck Type: Recycling  
 Location: \_\_\_\_\_  
 Arrival Time: 7:50 A.M. \_\_\_\_\_ P.M.  
 Origin (Municipality): \_\_\_\_\_

| Material Components                         | Gross Weight (Lbs.) | Tare Weight Of Sort Container | Net Weight (Lbs.) |
|---------------------------------------------|---------------------|-------------------------------|-------------------|
| <b>PAPER</b>                                |                     |                               |                   |
| Newspaper                                   | 5.5                 | 4.7                           |                   |
| Magazines                                   | 5.0                 | 4.7                           |                   |
| Corrugated                                  | 6.3                 | 7.8                           |                   |
| Gable Top Cartons & Drink Boxes             | 5.8                 | 5.0                           |                   |
| Paper Board                                 | 6.3                 | 5.0                           |                   |
| Books (including phone directories)         | 3.1                 | 4.7                           |                   |
| Mixed Office Paper                          | 4.8                 | 4.7                           |                   |
| Other Paper                                 | 5.7                 | 4.8                           |                   |
| <b>PLASTICS</b>                             |                     |                               |                   |
| Plastic Containers (PET) #1 Non-Bottle Bill | 10.5                | 5.0                           |                   |
| Plastic #1 (Bottle Bill Containers)         | 5.6                 | 5.0                           |                   |
| Plastic Containers (HDPE) #2                |                     | 5.2                           |                   |
| Other Plastic Containers                    | 8.1                 | 5.0                           |                   |
| Film Plastic & Plastic Bags                 | 6.0                 | 4.7                           |                   |
| Other Plastics                              | 5.1                 | 4.7                           |                   |
| <b>FOOD WASTE</b>                           |                     | 3.3                           |                   |
| <b>TEXTILES &amp; LEATHER</b>               |                     | 4.9                           |                   |
| <b>RUBBER</b>                               |                     | 4.8                           |                   |
| <b>DISPOSABLE DIAPERS</b>                   |                     | 4.8                           |                   |
| <b>FERROUS METALS</b>                       |                     |                               |                   |
| Ferrous Metal/Bimetal Cans                  | 15.1                | 5.0                           |                   |
| Aerosol Cans                                |                     | 4.9                           |                   |
| Other Ferrous Metal                         |                     | 4.9                           |                   |
| <b>NON-FERROUS METALS</b>                   |                     |                               |                   |
| Aluminum Cans (Non-Bottle Bill)             | 5.6                 | 5.0                           |                   |
| Aluminum Cans (Bottle Bill)                 | 5.7                 | 4.7                           |                   |
| Other Non-Ferrous Metal                     | 6.9                 | 4.7                           |                   |
| <b>ELECTRONICS</b>                          |                     | 5.0                           |                   |
| <b>GLASS</b>                                |                     |                               |                   |
| Glass Bottles (Bottle Bill)                 | 15.3                | 4.8                           |                   |
| Glass Bottle - Clear                        | 41.9                | 4.3                           |                   |
| Glass Bottle - Amber                        | 20.1                | 4.7                           |                   |
| Glass Bottle - Green                        | 52.9                | 4.7                           |                   |
| Flat Glass & Other Glass                    | 6.7                 | 4.7                           |                   |
| <b>WOOD</b>                                 |                     | 4.8                           |                   |
| <b>RUBBLE</b>                               |                     | 4.8                           |                   |
| <b>YARD WASTE</b>                           |                     | 4.7                           |                   |
| <b>DIRT/FINES</b>                           |                     | 4.8                           |                   |
| <b>HAZARDOUS WASTE</b>                      |                     |                               |                   |
| Household Hazardous Waste (HHW)             |                     | 4.7                           |                   |
| Lead Acid Batteries                         |                     | 4.7                           |                   |
| Other Batteries                             |                     | 4.7                           |                   |
| <b>MEDICAL OR PHARMACEUTICAL WASTE</b>      |                     | 5.0                           |                   |
| <b>MISCELLANEOUS</b>                        |                     | 4.7                           |                   |

8.7/5.3  
26.0/5.3



#3 Recy

CITY OF ALBANY  
WASTE CHARACTERIZATION ANALYSIS  
SORT DATA SHEET

Paper

Day/Date: Tuesday 3/3/07  
 CHA Staff Name: S. Re  
 Truck ID Number: 435/5320 Arrival Number: 13  
 Hauler: DCS Truck Type: Recycling  
 Location: \_\_\_\_\_  
 Arrival Time: 8:48 A.M. \_\_\_\_\_ P.M.  
 Origin (Municipality): \_\_\_\_\_

1343/47  
194/47

| Material Components                         | Gross Weight (Lbs.) | Tare Weight Of Sort Container | Net Weight (Lbs.) |
|---------------------------------------------|---------------------|-------------------------------|-------------------|
| <b>PAPER</b>                                |                     |                               |                   |
| Newspaper                                   |                     | 4.7                           |                   |
| Magazines                                   | 13.4                | 4.7                           |                   |
| Corrugated                                  | 23.3                | 4.7                           |                   |
| Gable Top Cartons & Drink Boxes             | 5.3                 | 5.0                           |                   |
| Paper Board                                 | 14.7                | 5.0                           |                   |
| Books (including phone directories)         | 21.0                | 4.8                           |                   |
| Mixed Office Paper                          | 3.3                 | 4.8                           |                   |
| Other Paper                                 | 6.2                 | 4.7                           |                   |
| <b>PLASTICS</b>                             |                     |                               |                   |
| Plastic Containers (PET) #1 Non-Bottle Bill | 5.5                 | 5.0                           |                   |
| Plastic #1 (Bottle Bill Containers)         |                     | 5.0                           |                   |
| Plastic Containers (HDPE) #2                | 5.5                 | 5.3                           |                   |
| Other Plastic Containers                    | 5.2                 | 5.0                           |                   |
| Film Plastic & Plastic Bags                 | 4.9                 | 4.7                           |                   |
| Other Plastics                              |                     | 4.7                           |                   |
| <b>FOOD WASTE</b>                           |                     |                               |                   |
| <b>TEXTILES &amp; LEATHER</b>               |                     |                               |                   |
| <b>RUBBER</b>                               |                     |                               |                   |
| <b>DISPOSABLE DIAPERS</b>                   |                     |                               |                   |
| <b>FERROUS METALS</b>                       |                     |                               |                   |
| Ferrous Metal/Bimetal Cans                  | 5.4                 | 4.9                           |                   |
| Aerosol Cans                                |                     | 4.9                           |                   |
| Other Ferrous Metal                         |                     | 4.9                           |                   |
| <b>NON-FERROUS METALS</b>                   |                     |                               |                   |
| Aluminum Cans (Non-Bottle Bill)             |                     | 5.0                           |                   |
| Aluminum Cans (Bottle Bill)                 |                     | 4.7                           |                   |
| Other Non-Ferrous Metal                     |                     | 4.9                           |                   |
| <b>ELECTRONICS</b>                          |                     |                               |                   |
| <b>GLASS</b>                                |                     |                               |                   |
| Glass Bottles (Bottle Bill)                 |                     | 4.8                           |                   |
| Glass Bottle - Clear                        |                     | 4.8                           |                   |
| Glass Bottle - Amber                        |                     | 4.8                           |                   |
| Glass Bottle - Green                        |                     | 4.8                           |                   |
| Flat Glass & Other Glass                    |                     | 4.8                           |                   |
| <b>WOOD</b>                                 |                     |                               |                   |
| <b>RUBBLE</b>                               |                     |                               |                   |
| <b>YARD WASTE</b>                           |                     |                               |                   |
| <b>DIRT/FINES</b>                           |                     |                               |                   |
| <b>HAZARDOUS WASTE</b>                      |                     |                               |                   |
| Household Hazardous Waste (HHW)             |                     | 4.7                           |                   |
| Lead Acid Batteries                         |                     | 4.7                           |                   |
| Other Batteries                             |                     | 4.7                           |                   |
| <b>MEDICAL OR PHARMACEUTICAL WASTE</b>      |                     |                               |                   |
| <b>MISCELLANEOUS</b>                        |                     |                               |                   |

#3 60

CITY OF ALBANY  
WASTE CHARACTERIZATION ANALYSIS  
SORT DATA SHEET

glass/plastic

Day/Date: Tuesday 3/3/09  
 CHA Staff Name: Same  
 Truck ID Number: 435/5320 Arrival Number: #3  
 Hauler: D&S Truck Type: Recycling  
 Location: \_\_\_\_\_  
 Arrival Time: 8:48 A.M. \_\_\_\_\_ P.M.  
 Origin (Municipality): \_\_\_\_\_

10.9/50 + 7.4/50  
 7.6/5.3 + 6.5/5.2

| Material Components                         | Gross Weight (Lbs.) | Tare Weight Of Sort Container | Net Weight (Lbs.) |
|---------------------------------------------|---------------------|-------------------------------|-------------------|
| <b>PAPER</b>                                |                     |                               |                   |
| Newspaper                                   | 5.0                 | 4.7                           |                   |
| Magazines                                   |                     | 4.7                           |                   |
| Corrugated                                  | 5.2                 | 4.7                           |                   |
| Gable Top Cartons & Drink Boxes             | 6.0                 | 5.0                           |                   |
| Paper Board                                 | 6.0                 | 5.0                           |                   |
| Books (including phone directories)         |                     | 4.8                           |                   |
| Mixed Office Paper                          |                     | 4.3                           |                   |
| Other Paper                                 |                     | 4.7                           |                   |
| <b>PLASTICS</b>                             |                     |                               |                   |
| Plastic Containers (PET) #1 Non-Bottle Bill |                     | 5.0                           |                   |
| Plastic #1 (Bottle Bill Containers)         | 5.7                 | 4.9                           |                   |
| Plastic Containers (HDPE) #2                |                     | 5.3                           |                   |
| Other Plastic Containers                    | 8.5                 | 5.0                           |                   |
| Film Plastic & Plastic Bags                 | 4.8                 | 4.7                           |                   |
| Other Plastics                              | 5.2                 | 4.7                           |                   |
| <b>FOOD WASTE</b>                           |                     |                               |                   |
|                                             |                     | 5.3                           |                   |
| <b>TEXTILES &amp; LEATHER</b>               |                     |                               |                   |
|                                             |                     | 4.9                           |                   |
| <b>RUBBER</b>                               |                     |                               |                   |
|                                             |                     | 4.8                           |                   |
| <b>DISPOSABLE DIAPERS</b>                   |                     |                               |                   |
|                                             |                     | 4.8                           |                   |
| <b>FERROUS METALS</b>                       |                     |                               |                   |
| Ferrous Metal/Bimetal Cans                  | 19.5                | 5.0                           |                   |
| Aerosol Cans                                | 5.8                 | 4.9                           |                   |
| Other Ferrous Metal                         |                     | 4.7                           |                   |
| <b>NON-FERROUS METALS</b>                   |                     |                               |                   |
| Aluminum Cans (Non-Bottle Bill)             | 5.1                 | 5.0                           |                   |
| Aluminum Cans (Bottle Bill)                 | 6.2                 | 4.8                           |                   |
| Other Non-Ferrous Metal                     | 7.9                 | 5.0                           |                   |
| <b>ELECTRONICS</b>                          |                     |                               |                   |
| <b>GLASS</b>                                |                     |                               |                   |
| Glass Bottles (Bottle Bill)                 | 15.5                | 4.8                           |                   |
| Glass Bottle - Clear                        | 26.4                | 4.7                           |                   |
| Glass Bottle - Amber                        | 11.6                | 4.7                           |                   |
| Glass Bottle - Green                        | 30.2                | 4.7                           |                   |
| Flat Glass & Other Glass                    |                     | 4.8                           |                   |
| <b>WOOD</b>                                 |                     |                               |                   |
|                                             |                     | 4.8                           |                   |
| <b>RUBBLE</b>                               |                     |                               |                   |
|                                             |                     | 4.8                           |                   |
| <b>YARD WASTE</b>                           |                     |                               |                   |
|                                             |                     | 4.7                           |                   |
| <b>DIRT/FINES</b>                           |                     |                               |                   |
|                                             |                     | 4.8                           |                   |
| <b>HAZARDOUS WASTE</b>                      |                     |                               |                   |
| Household Hazardous Waste (HHW)             |                     | 4.7                           |                   |
| Lead Acid Batteries                         |                     | 4.7                           |                   |
| Other Batteries                             |                     | 4.7                           |                   |
| <b>MEDICAL OR PHARMACEUTICAL WASTE</b>      |                     |                               |                   |
|                                             |                     | 5.0                           |                   |
| <b>MISCELLANEOUS</b>                        |                     |                               |                   |
|                                             |                     | 4.7                           |                   |

#4 Rec

Paper

CITY OF ALBANY  
WASTE CHARACTERIZATION ANALYSIS  
SORT DATA SHEET

Day/Date: Tuesday 3/3/09  
 CHA Staff Name: Same  
 Truck ID Number: 5311 / 431 Arrival Number: 4  
 Hauler: City A/G P/GS Truck Type: Recycling  
 Location: \_\_\_\_\_  
 Arrival Time: 10:00 A.M. \_\_\_\_\_ P.M.  
 Origin (Municipality): \_\_\_\_\_

News paper  
34.1/47 + 31.4/47

| Material Components                         | Gross Weight (Lbs.) | Tare Weight Of Sort Container | Net Weight (Lbs.) |
|---------------------------------------------|---------------------|-------------------------------|-------------------|
| <b>PAPER</b>                                |                     |                               |                   |
| Newspaper                                   |                     | 4.7                           |                   |
| Magazines                                   | 28.1                | 4.7                           |                   |
| Corrugated                                  | 11.8                | 4.7                           |                   |
| Gable Top Cartons & Drink Boxes             | 5.5                 | 5.0                           |                   |
| Paper Board                                 | 11.6                | 5.1                           |                   |
| Books (including phone directories)         | 42.3                | 4.8                           |                   |
| Mixed Office Paper                          | 9.5                 | 4.7                           |                   |
| Other Paper                                 | 10.3                | 4.8                           |                   |
| <b>PLASTICS</b>                             |                     |                               |                   |
| Plastic Containers (PET) #1 Non-Bottle Bill |                     | 5.0                           |                   |
| Plastic #1 (Bottle Bill Containers)         |                     | 5.0                           |                   |
| Plastic Containers (HDPE) #2                | 5.4                 | 5.3                           |                   |
| Other Plastic Containers                    |                     | 5.0                           |                   |
| Film Plastic & Plastic Bags                 |                     | 4.7                           |                   |
| Other Plastics                              |                     | 4.7                           |                   |
| <b>FOOD WASTE</b>                           |                     | 5.3                           |                   |
| <b>TEXTILES &amp; LEATHER</b>               |                     | 4.9                           |                   |
| <b>RUBBER</b>                               |                     | 4.8                           |                   |
| <b>DISPOSABLE DIAPERS</b>                   |                     | 4.8                           |                   |
| <b>FERROUS METALS</b>                       |                     |                               |                   |
| Ferrous Metal/Bimetal Cans                  |                     | 5.0                           |                   |
| Aerosol Cans                                |                     | 4.9                           |                   |
| Other Ferrous Metal                         |                     | 4.9                           |                   |
| <b>NON-FERROUS METALS</b>                   |                     |                               |                   |
| Aluminum Cans (Non-Bottle Bill)             |                     | 5.0                           |                   |
| Aluminum Cans (Bottle Bill)                 |                     | 4.8                           |                   |
| Other Non-Ferrous Metal                     | 5.0                 | 4.9                           |                   |
| <b>ELECTRONICS</b>                          |                     |                               |                   |
| <b>GLASS</b>                                |                     |                               |                   |
| Glass Bottles (Bottle Bill)                 |                     | 4.8                           |                   |
| Glass Bottle - Clear                        |                     | 4.9                           |                   |
| Glass Bottle - Amber                        |                     | 4.8                           |                   |
| Glass Bottle - Green                        |                     | 4.7                           |                   |
| Flat Glass & Other Glass                    |                     | 4.6                           |                   |
| <b>WOOD</b>                                 |                     | 4.8                           |                   |
| <b>RUBBLE</b>                               |                     | 4.8                           |                   |
| <b>YARD WASTE</b>                           |                     | 4.7                           |                   |
| <b>DIRT/FINES</b>                           |                     | 4.8                           |                   |
| <b>HAZARDOUS WASTE</b>                      |                     | 4.7                           |                   |
| Household Hazardous Waste (HHW)             |                     | 4.7                           |                   |
| Lead Acid Batteries                         |                     | 4.7                           |                   |
| Other Batteries                             |                     | 4.7                           |                   |
| <b>MEDICAL OR PHARMACEUTICAL WASTE</b>      |                     | 5.0                           |                   |
| <b>MISCELLANEOUS</b>                        |                     | 4.7                           |                   |

**CITY OF ALBANY  
WASTE CHARACTERIZATION ANALYSIS  
SORT DATA SHEET**

*Glass/Plastic*

#4 Rec

Day/Date: Tuesday 3/3/09  
 CHA Staff Name: Same  
 Truck ID Number: 5311/431 Arrival Number: # 4  
 Hauler: City of Albany Truck Type: \_\_\_\_\_  
 Location: \_\_\_\_\_  
 Arrival Time: 10:00 A.M. \_\_\_\_\_ P.M.  
 Origin (Municipality): \_\_\_\_\_

| Material Components                         | Gross Weight (Lbs.) | Tare Weight Of Sort Container | Net Weight (Lbs.) |
|---------------------------------------------|---------------------|-------------------------------|-------------------|
| <b>PAPER</b>                                |                     |                               |                   |
| Newspaper                                   |                     | 4.7                           |                   |
| Magazines                                   |                     | 4.7                           |                   |
| Corrugated                                  | 5.0                 | 4.7                           |                   |
| Gable Top Cartons & Drink Boxes             | 6.4                 | 5.0                           |                   |
| Paper Board                                 | 5.7                 | 5.1                           |                   |
| Books (including phone directories)         |                     | 4.8                           |                   |
| Mixed Office Paper                          | 5.6                 | 4.8                           |                   |
| Other Paper                                 | 5.7                 | 4.8                           |                   |
| <b>PLASTICS</b>                             |                     |                               |                   |
| Plastic Containers (PET) #1 Non-Bottle Bill |                     | 5.0                           |                   |
| Plastic #1 (Bottle Bill Containers)         | 5.5                 | 5.0                           |                   |
| Plastic Containers (HDPE) #2                |                     | 5.3                           |                   |
| Other Plastic Containers                    | 7.9                 | 5.1                           |                   |
| Film Plastic & Plastic Bags                 | 5.2                 | 4.7                           |                   |
| Other Plastics                              | 5.1                 | 4.7                           |                   |
| <b>FOOD WASTE</b>                           |                     |                               |                   |
| <b>TEXTILES &amp; LEATHER</b>               |                     |                               |                   |
| <b>RUBBER</b>                               |                     |                               |                   |
| <b>DISPOSABLE DIAPERS</b>                   |                     |                               |                   |
| <b>FERROUS METALS</b>                       |                     |                               |                   |
| Ferrous Metal/Bimetal Cans                  | 17.6                | 5.0                           |                   |
| Aerosol Cans                                |                     | 4.9                           |                   |
| Other Ferrous Metal                         |                     | 4.9                           |                   |
| <b>NON-FERROUS METALS</b>                   |                     |                               |                   |
| Aluminum Cans (Non-Bottle Bill)             | 5.6                 | 5.0                           |                   |
| Aluminum Cans (Bottle Bill)                 | 5.3                 | 4.7                           |                   |
| Other Non-Ferrous Metal                     | 7.0                 | 4.7                           |                   |
| <b>ELECTRONICS</b>                          |                     |                               |                   |
| <b>GLASS</b>                                |                     |                               |                   |
| Glass Bottles (Bottle Bill)                 | 8.6                 | 4.8                           |                   |
| Glass Bottle - Clear                        | 34.7                | 4.8                           |                   |
| Glass Bottle - Amber                        | 6.6                 | 4.8                           |                   |
| Glass Bottle - Green                        | 6.6                 | 4.8                           |                   |
| Flat Glass & Other Glass                    | 21.7                | 4.7                           |                   |
|                                             | 5.6                 | 4.8                           |                   |
| <b>WOOD</b>                                 |                     |                               |                   |
| <b>RUBBLE</b>                               |                     |                               |                   |
| <b>YARD WASTE</b>                           |                     |                               |                   |
| <b>DIRT/FINES</b>                           |                     |                               |                   |
| <b>HAZARDOUS WASTE</b>                      |                     |                               |                   |
| Household Hazardous Waste (HHW)             |                     | 4.7                           |                   |
| Lead Acid Batteries                         |                     | 4.7                           |                   |
| Other Batteries                             |                     | 4.7                           |                   |
| <b>MEDICAL OR PHARMACEUTICAL WASTE</b>      |                     |                               |                   |
| <b>MISCELLANEOUS</b>                        |                     |                               |                   |

309 bottle bill  
 3/1/50 + 4.5/50  
 90/53 + 8.3/5.3

#5 Rec

CITY OF ALBANY  
WASTE CHARACTERIZATION ANALYSIS  
SORT DATA SHEET

paper

Day/Date: Tuesday 3/3/09  
 CHA Staff Name: Same  
 Truck ID Number: S314/432 Arrival Number: 5  
 Hauler: City of Albany / DGS Truck Type: Recycling  
 Location: \_\_\_\_\_  
 Arrival Time: 11:10 A.M. \_\_\_\_\_ P.M.  
 Origin (Municipality): \_\_\_\_\_

| Material Components                         | Gross Weight (Lbs.) | Tare Weight Of Sort Container | Net Weight (Lbs.) |
|---------------------------------------------|---------------------|-------------------------------|-------------------|
| <b>PAPER</b>                                |                     |                               |                   |
| Newspaper                                   | 57.9                | 4.7                           |                   |
| Magazines                                   | 18.6                | 4.7                           |                   |
| Corrugated                                  | 12.6                | 4.7                           |                   |
| Gable Top Cartons & Drink Boxes             | 5.8                 | 5.0                           |                   |
| Paper Board                                 | 16.1                | 5.1                           |                   |
| Books (including phone directories)         | 24.3                | 4.8                           |                   |
| Mixed Office Paper                          | 12.0                | 4.7                           |                   |
| Other Paper                                 | 6.0                 | 4.8                           |                   |
| <b>PLASTICS</b>                             |                     |                               |                   |
| Plastic Containers (PET) #1 Non-Bottle Bill | 5.0                 | 5.0                           |                   |
| Plastic #1 (Bottle Bill Containers)         |                     | 5.0                           |                   |
| Plastic Containers (HDPE) #2                | 5.5                 | 5.2                           |                   |
| Other Plastic Containers                    | 5.0                 | 5.0                           |                   |
| Film Plastic & Plastic Bags                 | 4.7                 | 4.7                           |                   |
| Other Plastics                              | 4.7                 | 4.7                           |                   |
| <b>FOOD WASTE</b>                           |                     |                               |                   |
|                                             |                     | 5.3                           |                   |
| <b>TEXTILES &amp; LEATHER</b>               |                     |                               |                   |
|                                             |                     | 4.9                           |                   |
| <b>RUBBER</b>                               |                     |                               |                   |
|                                             |                     | 4.8                           |                   |
| <b>DISPOSABLE DIAPERS</b>                   |                     |                               |                   |
|                                             |                     | 4.8                           |                   |
| <b>FERROUS METALS</b>                       |                     |                               |                   |
| Ferrous Metal/Bimetal Cans                  | 5.4                 | 5.0                           |                   |
| Aerosol Cans                                |                     | 4.9                           |                   |
| Other Ferrous Metal                         |                     | 4.9                           |                   |
| <b>NON-FERROUS METALS</b>                   |                     |                               |                   |
| Aluminum Cans (Non-Bottle Bill)             |                     | 5.0                           |                   |
| Aluminum Cans (Bottle Bill)                 | 4.8                 | 4.3                           |                   |
| Other Non-Ferrous Metal                     |                     | 4.9                           |                   |
| <b>ELECTRONICS</b>                          |                     |                               |                   |
| <b>GLASS</b>                                |                     |                               |                   |
| Glass Bottles (Bottle Bill)                 | 5.2                 | 4.8                           |                   |
| Glass Bottle - Clear                        | 7.6                 | 4.9                           |                   |
| Glass Bottle - Amber                        |                     | 4.8                           |                   |
| Glass Bottle - Green                        |                     | 4.7                           |                   |
| Flat Glass & Other Glass                    |                     | 4.6                           |                   |
| <b>WOOD</b>                                 |                     |                               |                   |
|                                             |                     | 4.8                           |                   |
| <b>RUBBLE</b>                               |                     |                               |                   |
|                                             |                     | 4.8                           |                   |
| <b>YARD WASTE</b>                           |                     |                               |                   |
|                                             |                     | 4.7                           |                   |
| <b>DIRT/FINES</b>                           |                     |                               |                   |
|                                             |                     | 4.8                           |                   |
| <b>HAZARDOUS WASTE</b>                      |                     |                               |                   |
| Household Hazardous Waste (HHW)             |                     | 4.7                           |                   |
| Lead Acid Batteries                         |                     | 4.7                           |                   |
| Other Batteries                             |                     | 4.7                           |                   |
| <b>MEDICAL OR PHARMACEUTICAL WASTE</b>      |                     |                               |                   |
|                                             |                     | 5.0                           |                   |
| <b>MISCELLANEOUS</b>                        |                     |                               |                   |
|                                             |                     | 4.7                           |                   |

**CITY OF ALBANY  
WASTE CHARACTERIZATION ANALYSIS  
SORT DATA SHEET**

*glass/plastic*

*#5 Rec*

Day/Date: Tuesday 3/3/09  
 CHA Staff Name: \_\_\_\_\_  
 Truck ID Number: 5314/432 Arrival Number: 5  
 Hauler: City 1716 DCS Truck Type: Recycling  
 Location: \_\_\_\_\_  
 Arrival Time: 11:00 A.M. \_\_\_\_\_ P.M.  
 Origin (Municipality): \_\_\_\_\_

| Material Components                         | Gross Weight (Lbs.) | Tare Weight Of Sort Container | Net Weight (Lbs.) |
|---------------------------------------------|---------------------|-------------------------------|-------------------|
| <b>PAPER</b>                                |                     |                               |                   |
| Newspaper                                   | 4.7                 | 4.7                           |                   |
| Magazines                                   | 5.2                 | 4.7                           |                   |
| Corrugated                                  |                     | 4.7                           |                   |
| Gable Top Cartons & Drink Boxes             | 7.3                 | 5.0                           |                   |
| Paper Board                                 | 6.2                 | 5.0                           |                   |
| Books (including phone directories)         |                     | 4.7                           |                   |
| Mixed Office Paper                          |                     | 4.7                           |                   |
| Other Paper                                 | 5.0                 | 4.8                           |                   |
| <b>PLASTICS</b>                             |                     |                               |                   |
| Plastic Containers (PET) #1 Non-Bottle Bill |                     | 5.0                           |                   |
| Plastic #1 (Bottle Bill Containers)         | 5.6                 | 5.0                           |                   |
| Plastic Containers (HDPE) #2                |                     | 5.3                           |                   |
| Other Plastic Containers                    | 3.5                 | 5.3                           |                   |
| Film Plastic & Plastic Bags                 | 5.6                 | 4.7                           |                   |
| Other Plastics                              | 5.2                 | 4.7                           |                   |
| <b>FOOD WASTE</b>                           |                     |                               |                   |
|                                             |                     | 5.3                           |                   |
| <b>TEXTILES &amp; LEATHER</b>               |                     |                               |                   |
|                                             |                     | 4.9                           |                   |
| <b>RUBBER</b>                               |                     |                               |                   |
|                                             |                     | 4.8                           |                   |
| <b>DISPOSABLE DIAPERS</b>                   |                     |                               |                   |
|                                             |                     | 4.8                           |                   |
| <b>FERROUS METALS</b>                       |                     |                               |                   |
| Ferrous Metal/Bimetal Cans                  | 13.3                | 5.0                           |                   |
| Aerosol Cans                                |                     | 4.9                           |                   |
| Other Ferrous Metal                         | 5.4                 | 4.9                           |                   |
| <b>NON-FERROUS METALS</b>                   |                     |                               |                   |
| Aluminum Cans (Non-Bottle Bill)             | 5.3                 | 5.0                           |                   |
| Aluminum Cans (Bottle Bill)                 | 5.3                 | 4.8                           |                   |
| Other Non-Ferrous Metal                     | 6.6                 | 4.9                           |                   |
| <b>ELECTRONICS</b>                          |                     |                               |                   |
| <b>GLASS</b>                                |                     |                               |                   |
| Glass Bottles (Bottle Bill)                 | 12.1                | 4.8                           |                   |
| Glass Bottle - Clear                        | 45.0                | 4.8                           |                   |
| Glass Bottle - Amber                        | 10.6                | 4.8                           |                   |
| Glass Bottle - Green                        | 59.3                | 4.7                           |                   |
| Flat Glass & Other Glass                    | 5.1                 | 4.6                           | 4.7               |
| <b>WOOD</b>                                 |                     |                               |                   |
|                                             |                     | 4.8                           |                   |
| <b>RUBBLE</b>                               |                     |                               |                   |
|                                             |                     | 4.8                           |                   |
| <b>YARD WASTE</b>                           |                     |                               |                   |
|                                             |                     | 4.7                           |                   |
| <b>DIRT/FINES</b>                           |                     |                               |                   |
|                                             |                     | 4.8                           |                   |
| <b>HAZARDOUS WASTE</b>                      |                     |                               |                   |
| Household Hazardous Waste (HHW)             |                     | 4.7                           |                   |
| Lead Acid Batteries                         |                     | 4.7                           |                   |
| Other Batteries                             |                     | 4.7                           |                   |
| <b>MEDICAL OR PHARMACEUTICAL WASTE</b>      |                     |                               |                   |
|                                             |                     | 5.0                           |                   |
| <b>MISCELLANEOUS</b>                        |                     |                               |                   |
|                                             |                     | 4.7                           |                   |

*11.6/5.0 + 7.9/5.0*

*8.6/5.3  
@ 5.7/5.3*



#6 Rec

PAPER

CITY OF ALBANY  
WASTE CHARACTERIZATION ANALYSIS  
SORT DATA SHEET

Day/Date: Tuesday 3/3/09  
 CHA Staff Name: \_\_\_\_\_  
 Truck ID Number: 5320 Arrival Number: 6  
 Hauler: CTI AIO DCS Truck Type: Recycling  
 Location: \_\_\_\_\_  
 Arrival Time: 11:45 A.M. \_\_\_\_\_ P.M.  
 Origin (Municipality): \_\_\_\_\_

| Material Components                         | Gross Weight (Lbs.) | Tare Weight Of Sort Container | Net Weight (Lbs.) |
|---------------------------------------------|---------------------|-------------------------------|-------------------|
| <b>PAPER</b>                                |                     |                               |                   |
| Newspaper                                   |                     | 4.7                           |                   |
| Magazines                                   | 13.6                | 4.7                           |                   |
| Corrugated                                  | 7.6                 | 4.7                           |                   |
| Gable Top Cartons & Drink Boxes             | 5.4                 | 4.9                           |                   |
| Paper Board                                 | 13.4                | 5.0                           |                   |
| Books (including phone directories)         | 18.2                | 4.7                           |                   |
| Mixed Office Paper                          | 10.7                | 4.7                           |                   |
| Other Paper                                 | 6.2                 | 4.7                           |                   |
| <b>PLASTICS</b>                             |                     |                               |                   |
| Plastic Containers (PET) #1 Non-Bottle Bill | 5.0                 | 5.0                           |                   |
| Plastic #1 (Bottle Bill Containers)         |                     | 4.9                           |                   |
| Plastic Containers (HDPE) #2                | 5.5                 | 5.3                           |                   |
| Other Plastic Containers                    |                     | 5.0                           |                   |
| Film Plastic & Plastic Bags                 |                     | 4.7                           |                   |
| Other Plastics                              |                     | 4.7                           |                   |
| <b>FOOD WASTE</b>                           |                     | 5.3                           |                   |
| <b>TEXTILES &amp; LEATHER</b>               |                     | 4.9                           |                   |
| <b>RUBBER</b>                               |                     | 4.8                           |                   |
| <b>DISPOSABLE DIAPERS</b>                   |                     | 4.8                           |                   |
| <b>FERROUS METALS</b>                       |                     |                               |                   |
| Ferrous Metal/Bimetal Cans                  | 5.0                 | 5.0                           |                   |
| Aerosol Cans                                |                     | 4.9                           |                   |
| Other Ferrous Metal                         | 5.0                 | 4.9                           |                   |
| <b>NON-FERROUS METALS</b>                   |                     |                               |                   |
| Aluminum Cans (Non-Bottle Bill)             | 5.4                 | 4.9                           |                   |
| Aluminum Cans (Bottle Bill)                 |                     | 4.8                           |                   |
| Other Non-Ferrous Metal                     |                     | 5.0                           |                   |
| <b>ELECTRONICS</b>                          |                     |                               |                   |
| <b>GLASS</b>                                |                     |                               |                   |
| Glass Bottles (Bottle Bill)                 |                     | 4.8                           |                   |
| Glass Bottle - Clear                        |                     | 4.8                           |                   |
| Glass Bottle - Amber                        |                     | 4.7                           |                   |
| Glass Bottle - Green                        |                     | 4.7                           |                   |
| Flat Glass & Other Glass                    |                     | 4.7                           |                   |
| <b>WOOD</b>                                 |                     | 4.8                           |                   |
| <b>RUBBLE</b>                               |                     | 4.8                           |                   |
| <b>YARD WASTE</b>                           |                     | 4.7                           |                   |
| <b>DIRT/FINES</b>                           |                     | 4.8                           |                   |
| <b>HAZARDOUS WASTE</b>                      |                     | 4.7                           |                   |
| Household Hazardous Waste (HHW)             |                     | 4.7                           |                   |
| Lead Acid Batteries                         |                     | 4.7                           |                   |
| Other Batteries                             |                     | 4.7                           |                   |
| <b>MEDICAL OR PHARMACEUTICAL WASTE</b>      |                     | 5.0                           |                   |
| <b>MISCELLANEOUS</b>                        |                     | 4.7                           |                   |

News  
71.1/4.7 + 12.7/4.7

#6 pe

CITY OF ALBANY  
WASTE CHARACTERIZATION ANALYSIS  
SORT DATA SHEET

glass/plastic

Day/Date: Tuesday 3/3/09  
 CHA Staff Name: \_\_\_\_\_  
 Truck ID Number: 5320/435 Arrival Number: 6  
 Hauler: City of Albany Truck Type: Recycling  
 Location: \_\_\_\_\_  
 Arrival Time: 11:45 A.M. \_\_\_\_\_ P.M.  
 Origin (Municipality): \_\_\_\_\_

| Material Components                         | Gross Weight (Lbs.) | Tare Weight Of Sort Container | Net Weight (Lbs.) |
|---------------------------------------------|---------------------|-------------------------------|-------------------|
| <b>PAPER</b>                                |                     |                               |                   |
| Newspaper                                   | 5.1                 | 4.7                           |                   |
| Magazines                                   | 5.5                 | 4.7                           |                   |
| Corrugated                                  |                     | 4.7                           |                   |
| Gable Top Cartons & Drink Boxes             | 6.6                 | 5.0                           |                   |
| Paper Board                                 |                     | 5.0                           |                   |
| Books (including phone directories)         | 8.2                 | 4.7                           |                   |
| Mixed Office Paper                          |                     | 4.7                           |                   |
| Other Paper                                 | 5.1                 | 4.8                           |                   |
| <b>PLASTICS</b>                             |                     |                               |                   |
| Plastic Containers (PET) #1 Non-Bottle Bill |                     | 5.0                           |                   |
| Plastic #1 (Bottle Bill Containers)         | 6.7                 | 5.0                           |                   |
| Plastic Containers (HDPE) #2                |                     | 5.2                           |                   |
| Other Plastic Containers                    | 8.0                 | 5.1                           |                   |
| Film Plastic & Plastic Bags                 | 5.2                 | 4.7                           |                   |
| Other Plastics                              | 5.3                 | 4.7                           |                   |
| <b>FOOD WASTE</b>                           |                     | 5.3                           |                   |
| <b>TEXTILES &amp; LEATHER</b>               |                     | 1.9                           |                   |
| <b>RUBBER</b>                               |                     | 4.8                           |                   |
| <b>DISPOSABLE DIAPERS</b>                   |                     | 4.8                           |                   |
| <b>FERROUS METALS</b>                       |                     |                               |                   |
| Ferrous Metal/Bimetal Cans                  | 17.4                | 5.0                           |                   |
| Aerosol Cans                                |                     | 4.9                           |                   |
| Other Ferrous Metal                         | 5.2                 | 4.9                           |                   |
| <b>NON-FERROUS METALS</b>                   |                     |                               |                   |
| Aluminum Cans (Non-Bottle Bill)             | 5.2                 | 5.0                           | 4.9               |
| Aluminum Cans (Bottle Bill)                 | 5.6                 | 5.0                           | 4.8               |
| Other Non-Ferrous Metal                     | 5.9                 | 5.0                           |                   |
| <b>ELECTRONICS</b>                          |                     |                               |                   |
| <b>GLASS</b>                                |                     |                               |                   |
| Glass Bottles (Bottle Bill)                 | 11.1                | 4.8                           |                   |
| Glass Bottle - Clear                        | 35.8                | 4.8                           |                   |
| Glass Bottle - Amber                        | 14.4                | 4.7                           |                   |
| Glass Bottle - Green                        | 33.8                | 4.7                           |                   |
| Flat Glass & Other Glass                    |                     | 4.7                           |                   |
| <b>WOOD</b>                                 |                     | 4.8                           |                   |
| <b>RUBBLE</b>                               |                     | 4.8                           |                   |
| <b>YARD WASTE</b>                           |                     | 4.7                           |                   |
| <b>DIRT/FINES</b>                           |                     | 4.8                           |                   |
| <b>HAZARDOUS WASTE</b>                      |                     | 4.7                           |                   |
| Household Hazardous Waste (HHW)             |                     | 4.7                           |                   |
| Lead Acid Batteries                         |                     | 4.7                           |                   |
| Other Batteries                             |                     | 4.7                           |                   |
| <b>MEDICAL OR PHARMACEUTICAL WASTE</b>      |                     | 5.0                           |                   |
| <b>MISCELLANEOUS</b>                        |                     | 4.7                           |                   |

① 10.0 / 5.0  
 ② 4.1 / 5.0  
 ① 8.5 / 5.2  
 ② 8.8 / 5.2

CITY OF ALBANY  
WASTE CHARACTERIZATION ANALYSIS  
SORT DATA SHEET

#7 Rec

Paper

Day/Date: Tuesday 3/3/09  
 CHA Staff Name: \_\_\_\_\_  
 Truck ID Number: 434 Arrival Number: 7  
 Hauler: City of Albany D65 Truck Type: Recycling  
 Location: \_\_\_\_\_  
 Arrival Time: \_\_\_\_\_ A.M. 12:15 P.M.  
 Origin (Municipality): \_\_\_\_\_

| Material Components                         | Gross Weight (Lbs.) | Tare Weight Of Sort Container | Net Weight (Lbs.) |
|---------------------------------------------|---------------------|-------------------------------|-------------------|
| <b>PAPER</b>                                |                     |                               |                   |
| Newspaper                                   |                     | 4.7                           |                   |
| Magazines                                   | 19.3                | 4.7                           |                   |
| Corrugated                                  | 7.6                 | 4.7                           |                   |
| Gable Top Cartons & Drink Boxes             | 5.3                 | 5.0                           |                   |
| Paper Board                                 | 4.0                 | 5.0                           |                   |
| Books (including phone directories)         | 21.7                | 4.7                           |                   |
| Mixed Office Paper                          | 13.4                | 4.8                           |                   |
| Other Paper                                 | 6.2                 | 4.7                           |                   |
| <b>PLASTICS</b>                             |                     |                               |                   |
| Plastic Containers (PET) #1 Non-Bottle Bill | 5.1                 | 5.0                           |                   |
| Plastic #1 (Bottle Bill Containers)         |                     | 4.9                           |                   |
| Plastic Containers (HDPE) #2                | 6.1                 | 5.3                           |                   |
| Other Plastic Containers                    |                     | 5.0                           |                   |
| Film Plastic & Plastic Bags                 |                     | 4.7                           |                   |
| Other Plastics                              |                     | 4.7                           |                   |
| <b>FOOD WASTE</b>                           |                     | 5.3                           |                   |
| <b>TEXTILES &amp; LEATHER</b>               |                     | 4.9                           |                   |
| <b>RUBBER</b>                               |                     | 4.8                           |                   |
| <b>DISPOSABLE DIAPERS</b>                   |                     | 4.8                           |                   |
| <b>FERROUS METALS</b>                       |                     |                               |                   |
| Ferrous Metal/Bimetal Cans                  | 5.4                 | 5.0                           |                   |
| Aerosol Cans                                |                     | 4.9                           |                   |
| Other Ferrous Metal                         |                     | 4.7                           |                   |
| <b>NON-FERROUS METALS</b>                   |                     |                               |                   |
| Aluminum Cans (Non-Bottle Bill)             |                     | 4.9                           |                   |
| Aluminum Cans (Bottle Bill)                 |                     | 4.8                           |                   |
| Other Non-Ferrous Metal                     |                     | 5.0                           |                   |
| <b>ELECTRONICS</b>                          |                     |                               |                   |
| <b>GLASS</b>                                |                     |                               |                   |
| Glass Bottles (Bottle Bill)                 |                     | 4.8                           |                   |
| Glass Bottle - Clear                        |                     | 4.8                           |                   |
| Glass Bottle - Amber                        |                     | 4.7                           |                   |
| Glass Bottle - Green                        |                     | 4.7                           |                   |
| Flat Glass & Other Glass                    |                     | 4.7                           |                   |
| <b>WOOD</b>                                 |                     | 4.8                           |                   |
| <b>RUBBLE</b>                               |                     | 4.8                           |                   |
| <b>YARD WASTE</b>                           |                     | 4.7                           |                   |
| <b>DIRT/FINES</b>                           |                     | 4.8                           |                   |
| <b>HAZARDOUS WASTE</b>                      |                     | 4.7                           |                   |
| Household Hazardous Waste (HHW)             |                     | 4.7                           |                   |
| Lead Acid Batteries                         |                     | 4.7                           |                   |
| Other Batteries                             |                     | 4.7                           |                   |
| <b>MEDICAL OR PHARMACEUTICAL WASTE</b>      |                     | 5.0                           |                   |
| <b>MISCELLANEOUS</b>                        |                     | 4.7                           |                   |

Newspaper  
55.4/4.7 + 45.5/4

#7 Rec

CITY OF ALBANY  
WASTE CHARACTERIZATION ANALYSIS  
SORT DATA SHEET

GLASS/PLASTIC

Day/Date: Tuesday 3/3/09  
 CHA Staff Name: Shane  
 Truck ID Number: 434 Arrival Number: 7  
 Hauler: City Alb DGS Truck Type: \_\_\_\_\_  
 Location: \_\_\_\_\_  
 Arrival Time: \_\_\_\_\_ A.M. 12:15 P.M.  
 Origin (Municipality): \_\_\_\_\_

| Material Components                         | Gross Weight (Lbs.) | Tare Weight Of Sort Container | Net Weight (Lbs.) |
|---------------------------------------------|---------------------|-------------------------------|-------------------|
| <b>PAPER</b>                                |                     |                               |                   |
| Newspaper                                   | 17.4                | 4.8                           |                   |
| Magazines                                   | 6.7                 | 4.8                           |                   |
| Corrugated                                  | 4.9                 | 4.7                           |                   |
| Gable Top Cartons & Drink Boxes             | 6.0                 | 4.9                           |                   |
| Paper Board                                 | 8.1                 | 5.0                           |                   |
| Books (including phone directories)         | 10.2                | 4.7                           |                   |
| Mixed Office Paper                          | 5.3                 | 4.8                           |                   |
| Other Paper                                 |                     | 4.8                           |                   |
| <b>PLASTICS</b>                             |                     |                               |                   |
| Plastic Containers (PET) #1 Non-Bottle Bill |                     | 5.0                           |                   |
| Plastic #1 (Bottle Bill Containers)         | 5.7                 | 4.9                           |                   |
| Plastic Containers (HDPE) #2                |                     | 5.3                           |                   |
| Other Plastic Containers                    | 7.1                 | 4.7                           | 5.0               |
| Film Plastic & Plastic Bags                 | 5.0                 | 4.7                           |                   |
| Other Plastics                              | 5.1                 | 4.7                           |                   |
| <b>FOOD WASTE</b>                           |                     |                               |                   |
| <b>TEXTILES &amp; LEATHER</b>               |                     |                               |                   |
| <b>RUBBER</b>                               |                     |                               |                   |
| <b>DISPOSABLE DIAPERS</b>                   |                     |                               |                   |
| <b>FERROUS METALS</b>                       |                     |                               |                   |
| Ferrous Metal/Bimetal Cans                  | 15.3                | 5.0                           |                   |
| Aerosol Cans                                |                     | 4.9                           |                   |
| Other Ferrous Metal                         |                     | 4.9                           |                   |
| <b>NON-FERROUS METALS</b>                   |                     |                               |                   |
| Aluminum Cans (Non-Bottle Bill)             | 5.3                 | 4.7                           |                   |
| Aluminum Cans (Bottle Bill)                 | 5.3                 | 4.8                           |                   |
| Other Non-Ferrous Metal                     | 6.7                 | 5.0                           |                   |
| <b>ELECTRONICS</b>                          |                     |                               |                   |
| <b>GLASS</b>                                |                     |                               |                   |
| Glass Bottles (Bottle Bill)                 | 10.9                | 4.3                           |                   |
| Glass Bottle - Clear                        | 48.5                | 4.8                           |                   |
| Glass Bottle - Amber                        | 8.2                 | 4.7                           |                   |
| Glass Bottle - Green                        | 27.6                | 4.7                           |                   |
| Flat Glass & Other Glass                    |                     | 4.7                           |                   |
| <b>WOOD</b>                                 |                     |                               |                   |
| <b>RUBBLE</b>                               |                     |                               |                   |
| <b>YARD WASTE</b>                           |                     |                               |                   |
| <b>DIRT/FINES</b>                           |                     |                               |                   |
| <b>HAZARDOUS WASTE</b>                      |                     |                               |                   |
| Household Hazardous Waste (HHW)             |                     | 4.7                           |                   |
| Lead Acid Batteries                         |                     | 4.7                           |                   |
| Other Batteries                             |                     | 4.7                           |                   |
| <b>MEDICAL OR PHARMACEUTICAL WASTE</b>      |                     |                               |                   |
| <b>MISCELLANEOUS</b>                        |                     |                               |                   |
|                                             |                     | 4.7                           |                   |

Mag. bottles  
9.9/5.0 + 11.2/5.0

HDPE  
9.5/5.3 + 6.5/5.3

#8 Rec

CITY OF ALBANY  
WASTE CHARACTERIZATION ANALYSIS  
SORT DATA SHEET

Paper

Day/Date: Tuesday 3/3/09  
 CHA Staff Name: \_\_\_\_\_  
 Truck ID Number: 436 Arrival Number: 8  
 Hauler: DCS Truck Type: Recycling  
 Location: \_\_\_\_\_  
 Arrival Time: \_\_\_\_\_ A.M. 1:45 P.M.  
 Origin (Municipality): \_\_\_\_\_

News  
 DC 3.5/48  
 3 19.2/77

Cores  
 17.4/48  
 3 5.9/4.7

Paperboard  
 15.7/5.0  
 3 11.0/4.9

| Material Components                         | Gross Weight (Lbs.) | Tare Weight Of Sort Container | Net Weight (Lbs.) |
|---------------------------------------------|---------------------|-------------------------------|-------------------|
| <b>PAPER</b>                                |                     |                               |                   |
| Newspaper                                   |                     | 4.8                           |                   |
| Magazines                                   | 25.4                | 4.6                           |                   |
| Corrugated                                  |                     | 4.8                           |                   |
| Gable Top Cartons & Drink Boxes             | 5.4                 | 4.9                           |                   |
| Paper Board                                 |                     | 5.0                           |                   |
| Books (including phone directories)         | 37.9                | 4.7                           |                   |
| Mixed Office Paper                          | 30.6                | 4.7                           |                   |
| Other Paper                                 | 7.9                 | 4.8                           |                   |
| <b>PLASTICS</b>                             |                     |                               |                   |
| Plastic Containers (PET) #1 Non-Bottle Bill |                     | 5.0                           |                   |
| Plastic #1 (Bottle Bill Containers)         |                     | 5.0                           |                   |
| Plastic Containers (HDPE) #2                |                     | 5.3                           |                   |
| Other Plastic Containers                    |                     | 4.9                           |                   |
| Film Plastic & Plastic Bags                 | 4.8                 | 4.7                           |                   |
| Other Plastics                              | 4.8                 | 4.7                           |                   |
| <b>FOOD WASTE</b>                           |                     | 5.3                           |                   |
| <b>TEXTILES &amp; LEATHER</b>               |                     | 4.9                           |                   |
| <b>RUBBER</b>                               |                     | 4.8                           |                   |
| <b>DISPOSABLE DIAPERS</b>                   |                     | 4.8                           |                   |
| <b>FERROUS METALS</b>                       |                     |                               |                   |
| Ferrous Metal/Bimetal Cans                  |                     | 5.0                           |                   |
| Aerosol Cans                                |                     | 4.9                           |                   |
| Other Ferrous Metal                         |                     | 4.9                           |                   |
| <b>NON-FERROUS METALS</b>                   |                     |                               |                   |
| Aluminum Cans (Non-Bottle Bill)             |                     | 4.9                           |                   |
| Aluminum Cans (Bottle Bill)                 |                     | 7.8                           |                   |
| Other Non-Ferrous Metal                     |                     | 4.9                           |                   |
| <b>ELECTRONICS</b>                          |                     |                               |                   |
| <b>GLASS</b>                                |                     |                               |                   |
| Glass Bottles (Bottle Bill)                 |                     | 4.8                           |                   |
| Glass Bottle - Clear                        |                     | 4.7                           |                   |
| Glass Bottle - Amber                        |                     | 4.7                           |                   |
| Glass Bottle - Green                        |                     | 4.8                           |                   |
| Flat Glass & Other Glass                    |                     | 4.7                           |                   |
| <b>WOOD</b>                                 |                     | 4.8                           |                   |
| <b>RUBBLE</b>                               |                     | 4.8                           |                   |
| <b>YARD WASTE</b>                           |                     | 4.7                           |                   |
| <b>DIRT/FINES</b>                           |                     | 4.8                           |                   |
| <b>HAZARDOUS WASTE</b>                      |                     | 4.7                           |                   |
| Household Hazardous Waste (HHW)             |                     | 4.7                           |                   |
| Lead Acid Batteries                         |                     | 4.7                           |                   |
| Other Batteries                             |                     | 4.7                           |                   |
| <b>MEDICAL OR PHARMACEUTICAL WASTE</b>      |                     | 5.0                           |                   |
| <b>MISCELLANEOUS</b>                        |                     | 4.7                           |                   |

(# 8) Rec

glass/plastic

CITY OF ALBANY  
WASTE CHARACTERIZATION ANALYSIS  
SORT DATA SHEET

Day/Date: Tuesday 3/3/09  
 CHA Staff Name: \_\_\_\_\_  
 Truck ID Number: 436 Arrival Number: \_\_\_\_\_  
 Hauler: DCJ Truck Type: Recycling  
 Location: \_\_\_\_\_  
 Arrival Time: \_\_\_\_\_ A.M. 1.45 P.M.  
 Origin (Municipality): \_\_\_\_\_

| Material Components                         | Gross Weight (Lbs.) | Tare Weight Of Sort Container | Net Weight (Lbs.) |
|---------------------------------------------|---------------------|-------------------------------|-------------------|
| <b>PAPER</b>                                |                     |                               |                   |
| Newspaper                                   | 4.8                 | 4.7                           |                   |
| Magazines                                   | 5.2                 | 4.8                           |                   |
| Corrugated                                  |                     | 4.8                           |                   |
| Gable Top Cartons & Drink Boxes             | 6.8                 | 5.0                           |                   |
| Paper Board                                 | 5.6                 | 4.9                           |                   |
| Books (including phone directories)         |                     | 4.7                           |                   |
| Mixed Office Paper                          |                     | 4.7                           |                   |
| Other Paper                                 |                     | 4.8                           |                   |
| <b>PLASTICS</b>                             |                     |                               |                   |
| Plastic Containers (PET) #1 Non-Bottle Bill |                     | 5.0                           |                   |
| Plastic #1 (Bottle Bill Containers)         | 5.4                 | 4.9                           |                   |
| Plastic Containers (HDPE) #2                | 4.4                 | 5.3                           |                   |
| Other Plastic Containers                    | 8.9                 | 5.0                           |                   |
| Film Plastic & Plastic Bags                 | 5.0                 | 4.7                           |                   |
| Other Plastics                              | 5.3                 | 4.7                           |                   |
| <b>FOOD WASTE</b>                           |                     | 5.3                           |                   |
| <b>TEXTILES &amp; LEATHER</b>               |                     | 4.9                           |                   |
| <b>RUBBER</b>                               |                     | 4.3                           |                   |
| <b>DISPOSABLE DIAPERS</b>                   |                     | 7.8                           |                   |
| <b>FERROUS METALS</b>                       |                     |                               |                   |
| Ferrous Metal/Bimetal Cans                  |                     | 5.0                           |                   |
| Aerosol Cans                                | 5.7                 | 4.9                           |                   |
| Other Ferrous Metal                         |                     | 4.9                           |                   |
| <b>NON-FERROUS METALS</b>                   |                     |                               |                   |
| Aluminum Cans (Non-Bottle Bill)             | 5.5                 | 5.0                           |                   |
| Aluminum Cans (Bottle Bill)                 | 5.2                 | 4.3                           |                   |
| Other Non-Ferrous Metal                     | 5.8                 | 5.0                           |                   |
| <b>ELECTRONICS</b>                          |                     |                               |                   |
| <b>GLASS</b>                                |                     |                               |                   |
| Glass Bottles (Bottle Bill)                 | 13.2                | 4.8                           |                   |
| Glass Bottle - Clear                        | 63.8                | 4.9                           |                   |
| Glass Bottle - Amber                        | 6.4                 | 4.7                           |                   |
| Glass Bottle - Green                        | 25.6                | 4.8                           |                   |
| Flat Glass & Other Glass                    | 5.3                 | 4.7                           |                   |
| <b>WOOD</b>                                 |                     | 4.3                           |                   |
| <b>RUBBLE</b>                               |                     | 4.3                           |                   |
| <b>YARD WASTE</b>                           |                     | 4.7                           |                   |
| <b>DIRT/FINES</b>                           |                     | 4.8                           |                   |
| <b>HAZARDOUS WASTE</b>                      |                     | 4.7                           |                   |
| Household Hazardous Waste (HHW)             |                     | 4.7                           |                   |
| Lead Acid Batteries                         |                     | 4.7                           |                   |
| Other Batteries                             |                     | 4.7                           |                   |
| <b>MEDICAL OR PHARMACEUTICAL WASTE</b>      |                     | 5.0                           |                   |
| <b>MISCELLANEOUS</b>                        |                     | 4.7                           |                   |

① 11.2/5.0

② 7.9/5.0

Ferr. Metal/B. metal

17.6/5.0 + 11.0/5.0

#1 Rec

CITY OF ALBANY  
WASTE CHARACTERIZATION ANALYSIS  
SORT DATA SHEET

Paper

Day/Date: Wednesday 3/4/09  
 CHA Staff Name: J. H. Smith, S. Robinson, T. Castello, B. Winnie, L. Lury, B. Casper, J. A.  
 Truck ID Number: 432 / 5314 Arrival Number: 1  
 Hauler: DGS Truck Type: Recycling  
 Location: \_\_\_\_\_  
 Arrival Time: 7:05 A.M. \_\_\_\_\_ P.M.  
 Origin (Municipality): \_\_\_\_\_

| Material Components                         | Gross Weight (Lbs.) | Tare Weight Of Sort Container | Net Weight (Lbs.) |
|---------------------------------------------|---------------------|-------------------------------|-------------------|
| <b>PAPER</b>                                |                     |                               |                   |
| Newspaper                                   | 39.1                | 4.7                           |                   |
| Magazines                                   | 21.9                | 4.7                           |                   |
| Corrugated                                  | 12.7                | 4.7                           |                   |
| Gable Top Cartons & Drink Boxes             | 5.9                 | 4.9                           |                   |
| Paper Board                                 | 22.3                | 5.0                           |                   |
| Books (including phone directories)         | 15.3                | 4.8                           |                   |
| Mixed Office Paper                          | 20.3                | 4.8                           |                   |
| Other Paper                                 | 6.4                 | 4.8                           |                   |
| <b>PLASTICS</b>                             |                     |                               |                   |
| Plastic Containers (PET) #1 Non-Bottle Bill | 5.1                 | 5.0                           |                   |
| Plastic #1 (Bottle Bill Containers)         |                     | 5.0                           |                   |
| Plastic Containers (HDPE) #2                | 5.6                 | 3.3                           |                   |
| Other Plastic Containers                    | 5.3                 | 4.9                           |                   |
| Film Plastic & Plastic Bags                 | 4.8                 | 4.7                           |                   |
| Other Plastics                              | 5.3                 | 4.7                           |                   |
| <b>FOOD WASTE</b>                           |                     | 5.3                           |                   |
| <b>TEXTILES &amp; LEATHER</b>               |                     | 4.7                           |                   |
| <b>RUBBER</b>                               |                     | 4.8                           |                   |
| <b>DISPOSABLE DIAPERS</b>                   |                     | 4.8                           |                   |
| <b>FERROUS METALS</b>                       |                     |                               |                   |
| Ferrous Metal/Bimetal Cans                  | 5.4                 | 5.0                           |                   |
| Aerosol Cans                                |                     | 4.9                           |                   |
| Other Ferrous Metal                         |                     | 4.9                           |                   |
| <b>NON-FERROUS METALS</b>                   |                     |                               |                   |
| Aluminum Cans (Non-Bottle Bill)             |                     | 4.9                           |                   |
| Aluminum Cans (Bottle Bill)                 |                     | 4.8                           |                   |
| Other Non-Ferrous Metal                     | 3.0                 | 4.9                           |                   |
| <b>ELECTRONICS</b>                          |                     |                               |                   |
| <b>GLASS</b>                                |                     |                               |                   |
| Glass Bottles (Bottle Bill)                 |                     | 4.8                           |                   |
| Glass Bottle - Clear                        |                     | 4.7                           |                   |
| Glass Bottle - Amber                        |                     | 4.7                           |                   |
| Glass Bottle - Green                        |                     | 4.8                           |                   |
| Flat Glass & Other Glass                    |                     | 4.7                           |                   |
| <b>WOOD</b>                                 |                     | 4.8                           |                   |
| <b>RUBBLE</b>                               |                     | 4.8                           |                   |
| <b>YARD WASTE</b>                           |                     | 4.7                           |                   |
| <b>DIRT/FINES</b>                           |                     | 4.8                           |                   |
| <b>HAZARDOUS WASTE</b>                      |                     | 4.7                           |                   |
| Household Hazardous Waste (HHW)             |                     | 4.7                           |                   |
| Lead Acid Batteries                         |                     | 4.7                           |                   |
| Other Batteries                             |                     | 4.7                           |                   |
| <b>MEDICAL OR PHARMACEUTICAL WASTE</b>      |                     | 5.0                           |                   |
| <b>MISCELLANEOUS</b>                        |                     | 4.7                           |                   |

#11 Rec

CITY OF ALBANY  
WASTE CHARACTERIZATION ANALYSIS  
SORT DATA SHEET

glass/plastic

Day/Date: Wed 3/4/09  
 CHA Staff Name: \_\_\_\_\_  
 Truck ID Number: 432/5314 Arrival Number: 1  
 Hauler: DGS Truck Type: \_\_\_\_\_  
 Location: \_\_\_\_\_  
 Arrival Time: 7:05 A.M. \_\_\_\_\_ P.M.  
 Origin (Municipality): \_\_\_\_\_

PET #1 - Non-Bottle  
 ① 10.0/5.0  
 ② 5.4/5.0

HDPE

① 9.0/5.3  
 ② 7.3/5.3

| Material Components                         | Gross Weight (Lbs.) | Tare Weight Of Sort Container | Net Weight (Lbs.) |
|---------------------------------------------|---------------------|-------------------------------|-------------------|
| <b>PAPER</b>                                |                     |                               |                   |
| Newspaper                                   | 5.6                 | 4.7                           |                   |
| Magazines                                   | 5.3                 | 4.7                           |                   |
| Corrugated                                  |                     | 4.7                           |                   |
| Gable Top Cartons & Drink Boxes             | 5.0                 | 5.0                           |                   |
| Paper Board                                 | 5.6                 | 5.0                           |                   |
| Books (including phone directories)         |                     | 4.8                           |                   |
| Mixed Office Paper                          | 5.2                 | 4.7                           |                   |
| Other Paper                                 | 5.0                 | 4.8                           |                   |
| <b>PLASTICS</b>                             |                     |                               |                   |
| Plastic Containers (PET) #1 Non-Bottle Bill |                     | 5.0                           |                   |
| Plastic #1 (Bottle Bill Containers)         | 5.9                 | 5.0                           |                   |
| Plastic Containers (HDPE) #2                |                     | 5.3                           |                   |
| Other Plastic Containers                    | 7.8                 | 5.0                           |                   |
| Film Plastic & Plastic Bags                 | 4.9                 | 4.7                           |                   |
| Other Plastics                              | 4.9                 | 4.7                           |                   |
| <b>FOOD WASTE</b>                           |                     |                               |                   |
| <b>TEXTILES &amp; LEATHER</b>               |                     |                               |                   |
| <b>RUBBER</b>                               |                     |                               |                   |
| <b>DISPOSABLE DIAPERS</b>                   |                     |                               |                   |
| <b>FERROUS METALS</b>                       |                     |                               |                   |
| Ferrous Metal/Bimetal Cans                  | 13.8                | 5.0                           |                   |
| Aerosol Cans                                |                     | 4.9                           |                   |
| Other Ferrous Metal                         | 6.5                 | 4.9                           |                   |
| <b>NON-FERROUS METALS</b>                   |                     |                               |                   |
| Aluminum Cans (Non-Bottle Bill)             | <del>5.4</del> 5.5  | 4.9                           |                   |
| Aluminum Cans (Bottle Bill)                 | 5.4                 | 4.8                           |                   |
| Other Non-Ferrous Metal                     | 6.4                 | 4.9                           |                   |
| <b>ELECTRONICS</b>                          |                     |                               |                   |
| <b>GLASS</b>                                |                     |                               |                   |
| Glass Bottles (Bottle Bill)                 | 17.8                | 4.8                           |                   |
| Glass Bottle - Clear                        | 45.8                | 4.7                           |                   |
| Glass Bottle - Amber                        | 8.5                 | 4.7                           |                   |
| Glass Bottle - Green                        | 27.8                | 4.8                           |                   |
| Flat Glass & Other Glass                    | 6.3                 | 4.7                           |                   |
| <b>WOOD</b>                                 |                     |                               |                   |
| <b>RUBBLE</b>                               |                     |                               |                   |
| <b>YARD WASTE</b>                           |                     |                               |                   |
| <b>DIRT/FINES</b>                           |                     |                               |                   |
| <b>HAZARDOUS WASTE</b>                      |                     |                               |                   |
| Household Hazardous Waste (HHW)             |                     | 4.7                           |                   |
| Lead Acid Batteries                         |                     | 4.7                           |                   |
| Other Batteries                             |                     | 4.7                           |                   |
| <b>MEDICAL OR PHARMACEUTICAL WASTE</b>      |                     |                               |                   |
| <b>MISCELLANEOUS</b>                        |                     |                               |                   |



H 2 Rec

CITY OF ALBANY  
WASTE CHARACTERIZATION ANALYSIS  
SORT DATA SHEET

paper

Day/Date: Wed 3/4/09  
 CHA Staff Name: Sarah  
 Truck ID Number: 436 Arrival Number: 2  
 Hauler: City, A16/DCS Truck Type: Paper  
 Location: \_\_\_\_\_  
 Arrival Time: 7:50 A.M. \_\_\_\_\_ P.M.  
 Origin (Municipality): \_\_\_\_\_

| Material Components                         | Gross Weight (Lbs.) | Tare Weight Of Sort Container | Net Weight (Lbs.) |
|---------------------------------------------|---------------------|-------------------------------|-------------------|
| <b>PAPER</b>                                |                     |                               |                   |
| Newspaper                                   | 44.6                | 4.7                           |                   |
| Magazines                                   | 11.0                | 4.8                           |                   |
| Corrugated                                  | 15.7                | 4.7                           |                   |
| Gable Top Cartons & Drink Boxes             | 5.2                 | 7.7                           | 5.0               |
| Paper Board                                 | 15.7                | 5.0                           |                   |
| Books (including phone directories)         | 13.0                | 4.8                           |                   |
| Mixed Office Paper                          | 6.5                 | 4.7                           |                   |
| Other Paper                                 | 6.4                 | 4.7                           |                   |
| <b>PLASTICS</b>                             |                     |                               |                   |
| Plastic Containers (PET) #1 Non-Bottle Bill | 5.3                 | 5.0                           |                   |
| Plastic #1 (Bottle Bill Containers)         | 5.0                 | 4.9                           |                   |
| Plastic Containers (HDPE) #2                |                     | 5.2                           |                   |
| Other Plastic Containers                    | 5.4                 | 5.0                           |                   |
| Film Plastic & Plastic Bags                 | 4.8                 | 4.7                           |                   |
| Other Plastics                              |                     | 4.7                           |                   |
| <b>FOOD WASTE</b>                           | 6.3                 | 5.3                           |                   |
| <b>TEXTILES &amp; LEATHER</b>               |                     | 4.9                           |                   |
| <b>RUBBER</b>                               |                     | 4.8                           |                   |
| <b>DISPOSABLE DIAPERS</b>                   |                     | 4.8                           |                   |
| <b>FERROUS METALS</b>                       |                     |                               |                   |
| Ferrous Metal/Bimetal Cans                  | 5.3                 | 5.0                           |                   |
| Aerosol Cans                                |                     | 4.9                           |                   |
| Other Ferrous Metal                         |                     | 4.9                           |                   |
| <b>NON-FERROUS METALS</b>                   |                     |                               |                   |
| Aluminum Cans (Non-Bottle Bill)             | 5.2                 | 5.0                           |                   |
| Aluminum Cans (Bottle Bill)                 | 4.7                 | 4.7                           |                   |
| Other Non-Ferrous Metal                     |                     | 4.9                           |                   |
| <b>ELECTRONICS</b>                          |                     |                               |                   |
| <b>GLASS</b>                                |                     |                               |                   |
| Glass Bottles (Bottle Bill)                 |                     | 4.8                           |                   |
| Glass Bottle - Clear                        | 6.9                 | 4.8                           |                   |
| Glass Bottle - Amber                        |                     | 4.7                           |                   |
| Glass Bottle - Green                        |                     | 4.7                           |                   |
| Flat Glass & Other Glass                    |                     | 4.7                           |                   |
| <b>WOOD</b>                                 |                     | 4.8                           |                   |
| <b>RUBBLE</b>                               |                     | 4.8                           |                   |
| <b>YARD WASTE</b>                           |                     | 4.7                           |                   |
| <b>DIRT/FINES</b>                           |                     | 4.8                           |                   |
| <b>HAZARDOUS WASTE</b>                      |                     | 4.7                           |                   |
| Household Hazardous Waste (HHW)             |                     | 4.7                           |                   |
| Lead Acid Batteries                         |                     | 4.7                           |                   |
| Other Batteries                             |                     | 4.7                           |                   |
| <b>MEDICAL OR PHARMACEUTICAL WASTE</b>      |                     | 5.0                           |                   |
| <b>MISCELLANEOUS</b>                        |                     | 4.7                           |                   |

#2 Rec

CITY OF ALBANY  
WASTE CHARACTERIZATION ANALYSIS  
SORT DATA SHEET

glass/plastic

Day/Date: wed 3/4/09  
 CHA Staff Name: Sam  
 Truck ID Number: 436 Arrival Number: 2  
 Hauler: City of Albany Truck Type: Recycling  
 Location: \_\_\_\_\_  
 Arrival Time: 7:50 A.M. \_\_\_\_\_ P.M.  
 Origin (Municipality): \_\_\_\_\_

PET #1 - Non Bottle

1) 10.1/5.0

2) 10.8/5.0

HDPE #2

1) 8.8/5.2

2) 7.6/5.2

| Material Components                         | Gross Weight (Lbs.) | Tare Weight Of Sort Container | Net Weight (Lbs.) |
|---------------------------------------------|---------------------|-------------------------------|-------------------|
| <b>PAPER</b>                                |                     |                               |                   |
| Newspaper                                   | 4.7                 | 4.7                           |                   |
| Magazines                                   | 4.9                 | 4.7                           |                   |
| Corrugated                                  | 4.9                 | 4.7                           |                   |
| Gable Top Cartons & Drink Boxes             | 6.9                 | 5.0                           |                   |
| Paper Board                                 | 8.2                 | 5.0                           |                   |
| Books (including phone directories)         | 8.6                 | 4.7                           |                   |
| Mixed Office Paper                          |                     | 4.7                           |                   |
| Other Paper                                 | 4.8                 | 4.7                           |                   |
| <b>PLASTICS</b>                             |                     |                               |                   |
| Plastic Containers (PET) #1 Non-Bottle Bill |                     | 5.0                           |                   |
| Plastic #1 (Bottle Bill Containers)         | 6.5                 | 5.0                           |                   |
| Plastic Containers (HDPE) #2                |                     | 5.2                           |                   |
| Other Plastic Containers                    | 8.4                 | 5.0                           |                   |
| Film Plastic & Plastic Bags                 | 5.1                 | 4.7                           |                   |
| Other Plastics                              | 6.4                 | 4.7                           |                   |
| <b>FOOD WASTE</b>                           |                     |                               |                   |
|                                             |                     | 5.2                           |                   |
| <b>TEXTILES &amp; LEATHER</b>               |                     |                               |                   |
|                                             |                     | 4.9                           |                   |
| <b>RUBBER</b>                               |                     |                               |                   |
|                                             |                     | 4.8                           |                   |
| <b>DISPOSABLE DIAPERS</b>                   |                     |                               |                   |
|                                             |                     | 4.8                           |                   |
| <b>FERROUS METALS</b>                       |                     |                               |                   |
| Ferrous Metal/Bimetal Cans                  | 15.5                | 5.0                           |                   |
| Aerosol Cans                                |                     | 4.9                           |                   |
| Other Ferrous Metal                         | 6.0                 | 4.9                           |                   |
| <b>NON-FERROUS METALS</b>                   |                     |                               |                   |
| Aluminum Cans (Non-Bottle Bill)             | 5.2                 | 5.0                           |                   |
| Aluminum Cans (Bottle Bill)                 | 5.4                 | 4.7                           |                   |
| Other Non-Ferrous Metal                     | 6.3                 | 4.7                           |                   |
| <b>ELECTRONICS</b>                          |                     |                               |                   |
| <b>GLASS</b>                                |                     |                               |                   |
| Glass Bottles (Bottle Bill)                 | 7.9                 | 4.8                           |                   |
| Glass Bottle - Clear                        | 36.7                | 4.8                           |                   |
| Glass Bottle - Amber                        | 11.3                | 4.7                           |                   |
| Glass Bottle - Green                        | 18.7                | 4.7                           |                   |
| Flat Glass & Other Glass                    | 5.6                 | 4.7                           |                   |
| <b>WOOD</b>                                 |                     |                               |                   |
|                                             |                     | 4.8                           |                   |
| <b>RUBBLE</b>                               |                     |                               |                   |
|                                             |                     | 4.8                           |                   |
| <b>YARD WASTE</b>                           |                     |                               |                   |
|                                             |                     | 4.7                           |                   |
| <b>DIRT/FINES</b>                           |                     |                               |                   |
|                                             |                     | 4.8                           |                   |
| <b>HAZARDOUS WASTE</b>                      |                     |                               |                   |
| Household Hazardous Waste (HHW)             |                     | 4.7                           |                   |
| Lead Acid Batteries                         |                     | 4.7                           |                   |
| Other Batteries                             |                     | 4.7                           |                   |
| <b>MEDICAL OR PHARMACEUTICAL WASTE</b>      |                     |                               |                   |
|                                             |                     | 5.0                           |                   |
| <b>MISCELLANEOUS</b>                        |                     |                               |                   |
|                                             |                     | 4.7                           |                   |

#3 Rec

CITY OF ALBANY  
WASTE CHARACTERIZATION ANALYSIS  
SORT DATA SHEET

paper

Day/Date: Wed 3/4/09  
 CHA Staff Name: SDM  
 Truck ID Number: 434 Arrival Number: 3  
 Hauler: city Alb DGS Truck Type: Recycling  
 Location: \_\_\_\_\_  
 Arrival Time: 9:15 A.M. \_\_\_\_\_ P.M.  
 Origin (Municipality): \_\_\_\_\_

Misc  
0882/4.7  
276/4.7

| Material Components                         | Gross Weight (Lbs.) | Tare Weight Of Sort Container | Net Weight (Lbs.) |
|---------------------------------------------|---------------------|-------------------------------|-------------------|
| <b>PAPER</b>                                |                     |                               |                   |
| Newspaper                                   |                     | 4.7                           |                   |
| Magazines                                   | 24.3                | 4.7                           |                   |
| Corrugated                                  | 16.8                | 4.7                           |                   |
| Gable Top Cartons & Drink Boxes             | 5.1                 | 5.0                           |                   |
| Paper Board                                 | 14.6                | 5.0                           |                   |
| Books (including phone directories)         | 44.1                | 4.7                           |                   |
| Mixed Office Paper                          | 23.2                | 4.7                           |                   |
| Other Paper                                 | 7.3                 | 4.7                           |                   |
| <b>PLASTICS</b>                             |                     |                               |                   |
| Plastic Containers (PET) #1 Non-Bottle Bill |                     | 5.0                           |                   |
| Plastic #1 (Bottle Bill Containers)         |                     | 5.0                           |                   |
| Plastic Containers (HDPE) #2                | 5.4                 | 5.3                           |                   |
| Other Plastic Containers                    | 5.3                 | 5.0                           |                   |
| Film Plastic & Plastic Bags                 | 4.8                 | 4.7                           |                   |
| Other Plastics                              |                     | 4.7                           |                   |
| <b>FOOD WASTE</b>                           |                     | 5.7                           |                   |
| <b>TEXTILES &amp; LEATHER</b>               |                     | 5.0                           |                   |
| <b>RUBBER</b>                               |                     | 4.8                           |                   |
| <b>DISPOSABLE DIAPERS</b>                   |                     | 4.8                           |                   |
| <b>FERROUS METALS</b>                       |                     |                               |                   |
| Ferrous Metal/Bimetal Cans                  |                     | 5.0                           |                   |
| Aerosol Cans                                |                     | 4.9                           |                   |
| Other Ferrous Metal                         |                     | 4.9                           |                   |
| <b>NON-FERROUS METALS</b>                   |                     |                               |                   |
| Aluminum Cans (Non-Bottle Bill)             |                     | 5.0                           |                   |
| Aluminum Cans (Bottle Bill)                 |                     | 4.7                           |                   |
| Other Non-Ferrous Metal                     |                     | 4.8                           |                   |
| <b>ELECTRONICS</b>                          |                     |                               |                   |
| <b>GLASS</b>                                |                     |                               |                   |
| Glass Bottles (Bottle Bill)                 | 5.3                 | 4.8                           |                   |
| Glass Bottle - Clear                        |                     | 4.8                           |                   |
| Glass Bottle - Amber                        |                     | 4.7                           |                   |
| Glass Bottle - Green                        |                     | 4.7                           |                   |
| Flat Glass & Other Glass                    |                     | 4.7                           |                   |
| <b>WOOD</b>                                 |                     | 4.8                           |                   |
| <b>RUBBLE</b>                               |                     | 4.8                           |                   |
| <b>YARD WASTE</b>                           |                     | 4.7                           |                   |
| <b>DIRT/FINES</b>                           |                     | 4.8                           |                   |
| <b>HAZARDOUS WASTE</b>                      |                     |                               |                   |
| Household Hazardous Waste (HHW)             |                     | 4.7                           |                   |
| Lead Acid Batteries                         |                     | 4.7                           |                   |
| Other Batteries                             |                     | 4.7                           |                   |
| <b>MEDICAL OR PHARMACEUTICAL WASTE</b>      |                     | 5.0                           |                   |
| <b>MISCELLANEOUS</b>                        |                     | 4.7                           |                   |

#3 Rec

CITY OF ALBANY  
WASTE CHARACTERIZATION ANALYSIS  
SORT DATA SHEET

Plastic Glass

Day/Date: Wed 3/4/09  
 CHA Staff Name: Same  
 Truck ID Number: 434 Arrival Number: 3  
 Hauler: city 1216 DGS Truck Type: Recycle  
 Location: \_\_\_\_\_  
 Arrival Time: 9:15 A.M. \_\_\_\_\_ P.M.  
 Origin (Municipality): \_\_\_\_\_

| Material Components                         | Gross Weight (Lbs.) | Tare Weight Of Sort Container | Net Weight (Lbs.) |
|---------------------------------------------|---------------------|-------------------------------|-------------------|
| <b>PAPER</b>                                |                     |                               |                   |
| Newspaper                                   |                     | 4.7                           |                   |
| Magazines                                   | 6.9                 | 4.8                           |                   |
| Corrugated                                  |                     | 4.8                           |                   |
| Gable Top Cartons & Drink Boxes             | 6.6                 | 5.0                           |                   |
| Paper Board                                 | 7.8                 | 5.0                           |                   |
| Books (including phone directories)         |                     | 4.7                           |                   |
| Mixed Office Paper                          | 5.1                 | 4.7                           |                   |
| Other Paper                                 | 5.9                 | 4.8                           |                   |
| <b>PLASTICS</b>                             |                     |                               |                   |
| Plastic Containers (PET) #1 Non-Bottle Bill | 10.9                | 5.0                           |                   |
| Plastic #1 (Bottle Bill Containers)         | 5.5                 | 4.9                           |                   |
| Plastic Containers (HDPE) #2                | 7.9                 | 5.3                           |                   |
| Other Plastic Containers                    | 9.1                 | 5.0                           |                   |
| Film Plastic & Plastic Bags                 | 5.0                 | 4.7                           |                   |
| Other Plastics                              | 8.6                 | 4.8 4.7                       |                   |
| <b>FOOD WASTE</b>                           |                     |                               |                   |
| <b>TEXTILES &amp; LEATHER</b>               |                     |                               |                   |
| <b>RUBBER</b>                               |                     |                               |                   |
| <b>DISPOSABLE DIAPERS</b>                   |                     |                               |                   |
| <b>FERROUS METALS</b>                       |                     |                               |                   |
| Ferrous Metal/Bimetal Cans                  | 25.1                | 5.0                           |                   |
| Aerosol Cans                                |                     | 4.9                           |                   |
| Other Ferrous Metal                         |                     | 4.9                           |                   |
| <b>NON-FERROUS METALS</b>                   |                     |                               |                   |
| Aluminum Cans (Non-Bottle Bill)             | 10.9                | 5.0                           |                   |
| Aluminum Cans (Bottle Bill)                 | 5.5                 | 4.8                           |                   |
| Other Non-Ferrous Metal                     | 6.1                 | 4.9                           |                   |
| <b>ELECTRONICS</b>                          |                     |                               |                   |
| <b>GLASS</b>                                |                     |                               |                   |
| Glass Bottles (Bottle Bill)                 | 21.1                | 4.8                           |                   |
| Glass Bottle - Clear                        | 33.5                | 4.8                           |                   |
| Glass Bottle - Amber                        | 8.1                 | 4.7                           |                   |
| Glass Bottle - Green                        | 17.1                | 4.7                           |                   |
| Flat Glass & Other Glass                    | 5.3                 | 4.7                           |                   |
| <b>WOOD</b>                                 |                     |                               |                   |
| <b>RUBBLE</b>                               |                     |                               |                   |
| <b>YARD WASTE</b>                           |                     |                               |                   |
| <b>DIRT/FINES</b>                           |                     |                               |                   |
| <b>HAZARDOUS WASTE</b>                      |                     |                               |                   |
| Household Hazardous Waste (HHW)             |                     | 4.7                           |                   |
| Lead Acid Batteries                         |                     | 4.7                           |                   |
| Other Batteries                             |                     | 4.7                           |                   |
| <b>MEDICAL OR PHARMACEUTICAL WASTE</b>      |                     |                               |                   |
| <b>MISCELLANEOUS</b>                        |                     |                               |                   |

Hy Bee

Paper

CITY OF ALBANY  
WASTE CHARACTERIZATION ANALYSIS  
SORT DATA SHEET

Day/Date: Wednesday 3/4/09  
 CHA Staff Name: Sara  
 Truck ID Number: 5314 1432 Arrival Number: 4  
 Hauler: City Alb 10cs Truck Type: Recycling  
 Location: \_\_\_\_\_  
 Arrival Time: 10:00 A.M. \_\_\_\_\_ P.M.  
 Origin (Municipality): \_\_\_\_\_

Notes  
① 9.4/4.7  
② 14.2/4.7

| Material Components                         | Gross Weight (Lbs.) | Tare Weight Of Sort Container | Net Weight (Lbs.) |
|---------------------------------------------|---------------------|-------------------------------|-------------------|
| <b>PAPER</b>                                |                     |                               |                   |
| Newspaper                                   |                     | 4.7                           |                   |
| Magazines                                   | 10.2                | 4.9                           |                   |
| Corrugated                                  | 15.7                | 4.8                           |                   |
| Gable Top Cartons & Drink Boxes             | 5.2                 | 5.0                           |                   |
| Paper Board                                 | 14.3                | 5.0                           |                   |
| Books (including phone directories)         | 5.4                 | 4.7                           |                   |
| Mixed Office Paper                          | 6.7                 | 4.7                           |                   |
| Other Paper                                 | 6.8                 | 4.8                           |                   |
| <b>PLASTICS</b>                             |                     |                               |                   |
| Plastic Containers (PET) #1 Non-Bottle Bill |                     | 5.0                           |                   |
| Plastic #1 (Bottle Bill Containers)         |                     | 5.0                           |                   |
| Plastic Containers (HDPE) #2                |                     | 5.3                           |                   |
| Other Plastic Containers                    |                     | 5.0                           |                   |
| Film Plastic & Plastic Bags                 | 4.8                 | 4.7                           |                   |
| Other Plastics                              |                     | 4.7                           |                   |
| <b>FOOD WASTE</b>                           |                     | 5.3                           |                   |
| <b>TEXTILES &amp; LEATHER</b>               |                     | 5.0                           |                   |
| <b>RUBBER</b>                               |                     | 4.8                           |                   |
| <b>DISPOSABLE DIAPERS</b>                   |                     | 4.8                           |                   |
| <b>FERROUS METALS</b>                       |                     |                               |                   |
| Ferrous Metal/Bimetal Cans                  |                     | 5.0                           |                   |
| Aerosol Cans                                |                     | 4.7                           |                   |
| Other Ferrous Metal                         |                     | 4.7                           |                   |
| <b>NON-FERROUS METALS</b>                   |                     | 5.0                           |                   |
| Aluminum Cans (Non-Bottle Bill)             |                     | 4.7 5.0                       |                   |
| Aluminum Cans (Bottle Bill)                 |                     | 4.8                           |                   |
| Other Non-Ferrous Metal                     |                     | 4.8                           |                   |
| <b>ELECTRONICS</b>                          |                     |                               |                   |
| <b>GLASS</b>                                |                     |                               |                   |
| Glass Bottles (Bottle Bill)                 |                     | 4.8                           |                   |
| Glass Bottle - Clear                        |                     | 4.8                           |                   |
| Glass Bottle - Amber                        |                     | 4.7                           |                   |
| Glass Bottle - Green                        |                     | 4.7                           |                   |
| Flat Glass & Other Glass                    |                     | 4.7                           |                   |
| <b>WOOD</b>                                 |                     | 4.8                           |                   |
| <b>RUBBLE</b>                               |                     | 4.8                           |                   |
| <b>YARD WASTE</b>                           |                     | 4.7                           |                   |
| <b>DIRT/FINES</b>                           |                     | 4.8                           |                   |
| <b>HAZARDOUS WASTE</b>                      |                     |                               |                   |
| Household Hazardous Waste (HHW)             |                     | 4.7                           |                   |
| Lead Acid Batteries                         |                     | 4.7                           |                   |
| Other Batteries                             |                     | 4.7                           |                   |
| <b>MEDICAL OR PHARMACEUTICAL WASTE</b>      |                     | 5.0                           |                   |
| <b>MISCELLANEOUS</b>                        |                     | 4.7                           |                   |

P4 Rec

CITY OF ALBANY  
WASTE CHARACTERIZATION ANALYSIS  
SORT DATA SHEET

glass/plastic

Day/Date: Wednesday, 3/4/09  
 CHA Staff Name: Sana  
 Truck ID Number: 534432 Arrival Number: 4  
 Hauler: City Alb DCS Truck Type: recycling  
 Location: \_\_\_\_\_  
 Arrival Time: 10:00 A.M. \_\_\_\_\_ P.M.  
 Origin (Municipality): \_\_\_\_\_

| Material Components                         | Gross Weight (Lbs.) | Tare Weight Of Sort Container | Net Weight (Lbs.) |
|---------------------------------------------|---------------------|-------------------------------|-------------------|
| <b>PAPER</b>                                |                     |                               |                   |
| Newspaper                                   | 7.4                 | 4.7                           |                   |
| Magazines                                   |                     | 4.7                           |                   |
| Corrugated                                  | 4.9                 | 4.7                           |                   |
| Gable Top Cartons & Drink Boxes             | 6.6                 | 4.7                           |                   |
| Paper Board                                 | 6.4                 | 5.0                           |                   |
| Books (including phone directories)         |                     | 4.7                           |                   |
| Mixed Office Paper                          | 5.8                 | 4.7                           |                   |
| Other Paper                                 | 5.1                 | 4.7                           |                   |
| <b>PLASTICS</b>                             |                     |                               |                   |
| Plastic Containers (PET) #1 Non-Bottle Bill | 6.7                 | 5.0                           |                   |
| Plastic #1 (Bottle Bill Containers)         | 5.6                 | 5.0                           |                   |
| Plastic Containers (HDPE) #2                |                     | 5.3                           |                   |
| Other Plastic Containers                    | 7.7                 | 5.0                           |                   |
| Film Plastic & Plastic Bags                 | 5.3                 | 4.7                           |                   |
| Other Plastics                              | 5.6                 | 4.7                           |                   |
| <b>FOOD WASTE</b>                           |                     |                               |                   |
|                                             |                     | 5.8                           |                   |
| <b>TEXTILES &amp; LEATHER</b>               |                     |                               |                   |
|                                             |                     | 5.0                           |                   |
| <b>RUBBER</b>                               |                     |                               |                   |
|                                             |                     | 4.8                           |                   |
| <b>DISPOSABLE DIAPERS</b>                   |                     |                               |                   |
|                                             |                     | 4.8                           |                   |
| <b>FERROUS METALS</b>                       |                     |                               |                   |
| Ferrous Metal/Bimetal Cans                  | 17.7                | 5.0                           |                   |
| Aerosol Cans                                |                     | 4.9                           |                   |
| Other Ferrous Metal                         |                     | 4.9                           |                   |
| <b>NON-FERROUS METALS</b>                   |                     |                               |                   |
| Aluminum Cans (Non-Bottle Bill)             | 5.3                 | 5.0                           |                   |
| Aluminum Cans (Bottle Bill)                 | 5.5                 | 4.7                           |                   |
| Other Non-Ferrous Metal                     | 6.0                 | 4.8                           |                   |
| <b>ELECTRONICS</b>                          |                     |                               |                   |
| <b>GLASS</b>                                |                     |                               |                   |
| Glass Bottles (Bottle Bill)                 | 11.1                | 4.8                           |                   |
| Glass Bottle - Clear                        | 44.7                | 4.8                           |                   |
| Glass Bottle - Amber                        | 11.0                | 4.7                           |                   |
| Glass Bottle - Green                        | 22.9                | 4.7                           |                   |
| Flat Glass & Other Glass                    | 8.3                 | 4.7                           |                   |
| <b>WOOD</b>                                 |                     |                               |                   |
|                                             |                     | 4.8                           |                   |
| <b>RUBBLE</b>                               |                     |                               |                   |
|                                             |                     | 4.8                           |                   |
| <b>YARD WASTE</b>                           |                     |                               |                   |
|                                             |                     | 4.7                           |                   |
| <b>DIRT/FINES</b>                           |                     |                               |                   |
|                                             |                     | 4.8                           |                   |
| <b>HAZARDOUS WASTE</b>                      |                     |                               |                   |
| Household Hazardous Waste (HHW)             |                     | 4.7                           |                   |
| Lead Acid Batteries                         |                     | 4.7                           |                   |
| Other Batteries                             |                     | 4.7                           |                   |
| <b>MEDICAL OR PHARMACEUTICAL WASTE</b>      |                     |                               |                   |
|                                             |                     | 5.0                           |                   |
| <b>MISCELLANEOUS</b>                        |                     |                               |                   |
|                                             |                     | 4.7                           |                   |

HDPE  
 9.7/5.3  
 7.0/5.3

Plas-Non Bott.  
 11.4/5.0  
 6.7/5.0

#5 Lee

CITY OF ALBANY  
WASTE CHARACTERIZATION ANALYSIS  
SORT DATA SHEET

paper

| Day/Date: <u>Wed. 3/4/09</u>                |                     |                               |                   |
|---------------------------------------------|---------------------|-------------------------------|-------------------|
| CHA Staff Name: <u>Same</u>                 |                     |                               |                   |
| Truck ID Number: <u>436</u>                 |                     | Arrival Number: <u>5</u>      |                   |
| Hauler: <u>City D/6 DCS</u>                 |                     | Truck Type: <u>Raczek;</u>    |                   |
| Location: _____                             |                     |                               |                   |
| Arrival Time: <u>11:00</u> A.M. _____ P.M.  |                     |                               |                   |
| Origin (Municipality): _____                |                     |                               |                   |
| Material Components                         | Gross Weight (Lbs.) | Tare Weight Of Sort Container | Net Weight (Lbs.) |
| <b>PAPER</b>                                |                     |                               |                   |
| Newspaper                                   | 79.4                | 4.7                           |                   |
| Magazines                                   | 26.2                | 4.7                           |                   |
| Corrugated                                  | 13.2                | 4.7                           |                   |
| Gable Top Cartons & Drink Boxes             | 5.4                 | 4.9                           |                   |
| Paper Board                                 | 13.5                | 5.0                           |                   |
| Books (including phone directories)         | 39.1                | 4.7                           |                   |
| Mixed Office Paper                          | 19.8                | 4.7                           |                   |
| Other Paper                                 | 6.3                 | 4.7                           |                   |
| <b>PLASTICS</b>                             |                     |                               |                   |
| Plastic Containers (PET) #1 Non-Bottle Bill | 5.4                 | 5.0                           |                   |
| Plastic #1 (Bottle Bill Containers)         |                     | 4.9                           |                   |
| Plastic Containers (HDPE) #2                | 5.4                 | 5.2                           |                   |
| Other Plastic Containers                    | 5.4                 | 5.0                           |                   |
| Film Plastic & Plastic Bags                 | 4.8                 | 4.7                           |                   |
| Other Plastics                              |                     | 4.7                           |                   |
| <b>FOOD WASTE</b>                           |                     |                               |                   |
| <b>TEXTILES &amp; LEATHER</b>               |                     |                               |                   |
| <b>RUBBER</b>                               |                     |                               |                   |
| <b>DISPOSABLE DIAPERS</b>                   |                     |                               |                   |
| <b>FERROUS METALS</b>                       |                     |                               |                   |
| Ferrous Metal/Bimetal Cans                  | 5.5                 | 5.0                           |                   |
| Aerosol Cans                                |                     | 4.9                           |                   |
| Other Ferrous Metal                         |                     | 4.9                           |                   |
| <b>NON-FERROUS METALS</b>                   |                     |                               |                   |
| Aluminum Cans (Non-Bottle Bill)             |                     | 4.9                           |                   |
| Aluminum Cans (Bottle Bill)                 |                     | 4.8                           |                   |
| Other Non-Ferrous Metal                     |                     | 5.0                           |                   |
| <b>ELECTRONICS</b>                          |                     |                               |                   |
| <b>GLASS</b>                                |                     |                               |                   |
| Glass Bottles (Bottle Bill)                 | 5.2                 | 4.8                           |                   |
| Glass Bottle - Clear                        |                     | 4.9                           |                   |
| Glass Bottle - Amber                        |                     | 4.8                           |                   |
| Glass Bottle - Green                        | 5.9                 | 4.7                           |                   |
| Flat Glass & Other Glass                    |                     | 4.7                           |                   |
| <b>WOOD</b>                                 |                     |                               |                   |
| <b>RUBBLE</b>                               |                     |                               |                   |
| <b>YARD WASTE</b>                           |                     |                               |                   |
| <b>DIRT/FINES</b>                           |                     |                               |                   |
| <b>HAZARDOUS WASTE</b>                      |                     |                               |                   |
| Household Hazardous Waste (HHW)             |                     | 4.7                           |                   |
| Lead Acid Batteries                         |                     | 4.7                           |                   |
| Other Batteries                             |                     | 4.7                           |                   |
| <b>MEDICAL OR PHARMACEUTICAL WASTE</b>      |                     |                               |                   |
| <b>MISCELLANEOUS</b>                        |                     |                               |                   |
|                                             |                     | 4.7                           |                   |

#5 Rec

CITY OF ALBANY  
WASTE CHARACTERIZATION ANALYSIS  
SORT DATA SHEET

easy plastics

Day/Date: Wednesday 3/4/09  
 CHA Staff Name: same  
 Truck ID Number: 436 Arrival Number: 5  
 Hauler: city alb pas Truck Type: Recycling  
 Location: \_\_\_\_\_  
 Arrival Time: 11:00 A.M. \_\_\_\_\_ P.M.  
 Origin (Municipality): \_\_\_\_\_

| Material Components                         | Gross Weight (Lbs.) | Tare Weight Of Sort Container | Net Weight (Lbs.) |
|---------------------------------------------|---------------------|-------------------------------|-------------------|
| <b>PAPER</b>                                |                     |                               |                   |
| Newspaper                                   | 7.2                 | 4.7                           |                   |
| Magazines                                   |                     | 4.7                           |                   |
| Corrugated                                  |                     | 4.7                           |                   |
| Gable Top Cartons & Drink Boxes             | 7.2                 | 4.7                           |                   |
| Paper Board                                 | 9.7                 | 5.0                           |                   |
| Books (including phone directories)         | 9.0                 | 4.7                           |                   |
| Mixed Office Paper                          | 5.2                 | 4.7                           |                   |
| Other Paper                                 |                     | 4.7                           |                   |
| <b>PLASTICS</b>                             |                     |                               |                   |
| Plastic Containers (PET) #1 Non-Bottle Bill | 10.8                | 5.0                           |                   |
| Plastic #1 (Bottle Bill Containers)         | 5.3                 | 4.9                           |                   |
| Plastic Containers (HDPE) #2                |                     | 5.3                           |                   |
| Other Plastic Containers                    | 8.2                 | 5.0                           |                   |
| Film Plastic & Plastic Bags                 | 5.1                 | 4.7                           |                   |
| Other Plastics                              | 6.2                 | 4.7                           |                   |
| <b>FOOD WASTE</b>                           |                     |                               |                   |
| <b>TEXTILES &amp; LEATHER</b>               |                     |                               |                   |
| <b>RUBBER</b>                               |                     |                               |                   |
| <b>DISPOSABLE DIAPERS</b>                   |                     |                               |                   |
| <b>FERROUS METALS</b>                       |                     |                               |                   |
| Ferrous Metal/Bimetal Cans                  | 15.9                | 5.0                           |                   |
| Aerosol Cans                                |                     | 4.9                           |                   |
| Other Ferrous Metal                         |                     | 4.9                           |                   |
| <b>NON-FERROUS METALS</b>                   |                     |                               |                   |
| Aluminum Cans (Non-Bottle Bill)             |                     | 4.9                           |                   |
| Aluminum Cans (Bottle Bill)                 | 5.1                 | 4.7                           |                   |
| Other Non-Ferrous Metal                     | 2.1                 | 5.0                           |                   |
| <b>ELECTRONICS</b>                          |                     |                               |                   |
| <b>GLASS</b>                                |                     |                               |                   |
| Glass Bottles (Bottle Bill)                 | 6.1                 | 4.8                           |                   |
| Glass Bottle - Clear                        | 43.7                | 4.8                           |                   |
| Glass Bottle - Amber                        | 15.8                | 4.8                           |                   |
| Glass Bottle - Green                        | 34.6                | 4.7                           |                   |
| Flat Glass & Other Glass                    |                     | 4.7                           |                   |
| <b>WOOD</b>                                 |                     |                               |                   |
| <b>RUBBLE</b>                               |                     |                               |                   |
| <b>YARD WASTE</b>                           |                     |                               |                   |
| <b>DIRT/FINES</b>                           |                     |                               |                   |
| <b>HAZARDOUS WASTE</b>                      |                     |                               |                   |
| Household Hazardous Waste (HHW)             |                     | 4.7                           |                   |
| Lead Acid Batteries                         |                     | 4.7                           |                   |
| Other Batteries                             |                     | 4.7                           |                   |
| <b>MEDICAL OR PHARMACEUTICAL WASTE</b>      |                     |                               |                   |
| <b>MISCELLANEOUS</b>                        |                     |                               |                   |
|                                             |                     | 9.1                           |                   |

HDPE  
 ① 9.7/5.3  
 ② 8.2/5.3



#6 Rec

paper

CITY OF ALBANY  
WASTE CHARACTERIZATION ANALYSIS  
SORT DATA SHEET

Day/Date: Wednesday, 3/4/09  
 CHA Staff Name: 3 Ame  
 Truck ID Number: 434 Arrival Number: 6  
 Hauler: city 016 065 Truck Type: Recycling  
 Location: \_\_\_\_\_  
 Arrival Time: 11:30 A.M. \_\_\_\_\_ P.M.  
 Origin (Municipality): \_\_\_\_\_

| Material Components                         | Gross Weight (Lbs.) | Tare Weight Of Sort Container | Net Weight (Lbs.) |
|---------------------------------------------|---------------------|-------------------------------|-------------------|
| <b>PAPER</b>                                |                     |                               |                   |
| Newspaper                                   |                     | 4.7                           |                   |
| Magazines                                   | 24.9                | 4.7                           |                   |
| Corrugated                                  | 14.5                | 4.7                           |                   |
| Gable Top Cartons & Drink Boxes             | 5.3                 | 5.0                           |                   |
| Paper Board                                 |                     | 5.0                           |                   |
| Books (including phone directories)         | 31.0                | 4.7                           |                   |
| Mixed Office Paper                          | 15.8                | 4.7                           |                   |
| Other Paper                                 | 8.8                 | 4.7                           |                   |
| <b>PLASTICS</b>                             |                     |                               |                   |
| Plastic Containers (PET) #1 Non-Bottle Bill |                     | 5.0                           |                   |
| Plastic #1 (Bottle Bill Containers)         |                     | 4.9                           |                   |
| Plastic Containers (HDPE) #2                |                     | 5.3                           |                   |
| Other Plastic Containers                    | 5.3                 | 5.0                           |                   |
| Film Plastic & Plastic Bags                 | 4.9                 | 4.7                           |                   |
| Other Plastics                              |                     | 4.7                           |                   |
| <b>FOOD WASTE</b>                           |                     |                               |                   |
| <b>TEXTILES &amp; LEATHER</b>               |                     |                               |                   |
| <b>RUBBER</b>                               |                     |                               |                   |
| <b>DISPOSABLE DIAPERS</b>                   |                     |                               |                   |
| <b>FERROUS METALS</b>                       |                     |                               |                   |
| Ferrous Metal/Bimetal Cans                  | 5.5                 | 5.0                           |                   |
| Aerosol Cans                                |                     | 4.9                           |                   |
| Other Ferrous Metal                         |                     | 4.9                           |                   |
| <b>NON-FERROUS METALS</b>                   |                     |                               |                   |
| Aluminum Cans (Non-Bottle Bill)             |                     | 5.0                           |                   |
| Aluminum Cans (Bottle Bill)                 |                     | 4.7                           |                   |
| Other Non-Ferrous Metal                     | 5.4                 | 5.0                           |                   |
| <b>ELECTRONICS</b>                          |                     |                               |                   |
| <b>GLASS</b>                                |                     |                               |                   |
| Glass Bottles (Bottle Bill)                 | 5.8                 | 4.8                           |                   |
| Glass Bottle - Clear                        |                     | 4.8                           |                   |
| Glass Bottle - Amber                        |                     | 4.7                           |                   |
| Glass Bottle - Green                        |                     | 4.8                           |                   |
| Flat Glass & Other Glass                    |                     | 4.8                           |                   |
| <b>WOOD</b>                                 |                     |                               |                   |
| <b>RUBBLE</b>                               |                     |                               |                   |
| <b>YARD WASTE</b>                           |                     |                               |                   |
| <b>DIRT/FINES</b>                           |                     |                               |                   |
| <b>HAZARDOUS WASTE</b>                      |                     |                               |                   |
| Household Hazardous Waste (HHW)             |                     | 4.7                           |                   |
| Lead Acid Batteries                         |                     | 4.7                           |                   |
| Other Batteries                             |                     | 4.7                           |                   |
| <b>MEDICAL OR PHARMACEUTICAL WASTE</b>      |                     |                               |                   |
| <b>MISCELLANEOUS</b>                        |                     |                               |                   |
|                                             |                     | 4.7                           |                   |

Newspaper  
 76.8/4.7  
 20.5/4.7  
 Paperboard  
 15.3/5.0  
 5.5/5.0

# 6 Rec

CITY OF ALBANY  
WASTE CHARACTERIZATION ANALYSIS  
SORT DATA SHEET

plastic/glass

Day/Date: Wed 3/4/09  
 CHA Staff Name: Janet  
 Truck ID Number: 434 Arrival Number: Ca  
 Hauler: DGS Truck Type: Recycling  
 Location: \_\_\_\_\_  
 Arrival Time: 11:31 A.M. \_\_\_\_\_ P.M.  
 Origin (Municipality): \_\_\_\_\_

| Material Components                         | Gross Weight (Lbs.) | Tare Weight Of Sort Container | Net Weight (Lbs.) |
|---------------------------------------------|---------------------|-------------------------------|-------------------|
| <b>PAPER</b>                                |                     |                               |                   |
| Newspaper                                   | 5.3                 | 4.7                           |                   |
| Magazines                                   | 5.6                 | 4.7                           |                   |
| Corrugated                                  |                     | 4.7                           |                   |
| Gable Top Cartons & Drink Boxes             | 6.6                 | 4.9                           |                   |
| Paper Board                                 | 7.9                 | 5.0                           |                   |
| Books (including phone directories)         | 5.3                 | 4.7                           |                   |
| Mixed Office Paper                          | 4.7                 | 4.7                           |                   |
| Other Paper                                 |                     | 4.7                           |                   |
| <b>PLASTICS</b>                             |                     |                               |                   |
| Plastic Containers (PET) #1 Non-Bottle Bill | 12                  | 5.1                           |                   |
| Plastic #1 (Bottle Bill Containers)         | 6.8                 | 4.9                           |                   |
| Plastic Containers (HDPE) #2                |                     | 5.2                           |                   |
| Other Plastic Containers                    | 8.2                 | 5.0                           |                   |
| Film Plastic & Plastic Bags                 | 5.0                 | 4.7                           |                   |
| Other Plastics                              | 6.2                 | 4.7                           |                   |
| <b>FOOD WASTE</b>                           |                     |                               |                   |
|                                             |                     | 5.3                           |                   |
| <b>TEXTILES &amp; LEATHER</b>               |                     |                               |                   |
|                                             |                     | 5.0                           |                   |
| <b>RUBBER</b>                               |                     |                               |                   |
|                                             |                     | 4.8                           |                   |
| <b>DISPOSABLE DIAPERS</b>                   |                     |                               |                   |
|                                             |                     | 4.8                           |                   |
| <b>FERROUS METALS</b>                       |                     |                               |                   |
| Ferrous Metal/Bimetal Cans                  | 16.3                | 5.0                           |                   |
| Aerosol Cans                                |                     | 4.9                           |                   |
| Other Ferrous Metal                         |                     | 4.9                           |                   |
| <b>NON-FERROUS METALS</b>                   |                     |                               |                   |
| Aluminum Cans (Non-Bottle Bill)             | 5.3                 | 4.9                           |                   |
| Aluminum Cans (Bottle Bill)                 | 5.2                 | 4.9                           |                   |
| Other Non-Ferrous Metal                     | 7.3                 | 5.0                           |                   |
| <b>ELECTRONICS</b>                          |                     |                               |                   |
| <b>GLASS</b>                                |                     |                               |                   |
| Glass Bottles (Bottle Bill)                 | 9.6                 | 4.8                           |                   |
| Glass Bottle - Clear                        | 40.0                | 4.9                           |                   |
| Glass Bottle - Amber                        | 10.1                | 4.8                           |                   |
| Glass Bottle - Green                        | 37.3                | 4.7                           |                   |
| Flat Glass & Other Glass                    | 7.0                 | 4.7                           |                   |
| <b>WOOD</b>                                 |                     |                               |                   |
|                                             |                     | 4.8                           |                   |
| <b>RUBBLE</b>                               |                     |                               |                   |
|                                             |                     | 4.8                           |                   |
| <b>YARD WASTE</b>                           |                     |                               |                   |
|                                             |                     | 4.7                           |                   |
| <b>DIRT/FINES</b>                           |                     |                               |                   |
|                                             |                     | 4.8                           |                   |
| <b>HAZARDOUS WASTE</b>                      |                     |                               |                   |
| Household Hazardous Waste (HHW)             |                     | 4.7                           |                   |
| Lead Acid Batteries                         |                     | 4.7                           |                   |
| Other Batteries                             |                     | 4.7                           |                   |
| <b>MEDICAL OR PHARMACEUTICAL WASTE</b>      |                     |                               |                   |
|                                             |                     | 5.0                           |                   |
| <b>MISCELLANEOUS</b>                        |                     |                               |                   |
|                                             |                     | 4.7                           |                   |

Plastic Non bottle  
 110.3/5.1  
 312.3/5.1

HDPE  
 1 9.1/5.2  
 2 8.2/5.3

# 7 Rec

CITY OF ALBANY  
WASTE CHARACTERIZATION ANALYSIS  
SORT DATA SHEET

paper

Day/Date: Wed 3/4/09  
 CHA Staff Name: Sanke 430/5312  
 Truck ID Number: 435/5323 Arrival Number: 87  
 Hauler: D65 Truck Type: Recycling  
 Location: \_\_\_\_\_  
 Arrival Time: \_\_\_\_\_ A.M. 1:05 P.M.  
 Origin (Municipality): \_\_\_\_\_

paperboard  
 16.0/5.0  
 11.8/5.0

| Material Components                         | Gross Weight (Lbs.) | Tare Weight Of Sort Container | Net Weight (Lbs.) |
|---------------------------------------------|---------------------|-------------------------------|-------------------|
| <b>PAPER</b>                                |                     |                               |                   |
| Newspaper                                   | 59.2                | 4.7                           |                   |
| Magazines                                   | 28.5                | 4.7                           |                   |
| Corrugated                                  | 11.5                | 4.7                           |                   |
| Gable Top Cartons & Drink Boxes             | 5.4                 | 4.9                           |                   |
| Paper Board                                 |                     | 5.0                           |                   |
| Books (including phone directories)         | 9.7                 | 4.7                           |                   |
| Mixed Office Paper                          | 33.4                | 4.7                           |                   |
| Other Paper                                 | 7.9                 | 4.8                           |                   |
| <b>PLASTICS</b>                             |                     |                               |                   |
| Plastic Containers (PET) #1 Non-Bottle Bill |                     | 5.1                           |                   |
| Plastic #1 (Bottle Bill Containers)         |                     | 5.0                           |                   |
| Plastic Containers (HDPE) #2                | 5.3                 | 5.3                           |                   |
| Other Plastic Containers                    | 5.1                 | 5.0                           |                   |
| Film Plastic & Plastic Bags                 | 4.7                 | 4.7                           |                   |
| Other Plastics                              |                     | 4.7                           |                   |
| <b>FOOD WASTE</b>                           |                     |                               |                   |
| <b>TEXTILES &amp; LEATHER</b>               |                     |                               |                   |
| <b>RUBBER</b>                               |                     |                               |                   |
| <b>DISPOSABLE DIAPERS</b>                   |                     |                               |                   |
| <b>FERROUS METALS</b>                       |                     |                               |                   |
| Ferrous Metal/Bimetal Cans                  | 52                  | 5.0                           |                   |
| Aerosol Cans                                |                     | 4.9                           |                   |
| Other Ferrous Metal                         |                     | 4.9                           |                   |
| <b>NON-FERROUS METALS</b>                   |                     |                               |                   |
| Aluminum Cans (Non-Bottle Bill)             |                     | 4.9                           |                   |
| Aluminum Cans (Bottle Bill)                 |                     | 4.7                           |                   |
| Other Non-Ferrous Metal                     |                     | 5.0                           |                   |
| <b>ELECTRONICS</b>                          |                     |                               |                   |
| <b>GLASS</b>                                |                     |                               |                   |
| Glass Bottles (Bottle Bill)                 |                     | 4.8                           |                   |
| Glass Bottle - Clear                        |                     | 4.8                           |                   |
| Glass Bottle - Amber                        |                     | 4.8                           |                   |
| Glass Bottle - Green                        |                     | 4.8                           |                   |
| Flat Glass & Other Glass                    |                     | 4.7                           |                   |
| <b>WOOD</b>                                 |                     |                               |                   |
| <b>RUBBLE</b>                               |                     |                               |                   |
| <b>YARD WASTE</b>                           |                     |                               |                   |
| <b>DIRT/FINES</b>                           |                     |                               |                   |
| <b>HAZARDOUS WASTE</b>                      |                     |                               |                   |
| Household Hazardous Waste (HHW)             |                     | 4.7                           |                   |
| Lead Acid Batteries                         |                     | 4.7                           |                   |
| Other Batteries                             |                     | 4.7                           |                   |
| <b>MEDICAL OR PHARMACEUTICAL WASTE</b>      |                     |                               |                   |
| <b>MISCELLANEOUS</b>                        |                     |                               |                   |

CITY OF ALBANY  
WASTE CHARACTERIZATION ANALYSIS  
SORT DATA SHEET

glass/plastic

#7 Rec

Day/Date: Wed 3/4/09  
 CHA Staff Name: Same  
 Truck ID Number: 430 / 5312 Arrival Number: 7  
 Hauler: \_\_\_\_\_ Truck Type: \_\_\_\_\_  
 Location: \_\_\_\_\_  
 Arrival Time: 1:05 A.M. \_\_\_\_\_ P.M.  
 Origin (Municipality): \_\_\_\_\_

| Material Components                         | Gross Weight (Lbs.) | Tare Weight Of Sort Container | Net Weight (Lbs.) |
|---------------------------------------------|---------------------|-------------------------------|-------------------|
| <b>PAPER</b>                                |                     |                               |                   |
| Newspaper                                   | 5.2                 | 4.7                           |                   |
| Magazines                                   | 6.7                 | 4.7                           |                   |
| Corrugated                                  | 6.4                 | 4.7                           |                   |
| Gable Top Cartons & Drink Boxes             | 6.3                 | 4.9                           |                   |
| Paper Board                                 | 6.0                 | 5.0                           |                   |
| Books (including phone directories)         |                     | 4.7                           |                   |
| Mixed Office Paper                          |                     | 4.8                           |                   |
| Other Paper                                 | 3.1                 | 4.7                           |                   |
| <b>PLASTICS</b>                             |                     |                               |                   |
| Plastic Containers (PET) #1 Non-Bottle Bill | 7.5                 | 5.0                           |                   |
| Plastic #1 (Bottle Bill Containers)         | 3.7                 | 4.9                           |                   |
| Plastic Containers (HDPE) #2                |                     | 5.3                           |                   |
| Other Plastic Containers                    | 8.2                 | 5.0                           |                   |
| Film Plastic & Plastic Bags                 | 5.2                 | 4.7                           |                   |
| Other Plastics                              | 6.8                 | 4.7                           |                   |
| <b>FOOD WASTE</b>                           |                     |                               |                   |
| <b>TEXTILES &amp; LEATHER</b>               |                     |                               |                   |
| <b>RUBBER</b>                               |                     |                               |                   |
| <b>DISPOSABLE DIAPERS</b>                   |                     |                               |                   |
| <b>FERROUS METALS</b>                       |                     |                               |                   |
| Ferrous Metal/Bimetal Cans                  | 15.1                | 5.1                           |                   |
| Aerosol Cans                                |                     | 4.9                           |                   |
| Other Ferrous Metal                         |                     | 4.9                           |                   |
| <b>NON-FERROUS METALS</b>                   |                     |                               |                   |
| Aluminum Cans (Non-Bottle Bill)             | 5.4                 | 5.0                           |                   |
| Aluminum Cans (Bottle Bill)                 | 5.3                 | 4.7                           |                   |
| Other Non-Ferrous Metal                     | 8.7                 | 5.0                           |                   |
| <b>ELECTRONICS</b>                          |                     |                               |                   |
| <b>GLASS</b>                                |                     |                               |                   |
| Glass Bottles (Bottle Bill)                 | 8.0                 | 4.7                           |                   |
| Glass Bottle - Clear                        | 38.0                | 4.8                           |                   |
| Glass Bottle - Amber                        | 9.1                 | 4.7                           |                   |
| Glass Bottle - Green                        | 18.7                | 4.8                           |                   |
| Flat Glass & Other Glass                    |                     | 4.8                           |                   |
| <b>WOOD</b>                                 |                     |                               |                   |
| <b>RUBBLE</b>                               |                     |                               |                   |
| <b>YARD WASTE</b>                           |                     |                               |                   |
| <b>DIRT/FINES</b>                           |                     |                               |                   |
| <b>HAZARDOUS WASTE</b>                      |                     |                               |                   |
| Household Hazardous Waste (HHW)             |                     | 4.7                           |                   |
| Lead Acid Batteries                         |                     | 4.7                           |                   |
| Other Batteries                             |                     | 4.7                           |                   |
| <b>MEDICAL OR PHARMACEUTICAL WASTE</b>      |                     |                               |                   |
| <b>MISCELLANEOUS</b>                        |                     |                               |                   |

PET - No Bottle

① 10.8/5.0

② 7.5/5.0

HDPE

① 8.4/5.3

② 10.5/5.3

#8 Rec

CITY OF ALBANY  
WASTE CHARACTERIZATION ANALYSIS  
SORT DATA SHEET

Paper

Day/Date: Wed 3/4/09  
 CHA Staff Name: \_\_\_\_\_  
 Truck ID Number: 435/5323 Arrival Number: 8  
 Hauler: D65 Truck Type: Recycling  
 Location: \_\_\_\_\_  
 Arrival Time: \_\_\_\_\_ A.M. 1:36 P.M.  
 Origin (Municipality): \_\_\_\_\_

News @ 76.9/4.7  
 @ 11.0/4.7

6/3  
 2 5/11

| Material Components                         | Gross Weight (Lbs.) | Tare Weight Of Sort Container | Net Weight (Lbs.) |
|---------------------------------------------|---------------------|-------------------------------|-------------------|
| <b>PAPER</b>                                |                     |                               |                   |
| Newspaper                                   |                     | 4.7                           |                   |
| Magazines                                   | 43.0                | 4.7                           |                   |
| Corrugated                                  | 11.8                | 4.7                           |                   |
| Gable Top Cartons & Drink Boxes             | 4.9                 | 5.0                           |                   |
| Paper Board                                 | 9.5                 | 5.0                           |                   |
| Books (including phone directories)         | 27.7                | 4.7                           |                   |
| Mixed Office Paper                          | 28.5                | 4.7                           |                   |
| Other Paper                                 | 6.8                 | 4.7                           |                   |
| <b>PLASTICS</b>                             |                     |                               |                   |
| Plastic Containers (PET) #1 Non-Bottle Bill | 5.1                 | 5.1                           |                   |
| Plastic #1 (Bottle Bill Containers)         | 5.1                 | 5.0                           |                   |
| Plastic Containers (HDPE) #2                |                     | 5.3                           |                   |
| Other Plastic Containers                    | 5.1                 | 5.0                           |                   |
| Film Plastic & Plastic Bags                 | 4.8                 | 4.7                           |                   |
| Other Plastics                              |                     | 4.9                           |                   |
| <b>FOOD WASTE</b>                           |                     | 5.1                           |                   |
| <b>TEXTILES &amp; LEATHER</b>               |                     | 5.0                           |                   |
| <b>RUBBER</b>                               |                     | 4.8                           |                   |
| <b>DISPOSABLE DIAPERS</b>                   | 5.3                 | 4.8                           |                   |
| <b>FERROUS METALS</b>                       |                     |                               |                   |
| Ferrous Metal/Bimetal Cans                  |                     | 5.0                           |                   |
| Aerosol Cans                                |                     | 4.9                           |                   |
| Other Ferrous Metal                         |                     | 4.9                           |                   |
| <b>NON-FERROUS METALS</b>                   |                     |                               |                   |
| Aluminum Cans (Non-Bottle Bill)             |                     | 4.9                           |                   |
| Aluminum Cans (Bottle Bill)                 |                     | 4.7                           |                   |
| Other Non-Ferrous Metal                     |                     | 5.0                           |                   |
| <b>ELECTRONICS</b>                          |                     |                               |                   |
| <b>GLASS</b>                                |                     |                               |                   |
| Glass Bottles (Bottle Bill)                 |                     | 4.8                           |                   |
| Glass Bottle - Clear                        |                     | 4.8                           |                   |
| Glass Bottle - Amber                        |                     | 4.8                           |                   |
| Glass Bottle - Green                        |                     | 4.8                           |                   |
| Flat Glass & Other Glass                    |                     | 4.7                           |                   |
| <b>WOOD</b>                                 |                     | 4.8                           |                   |
| <b>RUBBLE</b>                               |                     | 4.8                           |                   |
| <b>YARD WASTE</b>                           |                     | 4.7                           |                   |
| <b>DIRT/FINES</b>                           |                     | 4.8                           |                   |
| <b>HAZARDOUS WASTE</b>                      |                     | 4.7                           |                   |
| Household Hazardous Waste (HHW)             |                     | 4.7                           |                   |
| Lead Acid Batteries                         |                     | 4.7                           |                   |
| Other Batteries                             |                     | 4.7                           |                   |
| <b>MEDICAL OR PHARMACEUTICAL WASTE</b>      |                     | 5.0                           |                   |
| <b>MISCELLANEOUS</b>                        |                     | 4.7                           |                   |

# 8 Rec

CITY OF ALBANY  
WASTE CHARACTERIZATION ANALYSIS  
SORT DATA SHEET

glass/plastic

Day/Date: Wed 3/4/09  
 CHA Staff Name: 435 5323  
 Truck ID Number: 430/5372 Arrival Number: 8 8  
 Hauler: N65 Truck Type: \_\_\_\_\_  
 Location: \_\_\_\_\_  
 Arrival Time: \_\_\_\_\_ A.M. 1:05 1:30 P.M.  
 Origin (Municipality): \_\_\_\_\_

| Material Components                         | Gross Weight (Lbs.) | Tare Weight Of Sort Container | Net Weight (Lbs.) |
|---------------------------------------------|---------------------|-------------------------------|-------------------|
| <b>PAPER</b>                                |                     |                               |                   |
| Newspaper                                   | 8.2                 | 4.7                           |                   |
| Magazines                                   | 5.6                 | 4.7                           |                   |
| Corrugated                                  |                     | 4.8                           |                   |
| Gable Top Cartons & Drink Boxes             | 5.9                 | 5.0                           |                   |
| Paper Board                                 | 8.0                 | 5.0                           |                   |
| Books (including phone directories)         | 8.5                 | 4.7                           |                   |
| Mixed Office Paper                          | 6.5                 | 4.8                           |                   |
| Other Paper                                 | 5.1                 | 4.7                           |                   |
| <b>PLASTICS</b>                             |                     |                               |                   |
| Plastic Containers (PET) #1 Non-Bottle Bill | 10.6                | 5.0                           |                   |
| Plastic #1 (Bottle Bill Containers)         | 5.3                 | 5.0                           |                   |
| Plastic Containers (HDPE) #2                | 7.6                 | 5.3                           |                   |
| Other Plastic Containers                    | 7.1                 | 5.0                           |                   |
| Film Plastic & Plastic Bags                 | 5.4                 | 4.8                           |                   |
| Other Plastics                              | 8.9                 | 4.7                           |                   |
| <b>FOOD WASTE</b>                           |                     |                               |                   |
|                                             | 5.6                 | 5.3                           |                   |
| <b>TEXTILES &amp; LEATHER</b>               |                     |                               |                   |
|                                             |                     | 5.0                           |                   |
| <b>RUBBER</b>                               |                     |                               |                   |
|                                             |                     | 4.8                           |                   |
| <b>DISPOSABLE DIAPERS</b>                   |                     |                               |                   |
|                                             |                     | 4.8                           |                   |
| <b>FERROUS METALS</b>                       |                     |                               |                   |
| Ferrous Metal/Bimetal Cans                  | 17.5                | 5.0                           |                   |
| Aerosol Cans                                |                     | 4.9                           |                   |
| Other Ferrous Metal                         |                     | 4.9                           |                   |
| <b>NON-FERROUS METALS</b>                   |                     |                               |                   |
| Aluminum Cans (Non-Bottle Bill)             | 5.1                 | 5.0                           |                   |
| Aluminum Cans (Bottle Bill)                 | 5.1                 | 4.8                           |                   |
| Other Non-Ferrous Metal                     | 8.6                 | 5.1                           |                   |
| <b>ELECTRONICS</b>                          |                     |                               |                   |
| <b>GLASS</b>                                |                     |                               |                   |
| Glass Bottles (Bottle Bill)                 | 18.7                | 4.8                           |                   |
| Glass Bottle - Clear                        | 103.1               | 4.9                           |                   |
| Glass Bottle - Amber                        | 17.4                | 4.7                           |                   |
| Glass Bottle - Green                        | 96.9                | 4.8                           |                   |
| Flat Glass & Other Glass                    | 5.1                 | 4.8                           |                   |
| <b>WOOD</b>                                 |                     |                               |                   |
|                                             |                     | 4.8                           |                   |
| <b>RUBBLE</b>                               |                     |                               |                   |
|                                             |                     | 4.8                           |                   |
| <b>YARD WASTE</b>                           |                     |                               |                   |
|                                             |                     | 4.7                           |                   |
| <b>DIRT/FINES</b>                           |                     |                               |                   |
|                                             |                     | 4.8                           |                   |
| <b>HAZARDOUS WASTE</b>                      |                     |                               |                   |
| Household Hazardous Waste (HHW)             |                     | 4.7                           |                   |
| Lead Acid Batteries                         |                     | 4.7                           |                   |
| Other Batteries                             |                     | 4.7                           |                   |
| <b>MEDICAL OR PHARMACEUTICAL WASTE</b>      |                     |                               |                   |
|                                             |                     | 5.0                           |                   |
| <b>MISCELLANEOUS</b>                        |                     |                               |                   |
|                                             |                     | 4.7                           |                   |

**APPENDIX D**  
**SOLID WASTE SORTING PROTOCOL**





## Detailed Protocol for the Waste Characterization Field Study Capital Region Solid Waste Management Plan

### 1.0 Introduction and Summary

The purpose and objective of this field study is to characterize the constituents of the solid waste and recycled materials stream for the Capital Region Solid Waste Planning Unit. Characterizing the local waste stream will provide valuable information for planning future improvements to local recycling efforts as well as for evaluating the feasibility of alternative solid waste management systems. Another purpose of the study is to examine differences in solid waste composition collected by a municipal agency (such as the City of Albany DGS) and commercial haulers servicing commercial, industrial or institutional customers as well as multi-family dwellings.

The field study will be done over a 5 day work week Monday through Friday during the week of February 23rd. The week will be used to sample and characterize solid waste deliveries to the Rapp Road Landfill as well as sample and characterize curbside recyclables collected by the City of Albany DGS. .

The program will generally follow the American Society of Testing Materials Standard Test Method for Determination of the Composition of Unprocessed Municipal Solid Waste, ASTM D5231-92 (Reapproved 2003). This test method describes procedures for measuring the composition of unprocessed municipal solid waste (MSW) by employing manual sorting. This test method applies to determination of the mean composition of MSW based on the collection and manual sorting of a number of samples of waste over a selected time period covering a minimum of one week. This test method includes procedures for the collection of a representative sorting sample of unprocessed waste, manual sorting of the waste into individual waste components, data reduction, and reporting of the results.

Waste and recyclable delivery vehicles will be selected randomly from eligible collection routes and representative samples will be secured from each of load. Samples will be sorted into separate containers for each of the designated categories, after which the constituents will be weighed and the results tallied. The following 39 waste and recyclable categories will be sorted as part of this study:

- Newspaper
- Magazines
- Corrugated
- Gable top cartons and drink boxes
- Paperboard
- Books, including phone directories
- Mixed Office paper
- Other Paper
- Plastic containers (PET) #1 Non-bottle bill

Plastic #1 - bottle bill containers  
Plastic containers (HDPE) #2  
Other Plastic containers  
Film Plastic and plastic bags  
Other Plastics  
Food Waste  
Textiles and leather  
Rubber  
Disposable Diapers  
Ferrous metal/bi-metal cans  
Aerosol cans  
Other ferrous metal  
Aluminum cans – non bottle bill  
Aluminum cans – bottle bill  
Other non-ferrous metal  
Electronics  
Glass bottles - bottle bill  
Glass bottles - non bottle bill sorted by color:

- Clear
- Amber
- Green

Flat Glass and other Glass  
Wood  
Rubble  
Yard Waste  
Fines  
HHW  
Lead Acid Batteries  
Other batteries  
Medical or Pharmaceutical waste  
Miscellaneous

It is anticipated that the sorting and sampling crew will consist of 7 people, including one Site Supervisor responsible for vehicle sampling and oversight, one Crew Chief responsible for oversight of the manual sorting effort, and 5 sorting staff. Detailed work protocols have been developed for the crew with respect to sample selection, sorting, weighing, and clean-up, and these are presented in Sections 2 and 3, below. Appropriate health and safety protocols have been developed for the sorting and sampling crew to minimize exposures to environmental and physical hazards. The health and safety plan is presented in Section 3.

## 2.0 MSW Characterization

The existing building at the Rapp Road Landfill site formerly used for waste tipping and processing will be used for sample collection, sorting and weighing of the MSW (hereafter called the processing building). Waste sample collection and sorting will commence on Monday February 23rd and continue through Friday February 27th, 2009.

## 2.1 Sampling and Sorting Protocol

In the week prior to commencing the field study, the City of Albany DGS will inform haulers using of its landfill that the study will be in progress during the following week.

Preparation for the sampling and sorting program will be conducted as follows:

During the week preceding the first sample collection and sorting, the site supervisor and/or crew chief will:

- complete arrangements for the purchase and rental of the necessary equipment and protective gear;
- visit the landfill site and processing building and finalize any site logistical issues, including location of the exact areas where the waste discharge, sampling, and sorting operations will be conducted, and clean-up and waste disposal arrangement (including contingency for disposal of any hazardous materials discovered during the process);
- Using a random number generator, determine the vehicle numbers that will be sampled on each day, in accordance with the procedure described below.

On Friday February 20th, 2009 a crew training and orientation session will be conducted at a CHA training room to cover the following topics:

- Description of vehicle unloading and collection of samples
- Discussion of components to be sorted
- Discussion of equipment and data collection methods.
- Review of Health and Safety Plan
- Next weeks work schedule and equipment set-up.

This meeting will run from 2 pm to 4 pm. Representatives of the City of Albany DGS who will be participating in some of the study activities will be invited to attend this session.

On Monday, February 23rd, 2009, the entire work crew will arrive at the landfill site at 6:30 AM to commence equipment set up as follows:

- Deliver equipment and supplies to the processing building
- Position the scale on a clean, flat surface and calibrate the scale
- Secure a label to each barrel or receptacle indicating the sorted component to be placed in the receptacle;
- Weigh all empty barrels and receptacles and record tare weights;
- Set up the sorting table on a 10' X10' tarp, and place the receptacles at convenient locations around the table.

During each day starting on Monday February 23rd, randomly selected vehicles carrying MSW will be diverted to the processing building by the Site Supervisor, who will be situated at the scale house. The Site Supervisor will then interview the driver to determine the eligibility of the vehicle for sampling. Eligible vehicles will then be diverted to the processing building for the

sampling and sorting procedure, indicated below. Ineligible vehicles will include vehicles delivering cover soil, contaminated soils, full loads of construction and demolition debris, or full loads of MSW originating outside of the municipalities which are members of the Planning Unit.

The sampling protocol conducted by the site supervisor will then proceed as follows:

- 1) Inform the DGS scale house attendant of the vehicle diverted to the processing building.
- 2) As the selected vehicle moves off the scale the driver will be directed to pull off onto the right shoulder, adjacent to the leachate storage tank. The driver will be interviewed using the Waste Origin Survey Form (Attachment 1).
- 3) As a result of the information received during the interview a determination is then made if the vehicle is suitable for sorting.
  - a. If the vehicle is not acceptable for sorting, the driver will be directed to proceed to the left up the access road to the working face of the landfill. In this case the Site Supervisor will return to the scale house and select the next available vehicle.
  - b. If the vehicle is eligible, the driver will be directed to drive to the processing building.
- 4) After entering the processing building, the driver will be directed to discharge its load in one contiguous pile in a designated area on the tipping floor.
- 5) After discharging, the driver will be directed to leave the processing building and return to the scale house to weigh out.
- 6) Under the direction of the Crew Chief, DGS personnel operating a front end loader or skid steer loader (1 CY minimum bucket size) will remove material longitudinally along one side of the entire pile. The mass of this removed material should be sufficient to form a mass of material which on a visual basis is at least 1,000 lbs, or approximately 4 CY. This removed material shall be mixed, coned and quartered. The Crew chief will randomly select one of the quarters and the front end loader will collect the selected material.
- 7) If the diverted truck is a compartmentalized recyclables truck (i.e. if a truck is delivering separate loads of mixed paper and containers), the sample should be obtained from each of the loads from that truck, approximately 2 CY from each. This removed material shall be mixed, coned and quartered. The Crew chief will randomly select one of the quarters and the front end loader will collect the selected material.
- 8) The selected sample will be transported by front end loader and deposited at a designated location in the sorting area.
- 9) The sorters will transfer the sample to the sort table, and will generally open all containers and remove the contents prior to sorting. An exception will be in the case of a container containing a household hazardous waste (HHW). In this case both the container and its contents will be sorted as the HHW.
- 10) Composite items will be observed to judge the major component in the composite by weight, and will then be sorted according to its component constituent.
- 11) Continue sorting all items until the maximum remaining particle size is approximately ½ inch. These particles will fall through a ½ inch screen will be collected on a tarp beneath the screen.

- 12) After sorting is complete, record the gross weight of each storage container and of any waste items sorted but not stored in containers. Gross weight and tare weight should be recorded for each material component and container on the Sort Data Sheet.
- 13) Reweigh empty containers if they appear wet and record new tare weights if necessary.
- 14) Clean up the sorting area and the designated vehicle discharge area of any waste material. HHW, Electronic Waste, and Lead Acid Batteries will be segregated from other remaining waste stream components so that they can be properly handled.
- 15) These procedures will be documented by a sufficient photographic record taken by a member of the sorting crew.

After sorting of the sample from a collection vehicle is nearly complete, the Crew Chief will inform the Site Manager (via two-way radio) that a new vehicle may be selected for sampling.

## **2.2 Personnel Responsibilities**

Assigned DGS Employee – Operate front end loader to select waste samples at the direction of CHA Crew Chief, and to move waste and sampled material to designated area after samples are complete, so that the waste material can be transferred for disposal in the landfill.

CHA Site Supervisor – Overall supervision of the waste characterization field study. Also responsible for interviewing drivers and completing the Waste Origin Survey Forms.

CHA Crew Chief – Responsible for supervision of the waste sorting effort and staff, and compilation of the sort data sheets.

CHA Staff – responsible for set-up, sample loading, sorting, weighing, and clean-up.

## **3.0 Health and Safety Plan**





CLOUGH HARBOUR & ASSOCIATES LLP

# SITE HEALTH AND SAFETY PLAN

## PROJECT INFORMATION

|                                                                                                                                                                                                                                                                                                                                                        |                        |                                                                                 |                            |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------|---------------------------------------------------------------------------------|----------------------------|
| <b>Project Name:</b> Albany Landfill Solidwaste Characterization Study                                                                                                                                                                                                                                                                                 |                        | <b>CHA Project No.</b> 19283                                                    |                            |
| <b>Project Start Date:</b> 2/23/09 <b>Completion Date:</b> 2/27/09                                                                                                                                                                                                                                                                                     |                        | <b>Weather:</b>                                                                 |                            |
| <b>Project Location:</b> 2/23/09 - landfill                                                                                                                                                                                                                                                                                                            |                        | <b>Project Task:</b> 2/23/09 - Classification of Solid Waste per ASTM procedure |                            |
| <b>Description of Work:</b> The field crew will be sorting solid waste into 39 different classifications from randomly selected loads. Loads will be approximately 250 lbs and will be transferred from the concrete floor onto work tables using rakes and shovels. Solid waste will be sorted into classifications and placed in corresponding bins. |                        |                                                                                 |                            |
| <b>Key Personnel:</b>                                                                                                                                                                                                                                                                                                                                  | Ken Gallagher          | Sarah Johnston                                                                  | Jamie Herrick              |
| <i>Responsibilities:</i>                                                                                                                                                                                                                                                                                                                               | <i>Project Manager</i> | <i>Field Team Leader</i>                                                        | <i>Site Safety Officer</i> |
| <b>Description of Hazards:</b> heavy equipment, wet/slippery floors, use of rakes and shovels, climatic conditions, household hazardous waste, biomedical waste, human and animal waste, glass and other sharp objects.                                                                                                                                |                        |                                                                                 |                            |

| TASK HAZARDS      |                                 |                                         |                             | TASK SAFETY MEASURES & PPE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |  |
|-------------------|---------------------------------|-----------------------------------------|-----------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|
| <b>Eye</b>        | Chemical Exposure               | Yes <input type="checkbox"/>            | No <input type="checkbox"/> | <input checked="" type="checkbox"/> Safety Glasses<br><input type="checkbox"/> Safety Goggles<br><input type="checkbox"/> Face Shield<br><input type="checkbox"/> Shaded Lenses                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |  |
|                   | High Heat/Cold                  | Yes <input type="checkbox"/>            | No <input type="checkbox"/> |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |  |
|                   | Dust/Flying Debris              | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |  |
|                   | Impact                          | Yes <input type="checkbox"/>            | No <input type="checkbox"/> |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |  |
|                   | Light/Radiation                 | Yes <input type="checkbox"/>            | No <input type="checkbox"/> |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |  |
| <b>Head</b>       | Impact                          | Yes <input type="checkbox"/>            | No <input type="checkbox"/> | <input checked="" type="checkbox"/> Hard Hat: <input checked="" type="checkbox"/> Orange or <input type="checkbox"/> White or <input type="checkbox"/> Blue<br><input type="checkbox"/> Reflector Tape (Required for night operations)                                                                                                                                                                                                                                                                                                                                                                                                                                                       |  |
|                   | Electrical Shock                | Yes <input type="checkbox"/>            | No <input type="checkbox"/> |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |  |
|                   | Lack of Visibility              | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |  |
| <b>Foot</b>       | Chemical Exposure               | Yes <input type="checkbox"/>            | No <input type="checkbox"/> | <input checked="" type="checkbox"/> Work Boots <input checked="" type="checkbox"/> Steel Toed Boots<br><input type="checkbox"/> Ankle Protection <input type="checkbox"/> I/75 C/75 (Impact/Compression)<br><input type="checkbox"/> Rubber Boots <input type="checkbox"/> Cd Type 1 or 2 (Conductive)<br><input checked="" type="checkbox"/> Insulated Boots <input type="checkbox"/> PR (Puncture Resistant)<br><input checked="" type="checkbox"/> Non-slip Soles <input type="checkbox"/> Mt/70 or 50 or 30 (Metatarsal)<br><input type="checkbox"/> Chemical resistant <input type="checkbox"/> EH (Electrical Hazard)<br><input type="checkbox"/> SD Type I or II (Static Dissipative) |  |
|                   | High Heat/Cold                  | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |  |
|                   | Impact/Compression              | Yes <input type="checkbox"/>            | No <input type="checkbox"/> |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |  |
|                   | Slips/Trips                     | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |  |
|                   | Puncture                        | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |  |
|                   | Slippery/Wet Surface            | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |  |
|                   | Explosive/Flammable Atmospheres | Yes <input type="checkbox"/>            | No <input type="checkbox"/> |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |  |
|                   | Electrical                      | Yes <input type="checkbox"/>            | No <input type="checkbox"/> |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |  |
| <b>Hand</b>       | Chemical Exposure               | Yes <input type="checkbox"/>            | No <input type="checkbox"/> | <input type="checkbox"/> Work Gloves <input type="checkbox"/> Rubber Gloves<br><input type="checkbox"/> Leather Gloves <input type="checkbox"/> Nitrile Gloves<br><input checked="" type="checkbox"/> Latex Gloves <input type="checkbox"/> Insulated Gloves<br><input type="checkbox"/> Vinyl Gloves <input checked="" type="checkbox"/> Kevlar Gloves<br><input checked="" type="checkbox"/> Neoprene Gloves<br><input type="checkbox"/> Butyl Gloves                                                                                                                                                                                                                                      |  |
|                   | High Heat or Cold               | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |  |
|                   | Cuts/Abrasion                   | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |  |
|                   | Puncture                        | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |  |
|                   | Electrical Shock                | Yes <input type="checkbox"/>            | No <input type="checkbox"/> |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |  |
|                   | Bloodborne Pathogen             | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |  |
|                   |                                 | Yes <input type="checkbox"/>            | No <input type="checkbox"/> |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |  |
| <b>Body/Torso</b> | Chemical Exposure               | Yes <input type="checkbox"/>            | No <input type="checkbox"/> | <input checked="" type="checkbox"/> Tyvek Suits: <input type="checkbox"/> White or <input checked="" type="checkbox"/> Yellow<br><input type="checkbox"/> UV Protection <input checked="" type="checkbox"/> First Aid Kit<br><input type="checkbox"/> Coveralls <input type="checkbox"/> Traffic Cones<br><input checked="" type="checkbox"/> Reflective Vest <input type="checkbox"/> Signage<br><input type="checkbox"/> Insect Repellent <input checked="" type="checkbox"/> 2- Way Radios                                                                                                                                                                                                |  |
|                   | Extreme Heat/Cold               | Yes <input type="checkbox"/>            | No <input type="checkbox"/> |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |  |
|                   | Abrasion                        | Yes <input type="checkbox"/>            | No <input type="checkbox"/> |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |  |
|                   | Impact                          | Yes <input type="checkbox"/>            | No <input type="checkbox"/> |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |  |
|                   | Electrical Arc                  | Yes <input type="checkbox"/>            | No <input type="checkbox"/> |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |  |

|                    |                      |                                         |                                        |                                                                                                                             |                                                  |
|--------------------|----------------------|-----------------------------------------|----------------------------------------|-----------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------|
|                    | Biological Hazards   | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/>            | <input type="checkbox"/> Tick Removal Kit                                                                                   | <input type="checkbox"/> Flashlight              |
| <b>Fall</b>        | Fall Hazard          | Yes <input type="checkbox"/>            | No <input checked="" type="checkbox"/> | <input type="checkbox"/> Harness                                                                                            | <input type="checkbox"/> Fall Protection Lanyard |
| <b>Noise</b>       | Noise Hazard         | Yes <input type="checkbox"/>            | No <input checked="" type="checkbox"/> | <input type="checkbox"/> Ear Plugs                                                                                          | <input type="checkbox"/> Ear Muffs               |
| <b>Respiratory</b> | Chemical Exposure    | Yes <input type="checkbox"/>            | No <input type="checkbox"/>            | <input type="checkbox"/> Respirator: <input type="checkbox"/> ½ Face or <input type="checkbox"/> Full Face                  |                                                  |
|                    | Confined Spaces      | Yes <input type="checkbox"/>            | No <input type="checkbox"/>            | <input type="checkbox"/> Cartridge: <input type="checkbox"/> P or <input type="checkbox"/> OV or <input type="checkbox"/> C |                                                  |
|                    | Particulate Exposure | Yes <input type="checkbox"/>            | No <input type="checkbox"/>            |                                                                                                                             |                                                  |
|                    | Welding Hazard       | Yes <input type="checkbox"/>            | No <input type="checkbox"/>            |                                                                                                                             |                                                  |

**SITE CONTROL**

|                                                                               |                                                                                                                                 |
|-------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------|
| <b>Site Control/Site Security<sup>1</sup>:</b> NA<br><i>Describe Measures</i> | M & PT: <input type="checkbox"/> Y <input checked="" type="checkbox"/> N<br><i>If yes, sketch information on separate sheet</i> |
|-------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------|

**Confined Space Entry:**  Y  N  
*If Yes, Attach Permit*

**Decontamination:**  Y  N cleaning solution will be available to clean the rubber gloves, glasses, tools, etc.  
*If Yes, Describe Procedures*

**Site Monitoring<sup>2</sup>:**  Y  N a four gas meter will be used to monitor the air throughout the duration of the project.  
*If Yes, Describe Procedures*

**CONTINGENCY PLAN**

|                                                                |                                                                                                         |                                                                                                                                                                                                                                     |
|----------------------------------------------------------------|---------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Emergency Contacts:</b><br><i>Provide Telephone Numbers</i> | Police: 911<br>Ambulance: 911<br><br>Fire: 911<br>Hospital: St. Peters/ER-525-1324<br>AMC ER - 262-3131 | Client Contact: Joe Giebelhaus, Solid Waste Manager,<br><br>Client Phone #: cell 229-7806 ; office 869-3651<br>CHA PM Phone #: Frank LaVardera 424-3420 cell<br>Ken Gallagher 201-232-3407 cell<br><br>Poison Control: 800 336-6997 |
|----------------------------------------------------------------|---------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

**Route to Hospital:** see attachment for directions  
**Communication:**  Cell Phone  Nearest Pay Phone  Pager

**Comments: Dust masks and scented products will be provided for odor control if necessary (optional). Anti-bacterial lotion will be on-site. Drinking water will be located in a convenient location.**

**PLAN SIGN-OFF**

|       |       |       |       |
|-------|-------|-------|-------|
| Name: | Name: | Name: | Name: |
| X:    | X:    | X:    | X:    |
| Date: | Date: | Date: | Date: |
| Name: | Name: | Name: | Name: |
| X:    | X:    | X:    | X:    |
| Date: | Date: | Date: | Date: |

1 Who is providing site control/site security, if any, for this task? Examples of Site Control/Site Security include police, client representative(s), owner(s), CHA or client supervisors

2 What are you monitoring on site, if any, for this task? Examples of Site Monitoring include air monitoring, like carbon monoxide or oxygen levels or wet bulb temperatures



**APPENDIX E**

**ASSESSMENT OF EMERGING SOLID WASTE**

**MANAGEMENT TECHNOLOGIES**



## **1.0 INTRODUCTION AND DEFINITIONS**

As part of the New SWMP process, the City of Albany is identifying and evaluating solid waste management technologies that could potentially reduce the amount of solid waste requiring landfill disposal. The SWMP will consider both established and emerging technologies for possible inclusion in the region's long-term solid waste program.

This assessment of emerging solid waste management technologies was prepared as part of the SWMP. This comparative evaluation is not intended to result in the selection of any particular technology or any particular company. Rather, it is intended to facilitate a conclusion about whether continued consideration of one or more of these technologies is appropriate as an on-going element of the New SWMP.

For the purposes of this evaluation, "emerging" solid waste management technologies are defined as technologies with the potential to provide commercial-scale, effective means of municipal solid waste processing and disposal, but which currently have little or no commercial application in the United States. Technologies that have only recently been introduced to the U.S. in a demonstration or commercial capacity qualify as emerging. Emerging technologies with existing commercial applications in other countries, but which have not been implemented in the U.S., are also included in this analysis.

Proven technologies with widespread commercial use in the U.S. are not included in the definition of emerging technologies. Waste-to-energy facilities (including both mass-burn and mechanically processed refuse derived fuel), stand-alone material recovery facilities (MRF), composting facilities for organic waste and conventional landfills do not qualify as new or emerging technologies, and are not included in this assessment.

This analysis includes information provided by respondents to a Request for Information, as further described in Section 2.0, as well as information about other new and emerging technologies derived from recent studies conducted in other jurisdictions and from other sources. A summary description of the details of many of the emerging technologies is presented in Section 3.0, where they are characterized by type of process and other factors. Information provided in the RFI responses is summarized in this section.

Section 4.0 describes some recent assessments of emerging technologies conducted by other jurisdictions who are evaluating these alternatives. Section 5.0 presents the findings and conclusions of this analysis in the context of the Capital Region Solid Waste Management Plan.

## **2.0 REQUEST FOR INFORMATION**

As part of this process, a Request for Information (RFI) was prepared and distributed to solicit preliminary statements of interest and background information from parties wishing to participate in the evaluation process. The availability of the RFI was advertised in national publications (Waste Age and Waste and Recycling News) and began being distributed on February 16, 2009. Responses were requested on or before March 27, 2009.

Interested parties were invited to provide basic information regarding their sponsored technologies, including measures of actual or anticipated performance in each of the following categories of criteria:

- Experience of Project Sponsors
- Facility Sizing
- Costs of Ownership and Operation
- Environmental Impacts
- Readiness and Reliability
- Beneficial Reuse of MSW Byproducts
- Residues Requiring Landfill Disposal

A copy of the RFI is presented in Appendix A.

Fifteen (15) companies provided submittals in response to the RFI. Table 1 provides a summary of the RFI respondents.

**Table 1 –Summary of Respondents to RFI**

| Name                         | Primary Treatment Type | Primary Product                           | Reference Facilities                                                                       | Comment                                                                                                       |
|------------------------------|------------------------|-------------------------------------------|--------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------|
| Biogold                      | Thermal                | Electricity or Biofuel/gasification       | No MSW reference facility                                                                  | Produces electricity and/or ethanol biofuel, depending on market for these commodities.                       |
| Carbon Diversion, Inc.       | Thermal                | Electricity from pyrolytic syngas         | 50 tpd facility in Dunlop TN                                                               |                                                                                                               |
| Casella Waste Systems, Inc.  | Mechanical/Thermal     | Electricity from pyrolytic syngas         | 3 reference facilities for single stream. WTE demonstration unit under acceptance testing. | Final element of a 4 stage approach. Single stream recycling and processed waste feedstock in previous stages |
| Covanta Energy Corp.         | Thermal                | Electricity from Mass Burn                | 5 operating facilities in NY, 15 others in Northeast US.                                   | Export to existing WTE facilities through B-3 transfer station in Columbia County.                            |
| Dongara Pellet Factory       | Mechanical             | Solid Fuel Pellets                        | 110,000 tpy facility in Woodbridge, ON.                                                    | Fuel pellets are to be used for energy production.                                                            |
| Ecodeco                      | Biological/Mechanical  | Aerobic Biodrying with Solid Fuel Product | Several facilities in, Italy, Spain and U.K.                                               | Solid Fuel product could potentially be used to generate electricity.                                         |
| Energy Answers International | Mechanical/Thermal     | Electricity from Processed Refuse Fuel    | 3,000 tpd SEMASS facility in Rochester, MA                                                 | Company was affiliated w/ reference facility from 1988 - 1996                                                 |
| Green Conversion             | Thermal                | Electricity from Mass Burn                | 1,100 tpd facility in Hamburg, GE                                                          |                                                                                                               |

| Name                      | Primary Treatment Type | Primary Product                   | Reference Facilities                                   | Comment   |
|---------------------------|------------------------|-----------------------------------|--------------------------------------------------------|-----------|
| Nature's Fuel             | Thermal                | Electricity from pyrolytic syngas | 86,000 tpy facility in Atwood, IN.                     |           |
| NORTERRA Organics         | Biological             | Compost                           | 20,000 tpy facility in Joyceville, ON.                 | SSOW only |
| Organic Waste Remediation | Thermal                | Electricity from pyrolytic syngas | 250 tpd facility seeking approval in CT.               |           |
| Plasco Energy Group       | Thermal                | Electricity from Plasma syngas    | 110 tpd demonstration facility in Ottawa, Canada       |           |
| Powers Energy             | Thermal                | Biofuel from gasification         | 2,000 tpd facility being developed in Lake County, IN. |           |
| StarTech Environmental    | Thermal                | Plasma-converted Syngas           | 2 facilities under contract in Europe                  |           |
| Taylor Biomass Energy     | Thermal                | Electricity/ gasification         | Facility under development                             |           |

Five of the submittals provided information about technologies that are considered commercially proven, including mass burn waste to energy, mechanically processed refuse derived fuel (RDF), and the composting of source separated organic waste. The 10 remaining respondents presented information about new and emerging technologies for waste treatment with recovery of materials, energy or both. Information from these submittals was summarized and is presented in the discussion of emerging technologies in Section 3.0.

A more detailed summary of each submittal is presented in Appendix B.

## 3.0 EMERGING SOLID WASTE MANAGEMENT TECHNOLOGIES

### 3.1 Thermal Processing

Thermal processing technologies encompass a variety of processes that use or produce heat, under controlled conditions, to convert MSW to usable products such as recyclable materials and/or electrical output. The organic content of MSW is converted to energy, and the inorganic content is recovered as products such as metals.

Thermal technologies can potentially convert all organic components of MSW into energy (i.e., all carbon and hydrogen-based materials, including plastic, rubber, textiles, and other organic materials that are not converted in biological processes). Thermal processing occurs in a high-temperature reaction vessel; reactor temperatures vary among technologies, but can range from approximately 800°F to as high as 8,000°F.

Generally speaking, thermal processing of MSW consists of two primary steps (DSNY 2006):

**Pre-processing** requirements are typically minimal for thermal processing technologies. Many thermal technologies require no MSW size reduction or separation by component, although some do require waste to be shredded prior to processing. While recyclables such as metals can be recovered in a pre-processing step, many thermal technologies recover recyclable metals after the thermal conversion process.

In **thermal conversion**, the organic fraction of the MSW is converted to a gas form by processing at a high temperature within the reaction vessel. Gas products are typically composed of hydrogen, carbon monoxide and carbon dioxide gases, and may be called “syngas” or “fuel gas”, depending on the technology. The gas may be converted to electricity by using it as a fuel in traditional boilers, reciprocating engines and combustion turbines. Net electricity is reportedly on the order of 400-500 kWh/ton for most thermal processing technologies.

Processing temperatures, the means of maintaining elevated temperatures, and the degree of decomposition of the organic fraction of MSW, vary among thermal processing technologies. Several types of thermal processing technologies have been or are being developed to a level of commercial feasibility, and are described in detail below.

### 3.1.1 Pyrolysis

Pyrolysis systems use a drum, kiln-shaped structure, or pyrolysis tube, which is heated using recycled syngas or another fuel or heat source. Existing pyrolysis systems can typically process up to 300 tpd of MSW; systems are modular and can be installed in parallel to increase throughput. MSW must be pre-processed to separate non-degradable materials, and the organic MSW content is essentially “cooked” in an externally heated oven at temperatures of 750°F to 1,650°F, *in the absence or near absence of free oxygen*. At high temperatures, the organic compounds volatilize and bonds thermally crack, breaking larger molecules into gases and liquids composed of smaller molecules, including hydrocarbon gases and hydrogen gas.

The temperature, pressure, reaction rates, and internal heat transfer rates are used to control pyrolytic reactions in order to produce specific products. Syngas products are composed primarily of hydrogen (H<sub>2</sub>), carbon monoxide (CO), carbon dioxide (CO<sub>2</sub>), and methane (CH<sub>4</sub>). The syngas can be utilized in boilers, gas turbines, or internal combustion engines to generate electricity, or alternatively can be used in the production of chemicals. Some of the volatile components of MSW form tar and oil, and can be removed for reuse as a fuel. The balance of the organic materials that are not volatile, or liquid that is left as a char material, can be further processed or used for its adsorption properties (activated carbon). Inorganic materials form a bottom ash that requires disposal, although some pyrolysis ash can be used for manufacturing brick materials.

Most pyrolysis systems are closed systems, and there are no waste gases or air emission sources. However, subsequent power generation using syngas does have air emissions that can be filtered through a stack and air emission control system. The volume of MSW feedstock entering a pyrolysis reactor can be reduced by as much as 90% (City of LA 2005).

Four of the RFI respondents have developed or are developing thermal processing facilities utilizing pyrolysis. These respondents are Carbon Diversion, Inc., Casella Waste Systems, Inc., Nature’s Fuel, and Organic Waste Remediation, LLC. A brief summary of these technologies or facilities, based on information provided in each of the RFI responses, is presented below.

#### **Carbon Diversion, Inc.**

Carbon Diversion Inc. is a Hawaiian corporation that was formed in 2004. CDI creates small-scale systems that can process MSW to generate electricity and bio-char products. The company identifies a pilot plant and two commercial facilities, located in Hawaii and Tennessee. CDI will



break ground on the first of three planned manufacturing facilities in April 2009, which will allow the company to produce and deliver its systems.

CDI has built a pilot plant at Campbell Industrial Park in Hawaii. The plant consists of three 1-ton processors, and the main product is a petroleum product in the kerosene range. A second system is located in Dunlop, Tennessee as part of a sustainable community development, and consists of two 3.5 ton/hr. units. The Dunlop facility is designed to operate 10 hours/day and generate 2 MW of electricity. Bio-char byproducts are bagged and sold under the Eterna Green trade name as a soil amendment. Work has begun on a third site in Hawaii; four additional sites have been identified at transfer stations in Hawaii, pending final bond passage with a start date in July 2009.

Incoming waste, including tires, animal waste and green waste, is pre-processed (briquetted) and fed into the processors. A pressurized partial pyrolysis gasification process is used to produce a liquid fuel and syngas, which are used to generate electricity. Bio-char can be used for water filtration or as a soil amendment. Units can be remote-started by local power providers, and can be used for emergency power generation if provided access to natural gas utilities.

More information about this RFI response is presented in Appendix B.

### **Casella Waste Systems, Inc.**

Casella Waste Systems, Inc. is a vertically integrated resource management company that operates primarily in the northeastern U.S, and was founded in 1975. The company operates a number of collection divisions, transfer stations, disposal facilities, recycling facilities, and landfill gas to energy facilities. FCR, Inc. is a wholly owned subsidiary of Casella that designs, builds and operates recycling facilities throughout the U.S.

Casella proposes a four-phased waste management approach for the Planning Unit. The first three phases include a single stream MRF, a multimaterial processing platform to recover additional recyclables and manufacture engineered feedstock for co-firing in solid fuel boilers. These first three phases are considered conventional technologies. It is the fourth phase which is considered an emerging technology because it includes the establishment of a waste-to-energy facility accepting the non-recoverable portion of the waste stream and thermally reducing it by means of pyrolysis and gasification. Syngas products would be used to produce electricity, liquid fuels or chemicals. Casella has a commercial demonstration unit currently in acceptance

testing, which would serve as a reference facility upon completion; other reference facilities are operated by Eco Technology, a project partner.

More information about this RFI response is presented in Appendix B.

### **Nature's Fuel**

Nature's Fuel (NF) was founded in 2005 and is an Indiana Corporation; the company is owned by private equity investors. NF owns and operates one commercial facility in Atwood, Indiana, and is developing a second commercial facility in Huntington, Indiana.

The NF system uses a pyrolysis process to generate electricity, bio-oil, bio-char, and bio-gas. Bio-char residue can be used as a soil amendment or high-grade source of activated carbon. Bio-oil can be sold to blenders and used to reduce the sulfur content and viscosity of #6 heating oil.

NF operates an 86,000 tpy facility in Atwood, Indiana – this plant began as a solid fuel R&D facility and was converted into a full-production pyrolyzation operation in 2007. The Atwood facility does not accept MSW, but does accept wood waste, C&D waste, and other waste streams (plastics, waste oils, etc.) to produce sulfur-free bio-oil, high quality bio-char, and will begin to generate electricity later in 2009.

NF is in the process of developing a new facility in Huntington, Indiana that will accept MSW as feed stock. This facility will have an anticipated waste throughput of 200,000 tpy in Year 1, and will increase to 400,000 tpy by Year 3. Air permit approval is anticipated in July 2009.

Representatives of Nature's Fuel attended the SWMP Steering Committee meeting on August 18, 2009 give a presentation about their technology and facilities. As of that time, the facility planned for the Huntington Landfill was not yet operating. When it is operating the anticipated fee at Huntington will be \$20/ton. Nature's Fuel indicated they anticipate that biogas generated at the Huntington facility would be used to fire internal combustion engines, and they expected a facility processing 500,000 TPY to generate about 50 MW. At the presentation NF clarified that the operating facility in Atwood primarily accepts wood waste from recreational vehicle manufactures including particle board, paints and sealants, laminates, and all kinds of wood and adhesives. That facility operates at 55,000 tons per year.

More information about this RFI response is presented in Appendix B.

## Organic Waste Remediation, LLC

Organic Waste Remediation, LLC (OWR) is based in Orlando, FL and offers the OWR Process for disposal of MSW. The OWR Process combines single-stream recycling and pyrolysis technologies, and includes three modules. The *Recycling Module* separates non-organic material into ferrous, aluminum, other non-ferrous metals and clear, green and amber glass, washed and delabeled with ceramics removed. Unrecycled organic material is shredded, dried and fed to the Remediation Module. The *Remediation Module* uses a pyrolysis process to break organic materials down into a relatively consistent synfuel. Synfuel products are conveyed to the Power Module. The *Power Module* uses generic fluid bed burner/steam generation equipment to drive a steam turbine electric generator.

As of the RFI submittal date, OWR has not constructed or operated a MSW processing facility. OWR has commenced the approval process to construct and operate a commercial facility in Bozrah, CT. This facility will have a proposed maximum capacity of 250 TPD (~90,000 tpy), and contractual arrangements have been made to secure a 1,500 tons per week supply of MSW feedstock.

More information about this RFI response is presented in Appendix B.

### 3.1.2 Gasification

Gasification involves the thermal conversion of organic carbon-based materials in the presence of internally produced heat, typically at temperatures of 1,400°F to 2,500°F, and *in a limited supply of air/oxygen* to produce a syngas composed primarily of H<sub>2</sub> and CO. Inorganic materials are converted either to bottom ash or to a solid, vitreous slag, depending on the conditions materials are processed under. Most gasification systems are closed systems and do not generate waste gases or air emission sources during the gasification phase. After cooling and cleaning in emission control systems, the syngas can be utilized in boilers, gas turbines, or internal combustion engines to generate electricity, or to make chemicals. Subsequent power generation using syngas does have air emissions that can be filtered through a stack and air emission control system.

Gasification has reportedly been used to process MSW since the 1980s, primarily in Europe and Japan (City of LA 2005). Existing gasification systems operate at throughputs up to 1,000 tpd;

gasifiers and the pre-processing, emission control, and power generation systems can be installed in parallel to increase throughput and power generation. Gasification and pyrolysis technologies are sometimes coupled, with char products resulting from pyrolysis used as feedstock for the follow-up gasification process.

Three of the RFI respondents, have developed or are developing thermal processing facilities utilizing this type of gasification technology. These respondents are BioGold Fuels Corporation, Powers Energy of America, Inc., and Taylor Biomass Energy, LLC. A brief summary of these technologies or facilities, based on information provided in each of the RFI responses, is presented below.

### **BioGold Fuels Corporation**

BioGold Fuels Corporation is a Nevada corporation based in New York City, was formed as a result of a merger with Full Circle Industries, Inc. in April 2007, and became a publicly traded company in October 2007. With the BioGold process, MSW is unloaded from trucks and conveyed to a sterilizer where it is sterilized, reduced in size, and mechanically sorted to remove recyclable metals and other inorganic material from the organic fraction of the waste. The sterilized organic and energy-containing materials are then fed into a thermo-chemical gasifier, where they are transformed at high temperature into compounds that produce a syngas composed mostly of hydrogen and carbon monoxide. Remaining solid residue can be vitrified into a glass-like solid that can be used for various construction applications.

Syngas can be used to generate electricity using commercial electricity-generating equipment, or converted to a biofuel using a standard gas-to-liquid catalytic process. BioGold would build infrastructure to generate both electricity and transportation biofuels, and would shift production according to the relative market value of these commodities.

According to its RFI response, BioGold has successfully implemented the front-end processing aspect of its technology using MSW to create a marketable recycled long-fiber product sold for liner-board manufacture. As of March 2009, the company has not constructed or operated a MSW processing facility.

More information about this RFI response is presented in Appendix B.

### **Powers Energy of America, Inc.**

Powers Energy is a national firm headquartered in Evansville, Indiana, and presents a process to produce biofuels and electricity from MSW feedstock. MSW would be delivered, handled and contained within the indoor facility. Carbon-based MSW/feedstock materials are mixed, crushed or shredded and fed into a gasification plant for bioethanol production. Feedstock materials are converted to a syngas product in the gasifiers by heating the materials in different stages to temperatures in excess of 2,000 degrees Fahrenheit. Heat recovered from the gasifier is used to generate steam and electricity. Syngas leaving the gasifier is refined, cooled and passed through the biological fermenter, where 70-90% of the gas will be converted to bioethanol through microbial activity. Off-gas from the fermenter is routed for use in steam generation. Bioethanol products go through a refining process and are marketed for use as a fuel. Ash from the gasifier is sent to a landfill for disposal.

The Lake County Indiana Solid Waste Management District approved a contract on November 20, 2008 to develop a biofuels facility with a minimum capacity of 2,000 tpd. The facility is anticipated to generate 36 million gallons of bioethanol fuel, 42,600 tons of recyclable metals and 20 MW of power on annual basis. As of March 2009, facility design plans were being prepared, but construction of this facility has not yet begun. Powers Energy is also pursuing agreements for development of a facility in northwestern Kentucky, and has begun design and permitting for this facility.

More information about this RFI response is presented in Appendix B.

### **Taylor Biomass Energy, LLC**

Taylor Biomass Energy (TBE) is headquartered in Montgomery, NY where a related company has owned and operates a C&D recycling and processing facility since 1989. TBE has a project underway to couple a gasification process with the existing sorting and recycling process at the Montgomery facility. Permitting is currently underway for this action and permitting documents have been submitted to DEC for review.

As part of that project, sorted feedstock will be fed into the gasification reactor, where it will undergo a rapid thermal breakdown to produce a syngas product. The Taylor gasification process produces a medium Btu gas with a heating value of approximately half that of natural gas. This gas will have the ability to be directly substituted for natural gas or used as a fuel for

engines and gas turbines, or to be used as a synthesis gas for production of biofuels or chemicals. For the Montgomery project, the syngas will be conditioned and used to generate electricity. A combustion reactor will be used to further process char products, and final ash products will be disposed of at a landfill.

More information about this RFI response is presented in Appendix B.

### **3.1.3 Plasma Arc Gasification**

Plasma technology uses an electrical discharge to heat gas, typically air, oxygen, nitrogen, hydrogen, or argon, or combinations of these gases, to temperatures above 7,000°F. The heated gas, or plasma, can then be used for welding, cutting, melting, or treating waste materials. Most past uses of plasma arc technology have been for melting incinerator ash or for thermally decomposing hazardous or medical wastes, and only recently has plasma technology integrated with gasification technologies to process MSW. This technology has potential to convert MSW to electricity more efficiently than conventional pyrolysis and gasification systems, due to its high heat flux, high temperature, almost complete conversion of carbon-based materials to syngas, and conversion of inorganic materials to a glassy, non-hazardous slag. Existing systems operate at throughputs of up to 83 tpd on MSW/auto shredder residue combination; plasma torches can be added to the reactors, and multiple reactors can be included to increase total capacity (City of LA 2005).

Plasma arc gasification typically occurs in a closed, pressurized reactor. Following pre-processing, the feedstock enters the reactor and comes into contact with the hot plasma gas. This system converts MSW and other organic carbon-based materials, including tar, oil, and char, to a syngas composed primarily of H<sub>2</sub> and CO. Inorganic materials are converted to a solid, vitreous slag. Like pyrolysis and conventional gasification, plasma arc gasification is a closed system; therefore there are no waste gases and no emission sources in the plasma gasification conversion process. After cooling and cleaning in emission control systems, the syngas produced by plasma arc gasification can either be burned immediately in a close-coupled combustion chamber or boiler, or can be cleaned of contaminants and used in a reciprocating engine or gas turbine to generate electricity.

Two of the RFI respondents have developed, or are developing, thermal processing facilities utilizing plasma arc gasification technology. These respondents are Plasco Energy Group and

Startech Environmental Corporation. A brief summary of these technologies or facilities, based on information provided in each of the RFI responses, is presented below.

### **Plasco Energy Group**

Plasco Energy Group is an Ottawa, Canada company that offers a system based on plasma arc technology. Plasco has built a 110 tpd commercial-scale demonstration facility in Ottawa that uses MSW from the city as feedstock. This facility has been in operation since January 2008. Discussions for commercial facilities are in progress in Canada, the U.S, Europe and Asia.

Plasco's waste conversion process begins with any materials with high reclamation value being removed from the waste stream and recovered for recycling. The remaining MSW is shredded and conveyed to a conversion chamber where it is converted into a crude syngas using recycled heat; this crude syngas flows to a refinement chamber and is refined using plasma torches to create a fuel called PlascoSyngas. The PlascoSyngas is cleaned and used to generate electricity. Waste heat is recovered and used to produce steam, which can be used to generate additional electricity or for industrial purposes.

Solid residue from the conversion chamber is sent to a separate high-temperature Carbon Recovery Vessel, where plasma heat is used to stabilize the solids and convert any remaining volatile compounds and fixed carbon into syngas. Remaining solids are cooled into small slag pellets. The process also yields other products including commercial salt, agricultural sulfur and water. In its response to the RFI, Plasco suggested a 440 TPD facility for the Capital region, using four of the 110 TPD units of the type currently operating at the demonstration facility in Ottawa.

More information about this RFI response is presented in Appendix B.

According to the company website (<http://www.plascoenergygroup.com/>), in June 2008 the Ottawa City Council issued a letter of intent for Plasco to build, own, and operate a 440 TPD facility and the Central Waste Management Commission of Red Deer, Alberta has signed a contract for a 220 TPD Plasco facility.

## **Startech Environmental Corporation**

Startech is a Wilton, Connecticut based public company that offers a plasma processing technology for MSW disposal. The company was founded in 1993 and was established in 1995 as a public company. In 1996-1997, Startech built and delivered a 7 TPD system to the U.S. Army's Aberdeen Proving Ground in Maryland. In 2001, the company opened a facility in Bristol, Connecticut which houses a 5 TPD system used for customer training, marketing and demonstration purposes. In 2001 Startech delivered a 5 TPD system to Japan for the processing of PCBs and hazardous incinerator ash. The company has a 30,000 sf manufacturing facility in Bristol where its systems are built, and is in the process of developing several facilities in overseas markets.

The Plasma Converter System utilizes plasma – an electrically charged, ionized gas – to process waste materials at extremely high temperatures. Organic components of the incoming waste are used to create a plasma-converted syngas, which in turn can be used to produce electricity, recover hydrogen, and to make industrial materials. Outputs include a Plasma Converted Gas (PCG) fuel consisting of primarily hydrogen and carbon monoxide, and a glassy black obsidianite material. PCG can be reused or recycled as a fuel or as a synthesis gas to produce electricity, recover hydrogen, or to make industrial products. The Startech technology can be used to process a variety of hazardous and non-hazardous waste materials.

To date, Startech has no full-scale commercial MSW facilities in operation. The company has signed contracts for two 300 TPD MSW facilities in Europe with additional orders pending for MSW facilities in Panama (200 and 350 TPD) and Europe (100 TPD). Startech is currently manufacturing multiple systems for Puerto Rico and Poland.

More information about this RFI response is presented in Appendix B.

## **3.2 Biological and Chemical Processing**

Biological and chemical technologies operate at lower temperatures and lower reaction rates than thermal technologies. Biological technologies can convert only the biodegradable organic content of MSW, and chemical processes can potentially convert any organic content. Neither type of technology can be used to effectively process inorganic waste materials. Some technologies involve the multiple stages of biochemical processing; byproducts vary among technologies but can include electricity, compost and chemicals.



Several of these technologies also include one or more mechanical processing components to remove inorganic materials from the feed stock or the residue stream. These are often referred to a **Mechanical -Biological Treatment** facilities, or **MBT** facilities. The biological treatment can be either aerobic or anerobic, as will be described further below. MSW composting facilities, such as the facility that operates in Delaware County NY, can be considered an MBT facility. But because there are 13 MSW composting facilities operating in the United States, it is not considered among the emerging technologies that are being evaluated here.

Motivated by European Union mandates that limit the amount of organic waste that may be landfilled, MBT facilities have been developed in Europe which utilize an aerobic process to dry the organic fraction of the waste. MBT reduces the mass and volume of wastes, due to the removal of materials for recycling and both carbon and moisture losses. The amount of reduction is very dependent on the design and characteristics of each plant. For every ton of input to a bio-stabilization MBT facility, around 0.6 tons will be left as residue (Friends of the Earth, 2008).

There are two main outputs for MBT residues, with the output type determining how the plant is operated:

- As a low quality soil, or to landfill, also known as ‘biostabilization’, or
- As a refuse derived fuel (RDF), for burning (sometimes called ‘biodrying’)

One respondent to the RFI, ECODECO, has developed an MBT technology that uses both biological (biodrying) and mechanical processes to recover recyclable materials and produce a refuse derived fuel. A brief summary of this technology/facility, based on information provided in the RFI response, is presented below.

Two other specific technology groups, anaerobic digestion and ethanol production were not included in any of the RFI responses. These technologies are discussed in section 3.2.1 and 3.2.2 below.

## **ECODECO**

ECODECO is an international company with headquarters in Italy, and has recently established a cooperative arrangement with International Center for Commercial Affairs (ICCA) to assist in the pursuit of opportunities in the U.S. market. The company has developed the Biocubi Process, an aerobic biological treatment method, to remove moisture and improve the heating efficiency of products to be used as fuel inputs for subsequent processes. Processing takes place in the company's ITS (Intelligent Transfer Station). The putrescible fraction of MSW undergoes an aerobic treatment, and the released heat is used to dry and thermally hygienize the feedstock. Separation occurs following the bio-drying phase, and recyclable materials are removed from the feedstock. The bio-dried material is then mechanically refined to produce a solid fuel which can be used to generate electricity or as a fuel source by cement kilns.

ECODECO's technology has been successfully implemented in Europe for more than a decade. They have identified several facilities in Italy, Spain and England, and report that there are 17 ITS facilities in total throughout the world. To date, none of these facilities have been constructed in the U.S.

The response to the RFI noted a capital cost of \$56.7 million for a facility capable of serving the Capital Region Planning Unit and processing 230,000 TPY. Operational costs for a facility in the U.S. were not estimated by ECODECO, but tipping fees of €95 to €125 (euros) per ton were noted for some European facilities.

Representatives of ECODECO attended the SWMP Steering Committee meeting on July 21, 2009 and gave a presentation about their technology and facilities. At that meeting an estimated capital cost of \$64 million and an estimated operating cost of \$38 per ton were noted. ECODECO representatives were accompanied by representatives from Buzzi Unichem, a large Cement manufacturer with facilities in the U.S., who expressed a keen interest in utilizing the solid fuel from the ECODECO process to displace the use of coal in cement kilns.

More information about this RFI response is presented in Appendix B.

### **3.2.1 Anaerobic Digestion**

*Anaerobic digestion* is a biological process by which microorganisms digest organic material in the absence of oxygen, producing a solid byproduct (digestate) and a gas (biogas). In the past, anaerobic digestion has been used extensively to stabilize sewage sludge, but has been adapted

more recently to process the organic fraction of MSW. In anaerobic digestion, biodegradable material is converted by a series of bacterial groups into methane and CO<sub>2</sub>. In a primary step called hydrolysis, a first bacterial group breaks down large organic molecules into small units like sugars. In the acidification process, another group of bacteria converts the resulting smaller molecules into volatile fatty acids, mainly acetate, but also hydrogen (H<sub>2</sub>) and CO<sub>2</sub>. A third group of bacteria, the methane producers or methanogens, produce a medium-Btu biogas consisting of 50-70% methane, as well as CO<sub>2</sub>.

This biogas can be used to fuel boilers or reciprocating engines to generate electricity, and requires minimal pretreatment. It can also be upgraded to pipeline quality and used as compressed natural gas (CNG), a vehicular fuel. In addition to biogas, anaerobic bioconversion generates a residue consisting of inorganics, non-degradable organics, non-degraded biodegradables, and bacterial biomass. If the feedstock entering the process is sufficiently free of materials like colored plastics, this residue can have market value as a compost material. Anaerobic digestion facilities are able to process up to 800 tpd of MSW.

None of the respondents to the RFI proposed the use of anaerobic digestion technology. This technology has been employed with MSW feedstock in Europe by companies that have responded to recent solicitations by other jurisdictions, such as New York City and Los Angeles. NorthEast Biogas, a New York based company, is seeking to develop projects using anaerobic digestion, but this company did not respond to the RFI. Discussions with representatives of this company indicated their interest in projects with organic waste feedstock, but not MSW feedstock.

### **3.2.2 Ethanol Production**

Various ethanol production processes have been developed at pilot scales, and some at demonstration scales, to generate ethanol from paper and vegetative matter in the MSW stream. In these processes, a purified lignocellulosic material – which is able to break cellulose-based plant material down to its component sugar molecules – is chopped up and introduced into a hydrolysis reactor. The effluent of this reactor is mostly a sugar solution, which is prepared for fermentation. This solution is detoxified and introduced to a fermenter, in which microorganisms convert the sugar to ethanol and CO<sub>2</sub>. Next, the solution is introduced into an energy-intensive, combined distillation and dehydration process to bring the ethanol concentration up to fuel grade (99%) ethanol. A solid residue of unfermented solids and microbial biomass is recovered through the anaerobic digestion process, and its marketability as a compost material depends on the

purity of feedstock as well as its visual quality. Solid residues can be burned or gasified if alternative methods of reuse are not feasible.

A commercial scale facility had been permitted for development in Middletown NY. The \$285-million waste-to-ethanol processing plant is said to be capable of processing and converting up to 960 tpd of MSW to ethanol for commercial sale and use. The facility has been in the development stages since 1996, and received its required permits from the NYSDEC. However the facility has never been developed (news archive from the Middletown Times Herald-Record at [http://archive.recordonline.com/news/masada/masada\\_list.htm](http://archive.recordonline.com/news/masada/masada_list.htm)), and given the delays and reported legal issues, is believed to be unlikely to move forward.

At its September 2009 meeting, the SWMP Steering Committee heard a presentation from a representative of Enerkem, a Canadian company which has a contract with the City of Edmonton, Alberta to develop a waste-to-biofuels facility. The City of Edmonton will supply 100,000 metric tons of post recyclable waste to the facility, which will produce approximately 9.5 million gallons of ethanol and has an expected construction cost of CDN\$70 million. The company has operated a pilot plant in Sherbrooke Quebec since 2003 and has also built a commercial scale facility in Westbury, Quebec.

## 4.0 RECENT ASSESSMENTS CONDUCTED BY OTHER JURISDICTIONS

Several municipalities, counties and solid waste authorities have conducted recent assessments of alternative technologies. Three of the more comprehensive efforts are reviewed and summarized here.

### 4.1 New York City

In 2004, the New York City Department of Sanitation (DSNY) presented the first phase of its New Solid Waste Management Plan (New SWMP). The planning process was initiated following the 2001 closure of the Fresh Kills Landfill in Staten Island, which had accepted much of the City's solid waste for years. Since the closure of this facility, New York City's solid waste management system has relied predominantly on truck-based transportation and utilizes a combination of local, land-based transfer stations and long-haul shipping to remote, out-of-state landfills.

New York City's system is considered unsustainable over the long term, due to the heavy costs associated with the transport and disposal of solid waste at remote landfills, as well as the environmental impacts of a system so reliant on long-haul trucking. Thus, the City's New SWMP cites "dramatically reducing the number of truck trips and miles associated with disposal of New York City's waste" as a primary goal.

Waste containerization, and intermodal barge and rail transport of the containerized solid waste, are key components of the New SWMP's strategy to decrease reliance on truck transport and improve the overall efficiency of the City's waste management system. Additionally, the plan provides mechanisms to expand and improve the City's recycling program in an effort to promote the beneficial reuse of recyclable materials and decrease the quantity of materials requiring landfill disposal.

The New SWMP investigated several emerging technologies in order to evaluate their potential contributions to New York City's program.

As part of its solid waste management planning and ongoing effort to reduce the quantity of waste exported from the City, in 2004 the DSNY completed the *Phase 1 Evaluation of New and*

***Emerging Solid Waste Management Technologies*** (NYC Economic Development Corporation and NYC Department of Sanitation, 2004). The Phase 1 Study involved three steps of analysis.

In Step 1 technologies were identified that met the City’s definition of “new and emerging”, and which had a sponsor who provided sufficient information to allow an evaluation of the technology. Of the 43 technologies reviewed, 33 met the Step 1 screening criteria and were subsequently evaluated in Step 2 of the process. These 33 technologies included 21 thermal (gasification) technologies, 7 anaerobic digestion technologies, 1 aerobic digestion technology, 3 hydrolysis technologies, 1 chemical and 1 mechanical processing technology.

In Step 2 a number of second-level screening criteria were developed to perform a preliminary review of the 33 technologies. These second-level screening criteria included the following:

- Readiness to be operational within a ten-year timeframe
- The facility must be able to accept and process at least 50,000 tons per year (137 tons per day), which is the minimal capacity required to provide meaningful benefit to New York City’s waste management system
- Reliability, as evidenced by successful commercial or pilot facilities
- Environmental performance of the technology must meet or exceed New York State permit and regulatory requirements
- Beneficial use of waste must be demonstrated through a technology’s production of a useful and marketable product
- Residual waste requiring landfill disposal must not exceed 35% by weight of incoming waste.

Of the 33 technologies subjected to the second-level screening criteria, 19 did not meet these criteria and were removed from further consideration in the evaluation process. One technology did not meet the residual waste criterion, and 18 did not meet the reliability criterion.

Following Step 2, the 14 remaining technologies are shown below in Table 2.

**Table 2**  
**Technologies Remaining after Step 2 Screening**

| <i>Anaerobic Digestion</i>                                                                                       | <i>Thermal Processing</i>                                                                                                                                                        | <i>Hydrolysis</i> |
|------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------|
| Arrow Ecology & Engineering<br>Canada Composting<br>Orgaworld<br>Organic Waste Systems<br>Waste Recovery Systems | Dynecology<br>EBARA<br>GEM America<br>Global Energy Solutions<br>Interstate Waste Technologies<br>Pan American Resources<br>Rigel Resource Recovery<br>Taylor Recycling Facility | Masada Oxynol     |

In Step 3, a final set of specific criteria were applied to the 14 technologies that had met first- and second-level screening criteria. Whereas Steps 1 and 2 sought to exclude technologies unsuited to meet the City’s needs, Step 3 offered a more detailed evaluation of each of the 14 technologies and provided general findings relative to the emerging technologies by category, without eliminating any individual technologies from consideration. The Step 3 criteria included:

- Readiness and reliability
- Facility size and design flexibility
- Utilization of the existing city solid waste collection system
- Utility needs
- Extent of beneficial use of waste
- Marketability of products
- Quantity and quality of residuals requiring landfill disposal
- Environmental impacts
- Facility siting
- Public acceptability
- Estimated cost
- Opportunities for economic growth
- Experience and resources of project sponsor
- Willingness to develop publicly or privately owned facility
- Risk profile

Following the application of these Step 3 criteria, the Phase 1 Study concluded that anaerobic digestion and thermal processing (gasification) technologies are suitable to be considered for use in the U.S., including New York City. These technologies have been successfully implemented outside of the U.S. Hydrolysis technology is also offered as a potential alternative, and the

report noted that a recently permitted hydrolysis facility in Middletown, NY could be monitored to verify its efficacy. If New York City seriously considers investing in a thermal processing, anaerobic digestion, or hydrolysis technology, the Phase 1 Study suggests that the City may wish to implement a pilot project in order to mitigate the risk of its investment.

The Phase 1 Study noted that, relative to manufacturers of conventional waste-to-energy (WTE) technologies, the overall experience of manufacturers of the emerging technologies is not as extensive. However, the thermal technologies (gasification) and anaerobic digestion offer certain advantages over conventional WTE technologies. Emissions of pollutants would potentially be lower for these emerging technologies, particularly the emissions of dioxins and heavy metals. Additionally, the volume of residuals would potentially be lower with the emerging technologies than with conventional WTE technologies. Based on the information available for review, the cost to operate innovative technologies is potentially comparable to conventional technologies. The Phase 1 Study recommended a focused, detailed review to supplement and verify information provided for the Phase 1 Study, to help determine if a demonstration facility would warrant consideration for New York City’s solid waste system.

As a follow-up to the recommendations of the Phase 1 Study, DSNY prepared the *Phase 2 Focused Verification and Validation of Advanced Solid Waste Management Conversion Technologies* (2006). This Phase 2 study represents a more detailed evaluation of the 14 technologies identified through the Phase 1 Evaluation, which are believed to be among the most advanced in their respective categories.

Questionnaires were distributed to the sponsors of these 14 technologies, and preliminary interviews were conducted with sponsors to determine whether sufficient information could be made available for the City to consider a technology in the Phase 2 Study. Based on the information available for the study, 2 anaerobic digestion technologies and 4 thermal processing technologies were selected for detailed review in the full Phase 2 analysis, as shown in Table 3.

**Table 3**  
**Phase 2 Solid Waste Conversion Technologies**

| <i>Anaerobic Digestion</i>                            | <i>Thermal Processing</i>                                                        |
|-------------------------------------------------------|----------------------------------------------------------------------------------|
| Arrow Ecology & Engineering<br>Waste Recovery Systems | EBARA<br>GEM America<br>Interstate Waste Technologies<br>Rigel Resource Recovery |



The detailed Phase 2 process consisted of the following:

- The *Technical Review and Evaluation* process sought to validate process schematics and major system components, confirm mass and energy balances, review site layout and arrangement, and review operating data and related information for reference facilities.
- *Environmental Review and Evaluation* consisted of independent calculations and review of environmental performance, including air pollutant emissions, water usage, wastewater discharge, residue requiring landfill disposal, and quality of products.
- An *Economic Evaluation* was performed to project the order-of-magnitude costs that could be expected from the technologies for commercial-scale projects.

## Findings and Conclusions

The Phase 2 Study built upon information gained during the Phase 1 process, and evaluated a number of specific technologies at an advanced level of detail. Important findings of the analytical process include the following:

- *Technical Findings* confirm that anaerobic digestion and thermal processing technologies could potentially be applied successfully in New York City. Independent reviews were performed relative to mass and energy balances, energy-generating efficiency of the technologies, recovery rates of recyclable materials, quantities of residue requiring landfill disposal, and siting requirements of each technology. The evaluation verified information obtained during the Phase 1 study and provided by manufacturers.
- *Environmental Findings* show that anaerobic digestion and thermal processing technologies could potentially offer better environmental performance than conventional waste-to-energy technologies. Environmental benefits include the decreased emission of air pollutants, increased beneficial use of waste, and reduced reliance on landfill disposal.
- *Economic Findings* for the Phase 2 Study indicate that on a commercial scale, anaerobic digestion and thermal processing technologies are less costly or comparable in cost to New York City's current exporting practices.

**The study found that – among the emerging technologies evaluated – Anaerobic Digestion and Thermal Processing technologies were best suited for commercial implementation in the New York City waste management system.**

New York City's Phase 2 Study suggests that issues related to the transfer of design and operational experience from existing overseas facilities to the U.S. may present difficulties as new technologies transition to commercial operations in the U.S. Preparation of an Implementation Plan is recommended as a next step in the implementation of a demonstration facility. The Implementation Plan would lay the groundwork necessary to provide design, construction, performance, and cost information that would be used to develop a commercial-scale facility.

Since completion of the Phase 2 Study, New York City's implementation efforts for the New SWMP have focused on establishing an improved network of marine transfer stations to export solid waste from the city. The City has not yet prepared an Implementation Plan for the introduction of emerging solid waste technologies and/or facilities, and has not initiated a development process for any such facility. DSNY representatives identify difficulty in siting such a facility locally as an obstacle in the implementation of emerging solid waste technologies (as well as conventional solid waste processing facilities).

## 4.2 City of Los Angeles

According to the 2005 *RENEW LA* report, the Los Angeles basin, which is comprised of Los Angeles, Orange and western San Bernardino and Riverside counties, disposes of approximately 70,000 TPD of MSW. Several landfills have recently closed, and the Puente Hills Landfill – which has the highest daily capacity of any landfill in the U.S. – is planned for closure by the year 2013. The Puente Hills closure could displace as much as 13,200 tons per day of MSW disposal capacity, and other disposal options will be required to serve the region's needs (Smith, 2005).

The California Integrated Waste Management Act of 1989 (AB 939) mandated a 50% diversion from landfill disposal by the year 2000 as well as the creation of various plans, programs, and facilities that cities and counties throughout California should adopt in order to achieve these goals (Smith, 2005). In 1994, the City Council of Los Angeles declared the goal of 70% diversion of MSW from landfills by the year 2010. The *RENEW LA* plan provides a vision to move beyond that 70% goal to a zero waste system. To do so, the City prepared a study entitled *Evaluation of Alternative Solid Waste Processing Technologies* to review alternative MSW processing technologies that process post-source separated MSW.

The highest-level objective of the evaluation is to:

Identify alternative MSW processing technologies that will increase landfill diversion in an environmentally sound manner, while emphasizing options that are energy efficient, socially acceptable, and economical. (URS, 2005)

This objective is subdivided into three lower-level objectives:

- Maximize Environmental (Siting) Feasibility (i.e., minimize impacts to the environment and citizens);
- Maximize Technical Feasibility (i.e., search for technologies that are commercially available within the development timeframe of 2005-2010 and will significantly increase diversion from landfills); and
- Maximize Economic Feasibility (i.e., provide an overall cost that is competitive with other solid waste processing methods).

Various screening criteria were applied in order to identify potential technologies that could meet the project objectives. The first set of screening criteria helped determine the initial list of technologies to be reviewed and included:

- Meet 200 tons/day capacity (throughput) requirement;
- Consider technologies at the commercial or late-emerging stage;
- Include technologies that produce marketable byproducts; and
- Include technologies that are compatible with post-source separated MSW.

Based on these criteria, sixteen technologies were identified and are broken down into three categories as outlined in Table 4 below.

**Table 4-Technologies Evaluated for Renew LA by Category**

| <i>Thermal Technologies</i>     | <i>Biological/Chemical Technologies</i> | <i>Physical Technologies</i> |
|---------------------------------|-----------------------------------------|------------------------------|
| Advanced Thermal Recycling      | Anaerobic Digestion                     | Refuse-Derived Fuel (RDF)    |
| Pyrolysis                       | Aerobic Digestion/Composting            | Densification/Pelletization  |
| Pyrolysis/Gasification          | Ethanol Fermentation                    |                              |
| Pyrolysis/Steam Reforming       | Syngas-to-Ethanol                       |                              |
| Conventional Gasification-Fluid | Biodiesel                               |                              |
| Conventional Gasification-Fixed | Thermal Depolymerization                |                              |
| Plasma Arc Gasification         | Catalytic Cracking                      |                              |

Next, the technologies were reviewed to determine if they meet the following criteria:

- *Waste Treatability* - ability of the alternative MSW processing technology to efficiently treat the organic portion of the waste stream;
- *Conversion Performance* - ability of the conversion technology to convert the organic portion of the post-source separated MSW stream into useful products;
- *Throughput Requirement* - ability of the alternative processing technology to treat at least 200 tons/day of post-source separated MSW in 2008-2010;
- *Commercial Status* - conversion technology that can be developed on a commercial scale within the project development period (2008-2010); and
- *Technology Capability* - Can support the development of conversion technology at commercial scale and can demonstrate the conversion technology with MSW at a scale of at least 25 tons/day.

The ten technologies listed in Table 5 met these criteria.

**Table 5 - Technologies Advancing for Further Consideration in Renew LA**

| <i>Thermal Technologies</i>     | <i>Biological/Chemical Technologies</i> |
|---------------------------------|-----------------------------------------|
| Advanced Thermal Recycling      | Anaerobic Digestion                     |
| Pyrolysis                       | Aerobic Digestion/Composting            |
| Pyrolysis/Gasification          | Thermal Depolymerization                |
| Pyrolysis/Steam Reforming       |                                         |
| Conventional Gasification-Fluid |                                         |
| Conventional Gasification-Fixed |                                         |
| Plasma Arc Gasification         |                                         |

Next, a life cycle study was conducted using supplier data to develop a comparative analysis of the remaining ten technologies. The life cycle study focused on the issues that demonstrate the greatest differentiation between advanced thermal recycling or conversion technologies and existing traditional solid waste management processes, including: energy consumption, criteria pollutants, and carbon emissions. When compared to landfilling of post-source separated MSW, the results of the life cycle analysis showed that three of the waste processing technologies (advanced thermal recycling, gasification, and anaerobic digestion) will provide substantial savings/reductions with respect to energy consumption, air emissions of criteria pollution, and carbon emissions/climate change issues.

Suppliers were then surveyed to create a “short list” from the ten technologies. About 225 suppliers were screened, and only twenty-six met the criteria to submit their detailed qualifications to the City. Of the twenty-six suppliers requested to submit qualifications, seventeen provided responses. The seventeen suppliers and their technologies were thoroughly evaluated in order to create a short list. Table 6 below identifies the seventeen suppliers.

**Table 6 - List of Seventeen Suppliers that Submitted Qualifications for Renew LA**

| <i>Technology Group</i> | <i>Company Name</i>           | <i>Technology</i>               |
|-------------------------|-------------------------------|---------------------------------|
| Thermal                 | Ebara                         | Fluid Bed Gasification          |
| Thermal                 | Interstate Waste Technologies | Pyrolysis/Gasification          |
| Thermal                 | Omnifuel                      | Fluid Bed Gasification          |
| Thermal                 | Primenergy                    | Fixed Bed Gasification          |
| Thermal                 | Taylor Recycling              | Circulating Fluid Bed Pyrolysis |
| Thermal                 | WasteGen                      | Pyrolysis                       |
| Thermal                 | Whitten                       | Fixed Bed Gasification          |
| Thermal                 | Pan American Resources        | Pyrolysis                       |
| Thermal                 | Covanta                       | Thermal Recycling               |
| Thermal                 | Waste Recovery Seattle Inc.   | Thermal Recycling               |
| Thermal                 | Seghers Keppel                | Thermal Recycling               |
| Biological              | Arrow Ecology                 | Anaerobic digestion             |
| Biological              | Canada Composting             | Anaerobic digestion             |
| Biological              | Global Renewables             | Anaerobic digestion             |
| Biological              | Organic Waste Systems         | Anaerobic digestion             |
| Biological              | Wright Environmental          | Aerobic Composting (Biodryer)   |
| Biological              | Waste Recovery Systems Inc.   | Anaerobic Digestion             |

The supplier data were used to conduct a comparative analysis of technologies and rank suppliers for further assessment. The comparative analysis addressed a number of technical, environmental, and cost issues, including:

- Throughput (respondents provided data for different throughput rates);
- Electricity production;
- Net efficiency in kWh/ton feedstock;
- Diversion rate/solid wastes;
- Air emissions;
- Regulatory issues;
- Capital cost;
- Revenues; and
- Estimated tipping fees.

Once the comparisons were complete, each technology was ranked using the criteria below.

- *Ability to Market Byproducts* - Experience selling byproducts with strong markets is desired;
- *Visual Impact of Facility* - Facilities with higher stacks or structures will exhibit greater visual impacts;
- *Operational Experience* - The number of operating plants is an indication of overall experience;
- *Economics* - Worst Case Breakeven Tipping Fee;
- *Supplier Credibility* - Suppliers must have organizations (including partners) with sufficient technical and financial resources;
- *Landfill Diversion* - Percent by weight of inlet MSW sent to landfill (includes rejects and unmarketable materials – worst case);
- *Engineering the Complete System* - Demonstrated ability to design the complete facility; and
- *Permitability* - This is a function of expected environmental impacts, and the potential for a difficult regulatory process or pathway.

The ranking process concluded that thermal technologies (thermal conversion - and advanced thermal recycling) would best satisfy the project's highest level objective, i.e. to maximize landfill diversion. The following conclusions were made regarding the two technologies:

- An alternative MSW processing facility can be successfully developed in the City of Los Angeles.
- The technologies best suited for processing post-source separated MSW on a commercial level are the thermal technologies. These include advanced thermal recycling and thermal conversion (pyrolysis and gasification).
- The biological/chemical conversion technologies and physical technologies present significant technical challenges for treatment of the post-source separated MSW. While biological conversion technologies show the most promise in this group, they also bring significant challenges.

In summary, the advantages of the thermal technologies over biological conversion are:

- Higher landfill diversion rates, which is a primary objective of the project;
- Lower production of solid byproducts and correspondingly greater production of electricity, a higher value product with a more well-developed market;
- Less risk with regard to byproduct marketability;
- Significantly higher thermal efficiencies and, therefore, higher revenue/ton because thermal processes convert essentially all organics to energy; and
- More operational experience at higher throughputs.

The Evaluation recommended that the City should proceed with the following activities to continue development of an alternative MSW processing facility for post-source separated MSW utilizing a thermal technology:

- Initiate public outreach;
- Develop short list of suppliers;
- Conduct an initial siting study;
- Prepare RFP and Select preferred suppliers;
- Conduct Facility Permitting and Conceptual Design; and
- Perform Detailed Design and Construction.

As a result of the recommendations, the City issued an RFP in February 2007 for both commercial and emerging technology facilities to process post-source separated municipal solid waste (City of Los Angeles, 2008). Twelve proposals were received on August 22, 2007 from the companies listed in Table 7.

**Table 7 - Companies that Responded to City of LA RFP**

| #  | Company Name                             |
|----|------------------------------------------|
| 1  | Zia Metallurgical Processes, Inc.        |
| 2  | Interstate Waste Technologies (IWT)      |
| 3  | Covanta Energy Corp.                     |
| 4  | Wheelabrator Technologies Inc.           |
| 5  | WRSI / DESC                              |
| 6  | Plasco Energy Group                      |
| 7  | Community Recycling                      |
| 8  | Carbon Sequestration                     |
| 9  | CA Renewable Technologies LLC            |
| 10 | Urbaser & Keppel Seghers                 |
| 11 | CA Renewable Technologies LLC (emerging) |
| 12 | Rainbow Disposal                         |

As of November 2009, the City of Los Angeles had identified a preferred emerging technology provider, CA Renewable Technologies LLC (CART), and the parties have commenced contract negotiations. California Renewable Technologies has proposed a 150 tpd sorting and biological processing system that utilizes dry mechanical pre-sorting and a water bath sorting system; following these sorting processes, the remaining organic materials are ground up and processed through two-stage anaerobic digestion. CART has proposed to site the facility outside of the City of Los Angeles boundaries. Contract negotiations with CART will provide an opportunity to define the costs and terms of an agreement before the potential development of a facility moves forward.

In addition to the CART emerging technology facility, the City of Los Angeles will also enter into contract negotiations to develop a commercial-scale, conventional solid waste processing facility. This facility will process approximately 1,000 tpd of MSW. As of November 2009, the City was in the final stages of selecting a preferred candidate from among a short list including two conventional waste-to-energy proposals and two “hybrid” proposals combining mechanical/biological/thermal processes. Contract negotiations for this commercial-scale project are expected to begin early in 2010.

### **4.3 Delaware Solid Waste Authority**

The Solid Waste Management Technical Working Group was established by the Secretary of Delaware’s Department of Natural Resources and Environmental Control (DNREC), and was commissioned to:

...perform a feasibility review of available municipal solid waste management alternatives and recommend a municipal solid waste management program or programs capable of being implemented that would best serve Delaware’s long-term and short-term municipal solid waste management needs (Working Group 2005).

The State of Delaware has experienced population growth at a rate higher than the national average, concurrent with a per-capita waste generation rate that is likely increasing faster than the national average. Delaware’s recycling rate stands well below the national average.

These trends in waste generation, combined with a limited capacity for solid waste disposal, present imminent capacity issues for solid waste management throughout Delaware, and particularly for Northern Delaware. The disposal of sludge from the Wilmington Waste Water



Treatment Plant and the disposal of waste tires present additional solid waste management issues. The Working Group’s 2005 *Solid Waste Management Alternatives for Delaware* was prepared to help address these issues.

In the Working Group’s judgment, the primary challenge related to Delaware’s solid waste management is to preserve the valuable, low-cost landfill capacity it currently has. The Plan offers a two-pronged approach to meet this primary objective. First, it emphasizes the need for Delaware to adopt an aggressive and effective recycling or materials recovery to divert materials from its landfills. Second, the Plan evaluates a number of new processing technologies with potential to reduce the volume of waste requiring landfill disposal and convert waste materials into useable products, and recommends a course of action to pursue their implementation in Delaware.

The Working Group considered a full range of solid waste technologies, most of which were considered new or emerging. The study included 7 thermal, biological, or mechanical processing technologies, as shown in Table 8 below.

**Table 8 - Technologies evaluated by the Delaware Working Group.**

| <i>Thermal Processing</i>                                      | <i>Biological Processing</i>                                      | <i>Mechanical Processing</i>         |
|----------------------------------------------------------------|-------------------------------------------------------------------|--------------------------------------|
| Waste-to-Energy (WTE)<br>Gasification<br>Plasma Arc Conversion | Aerobic Composting<br>Anaerobic Digestion<br>Bioreactor Landfills | Autoclave with Mechanical Processing |

A set of 7 technical criteria was selected to evaluate the solid waste management technologies being considered for potential implementation in the State of Delaware. These criteria are as follows:

- **Readiness and Reliability** – Addresses the question of how confident the state can be that if a full-size facility were built, it would operate effectively. The number and length of tenure of successfully operating commercial facilities were used to rate the readiness of technologies, and an assessment of reliability was based upon a technology’s susceptibility to process interruptions in commercial operations.
- **Inputs and Pre-Processing** - Focused on what inputs the system would process, and how those inputs had to be pre-processed in order for them to be converted (or disposed of) effectively by the technological process. Each technology was rated according to the types of

wastes it had demonstrated the ability to process, and according to the method and degree of pre-processing required.

- **Potential Public Health and Nuisance, Environmental, and Worker Safety Risks** – Emissions of criteria and other air pollutants, the composition and safety of residual materials left over from processing, resource consumption required for operations, and worker safety were among the items considered for this criterion.
- **Energy Balance** – The percentage of total energy inputs (including the energy value of the waste stream) represented by total usable energy outputs was used as a measure of energy balance.
- **Materials Balance** - The percentage of the waste stream that is converted into useful products and, therefore, does not have to be disposed of in a landfill, was used as a measure of materials balance.
- **Economics** – Costs and revenues were projected for each technology to evaluate its economic feasibility.
- **Legal and Policy Issues** - For any technology ultimately constructed in Delaware, local, state and federal laws and regulations would impose significant restrictions. Local zoning ordinances would impact site selection and approval; state and federal laws impose a variety of permitting obligations and restrictions. Additionally, community acceptance is key to the implementation of waste management technologies. The characteristics and requirements of each technology were considered in the context of legal compliance and community acceptance.

For each of the 7 technologies, the Working Group assigned a summary rating value to each of the 7 evaluation criteria. These ratings subjectively integrate all factors considered in the evaluation.

Table 9 summarizes the average ratings assigned to each technology for each of the 7 criteria, as well as for conventional landfills. Ratings have been rounded to the nearest whole number. Please note these ratings are not on a mathematical scale. For instance, a rating of 8, although significantly better, is not necessarily twice as good as a rating of 4. Nor can the ratings be added together to provide a summary score. However, the ratings *do* allow comparisons to be made among technologies for each criterion.

Table 9 – Delaware Working Group Criteria Rankings

|                                      | Readiness and Reliability | Inputs and Pre-Processing | Public Health, Environment, Worker Safety | Energy Balance | Materials Balance | Economics | Legal and Policy Issues |
|--------------------------------------|---------------------------|---------------------------|-------------------------------------------|----------------|-------------------|-----------|-------------------------|
| Waste to Energy                      | 8                         | 8                         | 7                                         | 10             | 8                 | 7         | 2                       |
| Gasification                         | 5                         | 8                         | 8                                         | 8              | 10                | 5         | 6                       |
| Plasma Arc Conversion                | 5                         | 8                         | 7                                         | 8              | 10                | 4         | 6                       |
| Aerobic Composting                   | 7                         | 4                         | 6                                         | 2              | 6                 | 8         | 8                       |
| Anaerobic Digestion                  | 8                         | 5                         | 8                                         | 5              | 8                 | 8         | 8                       |
| Bioreactor                           | 8                         | 9                         | 8                                         | 5              | 4                 | 9         | 6                       |
| Autoclave with Mechanical Processing | 6                         | 4                         | 5                                         | NA             | 8                 | 1         | 8                       |
| Landfill                             | 9                         | 9                         | 7                                         | 3              | 2                 | 10        | 6                       |

Of the 7 technologies evaluated, one, the bioreactor landfill, is an approach that is already in use at 2 Delaware facilities. This process accelerates the decomposition of waste in the landfills thereby increasing their effective capacity, while generating increased amounts of methane, which is a valuable energy source. The Working Group recommends that the Delaware Solid Waste Authority continue to pursue and enhance this approach, and supports its efforts to convert the landfill gas to electricity.

Two technologies – Autoclave with Mechanical Processing and Aerobic Composting – were not rated highly because the market for their products in Delaware is very uncertain. Products from both processes could be used to enhance soil quality, but, without substantial pre-processing, they would most likely contain too much contamination to allow other than very restricted use. The products from either could be also used as a feedstock for a combustion or conversion process that results in the generation of electricity, but the Working Group was unconvinced that this would be more economical or generate fewer risks than using the waste materials themselves for these purposes.

Two of the thermal processes – Gasification and Plasma Arc Conversion – were also rated relatively low. Both of these technologies would substantially reduce the amount of waste requiring landfill disposal (by over 90%) and would both be used to produce a synfuel product that can be used to generate electricity. However, no commercial sized facilities employing either technology have been built in the United States (and no commercial sized facilities using the plasma arc process with an MSW feedstock anywhere in the world), which led the Working Group to conclude that their readiness and reliability has not been adequately demonstrated.

Anaerobic Digestion and Waste-to-Energy were rated highest of the 7 technologies. Both significantly reduce the amount of waste requiring landfill disposal, and both produce a useful product.

Compared to a Waste-to-Energy facility, the Anaerobic Digestion process has the following advantages:

- It does not generate hazardous air emissions which subsequently have to be captured by pollution control equipment,
- Because it does not generate hazardous pollutants, it is likely to be less controversial, and the construction of a facility would not require that current Delaware statutes be amended or repealed,
- Its product has alternative uses, and
- It can also handle sewage sludge in the feed stream.

The waste-to-energy process, on the other hand, has the following advantages over the anaerobic digestion process:

- Its effectiveness in processing solid wastes and reliably generating electricity has been clearly demonstrated in the United States in facilities processing 1,000 tons per day or more,
- It has among the most positive energy balances,
- It requires comparatively little acreage to process 1,000 tons per day, and
- It can process whole tires in limited quantities.

The Working Group expressed its reservations regarding the Waste-to-Energy technology's potential to generate dioxin and furan byproducts, and suggests that its support of this technology is contingent upon the results of a National Academy of Sciences assessment of the toxicology of these compounds. With this caveat, the Working Group recommends that Delaware focus its decision making process on the Anaerobic Digestion and Waste-to-Energy technologies.

## 5.0 CONCLUSIONS

Of the emerging technologies, only the MBT facilities have been successfully developed for the management of MSW at multiple locations in industrialized countries in Europe or in Canada. These include both MBT facilities utilizing an anaerobic treatment process, such as that used by RFI respondent ECODECO, as well as MBT facilities that utilize a process of anaerobic digestion.

Several of the RFI respondents and other these companies with gasification technologies have reportedly developed demonstration facilities in the U.S. or Canada. However, only one of these demonstration facilities routinely operates with MSW feedstock at a daily volume on the same order of magnitude as is needed to service the needs of the Planning Unit. Several of the companies are in the process of developing commercial scale facilities in the U.S. or are in the advanced stages of a procurement process to develop a commercial facility on behalf of a municipality or other local or regional solid waste agency in the United States.

All of the emerging technologies have potentially negative attributes, when compared to conventional technologies for solid waste management. These include:

- Lack of well-established performance history creates risk in several categories as noted below. These negative attributes are not necessarily applicable to MBT technologies that have established performance histories in Europe.
  - True cost of construction and operation are not yet known. As a result these costs may be initially underestimated, and if so, the resulting financial distress of higher than expected costs may cause the project to fail.
  - Environmental performance and impacts of full scale operations may not be fully examined. This may result in extended review time to secure facility permits, delaying project implementation and increasing the cost of the project. Further, compared to conventional technologies, the risk of unexpected environmental contamination is greater.
- Marketability of recovered materials, bio-fuels, and byproducts presents a financial risk to the projects. This risk occurs as a result of uncertainty with the technical efficacy of the process (at full commercial scale) as well as because of potential fluctuations in market prices for the commodities being recovered and produced. This is especially true with respect to the anticipated use of byproducts, such as the vitreous slag produced by the plasma gasification technology, or the residues from other gasification technologies. Since widespread markets for these materials may not currently exist, stable long-term

markets may need to be developed. If these efforts are not successful, and the material is not marketable, it will need to be disposed of, and this unanticipated cost will result in a negative financial impact on the project and its sponsors.

These potentially negative attributes can be overcome by a company with sufficient financial resources to assure successful completion and operation of facilities utilizing one of these emerging technologies.

In addition, most of the emerging technologies have potentially positive attributes which make them attractive for further consideration. These potentially positive attributes include:

- Significantly less residue for disposal than conventional waste-to-energy technology;
- Lower emissions and higher level of material recovery than conventional waste-to-energy technology;
- Lower capital and operating costs than conventional waste-to-energy technology;

Because several of these technologies are still emerging, these potentially positive attributes remain to be proven through commercial operations at a scale similar to what would be required to service the Planning Unit. While MBT technologies for MSW have been developed in many European countries, they are relatively expensive, and their use in Europe is prompted by national policies which limit the amount of organic material that can be landfilled. The lack of such policy in the United States could put these technologies at an economic disadvantage.

Nevertheless, all of these emerging technologies will warrant continued attention during the course of the review process for the SWMP, as it is possible that more of these technologies will establish widespread full-scale commercial operations, either in the United States or elsewhere, by the time the new SWMP is formally adopted and approved and it is time to commence procurement of new facilities.

## 6.0 REFERENCES

Brickner, Robert. “*Current and Near-term Technologies for Converting Wood Waste to Bioenergy*” . Presented at Conference on Bioenergy in New Jersey New Brunswick, NJ. October 2007.

Binder, James J. and Steven Torres. “*Evaluating Innovative Technology for Municipal Waste Management*”. Presented to Northeast Waste Management Officials’ Association. November 27, 2007

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Delaware Solid Waste Management Technical Working Group. “*Solid Waste Management Alternatives for Delaware.*” May 15, 2006.

Friends of the Earth. *Briefing on Mechanical and Biological Treatment*. London, UK. September 2008.

New York City Economic Development Corporation and New York City Department of Sanitation. *Evaluation of New and Emerging Solid Waste Management Technologies.* September 16, 2004.

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## APPENDICES

Appendix A – Request for Information

Appendix B – RFI Response Summaries





# **APPENDIX A**

## **REQUEST FOR INFORMATION**



**The City of Albany, NY  
Capital Region Solid Waste Management Plan  
Evaluation of Municipal Solid Waste Technologies**

**REQUEST FOR INFORMATION**

***I. INTRODUCTION***

The City of Albany, New York is preparing a New Long-Term Solid Waste Management Plan (SWMP) for the Capital Region Solid Waste Management Partnership Planning Unit (the Planning Unit). This new SWMP will define the key elements of the future solid waste management program for the Planning Unit, for the period through the year 2030.

The Capital Region Partnership Planning Unit operates as an informal consortium of 13 municipalities with a jurisdiction of approximately 450 square miles in the Albany, New York region. Planning Unit participants currently include 3 cities, 7 towns, and 3 villages located in Albany and Rensselaer Counties. The City of Albany acts as the lead participant. The total population of Planning Unit communities is approximately 220,000 persons.

The City of Albany presently operates the Rapp Road landfill facility, which accepts waste from the Planning Unit communities and other local sources. During the year 2007, the Rapp Road landfill accepted approximately 253,300 tons of waste for disposal. The vast majority of this waste (97%) is characterized as Municipal Solid Waste (MSW). The Rapp Road landfill accepts some waste from communities located outside of the Planning Unit, and some waste from the Planning Unit is disposed of at other facilities. Net waste disposal from the Planning Unit in 2007 is estimated at approximately 238,100 tons. Another 118,500 tons of waste material were reported recycled in the Planning Unit in 2007, yielding an overall diversion rate of 33%.

The City of Albany and the member municipalities operate mandatory source separation and recycling programs for a variety of mixed paper streams, for commingled bottles, cans and plastic containers (Nos. 1&2), and yard waste, among other materials. The implementation of the most recent SWMP Modification will result in the expansion of local recycling programs across all sectors (residential, commercial, institutional and industrial) beyond these current levels. If the 47% reduction and recycling goal contained in the most recent SWMP Modification is achieved, estimated net disposal requirements in the year 2011 will be reduced to 227,000 tons per year.

For purposes of this RFI, this should be considered the baseline waste quantity. No detailed data are currently available on the quality of the post-recyclable waste that is delivered for disposal, so for purposes of this RFI, responders should assume that MSW quality is as per recent estimates available from the United States Environmental Protection Agency.

Assuming the approval of a pending expansion application, the Rapp Road Landfill will near its full capacity during the year 2016. As part of the New SWMP process, the City of Albany is



identifying and evaluating solid waste management technologies that could potentially reduce the amount of solid waste requiring landfill disposal. The evaluation will consider both established and emerging technologies for possible inclusion in the region's long-term solid waste program.

This Request for Information (RFI) is being distributed to solicit preliminary statements of interest and background information from parties wishing to participate in the evaluation process. Interested parties are invited to provide basic information regarding their sponsored technologies, including measures of actual or anticipated performance in each of the following categories of criteria:

- Experience of Project Sponsors
- Facility Sizing
- Costs of Ownership and Operation
- Environmental Impacts
- Readiness and Reliability
- Beneficial Reuse of MSW Byproducts
- Residues Requiring Landfill Disposal

Section II of the RFI specifies the information requested for this evaluation.

Responses to the RFI will be compiled, and the suitability of technologies for further consideration will be evaluated within the context of the Planning Unit's future needs and priorities. The current solicitation marks a preliminary measure in the ongoing process of SWMP preparation. Should the Planning Unit decide to pursue a more detailed evaluation of solid waste technologies, parties identified as potentially suited to contribute to the Planning Unit's future solid waste management program may be invited to participate in further discourse. Advanced levels of evaluation may include the solicitation of detailed technical documentation and verifiable statements of qualification from technology sponsors, to be evaluated at a more resolute level of detail for possible implementation.

Actual implementation of a facility and/or technology, if any, by or on behalf of the City or the Planning Unit, would be conducted under a formal procurement process, pursuant to the requirements of applicable law.

## ***II. RESPONSE REQUIREMENTS***

Potential project sponsors shall provide a statement of interest describing their desire and qualification to participate in the evaluation of solid waste management technologies for the Capital Region Solid Waste Management Partnership Planning Unit's New SWMP. Responses to this RFI must address each component of the following criteria.

### ***Experience of Project Sponsors***

Provide background information on the project sponsor, including:

- Name, address and contact information for the Company;
- Type of company and brief history;
- Management team including brief biographies of key personnel;
- Qualifications and experience with similar projects;
- Brief description of the proprietary technology owned by or licensed to the company that is proposed for consideration.

If the sponsor has experience with reference facilities similar to one that may be appropriate for the Planning Unit, please provide background information for those existing facilities which have been constructed and/or operated under the sponsorship of your party. For each reference facility, provide the following information:

- Location;
- Date of facility's commencement of operations;
- Type(s) of feedstock and average daily throughput (tpd);
- Initial capital cost in U.S. dollars, including the costs of planning, design, construction, materials and machinery;
- Current cost of operations in U.S. dollars per ton of material processed including the costs of labor, equipment and facility maintenance, residue disposal, and other costs associated with routine facility operations on an annual basis;
- Current tipping fee (in U.S. dollars per ton) for contractually committed waste deliveries from sponsoring or host municipality, if applicable;
- Quantity (tpd) and composition of residuals requiring landfill disposal.

Potential project sponsors who do not own or operate reference facilities should provide comparable information about their proposed technology, along with the specific basis of the information (i.e. operating histories, pending proposal, etc.)

### ***Facility Sizing***

Potential project sponsors should provide information related to facility sizing. Potential sponsors may propose a facility sized to accommodate all or a portion of the baseline waste quantity (227,000 tpy) . Because the New SWMP process will also involve assessing the potential expansion of the Planning Unit to include other communities in the region, potential



sponsors are asked to provide information regarding the size of a larger facility or an optimally-sized facility.

The following information should be provided regarding the anticipated characteristics of a proposed facility designed to serve the Planning Unit.

- Types of feedstock (MSW, C&D, etc);
- Unacceptable wastes;
- Annual processing capacity (tpy) and average daily throughput (tpd);
- Site acreage required to support a proposed facility;
- Alternate size for larger or optimally-sized facility (tpy and tpd);
- Minimum feasible facility size (tpy and tpd).

### ***Costs of Ownership and Operation***

Recognizing that these are planning level estimates, potential project sponsors should provide anticipated cost information regarding a facility designed and constructed to serve the Planning Unit.

- Initial capital cost in U.S. dollars, including the costs of planning, design, construction, materials and machinery;
- If applicable, alternative capital cost estimates for optimally-sized and minimum sized facilities;
- Estimated cost of operations in U.S. dollars per ton of material processed; including the costs of labor, equipment and facility maintenance, residue disposal, and other costs associated with routine facility operations on an annual basis;
- If applicable, the net value of any energy or material recovery resulting from the process, in U.S. dollars per ton of material processed.

### ***Environmental Impacts***

Please characterize, and quantify to the degree possible, the anticipated environmental impacts of a facility designed to serve the Planning Unit.

- *Air Emissions- provide a summary description of process air emissions and controls, including:*
  - Anticipated greenhouse gas emissions (tpy of CO<sub>2</sub> equivalent) resulting from MSW processing and/or associated energy generation
  - Anticipated emissions of Criteria Pollutants (tpy)
  - Air pollution control equipment and odor control
- *Water – provide a summary description of process water use and wastewater discharges, including:*
  - Process water consumption (gpd)
  - Wastewater discharge (gpd)
  - Wastewater pre-treatment requirements

- *Utility Requirements – provide a summary description of the utility consumption necessary to sustain facility operations, including:*
  - Anticipated gross and net electrical consumption (kWh per ton of MSW)
  - Natural gas requirements
  - Other types of fuel and anticipated consumption (in units per ton of MSW)

***Readiness and Reliability***

- Please describe the status of your sponsored technology in terms of its maturity and readiness for commercial implementation, as well as its suitability for permitting in the State of New York;
- Describe how construction and operational performance guarantees would be provided;
- Describe the timeframes necessary for each of the following:
  - Facility Design
  - Facility “permitting”
  - Facility construction
  - Start-up and Acceptance Testing
  - Total time from Facility Design through Acceptance Testing

***Beneficial Reuse of MSW Byproducts***

- If applicable, quantify the gross and net generation of energy (in kWh or other appropriate measure per ton of waste processed) anticipated from the processing of waste at a facility designed to serve the Planning Unit.
- Describe the composition and quantify the production of marketable solid or gaseous byproducts generated as outputs of a facility designed to serve the Planning Unit. Responses should be expressed in units per ton of waste processed.

***Residue Requiring Landfill Disposal***

Briefly describe any solid residue from the process which might require landfill disposal, including:

- The anticipated percentage (by weight of incoming waste processed) of solid residue requiring land disposal;
- Anticipated hazardous waste characterization as per TCLP or other applicable procedure;
- Potential beneficial uses of solid residue.

### **III. SUBMITTAL OF RESPONSES**

#### ***Due Date***

One copy of each submittal should be received by CHA, III Winners Circle, Albany NY ***no later than 4:30 p.m. Eastern Time on Friday, March 27, 2009.*** Responses may be submitted via standard or overnight mail, or by hand in accordance with the time and date noted. Responses should be addressed to:

Ms. Suzanne Christopher  
CHA  
III Winners Circle  
Albany, NY 12205-0269

Questions or comments should be submitted in written format to Ms. Suzanne Christopher at [schristopher@chacompanies.com](mailto:schristopher@chacompanies.com).





# **APPENDIX B**

## **RFI RESPONSE SUMMARIES**



**Company Name: Bigold Fuels Corporation****Technology Category: Front-End Sterilization, Gasification**

BioGold Fuels Corporation is a Nevada corporation based in New York City, and was formed as a result of a merger with Full Circle Industries, Inc. in April 2007, and became a publicly traded company in October 2007.

The BioGold process takes place entirely within its building. MSW is unloaded from trucks and conveyed to a sterilizer where it is sterilized, reduced in size, and mechanically sorted to remove recyclable metals and other inorganic material from the organic fraction of the waste. The sterilized organic and energy-containing materials are then fed into a thermo-chemical gasifier, where they are transformed at high temperature into compounds that produce a syngas composed mostly of hydrogen and carbon monoxide. Remaining solid residue can be vitrified into a glass-like solid that can be used for various construction applications.

Syngas can be used to generate electricity using commercial electricity-generating equipment, or converted to a biofuel using a standard gas-to-liquid catalytic process. BioGold would build infrastructure to generate both electricity and transportation biofuels, and would shift production according to the relative market value of these commodities.

*Biogold responses to the evaluation criteria include the following:*

**Experience of Project Sponsor:**

*Experience with similar projects:*

BioGold has “successfully implemented the front-end processing aspect of its technology using MSW to create a marketable recycled long-fiber product sold for liner-board manufacture”. To date, the company has not constructed or operated a MSW processing facility.

**Facility Sizing**

*Types of feedstock:* MSW; can also accommodate certain specialty waste streams such as dewatered sewage sludge and other organic waste streams.

*Unacceptable wastes:* Information not provided.

*Proposed processing capacity to serve Planning Unit:* BioGold would propose a facility to accommodate 290,000 tpy with an expected average throughput of 880 tpd. The facility would operate 24 hours/day, 7 days/week and waste acceptance would be tailored to local needs.

*Site requirements:* Approximately 20 acres.

*Alternate size for larger or optimally-sized facility:* A larger facility could be designed if market analysis indicates a need. Additional sterilizing units could be deployed at satellite locations, with the sterilized processed waste being delivered to the main facility.

*Minimum feasible facility size:* 300 tpd (100,000 tpy).

**Costs of Ownership and Operation**

*Initial capital cost:* Approximately \$230 million or \$261,364/tpd of installed capacity.

*Operating cost:* \$83.55/ton; includes costs of labor, equipment and facility maintenance, residue disposal, and other routine annual costs. Excludes debt service.

*Tipping fee:* Information not provided.

*Electric revenues:* Based on the information provided by BioGold, CHA calculates estimated electrical revenues of \$24.50/ton at a price of \$0.07/kWh.

**Environmental Impacts**

*Greenhouse gas emissions:* Information not provided.

*Criteria pollutant emissions:* Information not provided.

*Air pollution control equipment and odor control:* The sterilization process eliminates odors, and all processing is contained within a negative-pressure building. Gasification process emissions are entirely captured in the syngas, which is processed to neutralize any remaining pollutants. Air emissions from the catalytic production of biofuels are captured and processed through the gasifier, where they are broken down and rendered inert. Air emissions from electric generation are less than those from other similarly sized generation facilities; standard controls and exhaust treatment are applied.

*Process water consumption:* Volume of water consumption not provided. The sterilization process yields water as 10-15% of the feedstock by weight is purged as excess water. This purged water is treated and reintroduced as a reagent. Net result is “small” water usage.

*Wastewater discharge:* Volume of wastewater discharge is not provided. Purged water is treated and recycled in the process.

*Electrical consumption:* 612 MWh/day generated; 334 MWh/day consumed; net generation of 278 MWh/day or 350 kWh/ton. Alternatively, 47,790 gpd of ethanol produced.

*Natural gas requirements:* 500,000,000 scf/annum or 1,724 scf/ton.

### **Readiness and Reliability**

*Maturity and suitability for permitting:* The facility would combine commercially proven technologies that are ready for implementation on the scale required for the Planning Unit. Anticipated to meet all NYS permitting and approval requirements.

*Construction and performance guarantees:* To be provided under a standard engineering/procurement/construction (EPC) arrangement. Process efficacy insurance will likely be required by financial backers. BioGold will incorporate storage technology and space for prepared materials, for use in the event of short-term outages of the gasification units. The company would enter into arrangements for alternate use, sale or disposal of the prepared sterilized material in the event of an extended outage of the gasification units, and for alternate disposal of MSW in the event of an extended outage of the sterilizer units.

*Timeframes:*

*Facility design:* 6 months

*Facility “permitting”:* 1 year

*Facility construction:* 7 months

*Start-up and acceptance testing:* 2 months

*Total timeframe:* 2 ½ years.

### **Beneficial Reuse of MSW Byproducts**

*Energy generation:* Syngas can be used to produce a net 278 MW/day of electricity or up to 86 gallons of second generation ethanol per dry ton of sterilized processed waste. Based on the information provided by BioGold, CHA calculates a net electrical output of 350 kWh/ton of waste processed.

*Solid or gaseous byproducts:* Recyclable materials recovered by the separation process would be sold to market. Remaining solid residue material is stabilized through a vitrification process and can be used as an aggregate material.

### **Residue Requiring Landfill Disposal**

*Percent residue requiring landfill disposal:* Maximum 7% to 15% of the MSW waste stream.

*Anticipated hazardous waste characterization:* Residual material is inert. No characterization or testing information provided.

**Company Name: Carbon Diversion, Inc.**  
**Technology Category: Pyrolysis/Gasification**

Carbon Diversion Inc. is a Hawaiian corporation that was formed in 2004. CDI creates small-scale systems that can process MSW to generate electricity and bio-char products. The company identifies a pilot plant and two commercial facilities, located in Hawaii and Tennessee. CDI will break ground on the first of three planned manufacturing facilities in April 2009, which will allow the company to produce and deliver its systems.

Incoming waste, including tires, animal waste and green waste, is pre-processed (briquetted) and fed into the processors. A pressurized partial pyrolysis gasification process is used to produce a liquid fuel and syngas, which are used to generate electricity. Bio-char can be used for water filtration or as a soil amendment. Units can be remote-started by local power providers, and can be used for emergency power generation if provided access to natural gas utilities.

*CDI responses to the evaluation criteria include the following:*

**Experience of Project Sponsor:**

*Experience with similar projects:* CDI has built a pilot plant at Campbell Industrial Park in Hawaii. The plant consists of three 1-ton processors, and the main product is a petroleum product in the kerosene range.

A second system is located in Dunlop, Tennessee as part of a sustainable community development, and consists of two 3.5 ton/hr. units. The Dunlop facility is designed to operate 10 hours/day and generate 2 MW of electricity. Bio-char byproducts are bagged and sold under the Eterna Green trade name as a soil amendment.

Work has begun on a third site in Hawaii; four additional sites have been identified at transfer stations in Hawaii, pending final bond passage with a start date in July 2009.

**Facility Sizing**

*Types of feedstock:* Various waste streams.

*Unacceptable wastes:* Information not provided.

*Proposed processing capacity to serve Planning Unit:* Dual 3.5 ton/hour processing system capable of processing 50 tons of waste per 8-hour day.

*Site acreage required:* As little as 0.5 acre, designed to be co-located at an existing transfer station.

*Alternate size for larger or optimally-sized facility:* Information not provided, but submittal notes that plants are scalable by adding modular units.

*Minimum feasible facility size:* Information not provided.

**Costs of Ownership and Operation**

*Initial capital cost:* \$6.25 million or \$125,000/tpd installed capacity calculated using information provided by CDI.

*Operating cost:* \$240/ton.

*Tipping fee:* \$65/ton.

*Electric revenues:* Approximately \$160/day (2 MWh x \$0.08/kWh). Bio-char revenue is estimated at \$350/ton of incoming waste.

**Environmental Impacts**

*Greenhouse gas emissions:* CDI describes its system as a “carbon negative system”.

*Criteria pollutant emissions:* “...complies with all relevant EPA and local emission standards”. Emissions data not provided.

*Air pollution control equipment and odor control:* Emissions from electrical generation are passed through catalysis; a carbon filter is used in both the exhaust gas and secondary exhaust systems.

*Process water consumption:* The process recycles 80% of all water used. Typical consumption is less than 500-1,000 gallons/day with onsite water conditioning/recycling system.

*Wastewater discharge:* Information not provided.

*Electrical consumption:* Little energy required to run the process; 2 MW electricity generated.

*Natural gas requirements:* Natural gas can be used to operate facility for emergency power generation.

### **Readiness and Reliability**

*Maturity and suitability for permitting:* CDI's new manufacturing facilities will allow it to produce a two-processor system every six weeks. The company will offer maintenance, training and support for the system.

*Construction and performance guarantees:* Information not provided.

*Timeframes:* Information not provided.

### **Beneficial Reuse of MSW Byproducts**

*Energy generation:* 2 MWh/day or 40 kWh/ton as calculated by CHA..

*Solid or gaseous byproducts:* Bio-char can be marketed as a soil amendment to enhance crop yields, a steel additive or for water filtration.

### **Residue Requiring Landfill Disposal**

*Percent residue requiring landfill disposal:* No landfill disposal.

*Anticipated hazardous waste characterization:* NA.

**Company Name: Casella Waste Systems, Inc.**  
**Technology Category: Single-Stream Recycling, WTE**

Casella Waste Systems, Inc. is a vertically integrated resource management company that operates primarily in the northeastern U.S., and was founded in 1975. The company operates a number of collection divisions, transfer stations, disposal facilities, recycling facilities, and landfill gas to energy facilities. FCR, Inc. is a wholly owned subsidiary of Casella that designs, builds and operates recycling facilities throughout the U.S.

Casella proposes a four-phased waste management approach for the Planning Unit.

*Phase I* includes:

- Introduction of a single-stream recycling system, coupled with commodity marketing.
- Piping landfill gas that is currently flared at the Rapp Road Landfill to the SUNY-Albany campus as a direct-use application.<sup>1</sup>

*Phase II* includes:

- Establishment of a multi-material processing system platform, located at Rapp Road Landfill, to recover additional recyclables and develop engineered feedstocks for subsequent conversion processes.<sup>2</sup>

*Phase III* includes:

- Manufacturing engineered feedstocks from non-recoverable waste streams for co-firing and direct hydrocarbon fuel substitution for boilers, kilns, and similar energy uses.

*Phase IV* includes:

- Establishment of a waste-to-energy facility operating by means of pyrolysis and gasification to process MSW. Syngas products would be used to produce electricity, liquid fuels or chemicals.

*Casella responses to the evaluation criteria include the following:*

**Experience of Project Sponsor:**

*Experience with similar projects:* Casella is a well-established waste management company with experience in constructing and operating solid waste disposal and other facilities throughout the northeastern U.S. The company operates 32 collection divisions, 31 transfer stations, 11 disposal facilities, 37 recycling facilities, and 5 landfill gas to energy facilities. Casella operates recycling facilities located in 10 states.

Casella's Camden, NJ, Philadelphia, PA and Ontario, NY MRFs have each been constructed since 2005, and serve as reference facilities for recycling. The Ontario County, NY direct-use landfill gas pipeline project powers the only office complex in the U.S. fueled directly by landfill gas. The company's Charlestown, MA facility serves as a multi-material processing platform reference project. Casella has a WTE commercial demonstration unit currently in acceptance testing, which would serve as a reference facility upon completion; other reference facilities are operated by Eco Technology, a project partner.

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<sup>1</sup> Note: This element may not be feasible because the City of Albany has committed its landfill gas to another user.

<sup>2</sup> Note: This location may not be feasible because the City of Albany has committed the Rapp Road site for Pine Bush habitat preservation.

## **Facility Sizing**

### *Types of feedstock:*

Phase I: Acceptable recyclables include various papers, cardboard, and metal, glass and plastic (MGP) containers. The Direct-use landfill gas pipeline would utilize landfill gases from the Rapp Road Landfill that are currently flared.

Phase II: All dry recoverable materials from the waste stream.

Phase III: Non-recyclable MSW.

Phase IV: Engineered Phase III output.

### *Site Requirements:*

#### *Unacceptable wastes:*

Phase III: Wet recoverable organics and non-convertible material.

Phase IV: Wet organics and non-convertible material.

*Proposed processing capacity to serve Planning Unit:* Casella would propose facilities to accommodate the Planning Unit's 227,000 tpy baseline waste quantity:

- Phase I MRF capacity up to 120,000 tpy (460 tpd assuming 260-day operating year).
- Phase II Multi-material processing platform capacity 150,000-200,000 tpy (575-750 tpd assuming 260-day operating year).
- Phase III Feedstock engineering capacity 35,000-50,000 tpy (135 tpd assuming 260-day operating year) or more.
- Phase IV WTE capacity 100,000 tpy (385 tpd assuming 260-day operating year).

*Alternate size for larger or optimally-sized facility:* Information not provided.

*Minimum feasible facility size:* Phase III Feedstock engineering minimum capacity 35,000-50,000 tpy.

## **Costs of Ownership and Operation**

### *Initial capital cost:*

- Phase I MRF equipment capital costs \$8 million; operating costs \$45-75/ton.
- Phase I landfill gas pipeline estimated capital costs \$2 million; operating costs \$400,000/year (\$1/MMBtu).
- Phase II multi-material processing platform equipment capital costs \$12 million assuming use of existing building located at Rapp Road Landfill; operating costs \$45/ton.
- Phase III feedstock engineering equipment capital costs \$2 million; operating costs \$25/ton.
- Phase IV WTE equipment capital costs \$24 million; operating costs \$75/ton.
- CHA calculates the total capital cost at

### *Operating cost:*

- Phase I MRF operating costs \$45-75/ton.
- Phase I landfill gas pipeline operating costs \$400,000/year (\$1/MMBtu).
- Phase II multi-material processing platform operating costs \$45/ton.
- Phase III feedstock engineering operating costs \$25/ton.
- Phase IV WTE operating costs \$75/ton

*Tipping fee:* Information not provided. Anticipated net profit sharing revenues of \$15/ton to the Planning Unit.

*Electric revenues:* Anticipated \$2 million/year in additional revenue share to the Planning Unit.

## **Environmental Impacts**

### *Greenhouse gas emissions:*

- Phase I MRF greenhouse gas emissions reduced by 170,840 tons/year CO<sub>2</sub> equivalent.
- Phase I landfill gas pipeline greenhouse gas emissions reduced by 215,220 tons/year CO<sub>2</sub> equivalent.
- Phase II greenhouse gas emissions reduced by 83,317 tons/year CO<sub>2</sub> equivalent.



- Phase III feedstock engineering avoided greenhouse gas emissions 129,540 tons/year CO<sub>2</sub> equivalent.
- Phase IV WTE avoided greenhouse gas emissions 198,171 tons/year CO<sub>2</sub> equivalent.

*Criteria pollutant emissions:*

- Phase III feedstock engineering, “below coal or traditional fuel”.
- Phase IV WTE, no SO<sub>x</sub> and trace NO<sub>x</sub>.

*Air pollution control equipment and odor control:*

- Phase II multi-material processing platform, none.
- Phase III feedstock engineering, information not provided.
- Phase IV WTE, syngas scrubbing towers.

*Process water consumption:* Required for scrubbing towers; volume of consumption not provided.

*Wastewater discharge:* Yes for scrubbing towers; wastewater volume not provided.

*Electrical consumption:* Information not provided.

*Natural gas requirements:* Information not provided. Phase I direct-use landfill gas pipeline would displace 375,000 MMBtu of natural gas consumption at SUNY-Albany annually.

## **Readiness and Reliability**

*Maturity and suitability for permitting:*

Facilities and technologies are proven with commercial reference facilities in the U.S. Casella has permitting experience in the northeastern U.S., including New York State.

*Construction and performance guarantees:* Casella would finance and operate the proposed facilities.

*Timeframes:*

If the process were initiated in 2009, Phases I-IV would be completed by 2016.

## **Beneficial Reuse of MSW Byproducts.**

*Energy generation:*

Phase I landfill gas pipeline to provide 375,000 MMBtu energy to SUNY-Albany; Casella indicates that Phase IV WTE would generate 98,000,000 MWh/year, but this value likely overstates the electrical generation.

*Solid or gaseous byproducts:* Recyclables recovered by Phase I and Phase II facilities will be sold to market, and fuel pellets will be produced by the Phase III feedstock engineering facility.

## **Residue Requiring Landfill Disposal**

*Percent residue requiring landfill disposal:* An estimated 20% of incoming MSW would require landfill disposal upon completion of Phases I-IV.

*Anticipated hazardous waste characterization:* Information not provided.



**Company Name: Covanta Energy Corporation**

**Technology Category: WTE**

Covanta is the largest independent owner and operator of WTE facilities in North America, and operates a network of waste management facilities in the vicinity of the Capital District.

Covanta proposes to accept solid waste from the Planning Unit at its nearby WTE facilities in order to relieve the pressure to address the closure of the Rapp Road Landfill by 2016. Available transfer capacity at Covanta's B3 Transfer Station in Columbia County would allow the transfer and delivery of waste to WTE facilities that may include the nearby Covanta facilities in Pittsfield, MA and Springfield, MA. As an option, the Planning Unit could deliver waste to Covanta for processing at its WTE facilities and take the inert process ash back to the Rapp Road Landfill at a volume reduced by 90%.

*Covanta responses to the evaluation criteria include the following:*

**Experience of Project Sponsor:**

Covanta is recognized as a leader in the WTE industry. The company provides integrated WTE design, engineering, construction and operation and maintenance services. Covanta operates more than 20 WTE facilities in the Northeast, including 5 in New York State and several others in Massachusetts and Connecticut.

*Experience with similar projects:* Noting that Covanta does not propose to build a WTE facility in the Capital Region, the company has provided a list of more than 35 WTE facilities that it owns and operates in the U.S. Covanta operates a number of transfer stations, and is experienced in managing the logistics of solid waste transport.

**Facility Sizing**

*Types of feedstock:* MSW

*Unacceptable wastes:* Waste materials posing a threat to public health, are too large or bulky for disposal, or are present in concentrations or quantities that could negatively impact the facility's operational or environmental performance.

*Proposed processing capacity to serve Planning Unit:* Existing Covanta facilities could accept all or a portion of the Planning Unit's solid waste.

*Alternate size for larger or optimally-sized facility:* NA

*Minimum feasible facility size:* NA

**Costs of Ownership and Operation**

The Planning Unit would not incur the costs associated with introducing a new waste disposal facility in the Capital Region. The Planning Unit would pay a per-ton tipping fee to drop off waste at the B3 Transfer Station. Covanta does not provide a proposed tipping fee.

*Initial capital cost:* NA.

*Operating cost:* NA

*Tipping fee:* Information not provided.

*Electric revenues:* NA

**Environmental Impacts**

*Greenhouse gas emissions:* Information not provided.

*Criteria pollutant emissions:* Covanta provides emission data for pollutants including VOC, NO<sub>x</sub>, CO, particulates, SO<sub>2</sub>, Pb and NH<sub>3</sub> at four reference facilities.

*Air pollution control equipment and odor control:* Information not provided.

*Process water consumption:* Information not provided.

*Wastewater discharge:* 327.9 gallons/day (0.92 gallons/ton MSW) at Agawam, MA facility in 2008.

*Electrical consumption:* Net electrical generation of 380 kWh/ton based on reference facilities.

*Natural gas requirements:* 292 cuft/ton based on reference facilities.

### **Readiness and Reliability**

*Maturity and suitability for permitting:* No permitting would be necessary, and the plan utilizes existing Covanta facilities.

*Construction and performance guarantees:* NA

*Timeframes:* Covanta could begin accepting solid waste from the Planning Unit immediately.

### **Beneficial Reuse of MSW Byproducts**

*Energy generation:* NA

*Solid or gaseous byproducts:* NA

### **Residue Requiring Landfill Disposal**

*Percent residue requiring landfill disposal:* Inert ash representing approximately 10% of incoming MSW by volume or 25-30% by weight.

*Anticipated hazardous waste characterization:* No anticipated hazardous waste characterization.

**Company Name: Dongara Pellet Factory, Inc.**

**Technology Category: Mechanical Processing -Engineered Fuel Pellets**

Dongara is a Canadian company based in Woodbridge, Ontario, and uses the Dongara Process to convert MSW into an engineered pellet product with energy content similar to that of bituminous coal.

In the Dongara Process, MSW is delivered to the plant and passes through a series of processes to remove recyclable and unacceptable materials from the feedstock. Materials to be used for pellet production are shredded, fiberized and stored, and later mixed with high-BTU materials such as carpet waste and some plastic derivatives. The materials are transferred through pellet mills to produce the fuel pellets.

The fuel pellets may be used in various solid fuel systems, including solid fuel boilers or gasification processes, which in turn generate electricity and/or steam. It is possible to co-locate a fuel pellet facility with electrical generation equipment in order to produce electricity onsite.

*Dongara responses to the evaluation criteria include the following:*

**Experience of Project Sponsor:**

*Experience with similar projects:* Dongara has operated a commercial fuel pellet facility in Woodbridge, Ontario, Canada since July 2008. The company has a 20-year contract to receive 110,000 tpy of MSW from York Region, with the option to increase its capacity to 220,000 tpy. The fuel pellets are presently used in the heating systems of large commercial greenhouses in Ontario, and are also used to fuel kilns in cement plants.

**Facility Sizing**

*Types of feedstock:* MSW

*Unacceptable wastes:* Hazardous, large and inorganic materials.

*Proposed processing capacity to serve Planning Unit:* 240,000 tpy. CHA estimates daily design capacity at 750 tpd.

*Site acreage required:* 8-11 acres

*Alternate size for larger or optimally-sized facility:* A 400,000 tpy facility would allow cost-saving efficiencies and reduce tipping fees.

*Minimum feasible facility size:* 200,000 tpy

**Costs of Ownership and Operation**

Dongara would propose a build-own-operate arrangement.

*Initial capital cost:* Approximately \$80 million U.S., pre-tax for 240,000 tpy facility. Based on the assumed 750 tpd design capacity, CHA estimates an initial capital cost of \$106,700/tpd of design capacity.

*Operating cost:* \$55-\$75/ton

*Tipping fee:* Woodbridge, Ontario reference facility tipping fee is currently \$78/ton U.S.

*Electric revenues:* NA; pellets would be sold as a fuel source and/or potentially used to generate electricity, but no revenue information is provided.

**Environmental Impacts**

*Greenhouse gas emissions:* None from fuel pellet production.

*Criteria pollutant emissions:* None from fuel pellet production.

*Air pollution control equipment and odor control:* Tipping floor is located inside the facility. A negative pressure system is used to contain odor, dust and debris within the facility. Air filtration and scrubbing equipment would be used to treat exhaust from the plant.

*Process water consumption:* Water is generated in the process; approximately 3,000 gpd of wash-down water is required. CHA calculates water consumption at 4 gallons per ton of input MSW.

*Wastewater discharge:* A biological treatment system is used to ensure that effluent meets regional requirements before being discharged. 25% of the process wastewater is recycled to the wash-down system. Approximately 20-24% by weight of incoming MSW is moisture content. 50-60% of this moisture content is lost to evaporation; the remainder is combined with wash-down water to arrive at approximately 3,000 gpd wastewater discharge. CHA calculates wastewater discharge at 4 gallons per ton of input MSW.

*Electrical consumption:* Net electricity demand is expected to be 81-83 kWh/ton per day. If fuel pellet products are used in an energy production facility, the ratio of energy produced by such a facility vs. the energy used to produce the pellets would be approximately 15:1.

*Natural gas requirements:* Natural gas would be used primarily to heat the facility, with minimal natural gas used in the MSW drying process. Waste heat generated by equipment is used to offset natural gas usage.

### **Readiness and Reliability**

*Maturity and suitability for permitting:* The technology to be employed has been developed based on a review of similar European commercial facilities. The Toronto facility has been operational since July 2008; operations of this facility and U.S. waste streams have been evaluated to guide the development of future facilities. Dongara provides a patented process that depends on an arrangement of well-proven equipment that has been used in the solid waste industry for years.

*Construction and performance guarantees:* Dongara is “comfortable in saying that they believe the fuel pellets will be within a 95-96% consistency, for both energy and chemistry”. Contingency plans would be put in place for an outage that could interrupt MSW flow to the facility; Dongara would assume any such costs.

*Timeframes:*

*Facility design:* 4-5 months following site selection

*Facility “permitting”:* depends on local requirements

*Facility construction:* 13-15 months

*Start-up and acceptance testing:* 4 months following construction

*Total timeframe:* 22-24 months for proposed (240,000 tpy) facility; 26-28 months for alternate (400,000 tpy) facility

### **Beneficial Reuse of MSW Byproducts**

*Energy generation:* Fuel pellets are used as a source of energy.

*Solid or gaseous byproducts:* Stone, gravel and glass removed from MSW are issued to companies in the brick and concrete industries. Recyclable metals and plastics are recovered and sold to market.

### **Residue Requiring Landfill Disposal**

*Percent residue requiring landfill disposal:* Small fractions of glass, sand and gravel representing approximately 5-8% of incoming MSW. 17,000-19,000 tpy residue requiring landfill disposal for a 240,000 tpy facility.

*Anticipated hazardous waste characterization:* No anticipated hazardous waste characterization.

**Company Name: Ecodeco**  
**Technology Category: Biodrying Process**

Ecodeco is an international company with headquarters in Italy, and has recently established a cooperative arrangement with International Center for Commercial Affairs (ICCA) to assist in the pursuit of opportunities in the U.S. market.

The company presents the Biocubi Process, an aerobic biological treatment, to remove moisture and improve the heating efficiency of products to be used as fuel inputs for subsequent processes. Processing takes place in the company's ITS (Intelligent Transfer Station). The putrescible fraction of MSW undergoes an aerobic treatment, and the released heat is used to dry and thermally hygienise the feedstock. Separation occurs following the biodrying phase, and recyclable materials are removed from the feedstock. The biodried material is mechanically refined to produce a solid recovered fuel (SRF), which can be used to generate electricity or as a fuel source by cement kilns.

*Ecodeco responses to the evaluation criteria include the following:*

**Experience of Project Sponsor:**

*Experience with similar projects:* Ecodeco's technology has been successfully implemented in Europe for more than a decade. The ITS (Intelligent Transfer Station) technology has been assigned a "Fully Proven" rating in a survey conducted by the Juniper consulting agency, indicating that it "has been used in active plants for at least two years and that the requirements set by the customer have been met by reaching the performance levels demanded by international standards". Ecodeco identifies several facilities in Italy, Spain and England, and states that there are 17 ITS facilities in total. To date, no facilities have been constructed in the U.S.

**Facility Sizing**

*Types of feedstock:* MSW

*Unacceptable wastes:* Information not provided.

*Proposed processing capacity to serve Planning Unit:* 230,000 tpy (2 lines x 115,000 tpy each).

CHA estimates daily design capacity at 750 tpd.

*Site acreage required:* approximately 7 acres

*Alternate size for larger or optimally-sized facility:* No alternate plant size provided.

*Minimum feasible facility size:* 230,000 tpy

**Costs of Ownership and Operation**

In Italy, Ecodeco generally installs and manages its own plants, and in other European countries it designs, erects and tests plants for third parties. The company feels its best approach in the U.S. is to act as technology provider for authorities or local operators depending on local requirements.

*Initial capital cost:* Approximately \$56,700,000 U.S. Based on the assumed 750 tpd design capacity, CHA estimates an initial capital cost of \$106,700/tpd of design capacity.

*Operating cost:* Ecodeco is working to calculate operational costs for the U.S. market. Information not provided.

*Tipping fee:* 95 to 125 euros at existing European facilities (\$126-\$165 U.S.)

*Electric revenues:* NA; solid recovered fuel (SRF) product would be sold as a fuel source and/or potentially used to generate electricity, but no revenue information is provided.

**Environmental Impacts**

*Greenhouse gas emissions:* 85,500-171,000 tpy biogenic CO<sub>2</sub> process emissions; additionally, 50% of total CO<sub>2</sub> generated in SRF combustion (no value provided).

*Criteria pollutant emissions:* Information not provided.

*Air pollution control equipment and odor control:* Tipping floor is located inside the facility. A negative pressure system is used to contain odor, dust and debris within the facility. Process emissions pass through biofiltration and dedusting systems.

*Process water consumption:* 6,340-9,510 gallons/day depending on weather and local climate conditions.

*Wastewater discharge:* Approximately 3,170 gpd depending on weather and local climate conditions.

*Electrical consumption:* 30 kWh/ton for biodrying process, 55 kWh/ton for material refinement.

*Natural gas requirements:* Information not provided.

### **Readiness and Reliability**

*Maturity and suitability for permitting:* Ecodeco had constructed and operated a number of facilities in Europe, but has no experience with permitting or operations in the U.S. Substantial work would be required in adapting operations to U.S. and local standards, and Ecodeco would work with local consultants to meet all requirements.

*Construction and performance guarantees:* Ecodeco would work with a local consultant to ensure all requirements are met. The facility would be equipped with a remote control system that allows monitoring of the process and equipment, to ensure prompt response to technical issues.

*Timeframes:*

*Facility design:* 15 months

*Facility "permitting":* 12 months (in EU)

*Facility construction:* 16 months

*Start-up and acceptance testing:* 4 months

*Total timeframe:* 35 months

### **Beneficial Reuse of MSW Byproducts**

*Energy generation:* SRF product is used as a source of energy.

*Solid or gaseous byproducts:* Recyclable metals and plastics are recovered and sold to market.

### **Residue Requiring Landfill Disposal**

*Percent residue requiring landfill disposal:* 33.8% of incoming waste.

*Anticipated hazardous waste characterization:* No anticipated hazardous waste characterization.



**Company Name: Energy Answers**

**Technology Category: WTE**

Energy Answers was founded in Albany in 1981 and has operated in the Albany region for 28 years under the same ownership. Energy Answers is actively developing projects in the U.S., Caribbean and the European Union, and is in the early development stages of projects in other regions.

Energy Answers presents the Processed Refuse Fuel (PRF) technology. The Mechanical Treatment Facility is designed to accept and process incoming MSW to create a shredded, readily combustible PRF material. PRF is fed into the combustor and produces minimal ash residue. Steam generated by combustion is used to generate electricity. Bottom ash is processed in a materials recovery facility in order to recover metals and solid aggregate material.

*Energy Answers responses to the evaluation criteria include the following:*

**Experience of Project Sponsor:**

*Experience with similar projects:* Energy Answers was the conceptual designer, developer, technology provider, co-operator and General Manager of the SEMASS WTE facility in Rochester, MA from its commencement of operations in 1988 until 1996. This WTE facility utilizes the PRF system. The base plant has a 2,000 tpd capacity and a subsequent 1,000 tpd expansion was created in 1993. The SEMASS facility received several awards for environmental performance under Energy Answers management.

Energy Answers also identifies WTE reference facilities in Pittsfield, MA and Springfield, MA. The company lists experience in managing and operating transfer stations.

**Facility Sizing**

*Types of feedstock:* MSW; could also process wood waste, tires, sludge, FOG (fats, oil, grease), and auto shredder residue.

*Unacceptable wastes:* Specific materials not identified; less than 1% of incoming waste.

*Proposed processing capacity to serve Planning Unit:* Facility would have two, 500 tpd boilers for a design capacity of 365,000 tpy (1,000 tpd).

*Site acreage required:* 10 acres in an industrial zone or 15 acres for a stand-alone facility.

*Alternate size for larger or optimally-sized facility:* Depending on opportunities to import MSW, a larger facility could be accommodated.

*Minimum feasible facility size:* 500 tpd.

**Costs of Ownership and Operation**

Energy Answers proposes a private ownership model, whereby the Planning Unit would pay a fixed tip fee for MSW delivered to the facility, and Energy Answers would assume full operational and financial risk for the ultimate disposal of the waste.

*Initial capital cost:* Information not provided.

*Operating cost:* Approximately \$50/ton.

*Tipping fee:* Information not provided.

*Electric revenues:* Assuming a purchase agreement of \$0.10/KWh, electric revenue would be \$59.20/ton of incoming MSW.

**Environmental Impacts**

*Greenhouse gas emissions:* 67% of CO<sub>2</sub> emissions are biogenic, and 33% are anthropogenic.

Anthropogenic CO<sub>2</sub> emissions are offset by the avoided emissions that would be produced by fossil fuel powered electric generation, avoided methane emissions that would otherwise be generated by

landfill disposal, and by the recovery of metal materials. Using these assumptions, Energy Answers states that the WTE facility would produce electricity at a negative net CO<sub>2</sub> emission rate of -3,636 lbs. CO<sub>2</sub>/MWh. For every ton of MSW processed, approximately 1 ton of CO<sub>2</sub> equivalents would be eliminated.

*Criteria pollutant emissions:* Energy Answers has provided a table with recorded average emissions recorded at its SEMASS facility in April 2004, November 2005 and July 2006, for the following pollutants: particulates, SO<sub>2</sub>, HCL, NO<sub>x</sub>, CO, Cd, Pb, Hg and PCDD/F. The reference facility meets its permit limits and USEPA Maximum Achievable Control Technology (MACT) standards for emissions of these pollutants.

*Air pollution control equipment and odor control:* The gases generated by the combustion of MSW are passed through air quality control equipment consisting of: urea injection to remove nitrogen oxides, activated carbon injection to remove mercury, dioxins and furans, spray dryer absorbers using lime to neutralize any acids forming during the combustion process, and a fabric filter system (bag house) to capture particles in the gas.

*Process water consumption:* The WTE facility could utilize either an air-cooled condenser or a cooling tower. With an air-cooled condenser, industrial and water usage would be about 21,000 gallons/day based on a facility capacity of 1,000 tpd. Water usage for a cooling tower would be ten times greater. However, if adequate water supply is available, cooling towers are less expensive than air-cooled condensers and can operate on secondary treated effluent from a wastewater treatment facility.

*Wastewater discharge:* Aside from sanitary wastewater, there would be no discharge of water into the sewers.

*Electrical consumption:* Gross electric generation 696 kwh/ton; 104 kwh/ton internal usage; net electric generation 592 kwh/ton.

*Natural gas requirements:* No natural gas requirements.

## **Readiness and Reliability**

*Maturity and suitability for permitting:* The Energy Answers PRF technology has been used in large-scale commercial operations at the SEMASS and other WTE facilities since 1989. The technology has been upgraded over the years.

*Construction and performance guarantees:* Energy Answers can:

- design, construct, test for acceptance, own, operate and maintain the proposed facility
- comply with all contract, federal, state and local laws, regulations and policies
- comply with Good Industry Practice and Good and Accepted Construction Practice
- be responsible for obtaining local construction permits.

*Timeframes:*

*Total timeframe:* 24 months

## **Beneficial Reuse of MSW Byproducts**

*Energy generation:* Net 592 kWh/ton of MSW.

*Solid or gaseous byproducts:* Bottom ash (aggregate material) 10% by weight of waste fed; ferrous metal 4% of waste fed; nonferrous metal 0.4% of waste fed.

## **Residue Requiring Landfill Disposal**

*Percent residue requiring landfill disposal:* 10% of incoming waste.

*Anticipated hazardous waste characterization:* No anticipated hazardous waste characterization.

**Company Name: Green Conversion Systems (GCS)****Technology Category: WTE**

GCS is a European company with existing operations in Germany; GCS has created a Delaware Limited Liability Company created for the purpose of pursuing WTE opportunities in the U.S. Morgan Stanley Biomass LLC, a subsidiary of the Morgan Stanley investment banking firm, owns the majority of the equity in GCS. The company has an exclusive license with Fisia Babcock Environment GmbH (FBE) to promote its WTE technology.

The GCS process has been proven to exceed environmental standards in the EU. Existing GCS facilities do not need to pre-process MSW prior to combustion, thereby eliminating the costs and risks associated with additional pre-processing measures. In addition to generating steam/electricity, the process byproducts include processed and size-classified aggregate, ferrous and non-ferrous metals, technical grade hydrochloric acid, gypsum, and salts suitable for industrial use.

*GCS responses to the evaluation criteria include the following:*

**Experience of Project Sponsor:**

*Experience with similar projects:* GCS has provided information for two reference facilities located in Germany. The more recent facility, the 1,100 tpd (350,000 tpy) Muellverwertung Rugenberger Damm (MVR) waste treatment facility in Hamburg, Germany, has processed MSW in commercial operations since 1999. Emissions from the MVR facility surpass all EU environmental standards.

**Facility Sizing**

*Types of feedstock:* MSW

*Unacceptable wastes:* Oversized materials, C&D wastes, hazardous materials.

*Proposed processing capacity to serve Planning Unit:* 230,000 tpy (700 tpd) of MSW.

*Site acreage required:* Approximately 8 acres

*Alternate size for larger or optimally-sized facility:* For an annual capacity of more than 250 tpy, GCS would propose 2 lines with total 300,000 tpy capacity; this alternate facility would require an 11 acre site.

*Minimum feasible facility size:* Information not provided.

**Costs of Ownership and Operation**

*Initial capital cost:* Approximately \$300 million U.S. Based on the 700 tpd design capacity, CHA estimates an initial capital cost of \$429,000/tpd of design capacity.

*Operating cost:* Initial cost to operate and maintain the facility is approximately \$75/ton including labor, maintenance materials, consumables, auxiliary fuel, selling of marketable byproducts, residual disposal, utilities, repair and replacement of equipment, bonds and insurance. Cost is anticipated to decrease to approximately \$60/ton after the market for specially treated bottom ash for use as an aggregate has been established.

*Tipping fee:* Tipping fee at the existing MVR facility is approximately \$159 U.S./ton.

*Electric revenues:* The proposed 700 tpd facility would generate 16-17 MW of net electrical power with a value of \$50-60/ton of MSW.

**Environmental Impacts**

*Greenhouse gas emissions:* CO<sub>2</sub> emissions would be approximately 1 to 1.2 ton CO<sub>2</sub> per ton MSW. About 60% of the carbon contained in MSW is biogenic, and the CO<sub>2</sub> emitted to the atmosphere from this portion of the waste is CO<sub>2</sub> neutral.

*Criteria pollutant emissions:* GSC has provided a table with recorded average emissions recorded at its MVR facility from 1999-2007, for the following pollutants: NO<sub>x</sub>, CO, particulates, C<sub>total</sub>, HCL,

SO<sub>2</sub>, HF, Cd, Th, Hg, Pb and PCDD/F. Emission values exceed USEPA 40CFR60 Subpart Eb regulations for these pollutants.

*Air pollution control equipment and odor control:* Tipping floor is located inside the facility, and a negative pressure system is used to contain odor, dust and debris within the facility. NO<sub>x</sub> emissions are reduced by spraying aqueous ammonia into the combustion chamber at several levels in the furnace. An adsorbent material is added to the flue gas leaving the boiler, thereby separating any heavy metals and organic pollutants. The flue gas is routed through a 2-stage HCl-scrubber where process water is added to separate any readily soluble halogen compounds. Sulfur oxides are separated by a neutral single-stage scrubber. A second baghouse filter is applied to ensure minimal emissions of heavy metals and organic pollutants.

*Process water consumption:* Process water (50 kgal/day) does not have to be potable water; grey water from a water pollution control plant or water taken from a river or groundwater would be sufficient. Water required for the process would be filtered and stored before process use. Most process water would be evaporated in the wet scrubbers of the flue gas treatment system and released into the atmosphere as water vapor.

*Wastewater discharge:* Aside from sanitary waste (2,000 gpd), there would be no discharge of water into the sewers. Measures would be taken to minimize stormwater runoff, possibly including green roofs on some buildings.

*Electrical consumption:* Gross electric generation 680 kWh/ton; 95 kWh/ton internal usage; net electric generation 585 kWh/ton.

*Natural gas requirements:* 64,000 decatherms/year.

### **Readiness and Reliability**

*Maturity and suitability for permitting:* The mass burn technology offered by GCS is manufactured by FBE, and there are over 500 facilities worldwide that use FBE proprietary technology. Existing GCS facilities using these technologies exceed the emissions standards set by New York State, and are expected to be suitable for permitting.

*Construction and performance guarantees:* The contractual obligations under the service agreement would be first guaranteed by the construction contractor, and upon startup of the facility and acceptance, this guarantee would be replaced by a guarantee from the operator.

*Timeframes:*

*Facility design:* 12 to 15 months

*Facility "permitting":* 8 to 10 months

*Facility construction:* 24 to 26 months

*Start-up and acceptance testing:* 6 to 9 months

*Total timeframe:* 50 to 60 months

### **Beneficial Reuse of MSW Byproducts**

*Energy generation:* Net 585 kWh/ton of MSW.

*Solid or gaseous byproducts:* Bottom ash (aggregate material) 22% by weight of waste fed; ferrous metal 2.3% of waste fed; nonferrous metal 0.2% of waste fed; HCl 1.5% of waste fed; gypsum 0.3% of waste fed.

### **Residue Requiring Landfill Disposal**

*Percent residue requiring landfill disposal:* 2% of incoming waste.

*Anticipated hazardous waste characterization:* No anticipated hazardous waste characterization.

**Company Name: Nature's Fuel**

**Technology Category: Pyrolysis; Biofuel Production**

Nature's Fuel (NF) was founded in 2005 and is an Indiana Corporation; the company is owned by private equity investors. Shaw Environmental is identified as a consulting party that would be involved in the development of a NF facility for the Planning Unit. NF owns and operates one commercial facility in Atwood, Indiana, and is developing a second commercial facility in Huntington, Indiana.

The NF process uses a pyrolysis process to generate electricity, bio-oil, bio-char, and bio-gas. Bio-char residue can be used as a soil amendment or high-grade source of activated carbon. Bio-oil can be sold to blenders and used to reduce the sulfur content and viscosity of #6 heating oil.

*Nature's Fuel responses to the evaluation criteria include the following:*

**Experience of Project Sponsor:**

*Experience with similar projects:* NF operates an 86,000 tpy facility in Atwood, Indiana – this plant began as a solid fuel R&D facility and was converted into a full-production pyrolyzation operation in 2007. The Atwood facility accepts wood waste, C&D waste, and other waste streams (plastics, waste oils, etc.) to produce sulfur-free bio-oil, high quality bio-char, and will begin to generate electricity later in 2009.

NF is in the process of developing a new facility in Huntington, Indiana. The facility will have an anticipated waste throughput of 200,000 tpy in Year 1, and will increase to 400,000 tpy by Year 3. Air permit approval is anticipated in July 2009.

**Facility Sizing**

*Types of feedstock:* MSW, C&D wastes, tires, ASR, oil sludge and tank bottoms, non-hazardous industrial wastes and sludges, yard and tree waste, computer waste except for CRTs, carpeting, and white goods that do not contain freon.

*Unacceptable wastes:* Medical and hazardous wastes.

*Proposed processing capacity to serve Planning Unit:* The Albany market meets NF's throughput requirements. CHA assumes that a facility designed to serve the Planning Unit would have a capacity of 300,000 tpy (970 tpd).

*Site acreage required:* 15 acres; sites offering 25-30 acres allow space for potential expansion. Ideal sites are located near electric infrastructure such as a power substation.

*Alternate size for larger or optimally-sized facility:* A modular system allows NF to expand capacity in increments of 100,000 tpy.

*Minimum feasible facility size:* Information not provided; NF's preferred market is approximately 300,000 tpy.

**Costs of Ownership and Operation**

NF investors would assume all costs of ownership and operation. If desired, NF would give the municipality the option to purchase the plant and license it the intellectual property after 15 years.

*Initial capital cost:* Information not provided. The 400,000 tpy Huntington, Indiana facility will cost an anticipated \$38 million with no electric generation. CHA estimates an initial capital cost of \$52,713/tpd of design capacity. Power generation equipment may be added at a cost of approximately \$30 million.

*Operating cost:* Information not provided.

*Tipping fee:* Information not provided.

*Electric revenues:* Information not provided.

## **Environmental Impacts**

*Greenhouse gas emissions:* Information not provided.

*Criteria pollutant emissions:* Air permit applications for the Atwood and Huntington facilities demonstrate that the NF facilities' "PTE (potential to emit) is extremely low as measured before our environmental controls."

*Process water consumption:* The process utilizes water in a clean, closed-loop cooling mode. A retention pond may be considered as a source of cooling water, as would rain water. Other water usage would include restroom water and for cleaning of the tipping room floor.

*Wastewater discharge:* Drainage systems would capture wastewater in the building and tip room floors. Water would be treated by a triple trap and either discharged into municipal sanitary sewers or taken to a permitted facility for disposal. Wastewater discharge volume would be similar to that of a similarly sized transfer station.

*Electrical consumption:* Facility could generate its own electricity, but would prefer to purchase 1 to 3 MW from the local power utility.

*Natural gas requirements:* Natural gas would be used to start the process, and CHA estimates natural gas consumption at 100 btu-hr/ton of MSW.

## **Readiness and Reliability**

*Maturity and suitability for permitting:* Pyrolysis technology has been used for decades in Europe, but its implementation is not as widespread in the U.S. NF has met permitting requirements for its Atwood facility, and expects approval for its Huntington facility later in 2009.

*Construction and performance guarantees:* NF and its investors would assume financial risk for the proposed facility.

*Timeframes:* Information not provided.

## **Beneficial Reuse of MSW Byproducts**

*Energy generation:* The proposed facility could be used to generate electricity. The Huntington facility could potentially generate up to 40 MW of electricity from 400,000 tpy throughput.

*Solid or gaseous byproducts:* Bio-oil and bio-char are generated by the process. Quantity information is not provided.

## **Residue Requiring Landfill Disposal**

*Percent residue requiring landfill disposal:* As little as 0% landfill disposal is possible, depending on the market for products. Less than 10% is likely.

*Anticipated hazardous waste characterization:* Information not provided.

**Company Name: Norterra Organics****Technology Category: Composting**

Norterra New York is a joint venture between Norterra (a fully owned subsidiary of Scott Environmental of Kingston, Ontario, Canada) and Nextek GBL, Inc. of Macedon, NY. Norterra currently operates a compost facility near Kingston, Ontario.

Norterra proposes a composting system that features the Gore Cover System as an operating platform. The system uses a membrane laminate technology similar to that of the well-known Gore-Tex fabrics. The system shields process materials from vectors and can achieve 99% microbe reduction. Operating costs are reduced because the system allows operators to use positive pressure air. The system is considered an in-vessel technology by many regulatory authorities because the cover encapsulates all process materials.

Organic material spends six weeks under the Gore covers, followed by an additional two weeks of curing on an aerated pad. After the eight weeks of composting, the material is ready to be screened and stockpiled for further aging, and is then ready for sale.

*Norterra responses to the evaluation criteria include the following:*

**Experience of Project Sponsor:**

*Experience with similar projects:* Norterra of Canada has a commercial compost facility located in Joyceville, Ontario, Canada, just east of Kingston. This facility is owned and was developed by the Scott Environmental Group. Construction of the facility began in Summer 2008 and operations began in Fall 2008. The Joyceville facility's initial capacity is 20,000 tpy, and Norterra plans to double this initial capacity before the end of 2009. The company has not developed any facilities in the U.S.

**Facility Sizing**

*Types of feedstock:* Organic materials, including: yard waste, institutional and restaurant food waste, food processing wastes, manures, low-grade papers, greases and oils, waxed corrugated cardboard, woody or other lignocellulosic wastes.

*Unacceptable wastes:* Information not provided.

*Proposed processing capacity to serve Planning Unit:* Assuming that approximately 30% of the baseline waste quantity could be compostable, and this entire fraction can be captured, a facility for the Planning Unit would require a 75,000 tpy capacity. Norterra would develop a modular system with initial 20,000 tpy capacity which can be expanded in 10,000 tpy increments to meet demand. At the initial 20,000 tpy design capacity, CHA estimates a daily design capacity of 75 tpd.

*Site acreage required:* Minimum 6 acres for 20,000 tpy module. 20 acres required for 75,000 tpy capacity.

*Alternate size for larger or optimally-sized facility:* Modular system allows for expansion.

*Minimum feasible facility size:* 20,000 tpy initial module.

**Costs of Ownership and Operation**

*Initial capital cost:* \$3 million U.S. initial startup cost for Joyceville facility (20,000 tpy). CHA estimates an initial capital cost of \$40,000/tpd of design capacity.

*Operating cost:* Information not provided.

*Tipping fee:* \$65/ton U.S. for Joycetown facility.

*Electric revenues:* NA

**Environmental Impacts**

*Greenhouse gas emissions:* Information not provided.

*Criteria pollutant emissions:* Information not provided.

*Air pollution control equipment and odor control:* Potential odors are minimized by the Gore Cover System. The facility will include a leachate containment and recirculation system, and will be designed to withstand a 100-year flood event.

*Process water consumption:* Information not provided.

*Wastewater discharge:* Leachate collected during the composting process is recirculated.

*Electrical consumption:* Information not provided.

*Natural gas requirements:* Information not provided.

### **Readiness and Reliability**

*Maturity and suitability for permitting:* Norterra operates one commercial facility in Canada, none in the U.S. The Gore Cover System has been installed in more than 170 plants in 26 countries worldwide.

*Construction and performance guarantees:* Information not provided.

*Timeframes:* Reference facility construction began in Summer 2008 and facility operations began in Fall 2008.

### **Beneficial Reuse of MSW Byproducts**

*Energy generation:* NA

*Solid or gaseous byproducts:* Organic compost product.

### **Residue Requiring Landfill Disposal**

*Percent residue requiring landfill disposal:* "Negligible" landfill disposal.

*Anticipated hazardous waste characterization:* Information not provided.



**Company Name: Organic Waste Remediation, LLC**

**Technology Category: Recycling/Pyrolysis**

Organic Waste Remediation, LLC (OWR) is based in Orlando, FL and offers the OWR Process for disposal of MSW. The OWR Process combines single-stream recycling and pyrolysis technologies, and includes three modules.

The *Recycling Module* separates non-organic material into ferrous, aluminum, other non-ferrous metals and clear, green and amber glass, washed and delabeled with ceramics removed. Unrecycled organic material is shredded, dried and fed to the Remediation Module.

The *Remediation Module* uses a pyrolysis process to break organic materials down into a relatively consistent synfuel. Synfuel products are conveyed to the Power Module.

The *Power Module* uses generic fluid bed burner/steam generation equipment to drive a steam turbine electric generator.

*OWR responses to the evaluation criteria include the following:*

### **Experience of Project Sponsor:**

OWR is a startup company that has been established for over two years, and has patents pending for its pyrolytic breakdown process, recycling process and the use of its recycling process in combination with other disposal methods such as incineration and plasma. To date, OWR has not fully constructed or operated a MSW processing facility.

*Experience with similar projects:* OWR has commenced the approval process to construct and operate a commercial facility in Bozrah, CT. This facility will have a proposed 250 tpd (~90,000 tpy) maximum capacity, and contractual arrangements have been made to secure a 1,500 tpy supply of MSW feedstock. An electric sales agreement has been made with the local electric authority. The facility will cost an anticipated \$30 million and will be located on a 25-acre property in a Heavy Industrial district. OWR has commenced the formal approval process in the State of Connecticut, and once initiated, construction of the facility is expected to take 10-16 months with tentative commencement of operations in mid-2010.

### **Facility Sizing**

*Types of feedstock:* Curbside recyclables, MSW, yard waste

*Unacceptable wastes:* C&D

*Proposed processing capacity to serve Planning Unit:* OWR would propose a facility to accommodate the Planning Unit's 227,000 tpy baseline waste quantity plus curbside recycling. CHA estimates a daily design capacity of 900 tpd.

*Site acreage required:* Less than 12 acres.

*Alternate size for larger or optimally-sized facility:* As proposed, the facility can accommodate additional capacity up to 1,100 tpd without design adjustments.

*Minimum feasible facility size:* 250 tpd or 63,750 tpy.

### **Costs of Ownership and Operation**

OWR proposes to finance and own the operation, operate the facility, pay all bills and collect the revenues from tipping fees, electric sales and sales of recycled materials.

*Initial capital cost:* Approximately \$60 million. Based on the assumed 900 tpd design capacity, CHA estimates an initial capital cost of \$66,700/tpd of design capacity.

*Operating cost:* approximately \$19.20/ton.

*Tipping fee:* approximately \$55/ton.

*Electric revenues:* estimated \$64/input ton of MSW.

## **Environmental Impacts**

*Greenhouse gas emissions:* “similar to that of an incinerator”.

*Criteria pollutant emissions:* Anticipated reduction of mercury, heavy metals and dioxins/furan emissions.

*Air pollution control equipment and odor control:* Typical scrubbing equipment is being included in the CT facility. Ventilation system draws outside air in when doors are opened to control odors.

*Process water consumption:* 36,000 gpd for 140 tpd facility. Assuming a linear relationship between daily capacity and water consumption, CHA estimates that a 900 tpd facility would consume 230,000 gpd.

*Wastewater discharge:* Process waste water is collected and recycled; approximately 90% is reused for process water feed.

*Electrical consumption:* 197 tpd of dry organics generates 7.8 MWh electricity; 1.9 MWh consumed; net generation of 5.9 MWh. Based on this information, CHA estimates electric consumption of approximately 100 kWh/ton.

*Natural gas requirements:* None.

## **Readiness and Reliability**

*Maturity and suitability for permitting:* Anticipated to exceed all NYS requirements; approval process is currently underway for CT facility.

*Construction and performance guarantees:* OWR to finance and operate facility, so municipal bodies have no financial investment.

*Timeframes:*

*Facility design:* Less than 2 months

*Facility “permitting”:* 2 months to 2 ½ years

*Facility construction:* 18 months

*Start-up and acceptance testing:* Information not provided.

*Total timeframe:* Anticipated 2 years.

## **Beneficial Reuse of MSW Byproducts**

*Energy generation:* For 1,500 tpd, electric generation would range between 350-950 MWh/week, depending on the percentage of MSW diverted for recycling. Using the value of 350 MWh/week, CHA estimates gross electric generation of 233 kWh/ton and net electric generation of 223 kWh/ton.

*Solid or gaseous byproducts:* Recycling system will always recycle glass and metals; flexible process can adjust diversion of paper and plastic. 2% of input is inorganic solid material that can be used as aggregate material.

## **Residue Requiring Landfill Disposal**

*Percent residue requiring landfill disposal:* Response claims no landfill disposal, assuming marketability of all solid byproducts. 2% residue if inorganic slag material is landfilled.

*Anticipated hazardous waste characterization:* No anticipated hazardous waste characterization.

**Company Name: Plasco Energy Group Inc.**

**Technology Category: Plasma**

Plasco is an Ottawa, Canada based company that offers a system based on plasma arc technology. The company currently operates a commercial-scale demonstration facility in Ottawa.

Plasco's waste conversion process begins with any materials with high reclamation value being removed from the waste stream and collected for recycling. MSW is shredded and enters a conversion chamber where it is converted into a crude syngas using recycled heat; this crude syngas flows to a refinement chamber and is refined using plasma torches to create a fuel called PlascoSyngas. The PlascoSyngas is cleaned and used to generate electricity. Waste heat is recovered and used to produce steam, which can be used to generate additional electricity or for industrial purposes.

Solid residue from the conversion chamber is sent to a separate high-temperature Carbon Recovery Vessel, where plasma heat is used to stabilize the solids and convert any remaining volatile compounds and fixed carbon into syngas. Remaining solids are cooled into small slag pellets. The process also yields other products including commercial salt, agricultural sulfur and water.

*Plasco responses to the evaluation criteria include the following:*

**Experience of Project Sponsor:**

*Experience with similar projects:* Plasco has built a 110 tpd commercial-scale demonstration facility in Ottawa, Canada. This demonstration facility uses MSW from the city as feedstock, and has been in operation since January 2008. Discussions for commercial facilities are in progress in Canada, the U.S, Europe and Asia.

**Facility Sizing**

*Types of feedstock:* MSW

*Unacceptable wastes:* Information not provided.

*Proposed processing capacity to serve Planning Unit:* 440 tpd (160,000 tpy) facility consisting of four 110 tpd lines.

*Site acreage required:* 8 acres.

*Alternate size for larger or optimally-sized facility:* Additional 110 tpd modules could be added to the facility.

*Minimum feasible facility size:* Information not provided.

**Costs of Ownership and Operation**

Plasco uses a build, own and operate model. The company would assume all financial responsibility and risk with regard to the construction, commissioning, and ongoing operation of the facility.

*Initial capital cost:* Information not provided.

*Operating cost:* Information not provided.

*Tipping fee:* Information not provided.

*Electric revenues:* Information not provided.

**Environmental Impacts**

*Greenhouse gas emissions:* Emissions of 0.6 tons CO<sub>2</sub> equivalent per ton of MSW.

*Criteria pollutant emissions:* Plasco provides an emissions profile for the production of electricity, including the following pollutants: particulate matter, organic matter (CH<sub>4</sub>), HCl, SO<sub>2</sub>, NO<sub>x</sub>, Hg, Cd, Pb, dioxins and furans. The company provides guaranteed "Plasco Regulated Limit" and more stringent "Plasco Target" emission values for these pollutants, and the company is committed to achieving these limits.

*Air pollution control equipment and odor control:* Information not provided.

*Process water consumption:* Information not provided.

*Wastewater discharge:* Information not provided.

*Electrical consumption:* Gross electric generation 27 MW; internal usage 6 MW; net electric generation 21 MW. CHA calculates this internal usage as 300 kWh/ton of MSW.

*Natural gas requirements:* Information not provided.

### **Readiness and Reliability**

*Maturity and suitability for permitting:* To date, Plasco does not operate any commercial facilities. Its commercial-scale demonstration facility in Ottawa has been operating since January 2008.

*Construction and performance guarantees:* Plasco would assume all financial risk for the development and operation of the facility. As a performance guarantee, Plasco offers the following: If a facility does not meet its "Plasco Regulated Limit" for emissions, the company will remove the plant at no cost and return the land to its original state, and end the supply agreement without penalty.

*Timeframes:* Plasco would develop an operational facility within 18 months of acquiring permits.

### **Beneficial Reuse of MSW Byproducts**

*Energy generation:* Net 1.1 MWh/ton.

*Solid or gaseous byproducts:* Materials recovered from 1 ton of waste include the following: 330 lbs. slag; 10-20 lbs. salt, 10 lbs. sulfur, 80 gallons potable quality water, 15-35 lbs. recyclable metals.

### **Residue Requiring Landfill Disposal**

*Percent residue requiring landfill disposal:* The response claims that less than 1% of incoming waste (3 lbs./ton) would require landfill disposal. This residual waste consists of the segregated heavy metals caught by filter media. If slag is landfilled, then 17% residue.

*Anticipated hazardous waste characterization:* Information not provided.

**Company Name: Powers Energy of America**  
**Technology Category: Gasification, Biofuel Production**

Powers Energy is a national firm headquartered in Evansville, Indiana, and presents a process to produce biofuels and electricity from MSW. Two Powers Energy operating companies are established: Powers Energy One of Indiana has been established to develop an MSW facility in Lake County, Indiana, and Powers Energy Two of Kentucky, LLK has been established to develop a facility in northwestern Kentucky. INEOS Bio and Kellogg Brown and Root (KBR) provide technical, design and construction support for Powers Energy facilities.

MSW feedstock would be delivered, handled and contained within the indoor facility. Carbon-based MSW/feedstock materials are mixed, crushed or shredded and fed into a gasification plant for bioethanol production. Feedstock materials are converted to a syngas product in the gasifiers by heating the materials in to different stages to temperatures in excess of 2,000 degrees Fahrenheit. Heat recovered from the gasifier is used to generate steam and electricity. Syngas leaving the gasifier is refined, cooled and passed through the biological fermenter, where 70-90% of the gas will be converted to bioethanol through microbial activity. Off-gas from the fermenter is routed for use in steam generation. Bioethanol products are go through a refining process and market for use as a fuel. Ash from the gasifier is sent to a landfill for disposal.

*Powers Energy responses to the evaluation criteria include the following:*

**Experience of Project Sponsor:**

*Experience with similar projects:*

Powers Energy is involved in a project in Lake County, Indiana that involves, to date, the financing, site evaluation and engineering of a gasification/biofuel production facility with a minimum capacity of 2,000 tpd. The facility is anticipated to generate 36 million gallons of bioethanol fuel, 42,600 tons of recyclable metals and 20 MW of power on annual basis, and may continue to expand in response to future market demand. Powers Energy is also pursuing agreements for development of a facility in northwestern Kentucky, and has begun design and permitting for this facility.

**Facility Sizing**

*Types of feedstock:* MSW, food waste, paper, textiles, wood, yard waste, plastics, leather, rubber, oil-derived materials, agricultural residues, tires, coal, organic sludge.

*Unacceptable wastes:* Hazardous materials, C&D debris.

*Proposed processing capacity to serve Planning Unit:* Modular gasification units are designed to process 150 tpd of feedstock. Accounting for the recovery of recyclable materials and moisture content, this equates to approximately 450 tpd per two gasifiers. Powers energy would install four gasifiers (~900 tpd capacity) to process waste for the Planning Unit.

*Site requirements:* 60 acres to accommodate facility and space for potential future expansion. 100-150 acres for a site with rail service.

*Alternate size for larger or optimally-sized facility:* A larger facility could be designed if needed; the company realizes little gain beyond 2,000 tpd.

*Minimum feasible facility size:* 4 gasifiers/200,000 tpy, such as needed for the Planning Unit.

**Costs of Ownership and Operation**

*Initial capital cost:* Approximately \$100 million.

*Operating cost:* \$72.23/ton; includes costs of facility maintenance, labor, landfill and recyclables hauling, and landfill disposal. Additional expenses including insurance, depreciation, interest, technology licensing, municipal and county host fees, management fee, administration, contractual and contingency costs represent a total \$71.02.

*Tipping fee:* Information not provided.

*Electric and other revenues:* Ethanol sales would be approximately 13 million gallons at 211,000 tpy. Total projected revenue from all sources (recovered materials, ethanol biofuels, electric sales) is estimated at \$189/gross ton of feedstock.

### **Environmental Impacts**

*Greenhouse gas emissions:* Greenhouse gas emissions of 0.54 tons CO<sub>2</sub> equivalent per ton of MSW.

*Criteria pollutant emissions:* Air and water emissions data are provided for a Powers Energy pilot facility. Information is provided for airborne emissions of particulate matter, CO, NO<sub>x</sub>, SO<sub>2</sub>, VOC, Pb, Hg, Cd, HCl, PCB and CDD/CDF. Emissions would meet all EPA and state requirements.

*Air pollution control equipment and odor control:* Odors and emissions from MSW off-loading will be contained within the waste handling facility. The handling floor will be designed to capture any leakage from incoming feedstock. A dry gas cleaning system injects lime and activated carbon into syngas products to capture HCl and any volatile metals. Bag filtering is used to capture solid particulates. The biological fermenter provides additional scrubbing, and off-gas passes through further cleaning measures to remove any remaining contaminants.

*Process water consumption:* Fresh water consumption is approximately 1.5 gallons per gallon of ethanol produced. Approximately 13 million gpy of water would be required to process 211,000 tons MSW. This equates to about 62 gallons per ton of MSW processed. Process water is reused.

*Wastewater discharge:* Wastewater is treated onsite and reused. Volume of discharge not provided.

*Electrical consumption:* Approximately 1/3 of electricity generated will be sold; presumably, this means that 2/3 of this electricity would be used by the facility. Gross and net generation information not provided; a 2,000 tpd facility has 20 MW output. Based on this information, CHA estimates gross output of 240 kWh/ton, internal consumption of 160 kWh/ton and net generation of 80 kWh/ton.

*Natural gas requirements:* A small amount of natural gas is required for startup.

### **Readiness and Reliability**

*Maturity and suitability for permitting:* INEOS Bio is identified as a partner and has operated a pilot plant for over 5 years. The proposed facility would use equipment, materials and technology that is currently available to the chemical and petroleum industries. All technologies are proven, and Powers Energy anticipates no risks associated with a scaled-up facility relative to the pilot facility. All equipment will be field tested prior to commercial production of the facility. Overall system reliability is expected to be 95% or higher.

*Timeframes:*

Information not provided.

### **Beneficial Reuse of MSW Byproducts**

*Energy generation:* 2,000 tpd facility has 20 MW electrical output. A 211,000 tpy facility would generate 13 million gpy of bioethanol.

*Solid or gaseous byproducts:* Recovered materials, including ferrous and non-ferrous metals, would be sold on the commodities market.

### **Residue Requiring Landfill Disposal**

*Percent residue requiring landfill disposal:* Maximum 10% of the raw MSW feedstock.

*Anticipated hazardous waste characterization:* TCLP analysis from the pilot facility shows metal concentrations below EPA standards.

**Company Name: Startech Environmental Corp.****Technology Category: Plasma Technology**

Startech is a Wilton, Connecticut based public company that offers a plasma processing technology for MSW disposal. The company was founded in 1993 and was established in 1995 as a public company. Startech has built and delivered two small (5-7 tpd) units to customers in the U.S. and Japan, and operates a 5 tpd system at its Bristol location. The company has a 30,000 sf manufacturing facility where its systems are built, and is in the process of developing several facilities in overseas markets.

The Plasma Converter System utilizes plasma – an electrically charged, ionized gas – to process waste materials at extremely high temperatures. Organic components of the incoming waste are used to create a plasma-converted syngas, which in turn can be used to produce electricity, recover hydrogen, and to make industrial materials. Outputs include a Plasma Converted Gas (PCG) fuel consisting of primarily hydrogen and carbon monoxide, and a glassy black obsidianite material. PCG can be reused or recycled as a fuel or as a synthesis gas to produce electricity, recover hydrogen, or to make industrial products. The Startech technology can be used to process a variety of hazardous and non-hazardous waste materials.

*Startech responses to the evaluation criteria include the following:*

**Experience of Project Sponsor:**

*Experience with similar projects:* In 1996-1997 Startech built and delivered a 7 tpd system to the U.S. Army's Aberdeen Proving Ground in Maryland. In 2001, the company opened a facility in Bristol, Connecticut which houses a 5 tpd system used for customer training, marketing and demonstration purposes. In 2001 Startech delivered a 5 tpd system to Japan for the processing of PCBs and hazardous incinerator ash.

To date, Startech has no full-scale commercial MSW facilities in operation. The company has signed contracts for two 300 tpd MSW facilities in Europe with additional orders pending for MSW facilities in Panama (200 and 350 tpd) and Europe (100 tpd). Startech is currently manufacturing multiple systems for Puerto Rico and Poland.

**Facility Sizing**

*Types of feedstock:* The Plasma Converter can process virtually any waste materials. Following is a partial list of materials: MSW, PCBs, asbestos, municipal sludge, biomedical waste, spent pot linings from aluminum smelters, solvents and paints, contaminated soils, waste oil, filters, insect/pesticides, explosives, munitions, spent activated charcoal, hazardous incinerator ash, electronic waste, petroleum sludge, confiscated drugs, tires, C&D materials.

*Unacceptable wastes:* None listed.

*Proposed processing capacity to serve Planning Unit:* The facility would accommodate the baseline 227,000 tpd waste quantity.

*Site acreage required:* Minimum 5 acres.

*Alternate size for larger or optimally-sized facility:* Modular design allows for future expansion.

*Minimum feasible facility size:* Information not provided.

**Costs of Ownership and Operation**

*Initial capital cost:* Information not provided.

*Operating cost:* Information not provided.

*Tipping fee:* Information not provided.

*Electric revenues:* Information not provided.

## **Environmental Impacts**

*Greenhouse gas emissions:* Information not provided.

*Criteria pollutant emissions:* “The Startech system’s environmental performance is safer than the United States EPA standards and regulations.”

*Air pollution control equipment and odor control:* Information not provided.

*Process water consumption:* Information not provided.

*Wastewater discharge:* Information not provided.

*Electrical consumption:* Depending on the wastes or feedstocks being processed, the converter will produce more energy than it uses.

*Natural gas requirements:* Information not provided.

## **Readiness and Reliability**

*Maturity and suitability for permitting:* Startech does not identify any full-scale commercial MSW processing facilities operating in the U.S. or abroad.

The company indicates that “There are many Startech Plasma Converter projects both in the United States and abroad that have had their environmental impact assessments and permit applications approved by the regulating authorities for operations”.

*Construction and performance guarantees:* Because the system is electrically driven, its operation is easily controlled and therefore safe. Typically, individual chambers will be shut down for routine maintenance for one half hour of every 300 hours of operation.

*Timeframes:*

Information not provided.

## **Beneficial Reuse of MSW Byproducts**

*Energy generation:* Information not provided.

*Solid or gaseous byproducts:* Component materials of feedstock can be recovered in from one to three distinct phases: Synthesis gas, inorganic glasslike silicates, and liquid metallic elements which collect and are discharged at the base of the vessel.

## **Residue Requiring Landfill Disposal**

*Percent residue requiring landfill disposal:* Information not provided.

*Anticipated hazardous waste characterization:* The solid obsidianite product is inert and non-leachable when subjected to Toxicity Characteristic Leachate Procedures (TCLP) protocols.



**Company Name: Taylor Biomass Energy****Technology Category: Gasification**

Taylor Biomass Energy (TBE) is headquartered in Montgomery, NY and currently operates a C&D sorting and recycling process in the Town of Montgomery. TBE plans to expand this existing system and couple it with biomass gasification.

Sorted feedstock is fed into the gasification reactor, where it undergoes a rapid thermal breakdown to produce a syngas product. The syngas is conditioned and used to generate electricity. A combustion reactor is used to further process char products, and final ash products are disposed of at a landfill.

*Taylor Biomass Energy responses to the evaluation criteria include the following:*

**Experience of Project Sponsor:**

*Experience with similar projects:* TBE owns and operates a C&D sorting and recycling facility in Montgomery, NY, which opened in 1989. This facility produces approximately 300 tpd (dry basis) of a biomass mix that would be appropriate for gasification feedstock. The process also removes various non-biomass materials for recycling or disposal. 97% of the incoming material is converted into useful products.

TBE has a project underway to couple a gasification process with the existing sorting and recycling process at the Montgomery facility. Permitting is currently underway for this action; all permitting documents have been submitted to DEC for review, and action on the final Part 360 permit document was expected within 3 to 6 months of TBE's March 2009 response date.

**Facility Sizing**

*Types of feedstock:* MSW, C&D waste, wood.

*Unacceptable wastes:* Painted and pressure-treated lumber, PVC plastics, hazardous or radioactive materials including lead-based paints and solvents, tires, batteries, electronics, electrical motors/transformers/ballasts, asbestos-containing materials.

*Proposed processing capacity to serve Planning Unit:* The facility would accommodate the Planning Unit's 227,000 tpy baseline waste quantity, and CHA estimates a design capacity of 750 tpd. .

*Site acreage required:* 8-12 acres; a compact 5-6 acre layout could potentially be implemented. TBE anticipates that the proposed facility could be located at the Rapp Road Landfill.

*Alternate size for larger or optimally-sized facility:* Information not provided.

*Minimum feasible facility size:* Information not provided.

**Costs of Ownership and Operation**

*Initial capital cost:* Approximately \$100 million including engineering, equipment purchase and installation for the sorting and separating, gasification, power, electric interconnection and initial site preparation. Based on the assumed 750 tpd design capacity, CHA estimates an initial capital cost of \$133,000/tpd of design capacity.

*Operating cost:* Approximately \$15 million annually (\$137/dry ton): \$5.5 million for sorting and separation, \$4.8 million for gasification, \$4.7 million for power production. These costs include labor, maintenance and ash disposal. Based on this information, CHA calculates a total operating cost of \$66/ton.

*Tipping fee:* Information not provided.

*Electric revenues:* TBE expects to be cost-competitive with current avoided costs in the Albany region. The company would expect to execute a long-term power purchase agreement using a front-end-loaded, levelized avoided cost basis.

## **Environmental Impacts**

*Greenhouse gas emissions:* The process is CO<sub>2</sub> neutral, meaning that all CO<sub>2</sub> discharged by the system is consumed in the production of new fuel for the system. The gasification based system has an overall efficiency of 40%, which compares favorably to the efficiency of a combustion-based power system. VOC emissions are eliminated from the stack. CO<sub>2</sub> emissions would be reduced by approximately 47% relative to direct combustion, on a lb/MW basis. Approximately 2.5 tons/MW of CO<sub>2</sub> equivalent emissions are avoided by eliminating the need for biomass landfilling.

*Criteria pollutant emissions:* NO<sub>x</sub> emissions approximately 0.5 lb/MW; CO emissions approximately 0.2 lb/MW; particulate emissions less than 0.1 lb/MW; SO<sub>2</sub>, hydrocarbon emissions near zero.

*Air pollution control equipment and odor control:* Nitrogen oxides are controlled by the use of SCRs in the turbine exhaust as well as in the process combustor. CO levels are kept low by the use of oxidation catalysts in the exhaust streams.

*Process water consumption:* Use of a water-cooled condenser would require 187,000 gpd. If water supplies are restricted, this requirement could be virtually eliminated by using an air-cooled condenser.

*Wastewater discharge:* Approximately 10 gallons/minute or 14,400 gpd. Discharged water will be treated by filtration and active charcoal to remove contaminants.

*Electrical consumption:* Gross electric generation 0.85 MW/ton; internal usage 0.15 MW/ton; net electric generation 0.7 MW/ton.

*Natural gas requirements:* Natural gas is used for startup of the gasification process and gas turbine. Startup period is approximately 12 hours in duration and will occur once or twice annually during normal operations.

## **Readiness and Reliability**

*Maturity and suitability for permitting:* A number of technologies utilizing this gasifier technology are under development; these include the FICFB gasifier in Gussig, Austria, the SilvaGas facility in Burlington, Vermont, the ENSYN pyrolysis process, the Thremochem process and other processes being developed in Europe and China. TBE is awaiting permit approval for the application of a similar process in Montgomery, NY.

*Construction and performance guarantees:* Performance guarantees and any potential risks will be addressed in the same manner as in Montgomery, NY. An efficacy insurance policy will be acquired to provide sufficient resources to cover these issues.

*Timeframes:*

*Facility design:* 6 months

*Facility "permitting":* 9 to 12 months (parallel activity)

*Facility construction:* 12 to 18 months

*Start-up and acceptance testing:* 6 months

*Total timeframe:* 30 months

## **Beneficial Reuse of MSW Byproducts**

*Energy generation:* Net 0.7 MW/ton of raw MSW.

*Solid or gaseous byproducts:* Potential reuse of ash as an ingredient in concrete manufacturing or as a component of alternative daily cover at landfills.

## **Residue Requiring Landfill Disposal**

*Percent residue requiring landfill disposal:* 15-20% of incoming waste as ash requiring landfill disposal.

*Anticipated hazardous waste characterization:* Based on experimental data, process ash will be non-leachable and readily disposed of at a standard landfill.

**APPENDIX F**  
**COST ESTIMATES FOR ALTERNATIVES**



### Sensitivity Analysis Comparison

|                                                             | 20 year NPV |       | Savings from |        |
|-------------------------------------------------------------|-------------|-------|--------------|--------|
|                                                             | 2009\$      |       | Base Case    |        |
|                                                             | \$/ton      |       |              |        |
| Base Case                                                   | \$          | 51.85 | \$           | -      |
| Case 2 25% Residue                                          | \$          | 47.89 | \$           | 3.96   |
| Case 3 25% Residue and Local Disposal                       | \$          | 42.89 | \$           | 8.96   |
| Case 4 - Full Plant Capacity Utilization                    | \$          | 44.08 | \$           | 7.77   |
| Case 5 - Full Utilization w/ 25% residue and local disposal | \$          | 40.25 | \$           | 11.60  |
| Case 6 - 10% Increase in Electricity Rate                   | \$          | 47.54 | \$           | 4.31   |
| Case 7 - 10% Reduction in Waste Delivery                    | \$          | 59.49 | \$           | (7.64) |



**Capital Region SWMP  
Life Cycle Cost and Revenue  
Solid Waste Treatment Facility  
Base Case Conditions**

|                                                                  | 2009 \$ | 2015             | 2016             | 2017             | 2020             | 2025             | 2030             | 2035             | 2040             | 2044             |
|------------------------------------------------------------------|---------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|
| <b>Assumptions</b>                                               |         | 1500             | 2015\$           |                  |                  |                  |                  |                  |                  |                  |
| Facility Design Capacity (TPD)                                   |         | 1500             |                  |                  |                  |                  |                  |                  |                  |                  |
| Anticipated Throughput Guarantee                                 |         | 92%              |                  |                  |                  |                  |                  |                  |                  |                  |
| Guaranteed Annual Throughput (tons) <sup>1</sup>                 |         | 510,000          |                  |                  |                  |                  |                  |                  |                  |                  |
| Net Electricity generated per processed ton (kWh) <sup>1</sup>   |         | 635              |                  |                  |                  |                  |                  |                  |                  |                  |
| Electric Capacity price (\$/kWh)                                 |         | 0.07 \$          | 0.070 \$         | 0.084 \$         |                  |                  |                  |                  |                  |                  |
| Electric Capacity payment (\$/KwhYr)                             |         | 25.80 \$         | 25.800 \$        | 30.807 \$        |                  |                  |                  |                  |                  |                  |
| Authority Share of Energy Revenue %                              |         | 100%             |                  |                  |                  |                  |                  |                  |                  |                  |
| Percentage residue by weight <sup>1</sup>                        |         | 32%              |                  |                  |                  |                  |                  |                  |                  |                  |
| Unacceptable Waste as % by weight of GAT                         |         | 3%               |                  |                  |                  |                  |                  |                  |                  |                  |
| Operating and Maintenance Cost <sup>2</sup>                      |         | 29.77 \$         | 29.77 \$         | 35.54 \$         |                  |                  |                  |                  |                  |                  |
| Non-processible transport and disposal fee (\$/ton) <sup>3</sup> |         | 68.33 \$         | 68.33 \$         | 81.59 \$         |                  |                  |                  |                  |                  |                  |
| Residue transport and disposal fee (\$/ton) <sup>3</sup>         |         | 58.33 \$         | 58.33 \$         | 69.65 \$         |                  |                  |                  |                  |                  |                  |
| Ferrous recovery by % <sup>4</sup>                               |         | 2%               |                  |                  |                  |                  |                  |                  |                  |                  |
| Ferrous sale price (\$/ton)                                      |         | \$60             | \$60.00 \$       | 71.64 \$         |                  |                  |                  |                  |                  |                  |
| Authority Share of Ferrous Revenue %                             |         | 100%             |                  |                  |                  |                  |                  |                  |                  |                  |
| Non ferrous metal recovery by % <sup>5</sup>                     |         | 0.50%            |                  |                  |                  |                  |                  |                  |                  |                  |
| Non-Ferrous sale price (\$/ton)                                  |         | \$120.00         | \$120.00 \$      | 143.29 \$        |                  |                  |                  |                  |                  |                  |
| Authority Share of Ferrous Revenue %                             |         | 100%             |                  |                  |                  |                  |                  |                  |                  |                  |
| <b>Annual Inflation Rates</b>                                    |         |                  |                  |                  |                  |                  |                  |                  |                  |                  |
| Electricity Revenue inflation rate                               |         | 3.0%             |                  |                  |                  |                  |                  |                  |                  |                  |
| Ferrous and Non-Ferrous Revenue inflation rate                   |         | 3.0%             |                  |                  |                  |                  |                  |                  |                  |                  |
| Non-processible and residue disposal fee inflation rate          |         | 3.0%             |                  |                  |                  |                  |                  |                  |                  |                  |
| Facility operating Cost inflation rate                           |         | 3.0%             |                  |                  |                  |                  |                  |                  |                  |                  |
| Present Value Discount Rate                                      |         | 3.0%             |                  |                  |                  |                  |                  |                  |                  |                  |
| Authority Waste input (tpy)                                      |         | 510,000          | 510,000          | 510,000          | 510,000          | 510,000          | 510,000          | 510,000          | 510,000          | 510,000          |
| Waste Processed (tpy)                                            |         | 494,700          | 494,700          | 494,700          | 494,700          | 494,700          | 494,700          | 494,700          | 494,700          | 494,700          |
| Non processible or bypass waste (tpy)                            |         | 15,300           | 15,300           | 15,300           | 15,300           | 15,300           | 15,300           | 15,300           | 15,300           | 15,300           |
| Net electricity Generated (kWh)                                  |         | 314,134,500      | 314,134,500      | 314,134,500      | 314,134,500      | 314,134,500      | 314,134,500      | 314,134,500      | 314,134,500      | 314,134,500      |
| Electric Revenue to Authority (\$) <sup>6</sup>                  |         | \$ 27,361,237.50 | \$ 28,182,074.63 | \$ 29,027,536.87 | \$ 31,719,173.28 | \$ 36,771,215.24 | \$ 42,627,916.50 | \$ 49,417,438.45 | \$ 57,288,355.21 | \$ 64,478,548.50 |
| Residue Generation (tpy)                                         |         | 158,304          | 158,304          | 158,304          | 158,304          | 158,304          | 158,304          | 158,304          | 158,304          | 158,304          |
| Ferrous Metal Recovery (tpy)                                     |         | 9,894            | 9,894            | 9,894            | 9,894            | 9,894            | 9,894            | 9,894            | 9,894            | 9,894            |
| Ferrous Revenue to Authority <sup>6</sup>                        |         | \$ 708,837       | \$ 730,102       | \$ 752,005       | \$ 821,737       | \$ 952,618       | \$ 1,104,345     | \$ 1,280,239     | \$ 1,484,148     | \$ 1,670,421     |
| Non-ferrous recovery (tpy)                                       |         | 2,474            | 2,474            | 2,474            | 2,474            | 2,474            | 2,474            | 2,474            | 2,474            | 2,474            |
| Non-Ferrous Revenue to Authority <sup>6</sup>                    |         | \$ 354,419       | \$ 365,051       | \$ 376,003       | \$ 410,868       | \$ 476,309       | \$ 552,173       | \$ 640,119       | \$ 742,074       | \$ 835,211       |
| Interest on Debt Service Reserve Account                         |         | \$ 1,609,487     | \$ 1,609,487     | \$ 1,609,487     | \$ 1,609,487     | \$ 1,609,487     | \$ 1,609,487     | \$ 1,609,487     | \$ 1,609,487     | \$ 1,609,487     |
| Residue for disposal (tons)                                      |         | 158,304          | 158,304          | 158,304          | 158,304          | 158,304          | 158,304          | 158,304          | 158,304          | 158,304          |
| Total non-processible and residue for disposal (tons)            |         | 173,604          | 173,604          | 173,604          | 173,604          | 173,604          | 173,604          | 173,604          | 173,604          | 173,604          |
| Landfill Disposal Cost <sup>6</sup>                              |         | \$ 12,274,047    | \$ 12,642,269    | \$ 13,021,537    | \$ 14,228,985    | \$ 16,495,293    | \$ 19,122,566    | \$ 22,168,295    | \$ 25,699,129    | \$ 28,924,596    |
| Facility Operating and Maintenance Costs <sup>6</sup>            |         | \$ 18,127,386    | \$ 18,671,207    | \$ 19,231,343    | \$ 21,014,608    | \$ 24,361,690    | \$ 28,241,876    | \$ 32,740,075    | \$ 37,954,720    | \$ 42,718,371    |
| Debt Service                                                     |         | \$ 40,237,165    | \$ 40,237,165    | \$ 40,237,165    | \$ 40,237,165    | \$ 40,237,165    | \$ 40,237,165    | \$ 40,237,165    | \$ 40,237,165    | \$ 40,237,165    |
| <b>Total SW Treatment Facility Expenses</b>                      |         | \$ 70,638,598    | \$ 71,550,641    | \$ 72,490,045    | \$ 75,480,758    | \$ 81,094,148    | \$ 87,601,607    | \$ 95,145,534    | \$ 103,891,014   | \$ 111,860,133   |
| <b>Total SW Treatment Facility Revenues</b>                      |         | \$ 30,033,960    | \$ 30,865,715    | \$ 31,755,032    | \$ 34,561,265    | \$ 39,809,629    | \$ 45,693,921    | \$ 52,947,283    | \$ 61,124,063    | \$ 68,593,667    |
| <b>Net SW Treatment Facility Expenses</b>                        |         | \$ 40,604,618    | \$ 40,684,926    | \$ 40,735,013    | \$ 40,919,493    | \$ 41,284,520    | \$ 41,907,686    | \$ 42,198,251    | \$ 42,766,950    | \$ 43,266,466    |
| Net Expenses per ton of Waste Input                              |         | \$ 79.62 \$      | \$ 79.73 \$      | \$ 79.85 \$      | \$ 80.23 \$      | \$ 80.95 \$      | \$ 81.78 \$      | \$ 82.74 \$      | \$ 83.86 \$      | \$ 84.88         |
| Present Value in 2009\$                                          |         | \$ 66.68 \$      | \$ 64.83 \$      | \$ 63.04 \$      | \$ 57.96 \$      | \$ 50.45 \$      | \$ 43.96 \$      | \$ 36.37 \$      | \$ 30.16         | \$ 30.16         |
| 20 Year average NPV in 2009\$                                    |         | \$ 51.85         |                  |                  |                  |                  |                  |                  |                  |                  |
| 30 year average NPV in 2009\$                                    |         | \$ 45.93         |                  |                  |                  |                  |                  |                  |                  |                  |

Notes  
 1. Based on Annual throughput Guarantee @ HHV = 5,000 BTU/lb from Frederick Co. Agreement  
 2. See separate calculation sheet for O&M Cost  
 3. Based on CHA calculations provided in Transfer Station Alternative 1 spreadsheets. Assumes a \$10/ton discount for residue disposal relative to non-processible waste.  
 4. Field study of waste composition showed 2.8% ferrous : anticipated to decline to 2% with recycling program improvements  
 5. Field study of waste composition showed 1.3% non-ferrous : anticipated to decline to 0.5% with recycling program improvements  
 6. Escalated annually at rate of Inflation

**Capital Region SWMP  
Life Cycle Cost and Revenue  
Solid Waste Treatment Facility  
Case 2 Conditions - 25% Ash residue**

| Assumptions                                                      | 2009 \$          | 2015\$           | 2015             | 2016             | 2017             | 2020             | 2025             | 2030             | 2035             | 2040             | 2044             |
|------------------------------------------------------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|
| Facility Design Capacity (TPD)                                   | 1500             |                  | 1                | 2                | 3                | 6                | 11               | 16               | 21               | 26               | 30               |
| Anticipated Throughput Guarantee                                 | 92%              |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |
| Guaranteed Annual Throughput (tons)                              | 510,000          |                  | 510,000          | 494,700          | 494,700          | 494,700          | 494,700          | 494,700          | 494,700          | 494,700          | 510,000          |
| Net Electricity generated per processed ton (kWh) <sup>1</sup>   | 635              |                  | 635              | 635              | 635              | 635              | 635              | 635              | 635              | 635              | 635              |
| Electric Energy price (\$/kWh)                                   | 0.07             | 0.070            | \$               | 29.77            | \$               | 35.54            | \$               | 81.59            | \$               | 69.65            | \$               |
| Electric Capacity payment (\$/kWhr)                              | 25.80            | 25.800           | \$               | 30.807           | \$               | 30.807           | \$               | 30.807           | \$               | 30.807           | \$               |
| Authority Share of Energy Revenue %                              | 100%             |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |
| Percentage Ash residue by weight <sup>2</sup>                    | 25%              |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |
| Unacceptable Waste as % by weight of GAT                         | 3%               |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |
| Operating and Maintenance Cost <sup>3</sup>                      | 29.77            | 29.77            | \$               | 35.54            | \$               | 35.54            | \$               | 81.59            | \$               | 69.65            | \$               |
| Non-processible transport and disposal fee (\$/ton) <sup>4</sup> | 68.33            | 68.33            | \$               | 69.65            | \$               | 69.65            | \$               | 69.65            | \$               | 69.65            | \$               |
| Residue transport and disposal fee (\$/ton) <sup>4</sup>         | 58.33            | 58.33            | \$               | 58.33            | \$               | 58.33            | \$               | 58.33            | \$               | 58.33            | \$               |
| Ferrous recovery by % <sup>5</sup>                               | 2%               |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |
| Ferrous sale price (\$/ton)                                      | 60               | 60.00            | \$               | 71.64            | \$               | 71.64            | \$               | 71.64            | \$               | 71.64            | \$               |
| Authority Share of Ferrous Revenue %                             | 100%             |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |
| Non-ferrous metal recovery by % <sup>6</sup>                     | 0.50%            |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |
| Non-Ferrous sale price (\$/ton)                                  | 120.00           | 120.00           | \$               | 143.29           | \$               | 143.29           | \$               | 143.29           | \$               | 143.29           | \$               |
| Authority Share of Ferrous Revenue %                             | 100%             |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |
| <b>Annual Inflation Rates</b>                                    |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |
| Electricity Revenue inflation rate                               | 3.0%             |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |
| Ferrous and Non-Ferrous Revenue inflation rate                   | 3.0%             |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |
| Residue and Ash Disposal fee inflation rate                      | 3.0%             |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |
| Facility operating Cost inflation rate                           | 3.0%             |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |
| Present Value Discount Rate                                      | 3.0%             |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |
| Authority Waste input (tpy)                                      | 510,000          | 510,000          | 510,000          | 494,700          | 494,700          | 494,700          | 494,700          | 494,700          | 494,700          | 494,700          | 510,000          |
| Waste Processed (tpy)                                            | 494,700          | 494,700          | 494,700          | 494,700          | 494,700          | 494,700          | 494,700          | 494,700          | 494,700          | 494,700          | 494,700          |
| Non-processible or by-pass waste (tpy)                           | 15,300           | 15,300           | 15,300           | 15,300           | 15,300           | 15,300           | 15,300           | 15,300           | 15,300           | 15,300           | 15,300           |
| Net electricity Generated (kWh)                                  | 314,134,500      | 314,134,500      | 314,134,500      | 314,134,500      | 314,134,500      | 314,134,500      | 314,134,500      | 314,134,500      | 314,134,500      | 314,134,500      | 314,134,500      |
| Electric revenue to Authority (\$) <sup>7</sup>                  | \$ 27,361,237.50 | \$ 28,182,074.63 | \$ 29,027,956.87 | \$ 31,719,173.28 | \$ 36,771,215.24 | \$ 42,827,916.50 | \$ 49,417,438.45 | \$ 57,288,355.21 | \$ 64,478,548.50 | \$ 73,951,165.50 | \$ 83,843,980.00 |
| Residue Generation (tpy)                                         | 123,675          | 123,675          | 123,675          | 123,675          | 123,675          | 123,675          | 123,675          | 123,675          | 123,675          | 123,675          | 123,675          |
| Ferrous Metal Recovery (tpy)                                     | 9,894            | 9,894            | 9,894            | 9,894            | 9,894            | 9,894            | 9,894            | 9,894            | 9,894            | 9,894            | 9,894            |
| Ferrous Revenue to Authority <sup>7</sup>                        | \$ 708,837       | \$ 730,102       | \$ 752,005       | \$ 821,737       | \$ 952,005       | \$ 1,104,345     | \$ 1,280,239     | \$ 1,484,148     | \$ 1,670,421     | \$ 1,889,165     | \$ 2,142,165     |
| Non-Ferrous recovery (tpy)                                       | 2,474            | 2,474            | 2,474            | 2,474            | 2,474            | 2,474            | 2,474            | 2,474            | 2,474            | 2,474            | 2,474            |
| Non-Ferrous Revenue to Authority <sup>7</sup>                    | \$ 354,419       | \$ 365,051       | \$ 376,003       | \$ 410,868       | \$ 476,309       | \$ 552,173       | \$ 640,119       | \$ 742,074       | \$ 852,211       | \$ 978,165       | \$ 1,114,165     |
| Interest on Debt Service Reserve Account                         | \$ 1,609,487     | \$ 1,609,487     | \$ 1,609,487     | \$ 1,609,487     | \$ 1,609,487     | \$ 1,609,487     | \$ 1,609,487     | \$ 1,609,487     | \$ 1,609,487     | \$ 1,609,487     | \$ 1,609,487     |
| Residue for disposal (tons)                                      | 123,675          | 123,675          | 123,675          | 123,675          | 123,675          | 123,675          | 123,675          | 123,675          | 123,675          | 123,675          | 123,675          |
| Total non-processible and residue for disposal (tons)            | 138,975          | 138,975          | 138,975          | 138,975          | 138,975          | 138,975          | 138,975          | 138,975          | 138,975          | 138,975          | 138,975          |
| Landfill Disposal Cost <sup>7</sup>                              | \$ 9,862,170     | \$ 10,158,035    | \$ 10,462,776    | \$ 11,432,957    | \$ 13,253,931    | \$ 15,364,939    | \$ 17,812,175    | \$ 20,649,193    | \$ 23,240,849    | \$ 26,114,371    | \$ 29,240,849    |
| Facility Operating and Maintenance Costs <sup>7</sup>            | \$ 18,127,386    | \$ 18,671,207    | \$ 19,231,343    | \$ 21,014,608    | \$ 24,361,690    | \$ 28,241,876    | \$ 32,740,075    | \$ 37,954,720    | \$ 42,718,371    | \$ 48,114,371    | \$ 53,954,720    |
| Debt Service                                                     | \$ 40,237,165    | \$ 40,237,165    | \$ 40,237,165    | \$ 40,237,165    | \$ 40,237,165    | \$ 40,237,165    | \$ 40,237,165    | \$ 40,237,165    | \$ 40,237,165    | \$ 40,237,165    | \$ 40,237,165    |

|                                           |                      |                      |                      |                      |                      |                      |                      |                      |
|-------------------------------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|
| Total SW Treatment Facility Expenses      | \$ 68,226,720        | \$ 69,931,284        | \$ 72,684,730        | \$ 77,852,786        | \$ 83,843,980        | \$ 90,789,415        | \$ 98,841,078        | \$ 106,196,385       |
| Total SW Treatment Facility Revenues      | \$ 30,033,960        | \$ 30,866,715        | \$ 31,765,032        | \$ 34,561,265        | \$ 39,809,629        | \$ 45,893,921        | \$ 52,947,283        | \$ 61,124,063        |
| <b>Net SW Treatment Facility Expenses</b> | <b>\$ 38,192,760</b> | <b>\$ 38,179,692</b> | <b>\$ 38,123,486</b> | <b>\$ 38,043,158</b> | <b>\$ 37,950,059</b> | <b>\$ 37,842,131</b> | <b>\$ 37,717,014</b> | <b>\$ 37,602,718</b> |
| Net Expenses per ton of Waste Input       | \$ 74.89             | \$ 74.86             | \$ 74.75             | \$ 74.59             | \$ 74.41             | \$ 74.20             | \$ 73.95             | \$ 73.73             |
| Present Value in 2009\$                   | \$ 62.72             | \$ 60.87             | \$ 54.00             | \$ 46.46             | \$ 34.41             | \$ 29.58             | \$ 26.20             | \$ 23.20             |
| <b>20 Year average NPV in 2009\$</b>      | <b>\$ 47.89</b>      |                      |                      |                      |                      |                      |                      |                      |
| 30 Year average NPV in 2009\$             | \$ 41.97             |                      |                      |                      |                      |                      |                      |                      |

Notes  
 1. Based on Annual Throughput Guarantee @ HHV = 5,000 BTU/lb from Frederick Co. Agreement  
 2. Based on OCRRRA Facility Ash residue rate of 25%  
 3. See separate calculation sheet for O&M Cost  
 4. Based on CHA calculations provided in Transfer Station Alternative 1 spreadsheets. Assumes a \$10/ton discount for residue disposal relative to non-processible waste.  
 5. Field study of waste composition showed 2.8% ferrous ; anticipated to decline to 2% with recycling program improvements  
 6. Field study of waste composition showed 1.3% non-ferrous ; anticipated to decline to 0.5% with recycling program improvements  
 7. Escalated annually at rate of inflation



**Capital Region SWMP  
Life Cycle Cost and Revenue  
Solid Waste Treatment Facility  
Case 3 Conditions - 25% Ash residue with Local Disposal Site**

| Assumptions                                                      | 2009 \$          | 2015\$           | 2016             | 2017             | 2020             | 2025             | 2030             | 2035             | 2040             | 2044             |
|------------------------------------------------------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|
| Facility Design Capacity (TPD)                                   | 1500             |                  |                  |                  |                  |                  |                  |                  |                  |                  |
| Anticipated Throughput Guarantee                                 | 92%              |                  |                  |                  |                  |                  |                  |                  |                  |                  |
| Guaranteed Annual Throughput (tons)                              | 510,000          |                  |                  |                  |                  |                  |                  |                  |                  |                  |
| Net Electricity generated per processed ton (kWh) <sup>1</sup>   | 635              |                  |                  |                  |                  |                  |                  |                  |                  |                  |
| Electric Energy price (\$/kWh)                                   | 0.07             | \$ 0.070         | \$ 0.084         |                  |                  |                  |                  |                  |                  |                  |
| Electric Capacity payment (\$/KwYr)                              | 25.80            | \$ 25,800        | \$ 30,807        |                  |                  |                  |                  |                  |                  |                  |
| Authority Share of Energy Revenue %                              | 100%             |                  |                  |                  |                  |                  |                  |                  |                  |                  |
| Percentage Ash residue by weight <sup>2</sup>                    | 25%              |                  |                  |                  |                  |                  |                  |                  |                  |                  |
| Unrecoverable Waste as % by weight of GAT                        | 3%               |                  |                  |                  |                  |                  |                  |                  |                  |                  |
| Operating and Maintenance Cost <sup>3</sup>                      | \$ 29.77         | \$ 29.77         | \$ 35.54         |                  |                  |                  |                  |                  |                  |                  |
| Non-processible transport and disposal fee (\$/ton) <sup>4</sup> | \$ 50.00         | \$ 50.00         | \$ 59.70         |                  |                  |                  |                  |                  |                  |                  |
| Residue transport and disposal fee (\$/ton) <sup>4</sup>         | \$ 40.00         | \$ 40.00         | \$ 47.76         |                  |                  |                  |                  |                  |                  |                  |
| Ferrous recovery by % <sup>5</sup>                               | 2%               |                  |                  |                  |                  |                  |                  |                  |                  |                  |
| Ferrous sale price (\$/ton)                                      | \$ 60            | \$ 60.00         | \$ 71.64         |                  |                  |                  |                  |                  |                  |                  |
| Authority Share of Ferrous Revenue %                             | 100%             |                  |                  |                  |                  |                  |                  |                  |                  |                  |
| Non ferrous metal recovery by %                                  | 0.50%            |                  |                  |                  |                  |                  |                  |                  |                  |                  |
| Non-Ferrous sale price (\$/ton)                                  | \$ 120.00        | \$ 120.00        | \$ 143.29        |                  |                  |                  |                  |                  |                  |                  |
| Authority Share of Ferrous Revenue %                             | 100%             |                  |                  |                  |                  |                  |                  |                  |                  |                  |
| <b>Annual Inflation Rates</b>                                    |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |
| Ferrous and Non-Ferrous Revenue inflation rate                   | 3.0%             |                  |                  |                  |                  |                  |                  |                  |                  |                  |
| Residue and Ash Disposal fee inflation rate                      | 3.0%             |                  |                  |                  |                  |                  |                  |                  |                  |                  |
| Facility operating Cost inflation rate                           | 3.0%             |                  |                  |                  |                  |                  |                  |                  |                  |                  |
| Present Value Discount Rate                                      | 3.0%             |                  |                  |                  |                  |                  |                  |                  |                  |                  |
| Authority Waste input (tpy)                                      | 1                | 2015             | 2016             | 2017             | 2020             | 2025             | 2030             | 2035             | 2040             | 2044             |
| Waste Processed (tpy)                                            | 510,000          | 510,000          | 494,700          | 494,700          | 510,000          | 510,000          | 510,000          | 510,000          | 510,000          | 510,000          |
| Non processible or by-pass waste (tpy)                           | 15,300           | 15,300           | 15,300           | 15,300           | 15,300           | 15,300           | 15,300           | 15,300           | 15,300           | 15,300           |
| Net electricity Generated (kWh)                                  | 314,134,500      | 314,134,500      | 314,134,500      | 314,134,500      | 314,134,500      | 314,134,500      | 314,134,500      | 314,134,500      | 314,134,500      | 314,134,500      |
| Electric Revenue to Authority (\$) <sup>7</sup>                  | \$ 27,361,237.50 | \$ 28,182,074.63 | \$ 29,027,536.87 | \$ 31,719,173.28 | \$ 36,771,215.24 | \$ 42,627,916.50 | \$ 49,417,438.45 | \$ 57,288,355.21 | \$ 64,478,548.50 | \$ 64,478,548.50 |
| Residue Generation (tpy)                                         | 123,675          | 123,675          | 123,675          | 123,675          | 123,675          | 123,675          | 123,675          | 123,675          | 123,675          | 123,675          |
| Ferrous Metal Recovery (tpy)                                     | 9,894            | 9,894            | 9,894            | 9,894            | 9,894            | 9,894            | 9,894            | 9,894            | 9,894            | 9,894            |
| Ferrous Revenue to Authority <sup>7</sup>                        | \$ 708,837       | \$ 730,102       | \$ 752,005       | \$ 821,737       | \$ 952,618       | \$ 1,104,345     | \$ 1,280,239     | \$ 1,484,148     | \$ 1,670,421     | \$ 1,670,421     |
| Non-ferrous recovery (tpy)                                       | 2,474            | 2,474            | 2,474            | 2,474            | 2,474            | 2,474            | 2,474            | 2,474            | 2,474            | 2,474            |
| Non-Ferrous Revenue to Authority <sup>7</sup>                    | \$ 354,419       | \$ 365,051       | \$ 376,003       | \$ 410,868       | \$ 476,309       | \$ 552,173       | \$ 640,119       | \$ 742,074       | \$ 835,211       | \$ 835,211       |
| Interest on Debt Service Reserve Account                         | \$ 1,609,487     | \$ 1,609,487     | \$ 1,609,487     | \$ 1,609,487     | \$ 1,609,487     | \$ 1,609,487     | \$ 1,609,487     | \$ 1,609,487     | \$ 1,609,487     | \$ 1,609,487     |
| Residue for disposal (tons)                                      | 123,675          | 123,675          | 123,675          | 123,675          | 123,675          | 123,675          | 123,675          | 123,675          | 123,675          | 123,675          |
| Total non-processible and residue for disposal (tons)            | 138,975          | 138,975          | 138,975          | 138,975          | 138,975          | 138,975          | 138,975          | 138,975          | 138,975          | 138,975          |
| Landfill Disposal Cost <sup>7</sup>                              | \$ 6,820,427     | \$ 7,025,040     | \$ 7,235,791     | \$ 7,906,744     | \$ 9,166,063     | \$ 10,626,003    | \$ 12,318,449    | \$ 14,280,459    | \$ 16,072,782    | \$ 16,072,782    |
| Facility Operating and Maintenance Costs <sup>7</sup>            | \$ 18,127,386    | \$ 18,671,207    | \$ 19,231,343    | \$ 21,014,608    | \$ 24,361,690    | \$ 28,241,876    | \$ 32,740,075    | \$ 37,954,720    | \$ 42,718,371    | \$ 42,718,371    |
| Debt Service                                                     | \$ 40,237,165    | \$ 40,237,165    | \$ 40,237,165    | \$ 40,237,165    | \$ 40,237,165    | \$ 40,237,165    | \$ 40,237,165    | \$ 40,237,165    | \$ 40,237,165    | \$ 40,237,165    |
| <b>Total SW Treatment Facility Expenses</b>                      | \$ 65,184,977    | \$ 65,939,411    | \$ 66,704,299    | \$ 69,158,517    | \$ 73,764,938    | \$ 79,105,043    | \$ 85,295,689    | \$ 92,472,344    | \$ 99,028,319    | \$ 99,028,319    |
| <b>Total SW Treatment Facility Revenues</b>                      | \$ 30,033,960    | \$ 30,865,715    | \$ 31,765,032    | \$ 34,561,265    | \$ 39,809,629    | \$ 45,893,921    | \$ 52,947,283    | \$ 61,124,063    | \$ 68,593,667    | \$ 68,593,667    |
| <b>Net SW Treatment Facility Expenses</b>                        | \$ 35,150,997    | \$ 35,046,697    | \$ 34,939,267    | \$ 34,597,252    | \$ 33,955,310    | \$ 33,211,122    | \$ 32,348,406    | \$ 31,348,280    | \$ 30,434,652    | \$ 30,434,652    |
| Net Expenses per ton of Waste Input                              | \$ 68.92         | \$ 68.72         | \$ 68.51         | \$ 67.84         | \$ 66.58         | \$ 65.12         | \$ 63.43         | \$ 61.47         | \$ 59.68         | \$ 59.68         |
| Present Value in 2009\$                                          | \$ 57.72         | \$ 55.87         | \$ 54.08         | \$ 49.01         | \$ 41.49         | \$ 35.01         | \$ 29.41         | \$ 24.59         | \$ 21.21         | \$ 21.21         |
| 20 Year average NPV in 2009\$                                    | \$ 42.89         |                  |                  |                  |                  |                  |                  |                  |                  |                  |
| 30 Year average NPV in 2009\$                                    | \$ 36.98         |                  |                  |                  |                  |                  |                  |                  |                  |                  |

Notes  
1. Based on Annual Throughput Guarantee @ HHV = 5,000 BTU/lb from Frederick Co. Agreement  
2. Based on OORRA facility Ash residue rate of 25%  
3. See separate calculation sheet for O&M Cost  
4. Based on CHA estimate of local disposal fee for non-processibles. Assumes a \$10/ton discount for residue disposal relative to non-processible waste.  
5. Field study of waste composition showed 2.8% ferrous; anticipated to decline to 2% with recycling program improvements  
6. Field study of waste composition showed 1.3% non-ferrous; anticipated to decline to 0.5% with recycling program improvements

**Capital Region SWMP  
Life Cycle Cost and Revenue  
Solid Waste Treatment Facility  
Case 4 - Full Plant Capacity Utilization**

| Assumptions                                                      | 2009 \$          | 2015 \$          | 2016             | 2017             | 2020             | 2025             | 2030             | 2035             | 2040             | 2044             |
|------------------------------------------------------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|
| Facility Design Capacity (TPD)                                   | 1500             |                  |                  |                  |                  |                  |                  |                  |                  |                  |
| Anticipated Throughput Guarantee                                 | 92%              |                  |                  |                  |                  |                  |                  |                  |                  |                  |
| Guaranteed Annual Throughput (tons) <sup>1</sup>                 | 510,000          |                  |                  |                  |                  |                  |                  |                  |                  |                  |
| Net Electricity generated per processed ton (kWh) <sup>1</sup>   | 635              |                  |                  |                  |                  |                  |                  |                  |                  |                  |
| Electric Energy price (\$/kWh)                                   | 0.07             | 0.070            | 0.070            | 0.084            |                  |                  |                  |                  |                  |                  |
| Electric Capacity payment (\$/kWh/yr)                            | 25.80            | 25.800           | 25.800           | 30.807           |                  |                  |                  |                  |                  |                  |
| Authority Share of Energy Revenue %                              | 100%             |                  |                  |                  |                  |                  |                  |                  |                  |                  |
| Percentage residue by weight <sup>1</sup>                        | 32%              |                  |                  |                  |                  |                  |                  |                  |                  |                  |
| Unacceptable Waste as % by weight of GAT                         | 0%               |                  |                  |                  |                  |                  |                  |                  |                  |                  |
| Operating and Maintenance Cost <sup>2</sup>                      | \$ 29.77         | \$ 29.77         | \$ 29.77         | \$ 35.54         |                  |                  |                  |                  |                  |                  |
| Non-processible transport and disposal fee (\$/ton) <sup>3</sup> | \$ 68.33         | \$ 68.33         | \$ 68.33         | \$ 81.59         |                  |                  |                  |                  |                  |                  |
| Residue transport and disposal fee (\$/ton) <sup>3</sup>         | \$ 58.33         | \$ 58.33         | \$ 58.33         | \$ 69.65         |                  |                  |                  |                  |                  |                  |
| Ferrous recovery by % <sup>4</sup>                               | 2%               |                  |                  |                  |                  |                  |                  |                  |                  |                  |
| Ferrous sale price (\$/ton)                                      | \$ 60            | \$ 60.00         | \$ 60.00         | \$ 71.64         |                  |                  |                  |                  |                  |                  |
| Authority Share of Ferrous Revenue %                             | 100%             |                  |                  |                  |                  |                  |                  |                  |                  |                  |
| Non-ferrous metal recovery by % <sup>5</sup>                     | 0.50%            |                  |                  |                  |                  |                  |                  |                  |                  |                  |
| Non-Ferrous sale price (\$/ton)                                  | \$ 120.00        | \$ 120.00        | \$ 120.00        | \$ 143.29        |                  |                  |                  |                  |                  |                  |
| Authority Share of Ferrous Revenue %                             | 100%             |                  |                  |                  |                  |                  |                  |                  |                  |                  |
| Annual Inflation Rates                                           |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |
| Electricity Revenue inflation rate                               | 3.0%             |                  |                  |                  |                  |                  |                  |                  |                  |                  |
| Ferrous and Non-Ferrous Revenue inflation rate                   | 3.0%             |                  |                  |                  |                  |                  |                  |                  |                  |                  |
| Non-processible and residue disposal fee inflation rate          | 3.0%             |                  |                  |                  |                  |                  |                  |                  |                  |                  |
| Facility operating Cost inflation rate                           | 3.0%             |                  |                  |                  |                  |                  |                  |                  |                  |                  |
| Present Value Discount Rate                                      | 3.0%             |                  |                  |                  |                  |                  |                  |                  |                  |                  |
| Authority Waste input (tpy)                                      | 1                | 2015             | 2016             | 2017             | 2020             | 2025             | 2030             | 2035             | 2040             | 2044             |
| Waste Processed (tpy)                                            | 510,000          | 510,000          | 510,000          | 510,000          | 510,000          | 510,000          | 510,000          | 510,000          | 510,000          | 510,000          |
| Non-processible or by-pass waste (tpy)                           | 510,000          | 510,000          | 510,000          | 510,000          | 510,000          | 510,000          | 510,000          | 510,000          | 510,000          | 510,000          |
| Net electricity Generated (kWh)                                  | 323,850,000      | 323,850,000      | 323,850,000      | 323,850,000      | 323,850,000      | 323,850,000      | 323,850,000      | 323,850,000      | 323,850,000      | 323,850,000      |
| Electric revenue to Authority (\$) <sup>6</sup>                  | \$ 28,207,461.34 | \$ 29,053,685.18 | \$ 29,925,295.74 | \$ 32,700,178.64 | \$ 37,908,469.32 | \$ 43,946,305.68 | \$ 50,945,812.83 | \$ 59,060,160.01 | \$ 66,472,730.41 | \$ 73,304,141.00 |
| Residue Generation (tpy)                                         | 163,200          | 163,200          | 163,200          | 163,200          | 163,200          | 163,200          | 163,200          | 163,200          | 163,200          | 163,200          |
| Ferrous Metal Recovery (tpy)                                     | 10,200           | 10,200           | 10,200           | 10,200           | 10,200           | 10,200           | 10,200           | 10,200           | 10,200           | 10,200           |
| Ferrous Revenue to Authority <sup>6</sup>                        | \$ 730,760       | \$ 752,683       | \$ 775,263       | \$ 847,151       | \$ 962,090       | \$ 1,138,500     | \$ 1,319,834     | \$ 1,530,049     | \$ 1,722,084     | \$ 1,922,550     |
| Non-ferrous recovery (tpy)                                       | 2,550            | 2,550            | 2,550            | 2,550            | 2,550            | 2,550            | 2,550            | 2,550            | 2,550            | 2,550            |
| Non-Ferrous Revenue to Authority <sup>6</sup>                    | \$ 365,380       | \$ 376,341       | \$ 387,632       | \$ 423,576       | \$ 491,040       | \$ 569,250       | \$ 659,917       | \$ 765,025       | \$ 861,042       | \$ 967,059       |
| Interest on Debt Service Reserve Account                         | \$ 1,609,487     | \$ 1,609,487     | \$ 1,609,487     | \$ 1,609,487     | \$ 1,609,487     | \$ 1,609,487     | \$ 1,609,487     | \$ 1,609,487     | \$ 1,609,487     | \$ 1,609,487     |
| Residue for disposal (tons)                                      | 163,200          | 163,200          | 163,200          | 163,200          | 163,200          | 163,200          | 163,200          | 163,200          | 163,200          | 163,200          |
| Total non-processible and residue for disposal (tons)            | 163,200          | 163,200          | 163,200          | 163,200          | 163,200          | 163,200          | 163,200          | 163,200          | 163,200          | 163,200          |
| Landfill Disposal Cost <sup>6</sup>                              | \$ 11,366,728    | \$ 11,707,730    | \$ 12,058,962    | \$ 13,177,153    | \$ 15,275,932    | \$ 17,708,992    | \$ 20,529,576    | \$ 23,799,405    | \$ 26,766,440    | \$ 29,550,000    |
| Facility Operating and Maintenance Costs <sup>6</sup>            | \$ 15,181,400    | \$ 15,636,842    | \$ 16,105,947    | \$ 17,599,403    | \$ 20,402,532    | \$ 23,652,127    | \$ 27,419,297    | \$ 31,786,480    | \$ 35,775,964    | \$ 39,750,000    |
| Debt Service                                                     | \$ 40,237,165    | \$ 40,237,165    | \$ 40,237,165    | \$ 40,237,165    | \$ 40,237,165    | \$ 40,237,165    | \$ 40,237,165    | \$ 40,237,165    | \$ 40,237,165    | \$ 40,237,165    |
| Total SW Treatment Facility Expenses                             | \$ 66,785,293    | \$ 67,581,737    | \$ 68,402,074    | \$ 71,013,722    | \$ 75,915,629    | \$ 81,598,284    | \$ 88,186,038    | \$ 95,823,050    | \$ 102,799,568   | \$ 109,950,000   |
| Total SW Treatment Facility Revenues                             | \$ 30,913,088    | \$ 31,792,196    | \$ 32,697,677    | \$ 35,580,392    | \$ 40,991,076    | \$ 47,263,543    | \$ 54,535,050    | \$ 62,964,720    | \$ 70,665,943    | \$ 78,730,000    |
| Net SW Treatment Facility Expenses                               | \$ 35,872,205    | \$ 35,789,541    | \$ 35,704,397    | \$ 35,433,330    | \$ 34,924,553    | \$ 34,334,741    | \$ 33,650,987    | \$ 32,858,330    | \$ 32,134,225    | \$ 31,219,000    |
| Net Expenses per ton of Waste input                              | \$ 70.34         | \$ 70.18         | \$ 70.01         | \$ 69.48         | \$ 68.48         | \$ 67.32         | \$ 65.98         | \$ 64.43         | \$ 63.01         | \$ 61.64         |
| Present Value in 2009\$                                          | \$ 58.91         | \$ 57.06         | \$ 55.27         | \$ 50.19         | \$ 42.67         | \$ 36.19         | \$ 30.60         | \$ 25.77         | \$ 21.39         | \$ 17.50         |
| 20 Year average NPV in 2009\$                                    | \$ 44.08         |                  |                  |                  |                  |                  |                  |                  |                  |                  |
| 30 year average NPV in 2009\$                                    | \$ 38.16         |                  |                  |                  |                  |                  |                  |                  |                  |                  |

Notes  
1. Based on Annual throughput Guarantee @ HHV = 5,000 BTU/lb from Frederick Co. Agreement  
2. See separate calculation sheet for O&M Cost  
3. Based on CHA calculations provided in Transfer Station Alternative 1 spreadsheets. Assumes a \$10/ton discount for residue disposal relative to non-processible waste.  
4. Field study of waste composition showed 2.8% ferrous; anticipated to decline to 2% with recycling program improvements  
5. Field study of waste composition showed 1.3% non-ferrous; anticipated to decline to 0.5% with recycling program improvements  
6. Escalated annually at rate of inflation

**Capital Region SWMP  
Life Cycle Cost and Revenue  
Solid Waste Treatment Facility  
Case 5 - Full Plant Capacity Utilization w/ 25% residue and local disposal**

| Assumptions                                                      | 2009 \$          | 2015 \$          | 2016             | 2017             | 2020             | 2025             | 2030             | 2035             | 2040             | 2044 |
|------------------------------------------------------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------|
| Facility Design Capacity (TPD)                                   | 1500             |                  |                  |                  |                  |                  |                  |                  |                  |      |
| Anticipated Throughput Guarantee                                 | 92%              |                  |                  |                  |                  |                  |                  |                  |                  |      |
| Guaranteed Annual Throughput (tons) <sup>1</sup>                 | 510,000          |                  |                  |                  |                  |                  |                  |                  |                  |      |
| Net Electricity generated per processed ton (kWh) <sup>1</sup>   | 635              |                  |                  |                  |                  |                  |                  |                  |                  |      |
| Electric Energy price (\$/kWh)                                   | \$ 0.07          | \$ 0.070         | \$ 0.084         |                  |                  |                  |                  |                  |                  |      |
| Electric Capacity payment (\$/kWh)                               | \$ 25.80         | \$ 25.800        | \$ 30.807        |                  |                  |                  |                  |                  |                  |      |
| Authority Share of Energy Revenue %                              | 100%             |                  |                  |                  |                  |                  |                  |                  |                  |      |
| Percentage Ash residue by weight <sup>2</sup>                    | 25%              |                  |                  |                  |                  |                  |                  |                  |                  |      |
| Unacceptable Waste as % by weight of GAT                         | 0%               |                  |                  |                  |                  |                  |                  |                  |                  |      |
| Operating and Maintenance Cost <sup>3</sup>                      | \$ 29.77         | \$ 29.77         | \$ 35.54         |                  |                  |                  |                  |                  |                  |      |
| Non-processible transport and disposal fee (\$/ton) <sup>4</sup> | \$ 50.00         | \$ 50.00         | \$ 59.70         |                  |                  |                  |                  |                  |                  |      |
| Residue transport and disposal fee (\$/ton) <sup>4</sup>         | \$ 40.00         | \$ 40.00         | \$ 47.76         |                  |                  |                  |                  |                  |                  |      |
| Ferrous recovery by % <sup>5</sup>                               | 2%               |                  |                  |                  |                  |                  |                  |                  |                  |      |
| Ferrous sale price (\$/ton)                                      | \$ 80            | \$ 80.00         | \$ 71.64         |                  |                  |                  |                  |                  |                  |      |
| Authority Share of Ferrous Revenue %                             | 100%             |                  |                  |                  |                  |                  |                  |                  |                  |      |
| Non-Ferrous metal recovery by %                                  | 0.50%            |                  |                  |                  |                  |                  |                  |                  |                  |      |
| Non-Ferrous sale price (\$/ton)                                  | \$ 120.00        | \$ 120.00        | \$ 143.29        |                  |                  |                  |                  |                  |                  |      |
| Authority Share of Ferrous Revenue %                             | 100%             |                  |                  |                  |                  |                  |                  |                  |                  |      |
| <b>Annual Inflation Rates</b>                                    |                  |                  |                  |                  |                  |                  |                  |                  |                  |      |
| Electricity Revenue inflation rate                               | 3.0%             |                  |                  |                  |                  |                  |                  |                  |                  |      |
| Ferrous and Non-Ferrous Revenue inflation rate                   | 3.0%             |                  |                  |                  |                  |                  |                  |                  |                  |      |
| Residue and Ash Disposal fee inflation rate                      | 3.0%             |                  |                  |                  |                  |                  |                  |                  |                  |      |
| Facility operating Cost inflation rate                           | 3.0%             |                  |                  |                  |                  |                  |                  |                  |                  |      |
| Present Value Discount Rate                                      | 3.0%             |                  |                  |                  |                  |                  |                  |                  |                  |      |
| Waste Processed (tpy)                                            | 2015             | 2016             | 2017             | 2020             | 2025             | 2030             | 2035             | 2040             | 2044             |      |
| Authority Waste input (tpy)                                      | 1                | 2                | 3                | 6                | 11               | 16               | 21               | 26               | 30               |      |
| Non-processible or by-pass waste (tpy)                           | 510,000          | 510,000          | 510,000          | 510,000          | 510,000          | 510,000          | 510,000          | 510,000          | 510,000          |      |
| Net electricity generated (kWh)                                  | 510,000          | 510,000          | 510,000          | 510,000          | 510,000          | 510,000          | 510,000          | 510,000          | 510,000          |      |
| Electric revenue to Authority (\$) <sup>7</sup>                  | \$ 28,207,461.34 | \$ 29,053,685.18 | \$ 29,925,295.74 | \$ 32,700,178.64 | \$ 37,908,469.32 | \$ 43,946,305.68 | \$ 50,945,812.83 | \$ 59,060,160.01 | \$ 66,472,730.41 |      |
| Residue Generation (tpy)                                         | 127,500          | 127,500          | 127,500          | 127,500          | 127,500          | 127,500          | 127,500          | 127,500          | 127,500          |      |
| Ferrous Metal Recovery (tpy)                                     | 10,200           | 10,200           | 10,200           | 10,200           | 10,200           | 10,200           | 10,200           | 10,200           | 10,200           |      |
| Ferrous Revenue to Authority <sup>7</sup>                        | \$ 730,760       | \$ 752,683       | \$ 775,263       | \$ 847,151       | \$ 982,080       | \$ 1,198,500     | \$ 1,319,834     | \$ 1,530,049     | \$ 1,722,084     |      |
| Non-ferrous recovery (tpy)                                       | 2,550            | 2,550            | 2,550            | 2,550            | 2,550            | 2,550            | 2,550            | 2,550            | 2,550            |      |
| Non-Ferrous Revenue to Authority <sup>7</sup>                    | \$ 365,380       | \$ 376,341       | \$ 387,632       | \$ 423,576       | \$ 491,040       | \$ 569,250       | \$ 659,917       | \$ 765,025       | \$ 861,042       |      |
| Interest on Debt Service Reserve Account                         | \$ 1,609,487     | \$ 1,609,487     | \$ 1,609,487     | \$ 1,609,487     | \$ 1,609,487     | \$ 1,609,487     | \$ 1,609,487     | \$ 1,609,487     | \$ 1,609,487     |      |
| Residue for disposal (tons)                                      | 127,500          | 127,500          | 127,500          | 127,500          | 127,500          | 127,500          | 127,500          | 127,500          | 127,500          |      |
| Total non-processible and residue for disposal (tons)            | 127,500          | 127,500          | 127,500          | 127,500          | 127,500          | 127,500          | 127,500          | 127,500          | 127,500          |      |
| Landfill Disposal Cost <sup>7</sup>                              | \$ 6,089,667     | \$ 6,272,357     | \$ 6,460,527     | \$ 7,059,593     | \$ 8,184,003     | \$ 9,487,502     | \$ 10,998,615    | \$ 12,750,410    | \$ 14,350,699    |      |
| Facility Operating and Maintenance Costs <sup>7</sup>            | \$ 18,127,386    | \$ 18,671,207    | \$ 19,231,343    | \$ 21,014,608    | \$ 24,361,690    | \$ 28,241,876    | \$ 32,740,075    | \$ 37,954,720    | \$ 42,718,371    |      |
| Debt Service                                                     | \$ 40,237,165    | \$ 40,237,165    | \$ 40,237,165    | \$ 40,237,165    | \$ 40,237,165    | \$ 40,237,165    | \$ 40,237,165    | \$ 40,237,165    | \$ 40,237,165    |      |
| Total SW Treatment Facility Expenses                             | \$ 64,454,217    | \$ 65,180,729    | \$ 65,929,036    | \$ 68,311,366    | \$ 72,782,858    | \$ 77,966,543    | \$ 83,975,855    | \$ 90,942,294    | \$ 97,306,235    |      |
| Total SW Treatment Facility Revenues                             | \$ 30,913,098    | \$ 31,792,196    | \$ 32,697,677    | \$ 35,580,392    | \$ 40,991,076    | \$ 47,263,543    | \$ 54,535,050    | \$ 62,964,720    | \$ 70,665,343    |      |
| Net SW Treatment Facility Expenses                               | \$ 33,541,129    | \$ 33,388,533    | \$ 33,231,358    | \$ 32,730,974    | \$ 31,791,782    | \$ 30,703,000    | \$ 29,440,805    | \$ 27,977,574    | \$ 26,640,892    |      |
| Net Expenses per ton of Waste Input                              | \$ 65.77         | \$ 65.47         | \$ 65.16         | \$ 64.18         | \$ 62.34         | \$ 60.20         | \$ 57.73         | \$ 54.86         | \$ 52.24         |      |
| Present Value in 2009\$                                          | \$ 55.08         | \$ 53.23         | \$ 51.44         | \$ 46.36         | \$ 38.85         | \$ 32.36         | \$ 26.77         | \$ 21.94         | \$ 18.56         |      |
| 20 Year average NPV in 2009\$                                    | \$ 40.25         |                  |                  |                  |                  |                  |                  |                  |                  |      |
| 30 Year average NPV in 2009\$                                    | \$ 34.33         |                  |                  |                  |                  |                  |                  |                  |                  |      |

Notes  
1. Based on Annual Throughput Guarantee @ HHV = 5,000 BTU/lb from Frederick Co. Agreement  
2. Based on OCRRRA facility Ash residue rate of 25%  
3. See separate calculation sheet for O&M Cost  
4. Based on CHA estimate of local disposal fee for non-processibles. Assumes a \$10/ton discount for residue disposal relative to non-processible waste.  
5. Field study of waste composition showed 2.8% ferrous; anticipated to decline to 2% with recycling program improvements  
6. Field study of waste composition showed 1.3% non-ferrous; anticipated to decline to 0.5% with recycling program improvements

**Capital Region SWMP  
Life Cycle Cost and Revenue  
Solid Waste Treatment Facility  
Case 6 - 10% increase in initial price of electric energy**

| Assumptions                                                      | 2009 \$          | 2015\$           | 2015             | 2016             | 2017             | 2020             | 2025             | 2030             | 2035             | 2040             | 2044             |
|------------------------------------------------------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|
| Facility Design Capacity (TPD)                                   | 1500             |                  | 1                | 2                | 3                | 6                | 11               | 16               | 21               | 26               | 30               |
| Anticipated Throughput Guarantee                                 | 92%              |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |
| Guaranteed Annual Throughput (tons)                              | 510,000          |                  | 510,000          | 494,700          | 494,700          | 494,700          | 494,700          | 494,700          | 494,700          | 494,700          | 494,700          |
| Net Electricity generated per processed ton (kWh) <sup>1</sup>   | 635              |                  | 635              | 635              | 635              | 635              | 635              | 635              | 635              | 635              | 635              |
| Electric Energy price (\$/kWh)                                   | 0.077            | 0.077            | 0.077            | 0.077            | 0.092            | 0.092            | 0.092            | 0.092            | 0.092            | 0.092            | 0.092            |
| Electric Capacity payment (\$/kWh/yr)                            | 25.80            | 25.80            | 25.80            | 25.80            | 30.807           | 30.807           | 30.807           | 30.807           | 30.807           | 30.807           | 30.807           |
| Authority Share of Energy Revenue %                              | 100%             |                  | 100%             | 100%             | 100%             | 100%             | 100%             | 100%             | 100%             | 100%             | 100%             |
| Percentage residue by weight <sup>1</sup>                        | 32%              |                  | 32%              | 32%              | 32%              | 32%              | 32%              | 32%              | 32%              | 32%              | 32%              |
| Unacceptable Waste as % by weight of GAT                         | 3%               |                  | 3%               | 3%               | 3%               | 3%               | 3%               | 3%               | 3%               | 3%               | 3%               |
| Operating and Maintenance Cost <sup>2</sup>                      | 29.77            | 29.77            | 29.77            | 29.77            | 35.54            | 35.54            | 35.54            | 35.54            | 35.54            | 35.54            | 35.54            |
| Non-processible transport and disposal fee (\$/ton) <sup>3</sup> | 68.33            | 68.33            | 68.33            | 68.33            | 81.59            | 81.59            | 81.59            | 81.59            | 81.59            | 81.59            | 81.59            |
| Residue transport and disposal fee (\$/ton) <sup>3</sup>         | 58.33            | 58.33            | 58.33            | 58.33            | 69.65            | 69.65            | 69.65            | 69.65            | 69.65            | 69.65            | 69.65            |
| Ferrous recovery by % <sup>4</sup>                               | 2%               |                  | 2%               | 2%               | 2%               | 2%               | 2%               | 2%               | 2%               | 2%               | 2%               |
| Ferrous sale price (\$/ton)                                      | 60               | 60               | 60               | 60               | 71.64            | 71.64            | 71.64            | 71.64            | 71.64            | 71.64            | 71.64            |
| Authority Share of Ferrous Revenue %                             | 100%             |                  | 100%             | 100%             | 100%             | 100%             | 100%             | 100%             | 100%             | 100%             | 100%             |
| Non ferrous metal recovery by % <sup>5</sup>                     | 0.50%            |                  | 0.50%            | 0.50%            | 0.50%            | 0.50%            | 0.50%            | 0.50%            | 0.50%            | 0.50%            | 0.50%            |
| Non-Ferrous sale price (\$/ton)                                  | 120.00           | 120.00           | 120.00           | 120.00           | 143.29           | 143.29           | 143.29           | 143.29           | 143.29           | 143.29           | 143.29           |
| Authority Share of Ferrous Revenue %                             | 100%             |                  | 100%             | 100%             | 100%             | 100%             | 100%             | 100%             | 100%             | 100%             | 100%             |
| <b>Annual Inflation Rates</b>                                    |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |
| Electricity Revenue inflation rate                               | 3.0%             |                  | 3.0%             | 3.0%             | 3.0%             | 3.0%             | 3.0%             | 3.0%             | 3.0%             | 3.0%             | 3.0%             |
| Ferrous and Non-Ferrous Revenue inflation rate                   | 3.0%             |                  | 3.0%             | 3.0%             | 3.0%             | 3.0%             | 3.0%             | 3.0%             | 3.0%             | 3.0%             | 3.0%             |
| Non-processible and residue disposal fee inflation rate          | 3.0%             |                  | 3.0%             | 3.0%             | 3.0%             | 3.0%             | 3.0%             | 3.0%             | 3.0%             | 3.0%             | 3.0%             |
| Facility operating Cost inflation rate                           | 3.0%             |                  | 3.0%             | 3.0%             | 3.0%             | 3.0%             | 3.0%             | 3.0%             | 3.0%             | 3.0%             | 3.0%             |
| Present Value Discount Rate                                      |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |
| Authority Waste input (tpy)                                      | 510,000          | 510,000          | 510,000          | 510,000          | 510,000          | 510,000          | 510,000          | 510,000          | 510,000          | 510,000          | 510,000          |
| Waste Processed (tpy)                                            | 494,700          | 494,700          | 494,700          | 494,700          | 494,700          | 494,700          | 494,700          | 494,700          | 494,700          | 494,700          | 494,700          |
| Non-processible or by-pass waste (tpy)                           | 15,300           | 15,300           | 15,300           | 15,300           | 15,300           | 15,300           | 15,300           | 15,300           | 15,300           | 15,300           | 15,300           |
| Net electricity generated (kWh)                                  | 314,134,500      | 314,134,500      | 314,134,500      | 314,134,500      | 314,134,500      | 314,134,500      | 314,134,500      | 314,134,500      | 314,134,500      | 314,134,500      | 314,134,500      |
| Electric Revenue to Authority (\$) <sup>6</sup>                  | \$ 29,966,688.65 | \$ 30,866,495.91 | \$ 31,811,090.17 | \$ 32,763,022.58 | \$ 34,763,022.58 | \$ 40,299,870.82 | \$ 46,718,595.44 | \$ 54,159,656.48 | \$ 62,785,885.63 | \$ 70,666,067.42 | \$ 78,984,421.42 |
| Residue Generation (tpy)                                         | 158,304          | 158,304          | 158,304          | 158,304          | 158,304          | 158,304          | 158,304          | 158,304          | 158,304          | 158,304          | 158,304          |
| Ferrous Metal Recovery (tpy)                                     | 9,894            | 9,894            | 9,894            | 9,894            | 9,894            | 9,894            | 9,894            | 9,894            | 9,894            | 9,894            | 9,894            |
| Ferrous Revenue to Authority <sup>6</sup>                        | \$ 708,837       | \$ 730,102       | \$ 752,005       | \$ 773,737       | \$ 796,460       | \$ 821,737       | \$ 848,460       | \$ 875,183       | \$ 901,906       | \$ 928,629       | \$ 955,352       |
| Non-ferrous recovery (tpy)                                       | 2,474            | 2,474            | 2,474            | 2,474            | 2,474            | 2,474            | 2,474            | 2,474            | 2,474            | 2,474            | 2,474            |
| Non-Ferrous Revenue to Authority <sup>6</sup>                    | \$ 354,419       | \$ 366,051       | \$ 377,683       | \$ 389,315       | \$ 400,947       | \$ 412,579       | \$ 424,211       | \$ 435,843       | \$ 447,475       | \$ 459,107       | \$ 470,739       |
| Interest on Debt Service Reserve Account                         | \$ 1,609,487     | \$ 1,609,487     | \$ 1,609,487     | \$ 1,609,487     | \$ 1,609,487     | \$ 1,609,487     | \$ 1,609,487     | \$ 1,609,487     | \$ 1,609,487     | \$ 1,609,487     | \$ 1,609,487     |
| Residue for disposal (tons)                                      | 158,304          | 158,304          | 158,304          | 158,304          | 158,304          | 158,304          | 158,304          | 158,304          | 158,304          | 158,304          | 158,304          |
| Total non-processible and residue for disposal (tons)            | 173,604          | 173,604          | 173,604          | 173,604          | 173,604          | 173,604          | 173,604          | 173,604          | 173,604          | 173,604          | 173,604          |
| Landfill Disposal Cost <sup>6</sup>                              | \$ 12,274,047    | \$ 12,642,269    | \$ 13,021,537    | \$ 13,400,805    | \$ 13,780,073    | \$ 14,159,341    | \$ 14,538,609    | \$ 14,917,877    | \$ 15,297,145    | \$ 15,676,413    | \$ 16,055,681    |
| Facility Operating and Maintenance Costs <sup>6</sup>            | \$ 18,127,386    | \$ 18,671,207    | \$ 19,231,343    | \$ 19,791,479    | \$ 20,351,615    | \$ 20,911,751    | \$ 21,471,887    | \$ 22,032,023    | \$ 22,592,159    | \$ 23,152,295    | \$ 23,712,431    |
| Debt Service                                                     | \$ 40,237,165    | \$ 40,237,165    | \$ 40,237,165    | \$ 40,237,165    | \$ 40,237,165    | \$ 40,237,165    | \$ 40,237,165    | \$ 40,237,165    | \$ 40,237,165    | \$ 40,237,165    | \$ 40,237,165    |
| <b>Total SW Treatment Facility Expenses</b>                      | \$ 70,638,598    | \$ 71,550,641    | \$ 72,490,045    | \$ 73,460,758    | \$ 74,460,758    | \$ 75,490,045    | \$ 76,548,609    | \$ 77,636,438    | \$ 78,754,531    | \$ 79,902,996    | \$ 81,091,833    |
| <b>Total SW Treatment Facility Revenues</b>                      | \$ 32,659,631    | \$ 33,591,135    | \$ 34,550,595    | \$ 35,538,284    | \$ 36,544,160    | \$ 37,568,284    | \$ 38,610,856    | \$ 39,681,976    | \$ 40,792,651    | \$ 41,942,981    | \$ 43,132,976    |
| <b>Net SW Treatment Facility Expenses</b>                        | \$ 37,978,967    | \$ 37,959,505    | \$ 37,939,450    | \$ 37,922,474    | \$ 37,905,593    | \$ 37,911,761    | \$ 37,927,753    | \$ 37,954,462    | \$ 37,991,880    | \$ 38,039,915    | \$ 38,098,857    |
| Net Expenses per ton of Waste Input                              | \$ 74.47         | \$ 74.43         | \$ 74.39         | \$ 74.27         | \$ 74.03         | \$ 73.76         | \$ 73.44         | \$ 73.08         | \$ 72.74         | \$ 72.40         | \$ 72.06         |
| Present Value in 2009\$                                          | \$ 62.37         | \$ 60.52         | \$ 58.73         | \$ 56.98         | \$ 55.28         | \$ 53.63         | \$ 52.03         | \$ 50.48         | \$ 48.94         | \$ 47.41         | \$ 45.89         |
| 20 Year average NPV in 2009\$                                    | \$ 47.54         |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |
| 30 year average NPV in 2009\$                                    | \$ 41.62         |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |

Notes  
1. Based on Annual throughput Guarantee @ HHV = 5,000 BTU/lb from Frederick Co. Agreement  
2. See separate calculation sheet for O&M Cost  
3. Based on CHA calculations provided in Transfer Station Alternative 1 spreadsheets. Assumes a \$10/ton discount for residue disposal relative to non-processible waste.  
4. Field study of waste composition showed 2.8% ferrous; anticipated to decline to 2% with recycling program improvements  
5. Field study of waste composition showed 1.3% non-ferrous; anticipated to decline to 0.5% with recycling program improvements  
6. Escalated annually at rate of inflation

**Capital Region SWMP  
Life Cycle Cost and Revenue  
Solid Waste Treatment Facility  
Case 7 - 10% Reduction in Annual Waste Input**

| Assumptions                                                      | 2009 \$          | 2015\$           | 2016             | 2017             | 2020             | 2025             | 2030             | 2035             | 2040             | 2044             |
|------------------------------------------------------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|
| Facility Design Capacity (TPD)                                   | 1500             |                  |                  |                  |                  |                  |                  |                  |                  |                  |
| Anticipated Throughput Guarantee                                 | 92%              |                  |                  |                  |                  |                  |                  |                  |                  |                  |
| Guaranteed Annual Throughput (tons) <sup>1</sup>                 | 510,000          |                  |                  |                  |                  |                  |                  |                  |                  |                  |
| Net Electricity generated per processed ton (kWh) <sup>1</sup>   | 635              |                  |                  |                  |                  |                  |                  |                  |                  |                  |
| Electric Energy price (\$/kWh)                                   | 0.07 \$          | 0.070 \$         | 0.084 \$         |                  |                  |                  |                  |                  |                  |                  |
| Electric Capacity payment (\$/Kw/yr)                             | 25.80 \$         | 25.800 \$        | 30.807 \$        |                  |                  |                  |                  |                  |                  |                  |
| Authority Share of Energy Revenue %                              | 100%             |                  |                  |                  |                  |                  |                  |                  |                  |                  |
| Percentage residue by weight <sup>1</sup>                        | 32%              |                  |                  |                  |                  |                  |                  |                  |                  |                  |
| Unacceptable Waste as % by weight of GAT                         | 3%               |                  |                  |                  |                  |                  |                  |                  |                  |                  |
| Operating and Maintenance Cost <sup>2</sup>                      | \$ 31.92 \$      | 31.92 \$         | 38.11 \$         |                  |                  |                  |                  |                  |                  |                  |
| Non-processible transport and disposal fee (\$/ton) <sup>3</sup> | \$ 68.33 \$      | 68.33 \$         | 81.59 \$         |                  |                  |                  |                  |                  |                  |                  |
| Residue transport and disposal fee (\$/ton) <sup>3</sup>         | \$ 58.33 \$      | 58.33 \$         | 69.65 \$         |                  |                  |                  |                  |                  |                  |                  |
| Ferrous recovery by% <sup>4</sup>                                | 2%               |                  |                  |                  |                  |                  |                  |                  |                  |                  |
| Ferrous sale price (\$/ton)                                      | \$60             | \$60.00 \$       | 71.64 \$         |                  |                  |                  |                  |                  |                  |                  |
| Authority Share of Ferrous Revenue %                             | 100%             |                  |                  |                  |                  |                  |                  |                  |                  |                  |
| Non ferrous metal recovery by % <sup>5</sup>                     | 0.50%            |                  |                  |                  |                  |                  |                  |                  |                  |                  |
| Non-Ferrous sale price (\$/ton)                                  | \$ 120.00 \$     | 120.00 \$        | 143.29 \$        |                  |                  |                  |                  |                  |                  |                  |
| Authority Share of Ferrous Revenue %                             | 100%             |                  |                  |                  |                  |                  |                  |                  |                  |                  |
| <b>Annual Inflation Rates</b>                                    |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |
| Electricity Revenue inflation rate                               | 3.0%             |                  |                  |                  |                  |                  |                  |                  |                  |                  |
| Ferrous and Non-Ferrous Revenue inflation rate                   | 3.0%             |                  |                  |                  |                  |                  |                  |                  |                  |                  |
| Non-processible and residue disposal fee inflation rate          | 3.0%             |                  |                  |                  |                  |                  |                  |                  |                  |                  |
| Facility operating Cost inflation rate                           | 3.0%             |                  |                  |                  |                  |                  |                  |                  |                  |                  |
| Present Value Discount Rate                                      | 3.0%             |                  |                  |                  |                  |                  |                  |                  |                  |                  |
| Authority Waste input (tpy)                                      | 1                | 2015             | 2016             | 2017             | 2020             | 2025             | 2030             | 2035             | 2040             | 2044             |
| Waste Processed (tpy)                                            | 459,000          | 459,000          | 459,000          | 459,000          | 459,000          | 459,000          | 459,000          | 459,000          | 459,000          | 459,000          |
| Non-processible or by-pass waste (tpy)                           | 13,770           | 13,770           | 13,770           | 13,770           | 13,770           | 13,770           | 13,770           | 13,770           | 13,770           | 13,770           |
| Net electricity Generated (kWh)                                  | 282,721,050      | 282,721,050      | 282,721,050      | 282,721,050      | 282,721,050      | 282,721,050      | 282,721,050      | 282,721,050      | 282,721,050      | 282,721,050      |
| Electric revenue to Authority (\$) <sup>6</sup>                  | \$ 24,625,113.75 | \$ 25,363,867.16 | \$ 26,124,783.18 | \$ 28,547,255.95 | \$ 33,094,093.71 | \$ 38,365,124.85 | \$ 44,475,694.60 | \$ 51,559,519.69 | \$ 58,030,693.65 | \$ 65,000,000.00 |
| Residue Generation (tpy)                                         | 142,474          | 142,474          | 142,474          | 142,474          | 142,474          | 142,474          | 142,474          | 142,474          | 142,474          | 142,474          |
| Ferrous Metal Recovery (tpy)                                     | 8,905            | 8,905            | 8,905            | 8,905            | 8,905            | 8,905            | 8,905            | 8,905            | 8,905            | 8,905            |
| Ferrous Revenue to Authority <sup>6</sup>                        | \$ 697,953 \$    | 657,092 \$       | 676,805 \$       | 739,563 \$       | 857,356 \$       | 993,911 \$       | 1,152,215 \$     | 1,335,733 \$     | 1,503,379 \$     | 1,695,000 \$     |
| Non-ferrous recovery (tpy)                                       | 2,226            | 2,226            | 2,226            | 2,226            | 2,226            | 2,226            | 2,226            | 2,226            | 2,226            | 2,226            |
| Non-Ferrous Revenue to Authority <sup>6</sup>                    | \$ 318,977 \$    | 275,152 \$       | 283,407 \$       | 309,686 \$       | 359,011 \$       | 416,192 \$       | 482,481 \$       | 559,328 \$       | 629,528 \$       | 695,000 \$       |
| Interest on Debt Service Reserve Account                         | \$ 1,609,487 \$  | 1,609,487 \$     | 1,609,487 \$     | 1,609,487 \$     | 1,609,487 \$     | 1,609,487 \$     | 1,609,487 \$     | 1,609,487 \$     | 1,609,487 \$     | 1,609,487 \$     |
| Residue for disposal (tons)                                      | 142,474          | 142,474          | 142,474          | 142,474          | 142,474          | 142,474          | 142,474          | 142,474          | 142,474          | 142,474          |
| Total non-processible and residue for disposal (tons)            | 156,244          | 156,244          | 156,244          | 156,244          | 156,244          | 156,244          | 156,244          | 156,244          | 156,244          | 156,244          |
| Landfill Disposal Cost <sup>6</sup>                              | \$ 11,046,643 \$ | 11,378,042 \$    | 11,719,383 \$    | 12,806,086 \$    | 14,845,764 \$    | 17,210,309 \$    | 19,951,465 \$    | 23,129,216 \$    | 26,032,137 \$    | 28,625,000 \$    |
| Facility Operating and Maintenance Costs <sup>6</sup>            | \$ 17,494,060 \$ | 18,018,882 \$    | 18,559,448 \$    | 20,280,410 \$    | 23,510,554 \$    | 27,255,176 \$    | 31,586,219 \$    | 36,628,677 \$    | 41,225,899 \$    | 45,000,000 \$    |
| Debt Service                                                     | \$ 40,237,165 \$ | 40,237,165 \$    | 40,237,165 \$    | 40,237,165 \$    | 40,237,165 \$    | 40,237,165 \$    | 40,237,165 \$    | 40,237,165 \$    | 40,237,165 \$    | 40,237,165 \$    |
| <b>Total SW Treatment Facility Expenses</b>                      | \$ 68,777,868 \$ | 69,634,089 \$    | 70,515,996 \$    | 73,323,662 \$    | 78,593,483 \$    | 84,702,650 \$    | 91,784,849 \$    | 99,995,058 \$    | 107,495,200 \$   | 115,000,000 \$   |
| <b>Total SW Treatment Facility Revenues</b>                      | \$ 27,191,531 \$ | 27,905,598 \$    | 28,694,481 \$    | 31,203,992 \$    | 35,919,948 \$    | 41,384,714 \$    | 47,719,877 \$    | 55,064,067 \$    | 61,773,088 \$    | 68,000,000 \$    |
| <b>Net SW Treatment Facility Expenses</b>                        | \$ 41,586,337 \$ | 41,728,491 \$    | 41,821,515 \$    | 42,119,670 \$    | 42,673,535 \$    | 43,317,935 \$    | 44,064,972 \$    | 44,930,991 \$    | 45,722,113 \$    | 46,925,000 \$    |
| Net Expenses per ton of Waste Input                              | \$ 90.60 \$      | 90.91 \$         | 91.11 \$         | 91.76 \$         | 92.97 \$         | 94.37 \$         | 96.00 \$         | 97.89 \$         | 99.61 \$         | 101.00 \$        |
| Present Value in 2009\$                                          | \$ 75.88 \$      | 73.92 \$         | 71.93 \$         | 66.29 \$         | 57.94 \$         | 50.73 \$         | 44.52 \$         | 39.15 \$         | 35.40 \$         | 32.00 \$         |
| <b>30 Year average NPV in 2009\$</b>                             | \$ 59.49         |                  |                  |                  |                  |                  |                  |                  |                  |                  |
| <b>30 Year average NPV in 2009\$</b>                             | \$ 52.92         |                  |                  |                  |                  |                  |                  |                  |                  |                  |

Notes  
 1. Based on Annual throughput Guarantee @ HHV = 5,000 BTU/lb from Frederick Co. Agreement  
 2. See separate calculation sheet for O&M Cost  
 3. Based on CHA calculations provided in Transfer Station Alternative 1 spreadsheets. Assumes a \$/ton discount for residue disposal relative to non-processible waste.  
 4. Field study of waste composition showed 2.8% ferrous; anticipated to decline to 2% with recycling program improvements  
 5. Field study of waste composition showed 1.3% non-ferrous; anticipated to decline to 0.5% with recycling program improvements  
 6. Escalated annually at rate of inflation

Construction Fund Drawdown

| Months after notice to proceed | Beginning Balance in |                   | Monthly Drawdown (%) <sup>1</sup> | Drawdown         | Ending Balance in |                   | Interest Earned |
|--------------------------------|----------------------|-------------------|-----------------------------------|------------------|-------------------|-------------------|-----------------|
|                                | Construction Fund    | Construction Fund |                                   |                  | Construction Fund | Construction Fund |                 |
| 1                              | \$ 420,885,364.00    | \$ 409,521,459.17 | 2.7%                              | \$ 11,363,904.83 | \$ 409,521,459.17 | \$ 1,365,071.53   |                 |
| 2                              | \$ 409,521,459.17    | \$ 395,632,242.16 | 3.3%                              | \$ 13,889,217.01 | \$ 395,632,242.16 | \$ 1,318,774.14   |                 |
| 3                              | \$ 395,632,242.16    | \$ 380,059,483.69 | 3.7%                              | \$ 15,572,758.47 | \$ 380,059,483.69 | \$ 1,266,864.95   |                 |
| 4                              | \$ 380,059,483.69    | \$ 359,436,100.86 | 4.9%                              | \$ 20,623,382.84 | \$ 359,436,100.86 | \$ 1,198,120.34   |                 |
| 5                              | \$ 359,436,100.86    | \$ 349,334,852.12 | 2.4%                              | \$ 10,101,248.74 | \$ 349,334,852.12 | \$ 1,164,449.51   |                 |
| 6                              | \$ 349,334,852.12    | \$ 343,863,342.39 | 1.3%                              | \$ 5,471,509.73  | \$ 343,863,342.39 | \$ 1,146,211.14   |                 |
| 7                              | \$ 343,863,342.39    | \$ 325,765,271.74 | 4.3%                              | \$ 18,098,070.65 | \$ 325,765,271.74 | \$ 1,085,884.24   |                 |
| 8                              | \$ 325,765,271.74    | \$ 308,088,086.45 | 4.2%                              | \$ 17,677,185.29 | \$ 308,088,086.45 | \$ 1,026,960.29   |                 |
| 9                              | \$ 308,088,086.45    | \$ 284,939,391.43 | 5.5%                              | \$ 23,148,695.02 | \$ 284,939,391.43 | \$ 949,797.97     |                 |
| 10                             | \$ 284,939,391.43    | \$ 267,262,206.14 | 4.2%                              | \$ 17,677,185.29 | \$ 267,262,206.14 | \$ 890,874.02     |                 |
| 11                             | \$ 267,262,206.14    | \$ 245,376,167.21 | 5.2%                              | \$ 21,886,038.93 | \$ 245,376,167.21 | \$ 817,920.56     |                 |
| 12                             | \$ 245,376,167.21    | \$ 226,015,440.47 | 4.6%                              | \$ 19,360,726.74 | \$ 226,015,440.47 | \$ 753,384.80     |                 |
| 13                             | \$ 226,015,440.47    | \$ 204,129,401.54 | 5.2%                              | \$ 21,886,038.93 | \$ 204,129,401.54 | \$ 680,431.34     |                 |
| 14                             | \$ 204,129,401.54    | \$ 180,980,706.52 | 5.5%                              | \$ 23,148,695.02 | \$ 180,980,706.52 | \$ 603,269.02     |                 |
| 15                             | \$ 180,980,706.52    | \$ 161,199,094.41 | 4.7%                              | \$ 19,781,612.11 | \$ 161,199,094.41 | \$ 537,330.31     |                 |
| 16                             | \$ 161,199,094.41    | \$ 140,996,596.94 | 4.8%                              | \$ 20,202,497.47 | \$ 140,996,596.94 | \$ 469,988.66     |                 |
| 17                             | \$ 140,996,596.94    | \$ 126,686,494.56 | 3.4%                              | \$ 14,310,102.38 | \$ 126,686,494.56 | \$ 422,288.32     |                 |
| 18                             | \$ 126,686,494.56    | \$ 109,009,309.28 | 4.2%                              | \$ 17,677,185.29 | \$ 109,009,309.28 | \$ 363,364.36     |                 |
| 19                             | \$ 109,009,309.28    | \$ 87,965,041.08  | 5.0%                              | \$ 21,044,268.20 | \$ 87,965,041.08  | \$ 293,216.80     |                 |
| 20                             | \$ 87,965,041.08     | \$ 69,866,970.42  | 4.3%                              | \$ 18,098,070.65 | \$ 69,866,970.42  | \$ 232,889.90     |                 |
| 21                             | \$ 69,866,970.42     | \$ 53,031,555.86  | 4.0%                              | \$ 16,835,414.56 | \$ 53,031,555.86  | \$ 176,771.85     |                 |
| 22                             | \$ 53,031,555.86     | \$ 36,617,026.67  | 3.9%                              | \$ 16,414,529.20 | \$ 36,617,026.67  | \$ 122,056.76     |                 |
| 23                             | \$ 36,617,026.67     | \$ 21,465,153.56  | 3.6%                              | \$ 15,151,873.10 | \$ 21,465,153.56  | \$ 71,550.51      |                 |
| 24                             | \$ 21,465,153.56     | \$ 4,629,739.00   | 4.0%                              | \$ 16,835,414.56 | \$ 4,629,739.00   | \$ 15,432.46      |                 |
| 25                             | \$ 4,629,739.00      | \$ (0.00)         | 1.1%                              | \$ 4,629,739.00  | \$ (0.00)         | \$ (0.00)         |                 |
|                                |                      |                   | 100.0%                            |                  |                   | \$ 16,972,903.78  |                 |

Notes:  
 1. Drawdown percentage as per table 10-1 Construction Payment Schedule from Appendix 10 of Draft Agreement for Frederick County Facility 7/13/09

Capital Region SWMP  
Sources and Uses of Funds  
SW Treatment Facility

**Assumptions**

|                                                    |                |                           |           |
|----------------------------------------------------|----------------|---------------------------|-----------|
| Facility Design Capacity (TPD)                     | 1500           | Construction period       | 39 months |
| Facility Construction Price \$2009 <sup>1</sup>    | \$ 332,000,000 | Bond Term                 | 30 yrs    |
| Facility Construction Price in \$2012 <sup>2</sup> | \$ 362,785,364 | <b>Interest rates</b>     |           |
| Project development Expenses @ 7.5% <sup>3</sup>   | \$ 24,900,000  | Tax exempt Bonds          | 6.00%     |
| Contingency @ 10%                                  | \$ 33,200,000  | Debt Service reserve Fund | 4.00%     |
|                                                    |                | Capitalized interest Fund | 4.00%     |
|                                                    |                | Construction Fund         | 4.00%     |

**Total Construction Costs \$**

|                |           |
|----------------|-----------|
| \$ 420,885,364 |           |
| \$ 553,857,780 | 553857780 |

**Sources of Funds**

|               |    |             |
|---------------|----|-------------|
| Bond Proceeds | \$ | 553,857,780 |
|---------------|----|-------------|

**Uses of Funds**

|                                                       |    |              |
|-------------------------------------------------------|----|--------------|
| Construction Fund                                     | \$ | 420,885,364  |
| Underwriters discount @ 0.75 % of Bond Proceeds       | \$ | 4,153,933    |
| Cost of Bond Issuance @ 1.0 % of Bond proceeds        | \$ | 5,538,578    |
| Capitalized Interest                                  | \$ | 108,002,267  |
| Debt service reserve Fund                             | \$ | 40,237,165   |
| Resident Engineer CQA/QC @ 0.75% of Construction Fund | \$ | 3,156,640    |
| Bond Insurance @ 0.2% of bond proceeds                | \$ | 1,107,716    |
| Less Interest earned during construction:             |    |              |
| Debt service reserve Fund                             | \$ | (5,230,831)  |
| Capitalized Interest                                  | \$ | (7,020,147)  |
| Construction Fund                                     | \$ | (16,972,904) |
| Total Uses of Funds                                   | \$ | 553,857,780  |

Notes:

1. Based on proposed Facility in Frederick County MD
2. Assumes 3% annual inflation of the 2009 Facility Construction Price
3. Includes siting studies, acquisition, preliminary environmental review, RFP preparation, review, negotiations of project agreements

Estimated Operating and Maintenance Cost  
1500 TPD SW Treatment Facility

|                            | Unit              | Unit Cost    | Item Total in 2009\$ |
|----------------------------|-------------------|--------------|----------------------|
| Labor and Salary 1         | 60                | \$ 60,000.00 | \$ 3,600,000.00      |
| Fringe Benefits            |                   | 35%          | \$ 1,260,000.00      |
| Maintenance 2              | \$ per ton        | \$ 5.00      | \$ 2,550,000.00      |
| Utility Charges 3          | \$ per ton        | \$ 1.00      | \$ 510,000.00        |
| Chemicals 4                | \$ per ton        | \$ 2.00      | \$ 1,020,000.00      |
| Contract Services 5        | \$ per year       |              | \$ 520,000.00        |
| Insurance 6                | \$ per year       |              | \$ 308,000.00        |
| Fuel 7                     | \$ per year       |              | \$ 50,000.00         |
| Equipment Rental 8         | \$ per year       |              | \$ 200,000.00        |
|                            | % of construction |              |                      |
| Equipment Replacement Fund | Cost              | 0.5%         | \$ 1,660,000.00      |
| Subtotal                   |                   |              | \$ 11,678,000.00     |
| Management Fee             |                   | 20%          | \$ 2,335,600.00      |
| Contingency                |                   | 10%          | \$ 1,167,800.00      |
| Total                      |                   |              | \$ 15,181,400.00     |
| Cost per ton 9             |                   |              | \$ 29.77             |

1. 60 Full time operating employees based on Covanta Presentation to SWMP Committee
2. Includes recurring maintenance on all fixed and mobile equipment
3. Includes water, sewer, internet and telephone
4. Includes allowance for chemicals to operate air pollution control equipment
5. Professional, laboratory and other contract services
6. Based on% of wages plus \$200,000 for workers comp, vehicle insurance and CGL insurance
7. Fuel for operating equipment and auxiliary fuel for furnace start-up.
8. Allowance for equipment rental used for facility maintenance
9. Based on facility receipt of 510,000 tons per year

Excludes ash and nonprocessable waste disposal cost

Sources:

Covanta Presentation  
MOSA Summary Report by GBB march 2009



Estimated Operating and Maintenance Cost  
1500 TPD SW Treatment Facility

|                            | Unit                   | Unit Cost       | Item Total in 2009\$ |
|----------------------------|------------------------|-----------------|----------------------|
| Labor and Salary 1         |                        | 60 \$ 60,000.00 | \$ 3,600,000.00      |
| Fringe Benefits            |                        | 35%             | \$ 1,260,000.00      |
| Maintenance 2              | \$ per ton             | \$ 5.00         | \$ 2,295,000.00      |
| Utility Charges 3          | \$ per ton             | \$ 1.00         | \$ 459,000.00        |
| Chemicals 4                | \$ per ton             | \$ 2.00         | \$ 918,000.00        |
| Contract Services 5        | \$ per year            |                 | \$ 520,000.00        |
| Insurance 6                | \$ per year            |                 | \$ 308,000.00        |
| Fuel 7                     | \$ per year            |                 | \$ 50,000.00         |
| Equipment Rental 8         | \$ per year            |                 | \$ 200,000.00        |
| Equipment Replacement Fund | % of construction Cost | 0.5%            | \$ 1,660,000.00      |
| Subtotal                   |                        |                 | \$ 11,270,000.00     |
| Management Fee             |                        | 20%             | \$ 2,254,000.00      |
| Contingency                |                        | 10%             | \$ 1,127,000.00      |
| Total                      |                        |                 | \$ 14,651,000.00     |
| Cost per ton 9             |                        |                 | 31.91938998          |

1. 60 Full time operating employees based on Covanta Presentation to SWMP Committee
2. Includes recurring maintenance on all fixed and mobile equipment
3. Includes water, sewer, internet and telephone
4. Includes allowance for chemicals to operate air pollution control equipment
5. Professional, laboratory and other contract services
6. Based on% of wages plus \$200,000 for workers comp, vehicle insurance and CGL insurance
7. Fuel for operating equipment and auxiliary fuel for furnace start-up.
8. Allowance for equipment rental used for facility maintenance
9. Based on facility receipt of 459,000 tons per year

Excludes ash and nonprocessable waste disposal cost

Sources:

Covanta Presentation  
MOSA Summary Report by GBB march 2009

**Capital Region SWMP  
Life Cycle Cost and Revenue  
SSOW Facility**

**Assumptions**

|                                                          |                 |
|----------------------------------------------------------|-----------------|
| Facility Throughput Capacity (TPY)                       | 40000           |
| Anticipated Annual Throughput (tons)                     | 40,000          |
| Estimated Mass Reduction (% of throughput)               | 50%             |
| Compost produced per processed ton                       | 50%             |
| Compost Price assumption (\$/ton)                        | 30.00           |
| Authority Share of Compost Revenue %                     | 100%            |
| Percentage residue by weight <sup>1</sup>                | 5%              |
| Annual SSOW O&M Cost (2009\$) <sup>2</sup>               | \$ 1,010,000.00 |
| Non-processible disposal fee (\$/ton, 2009) <sup>3</sup> | \$ 68.33        |

**Annual Inflation Rates**

|                                                         |      |
|---------------------------------------------------------|------|
| Compost Revenue rate                                    | 3.0% |
| Ferrous and Non-Ferrous Revenue rate                    | 3.0% |
| Non-processible and residue disposal fee inflation rate | 3.0% |
| Facility operating cost inflation rate                  | 3.0% |
| Present Value Discount Rate                             | 3.0% |

| Calendar Year                                  | 2013                | 2015                | 2020                | 2025                | 2030                | 2032                |
|------------------------------------------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|
| Inflation Year                                 | 4                   | 6                   | 11                  | 16                  | 21                  | 23                  |
| Facility Operating Year                        | 1                   | 3                   | 8                   | 13                  | 18                  | 20                  |
| SSOW input (tpy)                               | 40,000              | 40,000              | 40,000              | 40,000              | 40,000              | 40,000              |
| SSOW Processed (tpy)                           | 40,000              | 40,000              | 40,000              | 40,000              | 40,000              | 40,000              |
| Net compost Generated (tpy)                    | 19,000              | 19,000              | 19,000              | 19,000              | 19,000              | 19,000              |
| Compost revenue to Authority (\$) <sup>4</sup> | \$ 641,540.02       | \$ 680,609.81       | \$ 789,013.31       | \$ 914,682.67       | \$ 1,060,367.91     | \$ 1,124,944.31     |
| Interest on Debt Service Reserve Account       | \$ 40,156           | \$ 40,156           | \$ 40,156           | \$ 40,156           | \$ 40,156           | \$ 40,156           |
| Residue for disposal (tons)                    | 2,000               | 2,000               | 2,000               | 2,000               | 2,000               | 2,000               |
| Landfill Disposal Cost <sup>4</sup>            | \$ 153,812          | \$ 163,179          | \$ 189,169          | \$ 219,299          | \$ 254,228          | \$ 269,710          |
| Annual Operating Cost <sup>4</sup>             | \$ 1,136,764        | \$ 1,205,993        | \$ 1,398,076        | \$ 1,620,754        | \$ 1,878,898        | \$ 1,993,322        |
| Debt Service                                   | \$ 1,003,907        | \$ 1,003,907        | \$ 1,003,907        | \$ 1,003,907        | \$ 1,003,907        | \$ 1,003,907        |
| Total SSOW Facility Expenses                   | \$ 2,294,483        | \$ 2,373,079        | \$ 2,591,153        | \$ 2,843,960        | \$ 3,137,032        | \$ 3,266,940        |
| Total SSOW Facility Revenue                    | \$ 681,696          | \$ 720,766          | \$ 829,170          | \$ 954,839          | \$ 1,100,524        | \$ 1,165,101        |
| <b>Net SSOW Facility Expenses</b>              | <b>\$ 1,612,787</b> | <b>\$ 1,652,313</b> | <b>\$ 1,761,983</b> | <b>\$ 1,889,121</b> | <b>\$ 2,036,508</b> | <b>\$ 2,101,839</b> |
| Net Expenses per ton of Waste Input            | \$ 40.32            | \$ 41.31            | \$ 44.05            | \$ 47.23            | \$ 50.91            | \$ 52.55            |
| Present Value in 2009\$                        | \$ 35.82            | \$ 34.59            | \$ 31.82            | \$ 29.43            | \$ 27.37            | \$ 26.62            |
| <b>20 year average NPV in 2009\$</b>           | <b>\$ 30.82</b>     |                     |                     |                     |                     |                     |

**Notes**

1. Conservative increase of Norterra's note of 2% residue at Joyceville
2. As per SSOW Facility O&M Cost sheet
3. Based on CHA calculations provided in Transfer Station Alternative 1 spreadsheets.
4. Escalated annually at rate of inflation

SSOW Facility  
Operating Cost Estimate  
150 TPD

|                                  | Units | Unit Cost    | Extended Cost           | Avg per employee                        |
|----------------------------------|-------|--------------|-------------------------|-----------------------------------------|
| <b>1) LABOR</b>                  |       |              |                         |                                         |
| (a) Foreman                      | 1     | \$ 60,000.00 | \$ 60,000.00            |                                         |
| (b) Scale Attendant              | 1     | \$ 31,000.00 | \$ 31,000.00            |                                         |
| (c) equipment operators          | 2     | \$ 57,000.00 | \$ 114,000.00           |                                         |
| (d) Mechanics                    | 1     | \$ 50,000.00 | \$ 50,000.00            |                                         |
| (e) Laborers                     | 2     | \$ 27,000.00 | \$ 54,000.00            |                                         |
|                                  |       |              | <b>\$ 309,000.00</b>    |                                         |
| <b>Labor Subtotal</b>            |       |              |                         |                                         |
| (f) Overtime                     |       | 10%          | \$ 30,900.00            |                                         |
| (g) Replacement labor            |       | 10%          | \$ 30,900.00            |                                         |
| (h) Fringe Benefits              |       | 31%          | \$ 95,790.00            |                                         |
| (i) Management                   |       | 5%           | \$ 15,450.00            |                                         |
|                                  |       |              | <b>\$ 482,040.00</b>    | <b>\$ 68,862.86</b>                     |
| <b>Labor and Fringe Total</b>    |       |              |                         |                                         |
| <b>2) EQUIPMENT OPERATIONS</b>   |       |              |                         |                                         |
| (a) Fuel for Mobile Equipment    |       | \$ 12,500.00 | \$ 37,500.00            |                                         |
| (b) equipment maintenance        | LS    |              | \$ 10,000.00            |                                         |
| (c) equipment replacement fund   | LS    | \$ -         | \$ 50,000.00            |                                         |
|                                  |       |              | <b>\$ 97,500.00</b>     |                                         |
| <b>3) MISC. O&amp;M EXPENSES</b> |       |              |                         |                                         |
| (a) Utilities                    | LS    |              | \$ 40,000.00            |                                         |
| (b) Other insurance              | LS    |              | \$ 30,000.00            |                                         |
| (c) Building and grounds         |       | 1.5%         | \$ 98,345.43            |                                         |
|                                  |       |              | <b>\$ 168,345.43</b>    |                                         |
|                                  |       |              | <b>O&amp;M Subtotal</b> | <b>\$ 747,885.43</b>                    |
| Contingency @ 15%                |       | 15%          | \$ 112,182.81           |                                         |
| Administrative Overhead @ 20%    |       | 20%          | \$ 149,577.09           |                                         |
| <b>O&amp;M Cost Total</b>        |       |              | <b>\$ 1,010,000.00</b>  | <b>Rounded to the nearest thousand.</b> |

Capital Region SWMP  
Sources and Uses of Funds  
SSOW Facility

**Assumptions**

|                                                 |                  |                           |           |
|-------------------------------------------------|------------------|---------------------------|-----------|
| Annual Inflation Rate for Construction Price    | 3%               | Construction period       | 12 months |
| Facility Throughput Capacity (TPY)              | 40,000           | Bond Term                 | 20 yrs    |
| Facility Construction Price \$2009 <sup>1</sup> | \$ 6,000,000     | <b>Interest rates</b>     |           |
| Facility Construction Price \$2012 <sup>2</sup> | \$ 6,556,362     | Tax exempt Bonds          | 6.00%     |
| Project development Expenses @ 15% <sup>3</sup> | \$ 983,454       | Debt Service reserve Fund | 4.00%     |
| Property Acquisition - 15 acres @ \$75K/acre    | \$ 1,125,000     | Capitalized interest Fund | 4.00%     |
| Contingency @ 10%                               | \$ 866,482       | Construction Fund         | 4.00%     |
| <b>Total Construction Costs \$</b>              | <b>9,531,298</b> |                           |           |

**Sources of Funds**

|               |               |          |
|---------------|---------------|----------|
| Bond Proceeds | \$ 11,514,735 | 11514735 |
|---------------|---------------|----------|

**Uses of Funds**

|                                                      |                   |
|------------------------------------------------------|-------------------|
| Construction Fund                                    | \$ 9,531,298      |
| Underwriters discount @ 0.75 % of Bond Proceeds      | \$ 86,361         |
| Cost of Bond Issuance @ 1.0 % of Bond proceeds       | \$ 115,147        |
| Capitalized Interest                                 | \$ 690,884        |
| Debt service reserve Fund                            | \$ 1,003,907      |
| Resident Engineer CQA/QC @ 2.5% of Construction Fund | \$ 298,282        |
| Bond Insurance @ 0.2% of bond proceeds               | \$ 23,029         |
| Less Interest earned during construction:            |                   |
| Debt service reserve Fund                            | \$ (40,156)       |
| Capitalized Interest                                 | \$ (13,818)       |
| Construction Fund                                    | \$ (120,200)      |
| <b>Total Uses of Funds \$</b>                        | <b>11,514,735</b> |

Notes:

1. Based on RFI response from Nortera noting Merchant Facility Cost in Joyceville ON of \$3Million US\$ for a 20,000 TPY facility.
2. Assumes 3% annual inflation rate from 2009 to 2012.
3. Includes siting studies, preliminary environmental review, Bid preparation, review, negotiations of project agreements

Construction Fund Drawdown  
 Equivalent Monthly Drawdown

| Months after notice to proceed | Beginning Balance in |                   | Drawdown        | Ending Balance in |                   | Interest Earned |
|--------------------------------|----------------------|-------------------|-----------------|-------------------|-------------------|-----------------|
|                                | Construction Fund    | Construction Fund |                 | Construction Fund | Construction Fund |                 |
| 1                              | \$ 6,556,362.00      | \$ 546,363.50     | \$ 546,363.50   | \$ 6,009,998.50   | \$ 20,033.33      |                 |
| 2                              | \$ 6,009,998.50      | \$ 546,363.50     | \$ 546,363.50   | \$ 5,463,635.00   | \$ 18,212.12      |                 |
| 3                              | \$ 5,463,635.00      | \$ 546,363.50     | \$ 546,363.50   | \$ 4,917,271.50   | \$ 16,390.91      |                 |
| 4                              | \$ 4,917,271.50      | \$ 546,363.50     | \$ 546,363.50   | \$ 4,370,908.00   | \$ 14,569.69      |                 |
| 5                              | \$ 4,370,908.00      | \$ 546,363.50     | \$ 546,363.50   | \$ 3,824,544.50   | \$ 12,748.48      |                 |
| 6                              | \$ 3,824,544.50      | \$ 546,363.50     | \$ 546,363.50   | \$ 3,278,181.00   | \$ 10,927.27      |                 |
| 7                              | \$ 3,278,181.00      | \$ 546,363.50     | \$ 546,363.50   | \$ 2,731,817.50   | \$ 9,106.06       |                 |
| 8                              | \$ 2,731,817.50      | \$ 546,363.50     | \$ 546,363.50   | \$ 2,185,454.00   | \$ 7,284.85       |                 |
| 9                              | \$ 2,185,454.00      | \$ 546,363.50     | \$ 546,363.50   | \$ 1,639,090.50   | \$ 5,463.64       |                 |
| 10                             | \$ 1,639,090.50      | \$ 546,363.50     | \$ 546,363.50   | \$ 1,092,727.00   | \$ 3,642.42       |                 |
| 11                             | \$ 1,092,727.00      | \$ 546,363.50     | \$ 546,363.50   | \$ 546,363.50     | \$ 1,821.21       |                 |
| 12                             | \$ 546,363.50        | \$ 546,363.50     | \$ 546,363.50   | \$ -              | \$ -              |                 |
|                                |                      | \$ 6,556,362.00   | \$ 6,556,362.00 | \$ 120,199.97     | \$ 120,199.97     |                 |



**Estimated Capital Cost  
1000 TPD Transfer Station  
2009 Cost**

|                                                     | <u>Unit</u>   |    | <u>Unit Cost</u> |           | <u>Extended Cost</u> |
|-----------------------------------------------------|---------------|----|------------------|-----------|----------------------|
| <b>Building and Site Development</b>                |               |    |                  |           |                      |
| Land Purchase <sup>1</sup>                          | 5 acres       | \$ | 75,000           | \$        | 375,000              |
| Site Preparation and Development <sup>2</sup>       | 5 acres       | \$ | 175,000          | \$        | 875,000              |
| Transfer Building <sup>3</sup>                      | 40000 sq. ft. | \$ | 175              | \$        | 7,000,000            |
| Scale House and Scales <sup>4</sup>                 | 2 scales      | \$ | 250,000          | \$        | 500,000              |
|                                                     |               |    | <b>Subtotal</b>  | <b>\$</b> | <b>8,750,000</b>     |
| <b>Mobile Transfer Equipment</b>                    |               |    |                  |           |                      |
| Wheel Loader                                        | 2             | \$ | 250,000          | \$        | 500,000              |
| Excavator w/ Grapple                                | 2             | \$ | 350,000          | \$        | 700,000              |
| Tools and Spare Parts @ 8%                          |               |    |                  | \$        | 96,000               |
| Contingency                                         | 15%           |    |                  | \$        | 194,400              |
|                                                     |               |    | <b>Subtotal</b>  | <b>\$</b> | <b>1,490,400</b>     |
| <b>Total Transfer Station Facility Capital Cost</b> |               |    |                  | <b>\$</b> | <b>10,240,400</b>    |

Notes

1 - assumes land acquisition cost of 75,000 per acres

2 - Includes estimates for earthwork, paved roadways, site utilities and landscaping

3 - Pre-engineered buiding, concrete floors, push walls, foundation, load out scales, ventilation and electromechanical equipment

4 - Pre-engineered building, 2 truck scales and office furnishings

Capital Region SWMP  
Sources and Uses of Funds  
Transfer Station Facility  
Nominal Capacity 1000TPD

**Assumptions**

|                                                                      |    |                   |  |                                 |
|----------------------------------------------------------------------|----|-------------------|--|---------------------------------|
| GO Bond financing                                                    |    |                   |  |                                 |
| Annual Inflation Rate for Construction Price                         |    | 3%                |  | 12 months                       |
| Facility Construction Price \$2009 <sup>1</sup>                      | \$ | 10,240,400        |  |                                 |
| Facility Construction Price \$2015 <sup>2</sup>                      | \$ | 12,227,573        |  | Bond Term 20 yrs                |
| Project development Expenses @ 15% <sup>3</sup>                      | \$ | 1,536,060         |  | <b>Interest rates</b>           |
| Property Acquisition - 5 acres @ \$75K included in Facility construc | \$ | -                 |  | Tax exempt Bonds 6.00%          |
| Contingency @ 10%                                                    |    | 1,376,363         |  | Debt Service reserve Fund 4.00% |
|                                                                      |    | <b>15,139,996</b> |  | Capitalized interest Fund 4.00% |
|                                                                      |    |                   |  | Construction Fund 4.00%         |

**Sources of Funds**

|               |    |            |  |          |
|---------------|----|------------|--|----------|
| Bond Proceeds | \$ | 16,535,673 |  | 16535673 |
|---------------|----|------------|--|----------|

**Uses of Funds**

|                                                      |    |                |  |  |
|------------------------------------------------------|----|----------------|--|--|
| Construction Fund                                    | \$ | 15,139,996     |  |  |
| Underwriters discount @ 0.75 % of Bond Proceeds      | \$ | 124,018        |  |  |
| Cost of Bond Issuance @ 1.0 % of Bond proceeds       | \$ | 165,357        |  |  |
| Capitalized Interest                                 | \$ | 992,140        |  |  |
| Debt service reserve Fund <sup>4</sup>               | \$ | -              |  |  |
| Resident Engineer CQA/QC @ 2.5% of Construction Fund | \$ | 378,500        |  |  |
| Bond Insurance @ 0.2% of bond proceeds               | \$ | 33,071         |  |  |
| Less Interest earned during construction:            |    |                |  |  |
| Debt service reserve Fund                            | \$ | -              |  |  |
| Capitalized Interest                                 | \$ | (19,843)       |  |  |
| Construction Fund                                    | \$ | (277,567)      |  |  |
|                                                      |    |                |  |  |
| Total Uses of Funds                                  | \$ | 16,535,673     |  |  |
| Annual Debt service payment                          |    | \$1,441,655.32 |  |  |

Notes:

1. Based on RFI response from Nortera noting Merchant Facility Cost in Joyceville ON of \$3Million US\$ for a 20,000 TPY facility.
2. Assumes 3% annual inflation rate from 2009 to 2012.
3. Includes siting studies, preliminary environmental review, Bid preparation, review, negotiations of project agreements
4. Debt service reserve not required for GO Bond financing



Transfer Station Cost Estimate  
 Capital Cost Estimate  
 1,000 TPD

|                                                   | Units   | Unit Cost  | Extended<br>Cost 2009\$ | Estimated<br>Cost 2015\$ |
|---------------------------------------------------|---------|------------|-------------------------|--------------------------|
| Open Top Trailer - 105CY <sup>1</sup>             | 40      | \$ 75,000  | \$ 3,000,000            | <b>3,582,156.89</b>      |
| Tractors <sup>1</sup>                             | 40      | \$ 125,000 | \$ 5,000,000            | <b>5,970,261.48</b>      |
| Tools and Spare Parts @ 1%                        | 1%      |            | \$ 80,000               | <b>95,524.18</b>         |
| Contingency @ 15%                                 | 15%     |            | \$ 1,212,000            | \$ 1,447,191             |
| <b>Rolling Stock Capital Cost Total</b>           |         |            | <b>\$ 9,292,000</b>     | <b>11,095,133.94</b>     |
| <b>Total Annualized Capital Cost Amortization</b> | 5.0%    |            | 5 years                 | <b>\$2,562,696</b>       |
| Assumed Annual Tonnage                            | 213,000 |            |                         |                          |
| Amortized Facility Cost per ton                   |         | \$ 12.03   |                         |                          |

## Notes:

1 - assumes capacity for transporting 1000 TPD, w/ 25 ton payload, and 1 round trip per day.

Transfer Station Cost Estimate  
 Operating Cost Estimate  
 1,000 TPD

Assumptions:

|                                  |           |
|----------------------------------|-----------|
| Annual tonnage                   | 213,000   |
| Round trip travel time           | 7 hrs     |
| turnaround time at LF            | .5 hrs    |
| turnaround time at TS            | .5 hrs    |
| Round trip mileage to High Acres | 415       |
| trailer payload                  | 25        |
| Annual Round trips               | 8,520     |
| Annual VMT                       | 3,535,800 |
| Thruway tolls (round trip)       | \$ 60.00  |
| Road Fuel Cost \$/gallon         | \$ 3.00   |
| Road Fuel economy MPG            | 7         |
| Fuel Cost \$/VMT                 | \$ 0.43   |

|                                                | Units                  | Unit Cost   | Extended Cost   |                                 |
|------------------------------------------------|------------------------|-------------|-----------------|---------------------------------|
| <b>1) LABOR</b>                                |                        |             |                 |                                 |
| (d) Truck Drivers                              |                        | 40 \$       | 40,000.00       | \$ 1,600,000.00                 |
|                                                | Labor Subtotal         |             |                 | \$ 1,600,000.00                 |
| (g) Overtime                                   | 10%                    |             |                 | \$ 160,000.00                   |
| (h) Replacement labor                          | 10%                    |             |                 | \$ 160,000.00                   |
| (i) Fringe Benefits                            | 31%                    |             |                 | \$ 496,000.00                   |
| (j) Management                                 | 5%                     |             |                 | \$ 80,000.00                    |
|                                                | Labor and Fringe Total |             |                 | \$ 2,496,000.00                 |
| <b>2) EQUIPMENT OPERATIONS</b>                 |                        |             |                 |                                 |
| (b) Fuel for tractors                          | 3,535,800              | \$ 0.43     | \$ 1,515,342.86 |                                 |
| © Tires @ \$/VMT                               | 3,535,800              | \$ 0.28     | \$ 972,345.00   |                                 |
| (d) equipment maintenance                      | 5%                     |             | \$ 464,600.00   |                                 |
| (e) equipment replacement                      | 0%                     |             | \$ -            |                                 |
| (f) tolls                                      | 8,520                  | \$ 60.00    | \$ 511,200.00   |                                 |
|                                                |                        |             |                 | \$ 3,463,487.86                 |
| <b>3) MISCELLANEOUS EXPENSES</b>               |                        |             |                 |                                 |
| (b) Vehicle license and insurance <sup>1</sup> | 40                     | \$ 5,000.00 | \$ 200,000.00   | \$ 200,000.00                   |
| <b>4) CONTINGENCIES</b>                        |                        |             |                 |                                 |
|                                                | 15%                    |             |                 | \$ 923,923.18                   |
| O&M Cost Total                                 |                        |             |                 | \$ 7,083,411.04 \$ 33.26 \$/ton |
| Total Amortized capital cost for Rolling Stock |                        |             |                 | \$2,562,696.32 \$ 12.03 \$/ton  |
| Total Annual Transfer and Transport Cost       |                        |             |                 | \$9,646,107.36                  |
| <b>Transport Cost per ton</b>                  |                        |             |                 | <b>\$ 45.29</b>                 |
| <b>(NOT INCLUDING DISPOSAL COST)</b>           |                        |             |                 |                                 |

Notes:

1- Based on 2.5% of vehicle cost



**Estimated Capital Cost  
750-1000 TPD Transfer Station  
2009 Cost**

|                                                     | <u>Unit</u>   |    | <u>Unit Cost</u> |           | <u>Extended Cost</u> |
|-----------------------------------------------------|---------------|----|------------------|-----------|----------------------|
| <b>Building and Site Development</b>                |               |    |                  |           |                      |
| Land Purchase <sup>1</sup>                          | 5 acres       | \$ | 75,000           | \$        | 375,000              |
| Site Preparation and Development <sup>2</sup>       | 5 acres       | \$ | 175,000          | \$        | 875,000              |
| Transfer Building <sup>3</sup>                      | 40000 sq. ft. | \$ | 175              | \$        | 7,000,000            |
| Scale House and Scales <sup>4</sup>                 | 2 scales      | \$ | 250,000          | \$        | 500,000              |
|                                                     |               |    | <b>Subtotal</b>  | <b>\$</b> | <b>8,750,000</b>     |
| <b>Mobile Transfer Equipment</b>                    |               |    |                  |           |                      |
| Wheel Loader                                        | 2             | \$ | 250,000          | \$        | 500,000              |
| Excavator w/ Grapple                                | 2             | \$ | 350,000          | \$        | 700,000              |
| Tools and Spare Parts @ 8%                          |               |    |                  | \$        | 96,000               |
| Contingency                                         | 15%           |    |                  | \$        | 194,400              |
|                                                     |               |    | <b>Subtotal</b>  | <b>\$</b> | <b>1,490,400</b>     |
| <b>Total Transfer Station Facility Capital Cost</b> |               |    |                  | <b>\$</b> | <b>10,240,400</b>    |

Notes

1 - assumes land acquisition cost of 75,000 per acres

2 - Includes estimates for earthwork, paved roadways, site utilities and landscaping

3 - Pre-engineered building, concrete floors, push walls, foundation, load out scales, ventilation and electromechanical equipment

4 - Pre-engineered building, 2 truck scales and office furnishings

Construction Fund Drawdown  
 Equivalent Monthly Drawdown

4%

| Months after notice to proceed | Beginning Balance in<br>Construction Fund | Drawdown         | Ending Balance in<br>Construction Fund | Interest<br>Earned |
|--------------------------------|-------------------------------------------|------------------|----------------------------------------|--------------------|
| 1                              | \$ 15,139,996.45                          | \$ 1,261,666.37  | \$ 13,878,330.08                       | \$ 46,261.10       |
| 2                              | \$ 13,878,330.08                          | \$ 1,261,666.37  | \$ 12,616,663.71                       | \$ 42,055.55       |
| 3                              | \$ 12,616,663.71                          | \$ 1,261,666.37  | \$ 11,354,997.34                       | \$ 37,849.99       |
| 4                              | \$ 11,354,997.34                          | \$ 1,261,666.37  | \$ 10,093,330.97                       | \$ 33,644.44       |
| 5                              | \$ 10,093,330.97                          | \$ 1,261,666.37  | \$ 8,831,664.60                        | \$ 29,438.88       |
| 6                              | \$ 8,831,664.60                           | \$ 1,261,666.37  | \$ 7,569,998.23                        | \$ 25,233.33       |
| 7                              | \$ 7,569,998.23                           | \$ 1,261,666.37  | \$ 6,308,331.85                        | \$ 21,027.77       |
| 8                              | \$ 6,308,331.85                           | \$ 1,261,666.37  | \$ 5,046,665.48                        | \$ 16,822.22       |
| 9                              | \$ 5,046,665.48                           | \$ 1,261,666.37  | \$ 3,784,999.11                        | \$ 12,616.66       |
| 10                             | \$ 3,784,999.11                           | \$ 1,261,666.37  | \$ 2,523,332.74                        | \$ 8,411.11        |
| 11                             | \$ 2,523,332.74                           | \$ 1,261,666.37  | \$ 1,261,666.37                        | \$ 4,205.55        |
| 12                             | \$ 1,261,666.37                           | \$ 1,261,666.37  | \$ -                                   | \$ -               |
|                                |                                           | \$ 15,139,996.45 |                                        | \$ 277,566.60      |

Capital Region SWMP  
Sources and Uses of Funds  
Transfer Station Facility  
Nominal Capacity 750TPD

**Assumptions**

|                                                                       |    |                   |    |
|-----------------------------------------------------------------------|----|-------------------|----|
| GO Bond financing                                                     |    |                   |    |
| Annual Inflation Rate for Construction Price                          |    |                   | 3% |
| Facility Construction Price \$2009 <sup>1</sup>                       | \$ | 10,240,400        |    |
| Facility Construction Price \$2015 <sup>2</sup>                       | \$ | 12,227,573        |    |
| Project development Expenses @ 15% <sup>3</sup>                       | \$ | 1,536,060         |    |
| Property Acquisition - 5 acres @ \$75K included in Facility construct | \$ | -                 |    |
| Contingency @ 10%                                                     |    | 1,376,363         |    |
|                                                                       |    | <b>15,139,996</b> |    |

**Total Construction Costs \$**

|                         |    |            |          |
|-------------------------|----|------------|----------|
| <b>Sources of Funds</b> |    |            |          |
| Bond Proceeds           | \$ | 18,187,206 | 18187206 |

**Uses of Funds**

|                                                      |    |                   |  |
|------------------------------------------------------|----|-------------------|--|
| Construction Fund                                    | \$ | 15,139,996        |  |
| Underwriters discount @ 0.75 % of Bond Proceeds      | \$ | 136,404           |  |
| Cost of Bond Issuance @ 1.0 % of Bond proceeds       | \$ | 181,872           |  |
| Capitalized Interest                                 | \$ | 1,091,232         |  |
| Debt service reserve Fund <sup>4</sup>               | \$ | 1,585,643         |  |
| Resident Engineer CQA/QC @ 2.5% of Construction Fund | \$ | 378,500           |  |
| Bond Insurance @ 0.2% of bond proceeds               | \$ | 36,374            |  |
| Less Interest earned during construction:            |    |                   |  |
| Debt service reserve Fund                            | \$ | (63,426)          |  |
| Capitalized Interest                                 | \$ | (21,825)          |  |
| Construction Fund                                    | \$ | (277,567)         |  |
| <b>Total Uses of Funds \$</b>                        |    | <b>18,187,206</b> |  |

Notes:

1. Based on RFI response from Nortera noting Merchant Facility Cost in Joyceville ON of \$3Million US\$ for a 20,000 TPY facility.
2. Assumes 3% annual inflation rate from 2009 to 2012.
3. Includes siting studies, preliminary environmental review, Bid preparation, review, negotiations of project agreements
4. Debt service reserve equal to 1 years debt service payment.

Transfer Station Cost Estimate  
 Capital Cost Estimate  
 750 TPD

|                                                   | Units    | Unit Cost  | Extended<br>Cost 2009\$ | Estimated<br>Cost 2015\$ |
|---------------------------------------------------|----------|------------|-------------------------|--------------------------|
| Open Top Trailer - 105CY <sup>1</sup>             | 30       | \$ 75,000  | \$ 2,250,000            | <b>2,686,617.67</b>      |
| Tractors <sup>1</sup>                             | 30       | \$ 125,000 | \$ 3,750,000            | <b>4,477,696.11</b>      |
| Tools and Spare Parts @ 1%                        | 1%       |            | \$ 60,000               | <b>71,643.14</b>         |
| Contingency @15%                                  | 15%      |            | \$ 909,000              | \$ 1,085,394             |
| <b>Rolling Stock Capital Cost Total</b>           |          |            | <b>\$ 6,969,000</b>     | <b>8,321,350.45</b>      |
| <b>Total Annualized Capital Cost Amortization</b> | 5.0%     |            | 5 years                 | <b>\$1,922,022</b>       |
| Assumed Annual Tonnage                            | 167,000  |            |                         |                          |
| Amortized Facility Cost per ton                   | \$ 11.51 |            |                         |                          |

## Notes:

1 - assumes capacity for transporting 750 TPD, w/ 25 ton payload, and 1 round trip per day.

Transfer Station Cost Estimate  
 Operating Cost Estimate  
 750TPD Nominal Capacity

## Assumptions:

Annual tonnage 148,000  
 Diesel Fuel Cost( \$/gal) \$ 3.00

|                                       | Units     | Unit Cost                     | Extended Cost          |                        |
|---------------------------------------|-----------|-------------------------------|------------------------|------------------------|
| <b>1) LABOR</b>                       |           |                               |                        |                        |
| (a) Foreman                           | 1         | \$ 60,000.00                  | \$ 60,000.00           |                        |
| (b) Scale Attendant                   | 1         | \$ 31,000.00                  | \$ 31,000.00           |                        |
| © equipment operators                 | 2         | \$ 57,000.00                  | \$ 114,000.00          |                        |
| (e) Mechanics                         | 1         | \$ 50,000.00                  | \$ 50,000.00           |                        |
| (f) Laborers                          | 4         | \$ 27,000.00                  | \$ 108,000.00          |                        |
|                                       |           | <b>Labor Subtotal</b>         | <b>\$ 363,000.00</b>   |                        |
| (g) Overtime                          | 10%       |                               | \$ 36,300.00           |                        |
| (h) Replacement labor                 | 10%       |                               | \$ 36,300.00           |                        |
| (i) Fringe Benefits                   | 31%       |                               | \$ 112,530.00          |                        |
| (j) Management                        | 5%        |                               | \$ 18,150.00           |                        |
|                                       |           | <b>Labor and Fringe Total</b> |                        | <b>\$ 566,280.00</b>   |
| <b>2) EQUIPMENT OPERATIONS</b>        |           |                               |                        |                        |
| (a) Fuel for TS Equipment             | 12,500.00 | \$ 3.00                       | \$ 37,500.00           |                        |
| (d) equipment maintenance             | 5%        |                               | \$ 74,520.00           |                        |
| (e) mobile equipment replacement fund | 15%       | \$ -                          | \$ 223,560.00          |                        |
|                                       |           |                               |                        | <b>\$ 335,580.00</b>   |
| <b>3) MISC. O&amp;M EXPENSES</b>      |           |                               |                        |                        |
| (a) Utilities                         | LS        |                               | \$ 40,000.00           |                        |
| © Other insurance                     | LS        |                               | \$ 30,000.00           |                        |
| (d) Building and grounds              | 1.5%      |                               | \$ 153,606.00          |                        |
|                                       |           |                               |                        | <b>\$ 223,606.00</b>   |
|                                       |           | <b>O&amp;M Subtotal</b>       | <b>\$ 1,125,466.00</b> |                        |
| Contingency @ 15%                     | 15%       |                               | \$ 168,819.90          |                        |
| Administrative Overhead @ 20%         | 20%       |                               | \$ 225,093.20          |                        |
| <b>O&amp;M Cost Total</b>             |           |                               | <b>\$ 1,519,379.10</b> | <b>\$ 10.27 \$/ton</b> |



Transfer Station Cost Estimate  
 Operating Cost Estimate  
 750 TPD

Assumptions:

|                                  |           |
|----------------------------------|-----------|
| Annual tonnage                   | 148,000   |
| Round trip travel time           | 7 hrs     |
| turnaround time at LF            | .5 hrs    |
| turnaround time at TS            | .5 hrs    |
| Round trip mileage to High Acres | 415       |
| trailer payload                  | 25        |
| Annual Round trips               | 5,920     |
| Annual VMT                       | 2,456,800 |
| Thruway tolls (round trip)       | \$ 60.00  |
| Road Fuel Cost \$/gallon         | \$ 3.00   |
| Road Fuel economy MPG            | 7         |
| Fuel Cost \$/VMT                 | \$ 0.43   |

|                                                | Units     | Unit Cost    | Extended Cost   |                                 |
|------------------------------------------------|-----------|--------------|-----------------|---------------------------------|
| 1) LABOR <sup>1</sup>                          |           |              |                 |                                 |
| (d) Truck Drivers                              | 25        | \$ 40,000.00 | \$ 1,000,000.00 |                                 |
| Labor Subtotal                                 |           |              | \$ 1,000,000.00 |                                 |
| (g) Overtime                                   | 10%       |              | \$ 100,000.00   |                                 |
| (h) Replacement labor                          | 10%       |              | \$ 100,000.00   |                                 |
| (i) Fringe Benefits                            | 31%       |              | \$ 310,000.00   |                                 |
| (j) Management                                 | 5%        |              | \$ 50,000.00    |                                 |
| Labor and Fringe Total                         |           |              |                 | \$ 1,560,000.00                 |
|                                                |           |              |                 |                                 |
| 2) EQUIPMENT OPERATIONS                        |           |              |                 |                                 |
| (b) Fuel for tractors                          | 2,456,800 | \$ 0.43      | \$ 1,052,914.29 |                                 |
| (c) Tires @ \$/VMT                             | 2,456,800 | \$ 0.28      | \$ 675,620.00   |                                 |
| (d) equipment maintenance                      | 5%        |              | \$ 348,450.00   |                                 |
| (e) equipment replacement                      | 0%        |              | \$ -            |                                 |
| (f) tolls                                      | 5,920     | \$ 60.00     | \$ 355,200.00   |                                 |
|                                                |           |              |                 | \$ 2,432,184.29                 |
|                                                |           |              |                 |                                 |
| 3) MISCELLANEOUS EXPENSES                      |           |              |                 |                                 |
| (b) Vehicle license and insurance <sup>2</sup> | 30        | \$ 5,000.00  | \$ 150,000.00   |                                 |
|                                                |           |              |                 | \$ 150,000.00                   |
|                                                |           |              |                 |                                 |
| 4) CONTINGENCIES                               | 15%       |              |                 | \$ 621,327.64                   |
|                                                |           |              |                 |                                 |
| O&M Cost Total                                 |           |              |                 | \$ 4,763,511.93 \$ 32.19 \$/ton |

Notes:

- 1- Labor based on annual tonnage averaged over 250 operating days per year
- 2- Based on 2.5% of vehicle cost



## **Appendix G**

### **Current Municipal Source Separation Laws and Ordinances**





[www.townofnewscotland.com](http://www.townofnewscotland.com)

# TOWN OF NEW SCOTLAND

Diane R. Deschenes, RMC  
Town Clerk / Tax Collector  
[ddeschenes@townofnewscotland.com](mailto:ddeschenes@townofnewscotland.com)

Carol A. Cootware  
Deputy Town Clerk  
[ccootware@townofnewscotland.com](mailto:ccootware@townofnewscotland.com)

## RESOLUTION 09-135

Supervisor Dolin offered the following resolution and moved its adoption:

**WHEREAS,** in order to promote the public health, safety and welfare and further the purposes of the New York State policy on solid waste management articulated in New York Environmental Conservation Law § 27-0106, the Town of New Scotland is a member of the Capital Region Solid Waste Management Partnership Planning Unit ("Planning Unit"), formerly the Albany New York Solid Waste Energy Recovery Systems (ANSWERS) Solid Waste Management Planning Unit; and

**WHEREAS,** on behalf of the Planning Unit, the City of Albany has prepared a Solid Waste Management Plan (SWMP) which has been accepted by the New York Department of Environmental Conservation; and

**WHEREAS,** the Town Board of the Town of New Scotland has reviewed a Draft Modification to the SWMP dated August 2008 and prepared for the City of Albany by Clough Harbour & Associates LLP; and

**WHEREAS,** as part of the SWMP Modification, the Town and other members of the Planning Unit must: enter into an Intermunicipal Agreement for the services of a Planning Unit Recycling Coordinator, and agree to implement the terms of the SWMP Modification once it is finalized; and

**WHEREAS,** the Town Board of the Town of New Scotland has reviewed the terms of the Intermunicipal Agreement for the services of a Planning Unit Recycling Coordinator; and

**WHEREAS,** by Resolution dated November 17, 2008, the Common Council of the City of Albany, on behalf of the City, accepted and adopted the SWMP Modification and agreed to comply with the SWMP Modification;

## **NOW, THEREFORE, BE IT RESOLVED AS FOLLOWS BY THE TOWN BOARD:**

1. The Town Board accepts and adopts the modifications to the Solid Waste Management Plan for the Planning Unit.
2. The town of New Scotland agrees to comply with the Solid Waste Management Plan modifications.





www.townofnewscotland.com

# TOWN OF NEW SCOTLAND

Diane R. Deschenes, RMC  
Town Clerk / Tax Collector  
ddeschenes@townofnewscotland.com

Carol A. Cootware  
Deputy Town Clerk  
ccootware@townofnewscotland.com

## RESOLUTION 09-156

Supervisor Dolin offered the following resolution and moved its adoption:

RESOLVED, that the Town Board of the Town of New Scotland does hereby adopted proposed Local Law D.

Councilperson Baron seconded the motion. All present and voting the motion carried (3 ayes).

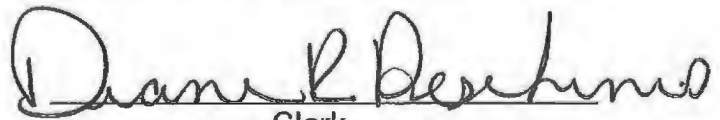
STATE OF NEW YORK )

) S.S:

COUNTY OF Albany )

I Diane R. Deschenes, Clerk of the Town of New Scotland, New York, do hereby certify that I have compared the foregoing copy of the resolution with the original resolution on file in my office and that the same is a true and correct transcript of said original resolution and of the whole thereof as duly adopted by said Town Board at a meeting duly called and held at the New Scotland Town Hall on 6/24/09 by the required necessary vote of the members to approve the resolution.

WITNESS, my hand and the official seal of the Town of New Scotland, New York, the 25<sup>th</sup> day of June, 2009

  
Clerk

Seal

New Scotland





**(Use this form to file a local law with the Secretary of State.)**

Text of law should be given as amended. Do not include matter being eliminated and do not use italics or underlining to indicate new matter.

**Town of New Scotland**

**Proposed Local Law D of the year 2009**

A local law Providing for Source Separation of Recyclable Trash

(Insert Title)

**Be it enacted by the Town Board of the Town of New Scotland as follows:**

**SECTION 1. INTENT.**

The Town Board of the Town of New Scotland finds that the reduction of the amount of solid waste and the conservation of recyclable materials are important public concerns. The separation and collection of newspaper, paper, cardboard, glass, cans, plastic containers, vegetative yard waste and other materials for recycling from the residential, commercial, industrial and institutional establishments in the Town will protect and enhance the Town's physical and visual environment as well as promote the health, safety and well-being of persons and property within the Town by minimizing the potential adverse effects of landfilling through reduction of the need for landfills and conservation of existing landfill capacity, facilitating the implementation and operation of other forms of solid waste management, conserving natural resources, ensuring conformance with the New York State Waste Management Plan, and facilitating the implementation of a solid waste management plan for the Town as a whole. The promotion and use of recyclable materials, and goods which facilitate recycling will further serve the same purpose by encouraging and facilitating recycling.

**SECTION 2. DEFINITIONS.**

As used in this local law, the following definitions shall apply:

- (a) CANS shall mean containers comprised of aluminum, tin, steel, or a

combination thereof, which contain or formerly contained only food and/or beverage substances.

- (b) CARDBOARD shall mean all corrugated cardboard normally used for packing, mailing shipping of containerizing goods, merchandise or other material, but shall not mean wax-coated or soiled cardboard.
- (c) GARBAGE shall mean putrescible animal and vegetable wastes resulting from the handling, preparation, cooking and consumption of food.
- (d) GLASS shall mean all clear (Flint), green and brown (amber) colored glass containers.
- (e) HAZARDOUS MATERIAL or HAZARDOUS WASTE shall mean a solid waste, or a combination of solid wastes, which, because of its quantity concentration or physical, chemical or infectious characteristics, may: (a) cause or significantly contribute to an increase in mortality or an increase in serious irreversible or incapacitating reversible illness, or (b) poise a substantial present or potential hazard to human health or the environment when improperly treated, stored, transported or disposed of or otherwise managed. Such materials or wastes shall include, but are not limited to, explosives, hazardous radioactive materials, toxic substances and those substances which the Town Board has identified as a hazardous waste pursuant to the above criteria and has included on a list of hazardous waste promulgated by the Town Board.
- (f) NEWSPAPERS shall include newsprint and all newspapers and newspaper advertisements, supplements, comics and enclosures.
- (g) PAPER shall mean all high-grade office paper, fine paper, bond paper, office paper, xerographic paper, mimeo paper, duplication paper, magazines, paperback book, school paper, catalogs, junk mail, computer paper, telephone books, and similar cellulosic material, but shall not mean newspaper, wax paper, plastic or foil-coated paper, Styrofoam, wax-coated food and beverage containers, carbon paper, blue-print paper, food contaminated paper, soiled paper, and cardboard.
- (h) PERSON shall mean any individual, firm, partnership, company, corporation, association, joint venture, cooperative enterprise, trust, municipality, or other governmental agency or any other entity or any group of such persons which is recognized by law as the subject or rights and duties. In any provisions of this ordinance prescribing a fine, penalty or imprisonment, the term PERSON shall include the officers, directors, partners, managers or persons in charge of a company, corporation or other

legal entity having officers, directors, partners, managers or other person in charge.

- (i) PLASTIC CONTAINERS shall mean containers composed of high-density polyethylenes, polyethylene terephthalate or other specific plastics as the Town may designate.
- (j) RECYCLABLE MATERIAL shall mean a material which would otherwise become solid waste, which can be collected, separated and/or processed, treated, reclaimed, used or reused to produce a raw material or product.
- (k) RECYCLABLES shall mean those recyclable materials designated by this ordinance and/or by determination of the Town Board to be source separated. The term includes, but is not limited to newspaper, glass, paper, cardboard, cans, plastic containers and vegetative yard waste.
- (l) RECYCLING shall mean any process by which materials, which would otherwise become solid waste, are collected, separated and/or processed, treated, reclaimed, used or reused to produce a raw material or product.
- (m) RECYCLING COLLECTION AREA shall mean any facility designed and operated solely for the receiving and storing of source-separated designed recyclable materials.
- (n) RUBBISH shall mean non-putrescible solid wastes consisting of both combustible and non-combustible wastes, including, but not limited to, non-recyclable paper, wrappings, cigarettes, wood, wires, glass, bedding, furniture and similar materials which are not designated recyclable materials.
- (o) SOLID WASTE shall mean all putrescible and non-putrescible materials or substances discarded or rejected as having served their original intended use or as being spent, useless, worthless or in excess to the owner at the time of such discard or rejection, including garbage, refuse, litter, rubbish, industrial waste, but not including designated recyclable materials, solid or dissolved matter in domestic sewage or substances, materials in non-containerized gaseous form or hazardous materials or waste.
- (p) SOURCE SEPARATED shall mean to separate recyclable materials from the solid waste stream at the point of waste generation.
- (q) VEGETATIVE YARD WASTE shall mean organic yard and garden waste, leaves, grass clippings and brush.

**SECTION 3. REQUIREMENTS APPLICABLE TO SOURCE SEPARATION AND PLACEMENT OF DESIGNATED RECYCLABLES IN RECYCLING COLLECTION AREAS.**

All designated recyclables required to be placed for collection or in recycling collection areas pursuant to the requirements of this ordinance shall be prepared for collection in accordance with regulations promulgated by the Town Board.

**SECTION 4. MANDATORY SOURCE SEPARATION PROGRAM.**

- (a) All residents, all commercial, industrial and institutional establishments within the Town of New Scotland shall source separate and arrange for the collection of recycling of: newspaper and any and all other designated recyclables as may be included in or added to such curbside program within 180 days of such inclusion in the curbside program.
- (b) Except for private dwellings, the arrangement for collection of designated recyclables for disposition hereunder shall be the responsibility of the person who owns, manages or operates the commercial, industrial or institutional establishment at which the recyclables are generated or the person contractually obligated to arrange for collection and disposal of its solid waste.

**SECTION 5. SPECIAL PROVISION REGARDING VEGETATIVE YARD WASTE.**

Nothing in this local law shall be construed as preventing any person from using vegetative yard waste for compost, mulch, or other agricultural, horticultural, silvicultural gardening or landscaping purposes.

**SECTION 6. ENFORCEMENT, RULES AND REGULATIONS.**

The Department of Highways and Sanitation of the Town of New Scotland is authorized to enforce the provisions of this ordinance and to administer the recycling programs established herein. The Town Board may adopt and promulgate, amend and repeal rules and regulations implementing this ordinance in order to carry out and effectuate the intent and purpose thereof.

**SECTION 7. UNLAWFUL ACTIVITIES.**

- (a) It shall be unlawful for:
  - (1) Any person, other than those persons so authorized, to collect any designated recyclable which has been placed at the roadside for

collection or within a recycling collection area pursuant to this ordinance.

- (II) Any person to violate or to cause to assist in the violation of any provision of this ordinance or any implementing rule or regulation promulgated by the Town Board.
- (III) Any person to place or to cause to be placed any material other than a designated recyclable in or near a recycling collection area.

(b) All unlawful conduct set forth in this section shall constitute a violation.

**SECTION 8. NON-COLLECTION OF SOLID WASTE CONTAMINATED BY DESIGNATED RECYCLABLES.**

The Department of Highways & Sanitation may refuse to collect solid waste from any person who has clearly failed to source separate recyclables to designated under an applicable section of this ordinance.

**SECTION 9. PENALTIES.**

Any person who engages in unlawful conduct as defined in this local law may, upon conviction thereof, in a proceeding before a court of competent jurisdiction be sentenced to imprisonment for a term not exceed fifteen (15) days or to a term of community service related to the purpose of this ordinance or to pay a fine of not more than Two Hundred Fifty Dollars (\$250) and not less than Twenty-Five Dollars (\$25) or any combination of the above penalties.

**SECTION 10. INJUNCTION; CONCURRENT REMEDIES.**

- (a) In addition to any other remedy provided herein, the Town of New Scotland may institute a suit in equity where unlawful conduct exists for an injunction to restrain a violation of this local law.
- (b) The penalties and remedies prescribed by this local law shall be deemed concurrent. The existence or exercise of any remedy shall not prevent the Town from exercising any other remedy provided herein or otherwise provided at law or equity.
- (c) The terms and provisions of this local law are to be liberally construed, so as best to achieve and effectuate the goals and purposes hereof.

**SECTION 11. SEVERABILITY.**

The provisions of this local law are severable. If any provision of this local law or its application to any person or circumstances is held invalid, such invalidity shall not affect any other provision or application which can be given effect without the invalid provision or application of the local law.

All provisions of any other local law or ordinance which are inconsistent with the provisions of this ordinance are hereby repealed.

**SECTION 12. EFFECTIVE DATE**

This local law shall be effective immediately upon filing with the Secretary of State.

(Complete the certification in the paragraph that applies to the filing of this local law and strike out that which is not applicable.)

**1. (Final adoption by local legislative body only.)**

I hereby certify that the local law annexed hereto, designated as local law No. \_\_\_\_ of 20 \_\_\_\_ of the Town of New Scotland was duly passed by the New Scotland Town Board on \_\_\_\_\_ 20\_\_, in accordance with the applicable provisions of law.

**2. (Passage by local legislative body with approval, no disapproval or repassage after disapproval by the Elective Chief Executive Officer\*.)**

I hereby certify that the local law annexed hereto, designated as local law No. \_\_\_\_ of 20 \_\_\_\_ of the Town of New Scotland was duly passed by the New Scotland Town Board \_\_\_\_\_ on 20 \_\_\_\_, and was (approved) (not approved) (repassed after disapproval) by the \_\_\_\_\_ and was deemed duly adopted on \_\_\_\_\_, 20 \_\_\_\_\_, in accordance with the applicable provisions of law.

**3. (Final adoption by referendum.)**

I hereby certify that the local law annexed hereto, designated as local law No. \_\_\_\_ of 20 \_\_\_\_ of the Town of New Scotland was duly passed by the New Scotland Town Board \_\_\_\_\_ on \_\_\_\_\_ 20\_\_, and was (approved) (not approved) (repassed after disapproval) by the \_\_\_\_\_ on \_\_\_\_\_, 20\_\_. Such local law was submitted to the people by reason of a (mandatory)(permissive) referendum, and received the affirmative vote of a majority of the qualified electors voting thereon at the (general) (special)(annual) election held on \_\_\_\_\_ 20 \_\_\_\_, in accordance with the applicable provisions of law.

**4. (Subject to permissive referendum and final adoption because no valid petition was filed requesting referendum.)**

I hereby certify that the local law annexed hereto, designated as local law No. \_\_\_\_ of 20 \_\_\_\_ of the Town of New Scotland was duly passed by the \_\_\_\_\_ on \_\_\_\_\_ 20 \_\_\_\_, and

was (approved)( not approved) (repassed after disapproval) by the \_\_\_\_\_ on \_\_\_\_\_ 20 \_\_\_\_\_. Such local law was subject to permissive referendum and no valid petition requesting such referendum was filed as of \_\_\_\_\_, 20 \_\_\_\_\_, in accordance with the applicable provisions of law.

**\* Elective Chief Executive Officer means or includes the chief executive officer of a county elected on a county-wide basis or, if there be none, the chairperson of the county legislative body, the mayor of a city or village, or the supervisor of a town where such officer is vested with the power to approve or veto local laws or ordinances.**

**5. (City local law concerning Charter revision proposed by petition.)**

I hereby certify that the local law annexed hereto, designated as local law No. \_\_\_\_ of 20 \_\_\_\_ of the City of \_\_\_\_\_ having been submitted to referendum pursuant to the provisions of section ~~(36)~~(37) of the Municipal Home Rule Law, and having received the affirmative vote of a majority of the qualified electors of such city voting thereon at the (special)(general) election held on \_\_\_\_\_, 20 \_\_\_\_\_, became operative.

**6. (County local law concerning adoption of Charter.)**

I hereby certify that the local law annexed hereto, designated as local law No. \_\_\_\_ of 20 \_\_\_\_ of the County of \_\_\_\_\_ State of New York, having been submitted to the electors at the General Election of November \_\_\_\_\_ 20 \_\_\_\_\_, pursuant to subdivisions 5 and 7 of section 33 of the Municipal Home Rule Law, and having received the affirmative vote of a majority of the qualified electors of the cities of said county as a unit and a majority of the qualified electors of the towns of said county considered as a unit voting at said general election, became operative.

**(If any other authorized form of final adoption has been followed, please provide an appropriate certification.)**

*Abel Scott and*



I further certify that I have compared the preceding local law with the original on file in this office and that the same is a correct transcript therefrom and of the whole of such original local law, and was finally adopted in the manner indicated in paragraph 1, above.

\_\_\_\_\_  
New Scotland Town Clerk

(Seal)

Date: \_\_\_\_\_

**(Certification to be executed by County Attorney, Corporation Counsel, Town Attorney, Village Attorney or other authorized attorney of locality.)**

STATE OF NEW YORK  
COUNTY OF ALBANY

I, the undersigned, hereby certify that the foregoing local law contains the correct text and that all proper proceedings have been had or taken for the enactment of the local law annexed hereto.

Signature \_\_\_\_\_  
New Scotland Town Attorney

Date: \_\_\_\_\_





[www.townofnewscotland.com](http://www.townofnewscotland.com)

# TOWN OF NEW SCOTLAND

Diane R. Deschenes, RMC  
Town Clerk / Tax Collector  
[ddeschenes@townofnewscotland.com](mailto:ddeschenes@townofnewscotland.com)

Carol A. Cootware  
Deputy Town Clerk  
[ccootware@townofnewscotland.com](mailto:ccootware@townofnewscotland.com)

June 25, 2009

RECEIVED

JUN 29 2009

Department of General Services  
CITY OF ALBANY

Mr. Frank Zeoli  
Director of Recycling &  
Planned Unit Recycling Coordinator  
1 Richard J. Conners Blvd.  
Albany, NY 12204

Dear Mr. Zeoli:

Mrs. Geurtze from the Town's Highway Department requested that I send you a copy of the Source Separation agreement along with the Town Board resolution once passed. Enclosed is a copy of the resolution. To my knowledge there is no actual agreement. I believe what you're looking for is the Local Law.

Once the adopted law has been filed with the County Clerk it will be available on our website, which is [www.townofnewscotland.com](http://www.townofnewscotland.com). In the meantime, I've enclosed a copy of Proposed Local Law D of the Year 2009.

If you have any questions or concerns please contact me at 439-4865.

Sincerely,

Diane R. Deschenes  
New Scotland Town Clerk



**RESOLUTION OF THE TOWN BOARD OF THE TOWN OF RENSSELAERVILLE  
TO:  
COMPLY WITH THE SOLID WASTE MANAGEMENT PLAN MODIFICATIONS  
FOR  
THE CAPITAL REGION SOLID WASTE MANAGEMENT PARTNERSHIP**

**WHEREAS,** in order to promote the public health, safety and welfare and further the purposes of the New York State policy on solid waste management articulated in New York Environmental Conservation Law § 27-0106, the Town of Rensselaerville is a member of the Capital Region Solid Waste Management Partnership Planning Unit ("Planning Unit"), formerly the Albany New York Solid Waste Energy Recovery System (ANSWERS) Solid Waste Management Planning Unit; and

**WHEREAS,** on behalf of the Planning Unit, the City of Albany has prepared a Solid Waste Management Plan (SWMP) which has been accepted by the New York Department of Environmental Conservation; and

**WHEREAS,** the Town Board of the Town of Rensselaerville has reviewed a Draft Modification to the SWMP dated August 2008 and prepared for the City of Albany by Cough Harbor & Associates, LLP, and

**WHEREAS,** as part of the SWMP Modification, the Town and the other members of the Planning Unit have entered into an Intermunicipal Agreement for the services of a Planning Unit Recycling Coordinator, and agree to implement the terms of the SWMP Modification once it is finalized; and

**WHEREAS,** the Town Board of the Town of Rensselaerville has agreed to the terms of the Intermunicipal Agreement for the services of a Planning Unit Recycling Coordinator; and

**WHEREAS,** by Resolution dated November 17, 2008, the Common Council of the City of Albany, on behalf of the City, accepted and adopted the SWMP Modification and, agreed to comply with the SWMP Modification;

**NOW, THEREFORE, BE IT RESOLVED AS FOLLOWS BY THE TOWN BOARD:**

1. The Town Board accepts and adopts the modifications to the Solid Waste Management Plan for the Planning Unit.
2. The Town of Rensselaerville agrees to comply with the Solid Waste Management Plan modifications.
3. This Resolution shall take effect immediately.

June 30, 2009

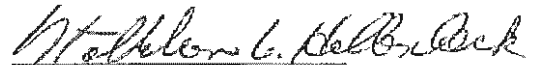


I, Kathleen A. Hallenbeck, Town Clerk of the Town of Rensselaerville,  
Albany County, New York,

DO HEREBY CERTIFY, that I have compared the foregoing with the  
original minutes of June 30, 2009 accepted by the Town Board of the Town of  
Rensselaerville at a meeting of said Board on the 30th day of June 30, 2009 and  
that the foregoing is a true and correct transcript of said original minutes and of  
the whole thereof, and that said original minutes are on file in my office.

I DO FURTHER CERTIFY that each of the members of said Town Board  
had due notice of said Board meeting, and that Jost Nickelsberg, Supervisor, and  
Marie Dermody, Sherri Pine, and J. Robert Lansing, Councilman were present at  
such meeting and that Gary Chase, Councilman, was absent.

IN WITNESS WHEREOF, I have hereunto set my hand and the seal  
of the Town of Rensselaerville, this 6th day of July, 2009.

  
Kathleen A. Hallenbeck  
Town Clerk





al Law Filing

NEW YORK STATE DEPARTMENT OF STATE  
162 WASHINGTON AVENUE, ALBANY, NY 12231

(Use this form to file a local law with the Secretary of State.)

Text of law should be given as amended. Do not include matter being eliminated and do not use italics or underlining to indicate new matter.

County  
City of RENSSELAERVILLE  
Town  
Village

Local Law No. 2 of the year 1991

A local law ENACT SOLID WASTE MANAGEMENT AND RECYCLING LAW  
(Insert Title)

Be it enacted by the TOWN BOARD of the  
(Name of Legislative Body)

County  
City of RENSSELAERVILLE  
Town  
Village PUBLIC LAW NUMBER 2 FOR 1991 as follows:

Section 1. Legislative Findings, Intent.

The Town Board of the Town of Rensselaerville finds that the reduction of the amount of solid waste and the conservation of recyclable materials are an important public concern. The separation and collection of newspaper, paper, cardboard, glass, cans, plastic containers, vegetative yard waste and other materials for recycling from the residential, commercial and institutional establishment in the Town will protect and enhance the Towns physical and visual environment as well as promote the health, safety and well being of persons and property within the Town by facilitating the implementation and operation of other forms of solid waste management, conserving natural resources, ensuring conformance with the New York State Solid Waste management plan for the Town as a whole. The promotion and use of recyclable materials, goods produced from recyclable materials, and goods which facilitate recycling will further serve the same purpose by encouraging and facilitating recycling.

Section 2. Definitions.

As used in this law, the following definitions shall apply:

(a) CANS shall mean containers compromised of aluminum, tin, steel, or combinations thereof, which contain or formerly contained only food and/or beverage substances.

(b) CARDBOARD shall mean all corrugated cardboard normally used for packing, mailing, shipping of containerizing goods, merchandise or other material, but shall not mean wax-coated or soiled cardboard.

(c) SUPERINTENDENT shall mean the Superintendent of Highways.

(d) DEPARTMENT OF HIGHWAYS shall mean the Town of

Rensselaerville

Rensselaerville Highway Department.

(e) RECYCLABLE shall mean those recyclable materials designated by this law and/or by determination of the Superintendent to be the source separated. The term includes, but is not limited to, newspaper, glass, paper, cardboard, cans, plastic containers and vegetative yard waste.

(f) DISPOSITION or DISPOSITION OF DESIGNATED RECYCLABLE MATERIALS shall mean the transportation, placement, or arrangement for transportation or placement of designated recyclable materials for all possible end uses to the City of Albany ANSWERS facility.

(g) GARBAGE shall mean putrescible animal and vegetable waste resulting from the handling, preparation, cooking and consumption of food.

(h) GLASS shall mean all clear (Flint), green, and brown (Amber) colored glass containers.

(i) HAZARDOUS MATERIALS or HAZARDOUS WASTE shall mean a solid waste, or a combination of solid waste, which, because of its quality, concentration or physical, chemical or infectious characters, may: (a) cause or significantly contribute to an increase in mortality or an increase in serious irreversible or incapacitating reversible illness; (b) pose a substantial present or potential hazard to human health or the environment when improperly treated, stored, transported or disposed of or otherwise managed. Such materials or waste shall include, but are not limited to explosives, hazardous radioactive materials, toxic substances and those substances which the Superintendent has identified as a hazardous waste pursuant to the above criteria and has included on a list of hazardous waste promulgated by the Department of Highways.

(j) MULTI-RESIDENTIAL COMPLEX shall mean five (5) or more resident units located on a single property or contiguous properties under common ownership, control or management. For this purpose, RESIDENTIAL UNIT shall mean an enclosed space of one or more rooms designated for use as a separate residence and shall include, but not limited to, an apartment condominium unit, town house cooperative unit, mobile home, living unit in a group home, and room or set of rooms in a boarding house shall not include rooms within a single family resident, motel or hotel.

(k) NEWSPAPER shall include newsprint and all newspaper and newspaper advertisement, supplements, comics and enclosures.

(l) PAPER shall mean all high-grade office paper, fine paper, bond paper, office paper, xerographic paper, mimeo

paper, duplicating paper, magazines, paperback book, school paper, catalogs, junk mail, computer paper, telephone books, and similar cellulosic material, but shall not mean newspaper, wax paper, plastic paper, plastic or foil coated paper, styrofoam, wax coated food and beverage containers, carbon paper, blueprint paper, food contaminated paper, soiled paper, and cardboard.

(m) PERSON shall mean any individual, firm, partnership, company, corporation, association, joint venture, cooperative enterprise, trust, municipality, or other governmental agency or other governmental agency or other entity or any group of such persons which is recognized by law as the subject of rights and duties. In any provisions of this ordinance prescribing a fine, penalty, or imprisonment, the term PERSON shall include the officers, directors, partners, managers, or persons in charge of a company, corporation or other legal entity having officers, directors, partners, managers, or other persons in charge.

(n) PLASTIC CONTAINERS shall mean containers composed of high-density polyethylene, polyethylene terephthalate or other specific plastics as the Town may designate.

(o) RECYCLABLE MATERIAL shall mean a material which would otherwise become solid waste, which can be collected, separated and/or processed, treated, reclaimed, used or reused to produce a raw material or product.

(p) RECYCLING shall mean any process by which materials, which would otherwise become solid waste, are collected separated and/or processed, treated, reclaimed, used or reused to produce a raw material or product.

(q) RECYCLING COLLECTION AREA shall mean any facility designated and operated solely for the receiving and storing of source-separated designated recycling materials.

(r) RESIDENT shall mean any person residing within the Town on a temporary or permanent basis, but excluding persons residing in hotels or motels. For the purpose of this ordinance, RESIDENT does not include commercial, industrial or institutional establishments.

(s) RUBBISH shall mean nonputrescible solid waste consisting of both combustible and noncombustible waste, including, but not limited to, non-recyclable paper, wrappings, cigarettes, wood, wires, glass, bedding, furniture, and similar materials which are not designated recyclable materials.

(t) SOLID WASTE shall mean all putrescible and non putrescible materials or substances discarded or rejected as having served their original intended use or as being spent, unless, worthless or in excess to the owners at the time of

newspaper and other designated recyclable from the recycling collection area.

(e) The number and design of the recycling collection areas required by this Section for each multi-residential complex shall be consistent with guidelines provided by the Superintendent.

**Section 5. Requirements Applicable to Source Separation and Placement of Designated Recyclable in recycling Collection Areas.**

Designated recyclable required to be placed in recycling collection areas pursuant to Section 4 of this law shall be prepared for collection in accordance with regulations promulgated by the Superintendent.

**Section 6. Mandatory Commercial, Industrial and Institutional Source Separation Programs.**

(a) All commercial, industrial and institutional establishments within an area of the Town shall source separate and arrange for the collection of recycling of: newspaper and other designated recyclable.

(b) Designated recyclable for the mandatory commercial, industrial and institutional source separation program may consist of the following materials:

- (i) Newspaper;
  - (ii) High-grade paper, including but no limit to white letterhead paper, white bond paper, white bond typing paper, white copier paper, white note paper, white writing paper, white envelopes without glycine windows, other non-glossy white office paper without plastic, computer printout paper, computer tab cards and white onion skin paper;
  - (iii) corrugated cardboard;
  - (iv) Glass containers, plastic containers, and cans generated by food and beverage service establishments;
  - (v) Vegetable yard waste; and
  - (vi) Other recyclable materials as designated by resolution of the Town at all thirty (30) days after said designation and publication of notice in an official newspaper of the Town or a newspaper of general circulation within the County.
- (c) The arrangement for collection of designated

such discard or rejection, including garbage, refuse, litter, rubbish, industrial waste, but not including designated recyclable materials, solid waste or dissolved matter in domestic sewage or substances, materials or waste.

(u) SOURCE SEPARATED shall mean to separate recyclable materials from the solid waste stream at the point of waste generation.

(v) VEGETATIVE YARD WASTE shall mean organic yard waste and garden waste, leaves, grass clippings and brush.

**Section 3. Requirements Applicable to Source-Separation and Collection of Designated Recyclable.**

All designated recyclable places for collection, or other location, by residents for collection shall be prepared for collection in accordance with regulations promulgated by the Superintendent.

**Section 4. Establishment of Private Collection Program for Multi-residential Complexes.**

(a) In any area designated by the Superintendent, there is also established a program ("private collection program") for the source separation, collection and delivery of newspaper and any other designated recyclable material included in the curbside program from all non-physically disabled residents of multi-residential complexes.

(b) The owner, manager or superintendent of every multi-residential complex subject to paragraph (a) above, shall provide and maintain, in a neat and sanitary condition, recycling collection areas to receive newspaper and other designated recyclable which are generated by the residents of the complex. In cases where a condominium, cooperative, homeowner, or similar association exists, the association shall be responsible for the provisions and maintenance of the recycling collection area. Said recycling collection area shall be constructed and capable of receiving newspaper and other designated recyclable within 180 days.

(c) Once the recycling collection area recycling collection area for a particular multi-residential complex has been constructed and is capable of receiving newspaper and other designated recyclable of all non-physically disabled residents of such complex shall source separate such materials by placing them in the appropriate containers or areas within the collection area.

(d) The owner, manager or superintendent of each multi-residential complex subject to paragraph (a) above, shall arrange for collection for recycling of

recyclable for designation hereunder shall be the responsibility of the person who owns, manages or operates the commercial, industrial or institutional establishment at which the recyclable are generated ("generator") or the person contractually obligated to the generator to arrange for collection and disposal of its solid waste.

Section 7. Special provisions regarding vegetative yard waste.

Nothing in this law shall be constructed as preventing any person from utilizing vegetative yard waste for compost, mulch, or other agricultural, horticultural, silvicultural, gardening or landscaping purposes.

Section 8. Enforcement: Rules and Regulations.

The Department of Highways is authorized to enforce the provisions of this law and to administer the recycling programs established herein. The Superintendent may adopt and promulgate, amend and repeal rules and regulations implementing this law in order to carry out and effectuate the intent and purpose thereof.

Section 9. Unlawful Activities.

(a) It shall be unlawful for:

(i) Any person, other than those persons authorized, to collect any designated recyclable which has been placed at the roadside for collection or within a recycling collection area pursuant to this law.

(ii) Any person who violates or to cause to assist in the violation of any provisions of this law or any implementing rule or regulation promulgated of the Superintendent of Highways.

(iii) Any person who places or to cause to place any material other than a designated recyclable in or near a recycling collection area;

(b) All unlawful conduct set forth in this Section shall constitutes a violation.

Section 10. Non-collection of Solid Waste Contaminate by Designated Recyclable.

The Department of Highways may refuse to collect solid waste from any person who clearly failed to source separate recyclable designated under an applicable section of this law and any solid waste disposal facility.

Section 11. Non-interference with Existing Contracts>

(a) Nothing contained in this law shall be constructed to

interfere with or in any way modify the provisions of any existing contracts in force in the Town on the effective date of this law.

(b) No renewal of any existing contracts upon the expiration of the original term thereof and no new contract for the collection, transportation, processing or purchase of solid waste or recyclable shall be entered into after the effective date of this law, unless renewal of such contract shall conform to the requirements of this law.

#### Section 12. Penalties.

Any person who engages in unlawful conduct as defined in this law may, upon conviction thereof, in a proceeding before a court of competent jurisdiction be sentenced to imprisonment for a term not to exceed fifteen (15) days or to a term of community service related to the purpose of this law or to pay a fine of not more than Two Hundred Fifty Dollars (\$250.00) and not less than Twenty-five Dollars (\$25.00), or any combination of the above penalties.

#### Section 13. Injunction; Concurrent Remedies

(a) In addition to any other remedy provided herein, the Town of Rensselaerville may institute a suit in equity where unlawful conduct exists for an injunction to restrain a violation of this law.

(b) The penalties and remedies prescribed by this law shall be concurrent. The existence or exercise of any remedy shall not prevent the Town from exercising any other remedy provided herein or otherwise provided at law or equity.

(c) The terms and provisions of this law are to be liberally construed, so as best to achieve and effectuate the goals and purposes hereof.

#### Section 14. Severability.

The provisions of this law are severable. In any provision of this law or its application to any person or circumstances is held invalid, said invalidity shall not effect any other provisions or application which can be given effective without the invalid provision or application of the law.

All provisions of any other local law which are inconsistent with the provisions of this Local Law are hereby repealed.

#### Section 15. Effective Date.

This law shall become effective January 1, 1992.

Section





RECEIVED

MAY 7 2009

**VILLAGE OF VOORHEESVILLE  
RESOLUTION Number 2 of 2009**

Department of General Services  
CITY OF ALBANY

**To Comply with the Capital Region Solid Waste Management Partnership**

WHEREAS, in order to promote the public health, safety and welfare and further the purposes of the New York State policy on solid waste management articulated in New York Environmental Conservation Law 27-0106, the Village of Voorheesville is a member of the Capital Region Solid Waste Management Partnership Planning Unit ("Planning Unit"), formally the Albany New York Solid Waste Energy Recovery System (ANSWERS) Solid Waste Management Planning Unit; and

WHEREAS, on behalf of the Planning Unit, the City of Albany has prepared a Solid Waste Management Plan (SWMP) which has been accepted by New York Department of Environmental Conservation; and

WHEREAS, the Village Board of the Village of Voorheesville has reviewed a Draft Modification to the SWMP dated August 2008 as prepared for the City of Albany by Clough Harbour & Associates LLP; and

WHEREAS, as part of the SWMP Modification, the Village and other members of the Planning Unit must enter into an Intermunicipal Agreement for the services of a Planned Unit Recycling Coordinator, and agree to implement the terms of the SWMP Modification once it is finalized; and

WHEREAS, the Village Board of the Village of Voorheesville has reviewed the terms of the Intermunicipal Agreement for the services of the Planned Unit Recycling Coordinator; and

WHEREAS, by Resolution dated November 17, 2008, the Common Council of the City of Albany, on behalf of the City, accepted and adopted the SWMP Modification and agreed to comply with the SWMP Modification;

NOW, THEREFORE, be it resolved as follows by the Village board:

1. The Village Board accepts and adopts the modifications to the Solid Waste Management Plan for the Planning Unit.
2. The Village of Voorheesville agrees to comply with the Solid Waste Management Plan modifications.
3. The Mayor of the Village of Voorheesville is hereby authorized to enter into and execute the Intermunicipal Agreement with the members of the Planned Unit.
4. This Resolution shall take effect immediately.

Date: April 28, 2009

Offered by Trustee Stevens

Seconded by Trustee Hotaling

Carried Unanimously

*Linda Pasquali*

---

Linda Pasquali, Clerk Treasurer

(Please Use this Form for Filing your Local Law with the Secretary of State)

Text of law should be given as amended. Do not include matter being eliminated and do not use italics or underlining to indicate new matter.

City of ~~City~~  
Village of Voorheesville, New York  
Local Law No. 1 of the year 19 91

A local law SOLID WASTE CONTROL  
(Insert title)

Be it enacted by the Board of Trustees of the  
(Name of Legislative Body)

~~City~~  
City of Voorheesville, New York as follows:  
~~Village~~  
Village

SECTION 1. SOLID WASTE MANAGEMENT

It is hereby determined that the public order, safety, health and welfare of the Village of Voorheesville requires the reasonable regulations of the manner in which solid waste is managed and disposed of within the Village of Voorheesville. This Local Law shall be known as the Solid Waste Management Law.

SECTION 2. DEFINITIONS

As used in this Local Law, the following words are intended to include and be defined as follows:

A. OWNER: shall be the person having possession of premises or the person or persons in legal title to said lands including the person residing on said premises.

B. PERSON: shall include an individual, partnership, corporation or association.

C. RECYCLABLES: means those items of solid waste which exhibit the potential to be used repeatedly in place of a virgin material AND which are designated by the Village Board from time to time to be recyclable.

D. SOLID WASTE: means materials or substance discharged or rejected as being spent, useless, worthless or in excess to the owners at the time of such discard or rejection, except sewage and other highly diluted water which carried materials or substances and those in gaseous form. Such waste shall include but not be limited to garbage, rubbish, ashes (excluding incinerator residue), street cleanings, industrial waste, commercial waste and construction and demolition debris.

(If additional space is needed, please attach sheets of the same size as this and number each)

dt. 5/14/09

E. VILLAGE: means Village of Voorheesville.

F. VILLAGE BOARD: means Board of Trustees of the Village of Voorheesville.

### SECTION 3. SOLID WASTE DISPOSAL AND RECYCLING PROGRAMS

A. The Village Board, from time to time, shall by Resolution establish regulations concerning recycling and solid waste disposal programs and procedures.

B. Such regulations shall be posted at public places within the Village, and shall be published in the official newspaper of the Village. Such regulations shall also be posted at any Village sponsored recycling site, and disseminated in any other manner deemed appropriate by the Village Board.

### SECTION 4. RESTRICTIONS

A. No person shall discard or cause to be discarded or deposited any solid waste in or upon any public highway or any public or private lands within the Village of Voorheesville.

B. The owners of lands within the Village of Voorheesville shall, at all times, keep such lands free and clear of all accumulations of garbage, refuse or discarded materials of any type, unless such material is being properly composted according to generally accepted standards.

C. Solid waste must be disposed of according to the regulations duly enacted from time to time by the Village Board. Solid waste remaining on owners premises contrary to Village regulations shall be prima facie evidence that the owner is in violation of this Local Law.

D. All recyclables as designated from time to time by the Village Board, shall be disposed of in accordance with the regulations enacted by said Board.

### SECTION 5. PENALTIES

A. Any person violating this Local Law shall be guilty of a violation, and shall be subject to a minimum fine of fifty dollars (\$50.00) or imprisonment, or both.

B. Upon a determination that a person is violating any provision of this Local Law, any member of the Village Board, or any of such Board's duly authorized agents or employees, is hereby authorized to direct such violator to desist, and if applicable, to vacate the site. In addition to the penalties set forth in Paragraph A of this Section, such violator may be found guilty of trespass.

### SECTION 6. VALIDITY

If any Article/Section or part of this Local Law shall be adjudicated invalid, the same shall not affect the validity of the remainder of this Local Law.

### SECTION 7

This Local Law shall be effective immediately upon proper filing.

(Complete the certification in the paragraph which applies to the filing of this local law and strike out the matter therein which is not applicable.)

(Final adoption by local legislative body only.)

1. I hereby certify that the local law annexed hereto, designated as local law No. 1 of 1991.

of the City of Vooheesville was duly passed by Board of Trustees (Name of Legislative Body) on May 28 1991 in accordance with the applicable provisions of law.

(Passage by local legislative body with approval or no disapproval by Elective Chief Executive Officer or repassage after disapproval.)

2. I hereby certify that the local law annexed hereto, designated as local law No. of 19

County of the City of was duly passed by (Name of Legislative Body) on 19 and was approved by the Elective Chief Executive Officer and was deemed duly adopted on 19, in accordance with the applicable provisions of law.

(Final adoption by referendum.)

3. I hereby certify that the local law annexed hereto, designated as local law No. of 19

County of the City of was duly passed by the (Name of Legislative Body) on 19 and was approved by the Elective Chief Executive Officer not disapproved repassed after disapproval. Such local law was submitted to the people by reason of a mandatory referendum and received the affirmative vote of a majority of the qualified electors voting thereon at the special election held on 19, in accordance with the applicable provisions of law.

(Subject to permissive referendum and final adoption because no valid petition filed requesting referendum.)

4. I hereby certify that the local law annexed hereto, designated as local law No. of 19

County of the City of was duly passed by the (Name of Legislative Body) on 19 and was approved by the Elective Chief Executive Officer not disapproved repassed after disapproval. Such local law being subject to a permissive referendum and no valid petition requesting such referendum having been filed, said local law was deemed duly adopted on 19, in accordance with the applicable provisions of law.

\*Elective Chief Executive Officer means or includes the chief executive officer of a county elected on a county-wide basis or if there be none the chairman of the board of supervisors, the mayor of a city or village or the supervisor of a town, where such officer is vested with power to approve or veto local laws or ordinances.

Handwritten signature or mark at the bottom left corner.

(City local law concerning Charter revision proposed by petition.)

5. I hereby certify that the local law annexed hereto, designated as local law No. .... of 19.... of the City of..... having been submitted to referendum pursuant to the provisions of ~~§ 36~~ <sup>§ 37</sup> of the Municipal Home Rule Law and having received the affirmative vote of a majority of the qualified electors of such city voting thereon at the ~~special~~ <sup>general</sup> election held on the ..... 19..... I became operative.

(If any other authorized form of final adoption has been followed, please provide an appropriate certification.)

I further certify that I have compared the preceding local law with the original on file in this office and that the same is a correct transcript therefrom and of the whole of such original local law, and was finally adopted in the manner indicated in paragraph ..... above.

~~City Clerk~~ ~~City~~ ~~Mayor~~ ~~Village~~ ~~Clark~~ ~~of~~ ~~the~~ ~~City~~ ~~of~~ ~~the~~ ~~County~~ ~~of~~ ~~the~~ ~~State~~ ~~of~~ ~~New~~ ~~York~~

Date: May 25, 1991

(See)

(Certification to be executed by County Attorney, Corporation Counsel, Town Attorney, Village Attorney or other authorized Attorney of locality.)

STATE OF NEW YORK  
COUNTY OF ALBANY

I, the undersigned, hereby certify that the foregoing local law contains the correct text and that all proper proceedings have been had or taken for the enactment of the local law annexed hereto.

.....  
(Title of Officer) Village Attorney  
.....  
COUNTY  
COUNTY of Voorheesville, N.Y.  
.....  
Village

Dated:

At a meeting of the Town Board of the Town of Berne, Albany County, New York held at the Town Hall in the Town of Berne Albany County, New York on June 10, 2009.

Present Kevin Crosier, Supervisor

Wayne Emory, Councilman

Joseph Golden, Councilman

Peter Vance, Councilman

James Hamilton, Councilman

Councilman Golden offered and moved the following resolution, seconded by Councilman Vance:

**RESOLUTION OF THE TOWN BOARD OF THE TOWN OF BERNE TO:  
COMPLY WITH THE SOLID WASTE MANAGEMENT PLAN MODIFICATIONS  
FOR  
THE CAPITAL REGION SOLID WASTE MANAGEMENT PARTNERSHIP; and  
AUTHORIZING THE EXECUTION OF AN INTERMUNICIPAL AGREEMENT  
REGARDING A PLANNING UNIT RECYCLING COORDINATOR**

**WHEREAS,** in order to promote the public health, safety and welfare and further the purposes of the New York State policy on solid waste management articulated in New York Environmental Conservation Law § 27-0106, the Town of Berne is a member of the Capital Region Solid Waste Management Partnership Planning Unit ("Planning Unit"), formerly the Albany New York Solid Waste Energy Recovery System (ANSWERS) Solid Waste Management Planning Unit; and

**WHEREAS,** on behalf of the Planning Unit, the City of Albany has prepared a Solid Waste Management Plan (SWMP) which has been accepted by the New York Department of Environmental Conservation; and

**WHEREAS,** the Town Board of the Town of Berne has reviewed a Draft Modification to the SWMP dated August 2008 and prepared for the City of Albany by Clough Harbor & Associates LLP, and

**WHEREAS,** as part of the SWMP Modification, the Town and the other members of the Planning Unit must enter into an Intermunicipal Agreement for the services of a Planning Unit Recycling Coordinator, and agree to implement the terms of the SWMP Modification once it is finalized; and

**WHEREAS,** the Town Board of the Town of Berne has reviewed the terms of the Intermunicipal Agreement for the services of a Planning Unit Recycling Coordinator; and

**WHEREAS,** by Resolution dated November 17, 2008, the Common Council of the City of Albany, on behalf of the City, accepted and adopted the SWMP Modification and agreed to comply with the SWMP Modification;

**NOW, THEREFORE, BE IT RESOLVED AS FOLLOWS BY THE TOWN BOARD:**

1. The Town Board accepts and adopts the modifications to the Solid Waste Management Plan for the Planning Unit.
2. The Town of Berne agrees to comply with the Solid Waste Management Plan modifications.
3. The Supervisor of the Town of Berne is hereby authorized to enter into and execute the Intermunicipal Agreement with the members of the Planning Unit.
4. This Resolution shall take effect immediately.

Resolution was duly adopted with the following roll call vote: Supervisor Crosier, Aye, Councilmember Golden, Hamilton, Emory & Vance, Aye.





STATE OF NEW YORK  
COUNTY OF ALBANY

CERTIFICATE

I, PATRICIA M. FAVREAU, Town Clerk of the Town of Berne, in the County of Albany, State of New York, DO HEREBY CERTIFY that the foregoing annexed extract from the minutes of a meeting of the Town Board the Town of Berne duly called and held on the 10th day of June, 2009 has been compared by me with the original minutes as officially recorded in my office in the Minute Book of said Town Board and is a true, complete and correct copy thereof and of the whole of said original minutes so far as the same relate to the subject matters referred to in said extract.

IN WITNESS WHEREOF, I have hereunto set my hand and affixed the corporate seal of said Town this 17th day of June 2009

(SEAL)

PATRICIA M. FAVREAU  
Town Clerk  
Town of Berne



- (1) A first violation shall be punishable by a fine of not less than \$100 or more than \$250.
- (2) A second violation within five years shall be punishable by a fine of not less than \$250 or more than \$1,000.
- (3) A third or subsequent violation within five years shall be punishable by a fine of not less than \$1,000 or more than \$2,500 or by up to five days' imprisonment, or both.

C. Additional penalties.

- (1) At any time, after a hearing, the Town Board may suspend or revoke any permit if the Town Board at such hearing determines the holder of such permit to be a persistent violator or incapable of or unwilling to comply with the provisions of this article or the rules and regulations thereunder, or has intentionally or negligently acted, or has acted and as a result has harmed, or created a risk of harm, to the aesthetics and environment of the Town or the health and safety of its inhabitants and its livestock and wildlife, or has utilized said permit in a manner inconsistent with this article or has allowed said permit to be utilized by other than its issuee. The permittee shall have an opportunity to be heard at such hearing, which shall be held after such permittee shall be served by written notice of such hearing in person or by certified mail, return receipt requested, not less than 15 days prior to the date of such hearing.
- (2) The Town shall also have such other remedies as are provided by law.

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## ARTICLE III Mandatory Recycling

### § 164-16. Legislative intent.

- A. It is the goal of the Town of Berne to facilitate the disposal of solid waste generated within the Town in an economical and environmentally accepted manner and to reduce the total per capita amount of solid waste disposed of in the Town, in conformance with the New York State Solid Waste Management Plan, so that landfill space is saved, waste disposal problems are reduced, and precious natural resources are conserved.
- B. It is the purpose of this article to establish a source separation and recyclables collection program within the Town to reach the goal of the most feasible reuse and recycling of the Town's waste stream considering costs, per capita generation, marketability of recyclables, and public involvement.
- C. Recycling is a challenge to our residents, one to be learned and improved upon. Education, participation and cooperation are the elements of a successful recycling program, which shall be accomplished by a working partnership between the Town and its residents for the long-lasting benefit of all.

### § 164-17. Definitions.

For purposes of this article those terms defined in § 164-1 of this chapter shall have the meanings indicated therein unless a different meaning or context is set forth or required in this article. The following additional terms shall have the meanings indicated:

**BATTERIES, DRY-CELL** — Household batteries for flashlights, watches, toys, penlights, calculators, hearing aids, etc.

**BATTERIES, LEAD-ACID** — A cell or group of cells which provides electric current, such as automobile batteries.

**BIODEGRADABLES** — That segment of the solid waste stream which, under controlled conditions, can be biologically decomposed into a humus product that may be used as a soil amendment or mulch. Editor's Note: The definition of "brown goods," which immediately followed this definition, was repealed at time of adoption of Code (see Ch. 1, General Provisions, Art. I). See now § 164-1.

**CARDBOARD, CORRUGATED** — All corrugated cardboard normally used for packing, mailing, shipping or containerizing goods. This excludes paperboard cardboard and all items which have been coated with wax, plastic, foil or styrofoam.

**CARDBOARD, PAPERBOARD** — All cardboard used in packaging of foods, personal care and clothing items, such as cereal or shoe boxes. This excludes corrugated cardboard and all items which have been coated with wax, plastic, foil or styrofoam.

**CLOTH and CLOTHING** — Textiles woven of natural or synthetic fibers, and the garments made of these materials.

**COMPOSTING** — Controlled biological decomposition of organic waste materials into a humus product that may be used as a soil amendment or mulch.

**GLASS CONTAINERS** — Clear, green and amber (brown) glass jars, bottles and containers with lids, caps and closures removed.

**MAGAZINES** — Booklets or stapled catalogs made of slick and/or glossy paper. This excludes bound catalogs and telephone books.

**METAL CANS** — Tin, aluminum or other ferrous or nonferrous or composite cans and containers.

**MOTOR OIL** — Any petroleum-based lubricant used in internal combustion engines.

**NEWSPAPERS** — Newsprint and all newspapers and newspaper advertisements, supplements, comics and enclosures.

**PAPER** — All bond paper, including computer paper, stationery, photocopy and ledger-free commercial waste paper, junk mail, school paper, or other paper as designated by the Town Board; shall not include soiled paper or cardboard, wax paper, plastic or foil-coated paper, styrofoam, wax-coated food and beverage containers, carbon paper, or blueprint paper.

**PLASTIC CONTAINERS** — Containers composed of high-density polyethylene, polyethylene terephthalate or other plastics as designated by the Town Board.

**RECYCLABLE MATERIALS** — Those materials specified by the Town, or the State of New York, by law, ordinance, rule or regulation, which are to be separated from the waste stream and held for reuse or which have, or may have in the future, market or other value. These materials shall include, but not be limited to, glass containers, plastic containers, corrugated cardboard, paperboard cardboard, newspapers, metal cans, paper, magazines, cloth and clothing, telephone books, vehicle tires and casings, batteries, white goods, brown goods and scrap metal, and biodegradable materials as herein defined.

**SCRAP METAL** — Uncontaminated and oil-free ferrous and nonferrous metal items such as machinery parts and sheet metal.

**TELEPHONE BOOKS** — Telephone books and heavy-bound catalogs printed on nonglossy paper.

**VEHICLE TIRES AND CASINGS** — Tires or casings used on any self-propelled vehicle or on any vehicle intended to be towed by a self-propelled vehicle.

**WHITE GOODS** — Household appliances such as stoves and refrigerators.

#### § 164-18. Designation or limitation of recyclable materials.

The Town Board, by way of regulation, may designate, add or delete items or materials which must be separated pursuant to this article. Public notification by posted notices, flyers and/or publication in the official Town newspaper is required 30 days prior to the date of application of the additional requirement.

#### § 164-19. Responsibility for separating recyclables.

- A. It shall be the responsibility of all residents to separate recyclable and all other designated materials from all other solid waste and prepare them for reuse, recycling, or proper disposal in accordance with the rules established by the Town Board. Editor's Note: The paragraph regarding commercial waste collectors, which immediately followed this subsection, was deleted at time of adoption of Code (see Ch. 1, General Provisions, Art. I).
- B. Solid waste will not be accepted by the Town solid waste facility if it contains recyclable or other designated materials which are mixed or commingled with other solid waste.

#### § 164-20. Ownership of recyclables.

- A. From the time of placement of recyclable materials at the solid waste facility by a resident, all such recyclable materials shall become the property of the Town. Editor's Note: Amended at time of adoption of Code (see Ch. 1, General Provisions, Art. I).
- B. It shall be a violation for any person without authority from the Town or its authorized agent to collect, pick up, remove from the solid waste facility, or cause to be collected, picked up or removed from the solid waste facility, any recyclable materials.

#### § 164-21. Composting.

Nothing in this article shall be construed to prevent composting or mulching for agricultural, horticultural, silvicultural, gardening or landscaping purposes.

#### § 164-22. Administration.

The Town Board shall be responsible for administering the mandatory recycling requirements of the Town and for the issuance of rules or regulations implementing this article and for the enforcement of any violations of this article or the rules and regulations issued thereunder.

#### § 164-23. Prohibited activities.

It shall be a violation for any person:

- A. Other than those persons so authorized, to collect any designated recyclable materials which have been placed at the roadside for collection or within a solid waste facility recycling collection area pursuant to this article.

- B. To place or cause to be placed any material other than designated recyclable materials in or near a solid waste facility recycling collection area.
- C. To fail to follow the rules and regulations made up pursuant to this article.
- D. To fail to follow the directions of solid waste facility personnel or posted instructions regarding the placement of recyclable materials and other solid waste. Editor's Note: Former § 01-26, Disposal of recyclable materials by commercial waste collectors, which immediately followed this subsection, was deleted at time of adoption of Code (see Ch. 1, General Provisions, Art. I).

**§ 164-24. Enforcement.**

- A. Town solid waste facility personnel are hereby authorized to inspect incoming loads of solid waste to determine if unseparated recyclable materials are contained therein.
- B. Town solid waste facility personnel are hereby authorized to turn away and deny access to any person delivering a load that contains unseparated recyclable materials.
- C. Town solid waste facility personnel are hereby authorized to turn away any person who is not following the requirements of this chapter or the rules and regulations thereunder or who is failing to deposit recyclable materials or other solid waste in designated areas or containers.

**§ 164-25. Penalties for offenses.**

A violation of this article or the rules and regulations thereunder is hereby declared to be an offense.

**A. Residents and nonresidents.**

- (1) A first violation shall be punishable by a fine of not less than \$50 or more than \$100.
- (2) A second violation within three years shall be punishable by a fine of not less than \$100 or more than \$500.
- (3) A third or subsequent violation within three years shall be punishable by a fine of not less than \$250 or more than \$1,000 or by up to five days' imprisonment, or both. Editor's Note: Former § 01-20B, regarding penalties for commercial waste collectors, which immediately followed this subsection, was deleted at time of adoption of Code (see Ch. 1, General Provisions, Art. I).

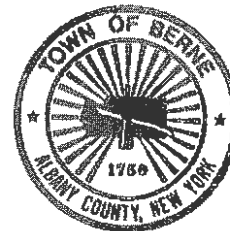
**~~B. Additional penalties.~~**

- (1) At any time, after a hearing, the Town Board may suspend or revoke any permit if the Town Board at such hearing determines the holder of such permit to be a persistent violator or incapable of or unwilling to comply with the provisions of this article or the rules and regulations thereunder, or has intentionally or negligently acted, or has acted and as a result has harmed, or created a risk of harm, to the aesthetics and environment of the Town or the health and safety of its inhabitants and its livestock and wildlife, or has utilized said permit in a manner inconsistent with this article or has allowed said permit to be utilized by other than its issuee. The permittee shall have an opportunity to be heard at such hearing, which shall be held after such permittee shall be served by written notice of such hearing in person or by certified mail, return receipt requested, not less than 15 days prior to the date of such hearing.
- (2) The Town shall also have such other remedies as are provided by law.



# Town of Berne

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P.O. BOX 57  
BERNE, N.Y. 12023  
(518) 872-1448  
FAX (518) 872-9303

RECEIVED

AUG 19 2009

Department of General Services  
CITY OF ALBANY

City of Albany  
Department of General Services  
One Conners Blvd.  
Albany, NY 12204

Att: Fran Zeoli

Please find enclosed a certified copy of Local Law #2 of 2009 for the Town of Berne which was adopted on August 12, 2009.

Sincerely,

Patricia M. Favreau  
Town Clerk  
Town of Berne





Introduced-7/8/09

LOCAL LAW NO. 2 FOR 2009

BE IT ENACTED BY THE TOWN BOARD OF THE TOWN OF BERNE,  
NEW YORK AS FOLLOWS:

SECTION 1. Local Law No. 1 for 1992 entitled "To Establish and Define a Solid Waste Management Code for the Town of Berne" shall be amended in Article III, entitled Mandatory Recycling by amending Section 01-21 (now set forth in the Berne Town Code as Section 164-19, Subdivision A.), to read as follows:

Section 164-19 A. It shall be the responsibility of all residents to separate recyclable and all other designated materials from all other solid waste and prepare them for reuse, recycling, or other proper disposal in accordance with the rules established by the Town Board. All commercial, industrial and institutional establishments within an area of the Town shall source separate and arrange for the collection and recycling of newspapers and other designated recyclables.

SECTION 2. Effective Date of Amendment.

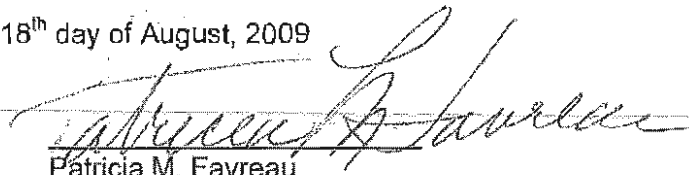
This amendment shall take effect upon filing with the Secretary of State.



**CERTIFICATE**

I, **PATRICIA M. FAVREAU**, Town Clerk of the Town of Berne in the County of Albany and State of New York, do hereby certify that the foregoing annexed extract from the minutes of a meeting of the Town Board of the Town of Berne duly called and held on the 12<sup>th</sup> day of August, 2009 has been compared by me with the minute book of said Town Board and is a true, complete and correct copy thereof, and of the whole of said original minutes so far as the same relate to the subject matters referred to in said extract.

**IN WITNESS WHEREOF**, I have hereunto set my hand and affixed the corporate seal of the Town of Berne this 18<sup>th</sup> day of August, 2009



Patricia M. Favreau  
Town Clerk  
Town of Berne



#21

By Alderperson : Council As A Whole

Seconded by Alderperson : \_\_\_\_\_

#21

**A RESOLUTION OF THE COMMON COUNCIL OF THE CITY OF RENSSELAER TO COMPLY WITH THE SOLID WASTE MANAGEMENT PLAN MODIFICATIONS FOR THE CAPITAL REGION SOLID WASTE MANAGEMENT PARTNERSHIP AND AUTHORIZING THE EXECUTION OF AN INTERMUNICIPAL AGREEMENT REGARDING A PLANNING UNIT RECYCLING COORDINATOR**

WHEREAS, in order to promote the public health, safety and welfare and further the purposes of the New York State policy on solid waste management articulated in New York Environmental Conservation Law §27-0106, the City of Rensselaer is a member of the Capital Region Solid Waste Management Partnership Planning Unit ("Planning Unit"), formerly the Albany New York Solid Waste Energy Recovery System (ANSWERS) Solid Waste Management Planning Unit, and

WHEREAS, on behalf of the Planning Unit, the City of Albany has prepared a Solid Waste Management Plan (SWMP) which has been accepted by the New York Department of Environmental Conservation, and

WHEREAS, the Common Council of the City of Rensselaer has reviewed a Draft Modification to the SWMP dated August 2008 and prepared for the City of Albany by Clough Harbor & Associates LLP, and

WHEREAS, as part of the SWMP Modification, the City and the other members of the Planning Unit must: enter into an Intermunicipal Agreement for the services of a Planning Unit Recycling Coordinator, and agree to implement the terms of the SWMP Modification once it is finalized, and

WHEREAS, the Common Council of the City of Rensselaer has reviewed the terms of the Intermunicipal Agreement for the services of a Planning Unit Recycling Coordinator, and

WHEREAS, by Resolution dated November 17, 2008, the Common Council of the City of Albany, on behalf of the City, accepted and adopted the SWMP Modification and agreed to comply with the SWMP Modification.



**TOWN OF EAST GREENBUSH  
RESOLUTION 50-2009**

**RESOLUTION OF THE BOARD OF THE TOWN OF EAST GREENBUSH TO:  
COMPLY WITH THE SOLID WASTE MANAGEMENT PLAN MODIFICATIONS FOR  
THE CAPITAL REGION SOLID WASTE MANAGEMENT PARTNERSHIP**

**WHEREAS**, in order to promote the public health, safety and welfare and further the purposes of the New York State policy on solid waste management articulated in New York Environmental Conservation Law § 27-0106, the Town of East Greenbush is a member of the Capital Region Solid Waste Management Partnership Planning Unit ("Planning Unit"), formerly the Albany New York Solid Waste Energy Recovery System (ANSWERS) Solid Waste Management Planning Unit; and

**WHEREAS**, on behalf of the Planning Unit, the City of Albany has prepared a Solid Waste Management Plan (SWMP) which has been accepted by the New York Department of Environmental Conservation; and

**WHEREAS**, the Town Board of the Town of East Greenbush has reviewed a Draft Modification to the SWMP dated August 2008 and prepared for the City of Albany by Clough Harbour & Associates LLP;

**NOW, THEREFORE, BE IT RESOLVED AS FOLLOWS BY THE TOWN BOARD:**

1. The Town Board accepts and adopts the modifications to the Solid Waste Management Plan for the Planning Unit.
2. The Town of East Greenbush agrees to comply with the Solid Waste Management Plan modifications.
3. The Supervisor of the Town of East Greenbush is hereby authorized to enter into and execute the Intermunicipal Agreement with the members of the Planning Unit.
4. This Resolution shall take effect immediately.

The foregoing Resolution was duly moved by Councilperson Cristo and seconded by Councilperson Kennedy and brought to a vote resulting as follows:

|                       |       |     |
|-----------------------|-------|-----|
| COUNCILPERSON CRISTO  | VOTED | YES |
| COUNCILPERSON KENNEDY | VOTED | YES |
| SUPERVISOR McCABE     | VOTED | YES |
| COUNCILPERSON DANAHER | VOTED | YES |
| COUNCILPERSON MATTERS | VOTED | YES |

Dated: June 10, 2009

STATE OF NEW YORK  
COUNTY OF RENSSELAER  
TOWN OF EAST GREENBUSH

I, **LINDA M. KENNEDY**, Town Clerk of the Town of East Greenbush, Rensselaer County, State of New York do hereby certify that the foregoing is a true and correct copy of a Resolution duly adopted at a regular meeting of the Town Board of the Town of East Greenbush, held on the 10<sup>th</sup> day of June 2009 at the East Greenbush Town Hall in said Town.

I **FURTHER CERTIFY**, that such Resolution was adopted in full compliance with the laws of the State of New York, and duly entered in the minutes of said Town Board on the 10<sup>th</sup> day of **June, 2009**

**IN TESTIMONY WHEREOF**, I have hereunto set my hand and affixed the seal of the Town of East Greenbush, his 23rd day of June, 2009



LINDA M. KENNEDY  
Town Clerk  
Town of East Greenbush  
Rensselaer County, New York

Seal of Town of East Greenbush



**TOWN OF EAST GREENBUSH  
RESOLUTION 53-2009**

**RESOLUTION OF THE BOARD OF THE TOWN OF EAST GREENBUSH TO SCHEDULE  
PUBLIC HEARING TO CONSIDER AMENDING ARTICLE III OF THE TOWN ORDINANCE,  
EAST GREENBUSH RUBBISH DISPOSAL TO INCLUDE SOURCE SEPARATION AND  
RECYCLING OF DESIGNATED MATERIALS BY ALL INDUSTRIAL, COMMERCIAL AND  
INSTITUTIONAL ESTABLISHMENTS**

**WHEREAS**, in order to promote the public health, safety and welfare and further the purposes of the New York State policy on solid waste management articulated in New York Environmental Conservation Law § 27-0106, the Town of East Greenbush is a member of the Capital Region Solid Waste Management Partnership Planning Unit ("Planning Unit"), formerly the Albany New York Solid Waste Energy Recovery System (ANSWERS) Solid Waste Management Planning Unit; and

**WHEREAS**, The Town has adopted a Solid Waste Management Plan (SWMP) which has been accepted by the New York Department of Environmental Conservation; and a Draft Modification to the SWMP dated August 2008 and prepared for the City of Albany by Clough Harbour & Associates LLP; and

**WHEREAS**, for the Town to comply with the provisions of the solid waste management plan (SWMP) for the Capital Region Solid Waste Management Partnership, it must incorporate certain language into its existing ordinance, Article III, Solid Waste Management Recycling (adopted 7-10-1191 as LL No.2 for 1991); now therefore

**BE IT RESOLVED**, that the Town Board consider amending Article III Section 30.23 to include the following language: "All commercial, industrial and institutional establishments within the Town shall source separate and arrange for the collection of recycling of newspaper and other designated recyclables"; and be it

**FURTHER RESOLVED**, that the Town Board of the Town of East Greenbush, County of Rensselaer, State of New York, hold a Public Hearing at the Town Hall, 225 Columbia Turnpike, East Greenbush, New York on the 8th day of July at 6:30 PM to consider amending its existing ordinance, Article III, Solid Waste Management Recycling (adopted 7-10-1191 as LL No.2 for 1991).

The foregoing Resolution was duly moved by Supervisor McCabe and seconded by Councilperson Kennedy and brought to a vote resulting as follows:

|                       |       |     |
|-----------------------|-------|-----|
| SUPERVISOR McCABE     | VOTED | YES |
| COUNCILPERSON KENNEDY | VOTED | YES |
| COUNCILPERSON DANAHER | VOTED | YES |
| COUNCILPERSON CRISTO  | VOTED | YES |
| COUNCILPERSON MATTERS | VOTED | YES |

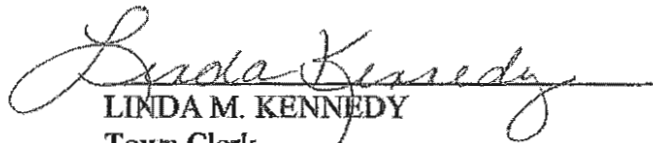
**Dated: June 10, 2009**

STATE OF NEW YORK  
COUNTY OF RENSSELAER  
TOWN OF EAST GREENBUSH

I, LINDA M. KENNEDY, Town Clerk of the Town of East Greenbush, Rensselaer County, State of New York do hereby certify that the foregoing is a true and correct copy of a Resolution duly adopted at a regular meeting of the Town Board of the Town of East Greenbush, held on the 10<sup>th</sup> day of June 2009 at the East Greenbush Town Hall in said Town.

I FURTHER CERTIFY, that such Resolution was adopted in full compliance with the laws of the State of New York, and duly entered in the minutes of said Town Board on the 10<sup>th</sup> day of June, 2009

IN TESTIMONY WHEREOF, I have hereunto set my hand and affixed the seal of the Town of East Greenbush, his 23rd day of June, 2009



LINDA M. KENNEDY  
Town Clerk  
Town of East Greenbush  
Rensselaer County, New York

Seal of Town of East Greenbush

# TOWN OF EAST GREENBUSH RUBBISH DISPOSAL

## ARTICLE III

### Solid Waste Management; Recycling (Adopted 7-10-1991 as L.L. No. 2, 1991)

#### § 30.21. Legislative intent.

The purpose of this local law is to promote and protect the public health and welfare by regulating the safe collection and disposal of solid waste; to reduce the amount of solid waste going to landfills; to recover recyclable materials and deliver them to markets; to offer alternative refuse disposal and recycling options; and to encourage participation by the whole community in solid waste management through a simple and equitable recycling plan.

#### § 30.22. Definitions.

As used in the local law, unless otherwise expressly stated, the following terms shall have the meanings indicated:

**COLLECTOR** – Any individual, firm, partnership, corporation or other entity licensed by the Town of East Greenbush to carry on the business of collecting, transporting, disposing of solid waste and marketing of recyclables, both residential and nonresidential, generated within the Town of East Greenbush in accordance with the provisions hereof.

**COMPOST** – Decayed organic matter, including yard waste and kitchen scraps, except for animal fat and bones.

**CONSTRUCTION DEBRIS** – Discarded materials, used lumber, concrete, stones, earth from excavation or grading and all other refuse matter resulting from erection, repair or demolition of buildings, structures or other improvements of property and tree parts over four (4) inches in diameter.

**GARBAGE** – Any non-recyclable kitchen and household refuse and table cleanings, fruit and vegetable parings, decaying vegetables, animal and fruit matter.

**LARGE HOUSEHOLD FURNISHINGS** – Any other large bulky article actually used in the home and which may be used for living, including but not limited to chairs, sofas, tables, beds and carpets.

**MAJOR APPLIANCES (WHITE GOODS)** – Any large, bulky household mechanisms, including but not limited to refrigerators, washers, dryers, stoves, and hot water tanks.

**MULTIRESIDENTIAL COMPLEX** – Three (3) or more independent families living under one (1) contiguous roof.

**NONRECYCLABLE REFUSE** – Items currently not listed as collectable by the Recycling Coordinator, i.e., rags, sweepings, leather, crockery, shells, and similar waste materials.

**NONRESIDENCE** – Any building not used as a residence, or multiple-family residence, including but not limited to, offices or commercial establishments, social organizations, churches and schools.

**RECYCLABLES** – Those items designed by the Recycling Coordinator and approved by the Town Board as being marketable, and currently including but not limited to clean plastic and glass food containers, metal food cans, dry discarded newspapers, cardboard and flat paper. A list of approved items designated as recyclable shall be maintained on file in the Town Clerk's office.

**RECYCLING COORDINATOR** – That person appointed by the Town Board to administer the recycling program and to arrange for marketing the collected items and to perform educational and informational functions.

**RESIDENCE** – Fewer than three (3) independent families living under one (1) contiguous roof.

**SOLID WASTE** – Materials or substances discharged or rejected as being spent, useless, worthless or in excess by the owner at the time of such discard or rejection, except sewage and other highly diluted water-carried materials or substances and those in gaseous form. Such waste shall include but not be limited to garbage, sludge, rubbish, ashes, incinerator residue, street cleanings, dead animals, abandoned vehicles, agricultural waste, industrial waste, commercial waste and construction demolition debris.

**TIRES** – Discarded vehicular tires and tire casings.

**YARD WASTE** - Leaves, grass clippings, twigs and branches, hedge trimmings and tree limbs under four (4) inches in diameter.

**§ 30-23. Disposal preparation and procedures.**

No person shall dispose of garbage, recyclables or non-recyclables except as follows: Prior to placement for collection and removal, all refuse, including separated recyclables, must be properly stored in a closed, weatherproof container or an area protected from the elements. Glass, metal and plastic recyclables shall be clean, and all contents shall be removed therefrom; caps shall be removed from glass recyclables, and paper labels shall be removed from metal recyclables. Newspapers and other fiber-based materials for recycling shall be kept dry.

**A. Direct disposal by residents.**

- (1) Each resident shall separate his solid waste and then take his separated recyclables to the East Greenbush Recycling Transfer Center or place them to curbside pickup.
- (2) The Recycling Coordinator shall issue instructions, subject to the approval of the Town Board, as to which materials may be delivered to the Recycling and Transfer Center and their method of separation. These instructions shall be kept on file in the Town Clerk's office.

**B. Curbside residential services.**

- (1) Each residence utilizing curbside pickup shall provide, at its own expense, suitable plastic or metal covered container(s) in which to deposit garbage and nonrecyclable refuse for curbside pickup
- (2) Each resident shall obtain, at his own expense, one (1) town-approved bin, a solid container with a lid, in which designated recyclables are to be placed for collection and curbside pickup.
- (3) It shall be the responsibility of all residents to separate recyclables from all residential solid waste and place them out for collection.
  - (a) Recyclables for collection shall not be placed in a plastic bag.
  - (b) Recyclables shall not be placed in the same container as or otherwise mixed with other forms of solid waste.

- (4) The Recycling Coordinator shall issue instructions subject to the approval of the Town Board as to which materials are to be collected at curbside, how they shall be prepared and the type of bin to be used for collection. These instructions shall be kept on file in the Town Clerk's office.
- (5) All recyclable materials placed in curbside containers are considered to be the property of the town or of its designated collector alone.

C. Multi-residential complex.

- (1) The owner, manager or superintendent of every multi-residential complex, not providing a contracted curbside pickup program, shall provide and maintain, in a neat and sanitary condition, recycling collection areas to receive the recyclables generated by the residence of the complex.
- (2) In cases where the interests of residence in a condominium, cooperative, homeowner or similar organization is protected by an association, the association shall be responsible for the provision and maintenance of the recycling collection areas.
- (3) All residents shall separate recyclables and place them in the appropriate containers within the collection areas or curbside, if such a program exists, and in accordance with § 30-23B of this legislation.
- (4) The Recycling Coordinator shall issue instructions, subject to the approval of the Town Board, on which materials are to be collected and how they shall be prepared. These instructions shall be kept on file in the Town Clerk's office.
- (5) All recyclable materials placed in containers are considered to be property of the town or of its designated collector alone.
- (6) The Recycling Coordinator shall assist the owner, manager or superintendent of every multi-residential complex and the licensed collector in developing alternative program(s) consistent with the intent and objectives of the local law.
- (7) Collection areas on the premises of a multi-residential complex shall be suitably screened or enclosed from public view.

D. Nonresidential/commercial.

- (1) The Recycling Coordinator shall issue instructions, subject to the approval of the Town Board, on which materials are to be collected and how they shall be prepared. These instructions shall be kept on file in the Town Clerk's office.
- (2) All recyclable materials placed in containers are considered to be property of the town or of its designated collector alone.
- (3) The licensed collector shall be responsible for providing collection bins for separated recyclables under a program approved by the Recycling Coordinator and consistent with the nature of each nonresidential customer's business, operation or facility.

E. Miscellaneous provisions.

- (1) If allowed by the New York State Department of Environmental Conservation and consistent with the rules, regulation and ordinance of the Town of East Greenbush, large household furnishings may be delivered directly to the Town Recycling and

Transfer Center, provided that a disposal fee has been paid, said disposal fee to be established by resolution of the Town Board.

- (2) Yard waste properly bundled or placed in a paper biodegradable bag will be picked up at curbside on a designated date by the town or permitted to be deposited at the Town Recycling and Transfer Center free of charge or at such town yard waste composting site as may be established.
- (3) It shall be a violation of this local law to place a hazardous substance out for collection by a person not licensed to collect, remove and dispose of a hazardous substance or to deliver such hazardous substance to the Recycling Center without prior authorization.
- (4) Construction demolition debris must be deposited at sites authorized by the Department of Environmental Conservation.

**§ 30-24. Town Recycling and Transfer Station.**

- A. The town shall operate and maintain proper collection facilities for separated recyclables at a central location, designated as the "Town Recycling and Transfer Center." Only town residents shall be permitted access and may be asked to present suitable identification.
- B. The Town Recycling and Transfer Center will accept designated recyclable items free of charge, while certain other items, including tires and major appliances, will be accepted, provided that a disposal fee has been paid, during such hours as may be established by resolution of the Town Board.
- C. Bagged garbage and refuse will be accepted for disposal at the Town Recycling and Transfer Center, provided that a disposal fee has been paid, during such hours as may be established by resolution of the Town Board.
- D. From time-to-time, as markets allow, the Town Recycling Coordinator may, subject to the approval of the Town Board, expand or contract the list of materials accepted for recycling at the Town Recycling and Transfer Center.
- E. The Town Recycling and Transfer Center shall be administered by the Commissioner of Public Works, with the assistance from the Recycling Coordinator.
- F. A collector, as defined under this local law, shall not be permitted to use the Recycling Center for disposal of recyclables or non-recyclable waste.
- G. It shall be violation of this law to dispose of solid waste collected outside the town at the Town Recycling and Transfer Center

**§ 30-25. License required.**

No person shall engage, on a regular basis, in the business of collecting, transporting or disposing of solid waste and/or the marketing of recyclables generated with the Town of East Greenbush without a license as hereinafter provided.

**§ 30-26. Application; issuance, revocation and term.**

The following procedures shall be followed to obtain a solid waste collection license:

- A. A license application shall be made, in writing, on a form prescribed by the Town Clerk, accompanied by a fee to be established by resolution of the Town Board.
- B. The application shall contain the name of the applicant or, if a partnership or corporation, the names of the partners, officers, directors and all persons holding twenty-five percent (25%) or more of the out standing shares of said corporation.
- C. The application shall list the days of collection, both for commercial and noncommercial accounts, the number of collections, the route used in the making collections and the days set aside for the pickup of recyclables.
- D. A solid waste collection license shall be issued by the Town Clerk upon compliance with the application procedures set forth in the local law.
- E. Violation of this local law shall be cause for revocation of the solid waste collection license by the Town Board upon recommendation of the Recycling Coordinator and after notice and an opportunity to be heard at a hearing to be conducted by the Recycling Coordinator.
- F. The effective term of the license shall be one (1) year from the date of issuance.

**§ 30-27. Duties of licensee.**

Acceptance of the solid waste license constitutes an agreement to perform under the following conditions, where applicable, the service provided by the licensed collector:

- A. For all licensed collectors.
  - (1) The collector shall provide regular weekly collection service to its contracted customers for both refuse and separated recyclables.
  - (2) The collector shall transport recyclables segregated through delivery to a suitable, ENCON-licensed materials-recovery facility or to markets approved by the Recycling Coordinator.
  - (3) The collector is obligated to pick up those items prescribed by the town and its Recycling Coordinator as being recyclable.
  - (4) The collector shall provide the Recycling Coordinator with a monthly report showing weight of recyclables collected by category from East Greenbush customers, the manner of transactions, along with the total tonnage of the non-recyclables solid waste collectable solid waste collected from East Greenbush customers and its final destination.
  - (5) It shall be a violation of this local law for a person to collect from a residence and dispose of solid waste which consists of recyclables combined with other forms of solid waste.

B. For residential collectors.

- (1) The basic curbside weekly pickup service per residence shall consist of the collection of refuse containers plus at least one (1) town-approved bin of separated recyclables.
- (2) Nothing in this section shall preclude a licensed collector from making contractual arrangements with any customer for special or additional services, including but not limited to senior discounts, one-time cleanups, yard pickup service and regular multi-container pickups.

C. For nonresidential or commercial collectors.

- (1) The collection of recyclables from nonresidential or commercial customers shall be consistent with the standards as described in § 30-23 hereof.

**§ 30-28. Penalties for offenses.**

Failure to comply with this local law by a person shall be deemed a violation, and the violation shall be punishable as follows:

A. Violations relating to residential, multi-residential or commercial collection:

- (1) For a first conviction within one (1) year: a fine of not less than twenty-five dollars (\$25.) nor more than fifty dollars (\$50.) and/or up to eight (8) hours of community services.
- (2) For a second conviction within one (1) year: a fine of not less than fifty dollars (\$50.) nor more than one hundred dollars (\$100.) and/or up to sixteen (16) hours of community service.
- (3) For a third conviction within one (1) year: a fine of not less than one hundred dollars (\$100.) nor more than two hundred dollars (\$200.) and/or up to forty (40) hours of community service.
- (4) Each continuing day of violation of this local law shall constitute a separate offense.

B. Violations relating to licensed collectors:

- (1) For a first conviction within one (1) year: a fine of two hundred fifty dollars (\$250.)
- (2) For a second conviction within one (1) year: a minimum fine of two hundred fifty dollars (\$250.) nor more than seven hundred dollars (\$700.) and/or up to one hundred sixty-eight (168) hours of community service.
- (3) For a third conviction within one (1) year: a minimum fine of seven hundred dollars (\$700.) nor more than one thousand dollars (\$1,000.) and/or up to five hundred (500) hours of community service.
- (4) Each continuing day of violation of this local law shall constitute a separate offense.

**§ 30-29. Severability.**

If any part of this local law is found to be illegal by a court of competent jurisdiction, the remaining sections shall remain in full force and effect.



**§ 30-30. Repealer.**

All provisions of any other local laws or ordinance which are inconsistent with the provisions of this local law are hereby repealed.

**§ 30-31. Statutory authorization.**

This local law is enacted pursuant to the authority and directive contained in § 120-aa of the General Municipal Law of the State of New York and § 136 of the Town Law and § 10 of the Municipal Home Rule Law of the State of New York.

**§ 30-32. Effective date.**

This law shall become effective sixty (60) days after enactment, except for § 30-23C, which shall take effect ninety (90) days after enactment, and § 30-23D, which shall take effect one hundred eighty (180) days after enactment.



#5-4-27-09

At a regular meeting of the Board of Trustees of the Village of Green Island, Green Island, New York, held on Monday, April 27, 2009, the following resolution was offered by Trustee Cocca seconded by Trustee Lansing and carried.

RESOLUTION OF THE VILLAGE BOARD OF TRUSTEES OF THE VILLAGE OF GREEN ISLAND TO COMPLY WITH THE SOLID WASTE MANAGEMENT PLAN MODIFICATIONS FOR THE CAPITAL REGION SOLID WASTE MANAGEMENT PARTNERSHIP; and AUTHORIZING THE EXECUTION OF AN INTERMUNICIPAL AGREEMENT REGARDING A PLANNING UNIT RECYCLING COORDINATOR

WHEREAS, in order to promote the public health, safety and welfare and further the purposes of the New York State policy on solid waste management articulated in New York Environmental Conservation Law §27-0106, the Village of Green Island is a member of the Capital Region Solid Waste Management Partnership Planning Unit ("Planning Unit"), formerly the Albany New York Solid Waste Energy Recovery System (ANSWERS) Solid Waste Management Planning Unit; and

WHEREAS, on behalf of the Planning Unit, the City of Albany has prepared a Solid Waste Management Plan (SWMP) which has been accepted by the New York Department of Environmental Conservation; and

WHEREAS, the Village Board of Trustees of the Village of Green Island has reviewed a Draft Modification to the SWMP dated August 2008 and prepared for the City of Albany by Clough Harbour & Associates LLP, and

WHEREAS, as part of the SWMP Modification, the Village and the other members of the Planning Unit must: enter into an Intermunicipal Agreement for the services of a Planning Unit Recycling Coordinator, and agree to implement the terms of the SWMP Modification once it is finalized; and

WHEREAS, the Village Board of Trustees of the Village of Green Island has reviewed the terms of the Intermunicipal Agreement for the services of a Planning Unit Recycling Coordinator; and

WHEREAS, by Resolution dated November 17, 2008, the Common Council of the City of Albany, on behalf of the City, accepted and adopted the SWMP Modification and agreed to comply with the SWMP Modification;

NOW, THEREFORE, BE IT RESOLVED AS FOLLOWS BY THE VILLAGE BOARD OF TRUSTEES:

1. The Village Board of Trustees accepts and adopts the modifications to the Solid Waste Management Plan for the Planning Unit.

*Rosa T. ...*

2. The Village of Green Island agrees to comply with the Solid Waste Management Plan modifications.
3. The Mayor of the Village of Green Island is hereby authorized to enter into and execute the Intermunicipal Agreement with the members of the Planning Unit.
4. This Resolution shall take effect immediately.

DATED: April 27, 2009

# Local Law Filing

(Use this form to file a local law with the Secretary of State.)

Text of law should be given as amended. Do not include matter being eliminated and do not use italics or underlining to indicate new matter.

- County  
 City of Green Island  
 Town  
 Village

Local Law No. Two of the year 2008

A local law to amend the Code of the Village of Green Island to hereby repeal Chapter 97 - Article II  
*(Insert Title)*  
in its entirety and add a new Article II - Source Separation of Recyclables.

Be it enacted by the Board of Trustees of the  
*(Name of Legislative Body)*

- County  
 City of Green Island as follows:  
 Town  
 Village

Pursuant to the Authority conferred in Section 7 - 700 of the Village Law of the State of New York, the Board of Trustees of the Village of Green Island hereby adopts and enacts Local Law No. 2 of 2008 as follows:

### §97-3. Legislative findings; intent.

The Board of Trustees of the Village of Green Island finds that the reduction of the amount of solid waste and the conservation of recyclable materials are important public concerns. The separation and collection of newspaper, paper, cardboard, glass, cans, plastic containers, vegetative yard waste and other materials for recycling from the residential, commercial, industrial and institutional establishments in the Village will protect and enhance the Village's physical and visual environment, as well as promote the health, safety and well-being of persons and property within the Village by minimizing the potential adverse effects of landfilling through reduction of the need for landfills and conservation of existing landfill capacity, facilitating the implementation and operation of other forms of solid waste management, conserving natural resources, ensuring conformance with the New York State Solid Waste Management Plan and facilitating the implementation of a solid waste management plan for the Village as a whole. The promotion and use of recyclable materials, goods produced from recyclable materials and goods which facilitate recycling will further serve the same purpose by encouraging and facilitating recycling.

(If additional space is needed, attach pages the same size as this sheet, and number each.)

**§ 97-4. Definitions.**

As used in this article, the following definition shall have the meanings indicated.

**CANS** – Containers comprised of aluminum, tin, steel or a combination thereof which contain or formerly contained only food and/or beverage substances.

**CARDBOARD** – All corrugated cardboard normally used for packing, mailing, shipping of containerizing goods, merchandise or other material, but shall not mean wax-coated or soiled cardboard (i.e.: pizza boxes).

**COMMISSIONER** – The Commissioner of the Department of Public Works.

**DISPOSITION or DISPOSITION OF DESIGNATED RECYCLABLE MATERIALS** – The transportation, placement or arrangement for transportation or placement of designated recyclable materials for all possible end uses to the City of Albany ANSWERS facility or any other facility designated by the Village of Green Island Board of Trustees.

**GARBAGE** – Putrescible animal and vegetable wastes resulting from the handling, preparation, cooking and consumption of food.

**GLASS** – All clear (flint), green and brown (amber) colored glass containers.

**HAZARDOUS MATERIAL or HAZARDOUS WASTE** – A solid waste or a combination of solid wastes which, because of its quantity, concentration or physical, chemical or infectious characteristics, may cause or significantly contribute to an increase in mortality or an increase in serious irreversible or incapacitating reversible illness; or pose a substantial present or potential hazard to human health or the environment when improperly treated, stored, transported or disposed of or otherwise managed. Such material or wastes shall include, but are not limited to, explosives, hazardous radioactive material, toxic substances and those substances which the Federal, State and County of Albany have identified as a hazardous waste pursuant to the above criteria and has included on a list of hazardous waste promulgated by any of them.

**MULTIRESIDENTIAL COMPLEX** – Five or more residential units located on a single property or continuous properties under common ownership, control or management. For this purpose, "residential unit" shall mean an enclosed space consisting of one or more rooms designed for use as a separate residence and shall include, but not be limited to, an apartment, condominium unit, townhouse cooperative unit, mobile home, living unit in a group home and room or set of rooms in a boardinghouse but shall not include rooms within a single-family resident, motel or hotel.

**NEWSPAPERS** – Newsprint and all newspapers and newspaper advertisements, supplements, comics and enclosures.

**PAPER** – All high-grade office paper, fine paper, bond paper, office paper, xerographic paper, mimeo paper, duplication paper, magazine, paperback book, school paper, catalogs, junk mail, computer paper, telephone books and similar cellulosic material, but shall not mean wax paper, plastic or foil coated paper, Styrofoam, wax-coated food and beverage containers, carbon paper, blueprint paper, food-contaminated paper, soiled paper and cardboard.

**PERSON** – Any individual, firm, partnership, company, corporation, association, joint venture, cooperative enterprise, trust, municipality or other governmental agency or any other entity or any group of such persons which is recognized by law as the subject of rights and duties. In any provisions of this article prescribing a fine, penalty or imprisonment, the term "person" shall include the officers, directors, partners, managers or persons in charge of a company, corporation or other legal entity having officers, directors, partners, managers, or other persons in charge.

**PLASTIC CONTAINERS** – Containers composed of high-density polyethylenes, polyethylene terephthalate or other specific plastics as the Village may designate.

**RECYCLABLE MATERIAL** – A material, which would otherwise become solid waste, which can be collected, separated and/or processed, treated, reclaimed, used or reused to produce a raw material or product.

**RECYCLABLES** – Those recyclable materials designated by this article and/or by determination of the Village of Green Island Board of Trustees to be source-separated. The term includes, but is not limited to, newspaper, glass, paper, cardboard, cans, plastic containers and vegetative yard waste.

**RECYCLING** – Any process by which material, which would otherwise become solid waste, are collected, separated and/or processed, treated, reclaimed, used or reused to produce a raw material or product.

**RECYCLING COLLECTION AREA** – Any facility designed and operated solely for the receiving and storing of source-separated designated recyclable materials.

**RESIDENT** – Any person residing within the Village on a temporary or permanent basis, but excluding persons residing in hotels or motels. For purposes of this article, "resident" does not include commercial, industrial or institutional establishments.

**RUBBISH** – Nonputrescible solid wastes consisting of both combustible and noncombustible wastes, including but not limited to nonrecyclable paper, wrappings, cigarettes, wood, wires, glass, bedding, furniture and similar material, which are not, designated recyclable materials.

**SOLID WASTE** – All putrescible and nonputrescible materials or substances discarded or rejected as having served their original intended use or as being spent, useless, worthless or in excess to the owner at the time of such discard or rejection, including garbage, refuse, litter, rubbish and industrial waste but not including designated recyclable material, solid or dissolved matter in domestic sewage or substances, material in noncontainerized gaseous form or hazardous material or waste.

**SOURCE-SEPARATED** – To separate recyclable materials from the solid waste stream at the point of waste generation.

**VEGETATIVE YARD WASTE** – Organic yard and garden waste, leaves, grass clippings and brush.

**§ 97-5. Requirements applicable to source separation and collection of designated recyclables for the curbside program.**

All designated recyclables placed for collection or at another location by residents for collection pursuant to the curbside programs established by the Village of Green Island Board of Trustees shall be prepared for collection in accordance with regulations promulgated by the Board of Trustees.

**§ 97-6. Required applicable to source separation and placement of designated recyclables in recycling collection areas.**

Designated recyclables required to be placed in recycling collection areas pursuant to this article shall be prepared for collection in accordance with regulations promulgated by the Board of Trustees.

**§ 97-7. Enforcement; rules and regulations.**

The Department of Public Works is authorized to enforce the provisions of this article and to administer the recycling programs established herein. The Board of Trustees of the Village of Green Island may adopt and promulgate amend and repeal rules and regulations implementing this article in order to carry out and effectuate the intent and purposes thereof.

**§ 97-8. Unlawful activities.**

A. It shall be unlawful for:

- (1) Any person, other than those persons so authorized, to collect any designated recyclable which has been placed at the roadside for collection or within a recycling collection area pursuant to this article.
- (2) Any person to violate or to cause to assist in the violation of any provision of this article or any implementing rule or regulation promulgated by the Board of Trustees.
- (3) Any person to place or to cause to be placed any material other than a designed recyclable in or near a recycling collection area.

B. All unlawful conduct set forth in this section shall constitute a violation.

**§ 97-9. Noncollection of solid waste contaminated by designated recyclables**

The Department of Public Works may refuse to collect solid waste from any person who has clearly failed to source-separate recyclables designated under an applicable section of this article at any solid waste disposal facility to which solid wastes are delivered by the Village of Green Island.

**§ 97-10. Noninterference with existing contracts.**

A. Nothing contained in this article shall be construed to interfere with or in any way modify the provisions of any existing contract in force in the Village on the effective date of this article.



- B. No renewal of any existing contract upon the expiration of the original term thereof and no new contract for the collection, transportation, processing or purchase of solid waste or recyclables shall be entered into after the effective date of this article, unless renewal of such contract shall conform to the requirements of this article.

**§ 97-11. Penalties for offenses.**

Any person who engages in unlawful conduct as defined in this article may, upon conviction thereof, in a proceeding before a court of competent jurisdiction, be sentenced to imprisonment for a term not to exceed 15 days or to a term on community service related to the purposes of this article or to pay a fine of not more than \$250 and not less than \$25, or any combination of the above penalties, including all associated court costs.

**§ 97-12. Injunction; concurrent remedies.**

- A. In addition to any other remedy provided herein, the Village of Green Island may institute a suit in equity where unlawful conduct exists for an injunction to restrain a violation of this article.
- B. The penalties and remedies prescribed by this article shall be deemed concurrent. The existence or exercise of any remedy shall not prevent the Village from exercising any other remedy provided herein or otherwise provided at law or equity.
- C. — The terms and provisions of this article are to be liberally construed, so as best to achieve and effectuate the goals and purposes hereof.

**§ 97-13. Severability.**

- A. The provisions of this article are severable. If any provision of this article or its application to any person or circumstances is held invalid, said invalidity shall not affect any other provision or application, which can be given effect without the invalid provision or application of the article.
- B. All provisions of any other local law or ordinance, which are inconsistent with the provisions of this article, are hereby repealed.

This Local Law shall take effect upon filing with the office of the Secretary of State.



(Complete the certification in the paragraph that applies to the filing of this local law and strike out that which is not applicable.)

1. (Final adoption by local legislative body only.)

I hereby certify that the local law annexed hereto, designated as local law No. Two of 20 08 of the (County)(City)(Town)(Village) of Green Island was duly passed by the Board of Trustees on November 17 20 08, in accordance with the applicable provisions of law.  
(Name of Legislative Body)

2. (Passage by local legislative body with approval, no disapproval or repassage after disapproval by the Elective Chief Executive Officer\*.)

I hereby certify that the local law annexed hereto, designated as local law No. \_\_\_\_\_ of 20 \_\_\_\_\_ of the (County)(City)(Town)(Village) of \_\_\_\_\_ was duly passed by the \_\_\_\_\_ on \_\_\_\_\_ 20 \_\_\_\_\_, and was (approved)(not approved) \_\_\_\_\_ (Name of Legislative Body) (repassed after disapproval) by the \_\_\_\_\_ and was deemed duly adopted (Elective Chief Executive Officer\*) on \_\_\_\_\_ 20 \_\_\_\_\_ in accordance with the applicable provisions of law.

3. (Final adoption by referendum.)

I hereby certify that the local law annexed hereto, designated as local law No. \_\_\_\_\_ of 20 \_\_\_\_\_ of the (County)(City)(Town)(Village) of \_\_\_\_\_ was duly passed by the \_\_\_\_\_ on \_\_\_\_\_ 20 \_\_\_\_\_, and was (approved)(not approved) \_\_\_\_\_ (Name of Legislative Body) (repassed after disapproval) by the \_\_\_\_\_ on \_\_\_\_\_ 20 \_\_\_\_\_ (Elective Chief Executive Officer\*)

Such local law was submitted to the people by reason of a (mandatory)(permissive) referendum, and received the affirmative vote of a majority of the qualified electors voting thereon at the (general) (special)(annual) election held on \_\_\_\_\_ 20 \_\_\_\_\_, in accordance with the applicable provisions of law.

4. (Subject to permissive referendum and final adoption because no valid petition was filed requesting referendum.)

I hereby certify that the local law annexed hereto, designated as local law No. \_\_\_\_\_ of 20 \_\_\_\_\_ of the (County)(City)(Town)(Village) of \_\_\_\_\_ was duly passed by the \_\_\_\_\_ on \_\_\_\_\_ 20 \_\_\_\_\_, and was (approved)(not approved) \_\_\_\_\_ (Name of Legislative Body) (repassed after disapproval) by the \_\_\_\_\_ on \_\_\_\_\_ 20 \_\_\_\_\_. Such local law was subject to permissive referendum and no valid petition requesting such referendum was filed as of \_\_\_\_\_ 20 \_\_\_\_\_, in accordance with the applicable provisions of law.

\* Elective Chief Executive Officer means or includes the chief executive officer of a county elected on a county-wide basis or, if there be none, the chairperson of the county legislative body, the mayor of a city or village, or the supervisor of a town where such officer is vested with the power to approve or veto local laws or ordinances.

**5. (City local law concerning Charter revision proposed by petition.)**

I hereby certify that the local law annexed hereto, designated as local law No. \_\_\_\_\_ of 20 \_\_\_\_\_ of the City of \_\_\_\_\_ having been submitted to referendum pursuant to the provisions of section (36)(37) of the Municipal Home Rule Law, and having received the affirmative vote of a majority of the qualified electors of such city voting thereon at the (special)(general) election held on \_\_\_\_\_ 20\_\_\_\_\_, became operative.

**6. (County local law concerning adoption of Charter.)**

I hereby certify that the local law annexed hereto, designated as local law No. \_\_\_\_\_ of 20 \_\_\_\_\_ of the County of \_\_\_\_\_ State of New York, having been submitted to the electors at the General Election of November \_\_\_\_\_ 20\_\_\_\_\_, pursuant to subdivisions 5 and 7 of section 33 of the Municipal Home Rule Law, and having received the affirmative vote of a majority of the qualified electors of the cities of said county as a unit and a majority of the qualified electors of the towns of said county considered as a unit voting at said general election, became operative.

**(If any other authorized form of final adoption has been followed, please provide an appropriate certification.)**

I further certify that I have compared the preceding local law with the original on file in this office and that the same is a correct transcript therefrom and of the whole of such original local law, and was finally adopted in the manner indicated in paragraph one, above.

\_\_\_\_\_  
Clerk of the county legislative body, City, Town or Village Clerk or  
officer designated by local legislative body  
November 18, 2008

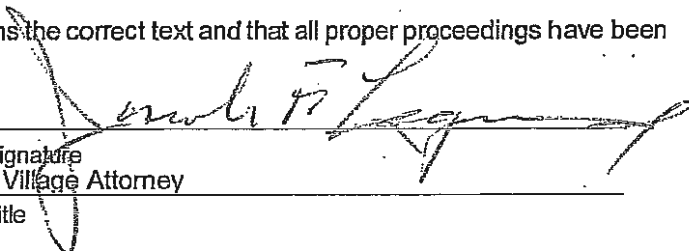
Date: \_\_\_\_\_

(Seal)

**(Certification to be executed by County Attorney, Corporation Counsel, Town Attorney, Village Attorney or other authorized attorney of locality.)**

STATE OF NEW YORK  
COUNTY OF ALBANY

I, the undersigned, hereby certify that the foregoing local law contains the correct text and that all proper proceedings have been had or taken for the enactment of the local law annexed hereto.

  
\_\_\_\_\_  
Signature  
Village Attorney  
\_\_\_\_\_  
Title

County \_\_\_\_\_  
City of Green Island  
Town \_\_\_\_\_  
Village \_\_\_\_\_

Date: November 18, 2008

*Green Island*

Extracted from December 9, 2008, Town Board Minutes, Town of Knox

**RESOLUTION #136 -TOWN OF KNOX TO CONTINUE TO IMPLEMENT ITS SOLID WASTE MANAGEMENT PLAN**

On motion of Councilman Decker, seconded by Councilwoman Nagengast, the following resolution was ADOPTED      AYES 5      NAYS 0

RESOLVED that the Town of Knox shall continue to implement its Solid Waste Management Plan in conformity with the Capital Region Solid Waste Management Plan and to continue to require its Source Separation and Recyclable Collection Program currently implemented by the Town of Knox.

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Dated: January 6, 2008

*Kimberly D. Swain*

Kimberly D. Swain  
Knox Town Clerk



Town of Knox Local Law No. 3 of the year 1992

Local law to establish and define a Solid Waste Management code for the Town of Knox, which will replace all existing laws concerning dumps and dumping, and solid waste management.

Be it enacted by the Town Board of the Town of Knox as follows:

ARTICLE I  
Solid Waste Facilities

- 01-1 Definitions
- 01-2 Operation of Solid Waste Facilities
- 01-3 Dumping of Waste Excavation Material
- 01-4 Prohibited Disposal
- 01-5 Authority for Establishment of Solid Waste Facilities
- 01-6 Penalties for Violations
- 01-7 Exclusions
- 01-8 Permits for Disposal of Solid Waste
- 01-9 Repeal of All Previous Local Laws and Regulations Regarding Dumps and Dumping
- 01-10 Amendments to Other Local Laws and Regulations

ARTICLE II  
Solid Waste Management

- 01-11 Legislative Intent
- 01-12 Requirements for Solid Waste Management
- 01-13 Prohibited Materials
- 01-14 Solid Waste Permits
- 01-15 Fees
- 01-16 Administration
- 01-17 Penalties for Violations

ARTICLE III  
Mandatory Recycling

- 01-18 Legislative Intent
- 01-19 Definitions
- 01-20 Further Designation or Limitation of Recyclable Materials
- 01-21 Mandatory Recycling
- 01-22 Ownership of Recyclables
- 01-23 Composting
- 01-24 Administration
- 01-25 Prohibited Activities
- 01-26 Disposal of Recyclable Materials by Commercial Waste

Collectors

01-27 Enforcement  
01-28 Penalties for Violations  
01-29 Additional Penalties

ARTICLE IV  
Miscellaneous

01-30 Severability  
01-31 Effective Date



ARTICLE I  
Solid Waste Facilities

01-1 Definitions

As used in this Local Law, the following terms shall have these meanings ascribed to them:

BULKY WASTE - large items of refuse including but not limited to furniture, auto parts, appliances such as washers, dryers, refrigerators, television sets, water heaters, mattresses, springs, logs and tree stumps.

COMMERCIAL WASTE COLLECTOR - Any person who, as a business enterprise, collects residential or commercial solid waste, from more than one household or any business or commercial establishment or industrial facility within the Town or otherwise transports or disposes of solid wastes collected from said sources or who performs any of these services for a fee.

CONSTRUCTION AND DEMOLITION DEBRIS - Uncontaminated wastes resulting from construction, remodeling, repair and demolition of structures. These wastes shall include but not be limited to concrete, asphalt, stone, brick, block, wood, plaster, non-asbestos shingles and insulation, roofing materials and metals, plumbing fixtures, electrical wiring, but shall not include any hazardous wastes or any of said listed materials which contain, include or have been tainted or affected by toxic, hazardous or otherwise harmful elements, chemicals or materials.

GARBAGE shall mean putrescible animal or vegetable waste resulting from the handling, storage, sale, preparation, cooking or serving of food.

HAZARDOUS WASTE - Any waste or combination of wastes which because of its quantity, concentration or physical, chemical or biological characteristics possesses a substantial present or potential hazard to human or animal health or to the environment as determined by the Town Board or the Department of Environmental Conservation. Such waste shall include but not be limited to wastes which are bioconcentrative, highly flammable, explosive, highly reactive, toxic or poisonous, irritating, sensitizing, corrosive or infectious and shall include wastes that are solid, semisolid, liquid or gaseous. The final determination of whether or not a waste is hazardous shall be made by the Town Board and shall not be limited to those items or materials defined as hazardous by State and Federal law, rule or regulation.

HOUSEHOLD HAZARDOUS WASTE - Household waste which, but for its point of generation, would be hazardous waste as defined by this article, including pesticides as defined in the New York State Environmental Conservation Law.

INDUSTRIAL WASTE - Solid waste generated by mining, manufacturing, or industrial processes. Such waste may include but is not limited to, the following manufacturing processes: electric power generation; fertilizer/agricultural chemicals; inorganic chemicals; leather and leather products; organic chemicals; plastics and resins manufacturing; pulp and paper industry; rubber and miscellaneous plastic products; stone, clay and concrete products; textiles; transportation equipment; and water treatment.

PERSON shall mean any individual, firm, partnership, company, corporation, association, joint venture, cooperative enterprise, trust, municipality, government agency, societies, clubs, fraternal orders and any other entity or group of persons which is capable of being sued. In any provisions of this ordinance prescribing penalties for non-compliance, the term PERSON shall include the officers, directors, partners, managers, or persons in charge of a company, corporation, or other legal entity having officers, directors, partners, managers or other persons in charge.

RESIDENT: Any person owning property or living on property located in the Town of Knox.

RUBBISH shall mean and include any one or more of the following: Combustibles, including but not limited to, paper, cartons, boxes, barrels, wood, wood furniture and bedding; Non-combustibles, including but not limited to, metal, tin cans, metal furniture, small quantities of rock, concrete, glass, crockery, and other metal fixtures.

SOLID WASTE shall mean and include all putrescible and non-putrescible materials or substances, that are discarded or rejected as being spent, useless, worthless or in excess to the owners at the time of such discard or rejection, including but not limited to, garbage, refuse, industrial and commercial waste, sludges from water treatment facilities, rubbish, tires, ashes, fuel and gaseous material containers, incinerator residue, construction and demolition debris and offal. The term shall not include solid or dissolved matter in domestic sewage or substances, materials in non-containerized gaseous form, or other such items or materials excluded from the definition of solid waste pursuant to the regulations of the State of New York, Department of

Environmental Conservation.

SOLID WASTE FACILITY - Any facility within the Town distinguished as a depository, holding or transfer point for solid wastes including but not limited to sanitary landfills, transfer stations, recycling facilities, construction and demolition debris landfills, materials recovery facilities that are or shall be designated as such by any law, rule or regulation of the Town. This term shall also include those dumps or dumping grounds or approved waste excavation material disposal sites referred to in Article I of this Law.

TOWN shall mean the Town of Knox.

WASTE EXCAVATION MATERIAL shall mean and include uncontaminated earth, sand, dirt and soil.

YARD AND GARDEN WASTE shall mean and include any one or more of the following: tree branches, tree trunks, tree stumps, yard trimmings, leaves and garden waste.

01-2 Operation of Solid Waste Facilities

No land within the Town shall be used for the discharge, charge, disposal, deposit or burial of rubbish, garbage or solid wastes as defined in this chapter, unless the land is operated as a solid waste facility or transfer station by or on behalf of the Town or operated pursuant to a permit issued for said purposes by the Town and operated in accordance with all applicable laws, rules and regulations of the State of New York, County of Albany and Town.

No person shall receive or accept for disposal or deliver, dump, or offer for disposal any garbage, refuse or recyclable material on any land or at any location, site or area in the Town except 1) upon premises established, operated or maintained by the Town as a solid waste facility subject to all rules, regulations and restrictions governing the use of such premises as are herein described, and 2) upon premises authorized for sanitary landfill dumping under this law.

01-03 Dumping of Waste Excavation Material

Waste excavation material of any kind shall not be discharged, disposed of, deposited or buried within the Town unless said material is clean and uncontaminated.

#### 01-4 Prohibited Disposal

No person shall intentionally burn hazardous waste, batteries, garbage, plastics or plastic-laminated materials, furniture, bedding, asphalt materials, epoxyresins including fiberglass, electrical wiring, white and brown goods, tires, offal, packing foam, styrofoam, cloth or magazines.

No person shall throw, deposit or bury hazardous waste, batteries, plastics or plastic-laminated materials, furniture, bedding, epoxy-resins including fiberglass, white and brown goods, tires, packing foam, styrofoam or magazines.

No person shall throw or deposit any garbage, rubbish, yard and garden waste or solid waste in or upon any street, highway, walk, park, parking area or other public place within the Town, except in public receptacles; provided that no items listed above shall at any time be thrown or deposited in public receptacles unless such receptacles are specifically designated and marked for the reception of such materials.

No person shall throw or deposit any garbage, rubbish, yard and garden waste, solid waste or foreign matter of any kind whatsoever in any pool, pond, river, lake, stream, culvert, reservoir, or its tributaries or watershed, or any body of water in a park or elsewhere within the Town. This provision shall not prohibit authorized treatment of pools or bodies of water to control or regulate water purity or aquatic vegetation by persons having all required permits issued by state, county, town or watershed authorities having jurisdiction over such treatment.

#### 01-5 Authority for Establishment of Solid Waste Facilities

This article shall not prohibit the establishment or operation by the Town of solid waste facilities as the necessity therefore may arise nor shall it prohibit the Town from authorizing, for good cause shown, the discharge, disposal, deposit or burial of waste excavation material at a particular site located within the Town.

#### 01-6 Penalties for Violations

A violation of this Article is hereby declared to be an offense punishable by a fine of not less than fifty dollars (\$50) or more than twenty-five hundred dollars

(\$2500), or imprisonment for up to fifteen days, or by performing services for a public or not-for-profit corporation, association or agency, or by both such fine and imprisonment or by such fine and public service.

Each day the violation continues shall be deemed a separate and distinct violation.

The Town may pursue any other action authorized by law.

01-7 Exclusions

The provisions of this article shall not apply to any department of the Town providing leaf and trash pickup or highway maintenance within the Town.

01-8 Permits for Disposal of Solid Waste

Notwithstanding the provisions of this Article, the Town Board may, upon good cause, grant permits for disposal of solid waste and/or the operation of a solid waste facility and/or authorizing the disposal of waste excavation material within the Town, on such terms and conditions which seem necessary or desirable to the Town Board, including, but not limited to, compliance with Articles II and/or III of this Chapter, and also the posting of such security or liability insurance as the Town shall deem necessary.

01-9 Repeal of All Previous Local Laws and Regulations Regarding Dumps and Dumping

01-10 Amendments to Other Local Laws and Regulations

The Zoning Ordinance of the Town of Knox, as adopted December 10, 1974 and amended in November, 1984, shall be amended as follows:

Article II, Section 20. Dump - shall be replaced by the following verbiage: "All dumping of refuse, waste material and other substances is prohibited except as specified in the Town of Knox Local Law 03 of 1992".

Article VI, Section 60. A. Building Permit, paragraph 3 - shall be added as follows: "Such applications shall be accompanied by a plan and any necessary permits for the proper and lawful disposal of construction and demolition materials if such materials will be generated by the activities described in the application for a building permit. No permit will be granted without the submission and approval of such a disposal plan."

ARTICLE II  
Solid Waste Management

01-11 Legislative Intent

The Town Board of the Town by enacting this local law, hereby declares its intent and purpose to be the protection of the general health, safety and welfare of the residents of the Town by providing a clean, wholesome and attractive environment within the Town. The Town Board also recognizes the inherent dangers arising from the unrestricted or unsafe generation, collection or disposal of solid wastes or other dangerous, noxious, unhealthy and hazardous substances. The Town Board hereby adopts the following requirements concerning the collection, transportation, disposal and management of solid waste within the Town.

01-12 Requirements for Solid Waste Management

A. Only solid wastes generated and collected within the Town and which are not otherwise prohibited will be accepted at any solid waste facility within the Town or at any solid waste facility authorized pursuant to Article I of this Law.

B. The Town may contract with another municipality or person to accept solid waste, and such waste may be accepted at a solid waste facility within the Town in accordance with such a contract.

C. All persons who collect, transport or dispose of solid wastes in the Town must obtain a permit for such purposes from the Town in addition to such other permits or approvals that may be required by law, rule or regulation of the State of New York, County of Albany, Town or other governmental entity.

D. Any person discharging solid waste at any solid waste facility within the Town shall possess a valid permit.

E. Any person entering or utilizing a solid waste facility shall adhere to the rules and regulations of said facility as well as all other laws, ordinances, rules or regulations of the State of New York, County of Albany, Town, or other governmental entity with regard to the collection, transportation or disposal of solid waste, and must follow the instructions of the Town Board.

F. Resident access to any public solid waste facility

shall be limited to those times posted when authorized personnel are on duty. Access for commercial waste collectors shall be limited to those times designated by the Town Board. Items may be left at the site only during the scheduled hours of operation.

G. No person shall throw, dump, deposit or place in their rubbish or garbage for collection, nor shall any person throw, dump, deposit or place in any solid waste facility, any item or items designated by the Town as recyclable material, except in accordance with this law or the rules and regulations thereof.

H. All vehicles collecting solid waste shall be properly and adequately equipped to contain and carry the materials collected without effluent therefrom spilling onto public streets, highways and other places in violation of Article 1, Section 4 of this Law.

I. The Town Board may establish additional or further rules, requirements and procedures concerning the collection, transportation or disposal of solid waste within the Town.

#### ~~01-13~~ Prohibited Materials

Disposal of any of the following materials at any solid waste facility within the Town is prohibited:

A. Toxic, industrial or hazardous wastes, except household hazardous waste.

B. Dead animals and carcasses, including rendering products, hides, fleshings and residues from meat processing.

C. Motorized vehicles, trailers and equipment which are not in a clean and dismantled state.

D. Solid waste generated or collected outside the Town.

E. Any other materials or waste, hazardous or not, which the Town Board finds would require special handling and disposal.

#### 01-14 Solid Waste Permits

Permits for the use of solid waste facilities and/or for

the collection, transportation or disposal of solid waste within the Town must be obtained.

A. Residents.

Permits allowing use of Town solid waste facilities shall be obtained by providing written proof of residence or property ownership within the Town. Such permits shall be valid for the disposal of solid waste generated within the Town by the permit holder and his/her immediate household.

Each applicant for a permit required by this Article shall make an application in writing on a form provided by the Town to the Town Clerk. Attendants at the solid waste facility may deny the use of said premises to any person failing to exhibit such permit or proof of permit.

Any permit issued under this sub-section shall become void when the holder ceases to be a resident of the Town. A permit is not transferable.

B. Commercial waste collectors.

Permits are required for each vehicle used by commercial waste collectors.

Each applicant for a permit required by this Article shall make an application in writing on a form provided by the Town to the Town Clerk.

Upon proper application and payment of any fee as provided in this Article, Section 15, the Town Clerk shall issue to a commercial waste collector, within thirty-five (35) days, a permit required by this Article for each vehicle to be used for the collection of solid waste. Such a permit shall be valid for the calendar year in which it is issued and is not transferable.

C. Denial of Application

Notwithstanding any other provision of this Article, a permit required by this Article shall not be granted where, in the opinion of the Town Board, the granting thereof will cause or may be deemed likely to cause an undue burden on the disposal facilities of such solid waste facility or may otherwise interfere with the orderly operation and maintenance of the solid waste facility or the health and safety of persons or property.



A. Residents

The Town Board may adopt a schedule of fees for the disposal of designated portions of the solid waste stream.

B. Commercial Waste Haulers

The Town Board may adopt a schedule of fees for the disposal of designated portions of the solid waste stream. Said schedule may further provide for deposits or other security to be posted by the commercial waste collector or person using a solid waste facility including, but not limited to, liability insurance of a nature and in an amount which shall be acceptable to the Town Board.

01-16 Administration

The Town Board may:

- 1) Establish the days and hours of operation of all facilities.
- 2) Establish rules and regulations governing the operation, maintenance and use of all solid waste facilities in the Town and the collection, transportation or disposal of solid wastes within the Town, and provide for enforcement of this Article and the rules and regulations thereunder.
- 3) Suspend any permit pending a hearing for revocation pursuant to Article II, Section 17. Said suspension shall not exceed a period of thirty (30) days. A permit may be temporarily suspended in the event that the Town Board determines that the holder of said permit is in violation of this Article and said violation constitutes, or may create, a danger to the aesthetics and environment of the Town or the health and safety of its inhabitants and its livestock and wildlife, or that a person is utilizing said permit for a purpose or in a manner that is inconsistent with this Article or is allowing said permit to be utilized by a person other than the issue of said permit.

01-17 Penalties for Violations

A violation of this Article or the rules and regulations thereunder is hereby declared to be an offense.

A. Residents

1) A first violation shall be punishable by a fine of not less than ten dollars (\$10) or more than fifty dollars (\$50).

2) A second violation within three years shall be punishable by a fine of not less than fifty dollars (\$50) or more than five hundred dollars (\$500).

3) A third or subsequent violation within three years shall be punishable by a fine of not less than fifty dollars (\$50) or more than one thousand dollars (\$1000) or by up to five days of imprisonment, or by performing services for a public or not-for-profit corporation, association or agency, or by both such fine and imprisonment or by both such fine and public service.

#### B. Commercial Waste Collectors

1) A first violation shall be punishable by a fine of not less than one hundred dollars (\$100) or more than two hundred fifty dollars (\$250).

2) A second violation within five years shall be punishable by a fine of not less than two hundred fifty dollars (\$250) or more than one thousand dollars (\$1000).

3) A third or subsequent violation within five years shall be punishable by a fine of not less than one thousand dollars (\$1000) or more than twenty-five hundred dollars (\$2500) or by up to five days of imprisonment, or by performing services for a public or not-for-profit corporation, association or agency, or both such fine and imprisonment or by both such fine and public service.

#### C. Additional penalties.

1) At any time, after a hearing, the Town Board may suspend or revoke any permit if the Town Board at such hearing determines the holder of such permit to be a persistent violator or incapable of or unwilling to comply with the provisions of this Article or the rules and regulations thereunder, or has intentionally or negligently acted, or has acted and as a result has harmed, or created a risk of harm, to the aesthetics and environment of the Town or the health and safety of its inhabitants and its livestock and wildlife, or has utilized said permit in a manner inconsistent with this Article or has allowed said permit to be utilized by other than its issue. The permittee shall have an opportunity to be heard at such hearing, which shall be

held after such permittee shall be served by written notice of such hearing in person or by certified mail, return receipt requested, not less than fifteen (15) days prior to the date of such hearing.

2) The Town shall also have such other remedies as are provided by law.

3) In the event of a violation of this local law of a continuing nature or character, each day the violation shall continue or be permitted to exist shall constitute a separate violation.

4) Conviction for any violation of this local law shall constitute cause for revocation of any license issued under this local law in the discretion of the Town Board.

5) In addition to the penalties and punishments provided in this section, the Town Board may also maintain an action or proceeding in the name of the town in a court of competent jurisdiction to complete compliance with or to restrain by injunction the violation of this chapter.



NOTICE OF ADOPTION OF A RESOLUTION  
SUBJECT TO PERMISSIVE REFERENDUM

NOTICE IS HEREBY GIVEN, that at a regular meeting held on the 9<sup>th</sup> day of June, 2009 the Town Board of the Town of Knox, New York duly adopted a resolution, an abstract of which resolution is subject to a permissive referendum pursuant to Town Law Article 4.

Amendment to the Town of Knox Local Law No. 3 of the year 1992 provides that Article III, entitled Mandatory Recycling, section 01-21 be amended to include the following language, to wit: All commercial, industrial and institutional establishments within an area of the Town shall source separate and arrange for the collection of recycling of newspapers and other designated recyclables.

Within 10 days after the adoption of this resolution by the Town Board, the Town Clerk shall, as set forth in Town Law § 90, post and publish a notice which shall set forth the date of the adoption of this resolution and contain an abstract of this resolution, concisely stating the purpose and effect thereof. Such notice shall specify that such resolution was adopted subject to a permissive referendum.

This resolution shall take effect immediately, unless a referendum is requested, in which event it shall take effect, if approved at such referendum, upon such approval.

This resolution is adopted subject to a permissive referendum pursuant to Town Law § 64(2).

Dated: June 9, 2009  
Kimberly D. Swain  
Knox Town Clerk

16.000



Dated: June 16, 2009

**RESOLUTION # 72 - ADOPT LOCAL LAW NO. 1 OF 2009 ENTITLED "MANDATORY RECYCLING" AMENDMENT TO THE TOWN OF KNOX LOCAL LAW NO. 3 OF 1992**

On motion of Councilman Viscio, seconded by Councilwoman Nagengast, the following resolution was ADOPTED AYES 5 NAYS 0

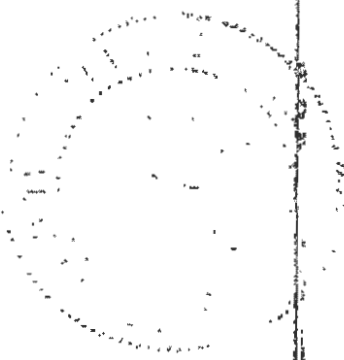
RESOLVED to adopt Local Law No. 1 of 2009 entitled "Mandatory Recycling", All commercial, industrial and institutional establishments within an area of the Town shall source separate and arrange for the collection of recycling of newspapers and other designated recyclables.

The above Resolution is a true and accurate copy of a Resolution passed at the June 9, 2009 Town Board Meeting of the Town of Knox.

*Kimberly Swain*

Kimberly Swain, Knox Town Clerk

June 16, 2009







ARTICLE III  
MANDATORY RECYCLING

01-18 Legislative Intent

It is the goal of the Town of Knox to facilitate the disposal of solid waste generated within the Town in an economical and environmentally accepted manner and to reduce the total per capita amount of solid waste disposed of in the Town, in conformance with the New York State Solid Waste Management Plan, so that landfill space is saved, waste disposal problems are reduced, and precious natural resources are conserved.

It is the purpose of this local law to establish a source separation and recyclables collection program within the Town to reach the goal of the most feasible reuse and recycling of the Town's waste stream considering costs, per capita generation, marketability of recyclables, and public involvement.

Recycling is a challenge to our residents, one to be learned and improved upon. Education, participation and cooperation are the elements of a successful recycling program, which shall be accomplished by a working partnership between the Town and its residents for the long-lasting benefit of all.

01-19 Definitions

For purposes of this Article those terms defined in Section 01-1 of this Law shall have the meanings indicated therein unless a different meaning or context is set forth or required in this Article. The following additional terms shall have the meanings indicated:

BATTERIES, DRY-CELL: Household batteries for flashlights, watches, toys, penlights, calculators, hearing aids, etc.

BATTERIES, LEAD-ACID: A cell or group of cells which provide electric current, such as automobile batteries.

BROWN GOODS: Electronic equipment containing circuit boards and transistors, such as radios, stereos, televisions and computer components.

BIODEGRADABLE MATERIALS: That segment of the solid waste stream which, under controlled conditions, can be biologically decomposed into a humus-product that may be used as a soil amendment or mulch.

CLOTH AND CLOTHING: Textiles woven of natural or synthetic fibers, and the garments made of these materials.

CARDBOARD, CORRUGATED: All corrugated cardboard normally used for packing, mailing, shipping or containerizing goods. This excludes paperboard cardboard and all items which have been coated with wax, plastic, foil or styrofoam.

CARDBOARD, PAPERBOARD: All cardboard used in packaging of foods, personal care and clothing items, such as cereal or shoe boxes. This excludes corrugated cardboard and all items which have been coated with wax, plastic, foil or styrofoam.

COMPOSTING: Controlled biological decomposition of organic waste materials into a humus product that may be used as a soil amendment or mulch.

GLASS CONTAINERS: Clear, green and amber (brown) glass jars, bottles and containers with lids, caps and closures removed.

MAGAZINES: Booklets or stapled catalogues made of slick and/or glossy paper. This excludes bound catalogues and telephone books.

METAL CANS: Tin, aluminum or other ferrous or non-ferrous or composite cans and containers.

MOTOR OIL: Any petroleum-based lubricant used in internal combustion engines.

NEWSPAPERS: Newsprint and all newspapers and newspaper advertisements, supplements, comics and enclosures.

PAPER: All bond paper including computer paper, stationery, photocopy and ledger-free commercial waste paper, junk mail, school paper, or other paper as designated by the Town Board; shall not include soiled paper or cardboard, wax paper, plastic or foil-coated paper, styrofoam, wax-coated food and beverage containers, carbon paper, or blueprint paper.

PLASTIC CONTAINERS: Containers composed of high-density polyethylene, polyethylene terephthalate or other plastics as designated by the Town Board.

RECYCLABLE MATERIALS: Those materials specified by the Town, or the State of New York, by law, ordinance, rule or regulation, which are to be separated from the waste-stream and held for reuse or which have, or may have in

the future, market or other value. These materials shall include, but not be limited to, glass containers, plastic containers, corrugated cardboard, paperboard cardboard, newspapers, metal cans, paper, magazines, cloth and clothing, telephone books, vehicle tires and casings, batteries, white goods, brown goods and scrap metal, and biodegradable materials as herein defined.

SCRAP METAL: Uncontaminated and oil-free ferrous and nonferrous metal items such as machinery parts and sheet metal.

TELEPHONE BOOKS: Telephone books and heavy bound catalogues printed on non-glossy paper.

VEHICLE TIRES AND CASINGS: Tires or casings used on any self-propelled vehicle or on any vehicle intended to be towed by a self-propelled vehicle.

WHITE GOODS: Household appliances such as stoves and refrigerators.

#### 01-20 Designation or Limitation of Recyclable Materials

The Town Board by way of regulation may designate, add or delete items or materials which must be separated pursuant to this Article. Public notification by posted notices, flyers and/or publication in the official Town newspaper is required thirty (30) days prior to the date of application of the additional requirement.

#### 01-21 Mandatory Recycling

It shall be the responsibility of all residents to separate recyclable and all other designated materials from all other solid waste and prepare them for reuse, recycling, or proper disposal in accordance with the rules established by the Town Board.

It shall be the responsibility of any commercial waste collector to require all customers to separate recyclable and other designated materials from all other solid waste, and to keep them separate during the collection process.

Solid waste will not be accepted by the Town solid waste facility if it contains recyclable or other designated materials which are mixed or commingled with other solid waste.

#### 01-22 Ownership of Recyclables

From the time of placement of recyclable materials at the Solid Waste Facility by a resident or commercial waste collector, all such recyclable materials shall become the property of the Town.

It shall be a violation for any person without authority from the Town or its authorized agent to collect, pick up, remove from the solid waste facility, or cause to be collected, picked up or removed from the solid waste facility, any recyclable materials.

01-23 Composting

Nothing in this Article shall be construed to prevent composting or mulching for agricultural, horticultural, silvicultural, gardening or landscaping purposes.

01-24 Administration

The Town Board shall be responsible for administering the mandatory recycling requirements of the Town and for the issuance of rules or regulations implementing this Article and for the enforcement of any violations of this Article or the rules and regulations issued thereunder.

01-25 Prohibited Activities

It shall be a violation for:

- 1) Any person other than those persons so authorized, to collect any designated recyclable materials which have been placed at the roadside for collection or within a solid waste facility recycling collection area pursuant to this Article.
- 2) Any person to place or cause to be placed any material other than designated recyclable materials in or near a solid waste facility recycling collection area.
- 3) Any person to fail to follow the rules and regulations made up pursuant to this Article.
- 4) Any person to fail to follow the directions of solid waste facility personnel or posted instructions regarding the placement of recyclable materials and other solid waste.

01-26 Disposal of Recyclable Materials by Commercial Waste

## Collectors

A. Commercial waste collectors shall deliver separated recyclable materials to the Town solid waste facility except under the following circumstances:

- 1) The commercial waste collector makes an annual application for exemption to the Town Board, which application demonstrates that the commercial waste collector has access to markets for recyclable materials which provide a material economic benefit compared to disposal at the designated solid waste management facility, can deliver or cause to be delivered, such recyclable materials to such markets on a regular basis, and can document access, material economic benefit and actual delivery with contracts, receipts, bills of lading, affidavits, letters of intent or other suitable records indicating the facts justifying this exemption;
- 2) The commercial waste collector obtains written approval of the exemption from the Town Board, which approval shall not be unreasonably withheld or delayed;
- 3) The commercial waste collector shall agree to provide to the Town Board, on a periodic basis to be determined by the Town Board, a written report of the disposal of the exempted items, including but not limited to the date and place of disposal, the category of the items, and the weight of each category of items.
- 4) Nothing contained in this Local Law should be construed to interfere with or in any way modify the provisions of any existing contract in force in the Town on the effective date of this Local Law.

No renewal of any existing contract upon the expiration of the original term thereof and no new contract for the collection, transportation, processing, disposal or purchase of solid waste or recyclable materials shall be entered into after the effective date of this Local Law unless renewal of such contract or such new contract conforms to the requirements of this Local Law or the rules and regulations thereunder.

B. It shall be a violation of this Article for any commercial waste collector to dispose of recyclable materials other than as provided in this Local Law and the rules and regulations thereunder.

01-27 Enforcement

Town solid waste facility personnel are hereby authorized to inspect incoming loads of solid waste to determine if unseparated recyclable materials are contained therein.

Town solid waste facility personnel are hereby authorized to turn away and deny access to any person delivering a load that contains unseparated recyclable materials.

Town solid waste facility personnel are hereby authorized to turn away any person who is not following the requirements of this Local Law or the rules and regulations thereunder or who is failing to deposit recyclable materials or other solid waste in designated areas or containers.

#### 01-28 Penalties for Violations

A violation of this Article or the rules and regulations thereunder is hereby declared to be an offense.

##### A. Residents

1) A first violation shall be punishable by a fine of not less than fifty dollars (\$50) or more than one hundred dollars (\$100).

2) A second violation within three (3) years shall be punishable by a fine of not less than one hundred dollars (\$100) or more than five hundred dollars (\$500).

3) A third or subsequent violation within three (3) years shall be punishable by a fine of not less than two hundred fifty dollars (\$250) or more than one thousand dollars (\$1000) or by up to five days of imprisonment or by performing services for a public or not-for-profit corporation, association or agency, or by both such fine and imprisonment or by both such fine and public service.

##### B. Commercial Waste Collector

1) A first violation shall be punishable by a fine of not less than one hundred dollars (\$100) or more than two hundred fifty dollars (\$250).

2) A second violation within five (5) years shall be punishable by a fine of not less than two hundred fifty dollars (\$250) or more than one thousand dollars (\$1000).

3) A third or subsequent violation within five (5) years shall be punishable by a fine of not less than one thousand dollars (\$1000) or more than two thousand five hundred dollars (\$2500) or by up to five days of imprisonment or by performing for a public or not-for-profit corporation, association or agency, or by both such fine and imprisonment or by both such fine and public service.

01-29 Additional Penalties

1) At any time, after a hearing, the Town Board may suspend or revoke any permit if the Town Board at such hearing determines the holder of such permit to be a persistent violator or incapable of or unwilling to comply with the provisions of this Article or the rules and regulations thereunder, or has intentionally or negligently acted, or has acted and as a result has harmed, or created a risk of harm, to the aesthetics and environment of the Town or the health and safety of its inhabitants and its livestock and wildlife, or has utilized said permit in a manner inconsistent with this Article or has allowed said permit to be utilized by other than its issue. The permittee shall have an opportunity to be heard at such hearing, which shall be held after such permittee shall be served by written notice of such hearing in person or by certified mail, return receipt requested, not less than fifteen (15) days prior to the date of such hearing.

2) The Town shall also have such other remedies as are provided by law.

3) In the event of a violation of this local law of a continuing nature or character, each day the violation shall continue or be permitted to exist shall constitute a separate violation.

4) Conviction for any violation of this local law shall constitute cause for revocation of any license issued under this local law in the discretion of the Town Board.

5) In addition to the penalties and punishments provided in this section, the Town Board may also maintain an action or proceeding in the name of the town in a court of competent jurisdiction to complete compliance with or to restrain by injunction the violation of this chapter.

ARTICLE IV  
Miscellaneous

01-30 Severability

Provisions of this Local Law are severable. If any provision of this Local Law or its application to any person or circumstances is held invalid, said invalidity shall not affect any other provision or application of this Local Law which can be given effect without the invalid provision or application of this Local Law.

01-31 Effective Date

This law shall become effective September 1, 1992.



## TOWN OF KNOX

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Michael Hammond  
Knox Town Supervisor  
TOWN HALL P.O. BOX 56  
KNOX, NEW YORK 12107  
(518)872-2551

January 7, 2009

Mr. Nicholas J. D'Antonio  
Commissioner  
Department of General Services  
City of Albany  
One Conners Blvd  
Albany, NY 12204

RECEIVED

JAN 7 2009

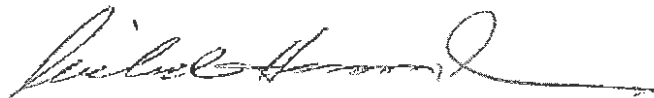
Dear Mr. D'Antonio;

I am forwarding to you a copy of Local Law #3 of 1992 which establishes a Solid Waste Management and Recycling code for the Town of Knox and a subsequent amendment, Local Law #1 of 1994.

Additionally please find resolution #136 extracted from the minutes of the Knox Town Board of December 9<sup>th</sup>, 2008 reflecting the Town's intention to implement the terms of the SWMP Modification once it is finalized.

Earlier, on October 16<sup>th</sup> 2008, the Town executed and forwarded to you an Inter-municipal Agreement for a Planning Unit Recycling coordinator (the IMA).

Very truly yours,



Michael Hammond



# TOWN OF WESTERLO

P.O. BOX 148  
WESTERLO, N.Y. 12193  
Phone: (518) 797-3111  
Fax: (518) 797-5122

**SUPERVISOR**  
RICHARD H. RAPP

**DEPUTY SUPERVISORS**  
EDWARD A. RASH  
R. GREGORY ZEH, JR.

**TOWN BOARD MEMBERS**  
SUSAN WALTER  
EDWARD A. RASH  
ROBERT A. SNYDER  
R. GREGORY ZEH, JR.



**SUPERINTENDENT OF HIGHWAYS**  
JOHN NEVINS

**CODE ENFORCEMENT OFFICER**  
EDWIN LAWSON

**TOWN ATTORNEY**  
ALINE D. GALGAY

**ADMINISTRATIVE AIDE**  
KIMBERLY SLINGERLAND

July 9, 2009

Frank W. Zeoli  
Director of Recycling  
Department of General Services  
One Conners Boulevard  
Albany, New York 12204  
VIA FACSIMILE (462 6846) AND REGULAR MAIL

**RE: Town of Westerlo**

Dear Frank,

Enclosed herein please find the Resolution of the Town Board of the Town of Westerlo with respect to compliance with the solid waste management plan modifications for the Capital Region Solid Waste Management Partnership. Also enclosed please find the proposed amendment to add language required by the Solid Waste Management Plan adopted by the City of Albany. The public hearing regarding the amendment will be held on August 4, 2009.

Respectfully yours,

  
Aline D. Galgay

Enc.



**RESOLUTION OF THE TOWN BOARD OF THE TOWN OF  
WESTERLO TO: COMPLY WITH THE SOLID WASTE  
MANAGEMENT PLAN MODIFICATIONS FOR THE CAPITAL  
REGION SOLID WASTE MANAGEMENT PARTNERSHIP**

**WHEREAS:** in order to promote the public health, safety and welfare and further the purposes of the New York State policy on solid waste management articulated in New York Environmental Conservation Law sec. 27-106, the Town of Westerlo is a member of the Capital Region Solid Waste Management Partnership Planning Unit ("Planning Unit"), formerly the Albany New York Solid Waste Energy Recovery System (ANSWERS) Solid Waste Management Planning Unit; and

**WHEREAS:** on behalf of the Planning Unit, the City of Albany has prepared a Solid Waste Management Plan (SWMP) which has been accepted by the New York Department of Environmental Conservation; and

**WHEREAS:** the Town Board of the Town of Westerlo has reviewed a Draft Modification to the SWMP dated August 2008 and prepared for the City of Albany by Clough Harbour & Associates, LLP, and

**WHEREAS:** as part of the SWMP Modification, the Town and the other members of the Planning Unit must agree to implement the terms of the SWMP Modification once it is finalized; and

**WHEREAS:** by Resolution dated November 17, 2008, the Common Council of the City of Albany, on behalf of the City, accepted and adopted the SWMP Modification and agreed to comply with the SWMP Modification;

**NOW, THEREFORE, BE IT RESOLVED AS FOLLOWS BY THE TOWN BOARD:**

1. The Town Board accepts and adopts the modifications to the Solid Waste Management Plan for the Planning Unit.
2. The Town of Westerlo agrees to comply with the Solid Waste Management Plan modifications.
3. This Resolution shall take effect immediately.

The motion was moved by:

B. Gregory Zeh

The motion was seconded by:

Robert Snyder

The vote was as follows:

|                   |                                      |                           |
|-------------------|--------------------------------------|---------------------------|
| Supervisor Rapp   | <input checked="" type="radio"/> aye | <input type="radio"/> nay |
| Councilman Rash   | <input checked="" type="radio"/> aye | <input type="radio"/> nay |
| Councilman Zeh    | <input checked="" type="radio"/> aye | <input type="radio"/> nay |
| Councilman Snyder | <input checked="" type="radio"/> aye | <input type="radio"/> nay |
| Councilman Milner | <input checked="" type="radio"/> aye | <input type="radio"/> nay |

DATED: July 7, 2009.

Gertrude A. Smith  
Gertrude Smith  
Town Clerk

K 1002

**Local Law No. 2 of 2009**

**A Local Law to amend Local Law No. 2 of 1992) to add language required by the Solid Waste Management Plan adopted by the City of Albany.**

**Local Law No. 2 of 1992, entitled "A Local Law to establish and define a Solid Waste Management code" is hereby amended as follows:**

**PART I**

Article III: Mandatory Recycling: section 01-21, paragraph 2 shall be replaced by the following language:

It shall be the responsibility of any commercial, industrial and institutional waste collector to require all customers to separate recyclable and other designated materials from all other solid waste, and to keep them separate during the collection process.

**PART II**

The provisions of this Local Law are severable. If any provision of this Local Law or its application to any person or circumstances is held invalid, such invalidity shall not affect any other provision or application of this Local Law which can be given effect without the invalid provision or application of this Local Law.

**PART III**

This Local Law shall take effect immediately upon filing with the New York State Secretary of State's Office, and shall apply to assessment rolls prepared on the basis of a taxable status date occurring on or after such date.





ARTICLE III  
MANDATORY RECYCLING

01-18 Legislative Intent

It is the goal of the Town of Westerlo to facilitate the disposal of solid waste generated within the Town in an economical and environmentally accepted manner and to reduce the total per capita amount of solid waste disposed of in the Town, in conformance with the New York State Solid Waste Management Plan, so that landfill space is saved, waste disposal problems are reduced, and precious natural resources are conserved.

It is the purpose of this local law to establish a source separation and recyclables collection program within the Town to reach the goal of the most feasible reuse and recycling of the Town's waste stream considering costs, per capita generation, marketability of recyclables, and public involvement.

Recycling will be a new challenge to our residents, one to be learned and improved upon. Education, participation and cooperation are the elements of a successful recycling program, which shall be accomplished by a working partnership between the Town and its residents for the long-lasting benefit of all.

01-19 Definitions

For purposes of this Article those terms defined in Section 01-1 of this Law shall have the meanings indicated therein unless a different meaning or context is set forth or required in this Article. The following additional terms shall have the meanings indicated:

BATTERIES, DRY-CELL: Household batteries for flashlights, watches, toys, penlights, calculators, hearing aids, etc.

BATTERIES, LEAD-ACID: A cell or group of cells which provide electric current, such as automobile batteries.

BROWN GOODS: Electronic equipment containing circuit boards and transistors, such as radios, stereos, televisions and computer components.

BIODEGRADABLE: That segment of the solid waste stream which, under controlled conditions, can be biologically decomposed into a humus-product that may be used as a soil amendment or mulch.

Westerlo

CLOTH AND CLOTHING: Textiles woven of natural or synthetic fibers, and the garments made of these materials.

CARDBOARD, CORRUGATED: All corrugated cardboard normally used for packing, mailing, shipping or containerizing goods. This excludes paperboard cardboard and all items which have been coated with wax, plastic, foil or styrofoam.

CARDBOARD, PAPERBOARD: All cardboard used in packaging of foods, personal care and clothing items, such as cereal or shoe boxes. This excludes corrugated cardboard and all items which have been coated with wax, plastic, foil or styrofoam.

COMPOSTING: Controlled biological decomposition of organic waste materials into a humus product that may be used as a soil amendment or mulch.

GLASS CONTAINERS: Clear, green and amber (brown) glass jars, bottles and containers with lids, caps and closures removed.

MAGAZINES: Booklets or stapled catalogues made of slick and/or glossy paper. This excludes bound catalogues and telephone books.

METAL CANS: Tin, aluminum or other ferrous or non-ferrous or composite cans and containers.

MOTOR OIL: Any petroleum-based lubricant used in internal combustion engines.

NEWSPAPERS: Newsprint and all newspapers and newspaper advertisements, supplements, comics and enclosures.

PAPER: All bond paper including computer paper, stationery, photocopy and ledger-free commercial waste paper, junk mail, school paper, or other paper as designated by the Town Board; shall not include soiled paper or cardboard, wax paper, plastic or foil-coated paper, styrofoam, wax-coated food and beverage containers, carbon paper, or blueprint paper.

PLASTIC CONTAINERS: Containers composed of high-density polyethylene, polyethylene terephthalate or other plastics as designated by the Town Board.

RECYCLABLE MATERIALS: Those materials specified by the Town, or the State of New York, by law, ordinance, rule or regulation, which are to be separated from the wastestream and held for reuse or which have, or may have in the future, market or other value. These materials shall include, but not be limited to, glass containers, plastic containers, corrugated cardboard, paperboard cardboard, newspapers,

metal cans, paper, magazines, cloth and clothing, telephone books, vehicle tires and casings, batteries, white goods, brown goods and scrap metal, and biodegradable materials as herein defined.

SCRAP METAL: Uncontaminated and oil-free ferrous and nonferrous metal items such as machinery parts and sheet metal.

TELEPHONE BOOKS: Telephone books and heavy bound catalogues printed on non-glossy paper.

VEHICLE TIRES AND CASINGS: Tires or casings used on any self-propelled vehicle or on any vehicle intended to be towed by a self-propelled vehicle.

WHITE GOODS: Household appliances such as stoves and refrigerators.

01-20 Further Designation or Limitation of Recyclable Materials

The Town Board by way of regulation may add or delete items or materials which must be separated pursuant to this Article. Public notification by posted notices, flyers and/or publication in the official Town newspaper is required thirty (30) days prior to the date of application of the additional requirement.

01-21 Mandatory Recycling Plan

It shall be the responsibility of all residents to separate recyclable and all other designated materials from all other solid waste and prepare them for reuse, recycling, or proper disposal in accordance with the rules established by the Town Board.

It shall be the responsibility of any commercial waste collector to require all customers to separate recyclable and other designated materials from all other solid waste, and to keep them separate during the collection process.

Solid waste will not be accepted by the Town solid waste facility if it contains recyclable or other designated materials which are mixed or commingled with other solid waste.

01-22 Ownership of Recyclables

From the time of placement of recyclable materials at the Solid Waste Facility by a resident or commercial waste

collector, all such recyclable materials shall become the property of the Town.

It shall be a violation for any person without authority from the Town or its authorized agent to collect, pick up, remove from the solid waste facility, or cause to be collected, picked up or removed from the solid waste facility, any recyclable materials.

01-23 Composting

Nothing in this law shall be construed to prevent any person from composting or mulching for agricultural, horticultural, silvicultural, gardening or landscaping purposes.

01-24 Administration

The Town Board shall be responsible for administering the mandatory recycling requirements of the Town and for the issuance of rules or regulations implementing this Article and for the enforcement of any violations of this Article or the rules and regulations issued thereunder.

01-25 Prohibited Activities

It shall be a violation for:

1) Any person other than those persons so authorized, to collect any designated recyclable materials which have been placed at the roadside for collection or within a solid waste facility recycling collection area pursuant to this Article.

2) Any person to place or cause to be placed any material other than designated recyclable materials in or near a solid waste facility recycling collection area.

B. It shall be a violation of this Article for any commercial waste collector to dispose of recyclable materials other than as provided in this Local Law and the rules and regulations thereunder.

02-26 Disposal of Recyclable Materials by Commercial Waste Collectors

[To be completed]

01-27 Enforcement

Town solid waste facility personnel are hereby authorized to inspect incoming loads of solid waste to determine if unseparated recyclable materials are contained therein.

Town solid waste facility personnel are hereby authorized to turn away and deny access to any person delivering a load that contains unseparated recyclable materials.

Town solid waste facility personnel are hereby authorized to turn away any person who is not following the requirements of this Local Law or the rules and regulations thereunder or who is failing to deposit recyclable materials or other solid waste in designated areas or containers.

01-28 Penalties for Violations

A violation of this Article or the rules and regulations thereunder is hereby declared to be an offense.

A. Residents

1) A first violation shall be punishable by a fine of not less than ten dollars (\$10) or more than fifty dollars (\$50).

2) A second violation within three (3) years shall be punishable by a fine of not less than fifty dollars (\$50) or more than five hundred dollars (\$500).

3) A third or subsequent violation within three (3) years shall be punishable by a fine of not less than fifty dollars (\$50) or more than one thousand dollars (\$1000) or by up to five days of imprisonment or both.

B. Commercial Waste Collector

1) A first violation shall be punishable by a fine of not less than one hundred dollars (\$100) or more than two hundred fifty dollars (\$250).

2) A second violation within five (5) years shall be punishable by a fine of not less than two hundred fifty dollars (\$250) or more than one thousand dollars (\$1000).

3) A third or subsequent violation within five (5) years shall be punishable by a fine of not less than one thousand dollars (\$1000) or more than two

thousand five hundred dollars (\$2500) or by up to five days of imprisonment or both.

01-29 Additional Penalties

1) At any time, after a hearing, the Town Board may revoke any permit if the Town Board at such hearing determines the holder of such permit to be a persistent violator or incapable of or unwilling to comply with the provisions of this Article or the rules and regulations thereunder, or has intentionally or negligently acted, or has acted and as a result has harmed, or created a risk of harm, to the aesthetics and environment of the Town or the health and safety of its inhabitants and its livestock and wildlife, or has utilized said permit in a manner inconsistent with this Article or has allowed said permit to be utilized by other than its issue. The permittee shall have an opportunity to be heard at such hearing, which shall be held after such permittee shall be served by written notice of such hearing in person or by certified mail, return receipt requested, not less than fifteen (15) days prior to the date of such hearing.

2) The Town shall also have such other remedies as are provided by law.

*W. J. ...*  
*W. J. ...*

ARTICLE IV  
Miscellaneous

01-30 Severability

The provisions of this Local Law are severable. If any provision of this Local Law or its application to any person or circumstances is held invalid, such invalidity shall not affect any other provision or application of this Local Law which can be given effect without the invalid provision or application of this Local Law.

01-31 Effective Date

This Local Law shall be effective September 1, 1992.





hundred dollars (\$700.) or imprisonment for a period not to exceed six (6) months, or both; and, upon conviction of a third or subsequent offense, all of which were committed within a period of five (5) years, punishable by a fine of not less than seven hundred dollars (\$700.) nor more than one thousand dollars (\$1,000.) or by imprisonment for a period not to exceed six (6) months, or both. Each day's continued violation shall constitute a separate, additional violation.

B. Additional penalties.

- (1) In addition to the penalties above provided, after a hearing the Town Supervisor may revoke any permit issued pursuant to this Article if the Town Supervisor at such hearing determines that the holder of such permit is a persistent violator or incapable of or unwilling to comply with the provisions of this Article or has intentionally or negligently acted or has acted and, as a result, has harmed or created a risk of harm to the aesthetics and environment of the town or the health or safety of its inhabitants or has utilized said permit in a manner inconsistent with this Article or has allowed said permit to be utilized by other than its issuee. The permittee shall have an opportunity to be heard at such hearing, which shall be held after such permittee shall be served by written notice of such hearing in person or by registered mail, return receipt requested, not less than fifteen (15) days prior to the date of such hearing.
- (2) The town shall also have such other remedies as are provided by law.

ARTICLE III  
Mandatory Recycling

§ 97-17. Legislative declaration.

Believing that a significant amount of recyclable or reusable material can be removed from the solid waste stream being generated within the Town of Bethlehem and in order to facilitate the conservation of vital and natural resources through recycling and in

recognition of the established public policy of the State of New York to encourage local governments to implement comprehensive materials recycling programs as part of their solid waste management strategies; the Town Board hereby finds that it is in the general public interest to implement environmentally sound, yet economically feasible, recycling programs to complement the town's solid waste management system. In so doing the Town Board acknowledges those findings and recommendations of the Town of Bethlehem New York Solid Waste Task Force, contained in its Recycling Plan, dated June 1989, revised July 25, 1989.

§ 97-18. Definitions.

For purposes of this Article, those terms defined in §§ 97-1 and 97-10 of this chapter shall have the meanings indicated therein unless a different meaning or context is set forth or required in this Article. The following additional terms shall have the meanings indicated:

**COMMERCIAL WASTE** — Solid waste other than residential or industrial waste.

**COMMERCIAL WASTE COLLECTOR** — Any person who collects residential, industrial or commercial waste from more than one (1) household or from any business, institution or commercial establishment or industrial facility within the Town of Bethlehem or who otherwise transports or disposes of such wastes collected from said sources or who performs such service for a fee.

**CORRUGATED CARDBOARD** — Cardboard containers, boxes and packaging which is cleaned of contamination by food wastes, adhesives, metals, plastics and excess tape and which has been flattened or baled for transport. It excludes cereal or food-type packaging.

**GLASS CONTAINER** — Clear, green and amber (brown) glass jars, bottles and containers, empty, rinsed and with rings and caps removed.

**METAL CANS** — Tin, aluminum or other ferrous or nonferrous or composite cans and containers used for food or



that the Superintendent of Highways determines, in his discretion, that a person holding said permit is in violation of this chapter and said violation constitutes or may create a danger to the aesthetics and environment of the town or the health and safety of its inhabitants or that a person is utilizing said permit for a purpose or in a matter that is inconsistent with this chapter or is allowing said permit to be utilized by a person other than the issuee of said permit.

§ 97-22. Penalties for offenses.

- A. Any person who shall commit an offense against any of the provisions of this Article or fail to comply therewith or with any of the provisions thereof shall be guilty of a violation and, upon conviction thereof, be punishable by a fine not exceeding two hundred fifty dollars (\$250.) for each offense or by imprisonment for a term not to exceed fifteen (15) days, and/or by both fine and imprisonment. Each act or day of continuance shall constitute a separate violation.

B. Additional penalties.

- (1) In addition to the penalties above provided, after a hearing the Town Supervisor may revoke any permit issued pursuant to this Article if the Town Supervisor at such hearing determines that the holder of such permit is a persistent violator or incapable of or unwilling to comply with the provisions of this Article or has intentionally or negligently acted or failed to act in a manner that has harmed or created a risk of harm to the aesthetics and environment of the town and the health or safety of its inhabitants or has utilized said permit in a manner inconsistent with this Article or has allowed said permit to be utilized by other than its issuee. The permittee shall have an opportunity to be heard at such hearing, which shall be held after such permittee shall be served by written notice of such hearing in person or by registered mail, return receipt requested, not less than fifteen (15) days prior to the date of such hearing.

# TOWN OF BETHLEHEM

Albany County - New York

## OFFICE OF TOWN CLERK

Registrar of Vital Statistics District No. 151

445 DELAWARE AVENUE  
DELMAR, NEW YORK 12054

(518) 439-4955 x1183

Fax: (518) 439-1699

Email: [knewkirk@townofbethlehem.org](mailto:knewkirk@townofbethlehem.org)



*John H. Cunningham*  
Town Supervisor

*Kathleen A. Newkirk, MMC, RMC*  
Town Clerk,  
Records Management Officer

May 14, 2009

Mr. John Marsolais  
City Clerk  
Room 202 City Hall  
Albany, NY 12207

RE: Capital Region Solid Waste Management Plan modifications as  
Required under our membership of the Capital Region Solid Waste  
Management Partnership Planning Unit

Dear Mr. Marsolais:

Enclosed find a certified copy of the Resolution adopted by the Town Board at their meeting held May 13, 2009.

If you have any questions, feel free to contact me.

Sincerely,

*Kathleen A. Newkirk*  
Kathleen A. Newkirk, MMC, RMC  
Town Clerk

Enc.

C: ✓ Frank Zeoli  
Planning Unit Recycling Coordinator  
City of Albany

*Bethlehem*



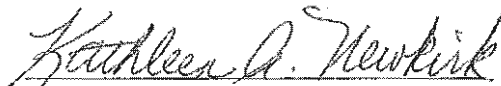
STATE OF NEW YORK )  
COUNTY OF ALBANY ) SS:  
TOWN OF BETHLEHEM)

I, KATHLEEN A. NEWKIRK, Town Clerk of the Town of Bethlehem, Albany County, New York DO HEREBY CERTIFY as follows:

A regular meeting of the Town Board of the Town of Bethlehem Albany County, State of New York, was held on May 13, 2009.

That the attached Resolution regarding modifications for the Capital Region Solid Waste Management Partnership and authorizing the execution of an Intermunicipal Agreement regarding a Planning Unit Recycling Coordinator was duly adopted at said meeting.

IN TESTIMONY WHEREOF, I have hereunto set my hand and affixed the seal of said Town this 14th day of May, 2009.

  
Kathleen A. Newkirk, MMC, RMC  
Town Clerk

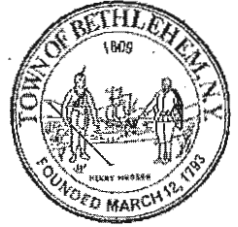
Bethlehem





# TOWN OF BETHLEHEM

445 Delaware Avenue  
Delmar, New York 12054



## RESOLUTION NO. 21

### RESOLUTION OF THE TOWN BOARD OF THE TOWN OF BETHLEHEM TO: COMPLY WITH THE SOLID WASTE MANAGEMENT PLAN MODIFICATIONS FOR THE CAPITAL REGION SOLID WASTE MANAGEMENT PARTNERSHIP; and AUTHORIZING THE EXECUTION OF AN INTERMUNICIPAL AGREEMENT REGARDING A PLANNING UNIT RECYCLING COORDINATOR

WHEREAS, in order to promote the public health, safety and welfare and further the purposes of the New York State policy on solid waste management articulated in New York Environmental Conservation Law § 27-0106, the Town of Bethlehem is a member of the Capital Region Solid Waste Management Partnership Planning Unit ("Planning Unit"), formerly the Albany New York Solid Waste Energy Recovery System (ANSWERS) Solid Waste Management Planning Unit; and

WHEREAS, on behalf of the Planning Unit, the City of Albany has prepared a Solid Waste Management Plan (SWMP) which has been accepted by the New York Department of Environmental Conservation; and

WHEREAS, the Town Board of the Town of Bethlehem has reviewed a Draft Modification to the SWMP dated August 2008 and prepared for the City of Albany by Clough Harbor & Associates LLP, and

WHEREAS, as part of the SWMP Modification, the Town and the other members of the Planning Unit must enter into an Inter-municipal Agreement for the services of a Planning Unit Recycling Coordinator, and agree to implement the terms of the SWMP Modification once it is finalized; and

WHEREAS, the Town Board of the Town of Bethlehem has reviewed the terms of the Inter-municipal Agreement for the services of a Planning Unit Recycling Coordinator; and

WHEREAS, by Resolution dated November 17, 2008, the Common Council of the City of Albany, on behalf of the City, accepted and adopted the SWMP Modification and agreed to comply with the SWMP Modification;

NOW, THEREFORE, BE IT RESOLVED AS FOLLOWS BY THE TOWN BOARD:

1. The Town Board accepts and adopts the modifications to the Solid Waste Management Plan for the Planning Unit.
2. The Town of Bethlehem agrees to comply with the Solid Waste Management Plan modifications.
3. The Supervisor of the Town of Bethlehem is hereby authorized to enter into and execute the Inter-municipal Agreement with the members of the Planning Unit.

4. This Resolution shall take effect immediately.

The foregoing resolution was presented for adoption by Mr. Messina, seconded by Mr. Kotary and passed by the following vote:

Ayes: Mr. Cunningham, Mr. Messina, Mr. Kotary, Mrs. Dawson.

Noes: Mr. Hennessey.

Absent: None.

*Bushlebo M*

# TOWN OF BETHLEHEM

Albany County - New York

## OFFICE OF TOWN CLERK

Registrar of Vital Statistics District No. 151

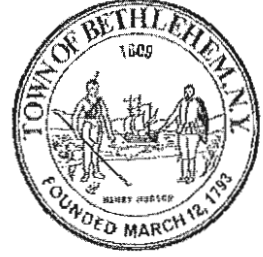
445 DELAWARE AVENUE

DELMAR, NEW YORK 12054

(518) 439-4955 x1183

Fax: (518) 439-1699

Email: [knewkirk@townofbethlehem.org](mailto:knewkirk@townofbethlehem.org)



*John H. Cunningham*  
Town Supervisor

*Kathleen A. Newkirk, MMC, RMC*  
Town Clerk,  
Records Management Officer

November 26, 2008

Mr. John Marsolais  
City Clerk  
Room 202 City Hall  
Albany, NY 12207

RE: New Solid Waste Management Plan, Capital  
Region Solid Waste Management Partnership  
Planning Unit

Dear Mr. Marsolais:

Enclosed find the signed copies of the information approved by the Town Board at their meeting held November 25, 2008.

The following motion is in the minutes of this Board meeting:

The motion was made by Mr. Messina and seconded by Mrs. Dawson to approve the request of the Superintendent of Highways to authorize the Supervisor to sign the Solid Waste Management Partnership Planning Unit Recycling Coordinator Intermunicipal Agreement. The motion was passed by the following vote:

Ayes: Mr. Cunningham, Mr. Messina, Mr. Kotary, Mrs. Dawson, Mr. Hennessey.

Noes: None.

Absent: None.

If you have any questions, feel free to contact me.

Sincerely,

Kathleen A. Newkirk, MMC, RMC  
Town Clerk

Encs.

Bethlehem



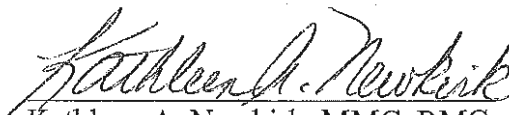
STATE OF NEW YORK )  
COUNTY OF ALBANY ) SS:  
TOWN OF BETHLEHEM)

I, KATHLEEN A. NEWKIRK, Town Clerk of the Town of Bethlehem, Albany  
County, New York DO HEREBY CERTIFY as follows:

A regular meeting of the Town Board of the Town of Bethlehem Albany  
County, State of New York, was held on May 13, 2009.

~~That the attached Resolution regarding compliance with the Solid Waste~~  
Management Plan Modifications for the Capital Region Solid Waste Management  
Partnership and Authorizing the Execution of an Intermunicipal Agreement regarding a  
Planning Unit Recycling Coordinator was duly adopted at said meeting.

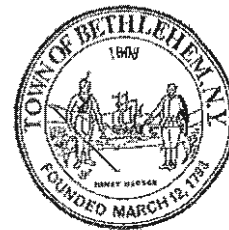
IN TESTIMONY WHEREOF, I have hereunto set my hand and affixed the seal  
of said Town this 9th day of June, 2009.

  
Kathleen A. Newkirk, MMC, RMC  
Town Clerk



# TOWN OF BETHLEHEM

445 Delaware Avenue  
Delmar, New York 12054



## RESOLUTION NO. 21

### **RESOLUTION OF THE TOWN BOARD OF THE TOWN OF BETHLEHEM TO: COMPLY WITH THE SOLID WASTE MANAGEMENT PLAN MODIFICATIONS FOR THE CAPITAL REGION SOLID WASTE MANAGEMENT PARTNERSHIP; and AUTHORIZING THE EXECUTION OF AN INTERMUNICIPAL AGREEMENT REGARDING A PLANNING UNIT RECYCLING COORDINATOR**

**WHEREAS,** in order to promote the public health, safety and welfare and further the purposes of the New York State policy on solid waste management articulated in New York Environmental Conservation Law § 27-0106, the Town of Bethlehem is a member of the Capital Region Solid Waste Management Partnership Planning Unit ("Planning Unit"), formerly the Albany New York Solid Waste Energy Recovery System (ANSWERS) Solid Waste Management Planning Unit; and

**WHEREAS,** on behalf of the Planning Unit, the City of Albany has prepared a Solid Waste Management Plan (SWMP) which has been accepted by the New York Department of Environmental Conservation; and

**WHEREAS,** the Town Board of the Town of Bethlehem has reviewed a Draft Modification to the SWMP dated August 2008 and prepared for the City of Albany by Clough Harbor & Associates LLP, and

**WHEREAS,** as part of the SWMP Modification, the Town and the other members of the Planning Unit must: enter into an Inter-municipal Agreement for the services of a Planning Unit Recycling Coordinator, and agree to implement the terms of the SWMP Modification once it is finalized; and

**WHEREAS,** the Town Board of the Town of Bethlehem has reviewed the terms of the Inter-municipal Agreement for the services of a Planning Unit Recycling Coordinator; and

**WHEREAS,** by Resolution dated November 17, 2008, the Common Council of the City of Albany, on behalf of the City, accepted and adopted the SWMP Modification and agreed to comply with the SWMP Modification;

**NOW, THEREFORE, BE IT RESOLVED AS FOLLOWS BY THE TOWN BOARD:**

1. The Town Board accepts and adopts the modifications to the Solid Waste Management Plan for the Planning Unit.
2. The Town of Bethlehem agrees to comply with the Solid Waste Management Plan modifications.
3. The Supervisor of the Town of Bethlehem is hereby authorized to enter into and execute the Inter-municipal Agreement with the members of the Planning Unit.

Bethlehem

4. This Resolution shall take effect immediately.

The foregoing resolution was presented for adoption by Mr. Messina, seconded by Mr. Kotary and passed by the following vote:

Ayes: Mr. Cunningham, Mr. Messina, Mr. Kotary, Mrs. Dawson.

Noes: Mr. Hennessey.

Absent: None.

*in subcommittee*



**RESOLUTION OF THE VILLAGE BOARD OF THE VILLAGE OF ALTAMONT DECLARING ITSELF LEAD AGENCY FOR PURPOSES OF DETERMINING ENVIRONMENTAL SIGNIFICANCE AND ISSUING A NEGATIVE DECLARATION IN ACCORDANCE WITH ARTICLE 8 OF THE ENVIRONMENTAL CONSERVATION LAW (SEQRA) AND THE REGULATIONS PROMULGATED THEREUNDER AND NOT REQUIRING THE PREPARATION AND SUBMISSION OF AN ENVIRONMENTAL IMPACT STATEMENT IN CONNECTION WITH THE MODIFICATION OF THE SOLID WASTE MANAGEMENT PLAN FOR THE CAPITAL REGION SOLID WASTE MANAGEMENT PARTNERSHIP PLANNING UNIT**

**WHEREAS**, the Village Board of the Village of Altamont has reviewed a short form Environmental Assessment Form (EAF) in conjunction with the modification of the Solid Waste Management Plan (SWMP) for the Capital Region Solid Waste Management Partnership Planning Unit; and

**WHEREAS**, this action is identified as an "unlisted" action under SEQRA, no coordinated review is necessary, and therefore, the Village Board is the Lead Agency under SEQRA; and

**WHEREAS**, the record demonstrates that this action will not have a significant adverse environmental impact, will improve the management of solid waste within the Planning Unit and therefore will benefit the environment, and that a Negative Declaration of Environmental Significance should be issued in accord with 6 NYCRR 617.7(a)(2).

**NOW, THEREFORE, BE IT RESOLVED**, that the Village Board be and hereby is designated Lead Agency in accord with SEQRA regulation 617 NYCRR 617.6(4).

**BE IT FURTHER RESOLVED**, the proposed action will not have any significant adverse environmental impacts and will not require the preparation of a full Environmental Impact Statement, and a Negative Declaration of Environmental Significance in accord with 6 NYCRR 617.7(a)(2) be and hereby is issued.

The motion was moved by: **Trustee William Aylward**

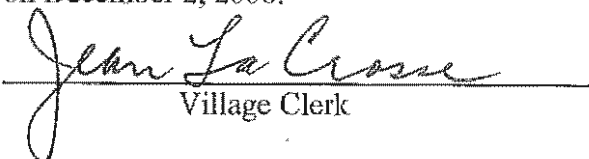
The motion was seconded by: **Trustee Dean Whalen**

The vote was as follows:

|                  |          |
|------------------|----------|
| Trustee Whalen   | In favor |
| Trustee Marshall | In favor |
| Trustee Aylward  | In favor |
| Trustee Dineen   | In favor |
| Mayor Gaughan    | In favor |

Motion carried 5/0

These are the official recordings of the Village Clerk at a meeting of the Board of Trustees held on December 2, 2008.

  
Village Clerk

  
Dated



617.20

Appendix C  
State Environmental Quality Review  
**SHORT ENVIRONMENTAL ASSESSMENT FORM**  
For UNLISTED ACTIONS Only

**PART I - PROJECT INFORMATION (To be completed by Applicant or Project Sponsor)**

|                                                                                                                                                                                                                                                                                                                        |                                                                                                                  |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------|
| 1. APPLICANT/SPONSOR<br>Village Board, Village of Altamont                                                                                                                                                                                                                                                             | 2. PROJECT NAME Village participation in SWMP Modification for Capital Region Solid Waste Management Partnership |
| 3. PROJECT LOCATION:<br>Municipality Village of Altamont County Albany                                                                                                                                                                                                                                                 |                                                                                                                  |
| 4. PRECISE LOCATION (Street address and road intersections, prominent landmarks, etc., or provide map)                                                                                                                                                                                                                 |                                                                                                                  |
| 5. PROPOSED ACTION IS:<br><input type="checkbox"/> New <input type="checkbox"/> Expansion <input checked="" type="checkbox"/> Modification/iteration                                                                                                                                                                   |                                                                                                                  |
| 6. DESCRIBE PROJECT BRIEFLY:                                                                                                                                                                                                                                                                                           |                                                                                                                  |
| 7. AMOUNT OF LAND AFFECTED:<br>Initially _____ acres Ultimately _____ acres                                                                                                                                                                                                                                            |                                                                                                                  |
| 8. WILL PROPOSED ACTION COMPLY WITH EXISTING ZONING OR OTHER EXISTING LAND USE RESTRICTIONS?<br><input type="checkbox"/> Yes <input type="checkbox"/> No If No, describe briefly<br>Not Applicable                                                                                                                     |                                                                                                                  |
| 9. WHAT IS PRESENT LAND USE IN VICINITY OF PROJECT?<br><input type="checkbox"/> Residential <input type="checkbox"/> Industrial <input type="checkbox"/> Commercial <input type="checkbox"/> Agriculture <input type="checkbox"/> Park/Forest/Open Space <input type="checkbox"/> Other<br>Describe:<br>Not Applicable |                                                                                                                  |
| 10. DOES ACTION INVOLVE A PERMIT APPROVAL OR FUNDING, NOW OR ULTIMATELY FROM ANY OTHER GOVERNMENTAL AGENCY (FEDERAL, STATE OR LOCAL)?<br><input checked="" type="checkbox"/> Yes <input type="checkbox"/> No If Yes, list agency(e) name and permit/approvals:                                                         |                                                                                                                  |
| 11. DOES ANY ASPECT OF THE ACTION HAVE A CURRENTLY VALID PERMIT OR APPROVAL?<br><input checked="" type="checkbox"/> Yes <input type="checkbox"/> No If Yes, list agency(e) name and permit/approvals:<br>NYS DEC Approval of Current Solid Waste Management Plan for the Planning Unit                                 |                                                                                                                  |
| 12. AS A RESULT OF PROPOSED ACTION WILL EXISTING PERMIT/APPROVAL REQUIRE MODIFICATION?<br><input checked="" type="checkbox"/> Yes <input type="checkbox"/> No                                                                                                                                                          |                                                                                                                  |
| I CERTIFY THAT THE INFORMATION PROVIDED ABOVE IS TRUE TO THE BEST OF MY KNOWLEDGE<br>Applicant/sponsor name: Village of Altamont Date: December 2, 2008<br>Signature: <i>James D. Gaugh</i>                                                                                                                            |                                                                                                                  |

**If the action is in the Coastal Area, and you are a state agency, complete the Coastal Assessment Form before proceeding with this assessment**

*Altamont*

**PART II - IMPACT ASSESSMENT (To be completed by Lead Agency)**

A. DOES ACTION EXCEED ANY TYPE I THRESHOLD IN 6 NYCRR, PART 617.4?  Yes  No If yes, coordinate the review process and use the FULL EAF.

B. WILL ACTION RECEIVE COORDINATED REVIEW AS PROVIDED FOR UNLISTED ACTIONS IN 6 NYCRR, PART 617.6? If No, a negative declaration may be superseded by another involved agency.  Yes  No

C. COULD ACTION RESULT IN ANY ADVERSE EFFECTS ASSOCIATED WITH THE FOLLOWING: (Answers may be handwritten, if legible)

C1. Existing air quality, surface or groundwater quality or quantity, noise levels, existing traffic pattern, solid waste production or disposal, potential for erosion, drainage or flooding problems? Explain briefly:  
No

C2. Aesthetic, agricultural, archaeological, historic, or other natural or cultural resources; or community or neighborhood character? Explain briefly:  
No

C3. Vegetation or fauna, fish, shellfish or wildlife species, significant habitats, or threatened or endangered species? Explain briefly:  
No

C4. A community's existing plans or goals as officially adopted, or a change in use or intensity of use of land or other natural resources? Explain briefly:  
No

C5. Growth, subsequent development, or related activities likely to be induced by the proposed action? Explain briefly:  
No

C6. Long term, short term, cumulative, or other effects not identified in C1-C5? Explain briefly:  
No

C7. Other impacts (including changes in use of either quantity or type of energy)? Explain briefly:  
NO

D. WILL THE PROJECT HAVE AN IMPACT ON THE ENVIRONMENTAL CHARACTERISTICS THAT CAUSED THE ESTABLISHMENT OF A CRITICAL ENVIRONMENTAL AREA (CEA)?  Yes  No If Yes, explain briefly:

E. IS THERE, OR IS THERE LIKELY TO BE, CONTROVERSY RELATED TO POTENTIAL ADVERSE ENVIRONMENTAL IMPACTS?  Yes  No If Yes, explain briefly:

**PART III - DETERMINATION OF SIGNIFICANCE (To be completed by Agency)**

**INSTRUCTIONS:** For each adverse effect identified above, determine whether it is substantial, large, important or otherwise significant. Each effect should be assessed in connection with its (a) setting (i.e. urban or rural); (b) probability of occurring; (c) duration; (d) irreversibility; (e) geographic scope; and (f) magnitude. If necessary, add attachments or reference supporting materials. Ensure that explanations contain sufficient detail to show that all relevant adverse impacts have been identified and adequately addressed. If question D of Part II was checked yes, the determination of significance must evaluate the potential impact of the proposed action on the environmental characteristics of the CEA.

- Check this box if you have identified one or more potentially large or significant adverse impacts which MAY occur. Then proceed directly to the FULL EAF and/or prepare a positive declaration.
- Check this box if you have determined, based on the information and analysis above and any supporting documentation, that the proposed action WILL NOT result in any significant adverse environmental impacts AND provide, on attachments as necessary, the reasons supporting this determination.

Village Board - Village of Altamont

December 2008

Name of Lead Agency

Date

James Gaughan

Mayor

Print or Type Name of Responsible Officer in Lead Agency

Title of Responsible Officer

Signature of Responsible Officer in Lead Agency

Signature of Preparer (if different from responsible officer)

Altamont

**LOCAL LAW NO. 4 OF 2008**

**Source separation and segregation of recyclable or reusable materials.**

**WHEREAS,** the Village of Altamont is a municipal corporation of the State of New York, located within the Town of Guilderland, Albany County, New York and having, among others, those powers and duties set forth in the New York Village Law and the New York General Municipal Law; and

**WHEREAS,** in order to promote the public health, safety and welfare and further the purposes of the New York State policy on solid waste management articulated in New York Environmental Conservation Law § 27-0106, the Village, along with the Town of Guilderland, the City of Albany and other nearby municipalities, is a member of the Capital Region Solid Waste Management Partnership Planning Unit ("Planning Unit"), formerly the Albany New York Solid Waste Energy Recovery System (ANSWERS) Solid Waste Management Planning Unit; and

**WHEREAS,** on behalf of the Planning Unit, the City of Albany has prepared a Solid Waste Management Plan (SWMP) which has been accepted by the New York Department of Environmental Conservation; and

**WHEREAS,** as part of a modification to the SWMP, and as required by New York General Municipal Law § 120-aa, the Village must adopt a local law providing for source separation and segregation of recyclable or reusable materials; and

**WHEREAS,** the Town Board of the Town of Guilderland has adopted Local Law No. 1 of 2003, entitled "A Local Law regarding the recycling of waste within the Town of Guilderland;"

**NOW, therefore, be it enacted by the Village Board of the Village of Altamont as follows:**

All residents of the Village of Altamont, and all residential, institutional, commercial and industrial generators of solid waste located within the Village of Altamont, shall comply with all terms and provisions of Town of Guilderland Local Law No. 1 of 2003, a copy of which is attached hereto and incorporated by reference herein.

This is a Resolution unanimously adopted by the Board of Trustees at a meeting held on December 2, 2008 and entered into the official records of the Village Clerk.

  
Village Clerk

12-3-2008

Dated



**LOCAL LAW FILING**

**TOWN OF GUILDERLAND**

**LOCAL LAW NO. 1 OF 2003**

**A LOCAL LAW regarding the recycling of waste within the Town of Guilderland.**

Be it enacted by the Town Board of the Town of Guilderland as follows:

1. This law shall be known as the "Recycling Law".

2. It shall be the purpose of this law to encourage and facilitate the maximum recycling practicable on the part of each and every household, business and institution within the Town of Guilderland (the "Town"). It shall further be the purpose of this law to establish, implement and enforce minimum recycling related practices and procedures to be applicable to all waste generators within the Town.

3. This local law is enacted pursuant to the authority granted by section 10 and section 120-aa of the New York State Municipal Home-Rule Law.

4. Recyclables designated by the Town for inclusion by this law may be disposed of at the Town's Transfer Station by households within the Town, and initially include the following:

A. Corrugated Paper: Cardboard containers, boxes and packaging which are cleaned of contamination by food wastes, adhesives, metals or plastics and which have been flattened. This does not include press board.

B. Glass: Empty, washed glass jars, bottles and containers of clear, green and amber (brown), excluding ceramic, window glass, auto glass, mirror and kitchenware.

C. Metal: All ferrous and non-ferrous metals, including steel, aluminum and composite cans and containers (cleaned of food waste), excluding scrap metal, wire, pipes, tubing, aerosol cans, paint cans and metal containers that contained hazardous liquids and abandoned automobiles.

D. Newspaper: Common machine finished paper made chiefly from wood pulp used for printing newspapers and magazines. Must be dry and free of contaminants.

E. Office Paper: All bond paper including computer print-out, stationery, photo copy and ledger paper.

*Attachment*

F. Plastics: All HDPE Nos. 1, 2 and 3 type plastics, including empty food, beverage, detergent, bleach and hair care containers but excluding all oil containers, plastic bags, toys and hangars.

5. Businesses, institutions, private haulers and any other waste generator, other than households located within the Town, are prohibited from disposing of recyclable or non-recyclable waste at the Town's Transfer Station.

6. Every household, business and institution within the Town shall separate recyclable materials from other non-recyclable waste regardless of whether such recyclables and waste are disposed of at the Town's Transfer Station or disposed of at a solid waste facility by a private hauler.

7. It shall be a violation of this local law for anyone to attempt to dispose of recyclable material as waste.

8. The Town Board may by resolution establish a schedule of fees for the disposal of waste items at the Town's Transfer Station, including recyclables.

9. A violation of this local law shall be deemed a violation and the violator may be liable for a fine of not more than \$50 for the first violation and not less than \$250 nor more than \$500 for each violation thereafter, and each violation shall constitute a separate offense.

10. If any provisions of this local law are held to be unconstitutional or otherwise invalid by any court of competent jurisdiction, the remaining provisions of this local law shall remain in effect.

11. All ordinances, local laws and parts thereof inconsistent with this local law are hereby repealed.

12. This local law shall take effect immediately upon filing in the office of the New York State Secretary of State.

Attachment



**RESOLUTION OF THE VILLAGE BOARD OF THE VILLAGE OF ALTAMONT TO:  
COMPLY WITH THE SOLID WASTE MANAGEMENT PLAN MODIFICATIONS FOR  
THE CAPITAL REGION SOLID WASTE MANAGEMENT PARTNERSHIP; and  
AUTHORIZING THE EXECUTION OF AN INTERMUNICIPAL AGREEMENT  
REGARDING A PLANNING UNIT RECYCLING COORDINATOR**

**WHEREAS,** in order to promote the public health, safety and welfare and further the purposes of the New York State policy on solid waste management articulated in New York Environmental Conservation Law § 27-0106, the Village of Altamont is a member of the Capital Region Solid Waste Management Partnership Planning Unit ("Planning Unit"), formerly the Albany New York Solid Waste Energy Recovery System (ANSWERS) Solid Waste Management Planning Unit; and

**WHEREAS,** on behalf of the Planning Unit, the City of Albany has prepared a Solid Waste Management Plan (SWMP) which has been accepted by the New York Department of Environmental Conservation; and

**WHEREAS,** the Village Board of the Village of Altamont has reviewed a Draft Modification to the SWMP dated August 2008 and prepared for the City of Albany by Clough Harbour & Associates LLP, and

**WHEREAS,** as part of the SWMP Modification, the Village and the other members of the Planning Unit must enter into an Intermunicipal Agreement for the services of a Planning Unit Recycling Coordinator, and agree to implement the terms of the SWMP Modification once it is finalized; and

**WHEREAS,** the Village Board of the Village of Altamont has reviewed the terms of the Intermunicipal Agreement for the services of a Planning Unit Recycling Coordinator; and

**WHEREAS,** by Resolution dated November 17, 2008, the Common Council of the City of Albany, on behalf of the City, accepted and adopted the SWMP Modification and agreed to comply with the SWMP Modification;

**NOW, THEREFORE, BE IT RESOLVED AS FOLLOWS BY THE VILLAGE BOARD:**

1. The Village Board accepts and adopts the modifications to the Solid Waste Management Plan for the Planning Unit.
2. The Village of Altamont agrees to comply with the Solid Waste Management Plan modifications.
3. The Mayor of the Village of Altamont is hereby authorized to enter into and execute the Intermunicipal Agreement with the members of the Planning Unit.
4. This Resolution shall take effect immediately.

The motion was moved by: **Trustee Christine Marshall**

The motion was seconded by: **Trustee Kerry Dineen**

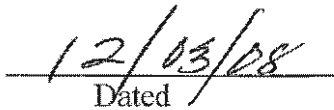
The vote was as follows:

|                  |          |
|------------------|----------|
| Trustee Whalen   | In favor |
| Trustee Marshall | In favor |
| Trustee Aylward  | In favor |
| Trustee Dineen   | In favor |
| Mayor Gaughan    | In favor |

**Motion carried 5/0**

These are the official recordings of the Village Clerk at a meeting of the Board of Trustees held on December 2, 2008.

  
Village Clerk

  
Dated

Attachment

## VILLAGE OF ALTAMONT

115 Main Street PO Box 643 Altamont, New York 12009

Phone (518) 861-8554 Fax (518) 861-5379

### Mayor

**James M. Gaughan**

Jean La Crosse, Clerk

Catherine Hasbrouck, Treasurer

William F. Aylward, Trustee

Kerry Dineen, Trustee

Christina Marshall, Trustee

Dean Whalen, Trustee

December 4, 2008

Jean Loewestein

Clough Harbour & Associates LLP

111 Winners Circle

Albany, NY 12205

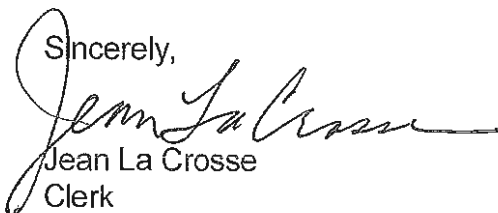
Dear Ms. Loewestein:

Enclosed please find the following documents:

- Resolution of the Village Board of the Village of Altamont declaring itself Lead Agency for Purposes of declaration in accordance with Article 8 of the Environmental Conservation Law (SEQRA) and the regulations promulgated thereunder and not requiring the preparation and submission of an environmental impact statement in connection with the modification of the Solid Waste Management Plan for the Capital Region Solid Waste Management Partnership Planning Unit.
- Local Law No. 4-2008 of the Village of Altamont Recycling Law
- Resolution of the Village Board of the Village of Altamont to comply with the solid waste management plan modifications for the Capital Region Solid Waste Management Partnership; and authorizing the execution of an intermunicipal agreement regarding a Planning Unit Recycling Coordinator Capital Region Solid Waste Management Partnership Planning Unit Recycling Coordinator
- Capital Region Solid Waste Management Partnership Planning Unit Recycling Coordinator Intermunicipal Agreement

Please contact me at the Village Office if you have any questions.

Sincerely,



Jean La Crosse  
Clerk

Altamont



## VILLAGE OF ALTAMONT

115 Main Street PO Box 643 Altamont, New York 12009  
Phone (518) 861-8554 Fax (518) 861-5379

### Mayor

James M. Gaughan  
Jean La Crosse, Clerk  
Catherine Hasbrouck, Treasurer

William F. Aylward, Trustee  
Kerry Dineen, Trustee  
Christina Marshall, Trustee  
Dean Whalen, Trustee

November 10, 2008

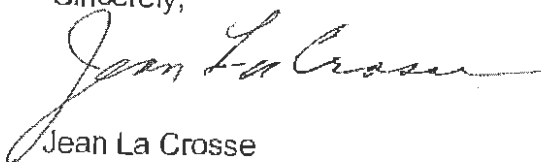
Jean Lowenstein, Senior Planner  
Clough Harbour & Associates LLP  
111 Winners Circle  
Albany, New York 12205

Dear Ms. Lowenstein:

The Board of Trustees, at a meeting on Thursday, November 6, 2008 passed a resolution to hold a Public Hearing on December 2, 2008 to consider passage of a Village Recycling Local Law. Additionally the Board of Trustees, on December 2, 2008, will consider an Intermunicipal Agreement between the City of Albany and the Village of Altamont. Following the meeting we will contact you regarding the outcome.

If you have any questions please contact me at the Village Office.

Sincerely,



Jean La Crosse  
Clerk

Cc: James M. Gaughan, Mayor  
Timothy McIntyre, Superintendent of Public Works

*A. 2008*



**LOCAL LAW FILING**

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**TOWN OF GUILDERLAND**

**LOCAL LAW NO. 1 OF 2003**

**A LOCAL LAW regarding the recycling of waste within the Town of Guilderland.**

---

Be it enacted by the Town Board of the Town of Guilderland as follows:

1. This law shall be known as the "Recycling Law".
2. It shall be the purpose of this law to encourage and facilitate the maximum recycling practicable on the part of each and every household, business and institution within the Town of Guilderland (the "Town"). It shall further be the purpose of this law to establish, implement and enforce minimum recycling related practices and procedures to be applicable to all waste generators within the Town.
3. This local law is enacted pursuant to the authority granted by section 10 and section 120-aa of the New York State Municipal Home Rule Law.
4. Recyclables designated by the Town for inclusion by this law may be disposed of at the Town's Transfer Station by households within the Town, and initially include the following:
  - A. Corrugated Paper: Cardboard containers, boxes and packaging which are cleaned of contamination by food wastes, adhesives, metals or plastics and which have been flattened. This does not include press board.
  - B. Glass: Empty, washed glass jars, bottles and containers of clear, green and amber (brown), excluding ceramic, window glass, auto glass, mirror and kitchenware.
  - C. Metal: All ferrous and non-ferrous metals, including steel, aluminum and composite cans and containers (cleaned of food waste), excluding scrap metal, wire, pipes, tubing, aerosol cans, paint cans and metal containers that contained hazardous liquids and abandoned automobiles.
  - D. Newspaper: Common machine finished paper made chiefly from wood pulp used for printing newspapers and magazines. Must be dry and free of contaminants.
  - E. Office Paper: All bond paper including computer print-out, stationery, photo copy and ledger paper.

F. Plastics: All HDPE Nos. 1, 2 and 3 type plastics, including empty food, beverage, detergent, bleach and hair care containers but excluding all oil containers, plastic bags, toys and hangars.

5. Businesses, institutions, private haulers and any other waste generator, other than households located within the Town, are prohibited from disposing of recyclable or non-recyclable waste at the Town's Transfer Station.

6. Every household, business and institution within the Town shall separate recyclable materials from other non-recyclable waste regardless of whether such recyclables and waste are disposed of at the Town's Transfer Station or disposed of at a solid waste facility by a private hauler.

7. It shall be a violation of this local law for anyone to attempt to dispose of recyclable material as waste.

8. The Town Board may by resolution establish a schedule of fees for the disposal of waste items at the Town's Transfer Station, including recyclables.

9. A violation of this local law shall be deemed a violation and the violator may be liable for a fine of not more than \$50 for the first violation and not less than \$250 nor more than \$500 for each violation thereafter, and each violation shall constitute a separate offense.

10. If any provisions of this local law are held to be unconstitutional or otherwise invalid by any court of competent jurisdiction, the remaining provisions of this local law shall remain in effect.

11. All ordinances, local laws and parts thereof inconsistent with this local law are hereby repealed.

12. This local law shall take effect immediately upon filing in the office of the New York State Secretary of State.





GERALD D. JENNINGS  
MAYOR

CITY OF ALBANY  
DEPARTMENT OF GENERAL SERVICES  
RAPP ROAD WASTE MANAGEMENT FACILITY  
525 RAPP ROAD  
ALBANY, NEW YORK 12205  
(518) 869-3651 FAX 869-6825  
WWW.CAPITALREGIONLANDFILL.COM

NICHOLAS J. D'ANTONIO  
COMMISSIONER

JOSEPH C. GIEBELHAUS  
SOLID WASTE MANAGER

FRANK W. ZEOLI  
DIRECTOR OF RECYCLING

April 14, 2009

Hon. Kenneth Runion  
Town of Guilderland  
Guilderland Town Hall - Second Floor  
5209 Western Turnpike  
Guilderland, New York 12084

**RE: Capital Region Solid Waste Management Plan Modification  
City of Albany, New York**

Dear Supervisor Runion:

In October 2008 we forwarded your municipality a copy of the Draft Solid Waste Management Plan (SWMP) Modification for the Capital Region Solid Waste Management Partnership Planning Unit (formerly referred to as ANSWERS). The NYSDEC has accepted this final draft as meeting the regulatory requirements.

Several elements of the SWMP Modification require action by each of the municipalities participating in the Planning Unit. While all of the participating municipalities have executed Inter-municipal Agreement for a Planning Unit Recycling Coordinator, your municipality has not yet submitted an adopted resolution of agreement to implement the terms of the SWMP Modification. This resolution is needed to complete the formal adoption of this SWMP Modification and its submittal to the NYSDEC, so please forward a certified copy of such a resolution to me as soon as possible, but not later than **May, 29, 2009**.

Your continuing cooperation in these matters is greatly appreciated. If I can be of any assistance in facilitating your enactment of this resolution, please do not hesitate to contact me at (518) 434-2489.

Very truly yours

Frank W. Zeoli  
Director of Recycling &  
Planning Unit Recycling Coordinator

*Guilderland*



# Town of Guilderland

ALBANY COUNTY, ROUTE 20

P.O. BOX 339

GUILDERLAND, N.Y. 12084-0339

(518) 356-1980  
FAX: (518) 356-5514

KENNETH D. RUNION  
SUPERVISOR

RECEIVED

JUN 10 2009

Department of General Services  
CITY OF ALBANY

June 9, 2009

Frank Zeoli  
1 Conners Blvd.  
Albany, NY 12204

Dear Mr. Zeoli,

Attached is the adopted resolution of agreement that was passed for the SWMP modification plan that we discussed, certified by our Town Clerk.

Please contact me if I can be of further assistance.

Sincerely,



Nancy Levis  
Confidential Secretary to Town Supervisor

Guilderland



|                    |     |
|--------------------|-----|
| Councilman Pastore | Aye |
| Councilman Grimm   | Aye |
| Supervisor Runion  | Aye |

Supervisor Runion stated that in 2001, the Town adopted a Comprehensive Plan. As part of that Comprehensive Plan, the Town has done a number of neighborhood plans. There is currently a study being done for Guilderland Center. Grants and the Town have funded many of the studies.

Part of the Comprehensive Plan indicated that the Town should look at the Town's zoning law, which was adopted in the 1980's.

Supervisor Runion stated that at the next Town Board meeting he would be recommending to the Board a committee to work on the revision. He asked the Town Board for recommendations and resumes for the committee.

There will be two standing members consisting of the Chairs of the Zoning and Planning Boards and seven members.

They will be making recommendations for changes to the zoning law.

No changes would be made to zoning in the Town.

**AGENDA ITEMS:**

**MOTION # 95** Councilman Pastore moved to **AWARD THE BID FOR THE LYDIUS STREET PUMP STATION TO THE LOWEST BIDDER, IIT FLYGT CORP., IN THE AMOUNT OF \$18,900.00 (budgeted item).** Councilman Redlich seconded the motion and it was carried by the following roll call vote:

|                      |     |
|----------------------|-----|
| Councilman Redlich   | Aye |
| Councilwoman Slavick | Aye |
| Councilman Pastore   | Aye |
| Councilman Grimm     | Aye |
| Supervisor Runion    | Aye |

Item #2 on the agenda concerned adopting a resolution of agreement to implement the terms of the Solid Waste Management Plan for the Answers program.

Supervisor Runion explained that the Department of Environmental Conservation instituted requirements that all of the participating members agree to the implementation of the terms of the management plan.

**MOTION #96** Councilman Pastore moved to **ADOPT A RESOLUTION OF AGREEMENT TO IMPLEMENT THE TERMS OF THE SOLID WASTE MANAGEMENT PLAN FOR THE ANSWERS PROGRAM.** Councilwoman Slavick seconded the motion and it was carried by the following roll call vote:

|                    |                           |
|--------------------|---------------------------|
| Councilman Redlich | Opposed – stating that he |
|--------------------|---------------------------|

had reviewed the plan, which called for the expansion of the Rapp Road landfill. He further stated that he had received a number of complaints from residents in the area regarding the smell from the landfill. He felt that the County needed to find a better place for a landfill than amidst a populated area.

|                      |                        |
|----------------------|------------------------|
| Councilwoman Slavick | Aye                    |
| Councilman Pastore   | Aye                    |
| Councilman Grimm     | Opposed – asked if the |

approval of this meant we were in favor of expanding.

He further stated that the plan "does mention as part of the plan that the last expansion is what they intend to do."

*Guilderland*

Supervisor Runion stated that he did not believe there was a quid pro quo for expansion. He stated that this was a plan as to how the landfill needed to be managed. The Answers community has agreed to it. He further stated that expansion may be what the City of Albany plans to do but he had sent letters to the Department of Environmental Conservation indicating the objections concerning the complaints of residents regarding the odors and the landfill expansion.

Supervisor Runion Aye – explained that the Town of Guilderland has to have a place to deposit its trash. If the Town failed to agree to the implementation Solid Waste Management Plan, the Town would be immediately removed from the Answers program and would have to haul it out to the Utica area. He stated that he was not in favor of the expansion of the landfill but that the landfill could be managed better with regard to odors and that is what the Department of Environmental Conservation is working on.

**MOTION #97** Councilwoman Slavick moved to **AUTHORIZE THE SUPERVISOR TO SIGN A COLLECTOR'S WARRANT FOR GUILDERLAND WATER DISTRICT IN THE AMOUNT OF \$388,847.88.** Councilman Redlich seconded the motion and it was carried by the following roll call vote:

|                      |     |
|----------------------|-----|
| Councilman Redlich   | Aye |
| Councilwoman Slavick | Aye |
| Councilman Pastore   | Aye |
| Councilman Grimm     | Aye |
| Supervisor Runion    | Aye |

Councilman Redlich stated that a public hearing was scheduled for an April meeting and he ~~questioned why it was not held.~~

Supervisor Runion stated that a review of the Town's law indicated that the Town already had the law that Councilman Redlich proposed in place and there was no reason to have the public hearing.

Town Attorney, Richard Sherwood explained that the Town did not opt out of the law in 1976 (485-B), which the school district did.

Supervisor Runion would be sending a letter to the school district asking them to adopt the two laws.

Councilman Redlich asked if the Town Board would recommend to the school district that they adopt all three laws?

Supervisor Runion stated that in his letter he would provide information for the school board that the Town Board had adopted the two local laws and that the exemptions only apply to the town tax but that the school district could adopt a similar exemption by resolution of their board. This would go to all six school districts within the Town. It would be their option as to whether they wanted to opt into the law. He would also remind them that the Town, in 1976, did not opt out of the legislation that created an exemption under the third law, 485-B. The Board agreed to the Supervisor's suggestion.

**MOTION #98** Councilman Redlich moved to **ADJOURN THE MAY 19, 2009 TOWN BOARD MEETING AT 8:10 PM.**

STATE OF NEW YORK )

)S.S:

COUNTY OF Albany )

I, Rosemary Centi, Clerk of the ~~Town of Guiderland~~ New York, do hereby certify that I have compared the foregoing copy of the resolution with the original resolution of file in my office and that the same is a true and correct transcript of said original resolution and of the whole thereof as duly adopted by said Town Board at a meeting duly called and held at Guiderland N.Y. on May 16, 2009 by the required necessary vote of the members to approve the resolution.

WITNESS, my hand and the official seal of the Town of Guiderland, New York, the 19 day of May, 2009

Rosemary Centi  
Clerk

Guiderland





**Chapter 168: GARBAGE, WASTE, LITTERING AND RECYCLING**

[HISTORY: Adopted by the Council of the City of Watervliet 4-20-1972 as Ch. 9 of the Code of Ordinances of 1972. Amendments noted where applicable.]

**ARTICLE I Garbage Collection****§ 168-1. Placement of materials for collection; specifications for containers. [Amended 6-27-1974 by Ord. No. 1181]**

After the first day of July 1974, each person offering for collection by the city or its designee any ashes, garbage, refuse and rubbish shall place the materials in metal containers which shall be kept clean, shall have suitable handles and a tight-fitting metal cover and shall not exceed twenty-five (25) gallons or three and one-third (31/3) cubic feet in capacity, which containers shall be placed on street or alley level in a readily accessible place on the day of collection. Within twelve (12) hours of the actual collection by the city or its designee of the aforesaid ashes, garbage, refuse or rubbish, said metal containers shall be removed from the street or alley as mandated by § 244-3 of Chapter 244, Streets and Sidewalks, and no such containers, ashes, garbage, refuse or rubbish shall again be placed on street or alley level until the day of the next regular collection.

**§ 168-2. Preparation of materials.**

- A. Garbage, which shall include all kitchen wastes of animal and vegetable matter, paper, boxes, rags, leather and all rubbish which it is possible to burn, shall be securely wrapped in paper and shall be placed in separate metal containers.
- B. Rubbish, which shall include ashes of coal and wood fuel, gravel, bottles, cans, glass, metals, crockery and other refuse or rubbish which it is impossible to burn, shall be placed in separate metal containers.
- C. Grass, leaves and other yard waste and debris shall be placed in biodegradable paper bags approved for such use and/or made available by the city and placed at curbside for collection on the designated collection day. [Amended 4-4-1990 by Ord. No. 1535]

**ARTICLE II Littering****§ 168-3. Definitions.**

As used in this Article, the following terms shall have the meanings ascribed to them:

**AUTHORIZED PRIVATE RECEPTACLE** — A litter storage and collection receptacle, not to exceed thirty (30) gallons in volume capacity.

**GARBAGE** — Putrescible animal and vegetable wastes resulting from the handling, preparation, cooking and consumption of food.

**LITTER** — Garbage, refuse and rubbish, as defined in this section, and all other waste material which, if thrown or deposited as prohibited by this Article, tends to create a danger to public health, safety and welfare.

**PARK** — A park, reservation, playground, beach, recreation center or any other public area in or owned or used by the city and devoted to active or passive recreation.

**PRIVATE PROPERTY** — Any dwelling, house, building or other structure designed or used either wholly or in part for residential, business or industrial purposes, whether inhabited or temporarily or continuously uninhabited or vacant, and shall include any property, yard, grounds, walk, driveway, parking areas, porch, steps, vestibule or mailbox belonging or appurtenant to any such dwelling, house, building or other structure designed or used either wholly or in part for residential, business or industrial purposes.

**PUBLIC PLACE** — Any and all streets, sidewalks, boulevards, alleys or other public ways and any and all public parks, squares, spaces, grounds and buildings.

**REFUSE** — All putrescible and nonputrescible solid wastes, except body wastes, including garbage, rubbish, ashes, street cleanings, dead animals, abandoned automobiles and solid market and industrial wastes.

**RUBBISH** — Nonputrescible solid wastes consisting of both combustible and noncombustible wastes, such as paper, handbills, placards, posters, wrappings, cigarettes, cardboard, tin cans, yard clippings, leaves, wood, glass, bedding, crockery and similar materials.

**VEHICLE** — Every device in, upon or by which any person or property is or may be transported or drawn upon a highway, including devices used exclusively upon stationary rails or tracks.

**§ 168-4. Throwing litter from vehicles.**

No person while a driver or passenger in a vehicle shall throw, distribute or deposit litter upon any street, vehicle or other public place within the city or upon private property.

**§ 168-5. Truck loads causing litter.**

No person shall drive or move any truck or other vehicle within the city unless the vehicle is so constructed or loaded as to prevent any load, contents or litter from being blown or deposited upon any street, alley or other public place.

**§ 168-6. Penalties for offenses.** Editor's Note: Amended at time of adoption of Code; see Ch. 1, General Provisions, Art. I.

Any person violating any of the provisions of this Article shall be deemed guilty of a violation and, upon conviction thereof, shall be subject to a penalty as set forth in Chapter 1, General Provisions, Article III, General Penalty.

**§ 168-7. Notification to remove litter.** [Amended 5-16-1991 by Ord. No. 1550 Editor's Note: Amended at time of adoption of Code; see Ch. 1, General Provisions, Art. I.]

After the Building Inspector has determined that litter has accumulated in violation of this Article, he shall serve a written notice thereof on the occupant or owner of the property or premises involved directing the removal of such litter within five (5) days after receipt of such notice. The notice shall be sent by first-class mail, authenticated by a United States Postal Service certificate of mailing. If the owner or occupant of the property or premises does not remove the litter after said due notice, the litter will be removed by the Department of Public Works at the owner's expense.

**§ 168-8. Prohibited acts in public places.**

No person shall throw, deposit or distribute litter in or upon any street, sidewalk, vehicle or other public place within the city, except in public receptacles or in authorized private receptacles for collection.

**§ 168-9. Manner of placement of litter in receptacles.**

Persons placing litter in public receptacles or in authorized private receptacles shall do so in such a manner as to prevent it from being carried or deposited by the elements upon any street, sidewalk or other public place or upon private property.

**§ 168-10. Sweeping litter into gutter prohibited; cleanliness of sidewalks.**

No person shall sweep into or deposit in any gutter, street or other public place within the city the accumulation of litter from any building or lot or from any public or private sidewalk or driveway. Persons owning or occupying property shall keep the sidewalk adjacent to their premises free of litter.

**§ 168-11. Duty of merchants to keep sidewalks free of litter; prohibited disposition of litter.**

No person owning or occupying a place of business shall sweep into or deposit in any gutter, street or other public place within the city the accumulation of litter from any building or lot or from any public or private sidewalk or driveway. Persons owning or occupying places of business within the city shall keep the sidewalk adjacent to their business premises free of litter.

**§ 168-12. Litter in parks.**

No person shall throw, distribute, or deposit litter in any park within the city except in public receptacles and in such a manner that the litter will be prevented from being carried or deposited by the elements upon any part of the park or upon any street or other public place. Where public receptacles are not provided, all litter shall be carried away from the park by the person responsible for its presence and properly disposed of elsewhere as provided in this Article.

**§ 168-13. Litter in watercourses.**

No person shall throw or deposit litter in any fountain, pond, lake, stream, channel, bay or any other body of water in a park or elsewhere within the city.

**§ 168-14. Occupied private property.**

No person shall throw, distribute or deposit litter on any occupied private property within the city, whether owned by such person or not, except that the owner or person in control of private property may maintain authorized private receptacles for collection in such a manner that litter will be prevented from being carried or deposited by the elements upon any street, sidewalk or other public place or upon any private property.

**§ 168-15. Duty of owner to maintain premises free of litter.**

The owner or person in control of any private property shall at all times maintain the premises free of litter; however, this section shall not prohibit the storage of litter in authorized private receptacles for collection.

**§ 168-16. Litter on vacant lots.**

No person shall throw, distribute or deposit litter on any open or vacant private property within the city, whether owned by such person or not.

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**ARTICLE III Source Separation of Recyclables [Added 1-17-1991 by Ord. No. 1546]**

**§ 168-17. Findings; purpose.**

The City Council of the city finds that the reduction of the amount of solid waste and the conservation of recyclable materials are important public concerns. The separation and collection of newspaper, paper, cardboard, glass, cans, plastic containers, vegetative yard waste and other materials for recycling from the residential, commercial, industrial and institutional establishments in the city will protect and enhance the city's physical and visual environment as well as promote the health, safety and well-being of persons and property within the city by minimizing the potential adverse effects of landfilling through reduction of the need for landfills and conservation of existing landfill capacity, facilitating the implementation and operation of other forms of solid waste management, conserving natural resources, ensuring conformances with the New York State Solid Waste Management Plan and facilitating the implementation of a solid waste management plan for the city as a whole. The promotion and use of recyclable materials, goods produced from recyclable materials and goods which facilitate recycling will further serve the same purpose by encouraging and facilitating recycling.

**§ 168-18. Definitions.**

As used in this Article, the following definitions shall apply:

**CANS** — Containers comprised of aluminum, tin, steel or a combination thereof which contain or formerly contained only food and/or beverage substances.

**CARDBOARD** — All corrugated cardboard normally used for packing, mailing, shipping of containerizing goods, merchandise or other material, but shall not mean wax-coated or solid cardboard.

**COMMISSIONER** — The Commissioner of the Department of Public Works.

**DEPARTMENT OF PUBLIC WORKS** — The City of Watervliet Department of Public Works.

**DISPOSITION OR DISPOSITION OF DESIGNATED RECYCLABLE MATERIALS** — The transportation, placement or arrangement for transportation or placement of designated recyclable materials for all possible end uses to the City of Albany ANSWERS facility.

**GARBAGE** — Putrescible animal and vegetable wastes resulting from the handling, preparation, cooking and consumption of food.

**GLASS** — All clear (flint), green and brown (amber) colored glass containers.

**HAZARDOUS MATERIAL OR HAZARDOUS WASTE** — A solid waste or a combination of solid wastes which, because of its quantity, concentration or physical, chemical or infectious characteristics, may cause or significantly contribute to an increase in mortality or an increase in serious irreversible or incapacitating reversible illness or pose a substantial present or potential hazard to human health or the environment when improperly treated, stored, transported or disposed of or otherwise managed. Such materials or wastes shall include, but are not limited to, explosives, hazardous radioactive materials, toxic substances and those substances which the Commissioner has identified as a hazardous waste pursuant to the above criteria and has included on a list of hazardous waste promulgated by the Department of Public Works.

**MULTIRESIDENTIAL COMPLEX** — Five (5) or more residential units located on a single property or continuous properties under common ownership, control or management. For this purpose, "residential" shall mean an enclosed space consisting of one (1) or more rooms designed for use as a separate residence and shall include, but is not limited to, an apartment, condominium unit, town house cooperative unit, mobile home, living unit in a group home and room or set of rooms in a

boardinghouse, but shall **not** include rooms within a single family residence, **motel** or **hotel**.

**NEWSPAPERS** — Includes newsprint and all newspapers and newspaper advertisements, supplements, comics and enclosures.

**PAPER** — All high-grade office paper, fine paper, bond paper, **office paper**, xerographic paper, mimeograph paper, duplication paper, magazines, paperback books, school paper, catalogs, junk mail, computer paper, telephone books and similar cellulosic material, but shall not mean newspaper, wax paper, plastic or foil-coated paper, styrofoam, wax-coated food and beverage containers, carbon paper, blueprint paper, food contaminated paper, soiled paper and cardboard.

**PERSON** — An individual, firm, partnership, company, corporation, association, joint venture, cooperative enterprise, trust, municipality or other governmental agency or any other entity or any group of such persons **which** is recognized by law as the subject of rights and duties. In any provisions of this Article prescribing a fine, penalty or imprisonment, the term "person" shall include the officers, directors, partners, managers or persons in charge of a company, corporation or other legal entity having officers, directors, partners, managers or other persons in charge.

**PLASTIC CONTAINERS** — Containers composed of high-density polyethylene, polyethylene terephthalate or other specific plastics as the city may designate.

**RECYCLABLE MATERIAL** — A material which would otherwise become solid waste which can be collected, reclaimed, used or processed, treated, reclaimed, used or reused to produce a new material or product.

**RECYCLABLES** — Those recyclable materials designated by this Article and/or by determination of the Commissioner to be source separated. The term includes, but is not limited to, newspaper, glass, paper, cardboard, cans, plastic containers and vegetative yard waste.

**RECYCLING** — Any process by which materials which would otherwise become solid waste are collected, separated and/or processed, treated, reclaimed, used or reused to produce a raw material or product.

**RECYCLING COLLECTION AREA** — Any facility designed and operated solely for the receiving and storing of source-separated designated recyclable materials.

**RESIDENT** — Any person residing within the city on a temporary or permanent basis, but excluding persons residing in hotels or motels. For purposes of this Article, "resident" does not include commercial, industrial or institutional establishments.

**RUBBISH** — Nonputrescible solid wastes consisting of both combustible and noncombustible wastes, including, but not limited to, nonrecyclable paper, wrappings, cigarettes, wood, wire, glass, bedding, furniture and similar materials which are not designated recyclable materials.

**SOLID WASTE** — All putrescible and nonputrescible materials or substances discarded or rejected as having served their original intended use or as being spent, useless, worthless or in excess to the owner at the time of such discard or rejection, including garbage, refuse, litter, rubbish, industrial waste, but not including designated recyclable materials, solid or dissolved matter in domestic sewage or substances, materials in noncontainerized gaseous form or hazardous materials or waste.

**SOURCE SEPARATE** — To separate recyclable materials from the solid waste stream at the point of waste generation.

**VEGETATIVE YARD WASTE** — Organic yard and garden waste, leaves, grass clippings and brush.

#### § 168-19. Preparation of recyclables for curbside collection.

All designated recyclables placed for collection, or other location, by residents for collection pursuant to the curbside programs established pursuant to this Article shall be prepared for collection in accordance with regulations promulgated by the Commissioner.

#### § 168-20. Collection for multiresidential complexes.

- A. In any area designated by the Commissioner of this chapter, there is also established a program (private collection program) for the source separation, collection and delivery of newspaper and any other designated recyclable material included in the curbside program from all nonphysically disabled residents of multiresidential complexes.
- B. The owner, manager or superintendent of every multiresidential complex subject to Subsection A above shall provide and maintain, in a neat and sanitary condition, recycling collection areas to receive newspaper and other designated recyclables included in the curbside program which are generated by residents of the complex. In cases where a condominium, cooperative, homeowners' or similar association exists, the association shall be responsible for provision and maintenance of the recycling collection areas. Said recycling collection areas shall be constructed and capable of receiving newspaper and other designated recyclables within one hundred eighty (180) days of such inclusion in the curbside program.
- C. Once the recycling collection area for a particular multiresidential complex has been constructed and is capable of receiving newspaper and other designated recyclables as may be included in or added to the curbside program, all nonphysically disabled residents of such complex shall source separate such materials by placing them in the appropriate containers or

areas within the collection area.

- D. The owner, manager or superintendent of each multiresidential complex subject to Subsection A above shall arrange for the collection for recycling of newspaper and other designated recyclables from the recycling collection areas.
- E. The number and design of the recycling collection areas required by this section for each multiresidential complex shall be consistent with guidelines provided by the Commissioner.

**§ 168-21. Preparation of recyclables for recycling collection areas.**

Designated recyclables required to be placed in recycling collection areas pursuant to § 168-21 of this Article shall be prepared for collection in accordance with regulations promulgated by the Commissioner.

**§ 168-22. Mandatory commercial, industrial and institutional source-separation program.**

- A. All commercial, industrial and institutional establishments within an area of the city subject to a curbside program established pursuant to regulation of the Commissioner shall source separate and arrange for the collection for recycling of newspaper and any and all other designated recyclables as may be included in or added to such curbside program within one hundred eighty (180) days of such inclusion in the curbside program.
- B. Designated recyclables for the mandatory commercial, industrial and institutional source-separation program may consist of the following materials:
  - (1) Newspaper;
  - (2) High-grade paper, including, but not limited to, white letterhead paper, white bond paper, white typing paper, white copier paper, white note pad paper, white writing paper, white envelopes without glassine windows, other nonglossy white office paper without plastic, computer printout paper, computer tab cards and white onion skin paper;
  - (3) Corrugated cardboard;
  - (4) Glass containers, plastic containers and cans generated by food and beverage service establishments;
  - (5) Vegetative yard waste; and
  - (6) Other recyclable materials as designated by resolution of the city at all times thirty (30) days after said designation and publication of notice in an official newspaper of the city or a newspaper of general circulation within the city.
- C. The arrangement for collection of designated recyclables for disposition hereunder shall be the responsibility of the person who owns, manages or operates the commercial, industrial or institutional establishment at which the recyclables are generated (generator) or the person contractually obligated to the generator to arrange for collection and disposal of its solid waste.

**§ 168-23. Vegetative waste.**

Nothing in this Article shall be construed as preventing any person from utilizing vegetative yard waste for compost, mulch or other agricultural, horticultural, silvicultural, gardening or landscaping purposes.

**§ 168-24. Enforcement; rules and regulations.**

The Department of Public Works is authorized to enforce the provisions of this Article and to administer the recycling programs established herein. The Commissioner of said department may adopt and promulgate, amend and repeal rules and regulations implementing this Article in order to carry out and effectuate the intent and purposes thereof.

**§ 168-25. Unlawful activities.**

- A. It shall be unlawful for:
  - (1) Any person, other than those persons so authorized, to collect any designated recyclable which has been placed at the roadside for collection or within a recycling collection area pursuant to this Article.
  - (2) Any person to violate or to cause to assist in the violation of any provision of this Article or any implementing rule or regulation promulgated by the Commissioner of the Department of Public Works.
  - (3) Any person to place or to cause to be placed any material other than a designated recyclable in or near a recycling collection area.
- B. All unlawful conduct set forth in this section shall constitute a violation.

**§ 168-26. Noncollection of solid waste contaminated by designated recyclables.**

The Department of Public Works may refuse to collect solid waste from any person who has clearly failed to source separate recyclables (as designated under an applicable section of this Article) at any solid waste disposal facility owned or operated by the city.

**§ 168-27. Noninterference with existing contracts.**

- A. Nothing contained in this Article shall be construed to interfere with or in any way modify the provisions of any existing contract in force in the city on the effective date of this Article.
- B. No renewal of any existing contract upon the expiration of the original term thereof and no new contract for the collection, transportation, processing or purchase of solid waste or recyclables shall be entered into after the effective date of this Article, unless renewal of such contract shall conform to the requirements of this Article.

**§ 168-28. Penalties for offenses.** Editor's Note: Amended at time of adoption of Code; see Ch. 1, General Provisions, Art. I.

Any person who engages in unlawful conduct as defined in this Article may, upon conviction thereof, in a proceeding before a court of competent jurisdiction, be subject to a penalty as set forth in Chapter 1, General Provisions, Article III, General Penalty.

**§ 168-29. Injunction; concurrent remedies.**

- A. In addition to any other remedy provided herein, the city may institute a suit in equity where unlawful conduct exists for an injunction to restrain a violation of this Article.
- B. The penalties and remedies prescribed by this Article shall be deemed concurrent. The existence or exercise of any remedy shall not prevent the city from exercising any other remedy provided herein or otherwise provided at law or equity.
- C. The terms and provisions of this Article are to be liberally construed, so as best to achieve and effectuate the goals and purposes hereof.

---

**ARTICLE IV Corrective Action [Added 2-4-1993 by Ord. No. 1580]**

**§ 168-30. Cost of removal to be lien.**

If the General Manager or his designee deems any accumulation of garbage, waste or littering under this chapter to be hazardous to the general public, he shall notify the adjacent property owner to remove said garbage, waste or littering, and if said owner does not comply with said notice, the city shall make the proper removal and the cost of which shall become a lien against the adjacent property and be added to and appear on the next city tax bill for said property.



Office of the  
CITY CLERK

BRUCE A. HIDLEY  
City Clerk  
Clerk To The Council  
(518) 270-3810

WATERVLIET CITY HALL  
2 Fifteenth Street  
Watervliet, NY 12189

**CERTIFICATION OF RECORD**

I, Bruce A. Hidley, City Clerk and Clerk to the Council in and for the City of Watervliet, N.Y., due hereby certify and attest that the attached document is a true and exact duplication of Resolution No. 8384 adopted by the Council of the City of Watervliet, N.Y., February 19, 2009.

The original Resolution No. 8384 is on file and available at the Office of the Watervliet City Clerk, City Hall, 2-15<sup>th</sup> Street, Watervliet, NY 12189

A handwritten signature in black ink, appearing to read "BRUCE A. HIDLEY".

**Bruce A. Hidley  
City Clerk and  
Clerk to the Council**

A handwritten signature in black ink, appearing to read "James A. DiStasio".  
**Witness**

**February 23, 2009**  
**Date**



Office of the  
CITY CLERK

BRUCE A. HIDLEY  
City Clerk  
Clerk To The Council  
(518) 270-3810

WATERVLIET CITY HALL  
2 Fifteenth Street  
Watervliet, NY 12189

**CERTIFICATION OF RECORD**

I, Bruce A. Hidley, City Clerk and Clerk to the Council in and for the City of Watervliet, N.Y., due hereby certify and attest that the attached document is a true and exact duplication of Resolution No. 8384 adopted by the Council of the City of Watervliet, N.Y., February 19, 2009.

The original Resolution No. 8384 is on file and available at the Office of the Watervliet City Clerk, City Hall, 2-15<sup>th</sup> Street, Watervliet, NY 12189

A handwritten signature in black ink, appearing to read "Bruce A. Hidley".

**Bruce A. Hidley  
City Clerk and  
Clerk to the Council**

A handwritten signature in black ink, appearing to read "Robert R. [unclear]".

**Witness**

**April 29, 2009**

**Date**





Office of the  
CITY CLERK

BRUCE A. HIDLEY  
City Clerk  
Clerk To The Council  
(518) 270-3810

WATERVLIET CITY HALL  
2 Fifteenth Street  
Watervliet, NY 12189

April 29, 2009

City of Albany  
Department of General Services  
Rapp Road Waste Management Facility  
Frank W. Zeoli, Director  
525 Rapp Road  
Albany, NY 12205

Dear Mr. Zeoli:

Attached is a certified copy of Resolution No. 8384 which was passed by the Council of the City of Watervliet on February 19, 2009.

This Resolution authorized and approved the acceptance and approval of the draft Solid Waste Management Plan Modification for the Capital Region Solid Waste Management Partnership Planning Unit.

If my office may provide any additional information related to this issue, please do not hesitate to contact me at 270-3800 Ext. 116.

Very truly yours,

A handwritten signature in black ink, appearing to read "B. Hidley".

Bruce A. Hidley  
City Clerk and Clerk to the Council



Common Council Member O'Brien offered the following, which was approved:

**Resolution Number 81.112.08R**

**RESOLUTION OF THE COMMON COUNCIL DECLARING ITSELF LEAD AGENCY FOR PURPOSES OF DETERMINING ENVIRONMENTAL SIGNIFICANCE AND ISSUING A NEGATIVE DECLARATION IN ACCORDANCE WITH ARTICLE 8 OF THE ENVIRONMENTAL CONSERVATION LAW (SEQRA) AND THE REGULATIONS PROMULGATED THEREUNDER AND NOT REQUIRING THE PREPARATION AND SUBMISSION OF AN ENVIRONMENTAL IMPACT STATEMENT IN CONNECTION WITH THE MODIFICATION OF THE SOLID WASTE MANAGEMENT PLAN FOR THE CAPITAL REGION SOLID WASTE MANAGEMENT PARTNERSHIP PLANNING UNIT**

**WHEREAS**, the Common Council of the City of Albany has received a short form Environmental Assessment Form (EAF), in conjunction with the modification of the Solid Waste Management Plan (SWMP) for the Capital Region Solid Waste Management Partnership Planning Unit; and

**WHEREAS**, the action is identified as an "unlisted" action under SEQRA, no coordinated review is necessary, and therefore, the Common Council is the Lead Agency under SEQRA; and

**WHEREAS**, the record demonstrates that the project will not have a significant adverse environmental impact, and that a Negative Declaration of Environmental Significance should be issued in accord with 6 NYCRR 617.7 (a) (2).

**NOW, THEREFORE, BE IT RESOLVED**, that the Common Council be and hereby is designated Lead Agency in accord with SEQRA regulation 617 NYCRR 617.6 (4).

**BE IT FURTHER RESOLVED**, the proposed action, will not have any significant adverse environmental impacts and will not require the preparation of a full Environmental Impact Statement, and a Negative Declaration of Environmental Significance in accord with 6 NYCRR 617.7 (a) (2) be and hereby is issued.

**BE IT FURTHER RESOLVED**, the Common Council accepts and adopts the modifications to the existing Solid Waste Management Plan.

**BE IT FURTHER RESOLVED**, that the Mayor of the City of Albany is hereby authorized to enter into and execute an intermunicipal agreement with the members of the Capital Region Solid Waste Management Partnership Planning Unit.

**BE IT FURTHER RESOLVED**, that the City of Albany agrees to comply with the Solid Waste Management Plan modifications to the current SWMP.

**BE IT FURTHER RESOLVED**, that this resolution shall take effect immediately.

*Albany*

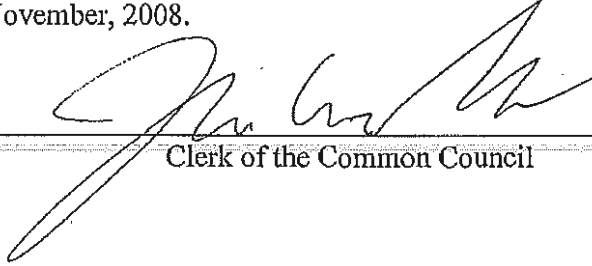
**Passed by the following vote of all the Council Members elected voting in favor thereof:**

Affirmative -- Calsolaro, Casey, Conti, Ellis, Fahey, Fox, Herring, Igoe, McLaughlin, O'Brien, Rosenzweig, Sano, Scalzo, Smith and Timmons

Affirmative 15 Negative 0 Abstain 0

I, John C. Marsolais, City Clerk and Clerk of the Common Council, do hereby certify that the legislation set forth in this document was passed at a meeting of the Albany Common Council on November 17<sup>th</sup>, 2008.

In Affirmation thereof, I hereto set my hand and affix The Seal of the City of Albany this 19<sup>th</sup> day of November, 2008.



---

Clerk of the Common Council

*Albany*

THE CITY COUNCIL OF THE CITY OF WATERVLIET

RESOLUTION NO. 8384

\*\*\*\*\*

**RESOLUTION AUTHORIZING AND APPROVING THE ACCEPTANCE OF  
THE DRAFT SOLID WASTE MANAGEMENT PLAN MODIFICATION FOR  
THE CAPITAL REGION SOLID WASTE MANAGEMENT PARTNERSHIP  
PLANNING UNIT**

**WHEREAS**, the Cities of Watervliet, Albany, and Rensselaer and the Town of Berne, Bethlehem, East Greenbush, Guiderland, Knox, New Scotland, Rensselaerville, and Westerlo, and the Villages of Green Island, Voorheesville, and Altamont (the "Parties") are all members of the Capital Region Solid Waste Management Partnership, formerly known as ANSWERS Wasteshed Planning Unit (the "Planning Unit"), which has a Solid Waste Management Plan ("SWMP") which was approved by the New York State Department of Environmental Conservation in 1992 and in accordance to New York State Environmental Conservation Law Section 27-0103; and

**WHEREAS**, the City of Albany has operated the regional solid waste system that serves the Parties and provides predictable and reasonably priced solid waste disposal services for members of the Planning Unit; and

**WHEREAS**, the SWMP has allowed all of the Parties to deliver waste to the regional solid waste system owned by the City of Albany; and

**WHEREAS**, all of the Parties are required to pay specified fees and are required to comply with SWMP's recycling programs; and

**WHEREAS**, in connection with an application to expand the City of Albany's landfill, the New York State Department of Environmental Conservation has required the preparation of a modification to the SWMP to reflect the changed circumstances in the Planning Unit; and

**WHEREAS**, the modification to the SWMP calls for a Planning Unit-wide Recycling Coordinator ("Planning Unit Recycling Coordinator") to manage the recycling activities of the Planning Unit and conduct public education and planning activities for the entire Planning Unit; and

**WHEREAS**, pursuant to Resolution No. 8235, adopted on November 6, 2008, the City Council of the City of Watervliet approved the Capital Region Solid Waste Management Partnership Planning Unit Recycling Coordinator Intermunicipal Agreement for a three year period commencing on January 1, 2009 and ending on December 31, 2011 and further authorized and directed Mayor Michael P. Manning to execute said agreement; and

**WHEREAS**, pursuant to Resolution No. 8236, adopted on November 6, 2008, the City Council approved and authorized the appointment of General Manager Mark Gleason to the Capital Region Solid Waste Management Partnership Committee for a three year period commencing on January 1, 2009 and ending on December 31, 2011; and

**WHEREAS**, the City Council finds that it is in the best interests of the City of Watervliet to accept the draft Solid Waste Management Plan Modification for the Capital Region Solid Waste Management Partnership Planning Unit.

**NOW THEREFORE BE IT RESOLVED THAT**

1. The City Council of the City of Watervliet hereby approves and authorizes the acceptance of the draft Solid Waste Management Plan Modification for the Capital Region Solid Waste Management Partnership Planning Unit; and
2. This Resolution shall take effect immediately.

Introduced by: **COUNCILMAN DIAMOND**  
Moved by: **COUNCILMAN DIAMOND**  
Seconded by: **COUNCILWOMAN FOGARTY**

Adopted by the following vote:

Ayes --- **3**  
Neys --- **0**

February 19, 2009

**THE CITY COUNCIL OF THE CITY OF WATERVLIET**

**RESOLUTION NO. 8384**

\*\*\*\*\*

**RESOLUTION AUTHORIZING AND APPROVING THE ACCEPTANCE OF  
THE DRAFT SOLID WASTE MANAGEMENT PLAN MODIFICATION FOR  
THE CAPITAL REGION SOLID WASTE MANAGEMENT PARTNERSHIP  
PLANNING UNIT**

**WHEREAS**, the Cities of Watervliet, Albany, and Rensselaer and the Town of Berne, Bethlehem, East Greenbush, Guilderland, Knox, New Scotland, Rensselaerville, and Westerlo, and the Villages of Green Island, Voorheesville, and Altamont (the "Parties") are all members of the Capital Region Solid Waste Management Partnership, formerly known as ANSWERS Wasteshed Planning Unit (the "Planning Unit"), which has a Solid Waste Management Plan ("SWMP") which was approved by the New York State Department of Environmental Conservation in 1992 and in accordance to New York State Environmental Conservation Law Section 27-0103; and

**WHEREAS**, the City of Albany has operated the regional solid waste system that serves the Parties and provides predictable and reasonably priced solid waste disposal services for members of the Planning Unit; and

**WHEREAS**, the SWMP has allowed all of the Parties to deliver waste to the regional solid waste system owned by the City of Albany; and

**WHEREAS**, all of the Parties are required to pay specified fees and are required to comply with SWMP's recycling programs; and

**WHEREAS**, in connection with an application to expand the City of Albany's landfill, the New York State Department of Environmental Conservation has required the preparation of a modification to the SWMP to reflect the changed circumstances in the Planning Unit; and

**WHEREAS**, the modification to the SWMP calls for a Planning Unit-wide Recycling Coordinator ("Planning Unit Recycling Coordinator") to manage the recycling activities of the Planning Unit and conduct public education and planning activities for the entire Planning Unit; and

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**WHEREAS**, the City Council finds that it is in the best interests of the City of Watervliet to accept the draft Solid Waste Management Plan Modification for the Capital Region Solid Waste Management Partnership Planning Unit.

**NOW THEREFORE BE IT RESOLVED THAT**

1. The City Council of the City of Watervliet hereby approves and authorizes the acceptance of the draft Solid Waste Management Plan Modification for the Capital Region Solid Waste Management Partnership Planning Unit; and

2. This Resolution shall take effect immediately.

Introduced by: **COUNCILMAN DIAMOND**  
Moved by: **COUNCILMAN DIAMOND**  
Seconded by: **COUNCILWOMAN FOGARTY**

Adopted by the following vote:

Ayes --- **3**  
Nays --- **0**

February 19, 2009



Department of Public Works in correcting or abating said violation.

- B. Additionally, containers that are in a dilapidated or unsanitary condition, are oversized or otherwise do not conform to the requirements set forth herein shall be removed by the Department of Public Works upon the violator's failure, after written notice, to do so.
- C. In determining violations concerning multiple dwellings, the Commissioner of Public Works shall have the power, discretion and duty, after due investigation, to apportion liability between and/or among the property owner and residents responsible therefor.

**§ 313-8. Promulgation of rules and regulations. [Amended 10-19-1987]**

The Commissioner of Public Works is hereby authorized to promulgate such other rules and regulations as may be necessary to effectuate and supplement the provisions of this Article, including the imposition and collection of reasonable fees to offset and defray the costs and expenses involved in correcting and/or alleviating violations of the provisions hereof.

**§ 313-9. Severability.**

If any section, provision, clause or other part of this Article is declared unconstitutional or otherwise ineffective by a court of competent jurisdiction, such determination shall not be deemed to invalidate the remaining parts or provisions hereof, and, to that extent, the Article shall remain in full force and effect.

**§ 313-10. Repealer.**

All provisions of the ordinance providing for the removal of garbage in the City of Albany, passed by the Common Council December 15, 1933, are hereby repealed.

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**ARTICLE II, Source Separation of Recyclables [Added 11-19-1990]**

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**§ 313-11. Legislative findings; intent.**

The Common Council of the City of Albany finds that the reduction of the amount of solid waste and the conservation of recyclable materials are important public concerns. The separation and collection of newspaper, paper, cardboard, glass, cans, plastic containers, vegetative yard waste and other materials for recycling from the residential, commercial, industrial and institutional establishments in the city will protect and enhance the city's physical and visual environment, as

Albany

well as promote the health, safety and well-being of persons and property within the city by minimizing the potential adverse effects of landfilling through reduction of the need for landfills and conservation of existing landfill capacity, facilitating the implementation and operation of other forms of solid waste management, conserving natural resources, ensuring conformance with the New York State Solid Waste Management Plan and facilitating the implementation of a solid waste management plan for the city as a whole. The promotion and use of recyclable materials, goods produced from recyclable materials and goods which facilitate recycling will further serve the same purpose by encouraging and facilitating recycling.

**§ 313-12. Definitions.**

As used in this Article, the following definitions shall have the meanings indicated:

**CANS** -- Containers comprised of aluminum, tin, steel or a combination thereof which contain or formerly contained only food and/or beverage substances.

**CARDBOARD** -- All corrugated cardboard normally used for packing, mailing, shipping of containerizing goods, merchandise or other material, but shall not mean wax-coated or soiled cardboard.

**COMMISSIONER** -- The Commissioner of the Department of Public Works.

**DEPARTMENT OF PUBLIC WORKS** -- The City of Albany Department of Public Works.

**DISPOSITION or DISPOSITION OF DESIGNATED RECYCLABLE MATERIALS** -- The transportation, placement or arrangement for transportation or placement of designated recyclable materials for all possible end uses to the City of Albany ANSWERS facility.

**GARBAGE** -- Putrescible animal and vegetable wastes resulting from the handling, preparation, cooking and consumption of food.

**GLASS** -- All clear (flint), green and brown (amber) colored glass containers.

**HAZARDOUS MATERIAL or HAZARDOUS WASTE** -- A solid waste or a combination of solid wastes which, because of its quantity, concentration or physical, chemical or infectious characteristics, may cause or significantly contribute to an increase in mortality or an increase in serious irreversible or incapacitating reversible illness; or pose a substantial present or potential hazard to human health or the environment when improperly treated, stored, transported or disposed of or otherwise managed. Such materials or wastes shall include, but are not limited to, explosives, hazardous radioactive materials, toxic substances and those substances which the Commissioner has identified as a hazardous waste pursuant to the above criteria and has included on a list of hazardous waste promulgated by the Department of Public Works.

**MULTIRESIDENTIAL COMPLEX** -- Five or more residential units located on a single property

or continuous properties under common ownership, control or management. For this purpose, "residential unit" shall mean an enclosed space consisting of one or more rooms designed for use as a separate residence and shall include, but not be limited to, an apartment, condominium unit, townhouse cooperative unit, mobile home, living unit in a group home and room or set of rooms in a boardinghouse but shall not include rooms within a single-family residence, motel or hotel.

**NEWSPAPERS** -- Newsprint and all newspapers and newspaper advertisements, supplements, comics and enclosures.

**PAPER** -- All high-grade office paper, fine paper, bond paper, office paper, xerographic paper, mimeo paper, duplication paper, magazines, paperback book, school paper, catalogs, junk mail, computer paper, telephone books and similar cellulosic material, but shall not mean newspaper, wax paper, plastic or foil-coated paper, styrofoam, wax-coated food and beverage containers, carbon paper, blueprint paper, food-contaminated paper, soiled paper and cardboard.

**PERSON** -- Any individual, firm, partnership, company, corporation, association, joint venture, cooperative enterprise, trust, municipality or other governmental agency or any other entity or any group of such persons which is recognized by law as the subject of rights and duties. In any provisions of this Article prescribing a fine, penalty or imprisonment, the term "person" shall include the officers, directors, partners, managers or persons in charge of a company, corporation or other legal entity having officers, directors, partners, managers or other persons in charge.

**PLASTIC CONTAINERS** -- Containers composed of high-density polyethylenes, polyethylene terephthalate or other specific plastics as the city may designate.

**RECYCLABLE MATERIAL** -- A material, which would otherwise become solid waste, which can be collected, separated and/or processed, treated, reclaimed, used or reused to produce a raw material or product.

**RECYCLABLES** -- Those recyclable materials designated by this Article and/or by determination of the Commissioner to be source-separated. The term includes, but is not limited to, newspaper, glass, paper, cardboard, cans, plastic containers and vegetative yard waste.

**RECYCLING** -- Any process by which materials, which would otherwise become solid waste, are collected, separated and/or processed, treated, reclaimed, used or reused to produce a raw material or product.

**RECYCLING COLLECTION AREA** -- Any facility designed and operated solely for the receiving and storing of source-separated designated recyclable materials.

**RESIDENT** -- Any person residing within the city on a temporary or permanent basis, but excluding persons residing in hotels or motels. For purposes of this Article, "resident" does not include commercial, industrial or institutional establishments.

**RUBBISH** -- Nonputrescible solid wastes consisting of both combustible and noncombustible

Albany

wastes, including but not limited to nonrecyclable paper, wrappings, cigarettes, wood, wires, glass, bedding, furniture and similar materials which are not designated recyclable materials.

**SOLID WASTE** -- All putrescible and nonputrescible materials or substances discarded or rejected as having served their original intended use or as being spent, useless, worthless or in excess to the owner at the time of such discard or rejection, including garbage, refuse, litter, rubbish and industrial waste but not including designated recyclable materials, solid or dissolved matter in domestic sewage or substances, materials in noncontainerized gaseous form or hazardous materials or waste.

**SOURCE-SEPARATED** -- To separate recyclable materials from the solid waste stream at the point of waste generation.

**VEGETATIVE YARD WASTE** -- Organic yard and garden waste, leaves, grass clippings and brush.

**§ 313-13. Requirements applicable to source separation and collection of designated recyclables for the curbside program.**

All designated recyclables placed for collection or at another location by residents for collection pursuant to the curbside programs established pursuant to Article I of this chapter shall be prepared for collection in accordance with regulations promulgated by the Commissioner.

**§ 313-14. Establishment of private collection program for multiresidential complexes.**

- A. In any area designated by the Commissioner of this chapter, there is also established a program ("private collection program") for the source separation, collection and delivery of newspaper and any other designated recyclable material included in the curbside program from all non-physically-disabled residents of multiresidential complexes.
- B. The owner, manager or superintendent of every multiresidential complex subject to Subsection A above shall provide and maintain, in a neat and sanitary condition, recycling collection areas to receive newspaper and other designated recyclables included in the curbside program which are generated by residents of the complex. In cases where a condominium, cooperative, homeowner or similar association exists, the association shall be responsible for provision and maintenance of the recycling collection areas. Said recycling collection areas shall be constructed and capable of receiving newspaper and other designated recyclables within 180 days of such inclusion into the curbside program.
- C. Once the recycling collection area for a particular multiresidential complex has been constructed and is capable of receiving newspaper and other designated recyclables as may be included in or added to the curbside program, all non-physically-disabled residents of such

complex shall source-separate such materials by placing them in the appropriate containers or areas within the collection area.

- D. The owner, manager or superintendent of each multiresidential complex subject to Subsection A above shall arrange for the collection for recycling of newspaper and other designated recyclables from the recycling collection areas.
- E. The number and design of the recycling collection areas required by this section for each multiresidential complex shall be consistent with guidelines provided by the Commissioner.

**§ 313-15. Requirements applicable to source separation and placement of designated recyclables in recycling collection areas.**

Designated recyclables required to be placed in recycling collection areas pursuant to § 313-14 of this Article shall be prepared for collection in accordance with regulations promulgated by the Commissioner.

**§ 313-16. Mandatory commercial, industrial and institutional source separation program.**

A. All commercial, industrial and institutional establishments within an area of the city subject to a curbside program established pursuant to regulation of the Commissioner shall source-separate and arrange for the collection for recycling of newspaper and any and all other designated recyclables as may be included in or added to such curbside program within 180 days of such inclusion in the curbside program.

B. Designated recyclables for the mandatory commercial, industrial and institutional source separation program may consist of the following materials:

- (1) Newspaper.
- (2) High-grade paper, including but not limited to white letterhead paper, white bond paper, white typing paper, white copier paper, white notepad paper, white writing paper, white envelopes without glassine windows, other nonglossy white office paper without plastic, computer printout paper, computer tab cards and white onionskin paper.
- (3) Corrugated cardboard.
- (4) Glass containers, plastic containers and cans generated by food and beverage service establishments.
- (5) Vegetative yard waste.
- (6) Other recyclable materials as designated by resolution of the city at all times 30 days after said designation and publication of notice in an official newspaper of the city or a

newspaper of general circulation within the city.

- C. The arrangement for collection of designated recyclables for disposition hereunder shall be the responsibility of the person who owns, manages or operates the commercial, industrial or institutional establishment at which the recyclables are generated ("generator") or the person contractually obligated to the generator to arrange for collection and disposal of its solid waste.

**§ 313-17. Special provision regarding vegetative yard waste.**

Nothing in this Article shall be construed as preventing any person from utilizing vegetative yard waste for compost, mulch or other agricultural, horticultural, silvicultural, gardening or landscaping purposes.

**§ 313-18. Enforcement; rules and regulations.**

The Department of Public Works is authorized to enforce the provisions of this Article and to administer the recycling programs established herein. The Commissioner of said Department may adopt and promulgate, amend and repeal rules and regulations implementing this Article in order to carry out and effectuate the intent and purposes thereof.

**§ 313-19. Unlawful activities.**

A. It shall be unlawful for:

- (1) Any person, other than those persons so authorized, to collect any designated recyclable which has been placed at the roadside for collection or within a recycling collection area pursuant to this Article.
- (2) Any person to violate or to cause to assist in the violation of any provision of this Article or any implementing rule or regulation promulgated by the Commissioner of the Department of Public Works.
- (3) Any person to place or to cause to be placed any material other than a designated recyclable in or near a recycling collection area.

B. All unlawful conduct set forth in this section shall constitute a violation.

**§ 313-20. Noncollection of solid waste contaminated by designated recyclables.**

The Department of Public Works may refuse to collect solid waste from any person who has

Albany

clearly failed to source-separate recyclables designated under an applicable section of this Article at any solid waste disposal facility owned or operated by the city.

**§ 313-21. Noninterference with existing contracts.**

- A. Nothing contained in this Article shall be construed to interfere with or in any way modify the provisions of any existing contract in force in the city on the effective date of this Article.
- B. No renewal of any existing contract upon the expiration of the original term thereof and no new contract for the collection, transportation, processing or purchase of solid waste or recyclables shall be entered into after the effective date of this Article, unless renewal of such contract shall conform to the requirements of this Article.

**§ 313-22. Penalties for offenses.**

Any person who engages in unlawful conduct as defined in this Article may, upon conviction thereof, in a proceeding before a court of competent jurisdiction, be sentenced to imprisonment for a term not to exceed 15 days or to a term of community service related to the purposes of this Article or to pay a fine of not more than \$250 and not less than \$25, or any combination of the above penalties.

**§ 313-23. Injunction; concurrent remedies.**

- A. In addition to any other remedy provided herein, the City of Albany may institute a suit in equity where unlawful conduct exists for an injunction to restrain a violation of this Article.
- B. The penalties and remedies prescribed by this Article shall be deemed concurrent. The existence or exercise of any remedy shall not prevent the city from exercising any other remedy provided herein or otherwise provided at law or equity.
- C. The terms and provisions of this Article are to be liberally construed, so as best to achieve and effectuate the goals and purposes hereof.

**§ 313-24. Severability.**

- A. The provisions of this Article are severable. If any provision of this Article or its application to any person or circumstances is held invalid, said invalidity shall not affect any other provision or application which can be given effect without the invalid provision or application of the Article.
- B. All provisions of any other local law or ordinance which are inconsistent with the provisions

Albany

of this Article are hereby repealed.

**§ 313-25. Effective date.**

This Article shall become effective September 1, 1992.

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**ARTICLE III, Sanitary Landfill [Added 7-1-1985]**

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**§ 313-26. Purpose.**

The Common Council of the City of Albany does hereby deem it in the best interest of its citizens to prescribe further regulations for the use and control of its sanitary solid waste landfill facility.

**§ 313-27. Definitions.**

When used in this Article, unless otherwise expressly stated or unless the context or subject matter requires otherwise, the following terms shall have the meanings indicated:

**COMMISSIONER** -- The Commissioner of the Department of Public Works.

**DEMOLITION DEBRIS** -- Such debris which shall include but is not necessarily limited to trees or any other part thereof, vegetation, surplus from products, shipping cartons or crates, furniture, appliances, scrap iron or other metals, tires, bricks, concrete, cinder and cement blocks, pipes, wire or wiring, roofing materials, glass, spoil, plaster, plaster board, plastic boards of all shapes and sizes and all other material common to the building construction industry.

**GARBAGE** -- All putrescible animal and vegetable waste resulting from growing, processing, marketing and preparation of food items, including container in which packaged.

**HAZARDOUS WASTE** -- Any substance so defined and in quantities so proscribed by the Resource Conservation and Recovery Act of 1976 (42 U.S.C. § 6901 et seq.), the Toxic Substances Control Act (15 U.S.C. § 2601 et seq.) or Article 27 of the Environmental Conservation Law or any rule or regulation promulgated under any of those laws. For the purposes of this Article, "hazardous waste" shall also include any nuclear or radioactive waste as defined by either federal or state law, rule or regulation.

**LANDFILL** -- Any site, location, tract of land, area, building or premises authorized by the City of Albany to be used for the disposal of refuse or demolition debris.

*Albany*



# TOWN OF WESTERLO

P.O. BOX 148  
WESTERLO, N.Y. 12193  
Phone: (518) 797-3111  
Fax: (518) 797-5122

**SUPERVISOR**

RICHARD H. RAPP

**DEPUTY SUPERVISORS**

EDWARD A. RASH  
R. GREGORY ZEH, JR.

**TOWN BOARD MEMBERS**

SUSAN WALTER  
EDWARD A. RASH  
ROBERT A. SNYDER  
R. GREGORY ZEH, JR.

**SUPERINTENDENT OF HIGHWAYS**

JOHN NEVINS

**CODE ENFORCEMENT OFFICER**

EDWIN LAWSON

**TOWN ATTORNEY**

ALINE D. GALGAY

**ADMINISTRATIVE AIDE**

KIMBERLY SLINGERLAND

July 9, 2009

Frank W. Zeoli  
Director of Recycling  
Department of General Services  
One Conners Boulevard  
Albany, New York 12204  
VIA FACSIMILE (462 6846) AND REGULAR MAIL

**RE: Town of Westerlo**

Dear Frank,

Enclosed herein please find the Resolution of the Town Board of the Town of Westerlo with respect to compliance with the solid waste management plan modifications for the Capital Region Solid Waste Management Partnership. Also enclosed please find the proposed amendment to add language required by the Solid Waste Management Plan adopted by the City of Albany. The public hearing regarding the amendment will be held on August 4, 2009.

Respectfully yours,

A handwritten signature in cursive script, appearing to read "Aline D. Galgay".

Aline D. Galgay

Enc.



**RESOLUTION OF THE TOWN BOARD OF THE TOWN OF  
WESTERLO TO: COMPLY WITH THE SOLID WASTE  
MANAGEMENT PLAN MODIFICATIONS FOR THE CAPITAL  
REGION SOLID WASTE MANAGEMENT PARTNERSHIP**

**WHEREAS:** in order to promote the public health, safety and welfare and further the purposes of the New York State policy on solid waste management articulated in New York Environmental Conservation Law sec. 27-106, the Town of Westerlo is a member of the Capital Region Solid Waste Management Partnership Planning Unit ("Planning Unit"), formerly the Albany New York Solid Waste Energy Recovery System (ANSWERS) Solid Waste Management Planning Unit; and

**WHEREAS:** on behalf of the Planning Unit, the City of Albany has prepared a Solid Waste Management Plan (SWMP) which has been accepted by the New York Department of Environmental Conservation; and

**WHEREAS:** the Town Board of the Town of Westerlo has reviewed a Draft Modification to the SWMP dated August 2008 and prepared for the City of Albany by Clough Harbour & Associates, LLP, and

**WHEREAS:** as part of the SWMP Modification, the Town and the other members of the Planning Unit must agree to implement the terms of the SWMP Modification once it is finalized; and

**WHEREAS:** by Resolution dated November 17, 2008, the Common Council of the City of Albany, on behalf of the City, accepted and adopted the SWMP Modification and agreed to comply with the SWMP Modification;

**NOW, THEREFORE, BE IT RESOLVED AS FOLLOWS BY THE TOWN BOARD:**

1. The Town Board accepts and adopts the modifications to the Solid Waste Management Plan for the Planning Unit.
2. The Town of Westerlo agrees to comply with the Solid Waste Management Plan modifications.
3. This Resolution shall take effect immediately.

The motion was moved by:

B. Gregory Zeh

The motion was seconded by:

Robert Snyder

The vote was as follows:

|                   |                                      |                           |
|-------------------|--------------------------------------|---------------------------|
| Supervisor Rapp   | <input checked="" type="radio"/> aye | <input type="radio"/> nay |
| Councilman Rash   | <input checked="" type="radio"/> aye | <input type="radio"/> nay |
| Councilman Zeh    | <input checked="" type="radio"/> aye | <input type="radio"/> nay |
| Councilman Snyder | <input checked="" type="radio"/> aye | <input type="radio"/> nay |
| Councilman Milner | <input checked="" type="radio"/> aye | <input type="radio"/> nay |

DATED: July 7, 2009

Gertrude A. Smith  
Gertrude Smith  
Town Clerk

**Local Law No. 2 of 2009**

**A Local Law to amend Local Law No. 2 of 1992) to add language required by the Solid Waste Management Plan adopted by the City of Albany.**

**Local Law No. 2 of 1992, entitled "A Local Law to establish and define a Solid Waste Management code" is hereby amended as follows:**

**PART I**

Article III: Mandatory Recycling: section 01-21, paragraph 2 shall be replaced by the following language:

It shall be the responsibility of any commercial, industrial and institutional waste collector to require all customers to separate recyclable and other designated materials from all other solid waste, and to keep them separate during the collection process.

**PART II**

The provisions of this Local Law are severable. If any provision of this Local Law or its application to any person or circumstances is held invalid, such invalidity shall not affect any other provision or application of this Local Law which can be given effect without the invalid provision or application of this Local Law.

**PART III**

This Local Law shall take effect immediately upon filing with the New York State Secretary of State's Office, and shall apply to assessment rolls prepared on the basis of a taxable status date occurring on or after such date.



## **Appendix H**

### **Municipal Recycling Program Tonnage, by year**





**Reported Tonnage Summary for CRSWMP Communities for 2008  
Residential Recycling and MSW Disposal Totals for Year 2008**

|                                      | Albany  | Berne  | Bethlehem | East Greenbush | Green Island | Guiderland | Knox   | New Scotland | Rensselaer | Rensselaerville | Voorheesville | Watervliet | Westerlo | TOTAL     |
|--------------------------------------|---------|--------|-----------|----------------|--------------|------------|--------|--------------|------------|-----------------|---------------|------------|----------|-----------|
| <b>GLASS</b>                         |         |        |           |                |              |            |        |              |            |                 |               |            |          |           |
| Clear                                |         |        |           |                |              |            |        |              |            |                 |               |            |          | 0.00      |
| Brown                                |         |        |           |                |              |            |        |              |            |                 |               |            |          | 0.00      |
| Green                                |         |        |           |                |              |            |        |              |            |                 |               |            |          | 0.00      |
| Other / Mixed                        |         |        |           | 50.98          |              |            | 8.18   |              |            |                 |               |            |          | 59.16     |
| <b>TOTAL GLASS</b>                   | 0.00    | 0.00   | 0.00      | 50.98          | 0.00         | 0.00       | 8.18   | 0.00         | 0.00       | 0.00            | 0.00          | 0.00       | 0.00     | 59.16     |
| <b>PAPER</b>                         |         |        |           |                |              |            |        |              |            |                 |               |            |          |           |
| ONP                                  |         |        | 24.00     | 124.13         |              |            | 47.69  |              |            | 65.73           |               |            |          | 261.55    |
| OCC                                  |         | 34.58  | 119.65    | 30.06          |              | 80.09      | 21.53  |              |            | 35.69           |               |            | 15.64    | 337.24    |
| OMG                                  |         |        | 23.50     | 113.94         |              | 10.78      |        |              |            |                 |               |            |          | 148.22    |
| OTD                                  |         |        |           |                |              |            |        |              |            |                 |               |            |          | 0.00      |
| Junk Mail                            |         |        |           |                |              |            |        |              |            |                 |               |            |          | 0.00      |
| Paperboard                           |         |        |           |                |              |            |        |              |            |                 |               |            |          | 0.00      |
| High Grade                           |         |        | 7.75      |                |              |            |        |              |            |                 |               |            |          | 7.75      |
| Books (hard/soft)                    |         |        | 5.75      |                |              | 2.82       |        |              |            |                 |               |            |          | 8.57      |
| Other / Mixed                        | 2639.03 | 73.28  | 2006.40   |                | 77.17        | 270.65     |        | 267.30       | 205.07     |                 | 165.00        |            | 93.36    | 5797.26   |
| <b>TOTAL PAPER</b>                   | 2639.03 | 107.86 | 2187.05   | 268.13         | 77.17        | 364.34     | 69.22  | 267.30       | 205.07     | 101.42          | 165.00        | 0.00       | 109.00   | 6560.59   |
| <b>PLASTIC</b>                       |         |        |           |                |              |            |        |              |            |                 |               |            |          |           |
| PET                                  |         |        |           |                |              |            |        |              |            |                 |               |            |          | 0.00      |
| HDPE                                 |         |        |           |                |              |            |        |              |            |                 |               |            |          | 0.00      |
| Other / Mixed                        |         |        |           | 24.00          |              |            | 23.60  |              |            |                 |               |            |          | 47.60     |
| <b>TOTAL PLASTIC</b>                 | 0.00    | 0.00   | 0.00      | 24.00          | 0.00         | 0.00       | 23.60  | 0.00         | 0.00       | 0.00            | 0.00          | 0.00       | 0.00     | 47.60     |
| <b>METAL</b>                         |         |        |           |                |              |            |        |              |            |                 |               |            |          |           |
| Fe                                   |         |        |           | 4.23           |              |            |        |              |            |                 |               |            |          | 4.23      |
| Aluminum                             |         |        |           |                |              | 5.60       | 0.39   |              |            |                 |               |            |          | 5.99      |
| White Goods                          | 158.55  |        | 214.35    |                |              | 163.49     |        |              |            |                 |               |            |          | 536.39    |
| Other / Mixed                        |         |        | 10.20     | 153.84         | 41.64        |            | 60.90  |              |            | 67.55           | 16.00         |            | 69.12    | 419.25    |
| <b>TOTAL METAL</b>                   | 158.55  | 0.00   | 224.55    | 158.07         | 41.64        | 169.09     | 61.29  | 0.00         | 0.00       | 67.55           | 16.00         | 0.00       | 69.12    | 965.86    |
| <b>BATTERIES</b>                     |         |        |           |                |              |            |        |              |            |                 |               |            |          |           |
| Lead Acid                            |         |        | 1.65      |                | 0.50         | 1.25       |        |              |            | 0.50            |               |            | 10.25    | 14.15     |
| Dry Cell                             |         |        | 0.10      |                |              | 0.07       |        |              |            |                 |               |            |          | 0.17      |
| <b>TOTAL BATTERIES</b>               | 0.00    | 0.00   | 1.75      | 0.00           | 0.50         | 1.32       | 0.00   | 0.00         | 0.00       | 0.50            | 0.00          | 0.00       | 10.25    | 14.32     |
| <b>MISC.</b>                         |         |        |           |                |              |            |        |              |            |                 |               |            |          |           |
| Yard Waste                           | 5595    |        | 3441.00   | 1118.53        | 13.50        | 1781.97    |        |              |            |                 | 200.00        |            |          | 12,150.00 |
| Tires                                | 71.20   |        | 34.25     | 4.85           | 2.00         | 7.53       | 5.80   | 7.55         |            | 18.34           |               |            | 30.60    | 182.12    |
| Oil/Oil Filters                      |         |        |           |                | 0.20         |            |        |              |            | 8.00            |               |            | 2.56     | 10.76     |
| C & D (Asphalt)                      |         |        |           |                |              |            |        | 246.10       |            |                 |               |            |          | 246.10    |
| Sewage Sludge                        |         |        |           |                |              |            |        |              |            |                 |               |            |          | -         |
| Electronics                          | 25.93   |        | 34.50     |                | 1.00         |            |        | 4.00         |            |                 |               |            | 21.25    | 65.43     |
| Propane Tanks                        | 6.19    |        |           |                |              |            |        |              |            |                 |               |            |          | 6.19      |
| Textiles                             |         |        | 12.00     |                |              |            |        |              |            |                 |               |            |          | 33.25     |
| Commingled GMP                       | 1044.47 | 53.18  | 998.95    |                | 13.52        | 134.12     |        | 157.10       | 129.16     | 70.31           | 80.00         |            | 55.93    | 2,736.74  |
| Single Stream Recyclables            |         |        |           |                |              |            |        |              |            |                 |               | 572.00     |          | 572.00    |
| Other                                |         |        | 0.10      |                |              |            | 0.00   |              |            | 17.35           |               |            |          | 17.45     |
| <b>TOTAL MISC.</b>                   | 6742.79 | 53.18  | 4520.80   | 1123.38        | 30.22        | 1923.62    | 5.80   | 414.75       | 129.16     | 114.00          | 280.00        | 572.00     | 110.34   | 16,020.04 |
| <b>TOTAL RECOVERED</b>               | 9540.37 | 161.04 | 6934.15   | 1624.56        | 149.53       | 2458.37    | 168.09 | 682.05       | 334.23     | 283.47          | 461.00        | 572.00     | 298.71   | 23667.57  |
| <b>MSW Disposed</b>                  | 29838   | 856    | 8537      | 2159           | 967          | 1592       | 1118   | 2155         | 3423       | 686             | 1119          | 3473       | 1805     | 57728.00  |
| <b>HHW Collected</b>                 | 180.75  | 0.00   | 12.00     | 4.20           | 103.39       | 0.00       | 0.00   | 0.00         | 0.00       | 0.00            | 0.00          | 0.00       | 0.00     | 300.34    |
| <b>TOTAL DISPOSED MSW + HHW</b>      | 30,019  | 856    | 8,549     | 2,159          | 971          | 1,695      | 1,118  | 2,155        | 3,423      | 686             | 1,119         | 3,473      | 1,805    | 58,028.34 |
| <b>DIVERSION/ RECYCLING RATE</b>     | 24.12%  | 15.83% | 44.79%    | 42.94%         | 13.34%       | 59.18%     | 13.07% | 24.04%       | 8.90%      | 29.24%          | 29.18%        | 14.14%     | 14.20%   | 28.97%    |
| <b>DIVERSION RATE w/o Yard Waste</b> | 11.62%  | 15.83% | 29.01%    | 18.99%         | 12.29%       | 28.52%     | 13.07% | 24.04%       | 8.90%      | 29.24%          | 18.91%        | 14.14%     | 14.20%   | 16.56%    |



**Reported Tonnage Summary for CRSWMP Communities for 2009  
Residential Recycling and MSW Disposal Totals for Year 2009**

|                                      | Albany   | Berne  | Bethlehem | East Greenbush | Green Island | Guilfordland | Knox    | New Scotland | Rensselaer | Rensselaerville | Voorheesville | Watervliet | Westerlo | TOTAL     |
|--------------------------------------|----------|--------|-----------|----------------|--------------|--------------|---------|--------------|------------|-----------------|---------------|------------|----------|-----------|
| <b>GLASS</b>                         |          |        |           |                |              |              |         |              |            |                 |               |            |          |           |
| Clear                                |          |        |           |                |              |              |         |              |            |                 |               |            |          | 0.00      |
| Brown                                |          |        |           |                |              |              |         |              |            |                 |               |            |          | 0.00      |
| Green                                |          |        |           |                |              |              |         |              |            |                 |               |            |          | 0.00      |
| Other / Mixed                        |          |        |           |                |              |              | 21.37   |              |            |                 |               |            |          | 21.37     |
| <b>TOTAL GLASS</b>                   | 0.00     | 0.00   | 0.00      | 0.00           | 0.00         | 0.00         | 21.37   | 0.00         | 0.00       | 0.00            | 0.00          | 0.00       | 0.00     | 21.37     |
| <b>PAPER</b>                         |          |        |           |                |              |              |         |              |            |                 |               |            |          |           |
| ONP                                  |          | 59.04  | 217.82    |                |              | 298.37       | 42.86   |              |            |                 |               |            |          | 618.09    |
| OCC                                  |          |        | 210.67    |                |              | 86.72        | 14.05   |              |            | 25.88           |               |            | 10.61    | 347.93    |
| OMG                                  |          |        |           |                |              | 13.22        |         |              |            | 38.86           |               |            |          | 52.08     |
| OTD                                  |          |        |           |                |              |              |         |              |            |                 |               |            |          | 0.00      |
| Junk Mail                            |          |        |           |                |              |              |         |              |            |                 |               |            |          | 0.00      |
| Paperboard                           |          | 29.43  |           |                |              |              |         |              |            |                 |               |            |          | 29.43     |
| High Grade                           |          |        | 6.03      |                |              |              |         |              |            |                 |               |            |          | 6.03      |
| Books (hard/soft)                    |          |        |           |                |              |              |         |              |            |                 |               |            |          | 0.00      |
| Other / Mixed                        | 2309.63  |        | 3632.69   |                | 79.50        |              |         |              |            |                 | 170.00        |            | 75.07    | 6266.89   |
| <b>TOTAL PAPER</b>                   | 2309.63  | 88.47  | 4067.21   | 0.00           | 79.50        | 398.31       | 56.91   | 0.00         | 0.00       | 64.74           | 170.00        | 0.00       | 85.68    | 7320.45   |
| <b>PLASTIC</b>                       |          |        |           |                |              |              |         |              |            |                 |               |            |          |           |
| PET                                  |          |        |           |                |              |              |         |              |            |                 |               |            |          | 0.00      |
| HDPE                                 |          |        |           |                |              |              |         |              |            |                 |               |            |          | 0.00      |
| Other / Mixed                        |          |        |           |                |              |              | 16.28   |              |            |                 |               |            |          | 16.28     |
| <b>TOTAL PLASTIC</b>                 | 0.00     | 0.00   | 0.00      | 0.00           | 0.00         | 0.00         | 16.28   | 0.00         | 0.00       | 0.00            | 0.00          | 0.00       | 0.00     | 16.28     |
| <b>METAL</b>                         |          |        |           |                |              |              |         |              |            |                 |               |            |          |           |
| Fe                                   |          |        |           |                |              |              |         |              |            |                 |               |            |          | 0.00      |
| Aluminum                             |          |        |           |                |              | 3.74         | 0.20    |              |            |                 |               |            |          | 3.94      |
| White Goods                          | 147.92   |        | 290.25    |                |              |              |         |              |            |                 |               |            |          | 438.17    |
| Other / Mixed                        |          | 77.39  | 172.00    |                | 48.50        | 199.93       | 86.50   | 61.82        |            | 80.56           | 15.00         |            | 93.42    | 835.12    |
| <b>TOTAL METAL</b>                   | 147.92   | 77.39  | 462.25    | 0.00           | 48.50        | 203.67       | 86.70   | 61.82        | 0.00       | 80.56           | 15.00         | 0.00       | 93.42    | 1277.23   |
| <b>BATTERIES</b>                     |          |        |           |                |              |              |         |              |            |                 |               |            |          |           |
| Lead Acid                            |          |        | 2.00      |                | 1.00         | 1.09         |         |              |            | 1.00            |               |            |          | 11.15     |
| Dry Cell                             |          |        |           |                |              | 1.22         |         |              |            |                 |               |            |          | 1.22      |
| <b>TOTAL BATTERIES</b>               | 0.00     | 0.00   | 2.00      | 0.00           | 1.00         | 2.31         | 0.00    | 0.00         | 0.00       | 1.00            |               | 0.00       | 11.15    | 17.46     |
| <b>MISC.</b>                         |          |        |           |                |              |              |         |              |            |                 |               |            |          |           |
| Yard Waste                           | 5353.19  |        | 3950.00   |                | 15.40        | 6181.00      |         |              |            |                 | 215.00        |            |          | 15,714.59 |
| Tires                                | 80.27    | 8.40   | 21.61     |                | 2.10         | 18.59        |         | 5.15         |            | 6.50            |               |            | 18.42    | 161.04    |
| Oil/Oil Filters                      |          |        |           |                | 0.66         |              |         |              |            | 9.00            |               |            | 2.88     | 12.54     |
| C & D (Asphalt)                      |          |        |           |                |              |              |         | 212.11       |            |                 |               |            |          | 212.11    |
| Sewage Sludge                        |          |        |           |                |              |              |         |              |            |                 |               |            |          | -         |
| Electronics                          | 26.12    | 0.47   | 88.64     |                | 1.50         |              |         | 4.00         |            |                 |               |            |          | 120.73    |
| Propane Tanks                        | 4.63     |        |           |                |              |              |         |              |            |                 |               |            |          | 4.63      |
| Textiles                             |          |        | 12.00     |                |              |              |         |              |            |                 |               |            | 24.93    | 36.93     |
| Commingled GMP                       | 1096.99  | 68.37  | 1028.78   |                | 92.66        | 135.26       |         |              |            | 61.22           | 80.50         |            | 53.02    | 2,616.80  |
| Single Stream Recyclables            |          |        |           |                |              |              |         | 514.86       |            |                 |               | 598.00     |          | 1,112.86  |
| Other                                |          |        | 0.50      |                |              |              | 0.00    |              |            | 11.00           |               |            |          | 11.50     |
| <b>TOTAL MISC.</b>                   | 6561.20  | 77.24  | 5101.53   | 0.00           | 112.32       | 6334.85      | 0.00    | 736.12       | 0.00       | 87.72           | 295.50        | 598.00     | 99.25    | 20,003.73 |
| <b>TOTAL RECOVERED</b>               | 9018.75  | 243.10 | 9632.99   | 0.00           | 241.32       | 6939.14      | 181.26  | 797.94       | 0.00       | 234.02          | 480.50        | 598.00     | 289.50   | 28656.52  |
| <b>MSW Disposed</b>                  | 28272.00 | 877.00 | 1172.00   | 2279.00        | 955.00       | 909.00       | 1066.00 | 2120.00      | 3438.00    | 661.00          | 1142.00       | 991.00     | 1925.00  | 45807.00  |
| <b>HHW Collected</b>                 | 188.57   | 0.00   | 25.00     |                | 0.35         |              | 0.00    | 0.00         | 0.00       | 0.00            | 0.00          | 0.00       | 0.00     | 213.92    |
| <b>TOTAL DISPOSED MSW + HHW</b>      | 28460.57 | 877.00 | 1197.00   | 2279.00        | 955.35       | 909.00       | 1066.00 | 2120.00      | 3438.00    | 661.00          | 1142.00       | 991.00     | 1925.00  | 46020.92  |
| <b>DIVERSION / RECYCLING RATE</b>    | 24.06%   | 21.70% | 88.95%    | 0.00%          | 20.17%       | 88.42%       | 14.53%  | 27.35%       | 0.00%      | 26.15%          | 29.61%        | 37.63%     | 13.07%   | 38.37%    |
| <b>DIVERSION RATE w/o Yard Waste</b> | 11.41%   | 21.70% | 82.60%    | 0.00%          | 19.13%       | 45.48%       | 14.53%  | 27.35%       | 0.00%      | 26.15%          | 18.86%        | 37.63%     | 13.07%   | 21.95%    |



**Reported Tonnage Summary for CRSWMP Communities for 2010  
Residential Recycling and MSW Disposal Totals for Year 2010**

|                                      | Albany   | Berne  | Bethlehem | East Greenbush | Green Island | Guiderland | Knox    | New Scotland | Rensselaer | Rensselaerville | Voorheesville | Watervliet | Westerlo | TOTAL     |
|--------------------------------------|----------|--------|-----------|----------------|--------------|------------|---------|--------------|------------|-----------------|---------------|------------|----------|-----------|
| <b>GLASS</b>                         |          |        |           |                |              |            |         |              |            |                 |               |            |          |           |
| Clear                                |          |        |           | 30.00          |              |            |         |              |            |                 |               |            |          | 30.00     |
| Brown                                |          |        |           | 12.00          |              |            |         |              |            |                 |               |            |          | 12.00     |
| Green                                |          |        |           | 12.00          |              |            |         |              |            |                 |               |            |          | 12.00     |
| Other / Mixed                        |          |        |           |                |              |            | 20.29   |              |            |                 |               |            |          | 20.29     |
| <b>TOTAL GLASS</b>                   | 0.00     | 0.00   | 0.00      | 54.00          | 0.00         | 0.00       | 20.29   | 0.00         | 0.00       | 0.00            | 0.00          | 0.00       | 0.00     | 74.29     |
| <b>PAPER</b>                         |          |        |           |                |              |            |         |              |            |                 |               |            |          |           |
| ONP                                  |          | 62.62  | 98.50     |                |              |            | 45.10   |              |            |                 |               |            |          | 206.22    |
| OCC                                  |          |        | 469.37    | 2.22           |              | 81.76      | 20.03   |              |            |                 |               |            | 14.26    | 587.64    |
| OMG                                  |          |        |           | 17.20          |              | 6.17       |         |              |            |                 |               |            |          | 23.37     |
| OTD                                  |          |        |           |                |              |            |         |              |            |                 |               |            |          | 0.00      |
| Junk Mail                            |          |        |           |                |              |            |         |              |            |                 |               |            |          | 0.00      |
| Paperboard                           |          | 26.33  |           |                |              |            |         |              |            |                 |               |            |          | 26.33     |
| High Grade                           |          |        |           |                |              |            |         |              |            |                 |               |            |          | 0.00      |
| Books (hard/soft)                    |          |        |           |                |              |            |         |              |            |                 |               |            |          | 0.00      |
| Other / Mixed                        | 2167.24  |        | 1307.30   | 2.29           |              | 231.61     |         |              |            | 87.76           | 40.00         |            | 56.92    | 3893.12   |
| <b>TOTAL PAPER</b>                   | 2167.24  | 88.95  | 1875.17   | 21.71          | 0.00         | 319.54     | 65.13   | 0.00         | 0.00       | 87.76           | 40.00         | 0.00       | 71.18    | 4736.68   |
| <b>PLASTIC</b>                       |          |        |           |                |              |            |         |              |            |                 |               |            |          |           |
| PET                                  |          |        |           |                |              |            |         |              |            |                 |               |            |          | 0.00      |
| HDPE                                 |          |        |           |                |              |            |         |              |            |                 |               |            |          | 0.00      |
| Other / Mixed                        |          |        |           | 24.00          |              |            | 9.54    |              |            |                 |               |            |          | 33.54     |
| <b>TOTAL PLASTIC</b>                 | 0.00     | 0.00   | 0.00      | 24.00          | 0.00         | 0.00       | 9.54    | 0.00         | 0.00       | 0.00            | 0.00          | 0.00       | 0.00     | 33.54     |
| <b>METAL</b>                         |          |        |           |                |              |            |         |              |            |                 |               |            |          |           |
| Fe                                   |          |        |           |                |              |            | 4.07    |              |            |                 |               |            |          | 4.07      |
| Aluminum                             |          |        |           |                |              |            | 0.09    |              |            |                 |               |            |          | 0.09      |
| White Goods                          | 78.62    |        | 162.69    |                |              |            | 81.26   |              |            |                 |               | 5.00       |          | 327.57    |
| Other / Mixed                        |          | 62.98  | 157.72    | 90.00          |              | 149.88     |         | 74.00        |            | 69.48           | 20.00         |            | 18.61    | 642.67    |
| <b>TOTAL METAL</b>                   | 78.62    | 62.98  | 320.41    | 90.00          | 0.00         | 149.88     | 85.42   | 74.00        | 0.00       | 69.48           | 20.00         | 5.00       | 18.61    | 974.40    |
| <b>BATTERIES</b>                     |          |        |           |                |              |            |         |              |            |                 |               |            |          |           |
| Lead Acid                            |          |        | 0.51      | 0.20           | 0.10         | 0.41       |         |              |            | 1.00            |               |            | 12.05    | 14.26     |
| Dry Cell                             |          |        |           |                |              | 0.55       |         |              |            |                 |               |            |          | 0.55      |
| <b>TOTAL BATTERIES</b>               | 0.00     | 0.00   | 0.51      | 0.20           | 0.10         | 0.96       | 0.00    | 0.00         | 0.00       | 1.00            |               | 0.00       | 12.05    | 14.81     |
| <b>MISC.</b>                         |          |        |           |                |              |            |         |              |            |                 |               |            |          |           |
| Yard Waste                           | 4838.625 |        | 3377.00   |                |              | 5883.75    |         |              |            |                 | 225.00        |            |          | 14,324.38 |
| Tires                                | 48.70    | 5.38   | 20.75     |                | 8.85         | 18.46      | 6.91    | 3.70         |            | 5.45            |               | 2.00       | 15.99    | 136.19    |
| Oil/Oil Filters                      |          |        |           |                |              |            |         | 1.30         |            | 5.59            |               |            | 1.81     | 8.70      |
| C & D (Asphalt)                      |          |        |           |                |              | 1634.13    |         | 232.00       |            |                 |               |            |          | 1,866.13  |
| Sewage Sludge                        |          |        |           |                |              |            |         |              |            |                 |               |            |          | -         |
| Electronics                          | 23.03    | 2.28   | 54.18     | 0.40           | 0.96         | 17.26      |         |              |            | 5.00            |               |            |          | 103.11    |
| Propane Tanks                        | 0.48     |        |           |                |              | 1.07       |         |              |            |                 |               |            |          | 1.55      |
| Textiles                             |          |        | 14.00     |                |              |            |         |              |            | 6.00            |               |            | 25.30    | 45.30     |
| Commingled GMP                       | 1340.33  | 50.93  | 998.22    |                |              | 125.51     |         |              |            | 54.87           |               |            | 41.19    | 2,611.05  |
| Single Stream Recyclables            |          |        | 831.67    |                | 107.53       |            |         | 475.00       |            |                 | 170.00        | 300.00     | 26.54    | 1,910.74  |
| Other                                |          |        | 0.75      |                |              |            | 0.00    |              |            | 5.00            |               |            |          | 5.75      |
| <b>TOTAL MISC.</b>                   | 6251.17  | 58.59  | 5296.57   | 0.40           | 117.34       | 7680.18    | 6.91    | 712.00       | 0.00       | 81.91           | 395.00        | 302.00     | 110.83   | 21,012.89 |
| <b>TOTAL RECOVERED</b>               | 8497.03  | 210.52 | 7492.66   | 190.31         | 117.44       | 8150.56    | 187.29  | 786.00       | 0.00       | 240.15          | 455.00        | 307.00     | 212.67   | 26846.61  |
| <b>MSW Disposed</b>                  | 27439.59 | 863.19 | 2219.32   | 2070.77        | 817.30       | 62.99      | 1043.36 | 1982.22      | 3246.95    | 754.43          | 992.28        | 3.76       | 1771.11  | 43267.27  |
| <b>HHW Collected</b>                 | 152.49   | 0.00   | 28.30     |                |              | 18.15      | 0.00    | 0.00         | 0.00       | 0.00            | 0.00          | 0.00       | 0.00     | 198.94    |
| <b>TOTAL DISPOSED MSW + HHW</b>      | 27592.08 | 863.19 | 2247.62   | 2070.77        | 817.30       | 81.14      | 1043.36 | 1982.22      | 3246.95    | 754.43          | 992.28        | 3.76       | 1771.11  | 43466.21  |
| <b>DIVERSION / RECYCLING RATE</b>    | 23.54%   | 19.61% | 76.92%    | 8.42%          | 12.56%       | 99.01%     | 15.22%  | 28.39%       | 0.00%      | 24.15%          | 31.44%        | NA         | 10.72%   | 38.18%    |
| <b>DIVERSION RATE w/o Yard Waste</b> | 11.71%   | 19.61% | 64.68%    | 8.42%          | 12.56%       | 96.54%     | 15.22%  | 28.39%       | 0.00%      | 24.15%          | 18.82%        | NA         | 10.72%   | 22.37%    |



# **Appendix I**

## **Intermunicipal Agreements**





**AMENDMENT NO. 1  
TO CAPITAL REGION SOLID WASTE MANAGEMENT PARTNERSHIP  
PLANNING UNIT RECYCLING COORDINATOR INTERMUNICIPAL  
AGREEMENT**

**THIS AMENDMENT NO. 1 TO CAPITAL REGION SOLID WASTE MANAGEMENT PARTNERSHIP PLANNING UNIT RECYCLING COORDINATOR INTERMUNICIPAL AGREEMENT**, (the "IMA Amendment") made this 3<sup>rd</sup> day of October, 2011, by and between the Cities of Albany, Rensselaer, and Watervliet, and the Towns of Berne, Bethlehem, East Greenbush, Guilderland, Knox, New Scotland, Rensselaerville, and Westerlo, and the Villages of Green Island, Voorheesville and Altamont, collectively "Parties".

**WITNESSETH THAT:**

**WHEREAS**, each of the Parties to this agreement is a member of the Capital Region Solid Waste Management Partnership, formerly known as the ANSWERS Wasteshed Planning Unit (the "Planning Unit"), which has a Solid Waste Management Plan ("SWMP") which was approved by the New York State Department of Environmental Conservation in 1992, as modified and approved by the New York State Department of Environmental Conservation in 200\_\_, according to New York State Environmental Conservation Law Section 27-0103, and

**WHEREAS**, the Modification to the SWMP called for a Planning Unit-wide Recycling Coordinator ("Planning Unit Recycling Coordinator") to manage the recycling activities of the Planning Unit and conduct public education and planning activities for the entire Planning Unit, and

**WHEREAS**, each of the Parties had previously entered into an Intermunicipal Agreement (the "IMA") whereby the Parties agreed to fund a Planning Unit Recycling Coordinator position, all in accordance with the terms of the IMA, and

**WHEREAS**, the Planning Unit has prepared a new SWMP, which calls for the continuation of the Planning Unit Recycling Coordinator, and

**WHEREAS**, the term of the IMA expires December 31, 2011, and each of the Parties desire to amend the IMA to extend the term of the IMA through December 31, 2015, and to make certain other housekeeping changes to the IMA, and

**WHEREAS**, this IMA Amendment is not to be construed so as to interfere with or diminish any municipal powers, authority, or regulatory authority of any of the participating municipalities.

**NOW, THEREFORE**, in consideration of the terms and conditions herein contained, the Parties to this IMA Amendment do hereby agree to amend the terms of the IMA as follows:

1. Paragraph 4 of the IMA is amended by deleting the statement "attention: Chris Quirk, Chief Financial Officer" and substituting therefore "attention: Commissioner."
2. Paragraph 11 of the IMA is amended by deleting the date "December 31, 2011" and replacing it with the date "December 31, 2015."


3. The IMA remains in full force and effect subject to the amendments as stated herein.
4. This IMA Amendment may be executed in counterparts, each of which shall be deemed an original and all of which together shall constitute the binding and enforceable agreement of the parties hereto.

IN WITNESS WHEREOF, the following Parties through their Chief Elected Officials have executed this agreement.

**City of Albany**

Dated:

By: Gerald D. Jennings

  
\_\_\_\_\_  
Mayor

**City of Rensselaer**

Dated: 10/3/11

By: Daniel J. Dwyer

  
\_\_\_\_\_  
Mayor

**City of Watervliet**

Dated:

By: Michael P. Manning

\_\_\_\_\_  
Mayor

**Town of Berne**

Dated:

By: George J. Gebe, Jr.

\_\_\_\_\_  
Supervisor

**Town of Bethlehem**

Dated:

By: Sam Messina

\_\_\_\_\_  
Supervisor

**Town of East Greenbush**

Dated:

By: Rick McCabe

\_\_\_\_\_  
Supervisor

**Town of Guilderland**

Dated:

By: Kenneth D. Reunion

\_\_\_\_\_  
Supervisor

**Town of Knox**

Dated:

By: Michael Hammond

\_\_\_\_\_  
Supervisor

**Town of New Scotland**

Dated:

By: Thomas Dolin

\_\_\_\_\_  
Supervisor

**Town of Rensselaerville**

Dated:

By: Marie Dermody

\_\_\_\_\_  
Supervisor

**Town of Westerlo**

Dated:

By: Richard Rapp

\_\_\_\_\_  
Supervisor

**Village of Altamont**

Dated:

By: James Gaughan

\_\_\_\_\_  
Mayor

**Village of Green Island**

Dated:

By: Ellen McNulty-Ryan

\_\_\_\_\_  
Mayor

**Village of Voorheesville**

Dated:

By: Robert D. Conway

\_\_\_\_\_  
Mayor

STATE OF NEW YORK  
COUNTY OF ALBANY ss:

On the 18<sup>th</sup> day of October in the year 2011 before me, the undersigned, a Notary public in and for said State, personally appeared Gerald D. Jennings, personally known to me or proved to me on the basis of satisfactory evidence to be the individual whose name is subscribed to the within instrument and acknowledged to me that he executed the same in his capacity,, and that by his signature on the instrument, the individual, or the person upon behalf of which the individual acted, executed the instrument.




Notary Public

**BRADFORD D. BURNS**  
Notary Public, State of New York  
No. 02BU6173754  
Qualified in Albany County  
Commission Expires Sept. 4, 2015

STATE OF NEW YORK  
COUNTY OF ~~ALBANY~~ RENSSELAER ss:

On the 3<sup>rd</sup> day of October in the year 2011 before me, the undersigned, a Notary public in and for said State, personally appeared Daniel J. Dwyer, personally known to me or proved to me on the basis of satisfactory evidence to be the individual whose name is subscribed to the within instrument and acknowledged to me that he executed the same in his capacity,, and that by his signature on the instrument, the individual, or the person upon behalf of which the individual acted, executed the instrument.

SHARON A. BUTLER  
Notary Public, State of New York  
No. 01BU6046055  
Qualified in Rensselaer County  
Commission Expires August 7, 2014 Notary Public



STATE OF NEW YORK  
COUNTY OF ALBANY ss:

On the \_\_\_ day of \_\_\_\_\_ in the year 2011 before me, the undersigned, a Notary public in and for said State, personally appeared Michael P. Manning, personally known to me or proved to me on the basis of satisfactory evidence to be the individual whose name is subscribed to the within instrument and acknowledged to me that he executed the same in his capacity,, and that by his signature on the instrument, the individual, or the person upon behalf of which the individual acted, executed the instrument.

\_\_\_\_\_  
Notary Public

STATE OF NEW YORK  
COUNTY OF ALBANY ss:

On the \_\_\_ day of \_\_\_\_\_ in the year 2011 before me, the undersigned, a Notary public in and for said State, personally appeared George J. Gebe, Jr., personally known to me or proved to me on the basis of satisfactory evidence to be the individual whose name is subscribed to the within instrument and acknowledged to me that he executed the same in his capacity,, and that by his signature on the instrument, the individual, or the person upon behalf of which the individual acted, executed the instrument.

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Notary Public

STATE OF NEW YORK  
COUNTY OF ALBANY ss:

On the \_\_\_ day of \_\_\_\_\_ in the year 2011 before me, the undersigned, a Notary public in and for said State, personally appeared Sam Messina, personally known to me or proved to me on the basis of satisfactory evidence to be the individual whose name is subscribed to the within instrument and acknowledged to me that he executed the same in his capacity,, and that by his signature on the instrument, the individual, or the person upon behalf of which the individual acted, executed the instrument.

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Notary Public

STATE OF NEW YORK  
COUNTY OF ALBANY ss:

On the \_\_\_ day of \_\_\_\_\_ in the year 2011 before me, the undersigned, a Notary public in and for said State, personally appeared Rick McCabe, personally known to me or proved to me on the basis of satisfactory evidence to be the individual whose name is subscribed to the within instrument and acknowledged to me that he executed the same in his capacity,, and that by his signature on the instrument, the individual, or the person upon behalf of which the individual acted, executed the instrument.

---

Notary Public

STATE OF NEW YORK  
COUNTY OF ALBANY ss:

On the \_\_\_ day of \_\_\_\_\_ in the year 2011 before me, the undersigned, a Notary public in and for said State, personally appeared Kenneth D. Reunion, personally known to me or proved to me on the basis of satisfactory evidence to be the individual whose name is subscribed to the within instrument and acknowledged to me that he executed the same in his capacity,, and that by his signature on the instrument, the individual, or the person upon behalf of which the individual acted, executed the instrument.

---

Notary Public

STATE OF NEW YORK  
COUNTY OF ALBANY ss:

On the \_\_\_ day of \_\_\_\_\_ in the year 2011 before me, the undersigned, a Notary public in and for said State, personally appeared Michael Hammond, personally known to me or proved to me on the basis of satisfactory evidence to be the individual whose name is subscribed to the within instrument and acknowledged to me that he executed the same in his capacity,, and that by his signature on the instrument, the individual, or the person upon behalf of which the individual acted, executed the instrument.

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Notary Public

STATE OF NEW YORK  
COUNTY OF ALBANY ss:

On the \_\_\_ day of \_\_\_\_\_ in the year 2011 before me, the undersigned, a Notary public in and for said State, personally appeared Thomas Dolin, personally known to me or proved to me on the basis of satisfactory evidence to be the individual whose name is subscribed to the within instrument and acknowledged to me that he executed the same in his capacity,, and that by his signature on the instrument, the individual, or the person upon behalf of which the individual acted, executed the instrument.

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Notary Public



STATE OF NEW YORK  
COUNTY OF ALBANY ss:

On the \_\_\_ day of \_\_\_\_\_ in the year 2011 before me, the undersigned, a Notary public in and for said State, personally appeared Marie Dermody, personally known to me or proved to me on the basis of satisfactory evidence to be the individual whose name is subscribed to the within instrument and acknowledged to me that he executed the same in his capacity,, and that by his signature on the instrument, the individual, or the person upon behalf of which the individual acted, executed the instrument.

\_\_\_\_\_  
Notary Public

STATE OF NEW YORK  
COUNTY OF ALBANY ss:

On the \_\_\_ day of \_\_\_\_\_ in the year 2011 before me, the undersigned, a Notary public in and for said State, personally appeared Richard Rapp, personally known to me or proved to me on the basis of satisfactory evidence to be the individual whose name is subscribed to the within instrument and acknowledged to me that he executed the same in his capacity,, and that by his signature on the instrument, the individual, or the person upon behalf of which the individual acted, executed the instrument.

\_\_\_\_\_  
Notary Public

STATE OF NEW YORK  
COUNTY OF ALBANY ss:

On the \_\_\_ day of \_\_\_\_\_ in the year 2011 before me, the undersigned, a Notary public in and for said State, personally appeared James Gaughan, personally known to me or proved to me on the basis of satisfactory evidence to be the individual whose name is subscribed to the within instrument and acknowledged to me that he executed the same in his capacity,, and that by his signature on the instrument, the individual, or the person upon behalf of which the individual acted, executed the instrument.

\_\_\_\_\_  
Notary Public



STATE OF NEW YORK  
COUNTY OF ALBANY      ss:

On the \_\_\_ day of \_\_\_\_\_ in the year 2011 before me, the undersigned, a Notary public in and for said State, personally appeared Ellen McNulty-Ryan, personally known to me or proved to me on the basis of satisfactory evidence to be the individual whose name is subscribed to the within instrument and acknowledged to me that he executed the same in his capacity,, and that by his signature on the instrument, the individual, or the person upon behalf of which the individual acted, executed the instrument.

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Notary Public

STATE OF NEW YORK  
COUNTY OF ALBANY      ss:

On the \_\_\_ day of \_\_\_\_\_ in the year 2011 before me, the undersigned, a Notary public in and for said State, personally appeared Robert D. Conway, personally known to me or proved to me on the basis of satisfactory evidence to be the individual whose name is subscribed to the within instrument and acknowledged to me that he executed the same in his capacity,, and that by his signature on the instrument, the individual, or the person upon behalf of which the individual acted, executed the instrument.

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Notary Public



By Alderperson : Elacqua

Seconded by Alderperson : \_\_\_\_\_

#5

**A RESOLUTION OF THE COMMON COUNCIL OF THE CITY OF RENSSELAER TO: ACCEPT AND ADOPT THE SOLID WASTE MANAGEMENT PLAN FOR THE CAPITAL REGION SOLID WASTE MANAGEMENT PARTNERSHIP AND THE SEQRA FINDING STATEMENT ISSUED BY THE LEAD AGENCY; AND AUTHORIZING THE EXECUTION OF AN EXTENSION TO THE EXISTING INTERMUNICIPAL AGREEMENT**

**WHEREAS**, in order to promote the public health, safety and welfare and further the purposes of the New York State policy on solid waste management articulated in the New York State Environmental Conservation law Section 27-0106, the City of Rensselaer, is a member of the Capital Region Solid Waste Management Partnership Planning Unit (the "Planning Unit"), and

**WHEREAS**, on behalf of the Planning Unit, and with the guidance of a Steering Committee consisting of representatives from each municipality in the Planning Unit, among other stakeholders, the City of Rensselaer has prepared a Solid Waste Management Plan (SWMP) which has been submitted for acceptance to the New York State Department of Environmental Conservation, and

**WHEREAS**, the City of Rensselaer common Council was designated Lead Agency for the review of the Draft SWMP pursuant to the State Environmental Quality Review Act (SEQRA), and

**WHEREAS**, the City of Rensselaer Common Council, as Lead Agency, has accepted the Final Generic Environmental Impact Statement (FGEIS)/SWMP, and issued its Findings Statement, which, among other things, concluded that the requirements 6 NYCRR 617 have been met and that, the SWMP avoids or minimizes adverse environmental impacts to the maximum extent practicable, and

**WHEREAS**, the implementation of the SWMP will require that the existing Intermunicipal Agreement (IMA) between the member municipalities of the Planning Unit be extended beyond its current expiration date (copy of amendment annexed hereto), and

WHEREAS, the City of Rensselaer Common Council has reviewed the FGEIS/SWMP and the Finding Statement.

**NOW, THEREFORE, BE IT RESOLVED, AS FOLLOWS BY THE COMMON COUNCIL:**

1. The Common Council accepts and adopts the FGEIS/SWMP for the Planning Unit, and the Findings Statement adopted by the Lead Agency, for this Action.
2. The Mayor of the City of Rensselaer is hereby authorized to enter into and execute an extension of the existing IMA with members of the Planning Unit.
3. This Resolution shall take effect immediately.

Approved as to form and sufficiency  
this 21<sup>st</sup> day of September 2011

*John Spotts*  
\_\_\_\_\_  
Corporation Counsel

*David J. Dwyer*  
\_\_\_\_\_  
Mayor

ResolutionSWMP092111

|                    | AYES | NOES |
|--------------------|------|------|
| MARION WEBBER      | ✓    |      |
| JAMES VAN VORST    | ✓    |      |
| PHIL ELACQUA       | ✓    |      |
| GRETCHEN POOLE     | ✓    |      |
| DOMINICK TAGLIENTO | ✓    |      |
| BRIAN STALL        | ✓    |      |
| JAMES CASEY        | ✓    |      |
| RICHARD MOONEY     | ✓    |      |
| MARGARET VANDYKE   | ✓    |      |
| HARRY ADALIAN      | ✓    |      |
| Total              | 9    | 0    |

**AMENDMENT NO. 1 TO  
CAPITAL REGION SOLID WASTE MANAGEMENT PARTNERSHIP  
PLANNING UNIT RECYCLING COORDINATOR  
INTERMUNICIPAL AGREEMENT**

**THIS AMENDMENT NO. 1 TO CAPITAL REGION SOLID WASTE MANAGEMENT PARTNERSHIP PLANNING UNIT RECYCLING COORDINATOR INTERMUNICIPAL AGREEMENT**, (the "IMA Amendment") made this 4 day of October, 2011 by and between the Cities of Albany, Rensselaer, and Watervliet, and the Towns of Berne, Bethlehem, East Greenbush, Guilderland, Knox, New Scotland, Rensselaerville, and Westerlo, and the Villages of Green Island, Voorheesville and Altamont, collectively "Parties."

**WITNESSETH THAT:**

**WHEREAS**, each of the Parties to this agreement is a member of the Capital Region Solid Waste Management Partnership, formerly known as the ANSWERS Wastashed Planning Unit (the "Planning Unit"), which has a Solid Waste Management Plan ("SWMP") which was approved by the New York State Department of Environmental Conservation in 1992, as modified and approved by the New York State Department of Environmental Conservation in 200\_, according to New York State Environmental Conservation Law Section 27-0103; and

**WHEREAS**, the Modification to the SWMP called for a Planning Unit-wide Recycling Coordinator ("Planning Unit Recycling Coordinator") to manage the recycling activities of the Planning Unit and conduct public education and planning activities for the entire Planning Unit; and

**WHEREAS**, each of the Parties had previously entered into an Intermunicipal Agreement (the "IMA") whereby the Parties agreed to fund a Planning Unit Recycling Coordinator position, all in accordance with the terms of the IMA; and

**WHEREAS**, the Planning Unit has prepared a new SWMP, which calls for the continuation of the Planning Unit Recycling Coordinator; and

**WHEREAS**, the term of the IMA expires December 31, 2011, and each of the Parties desire to amend the IMA to extend the term of the IMA through December 31, 2015, and to make certain other housekeeping changes to the IMA; and

**WHEREAS**, this IMA Amendment is not to be construed so as to interfere with or diminish any municipal powers, authority, or regulatory authority of any of the participating municipalities.

**NOW, THEREFORE**, in consideration of the terms and conditions herein contained, the Parties to this IMA Amendment do hereby agree to amend the terms of the IMA as follows:

1. Paragraph 4 of the IMA is amended by deleting the statement "attention: Chris Quirk, Chief Financial Officer" and substituting therefor "attention: Commissioner."
2. Paragraph 11 of the IMA is amended by deleting the date "December 31, 2011" and replacing it with the date "December 31, 2015."
3. The IMA remains in full force and effect subject to the amendments as stated herein.
4. This IMA Amendment may be executed in counterparts, each of which shall be deemed an original and all of which together shall constitute the binding and enforceable agreement of the parties hereto.

**IN WITNESS WHEREOF**, the following Parties through their Chief Elected Officials have executed this agreement.

**City of Albany**

Dated: By: Gerald D. Jennings \_\_\_\_\_  
Mayor

**City of Rensselaer**

Dated: By: Daniel H. Dwyer \_\_\_\_\_  
Mayor

**City of Watervliet**

Dated: By: Michael P. Manning \_\_\_\_\_  
Mayor

**Town of Berne**

Dated: By: George J. Gebe, Jr. \_\_\_\_\_  
Supervisor

**Town of Bethlehem**

Dated: By: Sam Messina \_\_\_\_\_  
Supervisor

**Town of East Greenbush**

Dated:

By: Rick McCabe

\_\_\_\_\_  
Supervisor

**Town of Guilderland**

Dated:

By: Kenneth D. Runion

\_\_\_\_\_  
Supervisor

**Town of Knox**

Dated:

By: Michael Hammond

\_\_\_\_\_  
Supervisor

**Town of New Scotland**

Dated:

By: Thomas Dolin

\_\_\_\_\_  
Supervisor

**Town of Rensselaerville**

Dated:

By: Marie Dermody

\_\_\_\_\_  
Supervisor

**Town of Westerlo**

Dated:

By: Richard Rapp

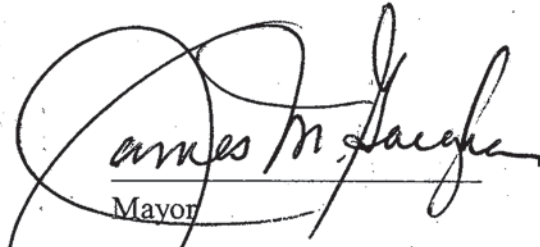
\_\_\_\_\_  
Supervisor



**Village of Altamont**

Dated: 10/4/11

By: James Gaughan

  
\_\_\_\_\_  
Mayor

**Village of Green Island**

Dated:

By: Ellen McNulty-Ryan

\_\_\_\_\_  
Mayor

**Village of Voorheesville**

Dated:

By: Robert D. Conway

\_\_\_\_\_  
Mayor

STATE OF NEW YORK  
COUNTY OF ALBANY

ss.:

On the \_\_\_ day of \_\_\_\_\_ in the year 2011 before me, the undersigned, a Notary Public in and for said State, personally appeared Gerald D. Jennings, personally known to me or proved to me on the basis of satisfactory evidence to be the individual whose name is subscribed to the within instrument and acknowledged to me that he executed the same in his capacity, and that by his signature on the instrument, the individual, or the person upon behalf of which the individual acted, executed the instrument.

\_\_\_\_\_  
Notary Public

STATE OF NEW YORK  
COUNTY OF RENSSELAER

ss.:

On the \_\_\_ day of \_\_\_\_\_ in the year 2011 before me, the undersigned, a Notary Public in and for said State, personally appeared Daniel H. Dwyer, personally known to me or proved to me on the basis of satisfactory evidence to be the individual whose name is subscribed to the within instrument and acknowledged to me that he executed the same in his capacity, and that by his signature on the instrument, the individual, or the person upon behalf of which the individual acted, executed the instrument.

\_\_\_\_\_  
Notary Public

STATE OF NEW YORK  
COUNTY OF ALBANY

ss.:

On the \_\_\_ day of \_\_\_\_\_ in the year 2011 before me, the undersigned, a Notary Public in and for said State, personally appeared Michael P. Manning personally known to me or proved to me on the basis of satisfactory evidence to be the individual whose name is subscribed to the within instrument and acknowledged to me that he executed the same in his capacity, and that by his signature on the instrument, the individual, or the person upon behalf of which the individual acted, executed the instrument.

\_\_\_\_\_  
Notary Public

STATE OF NEW YORK  
COUNTY OF ALBANY

ss.:

On the \_\_\_ day of \_\_\_\_\_ in the year 2011 before me, the undersigned, a Notary Public in and for said State, personally appeared George J. Gebe, Jr., personally known to me or proved to me on the basis of satisfactory evidence to be the individual whose name is subscribed to the within instrument and acknowledged to me that he executed the same in his capacity, and that by his signature on the instrument, the individual, or the person upon behalf of which the individual acted, executed the instrument.

\_\_\_\_\_  
Notary Public

STATE OF NEW YORK  
COUNTY OF ALBANY

ss.:

On the \_\_\_ day of \_\_\_\_\_ in the year 2011 before me, the undersigned, a Notary Public in and for said State, personally appeared Sam Messina, personally known to me or proved to me on the basis of satisfactory evidence to be the individual whose name is subscribed to the within instrument and acknowledged to me that he executed the same in his capacity, and that by his signature on the instrument, the individual, or the person upon behalf of which the individual acted, executed the instrument.

\_\_\_\_\_  
Notary Public

STATE OF NEW YORK  
COUNTY OF RENSSELAER]

ss.:

\_\_\_ day of \_\_\_\_\_ in the year 2011 before me, the undersigned, a Notary Public in and for said State, personally appeared Rick McCabe, personally known to me or proved to me on the basis of satisfactory evidence to be the individual whose name is subscribed to the within instrument and acknowledged to me that he executed the same in his capacity, and that by his signature on the instrument, the individual, or the person upon behalf of which the individual acted, executed the instrument.

\_\_\_\_\_  
Notary Public

STATE OF NEW YORK  
COUNTY OF ALBANY

ss.:

On the \_\_\_ day of \_\_\_\_\_ in the year 2011 before me, the undersigned, a Notary Public in and for said State, personally appeared Kenneth D. Runion, personally known to me or proved to me on the basis of satisfactory evidence to be the individual whose name is subscribed to the within instrument and acknowledged to me that he executed the same in his capacity, and that by his signature on the instrument, the individual, or the person upon behalf of which the individual acted, executed the instrument.

\_\_\_\_\_  
Notary Public

STATE OF NEW YORK  
COUNTY OF ALBANY

ss.:

On the \_\_\_ day of \_\_\_\_\_ in the year 2011 before me, the undersigned, a Notary Public in and for said State, personally appeared Michael Hammond, personally known to me or proved to me on the basis of satisfactory evidence to be the individual whose name is subscribed to the within instrument and acknowledged to me that he executed the same in his capacity, and that by his signature on the instrument, the individual, or the person upon behalf of which the individual acted, executed the instrument.

\_\_\_\_\_  
Notary Public

STATE OF NEW YORK  
COUNTY OF ALBANY

ss.:

On the \_\_\_ day of \_\_\_\_\_ in the year 2011 before me, the undersigned, a Notary Public in and for said State, personally appeared Thomas Dolin, personally known to me or proved to me on the basis of satisfactory evidence to be the individual whose name is subscribed to the within instrument and acknowledged to me that he executed the same in his capacity, and that by his signature on the instrument, the individual, or the person upon behalf of which the individual acted, executed the instrument.

\_\_\_\_\_  
Notary Public

STATE OF NEW YORK  
COUNTY OF ALBANY

ss.:

On the \_\_\_ day of \_\_\_\_\_ in the year 2011 before me, the undersigned, a Notary Public in and for said State, personally appeared Marie Dermody, personally known to me or proved to me on the basis of satisfactory evidence to be the individual whose name is subscribed to the within instrument and acknowledged to me that he executed the same in his capacity, and that by his signature on the instrument, the individual, or the person upon behalf of which the individual acted, executed the instrument.

\_\_\_\_\_  
Notary Public

STATE OF NEW YORK  
COUNTY OF ALBANY

ss.:

On the \_\_\_ day of \_\_\_\_\_ in the year 2011 before me, the undersigned, a Notary Public in and for said State, personally appeared Richard Rapp, personally known to me or proved to me on the basis of satisfactory evidence to be the individual whose name is subscribed to the within instrument and acknowledged to me that he executed the same in his capacity, and that by his signature on the instrument, the individual, or the person upon behalf of which the individual acted, executed the instrument.

\_\_\_\_\_  
Notary Public

STATE OF NEW YORK  
COUNTY OF ALBANY

ss.:

On the 4 day of October in the year 2011 before me, the undersigned, a Notary Public in and for said State, personally appeared James Gaughan, personally known to me or proved to me on the basis of satisfactory evidence to be the individual whose name is subscribed to the within instrument and acknowledged to me that he executed the same in his capacity, and that by his signature on the instrument, the individual, or the person upon behalf of which the individual acted, executed the instrument.



Notary Public

**P. TRICIA BLACKWOOD**  
NOTARY PUBLIC, STATE OF NEW YORK  
QUALIFIED IN ALBANY COUNTY  
NO. 01BL6194251  
MY COMMISSION EXPIRES SEPT. 29, 2012



STATE OF NEW YORK  
COUNTY OF ALBANY

ss.:

On the \_\_\_ day of \_\_\_\_\_ in the year 2011 before me, the undersigned, a Notary Public in and for said State, personally appeared Ellen McNulty-Ryan, personally known to me or proved to me on the basis of satisfactory evidence to be the individual whose name is subscribed to the within instrument and acknowledged to me that he executed the same in his capacity, and that by his signature on the instrument, the individual, or the person upon behalf of which the individual acted, executed the instrument.

\_\_\_\_\_  
Notary Public

STATE OF NEW YORK  
COUNTY OF ALBANY

ss.:

On the \_\_\_ day of \_\_\_\_\_ in the year 2011 before me, the undersigned, a Notary Public in and for said State, personally appeared Robert D. Conway, personally known to me or proved to me on the basis of satisfactory evidence to be the individual whose name is subscribed to the within instrument and acknowledged to me that he executed the same in his capacity, and that by his signature on the instrument, the individual, or the person upon behalf of which the individual acted, executed the instrument.

\_\_\_\_\_  
Notary Public

**RESOLUTION OF THE BOARD OF TRUSTEES OF THE VILLAGE OF ALTAMONT TO: ACCEPT AND ADOPT THE SOLID WASTE MANAGEMENT PLAN FOR THE CAPITAL REGION SOLID WASTE MANAGEMENT PARTNERSHIP AND THE SEQR FINDINGS STATEMENT ISSUED BY THE LEAD AGENCY; and AUTHORIZING THE EXECUTION OF AN EXTENSION TO THE EXISTING INTERMUNICIPAL AGREEMENT**

- WHEREAS,** in order to promote the public health, safety and welfare and further the purposes of the New York State policy on solid waste management articulated in New York State Environmental Conservation Law Section 27-0106, the Village of Altamont is a member of the Capital Region Solid Waste Management Partnership Planning Unit (the "Planning Unit"); and
- WHEREAS,** on behalf of the Planning Unit, and with the guidance of a Steering Committee consisting of representatives from each municipality in the Planning Unit, among other stakeholders, the City of Albany has prepared a Solid Waste Management Plan (SWMP) which has been submitted for acceptance to the New York State Department of Environmental Conservation; and
- WHEREAS,** the City of Albany Common Council was designated Lead Agency for the review of the Draft SWMP pursuant to the State Environmental Quality Review Act (SEQR); and
- WHEREAS,** the City of Albany Common Council, as Lead Agency, has accepted the Final Generic Environmental Impact Statement (FGEIS)/SWMP, and issued its Finding Statement, which among other things concluded that the requirements of 6 NYCRR 617 have been met and that, the SWMP avoids or minimizes adverse environmental impacts to the maximum extent practicable; and
- WHEREAS,** the implementation of the SWMP will require that the existing Intermunicipal Agreement (IMA) between the member municipalities of the Planning Unit be extended beyond its current expiration date; and
- WHEREAS,** the Village of Altamont (Governing Body) has reviewed the FGEIS/SWMP and the Findings Statement;

**NOW THEREFORE, BE IT RESOLVED, AS FOLLOWS:**

- 1) The Village Board accepts and adopts the FGEIS/SWMP for the Planning Unit, and the Findings Statement adopted by the Lead Agency, for this Action.
- 2) The Mayor of the Village of Altamont is hereby authorized to enter into and execute an extension of the existing IMA with members of the Planning Unit.
- 3) This Resolution shall take effect immediately.

October 4, 2011





**AMENDMENT NO. 1 TO  
CAPITAL REGION SOLID WASTE MANAGEMENT PARTNERSHIP  
PLANNING UNIT RECYCLING COORDINATOR  
INTERMUNICIPAL AGREEMENT**

THIS AMENDMENT NO. 1 TO CAPITAL REGION SOLID WASTE MANAGEMENT PARTNERSHIP PLANNING UNIT RECYCLING COORDINATOR INTERMUNICIPAL AGREEMENT, (the "IMA Amendment") made this 15 day of September, 2011 by and between the Cities of Albany, Rensselaer, and Watervliet, and the Towns of Berne, Bethlehem, East Greenbush, Guilderland, Knox, New Scotland, Rensselaerville, and Westerlo, and the Villages of Green Island, Voorheesville and Altamont, collectively "Parties."

**RECEIVED**  
**SEP 16 2011**  
Department of General Services  
CITY OF ALBANY

**WITNESSETH THAT:**

**WHEREAS**, each of the Parties to this agreement is a member of the Capital Region Solid Waste Management Partnership, formerly known as the ANSWERS Wasteshed Planning Unit (the "Planning Unit"), which has a Solid Waste Management Plan ("SWMP") which was approved by the New York State Department of Environmental Conservation in 1992, as modified and approved by the New York State Department of Environmental Conservation in 200\_, according to New York State Environmental Conservation Law Section 27-0103; and

**WHEREAS**, the Modification to the SWMP called for a Planning Unit-wide Recycling Coordinator ("Planning Unit Recycling Coordinator") to manage the recycling activities of the Planning Unit and conduct public education and planning activities for the entire Planning Unit; and

**WHEREAS**, each of the Parties had previously entered into an Intermunicipal Agreement (the "IMA") whereby the Parties agreed to fund a Planning Unit Recycling Coordinator position, all in accordance with the terms of the IMA; and

**WHEREAS**, the Planning Unit has prepared a new SWMP, which calls for the continuation of the Planning Unit Recycling Coordinator; and

**WHEREAS**, the term of the IMA expires December 31, 2011, and each of the Parties desire to amend the IMA to extend the term of the IMA through December 31, 2015, and to make certain other housekeeping changes to the IMA; and

**WHEREAS**, this IMA Amendment is not to be construed so as to interfere with or diminish any municipal powers, authority, or regulatory authority of any of the participating municipalities.

**NOW, THEREFORE**, in consideration of the terms and conditions herein contained, the Parties to this IMA Amendment do hereby agree to amend the terms of the IMA as follows:

1. Paragraph 4 of the IMA is amended by deleting the statement "attention: Chris Quirk, Chief Financial Officer" and substituting therefor "attention: Commissioner."
2. Paragraph 11 of the IMA is amended by deleting the date "December 31, 2011" and replacing it with the date "December 31, 2015."
3. The IMA remains in full force and effect subject to the amendments as stated herein.
4. This IMA Amendment may be executed in counterparts, each of which shall be deemed an original and all of which together shall constitute the binding and enforceable agreement of the parties hereto.

IN WITNESS WHEREOF, the following Parties through their Chief Elected Officials have executed this agreement.

**City of Albany**

Dated:

By: Gerald D. Jennings

\_\_\_\_\_  
Mayor

**City of Rensselaer**

Dated:

By: Daniel H. Dwyer

\_\_\_\_\_  
Mayor

**City of Watervliet**

Dated:

By: Michael P. Manning

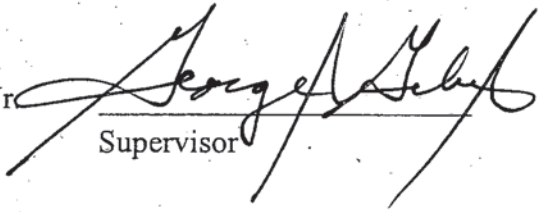
\_\_\_\_\_  
Mayor

**Town of Berne**

Dated:

9/15/11

By: George J. Gebe, Jr

  
\_\_\_\_\_  
Supervisor

**Town of Bethlehem**

Dated:

By: Sam Messina

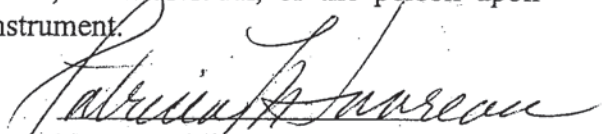
\_\_\_\_\_  
Supervisor

STATE OF NEW YORK  
COUNTY OF ALBANY

ss.:

On the 15<sup>th</sup> day of September in the year 2011 before me, the undersigned, a Notary Public in and for said State, personally appeared George J. Gebe, Jr., personally known to me or proved to me on the basis of satisfactory evidence to be the individual whose name is subscribed to the within instrument and acknowledged to me that he executed the same in his capacity, and that by his signature on the instrument, the individual, or the person upon behalf of which the individual acted, executed the instrument.

PATRICIA M. FAVREAU  
Notary Public, State of New York  
Qualified in Albany County  
Reg. No. 475 20 63  
Commission Expires October 30, 2013

  
Notary Public

STATE OF NEW YORK  
COUNTY OF ALBANY

ss.:

On the \_\_\_ day of \_\_\_\_\_ in the year 2011 before me, the undersigned, a Notary Public in and for said State, personally appeared Sam Messina, personally known to me or proved to me on the basis of satisfactory evidence to be the individual whose name is subscribed to the within instrument and acknowledged to me that he executed the same in his capacity, and that by his signature on the instrument, the individual, or the person upon behalf of which the individual acted, executed the instrument.

\_\_\_\_\_  
Notary Public

STATE OF NEW YORK  
COUNTY OF RENSSELAER]

ss.:

\_\_\_ day of \_\_\_\_\_ in the year 2011 before me, the undersigned, a Notary Public in and for said State, personally appeared Rick McCabe, personally known to me or proved to me on the basis of satisfactory evidence to be the individual whose name is subscribed to the within instrument and acknowledged to me that he executed the same in his capacity, and that by his signature on the instrument, the individual, or the person upon behalf of which the individual acted, executed the instrument.

\_\_\_\_\_  
Notary Public



**AMENDMENT NO. 1 TO  
CAPITAL REGION SOLID WASTE MANAGEMENT PARTNERSHIP  
PLANNING UNIT RECYCLING COORDINATOR  
INTERMUNICIPAL AGREEMENT**

**THIS AMENDMENT NO. 1 TO CAPITAL REGION SOLID WASTE MANAGEMENT PARTNERSHIP PLANNING UNIT RECYCLING COORDINATOR INTER-MUNICIPAL AGREEMENT**, (the "IMA Amendment") made this 14<sup>th</sup> day of December, 2011 by and between the Cities of Albany, Rensselaer, and Watervliet, and the Towns of Berne, Bethlehem, East Greenbush, Guilderland, Knox, New Scotland, Rensselaerville, and Westerlo, and the Villages of Green Island, Voorheesville and Altamont, collectively "Parties."

**WITNESSETH THAT:**

**WHEREAS**, each of the Parties to this agreement is a member of the Capital Region Solid Waste Management Partnership, formerly known as the ANSWERS Wastashed Planning Unit (the "Planning Unit"), which has a Solid Waste Management Plan ("SWMP") which was approved by the New York State Department of Environmental Conservation in 1992, as modified and approved by the New York State Department of Environmental Conservation in 200\_, according to New York State Environmental Conservation Law Section 27-0103; and

**WHEREAS**, the Modification to the SWMP called for a Planning Unit-wide Recycling Coordinator ("Planning Unit Recycling Coordinator") to manage the recycling activities of the Planning Unit and conduct public education and planning activities for the entire Planning Unit; and

**WHEREAS**, each of the Parties had previously entered into an Intermunicipal Agreement (the "IMA") whereby the Parties agreed to fund a Planning Unit Recycling Coordinator position, all in accordance with the terms of the IMA; and

**WHEREAS**, the Planning Unit has prepared a new SWMP, which calls for the continuation of the Planning Unit Recycling Coordinator; and

**WHEREAS**, the term of the IMA expires December 31, 2011, and each of the Parties desire to amend the IMA to extend the term of the IMA through December 31, 2015, and to make certain other housekeeping changes to the IMA; and

**WHEREAS**, this IMA Amendment is not to be construed so as to interfere with or diminish any municipal powers, authority, or regulatory authority of any of the participating municipalities.

**NOW, THEREFORE**, in consideration of the terms and conditions herein contained, the Parties to this IMA Amendment do hereby agree to amend the terms of the IMA as follows:

1. Paragraph 4 of the IMA is amended by deleting the statement "attention: Chris Quirk, Chief Financial Officer" and substituting therefor "attention: Commissioner."
2. Paragraph 11 of the IMA is amended by deleting the date "December 31, 2011" and replacing it with the date "December 31, 2015."
3. The IMA remains in full force and effect subject to the amendments as stated herein.
4. This IMA Amendment may be executed in counterparts, each of which shall be deemed an original and all of which together shall constitute the binding and enforceable agreement of the parties hereto.

IN WITNESS WHEREOF, the following Parties through their Chief Elected Officials have executed this agreement.

**City of Albany**

Dated:

By: Gerald D. Jennings

\_\_\_\_\_  
Mayor

**City of Rensselaer**

Dated:

By: Daniel H. Dwyer

\_\_\_\_\_  
Mayor

**City of Watervliet**

Dated:

By: Michael P. Manning

\_\_\_\_\_  
Mayor

**Town of Berne**

Dated:

By: George J. Gebe, Jr.

\_\_\_\_\_  
Supervisor

**Town of Bethlehem**

Dated:

By: (Sam Messina)

*John Clarkson*

  
\_\_\_\_\_  
Supervisor

*2/22/12*

**Town of East Greenbush**

Dated:

By: Rick McCabe

\_\_\_\_\_  
Supervisor

**Town of Guilderland**

Dated:

By: Kenneth D. Runion

\_\_\_\_\_  
Supervisor

**Town of Knox**

Dated:

By: Michael Hammond

\_\_\_\_\_  
Supervisor

**Town of New Scotland**

Dated:

By: Thomas Dolin

\_\_\_\_\_  
Supervisor

**Town of Rensselaerville**

Dated:

By: Marie Dermody

\_\_\_\_\_  
Supervisor

**Town of Westerlo**

Dated:

By: Richard Rapp

\_\_\_\_\_  
Supervisor



**Village of Altamont**

Dated:

By: James Gaughan

\_\_\_\_\_  
Mayor

**Village of Green Island**

Dated:

By: Ellen McNulty-Ryan

\_\_\_\_\_  
Mayor

**Village of Voorheesville**

Dated:

By: Robert D. Conway

\_\_\_\_\_  
Mayor

STATE OF NEW YORK  
COUNTY OF ALBANY

ss.:

On the \_\_\_ day of \_\_\_\_\_ in the year 2011 before me, the undersigned, a Notary Public in and for said State, personally appeared Gerald D. Jennings, personally known to me or proved to me on the basis of satisfactory evidence to be the individual whose name is subscribed to the within instrument and acknowledged to me that he executed the same in his capacity, and that by his signature on the instrument, the individual, or the person upon behalf of which the individual acted, executed the instrument.

\_\_\_\_\_  
Notary Public

STATE OF NEW YORK  
COUNTY OF RENSSELAER

ss.:

On the \_\_\_ day of \_\_\_\_\_ in the year 2011 before me, the undersigned, a Notary Public in and for said State, personally appeared Daniel H. Dwyer, personally known to me or proved to me on the basis of satisfactory evidence to be the individual whose name is subscribed to the within instrument and acknowledged to me that he executed the same in his capacity, and that by his signature on the instrument, the individual, or the person upon behalf of which the individual acted, executed the instrument.

\_\_\_\_\_  
Notary Public

STATE OF NEW YORK  
COUNTY OF ALBANY

ss.:

On the \_\_\_ day of \_\_\_\_\_ in the year 2011 before me, the undersigned, a Notary Public in and for said State, personally appeared Michael P. Manning personally known to me or proved to me on the basis of satisfactory evidence to be the individual whose name is subscribed to the within instrument and acknowledged to me that he executed the same in his capacity, and that by his signature on the instrument, the individual, or the person upon behalf of which the individual acted, executed the instrument.

\_\_\_\_\_  
Notary Public

STATE OF NEW YORK  
COUNTY OF ALBANY

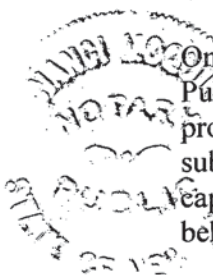
ss.:

On the \_\_\_ day of \_\_\_\_\_ in the year 2011 before me, the undersigned, a Notary Public in and for said State, personally appeared George J. Gebe, Jr., personally known to me or proved to me on the basis of satisfactory evidence to be the individual whose name is subscribed to the within instrument and acknowledged to me that he executed the same in his capacity, and that by his signature on the instrument, the individual, or the person upon behalf of which the individual acted, executed the instrument.

\_\_\_\_\_  
Notary Public

STATE OF NEW YORK  
COUNTY OF ALBANY

ss.:



On the 22 day of February in the year <sup>2012</sup> ~~2011~~ before me, the undersigned, a Notary Public in and for said State, personally appeared <sup>John C. Clarkson</sup> ~~Sam Messina~~, personally known to me or proved to me on the basis of satisfactory evidence to be the individual whose name is subscribed to the within instrument and acknowledged to me that he executed the same in his capacity, and that by his signature on the instrument, the individual, or the person upon behalf of which the individual acted, executed the instrument.

Nanci Moquin  
Notary Public  
NANCI MOQUIN  
NOTARY PUBLIC, STATE OF NEW YORK  
NO. 01M06124366  
QUALIFIED IN ALBANY COUNTY  
MY COMMISSION EXPIRES MARCH 28, 2013

STATE OF NEW YORK  
COUNTY OF RENSSELAER]

ss.:

\_\_\_ day of \_\_\_\_\_ in the year 2011 before me, the undersigned, a Notary Public in and for said State, personally appeared Rick McCabe, personally known to me or proved to me on the basis of satisfactory evidence to be the individual whose name is subscribed to the within instrument and acknowledged to me that he executed the same in his capacity, and that by his signature on the instrument, the individual, or the person upon behalf of which the individual acted, executed the instrument.

\_\_\_\_\_  
Notary Public

STATE OF NEW YORK  
COUNTY OF ALBANY

ss.:

On the \_\_\_ day of \_\_\_\_\_ in the year 2011 before me, the undersigned, a Notary Public in and for said State, personally appeared Kenneth D. Runion, personally known to me or proved to me on the basis of satisfactory evidence to be the individual whose name is subscribed to the within instrument and acknowledged to me that he executed the same in his capacity, and that by his signature on the instrument, the individual, or the person upon behalf of which the individual acted, executed the instrument.

\_\_\_\_\_  
Notary Public

STATE OF NEW YORK  
COUNTY OF ALBANY

ss.:

On the \_\_\_ day of \_\_\_\_\_ in the year 2011 before me, the undersigned, a Notary Public in and for said State, personally appeared Michael Hammond, personally known to me or proved to me on the basis of satisfactory evidence to be the individual whose name is subscribed to the within instrument and acknowledged to me that he executed the same in his capacity, and that by his signature on the instrument, the individual, or the person upon behalf of which the individual acted, executed the instrument.

\_\_\_\_\_  
Notary Public

STATE OF NEW YORK  
COUNTY OF ALBANY

ss.:

On the \_\_\_ day of \_\_\_\_\_ in the year 2011 before me, the undersigned, a Notary Public in and for said State, personally appeared Thomas Dolin, personally known to me or proved to me on the basis of satisfactory evidence to be the individual whose name is subscribed to the within instrument and acknowledged to me that he executed the same in his capacity, and that by his signature on the instrument, the individual, or the person upon behalf of which the individual acted, executed the instrument.

\_\_\_\_\_  
Notary Public



STATE OF NEW YORK  
COUNTY OF ALBANY

ss.:

On the \_\_\_ day of \_\_\_\_\_ in the year 2011 before me, the undersigned, a Notary Public in and for said State, personally appeared Marie Dermody, personally known to me or proved to me on the basis of satisfactory evidence to be the individual whose name is subscribed to the within instrument and acknowledged to me that he executed the same in his capacity, and that by his signature on the instrument, the individual, or the person upon behalf of which the individual acted, executed the instrument.

\_\_\_\_\_  
Notary Public

STATE OF NEW YORK  
COUNTY OF ALBANY

ss.:

On the \_\_\_ day of \_\_\_\_\_ in the year 2011 before me, the undersigned, a Notary Public in and for said State, personally appeared Richard Rapp, personally known to me or proved to me on the basis of satisfactory evidence to be the individual whose name is subscribed to the within instrument and acknowledged to me that he executed the same in his capacity, and that by his signature on the instrument, the individual, or the person upon behalf of which the individual acted, executed the instrument.

\_\_\_\_\_  
Notary Public

STATE OF NEW YORK  
COUNTY OF ALBANY

ss.:

On the \_\_\_ day of \_\_\_\_\_ in the year 2011 before me, the undersigned, a Notary Public in and for said State, personally appeared James Gaughan, personally known to me or proved to me on the basis of satisfactory evidence to be the individual whose name is subscribed to the within instrument and acknowledged to me that he executed the same in his capacity, and that by his signature on the instrument, the individual, or the person upon behalf of which the individual acted, executed the instrument.

\_\_\_\_\_  
Notary Public

STATE OF NEW YORK  
COUNTY OF ALBANY

ss.:

On the \_\_\_ day of \_\_\_\_\_ in the year 2011 before me, the undersigned, a Notary Public in and for said State, personally appeared Ellen McNulty-Ryan, personally known to me or proved to me on the basis of satisfactory evidence to be the individual whose name is subscribed to the within instrument and acknowledged to me that he executed the same in his capacity, and that by his signature on the instrument, the individual, or the person upon behalf of which the individual acted, executed the instrument.

\_\_\_\_\_  
Notary Public

STATE OF NEW YORK  
COUNTY OF ALBANY

ss.:

On the \_\_\_ day of \_\_\_\_\_ in the year 2011 before me, the undersigned, a Notary Public in and for said State, personally appeared Robert D. Conway, personally known to me or proved to me on the basis of satisfactory evidence to be the individual whose name is subscribed to the within instrument and acknowledged to me that he executed the same in his capacity, and that by his signature on the instrument, the individual, or the person upon behalf of which the individual acted, executed the instrument.

\_\_\_\_\_  
Notary Public

**RESOLUTION OF THE TOWN BOARD OF THE TOWN OF BETHLEHEM TO  
ACCEPT AND ADOPT THE SOLID WASTE MANAGEMENT PLAN FOR THE  
CAPITAL REGION SOLID WASTE MANAGEMENT PARTNERSHIP AND THE  
SEQR FINDING STATEMENT ISSUED BY THE LEAD AGENCY; and  
AUTHORIZING THE EXECUTION OF AN EXTENSION TO THE EXISTING  
INTERMUNICIPAL AGREEMENT**

**WHEREAS,** in order to promote the public health, safety and welfare and further the purposes of the New York State policy on solid waste management articulated in New York State Environmental Conservation Law Section 27-0106, the Town of Bethlehem is a member of the Capital Region Solid Waste Management Partnership Planning Unit (the "Planning Unit"); and

**WHEREAS,** on behalf of the Planning Unit, and with the guidance of a Steering Committee consisting of representatives from each municipality in the Planning Unit, among other stakeholders, the City of Albany has prepared a Solid Waste Management Plan (SWMP) which has been submitted for acceptance to the New York State Department of Environmental Conservation; and

**WHEREAS,** the City of Albany Common Council was designated Lead Agency for the review of the Draft SWMP pursuant to the State Environmental Quality Review Act (SEQR); and

**WHEREAS,** the City of Albany Common Council, as Lead Agency, has accepted the Final Generic Environmental Impact Statement (FGEIS)/SWMP, and issued its Findings Statement, which among other things concluded that the requirements 6 NYCRR 617 have been met and that, the SWMP avoids or minimizes adverse environmental impacts to the maximum extent practicable; and

**WHEREAS,** the implementation of the SWMP will require that the existing Intermunicipal Agreement (IMA) between the member municipalities of the Planning Unit be extended beyond its current expiration date; and

**NOW THEREFORE, BE IT RESOLVED, AS FOLLOWS BY THE TOWN BOARD:**

- 1) The Town Board accepts and adopts the FGEIS/SWMP for the Planning Unit, and the Findings Statement adopted by the Lead Agency, for this Action.
- 2) The Supervisor of the Town of Bethlehem is hereby authorized to enter into and execute an extension of the existing IMA with members of the Planning Unit.
- 3) This Resolution shall take effect immediately.

The Resolution was approved with the following vote:

AYES: Supervisor Messina, Councilwoman Dawson, Councilman Hennessey  
Councilman Jordan, Councilman Kotary

NOES: none





**AMENDMENT NO. 1 TO  
CAPITAL REGION SOLID WASTE MANAGEMENT PARTNERSHIP  
PLANNING UNIT RECYCLING COORDINATOR  
INTERMUNICIPAL AGREEMENT**

**THIS AMENDMENT NO. 1 TO CAPITAL REGION SOLID WASTE MANAGEMENT PARTNERSHIP PLANNING UNIT RECYCLING COORDINATOR INTERMUNICIPAL AGREEMENT**, (the "IMA Amendment") made this 14<sup>th</sup> day of December, 2011 by and between the Cities of Albany, Rensselaer, and Watervliet, and the Towns of Berne, Bethlehem, East Greenbush, Guilderland, Knox, New Scotland, Rensselaerville, and Westerlo, and the Villages of Green Island, Voorheesville and Altamont, collectively "Parties."

**WITNESSETH THAT:**

**WHEREAS**, each of the Parties to this agreement is a member of the Capital Region Solid Waste Management Partnership, formerly known as the ANSWERS Wasteshed Planning Unit (the "Planning Unit"), which has a Solid Waste Management Plan ("SWMP") which was approved by the New York State Department of Environmental Conservation in 1992, as modified and approved by the New York State Department of Environmental Conservation in 200\_, according to New York State Environmental Conservation Law Section 27-0103; and

**WHEREAS**, the Modification to the SWMP called for a Planning Unit-wide Recycling Coordinator ("Planning Unit Recycling Coordinator") to manage the recycling activities of the Planning Unit and conduct public education and planning activities for the entire Planning Unit; and

**WHEREAS**, each of the Parties had previously entered into an Intermunicipal Agreement (the "IMA") whereby the Parties agreed to fund a Planning Unit Recycling Coordinator position, all in accordance with the terms of the IMA; and

**WHEREAS**, the Planning Unit has prepared a new SWMP, which calls for the continuation of the Planning Unit Recycling Coordinator; and

**WHEREAS**, the term of the IMA expires December 31, 2011, and each of the Parties desire to amend the IMA to extend the term of the IMA through December 31, 2015, and to make certain other housekeeping changes to the IMA; and

**WHEREAS**, this IMA Amendment is not to be construed so as to interfere with or diminish any municipal powers, authority, or regulatory authority of any of the participating municipalities.

**NOW, THEREFORE**, in consideration of the terms and conditions herein contained, the Parties to this IMA Amendment do hereby agree to amend the terms of the IMA as follows:

1. Paragraph 4 of the IMA is amended by deleting the statement "attention: Chris Quirk, Chief Financial Officer" and substituting therefor "attention: Commissioner."
2. Paragraph 11 of the IMA is amended by deleting the date "December 31, 2011" and replacing it with the date "December 31, 2015."
3. The IMA remains in full force and effect subject to the amendments as stated herein.
4. This IMA Amendment may be executed in counterparts, each of which shall be deemed an original and all of which together shall constitute the binding and enforceable agreement of the parties hereto.

IN WITNESS WHEREOF, the following Parties through their Chief Elected Officials have executed this agreement.

**City of Albany**

Dated: By: Gerald D. Jennings \_\_\_\_\_  
Mayor

**City of Rensselaer**

Dated: By: Daniel H. Dwyer \_\_\_\_\_  
Mayor

**City of Watervliet**

Dated: By: Michael P. Manning \_\_\_\_\_  
Mayor

**Town of Berne**

Dated: By: George J. Gebe, Jr. \_\_\_\_\_  
Supervisor

**Town of Bethlehem**

Dated: By: Sam Messina \_\_\_\_\_  
Supervisor

**Town of East Greenbush**

Dated: 12/16/11

By: Rick McCabe



\_\_\_\_\_  
Supervisor

**Town of Guilderland**

Dated:

By: Kenneth D. Runion

\_\_\_\_\_  
Supervisor

**Town of Knox**

Dated:

By: Michael Hammond

\_\_\_\_\_  
Supervisor

**Town of New Scotland**

Dated:

By: Thomas Dolin

\_\_\_\_\_  
Supervisor

**Town of Rensselaerville**

Dated:

By: Marie Dermody

\_\_\_\_\_  
Supervisor

**Town of Westerlo**

Dated:

By: Richard Rapp

\_\_\_\_\_  
Supervisor

**Village of Altamont**

Dated: By: James Gaughan \_\_\_\_\_  
Mayor

**Village of Green Island**

Dated: By: Ellen McNulty-Ryan \_\_\_\_\_  
Mayor

**Village of Voorheesville**

Dated: By: Robert D. Conway \_\_\_\_\_  
Mayor

STATE OF NEW YORK  
COUNTY OF ALBANY

ss.:

On the \_\_\_ day of \_\_\_\_\_ in the year 2011 before me, the undersigned, a Notary Public in and for said State, personally appeared Gerald D. Jennings, personally known to me or proved to me on the basis of satisfactory evidence to be the individual whose name is subscribed to the within instrument and acknowledged to me that he executed the same in his capacity, and that by his signature on the instrument, the individual, or the person upon behalf of which the individual acted, executed the instrument.

\_\_\_\_\_  
Notary Public

STATE OF NEW YORK  
COUNTY OF RENSSELAER

ss.:

On the \_\_\_ day of \_\_\_\_\_ in the year 2011 before me, the undersigned, a Notary Public in and for said State, personally appeared Daniel H. Dwyer, personally known to me or proved to me on the basis of satisfactory evidence to be the individual whose name is subscribed to the within instrument and acknowledged to me that he executed the same in his capacity, and that by his signature on the instrument, the individual, or the person upon behalf of which the individual acted, executed the instrument.

\_\_\_\_\_  
Notary Public

STATE OF NEW YORK  
COUNTY OF ALBANY

ss.:

On the \_\_\_ day of \_\_\_\_\_ in the year 2011 before me, the undersigned, a Notary Public in and for said State, personally appeared Michael P. Manning personally known to me or proved to me on the basis of satisfactory evidence to be the individual whose name is subscribed to the within instrument and acknowledged to me that he executed the same in his capacity, and that by his signature on the instrument, the individual, or the person upon behalf of which the individual acted, executed the instrument.

\_\_\_\_\_  
Notary Public



STATE OF NEW YORK  
COUNTY OF ALBANY

ss.:

On the \_\_\_ day of \_\_\_\_\_ in the year 2011 before me, the undersigned, a Notary Public in and for said State, personally appeared George J. Gebe, Jr., personally known to me or proved to me on the basis of satisfactory evidence to be the individual whose name is subscribed to the within instrument and acknowledged to me that he executed the same in his capacity, and that by his signature on the instrument, the individual, or the person upon behalf of which the individual acted, executed the instrument.

\_\_\_\_\_  
Notary Public

STATE OF NEW YORK  
COUNTY OF ALBANY

ss.:

On the \_\_\_ day of \_\_\_\_\_ in the year 2011 before me, the undersigned, a Notary Public in and for said State, personally appeared Sam Messina, personally known to me or proved to me on the basis of satisfactory evidence to be the individual whose name is subscribed to the within instrument and acknowledged to me that he executed the same in his capacity, and that by his signature on the instrument, the individual, or the person upon behalf of which the individual acted, executed the instrument.

\_\_\_\_\_  
Notary Public

STATE OF NEW YORK  
COUNTY OF RENSSELAER]

ss.:

16 day of December in the year 2011 before me, the undersigned, a Notary Public in and for said State, personally appeared Rick McCabe, personally known to me or proved to me on the basis of satisfactory evidence to be the individual whose name is subscribed to the within instrument and acknowledged to me that he executed the same in his capacity, and that by his signature on the instrument, the individual, or the person upon behalf of which the individual acted, executed the instrument.

**JOAN MALONE**  
Notary Public, State of New York  
Qualified in Rensselaer County  
Reg. No. 01MAS05577  
Commission Expires March 4, 2014

Juan Malone  
Notary Public





STATE OF NEW YORK  
COUNTY OF ALBANY

ss.:

On the \_\_\_ day of \_\_\_\_\_ in the year 2011 before me, the undersigned, a Notary Public in and for said State, personally appeared Marie Dermody, personally known to me or proved to me on the basis of satisfactory evidence to be the individual whose name is subscribed to the within instrument and acknowledged to me that he executed the same in his capacity, and that by his signature on the instrument, the individual, or the person upon behalf of which the individual acted, executed the instrument.

\_\_\_\_\_  
Notary Public

STATE OF NEW YORK  
COUNTY OF ALBANY

ss.:

On the \_\_\_ day of \_\_\_\_\_ in the year 2011 before me, the undersigned, a Notary Public in and for said State, personally appeared Richard Rapp, personally known to me or proved to me on the basis of satisfactory evidence to be the individual whose name is subscribed to the within instrument and acknowledged to me that he executed the same in his capacity, and that by his signature on the instrument, the individual, or the person upon behalf of which the individual acted, executed the instrument.

\_\_\_\_\_  
Notary Public

STATE OF NEW YORK  
COUNTY OF ALBANY

ss.:

On the \_\_\_ day of \_\_\_\_\_ in the year 2011 before me, the undersigned, a Notary Public in and for said State, personally appeared James Gaughan, personally known to me or proved to me on the basis of satisfactory evidence to be the individual whose name is subscribed to the within instrument and acknowledged to me that he executed the same in his capacity, and that by his signature on the instrument, the individual, or the person upon behalf of which the individual acted, executed the instrument.

\_\_\_\_\_  
Notary Public

STATE OF NEW YORK  
COUNTY OF ALBANY

ss.:

On the \_\_\_ day of \_\_\_\_\_ in the year 2011 before me, the undersigned, a Notary Public in and for said State, personally appeared Ellen McNulty-Ryan, personally known to me or proved to me on the basis of satisfactory evidence to be the individual whose name is subscribed to the within instrument and acknowledged to me that he executed the same in his capacity, and that by his signature on the instrument, the individual, or the person upon behalf of which the individual acted, executed the instrument.

\_\_\_\_\_  
Notary Public

STATE OF NEW YORK  
COUNTY OF ALBANY

ss.:

On the \_\_\_ day of \_\_\_\_\_ in the year 2011 before me, the undersigned, a Notary Public in and for said State, personally appeared Robert D. Conway, personally known to me or proved to me on the basis of satisfactory evidence to be the individual whose name is subscribed to the within instrument and acknowledged to me that he executed the same in his capacity, and that by his signature on the instrument, the individual, or the person upon behalf of which the individual acted, executed the instrument.

\_\_\_\_\_  
Notary Public

**TOWN OF EAST GREENBUSH  
RESOLUTION 176-2011**

**RESOLUTION OF THE TOWN BOARD OF THE TOWN OF GREENBUSH TO:  
ACCEPT AND ADOPT THE SOLID WASTE MANAGEMENT PLAN FOR THE  
CAPITAL REGION SOLID WASTE MANAGEMENT PARTNERSHIP AND THE  
SEQR FINDING STATEMENT ISSUED BY THE LEAD AGENCY; AND  
AUTHORIZING THE EXECUTION OF AN EXTENSION TO THE EXISTING  
INTERMUNICIPAL AGREEMENT**

**WHEREAS**, in order to promote the public health, safety and welfare and further the purposes of the New York State policy on solid waste management articulated in New York State Environmental Conservation Law Section 27-0106, the Town of East Greenbush is a member of the Capital Region Solid Waste Management Partnership Planning Unit (the "Planning Unit"); and

**WHEREAS**, on behalf of the Planning Unit, and with the guidance of a Steering Committee consisting of representatives from each municipality in the Planning Unit, among other stakeholders, the City of Albany has prepared a Solid Waste Management Plan (SWMP) which has been submitted for acceptance to the New York State Department of Environmental Conservation; and

**WHEREAS**, the City of Albany Common Council was designated Lead Agency for the review of the Draft SWMP pursuant to the State Environmental Quality Review Act (SEQR); and

**WHEREAS**, the City of Albany Common Council, as Lead Agency, has accepted the Final Generic Environmental Impact Statement (FGEIS)/SWMP, and issued its Findings Statement, which among other things concluded that the requirements 6 NYCRR 617 have been met and that, the SWMP avoids or minimizes adverse environmental impacts to the maximum extent practicable; and

**WHEREAS**, the implementation of the SWMP will require that the existing Intermunicipal Agreement (IMA) between the member municipalities of the Planning Unit be extended beyond its current expiration date; and

**WHEREAS**, the East Greenbush Town Board has reviewed the FGEIS/SWMP and the Finding Statement;

**NOW THEREFORE, BE IT RESOLVED**, the East Greenbush Town Board accepts and adopts the FGEIS/SWMP for the Planning Unit, and the Findings Statement adopted by the Lead Agency, for this Action.

- 1) The Supervisor of the Town of East Greenbush is hereby authorized to enter into and execute an extension of the existing IMA with members of the Planning Unit.
- 2) This Resolution shall take effect immediately.

The foregoing Resolution was duly moved by Councilperson Malone and seconded by Councilperson Matters and brought to a vote resulting as follows:

|                       |       |            |
|-----------------------|-------|------------|
| Councilperson Malone  | VOTED | <b>YES</b> |
| Councilperson Matters | VOTED | <b>YES</b> |
| Supervisor McCabe     | VOTED | <b>YES</b> |
| Councilperson O'Brien | VOTED | <b>YES</b> |
| Councilperson Mangold | VOTED | <b>YES</b> |

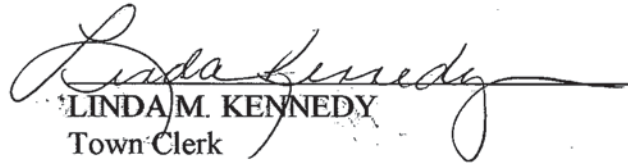
Dated: December 14, 2011

STATE OF NEW YORK  
COUNTY OF RENSSELAER  
TOWN OF EAST GREENBUSH

I, **LINDA M. KENNEDY**, Town Clerk of the Town of East Greenbush, Rensselaer County, State of New York do hereby certify that the foregoing is a true and correct copy of the Amendment No 1 to Capital Region Solid Waste Management Partnership Planning Unit Recycling Coordinator Intermunicipal Agreement adopted at the regular meeting of the Town Board of the Town of East Greenbush, held on the 14<sup>th</sup> day of December 2011 at the East Greenbush Town Hall in said Town.

I **FURTHER CERTIFY**, that such Resolution was adopted in full compliance with the laws of the State of New York, and duly entered in the minutes of said Town Board on the 14th day of **December, 2011**

**IN TESTIMONY WHEREOF**, I have hereunto set my hand and affixed the seal of the Town of East Greenbush, his 19th day of December 2011

  
**LINDA M. KENNEDY**  
Town Clerk  
Town of East Greenbush  
Rensselaer County, New York



Seal of Town of East Greenbush







**VILLAGE CLERK**  
VILLAGE OF GREEN ISLAND  
20 Clinton Street  
Green Island, New York 12183  
(518) 273-2201  
FAX (518) 273-2235

ANNE M. STRIZZI, Village Clerk

September 21, 2011

Mr. Nicholas D'Antonio  
Commissioner  
City of Albany  
Department of General Services  
Rapp Road Waste Management Facility  
525 Rapp Road  
Albany, New York 12205

Re: Capital Region Solid Waste Management Partnership

Dear Mr. D'Antonio:

Enclosed please find the executed resolution of the Board of Trustees of Village of Green Island to Accept and Adopt the Solid Waste Management Plan for the Capital Region Solid Waste Management Partnership and the SEQR Finding Statement issued by the Lead Agency; and Authorizing the Execution of an Extension to the Existing Intermunicipal Agreement.

Also enclosed please find executed Inter-municipal Agreement as signed by Mayor Ellen M. McNulty-Ryan.

If any additional information is needed, please feel free to contact our office.

Very truly yours,

Anne M. Strizzi  
Village Clerk

Enclosures







**AMENDMENT NO. 1 TO  
CAPITAL REGION SOLID WASTE MANAGEMENT PARTNERSHIP  
PLANNING UNIT RECYCLING COORDINATOR  
INTERMUNICIPAL AGREEMENT**

**THIS AMENDMENT NO. 1 TO CAPITAL REGION SOLID WASTE MANAGEMENT PARTNERSHIP PLANNING UNIT RECYCLING COORDINATOR INTER-MUNICIPAL AGREEMENT**, (the "IMA Amendment") made this 21 day of September, 2011 by and between the Cities of Albany, Rensselaer, and Watervliet, and the Towns of Berne, Bethlehem, East Greenbush, Guilderland, Knox, New Scotland, Rensselaerville, and Westerlo, and the Villages of Green Island, Voorheesville and Altamont, collectively "Parties."

**WITNESSETH THAT:**

**WHEREAS**, each of the Parties to this agreement is a member of the Capital Region Solid Waste Management Partnership, formerly known as the ANSWERS Wastashed Planning Unit (the "Planning Unit"), which has a Solid Waste Management Plan ("SWMP") which was approved by the New York State Department of Environmental Conservation in 1992, as modified and approved by the New York State Department of Environmental Conservation in 200\_, according to New York State Environmental Conservation Law Section 27-0103; and

**WHEREAS**, the Modification to the SWMP called for a Planning Unit-wide Recycling Coordinator ("Planning Unit Recycling Coordinator") to manage the recycling activities of the Planning Unit and conduct public education and planning activities for the entire Planning Unit; and

**WHEREAS**, each of the Parties had previously entered into an Intermunicipal Agreement (the "IMA") whereby the Parties agreed to fund a Planning Unit Recycling Coordinator position, all in accordance with the terms of the IMA; and

**WHEREAS**, the Planning Unit has prepared a new SWMP, which calls for the continuation of the Planning Unit Recycling Coordinator; and

**WHEREAS**, the term of the IMA expires December 31, 2011, and each of the Parties desire to amend the IMA to extend the term of the IMA through December 31, 2015, and to make certain other housekeeping changes to the IMA; and

**WHEREAS**, this IMA Amendment is not to be construed so as to interfere with or diminish any municipal powers, authority, or regulatory authority of any of the participating municipalities.

**NOW, THEREFORE**, in consideration of the terms and conditions herein contained, the Parties to this IMA Amendment do hereby agree to amend the terms of the IMA as follows:

1. Paragraph 4 of the IMA is amended by deleting the statement "attention: Chris Quirk, Chief Financial Officer" and substituting therefor "attention: Commissioner."
2. Paragraph 11 of the IMA is amended by deleting the date "December 31, 2011" and replacing it with the date "December 31, 2015."
3. The IMA remains in full force and effect subject to the amendments as stated herein.
4. This IMA Amendment may be executed in counterparts, each of which shall be deemed an original and all of which together shall constitute the binding and enforceable agreement of the parties hereto.

**IN WITNESS WHEREOF**, the following Parties through their Chief Elected Officials have executed this agreement.

**City of Albany**

Dated: By: Gerald D. Jennings \_\_\_\_\_  
Mayor

**City of Rensselaer**

Dated: By: Daniel H. Dwyer \_\_\_\_\_  
Mayor

**City of Watervliet**

Dated: By: Michael P. Manning \_\_\_\_\_  
Mayor

**Town of Berne**

Dated: By: George J. Gebe, Jr. \_\_\_\_\_  
Supervisor

**Town of Bethlehem**

Dated: By: Sam Messina \_\_\_\_\_  
Supervisor

**Town of East Greenbush**

Dated: By: Rick McCabe \_\_\_\_\_  
Supervisor

**Town of Guilderland**

Dated: By: Kenneth D. Runion \_\_\_\_\_  
Supervisor

**Town of Knox**

Dated: By: Michael Hammond \_\_\_\_\_  
Supervisor

**Town of New Scotland**

Dated: By: Thomas Dolin \_\_\_\_\_  
Supervisor

**Town of Rensselaerville**

Dated: By: Marie Dermody \_\_\_\_\_  
Supervisor

**Town of Westerlo**

Dated: By: Richard Rapp \_\_\_\_\_  
Supervisor

**Village of Altamont**

Dated:

By: James Gaughan

\_\_\_\_\_  
Mayor

**Village of Green Island**

By: Ellen McNulty-Ryan

*Ellen McNulty-Ryan*  
\_\_\_\_\_  
Mayor



**Village of Voorheesville**

Dated:

By: Robert D. Conway

\_\_\_\_\_  
Mayor

STATE OF NEW YORK  
COUNTY OF ALBANY

ss.:

On the \_\_\_ day of \_\_\_\_\_ in the year 2011 before me, the undersigned, a Notary Public in and for said State, personally appeared Gerald D. Jennings, personally known to me or proved to me on the basis of satisfactory evidence to be the individual whose name is subscribed to the within instrument and acknowledged to me that he executed the same in his capacity, and that by his signature on the instrument, the individual, or the person upon behalf of which the individual acted, executed the instrument.

\_\_\_\_\_  
Notary Public

STATE OF NEW YORK  
COUNTY OF RENSSELAER

ss.:

On the \_\_\_ day of \_\_\_\_\_ in the year 2011 before me, the undersigned, a Notary Public in and for said State, personally appeared Daniel H. Dwyer, personally known to me or proved to me on the basis of satisfactory evidence to be the individual whose name is subscribed to the within instrument and acknowledged to me that he executed the same in his capacity, and that by his signature on the instrument, the individual, or the person upon behalf of which the individual acted, executed the instrument.

\_\_\_\_\_  
Notary Public

STATE OF NEW YORK  
COUNTY OF ALBANY

ss.:

On the \_\_\_ day of \_\_\_\_\_ in the year 2011 before me, the undersigned, a Notary Public in and for said State, personally appeared Michael P. Manning personally known to me or proved to me on the basis of satisfactory evidence to be the individual whose name is subscribed to the within instrument and acknowledged to me that he executed the same in his capacity, and that by his signature on the instrument, the individual, or the person upon behalf of which the individual acted, executed the instrument.

\_\_\_\_\_  
Notary Public



STATE OF NEW YORK  
COUNTY OF ALBANY

ss.:

On the \_\_\_ day of \_\_\_\_\_ in the year 2011 before me, the undersigned, a Notary Public in and for said State, personally appeared George J. Gebe, Jr., personally known to me or proved to me on the basis of satisfactory evidence to be the individual whose name is subscribed to the within instrument and acknowledged to me that he executed the same in his capacity, and that by his signature on the instrument, the individual, or the person upon behalf of which the individual acted, executed the instrument.

\_\_\_\_\_  
Notary Public

STATE OF NEW YORK  
COUNTY OF ALBANY

ss.:

On the \_\_\_ day of \_\_\_\_\_ in the year 2011 before me, the undersigned, a Notary Public in and for said State, personally appeared Sam Messina, personally known to me or proved to me on the basis of satisfactory evidence to be the individual whose name is subscribed to the within instrument and acknowledged to me that he executed the same in his capacity, and that by his signature on the instrument, the individual, or the person upon behalf of which the individual acted, executed the instrument.

\_\_\_\_\_  
Notary Public

STATE OF NEW YORK  
COUNTY OF RENSSELAER]

ss.:

\_\_\_ day of \_\_\_\_\_ in the year 2011 before me, the undersigned, a Notary Public in and for said State, personally appeared Rick McCabe, personally known to me or proved to me on the basis of satisfactory evidence to be the individual whose name is subscribed to the within instrument and acknowledged to me that he executed the same in his capacity, and that by his signature on the instrument, the individual, or the person upon behalf of which the individual acted, executed the instrument.

\_\_\_\_\_  
Notary Public

STATE OF NEW YORK  
COUNTY OF ALBANY

ss.:

On the \_\_\_ day of \_\_\_\_\_ in the year 2011 before me, the undersigned, a Notary Public in and for said State, personally appeared Kenneth D. Runion, personally known to me or proved to me on the basis of satisfactory evidence to be the individual whose name is subscribed to the within instrument and acknowledged to me that he executed the same in his capacity, and that by his signature on the instrument, the individual, or the person upon behalf of which the individual acted, executed the instrument.

\_\_\_\_\_  
Notary Public

STATE OF NEW YORK  
COUNTY OF ALBANY

ss.:

On the \_\_\_ day of \_\_\_\_\_ in the year 2011 before me, the undersigned, a Notary Public in and for said State, personally appeared Michael Hammond, personally known to me or proved to me on the basis of satisfactory evidence to be the individual whose name is subscribed to the within instrument and acknowledged to me that he executed the same in his capacity, and that by his signature on the instrument, the individual, or the person upon behalf of which the individual acted, executed the instrument.

\_\_\_\_\_  
Notary Public

STATE OF NEW YORK  
COUNTY OF ALBANY

ss.:

On the \_\_\_ day of \_\_\_\_\_ in the year 2011 before me, the undersigned, a Notary Public in and for said State, personally appeared Thomas Dolin, personally known to me or proved to me on the basis of satisfactory evidence to be the individual whose name is subscribed to the within instrument and acknowledged to me that he executed the same in his capacity, and that by his signature on the instrument, the individual, or the person upon behalf of which the individual acted, executed the instrument.

\_\_\_\_\_  
Notary Public



STATE OF NEW YORK  
COUNTY OF ALBANY

ss.:

On the \_\_\_ day of \_\_\_\_\_ in the year 2011 before me, the undersigned, a Notary Public in and for said State, personally appeared Marie Dermody, personally known to me or proved to me on the basis of satisfactory evidence to be the individual whose name is subscribed to the within instrument and acknowledged to me that he executed the same in his capacity, and that by his signature on the instrument, the individual, or the person upon behalf of which the individual acted, executed the instrument.

\_\_\_\_\_  
Notary Public

STATE OF NEW YORK  
COUNTY OF ALBANY

ss.:

On the \_\_\_ day of \_\_\_\_\_ in the year 2011 before me, the undersigned, a Notary Public in and for said State, personally appeared Richard Rapp, personally known to me or proved to me on the basis of satisfactory evidence to be the individual whose name is subscribed to the within instrument and acknowledged to me that he executed the same in his capacity, and that by his signature on the instrument, the individual, or the person upon behalf of which the individual acted, executed the instrument.

\_\_\_\_\_  
Notary Public

STATE OF NEW YORK  
COUNTY OF ALBANY

ss.:

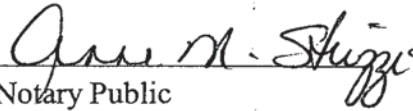
On the \_\_\_ day of \_\_\_\_\_ in the year 2011 before me, the undersigned, a Notary Public in and for said State, personally appeared James Gaughan, personally known to me or proved to me on the basis of satisfactory evidence to be the individual whose name is subscribed to the within instrument and acknowledged to me that he executed the same in his capacity, and that by his signature on the instrument, the individual, or the person upon behalf of which the individual acted, executed the instrument.

\_\_\_\_\_  
Notary Public

STATE OF NEW YORK  
COUNTY OF ALBANY

ss.:

On the 21st day of September in the year 2011 before me, the undersigned, a Notary Public in and for said State, personally appeared Ellen McNulty-Ryan, personally known to me or proved to me on the basis of satisfactory evidence to be the individual whose name is subscribed to the within instrument and acknowledged to me that he executed the same in his capacity, and that by his signature on the instrument, the individual, or the person upon behalf of which the individual acted, executed the instrument.

  
Notary Public

**ANNE M. STRIZZI**  
Notary Public, State of New York  
Qualified in Albany County  
Reg. No. 4694623  
My Commission Expires Mar. 30, 2015

STATE OF NEW YORK  
COUNTY OF ALBANY

ss.:

On the \_\_\_ day of \_\_\_\_\_ in the year 2011 before me, the undersigned, a Notary Public in and for said State, personally appeared Robert D. Conway, personally known to me or proved to me on the basis of satisfactory evidence to be the individual whose name is subscribed to the within instrument and acknowledged to me that he executed the same in his capacity, and that by his signature on the instrument, the individual, or the person upon behalf of which the individual acted, executed the instrument.

\_\_\_\_\_  
Notary Public

#1-9-19-11

At a regular meeting of the Board of Trustees of the Village of Green Island, Green Island, New York, held on Monday, September 19, 2011 the following resolution was offered by Trustee Jones seconded by Trustee Belokopitsky and carried.

RESOLUTION OF THE VILLAGE BOARD OF TRUSTEES OF THE VILLAGE OF GREEN ISLAND TO ACCEPT AND ADOPT THE SOLID WASTE MANAGEMENT PLAN FOR THE CAPITAL REGION SOLID WASTE MANAGEMENT PARTNERSHIP AND THE SEQR FINDING STATEMENT ISSUED BY THE LEAD AGENCY; AND AUTHORIZING THE EXECUTION OF AN EXTENSION TO THE EXISTING INTERMUNICIPAL AGREEMENT

WHEREAS, in order to promote the public health, safety and welfare and further the purposes of the New York State policy on solid waste management articulated in New York Environmental Conservation Law §27-0106, the Village of Green Island is a member of the Capital Region Solid Waste Management Partnership Planning Unit (the "Planning Unit"); and

WHEREAS, on behalf of the Planning Unit, and with the guidance of a Steering Committee consisting of representatives from each municipality in the Planning Unit, among other stakeholders, the City of Albany has prepared a Solid Waste Management Plan (SWMP) which has been submitted for acceptance to the New York State Department of Environmental Conservation; and

WHEREAS, the City of Albany Common Council was designated Lead Agency for the review of the Draft SWMP pursuant to the State Environmental Quality Review Act (SEQR); and

WHEREAS, the City of Albany Common Council, as Lead Agency, has accepted the Final Generic Environmental Impact Statement (FGEIS)/SWMP, and issued its Findings Statement, which among other things concluded that the requirements 6 NYCRR 617 have been met and that, the SWMP avoids or minimizes adverse environmental impacts to the maximum extent practicable; and

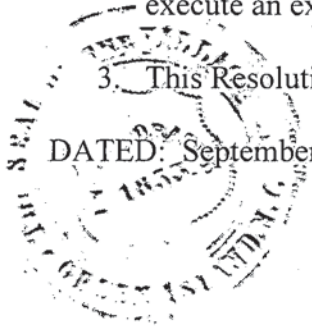
WHEREAS, the implementation of the SWMP will require that the existing Intermunicipal Agreement (IMA) between the member municipalities of the Planning Unit be extended beyond its current expiration date; and

WHEREAS, the Village of Green Island Board of Trustees has reviewed the FGEIS/SWMP and the Finding Statement;

NOW, THEREFORE, BE IT RESOLVED AS FOLLOWS BY THE VILLAGE BOARD OF TRUSTEES:

1. The Village Board of Trustees accepts and adopts the FGEIS/SWMP for the Planning Unit, and the Findings Statement adopted by the Lead Agency, for this Action.
2. The Mayor of the Village of Green Island is hereby authorized to enter into and execute an extension of the existing IMA with members of the Planning Unit.
3. This Resolution shall take effect immediately.

DATED: September 19, 2011



*Anne M. Strizzi*  
\_\_\_\_\_  
ANNE M. STRIZZI, VILLAGE CLERK.

STATE OF NEW YORK        )  
COUNTY OF ALBANY        ) SS.:  
VILLAGE OF GREEN ISLAND    )

I, Anne M. Strizzi, Village Clerk of the Village of Green Island do hereby certify that this is a true copy of Resolution #1-9-19-11 adopted by the Board of Trustees at a regular meeting held on September 19, 2011. The original copy is on file in my office as Village Clerk.

DATED: September 20, 2011

*Anne M. Strizzi*

\_\_\_\_\_  
Anne M. Strizzi, Village Clerk









KENNETH D. RUNION  
SUPERVISOR

April 20, 2012

Frank Zeoli  
Dept. of General Services  
11 Conners Blvd.  
Albany, NY 12204

Dear Mr. Zeoli,

Attached is the Solid Waste Management Planning Unit Agreement that you have requested for the Town of Guilderland. This document has been notarized and signed by Supervisor Runion. I have also attached the approved resolution for the signed contract.

Thank you.

Sincerely,

Nancy Lewis  
Confidential Secretary to Town Supervisor

Encs.







KENNETH D. RUNION  
SUPERVISOR

ROSEMARY CENTI  
TOWN CLERK

ORGANIZATIONAL MEETING      JANUARY 1, 2012

**MOTION #22** Councilman Pastore moved to **Authorize the Supervisor to sign a contract for an amendment to the solid waste management partnership planning unit recycling intermunicipal agreement.** Councilman Maikels seconded the motion and it was carried by the following roll call vote:

|                      |     |
|----------------------|-----|
| Councilman Forte     | Aye |
| Councilwoman Slavick | Aye |
| Councilman Pastore   | Aye |
| Councilman Maikels   | Aye |
| Supervisor Runion    | Aye |

I, Rosemary Centi, Clerk of the Town of Guilderland New York, do hereby certify that I have compared the attached resolution with the original on file in the Town Clerk's Office and that the same are true and correct copies of said originals and of the whole thereof.

WITNESS, my hand and official seal of the Town of Guilderland, New York, 20<sup>th</sup> day of April, 2012.

*Rosemary Centi*  
TOWN CLERK

*Rosemary Centi*  
TOWN CLERK

ALBANY COUNTY  
INCORPORATED  
1814



**AMENDMENT NO. 1 TO  
CAPITAL REGION SOLID WASTE MANAGEMENT PARTNERSHIP  
PLANNING UNIT RECYCLING COORDINATOR  
INTERMUNICIPAL AGREEMENT**

**THIS AMENDMENT NO. 1 TO CAPITAL REGION SOLID WASTE MANAGEMENT PARTNERSHIP PLANNING UNIT RECYCLING COORDINATOR INTERMUNICIPAL AGREEMENT**, (the "IMA Amendment") made this \_\_\_ day of \_\_\_\_\_, 2011 by and between the Cities of Albany, Rensselaer, and Watervliet, and the Towns of Berne, Bethlehem, East Greenbush, Guilderland, Knox, New Scotland, Rensselaerville, and Westerlo, and the Villages of Green Island, Voorheesville and Altamont, collectively "Parties."

**WITNESSETH THAT:**

**WHEREAS**, each of the Parties to this agreement is a member of the Capital Region Solid Waste Management Partnership, formerly known as the ANSWERS Wasteshed Planning Unit (the "Planning Unit"), which has a Solid Waste Management Plan ("SWMP") which was approved by the New York State Department of Environmental Conservation in 1992, as modified and approved by the New York State Department of Environmental Conservation in 200\_, according to New York State Environmental Conservation Law Section 27-0103; and

**WHEREAS**, the Modification to the SWMP called for a Planning Unit-wide Recycling Coordinator ("Planning Unit Recycling Coordinator") to manage the recycling activities of the Planning Unit and conduct public education and planning activities for the entire Planning Unit; and

**WHEREAS**, each of the Parties had previously entered into an Intermunicipal Agreement (the "IMA") whereby the Parties agreed to fund a Planning Unit Recycling Coordinator position, all in accordance with the terms of the IMA; and

**WHEREAS**, the Planning Unit has prepared a new SWMP, which calls for the continuation of the Planning Unit Recycling Coordinator; and

**WHEREAS**, the term of the IMA expires December 31, 2011, and each of the Parties desire to amend the IMA to extend the term of the IMA through December 31, 2015, and to make certain other housekeeping changes to the IMA; and

**WHEREAS**, this IMA Amendment is not to be construed so as to interfere with or diminish any municipal powers, authority, or regulatory authority of any of the participating municipalities.

**NOW, THEREFORE**, in consideration of the terms and conditions herein contained, the Parties to this IMA Amendment do hereby agree to amend the terms of the IMA as follows:

1. Paragraph 4 of the IMA is amended by deleting the statement "attention: Chris Quirk, Chief Financial Officer" and substituting therefor "attention: Commissioner."
2. Paragraph 11 of the IMA is amended by deleting the date "December 31, 2011" and replacing it with the date "December 31, 2015."
3. The IMA remains in full force and effect subject to the amendments as stated herein.
4. This IMA Amendment may be executed in counterparts, each of which shall be deemed an original and all of which together shall constitute the binding and enforceable agreement of the parties hereto.

**IN WITNESS WHEREOF**, the following Parties through their Chief Elected Officials have executed this agreement.

**City of Albany**

Dated: By: Gerald D. Jennings \_\_\_\_\_  
Mayor

**City of Rensselaer**

Dated: By: Daniel H. Dwyer \_\_\_\_\_  
Mayor

**City of Watervliet**

Dated: By: Michael P. Manning \_\_\_\_\_  
Mayor

**Town of Berne**

Dated: By: George J. Gebe, Jr. \_\_\_\_\_  
Supervisor

**Town of Bethlehem**

Dated: By: Sam Messina \_\_\_\_\_  
Supervisor

**Town of East Greenbush**

Dated:

By: Rick McCabe

\_\_\_\_\_  
Supervisor

**Town of Guilderland**

Dated:

4/20/12

By: Kenneth D. Runion

  
\_\_\_\_\_  
Supervisor

**Town of Knox**

Dated:

By: Michael Hammond

\_\_\_\_\_  
Supervisor

**Town of New Scotland**

Dated:

By: Thomas Dolin

\_\_\_\_\_  
Supervisor

**Town of Rensselaerville**

Dated:

By: Marie Dermody

\_\_\_\_\_  
Supervisor

**Town of Westerlo**

Dated:

By: Richard Rapp

\_\_\_\_\_  
Supervisor

**Village of Altamont**

Dated: By: James Gaughan \_\_\_\_\_  
Mayor

**Village of Green Island**

Dated: By: Ellen McNulty-Ryan \_\_\_\_\_  
Mayor

**Village of Voorheesville**

Dated: By: Robert D. Conway: \_\_\_\_\_  
Mayor

STATE OF NEW YORK  
COUNTY OF ALBANY

ss.:

On the \_\_\_ day of \_\_\_\_\_ in the year 2011 before me, the undersigned, a Notary Public in and for said State, personally appeared Gerald D. Jennings, personally known to me or proved to me on the basis of satisfactory evidence to be the individual whose name is subscribed to the within instrument and acknowledged to me that he executed the same in his capacity, and that by his signature on the instrument, the individual, or the person upon behalf of which the individual acted, executed the instrument.

\_\_\_\_\_  
Notary Public

STATE OF NEW YORK  
COUNTY OF RENSSELAER

ss.:

On the \_\_\_ day of \_\_\_\_\_ in the year 2011 before me, the undersigned, a Notary Public in and for said State, personally appeared Daniel H. Dwyer, personally known to me or proved to me on the basis of satisfactory evidence to be the individual whose name is subscribed to the within instrument and acknowledged to me that he executed the same in his capacity, and that by his signature on the instrument, the individual, or the person upon behalf of which the individual acted, executed the instrument.

\_\_\_\_\_  
Notary Public

STATE OF NEW YORK  
COUNTY OF ALBANY

ss.:

On the \_\_\_ day of \_\_\_\_\_ in the year 2011 before me, the undersigned, a Notary Public in and for said State, personally appeared Michael P. Manning, personally known to me or proved to me on the basis of satisfactory evidence to be the individual whose name is subscribed to the within instrument and acknowledged to me that he executed the same in his capacity, and that by his signature on the instrument, the individual, or the person upon behalf of which the individual acted, executed the instrument.

\_\_\_\_\_  
Notary Public



STATE OF NEW YORK  
COUNTY OF ALBANY

ss.:

On the \_\_\_ day of \_\_\_\_\_ in the year 2011 before me, the undersigned, a Notary Public in and for said State, personally appeared George J. Gebe, Jr., personally known to me or proved to me on the basis of satisfactory evidence to be the individual whose name is subscribed to the within instrument and acknowledged to me that he executed the same in his capacity, and that by his signature on the instrument, the individual, or the person upon behalf of which the individual acted, executed the instrument.

\_\_\_\_\_  
Notary Public

STATE OF NEW YORK  
COUNTY OF ALBANY

ss.:

On the \_\_\_ day of \_\_\_\_\_ in the year 2011 before me, the undersigned, a Notary Public in and for said State, personally appeared Sam Messina, personally known to me or proved to me on the basis of satisfactory evidence to be the individual whose name is subscribed to the within instrument and acknowledged to me that he executed the same in his capacity, and that by his signature on the instrument, the individual, or the person upon behalf of which the individual acted, executed the instrument.

\_\_\_\_\_  
Notary Public

STATE OF NEW YORK  
COUNTY OF RENSSELAER]

ss.:

\_\_\_ day of \_\_\_\_\_ in the year 2011 before me, the undersigned, a Notary Public in and for said State, personally appeared Rick McCabe, personally known to me or proved to me on the basis of satisfactory evidence to be the individual whose name is subscribed to the within instrument and acknowledged to me that he executed the same in his capacity, and that by his signature on the instrument, the individual, or the person upon behalf of which the individual acted, executed the instrument.

\_\_\_\_\_  
Notary Public

STATE OF NEW YORK  
COUNTY OF ALBANY

ss.:

On the 20<sup>th</sup> day of April in the year 2011 before me, the undersigned, a Notary Public in and for said State, personally appeared Kenneth D. Runion, personally known to me or proved to me on the basis of satisfactory evidence to be the individual whose name is subscribed to the within instrument and acknowledged to me that he executed the same in his capacity, and that by his signature on the instrument, the individual, or the person upon behalf of which the individual acted, executed the instrument.

**STACIA SMITH-BRIGADIER**  
Notary Public, State of New York  
No. 4760401  
Qualified in Albany County  
Commission Expires 3/30/14

  
Notary Public

STATE OF NEW YORK  
COUNTY OF ALBANY

ss.:

On the \_\_\_ day of \_\_\_\_\_ in the year 2011 before me, the undersigned, a Notary Public in and for said State, personally appeared Michael Hammond, personally known to me or proved to me on the basis of satisfactory evidence to be the individual whose name is subscribed to the within instrument and acknowledged to me that he executed the same in his capacity, and that by his signature on the instrument, the individual, or the person upon behalf of which the individual acted, executed the instrument.

\_\_\_\_\_  
Notary Public

STATE OF NEW YORK  
COUNTY OF ALBANY

ss.:

On the \_\_\_ day of \_\_\_\_\_ in the year 2011 before me, the undersigned, a Notary Public in and for said State, personally appeared Thomas Dolin, personally known to me or proved to me on the basis of satisfactory evidence to be the individual whose name is subscribed to the within instrument and acknowledged to me that he executed the same in his capacity, and that by his signature on the instrument, the individual, or the person upon behalf of which the individual acted, executed the instrument.

\_\_\_\_\_  
Notary Public

STATE OF NEW YORK  
COUNTY OF ALBANY

ss.:

On the \_\_\_ day of \_\_\_\_\_ in the year 2011 before me, the undersigned, a Notary Public in and for said State, personally appeared Marie Dermody, personally known to me or proved to me on the basis of satisfactory evidence to be the individual whose name is subscribed to the within instrument and acknowledged to me that he executed the same in his capacity, and that by his signature on the instrument, the individual, or the person upon behalf of which the individual acted, executed the instrument.

\_\_\_\_\_  
Notary Public

STATE OF NEW YORK  
COUNTY OF ALBANY

ss.:

On the \_\_\_ day of \_\_\_\_\_ in the year 2011 before me, the undersigned, a Notary Public in and for said State, personally appeared Richard Rapp, personally known to me or proved to me on the basis of satisfactory evidence to be the individual whose name is subscribed to the within instrument and acknowledged to me that he executed the same in his capacity, and that by his signature on the instrument, the individual, or the person upon behalf of which the individual acted, executed the instrument.

\_\_\_\_\_  
Notary Public

STATE OF NEW YORK  
COUNTY OF ALBANY

ss.:

On the \_\_\_ day of \_\_\_\_\_ in the year 2011 before me, the undersigned, a Notary Public in and for said State, personally appeared James Gaughan, personally known to me or proved to me on the basis of satisfactory evidence to be the individual whose name is subscribed to the within instrument and acknowledged to me that he executed the same in his capacity, and that by his signature on the instrument, the individual, or the person upon behalf of which the individual acted, executed the instrument.

\_\_\_\_\_  
Notary Public

STATE OF NEW YORK  
COUNTY OF ALBANY

ss.:

On the \_\_\_ day of \_\_\_\_\_ in the year 2011 before me, the undersigned, a Notary Public in and for said State, personally appeared Ellen McNulty-Ryan, personally known to me or proved to me on the basis of satisfactory evidence to be the individual whose name is subscribed to the within instrument and acknowledged to me that he executed the same in his capacity, and that by his signature on the instrument, the individual, or the person upon behalf of which the individual acted, executed the instrument.

\_\_\_\_\_  
Notary Public

STATE OF NEW YORK  
COUNTY OF ALBANY

ss.:

On the \_\_\_ day of \_\_\_\_\_ in the year 2011 before me, the undersigned, a Notary Public in and for said State, personally appeared Robert D. Conway, personally known to me or proved to me on the basis of satisfactory evidence to be the individual whose name is subscribed to the within instrument and acknowledged to me that he executed the same in his capacity, and that by his signature on the instrument, the individual, or the person upon behalf of which the individual acted, executed the instrument.

\_\_\_\_\_  
Notary Public



**AMENDMENT NO. 1 TO  
CAPITAL REGION SOLID WASTE MANAGEMENT PARTNERSHIP  
PLANNING UNIT RECYCLING COORDINATOR  
INTERMUNICIPAL AGREEMENT**

**THIS AMENDMENT NO. 1 TO CAPITAL REGION SOLID WASTE MANAGEMENT PARTNERSHIP PLANNING UNIT RECYCLING COORDINATOR INTERMUNICIPAL AGREEMENT**, (the "IMA Amendment") made this 13<sup>th</sup> day of DECEMBER, 2011 by and between the Cities of Albany, Rensselaer, and Watervliet, and the Towns of Berne, Bethlehem, East Greenbush, Guilderland, Knox, New Scotland, Rensselaerville, and Westerlo, and the Villages of Green Island, Voorheesville and Altamont, collectively "Parties."

**WITNESSETH THAT:**

**WHEREAS**, each of the Parties to this agreement is a member of the Capital Region Solid Waste Management Partnership, formerly known as the ANSWERS Wasteshed Planning Unit (the "Planning Unit"), which has a Solid Waste Management Plan ("SWMP") which was approved by the New York State Department of Environmental Conservation in 1992, as modified and approved by the New York State Department of Environmental Conservation in 200\_, according to New York State Environmental Conservation Law Section 27-0103; and

**WHEREAS**, the Modification to the SWMP called for a Planning Unit-wide Recycling Coordinator ("Planning Unit Recycling Coordinator") to manage the recycling activities of the Planning Unit and conduct public education and planning activities for the entire Planning Unit; and

**WHEREAS**, each of the Parties had previously entered into an Intermunicipal Agreement (the "IMA") whereby the Parties agreed to fund a Planning Unit Recycling Coordinator position, all in accordance with the terms of the IMA; and

**WHEREAS**, the Planning Unit has prepared a new SWMP, which calls for the continuation of the Planning Unit Recycling Coordinator; and

**WHEREAS**, the term of the IMA expires December 31, 2011, and each of the Parties desire to amend the IMA to extend the term of the IMA through December 31, 2015, and to make certain other housekeeping changes to the IMA; and

**WHEREAS**, this IMA Amendment is not to be construed so as to interfere with or diminish any municipal powers, authority, or regulatory authority of any of the participating municipalities.

**NOW, THEREFORE**, in consideration of the terms and conditions herein contained, the Parties to this IMA Amendment do hereby agree to amend the terms of the IMA as follows:

1. Paragraph 4 of the IMA is amended by deleting the statement "attention: Chris Quirk, Chief Financial Officer" and substituting therefor "attention: Commissioner."
2. Paragraph 11 of the IMA is amended by deleting the date "December 31, 2011" and replacing it with the date "December 31, 2015."
3. The IMA remains in full force and effect subject to the amendments as stated herein.
4. This IMA Amendment may be executed in counterparts, each of which shall be deemed an original and all of which together shall constitute the binding and enforceable agreement of the parties hereto.

IN WITNESS WHEREOF, the following Parties through their Chief Elected Officials have executed this agreement.

**City of Albany**

Dated:

By: Gerald D. Jennings

\_\_\_\_\_  
Mayor

**City of Rensselaer**

Dated:

By: Daniel H. Dwyer

\_\_\_\_\_  
Mayor

**City of Watervliet**

Dated:

By: Michael P. Manning

\_\_\_\_\_  
Mayor

**Town of Berne**

Dated:

By: George J. Gebe, Jr.

\_\_\_\_\_  
Supervisor

**Town of Bethlehem**

Dated:

By: Sam Messina

\_\_\_\_\_  
Supervisor

**Town of East Greenbush**

Dated:

By: Rick McCabe

\_\_\_\_\_  
Supervisor

**Town of Guilderland**

Dated:

By: Kenneth D. Runion

\_\_\_\_\_  
Supervisor

**Town of Knox**

Dated:

By: Michael Hammond

  
Supervisor

**Town of New Scotland**

Dated:

By: Thomas Dolin

\_\_\_\_\_  
Supervisor

**Town of Rensselaerville**

Dated:

By: Marie Dermody

\_\_\_\_\_  
Supervisor

**Town of Westerlo**

Dated:

By: Richard Rapp

\_\_\_\_\_  
Supervisor



**Village of Altamont**

Dated:

By: James Gaughan

\_\_\_\_\_  
Mayor

**Village of Green Island**

Dated:

By: Ellen McNulty-Ryan

\_\_\_\_\_  
Mayor

**Village of Voorheesville**

Dated:

By: Robert D. Conway

\_\_\_\_\_  
Mayor

STATE OF NEW YORK  
COUNTY OF ALBANY

ss.:

On the \_\_\_ day of \_\_\_\_\_ in the year 2011 before me, the undersigned, a Notary Public in and for said State, personally appeared Gerald D. Jennings, personally known to me or proved to me on the basis of satisfactory evidence to be the individual whose name is subscribed to the within instrument and acknowledged to me that he executed the same in his capacity, and that by his signature on the instrument, the individual, or the person upon behalf of which the individual acted, executed the instrument.

\_\_\_\_\_  
Notary Public

STATE OF NEW YORK  
COUNTY OF RENSSELAER

ss.:

On the \_\_\_ day of \_\_\_\_\_ in the year 2011 before me, the undersigned, a Notary Public in and for said State, personally appeared Daniel H. Dwyer, personally known to me or proved to me on the basis of satisfactory evidence to be the individual whose name is subscribed to the within instrument and acknowledged to me that he executed the same in his capacity, and that by his signature on the instrument, the individual, or the person upon behalf of which the individual acted, executed the instrument.

\_\_\_\_\_  
Notary Public

STATE OF NEW YORK  
COUNTY OF ALBANY

ss.:

On the \_\_\_ day of \_\_\_\_\_ in the year 2011 before me, the undersigned, a Notary Public in and for said State, personally appeared Michael P. Manning personally known to me or proved to me on the basis of satisfactory evidence to be the individual whose name is subscribed to the within instrument and acknowledged to me that he executed the same in his capacity, and that by his signature on the instrument, the individual, or the person upon behalf of which the individual acted, executed the instrument.

\_\_\_\_\_  
Notary Public

STATE OF NEW YORK  
COUNTY OF ALBANY

ss.:

On the \_\_\_ day of \_\_\_\_\_ in the year 2011 before me, the undersigned, a Notary Public in and for said State, personally appeared George J. Gebe, Jr., personally known to me or proved to me on the basis of satisfactory evidence to be the individual whose name is subscribed to the within instrument and acknowledged to me that he executed the same in his capacity, and that by his signature on the instrument, the individual, or the person upon behalf of which the individual acted, executed the instrument.

\_\_\_\_\_  
Notary Public

STATE OF NEW YORK  
COUNTY OF ALBANY

ss.:

On the \_\_\_ day of \_\_\_\_\_ in the year 2011 before me, the undersigned, a Notary Public in and for said State, personally appeared Sam Messina, personally known to me or proved to me on the basis of satisfactory evidence to be the individual whose name is subscribed to the within instrument and acknowledged to me that he executed the same in his capacity, and that by his signature on the instrument, the individual, or the person upon behalf of which the individual acted, executed the instrument.

\_\_\_\_\_  
Notary Public

STATE OF NEW YORK  
COUNTY OF RENSSELAER]

ss.:

\_\_\_ day of \_\_\_\_\_ in the year 2011 before me, the undersigned, a Notary Public in and for said State, personally appeared Rick McCabe, personally known to me or proved to me on the basis of satisfactory evidence to be the individual whose name is subscribed to the within instrument and acknowledged to me that he executed the same in his capacity, and that by his signature on the instrument, the individual, or the person upon behalf of which the individual acted, executed the instrument.

\_\_\_\_\_  
Notary Public

STATE OF NEW YORK  
COUNTY OF ALBANY

ss.:

On the \_\_\_ day of \_\_\_\_\_ in the year 2011 before me, the undersigned, a Notary Public in and for said State, personally appeared Kenneth D. Runion, personally known to me or proved to me on the basis of satisfactory evidence to be the individual whose name is subscribed to the within instrument and acknowledged to me that he executed the same in his capacity, and that by his signature on the instrument, the individual, or the person upon behalf of which the individual acted, executed the instrument.

\_\_\_\_\_  
Notary Public

STATE OF NEW YORK  
COUNTY OF ALBANY

ss.:

On the 13 day of December in the year 2011 before me, the undersigned, a Notary Public in and for said State, personally appeared Michael Hammond, personally known to me or proved to me on the basis of satisfactory evidence to be the individual whose name is subscribed to the within instrument and acknowledged to me that he executed the same in his capacity, and that by his signature on the instrument, the individual, or the person upon behalf of which the individual acted, executed the instrument.

**KIMBERLY D. SWAIN**  
Notary Public, State of New York  
No. 01SW6187696  
Qualified in Albany County  
Commission Expires May 27, 2012

*Kimberly D. Swain*  
\_\_\_\_\_  
Notary Public

STATE OF NEW YORK  
COUNTY OF ALBANY

ss.:

On the \_\_\_ day of \_\_\_\_\_ in the year 2011 before me, the undersigned, a Notary Public in and for said State, personally appeared Thomas Dolin, personally known to me or proved to me on the basis of satisfactory evidence to be the individual whose name is subscribed to the within instrument and acknowledged to me that he executed the same in his capacity, and that by his signature on the instrument, the individual, or the person upon behalf of which the individual acted, executed the instrument.

\_\_\_\_\_  
Notary Public

STATE OF NEW YORK  
COUNTY OF ALBANY

ss.:

On the \_\_\_ day of \_\_\_\_\_ in the year 2011 before me, the undersigned, a Notary Public in and for said State, personally appeared Marie Dermody, personally known to me or proved to me on the basis of satisfactory evidence to be the individual whose name is subscribed to the within instrument and acknowledged to me that he executed the same in his capacity, and that by his signature on the instrument, the individual, or the person upon behalf of which the individual acted, executed the instrument.

\_\_\_\_\_  
Notary Public

STATE OF NEW YORK  
COUNTY OF ALBANY

ss.:

On the \_\_\_ day of \_\_\_\_\_ in the year 2011 before me, the undersigned, a Notary Public in and for said State, personally appeared Richard Rapp, personally known to me or proved to me on the basis of satisfactory evidence to be the individual whose name is subscribed to the within instrument and acknowledged to me that he executed the same in his capacity, and that by his signature on the instrument, the individual, or the person upon behalf of which the individual acted, executed the instrument.

\_\_\_\_\_  
Notary Public

STATE OF NEW YORK  
COUNTY OF ALBANY

ss.:

On the \_\_\_ day of \_\_\_\_\_ in the year 2011 before me, the undersigned, a Notary Public in and for said State, personally appeared James Gaughan, personally known to me or proved to me on the basis of satisfactory evidence to be the individual whose name is subscribed to the within instrument and acknowledged to me that he executed the same in his capacity, and that by his signature on the instrument, the individual, or the person upon behalf of which the individual acted, executed the instrument.

\_\_\_\_\_  
Notary Public



STATE OF NEW YORK  
COUNTY OF ALBANY

ss.:

On the \_\_\_ day of \_\_\_\_\_ in the year 2011 before me, the undersigned, a Notary Public in and for said State, personally appeared Ellen McNulty-Ryan, personally known to me or proved to me on the basis of satisfactory evidence to be the individual whose name is subscribed to the within instrument and acknowledged to me that he executed the same in his capacity, and that by his signature on the instrument, the individual, or the person upon behalf of which the individual acted, executed the instrument.

\_\_\_\_\_  
Notary Public

STATE OF NEW YORK  
COUNTY OF ALBANY

ss.:

On the \_\_\_ day of \_\_\_\_\_ in the year 2011 before me, the undersigned, a Notary Public in and for said State, personally appeared Robert D. Conway, personally known to me or proved to me on the basis of satisfactory evidence to be the individual whose name is subscribed to the within instrument and acknowledged to me that he executed the same in his capacity, and that by his signature on the instrument, the individual, or the person upon behalf of which the individual acted, executed the instrument.

\_\_\_\_\_  
Notary Public

# TOWN OF NEW SCOTLAND

Thomas E. Dolin  
SUPERVISOR



Douglas LaGrange  
DEPUTY SUPERVISOR  
William Hennessy  
Douglas LaGrange  
Daniel Mackay  
Patricia Snyder  
BOARD MEMBERS

City of Albany  
Dept. of General Services  
Rapp Road Waste Management Facility  
525 Rapp Rd.  
Albany, NY 12205

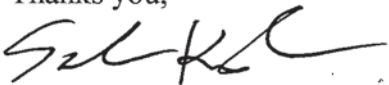
Re: Capital Region Solid Waste Management Partnership  
Amendment No.1 to Planning Unit Recycling Coordinator Intermunicipal Agreement

Dear Commissioner D'Antonio,

Enclosed please find the above referenced amendment which has been executed by Supervisor Thomas E. Dolin. A copy of the Town Board's resolution is enclosed as well.

Once all signatures have been obtained, please return an original to the Town of New Scotland.

Thanks you,

  
Sarah Kavanaugh  
Confidential Secretary to the Supervisor

2029 New Scotland Road ♦ Slingerlands, NY 12159  
Phone: (518) 439-4889 ♦ Fax: (518) 439-8554 ♦ TDD: (800) 662-1220

The Town of New Scotland is an equal opportunity provider and employer. To file a complaint of discrimination, write: USDA, Director, Office of Civil Rights, 1400 Independence Ave., S.W., Washington, DC 20250-9410 or call (800) 795-3272 (voice) or (202) 720-6382 (TDD).





**AMENDMENT NO. 1 TO  
CAPITAL REGION SOLID WASTE MANAGEMENT PARTNERSHIP  
PLANNING UNIT RECYCLING COORDINATOR  
INTERMUNICIPAL AGREEMENT**

**THIS AMENDMENT NO. 1 TO CAPITAL REGION SOLID WASTE MANAGEMENT PARTNERSHIP PLANNING UNIT RECYCLING COORDINATOR INTERMUNICIPAL AGREEMENT**, (the "IMA Amendment") made this \_\_\_ day of \_\_\_\_\_, 2011 by and between the Cities of Albany, Rensselaer, and Watervliet, and the Towns of Berne, Bethlehem, East Greenbush, Guilderland, Knox, New Scotland, Rensselaerville, and Westerlo, and the Villages of Green Island, Voorheesville and Altamont, collectively "Parties."

**WITNESSETH THAT:**

**WHEREAS**, each of the Parties to this agreement is a member of the Capital Region Solid Waste Management Partnership, formerly known as the ANSWERS Wasteshed Planning Unit (the "Planning Unit"), which has a Solid Waste Management Plan ("SWMP") which was approved by the New York State Department of Environmental Conservation in 1992, as modified and approved by the New York State Department of Environmental Conservation in 200\_, according to New York State Environmental Conservation Law Section 27-0103; and

**WHEREAS**, the Modification to the SWMP called for a Planning Unit-wide Recycling Coordinator ("Planning Unit Recycling Coordinator") to manage the recycling activities of the Planning Unit and conduct public education and planning activities for the entire Planning Unit; and

**WHEREAS**, each of the Parties had previously entered into an Intermunicipal Agreement (the "IMA") whereby the Parties agreed to fund a Planning Unit Recycling Coordinator position, all in accordance with the terms of the IMA; and

**WHEREAS**, the Planning Unit has prepared a new SWMP, which calls for the continuation of the Planning Unit Recycling Coordinator; and

**WHEREAS**, the term of the IMA expires December 31, 2011, and each of the Parties desire to amend the IMA to extend the term of the IMA through December 31, 2015, and to make certain other housekeeping changes to the IMA; and

**WHEREAS**, this IMA Amendment is not to be construed so as to interfere with or diminish any municipal powers, authority, or regulatory authority of any of the participating municipalities.

**NOW, THEREFORE**, in consideration of the terms and conditions herein contained, the Parties to this IMA Amendment do hereby agree to amend the terms of the IMA as follows:

1. Paragraph 4 of the IMA is amended by deleting the statement "attention: Chris Quirk, Chief Financial Officer" and substituting therefor "attention: Commissioner."
2. Paragraph 11 of the IMA is amended by deleting the date "December 31, 2011" and replacing it with the date "December 31, 2015."
3. The IMA remains in full force and effect subject to the amendments as stated herein.
4. This IMA Amendment may be executed in counterparts, each of which shall be deemed an original and all of which together shall constitute the binding and enforceable agreement of the parties hereto.

**IN WITNESS WHEREOF**, the following Parties through their Chief Elected Officials have executed this agreement.

**City of Albany**

Dated: By: Gerald D. Jennings \_\_\_\_\_  
Mayor

**City of Rensselaer**

Dated: By: Daniel H. Dwyer \_\_\_\_\_  
Mayor

**City of Watervliet**

Dated: By: Michael P. Manning \_\_\_\_\_  
Mayor

**Town of Berne**

Dated: By: George J. Gebe, Jr. \_\_\_\_\_  
Supervisor

**Town of Bethlehem**

Dated: By: Sam Messina \_\_\_\_\_  
Supervisor

**Town of East Greenbush**

Dated: By: Rick McCabe  
\_\_\_\_\_  
Supervisor

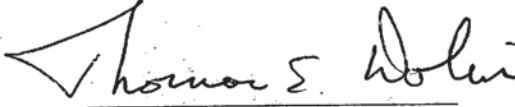
**Town of Guilderland**

Dated: By: Kenneth D. Runion  
\_\_\_\_\_  
Supervisor

**Town of Knox**

Dated: By: Michael Hammond  
\_\_\_\_\_  
Supervisor

**Town of New Scotland**

Dated: 1/23/2012 By: Thomas Dolin  
  
\_\_\_\_\_  
Supervisor

**Town of Rensselaerville**

Dated: By: Marie Dermody  
\_\_\_\_\_  
Supervisor

**Town of Westerlo**

Dated: By: Richard Rapp  
\_\_\_\_\_  
Supervisor

**Village of Altamont**

Dated:

By: James Gaughan

\_\_\_\_\_  
Mayor

**Village of Green Island**

Dated:

By: Ellen McNulty-Ryan

\_\_\_\_\_  
Mayor

**Village of Voorheesville**

Dated:

By: Robert D. Conway

\_\_\_\_\_  
Mayor

STATE OF NEW YORK  
COUNTY OF ALBANY

ss.:

On the \_\_\_ day of \_\_\_\_\_ in the year 2011 before me, the undersigned, a Notary Public in and for said State, personally appeared Gerald D. Jennings, personally known to me or proved to me on the basis of satisfactory evidence to be the individual whose name is subscribed to the within instrument and acknowledged to me that he executed the same in his capacity, and that by his signature on the instrument, the individual, or the person upon behalf of which the individual acted, executed the instrument.

\_\_\_\_\_  
Notary Public

STATE OF NEW YORK  
COUNTY OF RENSSELAER

ss.:

On the \_\_\_ day of \_\_\_\_\_ in the year 2011 before me, the undersigned, a Notary Public in and for said State, personally appeared Daniel H. Dwyer, personally known to me or proved to me on the basis of satisfactory evidence to be the individual whose name is subscribed to the within instrument and acknowledged to me that he executed the same in his capacity, and that by his signature on the instrument, the individual, or the person upon behalf of which the individual acted, executed the instrument.

\_\_\_\_\_  
Notary Public

STATE OF NEW YORK  
COUNTY OF ALBANY

ss.:

On the \_\_\_ day of \_\_\_\_\_ in the year 2011 before me, the undersigned, a Notary Public in and for said State, personally appeared Michael P. Manning personally known to me or proved to me on the basis of satisfactory evidence to be the individual whose name is subscribed to the within instrument and acknowledged to me that he executed the same in his capacity, and that by his signature on the instrument, the individual, or the person upon behalf of which the individual acted, executed the instrument.

\_\_\_\_\_  
Notary Public



STATE OF NEW YORK  
COUNTY OF ALBANY

ss.:

On the \_\_\_ day of \_\_\_\_\_ in the year 2011 before me, the undersigned, a Notary Public in and for said State, personally appeared George J. Gebe, Jr., personally known to me or proved to me on the basis of satisfactory evidence to be the individual whose name is subscribed to the within instrument and acknowledged to me that he executed the same in his capacity, and that by his signature on the instrument, the individual, or the person upon behalf of which the individual acted, executed the instrument.

\_\_\_\_\_  
Notary Public

STATE OF NEW YORK  
COUNTY OF ALBANY

ss.:

On the \_\_\_ day of \_\_\_\_\_ in the year 2011 before me, the undersigned, a Notary Public in and for said State, personally appeared Sam Messina, personally known to me or proved to me on the basis of satisfactory evidence to be the individual whose name is subscribed to the within instrument and acknowledged to me that he executed the same in his capacity, and that by his signature on the instrument, the individual, or the person upon behalf of which the individual acted, executed the instrument.

\_\_\_\_\_  
Notary Public

STATE OF NEW YORK  
COUNTY OF RENSSELAER]

ss.:

\_\_\_ day of \_\_\_\_\_ in the year 2011 before me, the undersigned, a Notary Public in and for said State, personally appeared Rick McCabe, personally known to me or proved to me on the basis of satisfactory evidence to be the individual whose name is subscribed to the within instrument and acknowledged to me that he executed the same in his capacity, and that by his signature on the instrument, the individual, or the person upon behalf of which the individual acted, executed the instrument.

\_\_\_\_\_  
Notary Public

STATE OF NEW YORK  
COUNTY OF ALBANY

ss.:

On the \_\_\_ day of \_\_\_\_\_ in the year 2011 before me, the undersigned, a Notary Public in and for said State, personally appeared Kenneth D. Runion, personally known to me or proved to me on the basis of satisfactory evidence to be the individual whose name is subscribed to the within instrument and acknowledged to me that he executed the same in his capacity, and that by his signature on the instrument, the individual, or the person upon behalf of which the individual acted, executed the instrument.

\_\_\_\_\_  
Notary Public

STATE OF NEW YORK  
COUNTY OF ALBANY

ss.:

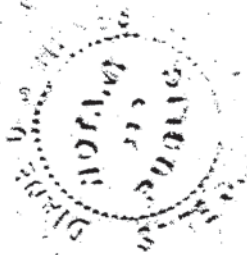
On the \_\_\_ day of \_\_\_\_\_ in the year 2011 before me, the undersigned, a Notary Public in and for said State, personally appeared Michael Hammond, personally known to me or proved to me on the basis of satisfactory evidence to be the individual whose name is subscribed to the within instrument and acknowledged to me that he executed the same in his capacity, and that by his signature on the instrument, the individual, or the person upon behalf of which the individual acted, executed the instrument.

\_\_\_\_\_  
Notary Public

STATE OF NEW YORK  
COUNTY OF ALBANY

ss.:

On the 23 day of January in the year 2011 before me, the undersigned, a Notary Public in and for said State, personally appeared Thomas Dolin, personally known to me or proved to me on the basis of satisfactory evidence to be the individual whose name is subscribed to the within instrument and acknowledged to me that he executed the same in his capacity, and that by his signature on the instrument, the individual, or the person upon behalf of which the individual acted, executed the instrument.



DIANE R. DESCHENES  
NOTARY PUBLIC, STATE OF NEW YORK  
NO. 01DE6027463  
QUALIFIED IN ALBANY COUNTY  
COMMISSION EXPIRES JULY 6, 2015

*Diane R. Deschenes*  
Notary Public



STATE OF NEW YORK  
COUNTY OF ALBANY

ss.:

On the \_\_\_ day of \_\_\_\_\_ in the year 2011 before me, the undersigned, a Notary Public in and for said State, personally appeared Marie Dermody, personally known to me or proved to me on the basis of satisfactory evidence to be the individual whose name is subscribed to the within instrument and acknowledged to me that he executed the same in his capacity, and that by his signature on the instrument, the individual, or the person upon behalf of which the individual acted, executed the instrument.

\_\_\_\_\_  
Notary Public

STATE OF NEW YORK  
COUNTY OF ALBANY

ss.:

On the \_\_\_ day of \_\_\_\_\_ in the year 2011 before me, the undersigned, a Notary Public in and for said State, personally appeared Richard Rapp, personally known to me or proved to me on the basis of satisfactory evidence to be the individual whose name is subscribed to the within instrument and acknowledged to me that he executed the same in his capacity, and that by his signature on the instrument, the individual, or the person upon behalf of which the individual acted, executed the instrument.

\_\_\_\_\_  
Notary Public

STATE OF NEW YORK  
COUNTY OF ALBANY

ss.:

On the \_\_\_ day of \_\_\_\_\_ in the year 2011 before me, the undersigned, a Notary Public in and for said State, personally appeared James Gaughan, personally known to me or proved to me on the basis of satisfactory evidence to be the individual whose name is subscribed to the within instrument and acknowledged to me that he executed the same in his capacity, and that by his signature on the instrument, the individual, or the person upon behalf of which the individual acted, executed the instrument.

\_\_\_\_\_  
Notary Public

STATE OF NEW YORK  
COUNTY OF ALBANY

ss.:

On the \_\_\_ day of \_\_\_\_\_ in the year 2011 before me, the undersigned, a Notary Public in and for said State, personally appeared Ellen McNulty-Ryan, personally known to me or proved to me on the basis of satisfactory evidence to be the individual whose name is subscribed to the within instrument and acknowledged to me that he executed the same in his capacity, and that by his signature on the instrument, the individual, or the person upon behalf of which the individual acted, executed the instrument.

\_\_\_\_\_  
Notary Public

STATE OF NEW YORK  
COUNTY OF ALBANY

ss.:

On the \_\_\_ day of \_\_\_\_\_ in the year 2011 before me, the undersigned, a Notary Public in and for said State, personally appeared Robert D. Conway, personally known to me or proved to me on the basis of satisfactory evidence to be the individual whose name is subscribed to the within instrument and acknowledged to me that he executed the same in his capacity, and that by his signature on the instrument, the individual, or the person upon behalf of which the individual acted, executed the instrument.

\_\_\_\_\_  
Notary Public



[www.townofnewscotland.com](http://www.townofnewscotland.com)

# TOWN OF NEW SCOTLAND

Diane R. Deschenes, RMC  
Town Clerk / Tax Collector  
[ddeschenes@townofnewscotland.com](mailto:ddeschenes@townofnewscotland.com)

Carol A. Cootware  
Deputy Town Clerk  
[ccootware@townofnewscotland.com](mailto:ccootware@townofnewscotland.com)

---

## RESOLUTION 11-265

Supervisor Dolin offered the following motion and moved its adoption:

THIS AMENDMENT NO.1 TO CAPITAL REGION SOLID WASTE MANAGEMENT PARTNERSHIP PLANNING UNIT RECYCLING COORDINATOR INTER-MUNICIPAL AGREEMENT, (the "IMA Amendment") made this \_\_\_\_ day of \_\_\_\_\_ 2011 by and between the Cities of Albany, Rensselaer, and Watervliet, and the Towns of Berne, Bethlehem, East Greenbush, Guilderland, Knox, New Scotland, Rensselaerville, and Westerlo, and the Villages of Green Island, Voorheesville and Altamont, collectively "Parties."

## WITNESSETH THAT:

**WHEREAS**, each of the Parties to this agreement is a member of the Capital Region Solid Waste Management Partnership, formerly known as the ANSWERS Wasteshed Planning Unit (the "Planning Unit"), which has a Solid Waste Management Plan ("SWMP") which was approved by the New York State Department of Environmental Conservation in 1992, as modified and approved by the New York State Department of Environmental Conservation in 20\_\_, according to New York State Environmental Conservation Law Section 27-0103; and

**WHEREAS**, the Modification to the SWMP called for a Planning Unit-wide Recycling Coordinator ("Planning Unit Recycling Coordinator") to manage the recycling activities of the Planning Unit and conduct public education and planning activities for the entire Planning Unit; and

**WHEREAS**, each of the Parties had previously entered into an Intermunicipal Agreement (the "IMA") whereby the Parties agreed to fund a Planning Unit Recycling Coordinator position, all in accordance with the terms of the IMA; and

**WHEREAS**, the Planning Unit has prepared a new SWMP, which calls for the continuation of the Planning Unit Recycling Coordinator; and

**WHEREAS**, the term of the IMA expires December 31, 2011, and each of the Parties desire to amend the IMA to extend the term of the IMA through December 31, 2015, and to make certain other housekeeping changes to the IMA; and

**WHEREAS**, this IMA Amendment is not to be construed so as to interfere with or diminish any municipal powers, authority, or regulatory authority of any of the participating municipalities.

**NOW, THEREFORE**, in consideration of the terms and conditions herein contained, the Parties to this IMA Amendment do hereby agree to amend the terms of the IMA as follows:

1. Paragraph 4 of the IMA is amended by deleting the statement "attention: Chris Quirk, Chief Financial Officer" and substituting therefore "attention: Commissioner."
2. Paragraph 11 of the IMA is amended by deleting the date "December 31, 2011" and replacing it with the date "December 31, 2015."
3. The IMA remains in full force and effect subject to the amendments as stated herein.
4. This IMA Amendment may be executed in counterparts, each of which shall be deemed an original and all of which together shall constitute the binding and enforceable agreement of the parties hereto.

Councilperson LaGrange seconded the motion. All present and voting aye, the motion carried (4 Ayes).

I Diane R. Deschenes, Clerk of the Town of New Scotland, New York, do hereby certify that I have compared the foregoing copy of the resolution with the original resolution on file in my office and that the same is a true and correct transcript of said original resolution and of the whole thereof as duly adopted by said Town Board at a meeting duly called and held at the New Scotland Town Hall on December 14, 2011 by the required necessary vote of the members to approve the resolution.

WITNESS, my hand and the official seal of the Town of New Scotland, New York, the 24 day of January 2012

  
Clerk

Seal





**AMENDMENT NO. 1  
TO CAPITAL REGION SOLID WASTE MANAGEMENT PARTNERSHIP  
PLANNING UNIT RECYCLING COORDINATOR INTERMUNICIPAL  
AGREEMENT**

**THIS AMENDMENT NO. 1 TO CAPITAL REGION SOLID WASTE MANAGEMENT PARTNERSHIP PLANNING UNIT RECYCLING COORDINATOR INTERMUNICIPAL AGREEMENT**, (the "IMA Amendment") made this 3<sup>rd</sup> day of October, 2011, by and between the Cities of Albany, Rensselaer, and Watervliet, and the Towns of Berne, Bethlehem, East Greenbush, Guilderland, Knox, New Scotland, Rensselaerville, and Westerlo, and the Villages of Green Island, Voorheesville and Altamont, collectively "Parties".

**WITNESSETH THAT:**

**WHEREAS**, each of the Parties to this agreement is a member of the Capital Region Solid Waste Management Partnership, formerly known as the ANSWERS Wasteshed Planning Unit (the "Planning Unit"), which has a Solid Waste Management Plan ("SWMP") which was approved by the New York State Department of Environmental Conservation in 1992, as modified and approved by the New York State Department of Environmental Conservation in 200\_\_, according to New York State Environmental Conservation Law Section 27-0103, and

**WHEREAS**, the Modification to the SWMP called for a Planning Unit-wide Recycling Coordinator ("Planning Unit Recycling Coordinator") to manage the recycling activities of the Planning Unit and conduct public education and planning activities for the entire Planning Unit, and

**WHEREAS**, each of the Parties had previously entered into an Intermunicipal Agreement (the "IMA") whereby the Parties agreed to fund a Planning Unit Recycling Coordinator position, all in accordance with the terms of the IMA, and

**WHEREAS**, the Planning Unit has prepared a new SWMP, which calls for the continuation of the Planning Unit Recycling Coordinator, and

**WHEREAS**, the term of the IMA expires December 31, 2011, and each of the Parties desire to amend the IMA to extend the term of the IMA through December 31, 2015, and to make certain other housekeeping changes to the IMA, and

**WHEREAS**, this IMA Amendment is not to be construed so as to interfere with or diminish any municipal powers, authority, or regulatory authority of any of the participating municipalities.

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3. The IMA remains in full force and effect subject to the amendments as stated herein.
4. This IMA Amendment may be executed in counterparts, each of which shall be deemed an original and all of which together shall constitute the binding and enforceable agreement of the parties hereto.

IN WITNESS WHEREOF, the following Parties through their Chief Elected Officials have executed this agreement.

**City of Albany**

Dated:

By: Gerald D. Jennings

  
\_\_\_\_\_  
Mayor

**City of Rensselaer**

Dated: 10/3/11

By: Daniel J. Dwyer

  
\_\_\_\_\_  
Mayor

**City of Watervliet**

Dated:

By: Michael P. Manning

\_\_\_\_\_  
Mayor

**Town of Berne**

Dated:

By: George J. Gebe, Jr.

\_\_\_\_\_  
Supervisor

**Town of Bethlehem**

Dated:

By: Sam Messina

\_\_\_\_\_  
Supervisor

**Town of East Greenbush**

Dated:

By: Rick McCabe

\_\_\_\_\_  
Supervisor

**Town of Guilderland**

Dated:

By: Kenneth D. Reunion

\_\_\_\_\_  
Supervisor

**Town of Knox**

Dated:

By: Michael Hammond

\_\_\_\_\_  
Supervisor

**Town of New Scotland**

Dated:

By: Thomas Dolin

\_\_\_\_\_  
Supervisor

**Town of Rensselaerville**

Dated:

By: Marie Dermody

\_\_\_\_\_  
Supervisor

**Town of Westerlo**

Dated:

By: Richard Rapp

\_\_\_\_\_  
Supervisor

**Village of Altamont**

Dated:

By: James Gaughan

\_\_\_\_\_  
Mayor

**Village of Green Island**

Dated:

By: Ellen McNulty-Ryan

\_\_\_\_\_  
Mayor

**Village of Voorheesville**

Dated:

By: Robert D. Conway

\_\_\_\_\_  
Mayor



STATE OF NEW YORK  
COUNTY OF ALBANY ss:

On the 18<sup>th</sup> day of October in the year 2011 before me, the undersigned, a Notary public in and for said State, personally appeared Gerald D. Jennings, personally known to me or proved to me on the basis of satisfactory evidence to be the individual whose name is subscribed to the within instrument and acknowledged to me that he executed the same in his capacity,, and that by his signature on the instrument, the individual, or the person upon behalf of which the individual acted, executed the instrument.




Notary Public

**BRADFORD D. BURNS**  
Notary Public, State of New York  
No. 02BU6173754  
Qualified in Albany County  
Commission Expires Sept. 4, 2015

STATE OF NEW YORK  
COUNTY OF ~~ALBANY~~ RENSSELAER ss:

On the 3<sup>rd</sup> day of October in the year 2011 before me, the undersigned, a Notary public in and for said State, personally appeared Daniel J. Dwyer, personally known to me or proved to me on the basis of satisfactory evidence to be the individual whose name is subscribed to the within instrument and acknowledged to me that he executed the same in his capacity,, and that by his signature on the instrument, the individual, or the person upon behalf of which the individual acted, executed the instrument.

SHARON A. BUTLER  
Notary Public, State of New York  
No. 01BU6046055  
Qualified in Rensselaer County  
Commission Expires August 7, 2014 Notary Public



STATE OF NEW YORK  
COUNTY OF ALBANY ss:

On the \_\_\_ day of \_\_\_\_\_ in the year 2011 before me, the undersigned, a Notary public in and for said State, personally appeared Michael P. Manning, personally known to me or proved to me on the basis of satisfactory evidence to be the individual whose name is subscribed to the within instrument and acknowledged to me that he executed the same in his capacity,, and that by his signature on the instrument, the individual, or the person upon behalf of which the individual acted, executed the instrument.

\_\_\_\_\_  
Notary Public

STATE OF NEW YORK  
COUNTY OF ALBANY ss:

On the \_\_\_ day of \_\_\_\_\_ in the year 2011 before me, the undersigned, a Notary public in and for said State, personally appeared George J. Gebe, Jr., personally known to me or proved to me on the basis of satisfactory evidence to be the individual whose name is subscribed to the within instrument and acknowledged to me that he executed the same in his capacity,, and that by his signature on the instrument, the individual, or the person upon behalf of which the individual acted, executed the instrument.

---

Notary Public

STATE OF NEW YORK  
COUNTY OF ALBANY ss:

On the \_\_\_ day of \_\_\_\_\_ in the year 2011 before me, the undersigned, a Notary public in and for said State, personally appeared Sam Messina, personally known to me or proved to me on the basis of satisfactory evidence to be the individual whose name is subscribed to the within instrument and acknowledged to me that he executed the same in his capacity,, and that by his signature on the instrument, the individual, or the person upon behalf of which the individual acted, executed the instrument.

---

Notary Public

STATE OF NEW YORK  
COUNTY OF ALBANY ss:

On the \_\_\_ day of \_\_\_\_\_ in the year 2011 before me, the undersigned, a Notary public in and for said State, personally appeared Rick McCabe, personally known to me or proved to me on the basis of satisfactory evidence to be the individual whose name is subscribed to the within instrument and acknowledged to me that he executed the same in his capacity,, and that by his signature on the instrument, the individual, or the person upon behalf of which the individual acted, executed the instrument.

---

Notary Public

STATE OF NEW YORK  
COUNTY OF ALBANY ss:

On the \_\_\_ day of \_\_\_\_\_ in the year 2011 before me, the undersigned, a Notary public in and for said State, personally appeared Kenneth D. Reunion, personally known to me or proved to me on the basis of satisfactory evidence to be the individual whose name is subscribed to the within instrument and acknowledged to me that he executed the same in his capacity,, and that by his signature on the instrument, the individual, or the person upon behalf of which the individual acted, executed the instrument.

---

Notary Public

STATE OF NEW YORK  
COUNTY OF ALBANY ss:

On the \_\_\_ day of \_\_\_\_\_ in the year 2011 before me, the undersigned, a Notary public in and for said State, personally appeared Michael Hammond, personally known to me or proved to me on the basis of satisfactory evidence to be the individual whose name is subscribed to the within instrument and acknowledged to me that he executed the same in his capacity,, and that by his signature on the instrument, the individual, or the person upon behalf of which the individual acted, executed the instrument.

---

Notary Public

STATE OF NEW YORK  
COUNTY OF ALBANY ss:

On the \_\_\_ day of \_\_\_\_\_ in the year 2011 before me, the undersigned, a Notary public in and for said State, personally appeared Thomas Dolin, personally known to me or proved to me on the basis of satisfactory evidence to be the individual whose name is subscribed to the within instrument and acknowledged to me that he executed the same in his capacity,, and that by his signature on the instrument, the individual, or the person upon behalf of which the individual acted, executed the instrument.

---

Notary Public

STATE OF NEW YORK  
COUNTY OF ALBANY ss:

On the \_\_\_ day of \_\_\_\_\_ in the year 2011 before me, the undersigned, a Notary public in and for said State, personally appeared Marie Dermody, personally known to me or proved to me on the basis of satisfactory evidence to be the individual whose name is subscribed to the within instrument and acknowledged to me that he executed the same in his capacity,, and that by his signature on the instrument, the individual, or the person upon behalf of which the individual acted, executed the instrument.

\_\_\_\_\_  
Notary Public

STATE OF NEW YORK  
COUNTY OF ALBANY ss:

On the \_\_\_ day of \_\_\_\_\_ in the year 2011 before me, the undersigned, a Notary public in and for said State, personally appeared Richard Rapp, personally known to me or proved to me on the basis of satisfactory evidence to be the individual whose name is subscribed to the within instrument and acknowledged to me that he executed the same in his capacity,, and that by his signature on the instrument, the individual, or the person upon behalf of which the individual acted, executed the instrument.

\_\_\_\_\_  
Notary Public

STATE OF NEW YORK  
COUNTY OF ALBANY ss:

On the \_\_\_ day of \_\_\_\_\_ in the year 2011 before me, the undersigned, a Notary public in and for said State, personally appeared James Gaughan, personally known to me or proved to me on the basis of satisfactory evidence to be the individual whose name is subscribed to the within instrument and acknowledged to me that he executed the same in his capacity,, and that by his signature on the instrument, the individual, or the person upon behalf of which the individual acted, executed the instrument.

\_\_\_\_\_  
Notary Public



STATE OF NEW YORK  
COUNTY OF ALBANY      ss:

On the \_\_\_ day of \_\_\_\_\_ in the year 2011 before me, the undersigned, a Notary public in and for said State, personally appeared Ellen McNulty-Ryan, personally known to me or proved to me on the basis of satisfactory evidence to be the individual whose name is subscribed to the within instrument and acknowledged to me that he executed the same in his capacity,, and that by his signature on the instrument, the individual, or the person upon behalf of which the individual acted, executed the instrument.

---

Notary Public

STATE OF NEW YORK  
COUNTY OF ALBANY      ss:

On the \_\_\_ day of \_\_\_\_\_ in the year 2011 before me, the undersigned, a Notary public in and for said State, personally appeared Robert D. Conway, personally known to me or proved to me on the basis of satisfactory evidence to be the individual whose name is subscribed to the within instrument and acknowledged to me that he executed the same in his capacity,, and that by his signature on the instrument, the individual, or the person upon behalf of which the individual acted, executed the instrument.

---

Notary Public



By Alderperson : Elacqua

Seconded by Alderperson : \_\_\_\_\_

#5

**A RESOLUTION OF THE COMMON COUNCIL OF THE CITY OF RENSSELAER TO: ACCEPT AND ADOPT THE SOLID WASTE MANAGEMENT PLAN FOR THE CAPITAL REGION SOLID WASTE MANAGEMENT PARTNERSHIP AND THE SEQRA FINDING STATEMENT ISSUED BY THE LEAD AGENCY; AND AUTHORIZING THE EXECUTION OF AN EXTENSION TO THE EXISTING INTERMUNICIPAL AGREEMENT**

**WHEREAS**, in order to promote the public health, safety and welfare and further the purposes of the New York State policy on solid waste management articulated in the New York State Environmental Conservation law Section 27-0106, the City of Rensselaer, is a member of the Capital Region Solid Waste Management Partnership Planning Unit (the "Planning Unit"), and

**WHEREAS**, on behalf of the Planning Unit, and with the guidance of a Steering Committee consisting of representatives from each municipality in the Planning Unit, among other stakeholders, the City of Rensselaer has prepared a Solid Waste Management Plan (SWMP) which has been submitted for acceptance to the New York State Department of Environmental Conservation, and

**WHEREAS**, the City of Rensselaer common Council was designated Lead Agency for the review of the Draft SWMP pursuant to the State Environmental Quality Review Act (SEQRA), and

**WHEREAS**, the City of Rensselaer Common Council, as Lead Agency, has accepted the Final Generic Environmental Impact Statement (FGEIS)/SWMP, and issued its Findings Statement, which, among other things, concluded that the requirements 6 NYCRR 617 have been met and that, the SWMP avoids or minimizes adverse environmental impacts to the maximum extent practicable, and

**WHEREAS**, the implementation of the SWMP will require that the existing Intermunicipal Agreement (IMA) between the member municipalities of the Planning Unit be extended beyond its current expiration date (copy of amendment annexed hereto), and

WHEREAS, the City of Rensselaer Common Council has reviewed the FGEIS/SWMP and the Finding Statement.

**NOW, THEREFORE, BE IT RESOLVED, AS FOLLOWS BY THE COMMON COUNCIL:**

1. The Common Council accepts and adopts the FGEIS/SWMP for the Planning Unit, and the Findings Statement adopted by the Lead Agency, for this Action.
2. The Mayor of the City of Rensselaer is hereby authorized to enter into and execute an extension of the existing IMA with members of the Planning Unit.
3. This Resolution shall take effect immediately.

Approved as to form and sufficiency  
this 21<sup>st</sup> day of September 2011

*John Spotts*  
\_\_\_\_\_  
Corporation Counsel

*David J. Dwyer*  
\_\_\_\_\_  
Mayor

ResolutionSWMP092111

|                    | AYES | NOES |
|--------------------|------|------|
| MARION WEBBER      | ✓    |      |
| JAMES VAN VORST    | ✓    |      |
| PHIL ELACQUA       | ✓    |      |
| GRETCHEN POOLE     | ✓    |      |
| DOMINICK TAGLIENTO | ✓    |      |
| BRIAN STALL        | ✓    |      |
| JAMES CASEY        | ✓    |      |
| RICHARD MOONEY     | ✓    |      |
| MARGARET VANDYKE   | ✓    |      |
| HARRY ADALIAN      | ✓    |      |
| Total              | 9    | 0    |



Town Clerk/Tax Collector  
Kathleen A. Hallenbeck

Councilmen  
Robert Bolte  
Gary Chase  
Marion Cooke  
John Kudlack

Building Inspector/CEO  
Mark Overbaugh

## TOWN OF RENNELAERVILLE

87 Barger Road, Medusa, NY 12120  
(518) 797-3798 (518) 239-4225  
Fax: (518) 239-6339  
T.D.D. 1-800-662-1220

Town Supervisor  
Marie Dermody

Town Attorney  
Joseph Catalano

Acting Superintendent of Highways  
E. David Potter

Assessors  
Jeffry R. Pine  
Donna Kropp  
Michael Weber

Town Justices  
Victor La Plante  
Timothy Miller

September 26, 2011

City of Albany  
Department of General Services  
Rapp Road Waste management Facility  
Commissioner Nicholas D'Antonio  
525 Rapp Road  
Albany, NY 12205

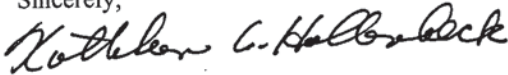
RE: Capital Region Solid Waste Management Partnership

Dear Commissioner D'Antonio:

Enclosed are the signed and notarized Inter-municipal Agreement and the Resolution (#2011.09.13A) of the Town Board to accept and adopt the FGEIS/SWMO for the Planning Unit and the Findings Statement adopted by the Lead Agency for this Action.

If you need anything further please contact me.

Sincerely,



Kathleen A. Hallenbeck  
Town Clerk

Enc.



**AMENDMENT NO. 1 TO  
CAPITAL REGION SOLID WASTE MANAGEMENT PARTNERSHIP  
PLANNING UNIT RECYCLING COORDINATOR  
INTERMUNICIPAL AGREEMENT**

**THIS AMENDMENT NO. 1 TO CAPITAL REGION SOLID WASTE MANAGEMENT PARTNERSHIP PLANNING UNIT RECYCLING COORDINATOR INTERMUNICIPAL AGREEMENT**, (the "IMA Amendment") made this 13<sup>th</sup> day of September, 2011 by and between the Cities of Albany, Rensselaer, and Watervliet, and the Towns of Berne, Bethlehem, East Greenbush, Guilderland, Knox, New Scotland, Rensselaerville, and Westerlo, and the Villages of Green Island, Voorheesville and Altamont, collectively "Parties."

**WITNESSETH THAT:**

**WHEREAS**, each of the Parties to this agreement is a member of the Capital Region Solid Waste Management Partnership, formerly known as the ANSWERS Wasteshed Planning Unit (the "Planning Unit"), which has a Solid Waste Management Plan ("SWMP") which was approved by the New York State Department of Environmental Conservation in 1992, as modified and approved by the New York State Department of Environmental Conservation in 200\_, according to New York State Environmental Conservation Law Section 27-0103; and

**WHEREAS**, the Modification to the SWMP called for a Planning Unit-wide Recycling Coordinator ("Planning Unit Recycling Coordinator") to manage the recycling activities of the Planning Unit and conduct public education and planning activities for the entire Planning Unit; and

**WHEREAS**, each of the Parties had previously entered into an Intermunicipal Agreement (the "IMA") whereby the Parties agreed to fund a Planning Unit Recycling Coordinator position, all in accordance with the terms of the IMA; and

**WHEREAS**, the Planning Unit has prepared a new SWMP, which calls for the continuation of the Planning Unit Recycling Coordinator; and

**WHEREAS**, the term of the IMA expires December 31, 2011, and each of the Parties desire to amend the IMA to extend the term of the IMA through December 31, 2015, and to make certain other housekeeping changes to the IMA; and

**WHEREAS**, this IMA Amendment is not to be construed so as to interfere with or diminish any municipal powers, authority, or regulatory authority of any of the participating municipalities.

**NOW, THEREFORE**, in consideration of the terms and conditions herein contained, the Parties to this IMA Amendment do hereby agree to amend the terms of the IMA as follows:

1. Paragraph 4 of the IMA is amended by deleting the statement "attention: Chris Quirk, Chief Financial Officer" and substituting therefor "attention: Commissioner."
2. Paragraph 11 of the IMA is amended by deleting the date "December 31, 2011" and replacing it with the date "December 31, 2015."
3. The IMA remains in full force and effect subject to the amendments as stated herein.
4. This IMA Amendment may be executed in counterparts, each of which shall be deemed an original and all of which together shall constitute the binding and enforceable agreement of the parties hereto.

IN WITNESS WHEREOF, the following Parties through their Chief Elected Officials have executed this agreement.

**City of Albany**

Dated: By: Gerald D. Jennings \_\_\_\_\_  
Mayor

**City of Rensselaer**

Dated: By: Daniel H. Dwyer \_\_\_\_\_  
Mayor

**City of Watervliet**

Dated: By: Michael P. Manning \_\_\_\_\_  
Mayor

**Town of Berne**

Dated: By: George J. Gebe, Jr. \_\_\_\_\_  
Supervisor

**Town of Bethlehem**

Dated: By: Sam Messina \_\_\_\_\_  
Supervisor

**Town of East Greenbush**

Dated:

By: Rick McCabe

\_\_\_\_\_  
Supervisor

**Town of Guilderland**

Dated:

By: Kenneth D. Runion

\_\_\_\_\_  
Supervisor

**Town of Knox**

Dated:

By: Michael Hammond

\_\_\_\_\_  
Supervisor

**Town of New Scotland**

Dated:

By: Thomas Dolin

\_\_\_\_\_  
Supervisor

**Town of Rensselaerville**

Dated: 9/14/2011

By: Marie Dermody

Marie Dermody  
Supervisor

**Town of Westerlo**

Dated:

By: Richard Rapp

\_\_\_\_\_  
Supervisor

**Village of Altamont**

Dated:

By: James Gaughan

\_\_\_\_\_  
Mayor

**Village of Green Island**

Dated:

By: Ellen McNulty-Ryan

\_\_\_\_\_  
Mayor

**Village of Voorheesville**

Dated:

By: Robert D. Conway

\_\_\_\_\_  
Mayor

STATE OF NEW YORK  
COUNTY OF ALBANY

ss.:

On the \_\_\_ day of \_\_\_\_\_ in the year 2011 before me, the undersigned, a Notary Public in and for said State, personally appeared Gerald D. Jennings, personally known to me or proved to me on the basis of satisfactory evidence to be the individual whose name is subscribed to the within instrument and acknowledged to me that he executed the same in his capacity, and that by his signature on the instrument, the individual, or the person upon behalf of which the individual acted, executed the instrument.

\_\_\_\_\_  
Notary Public



STATE OF NEW YORK  
COUNTY OF RENSSELAER

ss.:

On the \_\_\_ day of \_\_\_\_\_ in the year 2011 before me, the undersigned, a Notary Public in and for said State, personally appeared Daniel H. Dwyer, personally known to me or proved to me on the basis of satisfactory evidence to be the individual whose name is subscribed to the within instrument and acknowledged to me that he executed the same in his capacity, and that by his signature on the instrument, the individual, or the person upon behalf of which the individual acted, executed the instrument.

\_\_\_\_\_  
Notary Public

STATE OF NEW YORK  
COUNTY OF ALBANY

ss.:

On the \_\_\_ day of \_\_\_\_\_ in the year 2011 before me, the undersigned, a Notary Public in and for said State, personally appeared Michael P. Manning personally known to me or proved to me on the basis of satisfactory evidence to be the individual whose name is subscribed to the within instrument and acknowledged to me that he executed the same in his capacity, and that by his signature on the instrument, the individual, or the person upon behalf of which the individual acted, executed the instrument.

\_\_\_\_\_  
Notary Public



STATE OF NEW YORK  
COUNTY OF ALBANY

ss.:

On the \_\_\_ day of \_\_\_\_\_ in the year 2011 before me, the undersigned, a Notary Public in and for said State, personally appeared George J. Gebe, Jr., personally known to me or proved to me on the basis of satisfactory evidence to be the individual whose name is subscribed to the within instrument and acknowledged to me that he executed the same in his capacity, and that by his signature on the instrument, the individual, or the person upon behalf of which the individual acted, executed the instrument.

\_\_\_\_\_  
Notary Public

STATE OF NEW YORK  
COUNTY OF ALBANY

ss.:

On the \_\_\_ day of \_\_\_\_\_ in the year 2011 before me, the undersigned, a Notary Public in and for said State, personally appeared Sam Messina, personally known to me or proved to me on the basis of satisfactory evidence to be the individual whose name is subscribed to the within instrument and acknowledged to me that he executed the same in his capacity, and that by his signature on the instrument, the individual, or the person upon behalf of which the individual acted, executed the instrument.

\_\_\_\_\_  
Notary Public

STATE OF NEW YORK  
COUNTY OF RENSSELAER]

ss.:

\_\_\_ day of \_\_\_\_\_ in the year 2011 before me, the undersigned, a Notary Public in and for said State, personally appeared Rick McCabe, personally known to me or proved to me on the basis of satisfactory evidence to be the individual whose name is subscribed to the within instrument and acknowledged to me that he executed the same in his capacity, and that by his signature on the instrument, the individual, or the person upon behalf of which the individual acted, executed the instrument.

\_\_\_\_\_  
Notary Public

STATE OF NEW YORK  
COUNTY OF ALBANY

ss.:

On the \_\_\_ day of \_\_\_\_\_ in the year 2011 before me, the undersigned, a Notary Public in and for said State, personally appeared Kenneth D. Runion, personally known to me or proved to me on the basis of satisfactory evidence to be the individual whose name is subscribed to the within instrument and acknowledged to me that he executed the same in his capacity, and that by his signature on the instrument, the individual, or the person upon behalf of which the individual acted, executed the instrument.

\_\_\_\_\_  
Notary Public

STATE OF NEW YORK  
COUNTY OF ALBANY

ss.:

On the \_\_\_ day of \_\_\_\_\_ in the year 2011 before me, the undersigned, a Notary Public in and for said State, personally appeared Michael Hammond, personally known to me or proved to me on the basis of satisfactory evidence to be the individual whose name is subscribed to the within instrument and acknowledged to me that he executed the same in his capacity, and that by his signature on the instrument, the individual, or the person upon behalf of which the individual acted, executed the instrument.

\_\_\_\_\_  
Notary Public

STATE OF NEW YORK  
COUNTY OF ALBANY

ss.:

On the \_\_\_ day of \_\_\_\_\_ in the year 2011 before me, the undersigned, a Notary Public in and for said State, personally appeared Thomas Dolin, personally known to me or proved to me on the basis of satisfactory evidence to be the individual whose name is subscribed to the within instrument and acknowledged to me that he executed the same in his capacity, and that by his signature on the instrument, the individual, or the person upon behalf of which the individual acted, executed the instrument.

\_\_\_\_\_  
Notary Public

STATE OF NEW YORK  
COUNTY OF ALBANY

ss.:

On the 14 day of September in the year 2011 before me, the undersigned, a Notary Public in and for said State, personally appeared Marie Dermody, personally known to me or proved to me on the basis of satisfactory evidence to be the individual whose name is subscribed to the within instrument and acknowledged to me that he executed the same in his capacity, and that by his signature on the instrument, the individual, or the person upon behalf of which the individual acted, executed the instrument.

*Kathleen A. Hallenbeck*  
Notary Public

**KATHLEEN A. HALLENBECK**  
NOTARY PUBLIC, STATE OF NEW YORK  
QUALIFIED IN ALBANY COUNTY REG. #01146042388  
MY COMMISSION EXPIRES MAY 22, 14

STATE OF NEW YORK  
COUNTY OF ALBANY

ss.:

On the \_\_\_ day of \_\_\_\_\_ in the year 2011 before me, the undersigned, a Notary Public in and for said State, personally appeared Richard Rapp, personally known to me or proved to me on the basis of satisfactory evidence to be the individual whose name is subscribed to the within instrument and acknowledged to me that he executed the same in his capacity, and that by his signature on the instrument, the individual, or the person upon behalf of which the individual acted, executed the instrument.

\_\_\_\_\_  
Notary Public

STATE OF NEW YORK  
COUNTY OF ALBANY

ss.:

On the \_\_\_ day of \_\_\_\_\_ in the year 2011 before me, the undersigned, a Notary Public in and for said State, personally appeared James Gaughan, personally known to me or proved to me on the basis of satisfactory evidence to be the individual whose name is subscribed to the within instrument and acknowledged to me that he executed the same in his capacity, and that by his signature on the instrument, the individual, or the person upon behalf of which the individual acted, executed the instrument.

\_\_\_\_\_  
Notary Public

STATE OF NEW YORK  
COUNTY OF ALBANY

ss.:

On the \_\_\_ day of \_\_\_\_\_ in the year 2011 before me, the undersigned, a Notary Public in and for said State, personally appeared Ellen McNulty-Ryan, personally known to me or proved to me on the basis of satisfactory evidence to be the individual whose name is subscribed to the within instrument and acknowledged to me that he executed the same in his capacity, and that by his signature on the instrument, the individual, or the person upon behalf of which the individual acted, executed the instrument.

\_\_\_\_\_  
Notary Public

STATE OF NEW YORK  
COUNTY OF ALBANY

ss.:

On the \_\_\_ day of \_\_\_\_\_ in the year 2011 before me, the undersigned, a Notary Public in and for said State, personally appeared Robert D. Conway, personally known to me or proved to me on the basis of satisfactory evidence to be the individual whose name is subscribed to the within instrument and acknowledged to me that he executed the same in his capacity, and that by his signature on the instrument, the individual, or the person upon behalf of which the individual acted, executed the instrument.

\_\_\_\_\_  
Notary Public



**RESOLUTION # 2011.09.13A**

**RESOLUTION OF THE TOWN BOARD OF THE TOWN OF RENSSELAERVILLE TO:  
ACCEPT AND ADOPT THE SOLID WASTE MANAGEMENT PLAN FOR THE CAPITAL  
REGION SOLID WASTE MANAGEMENT PARTNERSHIP AND THE SEQR FINDING  
STATEMENT ISSUED BY THE LEAD AGENCY; and AUTHORIZING THE EXECUTION OF  
AN EXTENSION OF THE EXISTING INTERMUNICIPAL AGREEMENT – RESOLUTION #  
09.13.11.**

The following Resolution (09.13.11A) was made by Councilman Chase;

**WHEREAS**, in order to promote the public health, safety and welfare and further the purposes of the New York State policy on solid waste management articulated in New York State Environmental Conservation Law Section 27-0106, the Town of Rensselaerville is a member of the Capital Region Solid Waste Management Partnership Planning Unit (the "Planning Unit"); and

**WHEREAS**, on behalf of the Planning Unit, and with the guidelines of a Steering Committee consisting of representatives from each municipality in the Planning Unit, among other stakeholders, the City of Albany has prepared a Solid Waste Management Plan (SWMP) which has been submitted for acceptance to the New York State Department of Environmental Conservation; and

**WHEREAS**, the City of Albany Common Council was designated lead Agency for the review of the Draft SWMP pursuant to the State Environmental Quality Review Act (SEQR); and

**WHEREAS**, the City of Albany Common Council, as Lead Agency, has accepted the Final Generic Environmental Impact Statement (FGEIS)/SWMO, and issued its Findings Statement, which among other things concluded that the requirements 6 NYCRR 617 have been met and that, the SWMP avoids or minimizes adverse environmental impacts to the maximum extent practicable; and

**WHEREAS**, the implementation of the SWMP will require that the existing Inter-municipal Agreement (IMA) between the member municipalities of the Planning Unit be extended beyond its current expiration date; and

**WHEREAS**, the Town of Rensselaerville Town Board has reviewed the FGEIS/SWMP and the Findings Statement;

**NOW, THEREFORE, BE IT RESOLVED, AS FOLLOWS BY THE TOWN BOARD:**

- 1) The Town Board accepts and adopts the FGEIS/SWMO for the Planning Unit, and the Findings Statement adopted by the Lead Agency, for this Action.
- 2) The Supervisor of the Town of Rensselaerville is hereby authorized to enter into and execute and extension of the existing IMA with members of the Planning Unit.
- 3) This Resolution shall take effect immediately.

2<sup>nd</sup> by Councilman Kudlack.

*Motion Carried. Ayes (5) Dermody, Bolte, Chase, Cooke, Kudlack; Nays (0)*



Town Clerk/Tax Collector  
Kathleen A. Hallenbeck

Councilmen  
Robert Bolte  
Gary Chase  
Marion Cooke  
John Kudlack

Building Inspector/CEO  
Mark Overbaugh

## TOWN OF RENNELAERVILLE

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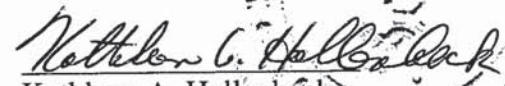
Town Justices  
Victor La Plante  
Timothy Miller

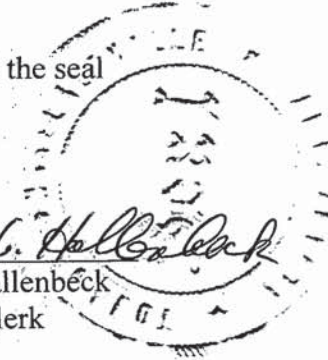
I, Kathleen A. Hallenbeck, Town Clerk of the Town of Rensselaerville,  
Albany County, New York,

I DO HEREBY CERTIFY, that I have compared the foregoing with the  
original resolution adopted by the Town Board of the Town of Rensselaerville  
at a meeting of said Board on the 13th day of September, 2011 and that the  
foregoing is a true and correct transcript of said original resolution and of the  
whole thereof, and that said original resolution is on file in my office.

I DO FURTHER CERTIFY that each of the members of said Town Board  
had due notice of said Board meeting, and that Marie Dermody, Supervisor, and  
Marion Cooke, Robert Bolte, Gary Chase and John Kudlack, Councilpersons  
were present at such meeting.

IN WITNESS WHEREOF, I have hereunto set my hand and the seal  
of the Town of Rensselaerville, this 14th day of September, 2011.

  
Kathleen A. Hallenbeck  
Town Clerk







**RECEIVED**  
NOV 29 2011  
Department of General Services  
CITY OF ALBANY

**AMENDMENT NO. 1 TO  
CAPITAL REGION SOLID WASTE MANAGEMENT PARTNERSHIP  
PLANNING UNIT RECYCLING COORDINATOR  
INTERMUNICIPAL AGREEMENT**

**THIS AMENDMENT NO. 1 TO CAPITAL REGION SOLID WASTE MANAGEMENT PARTNERSHIP PLANNING UNIT RECYCLING COORDINATOR INTERMUNICIPAL AGREEMENT**, (the "IMA Amendment") made this \_\_\_ day of \_\_\_\_\_, 2011 by and between the Cities of Albany, Rensselaer, and Watervliet, and the Towns of Berne, Bethlehem, East Greenbush, Guilderland, Knox, New Scotland, Rensselaerville, and Westerlo, and the Villages of Green Island, Voorheesville and Altamont, collectively "Parties."

**WITNESSETH THAT:**

**WHEREAS**, each of the Parties to this agreement is a member of the Capital Region Solid Waste Management Partnership, formerly known as the ANSWERS Wasteshed Planning Unit (the "Planning Unit"), which has a Solid Waste Management Plan ("SWMP") which was approved by the New York State Department of Environmental Conservation in 1992, as modified and approved by the New York State Department of Environmental Conservation in 200\_, according to New York State Environmental Conservation Law Section 27-0103; and

**WHEREAS**, the Modification to the SWMP called for a Planning Unit-wide Recycling Coordinator ("Planning Unit Recycling Coordinator") to manage the recycling activities of the Planning Unit and conduct public education and planning activities for the entire Planning Unit; and

**WHEREAS**, each of the Parties had previously entered into an Intermunicipal Agreement (the "IMA") whereby the Parties agreed to fund a Planning Unit Recycling Coordinator position, all in accordance with the terms of the IMA; and

**WHEREAS**, the Planning Unit has prepared a new SWMP, which calls for the continuation of the Planning Unit Recycling Coordinator; and

**WHEREAS**, the term of the IMA expires December 31, 2011, and each of the Parties desire to amend the IMA to extend the term of the IMA through December 31, 2015, and to make certain other housekeeping changes to the IMA; and

**WHEREAS**, this IMA Amendment is not to be construed so as to interfere with or diminish any municipal powers, authority, or regulatory authority of any of the participating municipalities.

**NOW, THEREFORE**, in consideration of the terms and conditions herein contained, the Parties to this IMA Amendment do hereby agree to amend the terms of the IMA as follows:

RECEIVED  
DEPARTMENT OF REVENUE  
MAY 11 2015  
MAY 11 2015

1. Paragraph 4 of the IMA is amended by deleting the statement "attention: Chris Quirk, Chief Financial Officer" and substituting therefor "attention: Commissioner."
2. Paragraph 11 of the IMA is amended by deleting the date "December 31, 2011" and replacing it with the date "December 31, 2015."
3. The IMA remains in full force and effect subject to the amendments as stated herein.
4. This IMA Amendment may be executed in counterparts, each of which shall be deemed an original and all of which together shall constitute the binding and enforceable agreement of the parties hereto.

IN WITNESS WHEREOF, the following Parties through their Chief Elected Officials have executed this agreement.

**City of Albany**

Dated:

By: Gerald D. Jennings

\_\_\_\_\_  
Mayor

**City of Rensselaer**

Dated:

By: Daniel H. Dwyer

\_\_\_\_\_  
Mayor

**City of Watervliet**

Dated:

By: Michael P. Manning

\_\_\_\_\_  
Mayor

**Town of Berne**

Dated:

By: George J. Gebe, Jr.

\_\_\_\_\_  
Supervisor

**Town of Bethlehem**

Dated:

By: Sam Messina

\_\_\_\_\_  
Supervisor

**Town of East Greenbush**

Dated:

By: Rick McCabe

\_\_\_\_\_  
Supervisor

**Town of Guilderland**

Dated:

By: Kenneth D. Runion

\_\_\_\_\_  
Supervisor

**Town of Knox**

Dated:

By: Michael Hammond

\_\_\_\_\_  
Supervisor

**Town of New Scotland**

Dated:

By: Thomas Dolin

\_\_\_\_\_  
Supervisor

**Town of Rensselaerville**

Dated:

By: Marie Dermody

\_\_\_\_\_  
Supervisor

**Town of Westerlo**

Dated:

By: Richard Rapp

\_\_\_\_\_  
Supervisor

**Village of Altamont**

Dated:

By: James Gaughan

\_\_\_\_\_  
Mayor

**Village of Green Island**

Dated:

By: Ellen McNulty-Ryan

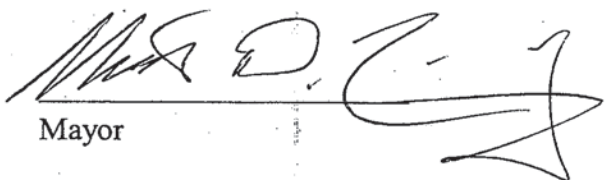
\_\_\_\_\_  
Mayor

**Village of Voorheesville**

Dated:

By: Robert D. Conway

\_\_\_\_\_  
Mayor



STATE OF NEW YORK  
COUNTY OF ALBANY

ss.:

On the 22<sup>nd</sup> day of November in the year 2011 before me, the undersigned, a Notary Public in and for said State, personally appeared Gerald D. Jennings, personally known to me or proved to me on the basis of satisfactory evidence to be the individual whose name is subscribed to the within instrument and acknowledged to me that he executed the same in his capacity, and that by his signature on the instrument, the individual, or the person upon behalf of which the individual acted, executed the instrument.

\_\_\_\_\_  
Notary Public

STATE OF NEW YORK  
COUNTY OF RENSSELAER

ss.:

On the \_\_\_ day of \_\_\_\_\_ in the year 2011 before me, the undersigned, a Notary Public in and for said State, personally appeared Daniel H. Dwyer, personally known to me or proved to me on the basis of satisfactory evidence to be the individual whose name is subscribed to the within instrument and acknowledged to me that he executed the same in his capacity, and that by his signature on the instrument, the individual, or the person upon behalf of which the individual acted, executed the instrument.

\_\_\_\_\_  
Notary Public

STATE OF NEW YORK  
COUNTY OF ALBANY

ss.:

On the \_\_\_ day of \_\_\_\_\_ in the year 2011 before me, the undersigned, a Notary Public in and for said State, personally appeared Michael P. Manning personally known to me or proved to me on the basis of satisfactory evidence to be the individual whose name is subscribed to the within instrument and acknowledged to me that he executed the same in his capacity, and that by his signature on the instrument, the individual, or the person upon behalf of which the individual acted, executed the instrument.

\_\_\_\_\_  
Notary Public



STATE OF NEW YORK  
COUNTY OF ALBANY

ss.:

On the \_\_\_ day of \_\_\_\_\_ in the year 2011 before me, the undersigned, a Notary Public in and for said State, personally appeared George J. Gebe, Jr., personally known to me or proved to me on the basis of satisfactory evidence to be the individual whose name is subscribed to the within instrument and acknowledged to me that he executed the same in his capacity, and that by his signature on the instrument, the individual, or the person upon behalf of which the individual acted, executed the instrument.

\_\_\_\_\_  
Notary Public

STATE OF NEW YORK  
COUNTY OF ALBANY

ss.:

On the \_\_\_ day of \_\_\_\_\_ in the year 2011 before me, the undersigned, a Notary Public in and for said State, personally appeared Sam Messina, personally known to me or proved to me on the basis of satisfactory evidence to be the individual whose name is subscribed to the within instrument and acknowledged to me that he executed the same in his capacity, and that by his signature on the instrument, the individual, or the person upon behalf of which the individual acted, executed the instrument.

\_\_\_\_\_  
Notary Public

STATE OF NEW YORK  
COUNTY OF RENSSELAER]

ss.:

\_\_\_ day of \_\_\_\_\_ in the year 2011 before me, the undersigned, a Notary Public in and for said State, personally appeared Rick McCabe, personally known to me or proved to me on the basis of satisfactory evidence to be the individual whose name is subscribed to the within instrument and acknowledged to me that he executed the same in his capacity, and that by his signature on the instrument, the individual, or the person upon behalf of which the individual acted, executed the instrument.

\_\_\_\_\_  
Notary Public

STATE OF NEW YORK  
COUNTY OF ALBANY

ss.:

On the \_\_\_ day of \_\_\_\_\_ in the year 2011 before me, the undersigned, a Notary Public in and for said State, personally appeared Kenneth D. Runion, personally known to me or proved to me on the basis of satisfactory evidence to be the individual whose name is subscribed to the within instrument and acknowledged to me that he executed the same in his capacity, and that by his signature on the instrument, the individual, or the person upon behalf of which the individual acted, executed the instrument.

\_\_\_\_\_  
Notary Public

STATE OF NEW YORK  
COUNTY OF ALBANY

ss.:

On the \_\_\_ day of \_\_\_\_\_ in the year 2011 before me, the undersigned, a Notary Public in and for said State, personally appeared Michael Hammond, personally known to me or proved to me on the basis of satisfactory evidence to be the individual whose name is subscribed to the within instrument and acknowledged to me that he executed the same in his capacity, and that by his signature on the instrument, the individual, or the person upon behalf of which the individual acted, executed the instrument.

\_\_\_\_\_  
Notary Public

STATE OF NEW YORK  
COUNTY OF ALBANY

ss.:

On the \_\_\_ day of \_\_\_\_\_ in the year 2011 before me, the undersigned, a Notary Public in and for said State, personally appeared Thomas Dolin, personally known to me or proved to me on the basis of satisfactory evidence to be the individual whose name is subscribed to the within instrument and acknowledged to me that he executed the same in his capacity, and that by his signature on the instrument, the individual, or the person upon behalf of which the individual acted, executed the instrument.

\_\_\_\_\_  
Notary Public



STATE OF NEW YORK  
COUNTY OF ALBANY

ss.:

On the \_\_\_ day of \_\_\_\_\_ in the year 2011 before me, the undersigned, a Notary Public in and for said State, personally appeared Marie Dermody, personally known to me or proved to me on the basis of satisfactory evidence to be the individual whose name is subscribed to the within instrument and acknowledged to me that he executed the same in his capacity, and that by his signature on the instrument, the individual, or the person upon behalf of which the individual acted, executed the instrument.

\_\_\_\_\_  
Notary Public

STATE OF NEW YORK  
COUNTY OF ALBANY

ss.:

On the \_\_\_ day of \_\_\_\_\_ in the year 2011 before me, the undersigned, a Notary Public in and for said State, personally appeared Richard Rapp, personally known to me or proved to me on the basis of satisfactory evidence to be the individual whose name is subscribed to the within instrument and acknowledged to me that he executed the same in his capacity, and that by his signature on the instrument, the individual, or the person upon behalf of which the individual acted, executed the instrument.

\_\_\_\_\_  
Notary Public

STATE OF NEW YORK  
COUNTY OF ALBANY

ss.:

On the \_\_\_ day of \_\_\_\_\_ in the year 2011 before me, the undersigned, a Notary Public in and for said State, personally appeared James Gaughan, personally known to me or proved to me on the basis of satisfactory evidence to be the individual whose name is subscribed to the within instrument and acknowledged to me that he executed the same in his capacity, and that by his signature on the instrument, the individual, or the person upon behalf of which the individual acted, executed the instrument.

\_\_\_\_\_  
Notary Public

STATE OF NEW YORK  
COUNTY OF ALBANY

ss.:

On the \_\_\_ day of \_\_\_\_\_ in the year 2011 before me, the undersigned, a Notary Public in and for said State, personally appeared Ellen McNulty-Ryan, personally known to me or proved to me on the basis of satisfactory evidence to be the individual whose name is subscribed to the within instrument and acknowledged to me that he executed the same in his capacity, and that by his signature on the instrument, the individual, or the person upon behalf of which the individual acted, executed the instrument.

\_\_\_\_\_  
Notary Public

STATE OF NEW YORK  
COUNTY OF ALBANY

ss.:

On the 22<sup>nd</sup> day of November in the year 2011 before me, the undersigned, a Notary Public in and for said State, personally appeared Robert D. Conway, personally known to me or proved to me on the basis of satisfactory evidence to be the individual whose name is subscribed to the within instrument and acknowledged to me that he executed the same in his capacity, and that by his signature on the instrument, the individual, or the person upon behalf of which the individual acted, executed the instrument.

*Linda M Pasquali*  
Notary Public

LINDA M. PASQUALI  
Notary Public - State of New York  
No. 01PA6117191  
Qualified in Albany County 12  
Commission Expires October 18, 20\_\_\_\_

**VILLAGE OF VOORHEESVILLE  
RESOLUTION Number 10 of 2011**

**To Comply with the Capital Region Solid Waste Management Partnership**

WHEREAS, in order to promote the public health, safety and welfare and further the purposes of the New York State policy on solid waste management articulated in New York Environmental Conservation Law 27-0106, the Village of Voorheesville is a member of the Capital Region Solid Waste Management Partnership Planning Unit ("Planning Unit"); and

WHEREAS, on behalf of the Planning Unit, the City of Albany has prepared a Solid Waste Management Plan (SWMP) which has been accepted by New York Department of Environmental Conservation; and

WHEREAS, the Village Board of the Village of Voorheesville has reviewed a Draft Modification to the SWMP dated August 2008 as prepared for the City of Albany by Clough Harbour & Associates LLP; and

WHEREAS, as part of the SWMP Modification, the Village and other members of the Planning Unit must: enter into an Intermunicipal Agreement for the services of a Planned Unit Recycling Coordinator, and agree to implement the terms of the SWMP Modification once it is finalized; and

WHEREAS, the Village Board of the Village of Voorheesville has reviewed the terms of the Intermunicipal Agreement for the services of the Planned Unit Recycling Coordinator; and

WHEREAS, by Resolution dated November 17, 2008, the Common Council of the City of Albany, on behalf of the City, accepted and adopted the SWMP Modification and agreed to comply with the SWMP Modification;

NOW, THEREFORE, be it resolved as follows by the Village board:

1. The Village Board accepts and adopts the modifications to the Solid Waste Management Plan for the Planning Unit.
2. The Village of Voorheesville agrees to comply with the Solid Waste Management Plan modifications.
3. The Mayor of the Village of Voorheesville is hereby authorized to enter into and execute the Intermunicipal Agreement with the members of the Planned Unit.
4. This Resolution shall take effect immediately.

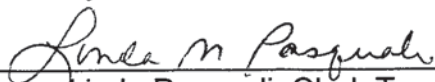
Date: November 22, 2011

Offered by Trustee Hotaling

Seconded by Trustee Cardona

Absent: Trustees Berger and Stevens

Voted Aye: Trustees Cardona and Hotaling, Mayor Conway



\_\_\_\_\_  
Linda Pasquali, Clerk Treasurer





# TOWN OF WESTERLO

P.O. Box 148 - 671 CR 401  
Westerlo, NY 12193  
(518) 797-3111  
Fax (518) 797-5122

**GERTRUDE A. SMITH**  
TOWN CLERK/TAX COLLECTOR  
REGISTRAR

**KATHLEEN SPINNATO**  
DEPUTY

Nov. 14, 2011

Attn: Nicholas D'Antonio, Commissioner  
City of Albany Department of General Services  
Rapp Road Waste Management Facility  
525 Rapp Road  
Albany, NY 12205

Re: Capital Region Solid Waste Management Partnership

Dear Sir:

Enclosed are:

- 1) The Inter-Municipal Agreement signed by Richard H. Rapp
- 2) Resolution adopted by the Westerlo Town Board on 11/9/2011.

If anything else is required, please feel free to contact me.

Sincerely,

A handwritten signature in cursive script that reads "Gertrude A. Smith".

Gertrude A. Smith





**AMENDMENT NO. 1 TO  
CAPITAL REGION SOLID WASTE MANAGEMENT PARTNERSHIP  
PLANNING UNIT RECYCLING COORDINATOR  
INTERMUNICIPAL AGREEMENT**

**THIS AMENDMENT NO. 1 TO CAPITAL REGION SOLID WASTE MANAGEMENT PARTNERSHIP PLANNING UNIT RECYCLING COORDINATOR INTERMUNICIPAL AGREEMENT**, (the "IMA Amendment") made this 9<sup>th</sup> day of November, 2011 by and between the Cities of Albany, Rensselaer, and Watervliet, and the Towns of Berne, Bethlehem, East Greenbush, Guilderland, Knox, New Scotland, Rensselaerville, and Westerlo, and the Villages of Green Island, Voorheesville and Altamont, collectively "Parties."

**WITNESSETH THAT:**

**WHEREAS**, each of the Parties to this agreement is a member of the Capital Region Solid Waste Management Partnership, formerly known as the ANSWERS Wasteshed Planning Unit (the "Planning Unit"), which has a Solid Waste Management Plan ("SWMP") which was approved by the New York State Department of Environmental Conservation in 1992, as modified and approved by the New York State Department of Environmental Conservation in 200\_, according to New York State Environmental Conservation Law Section 27-0103; and

**WHEREAS**, the Modification to the SWMP called for a Planning Unit-wide Recycling Coordinator ("Planning Unit Recycling Coordinator") to manage the recycling activities of the Planning Unit and conduct public education and planning activities for the entire Planning Unit; and

**WHEREAS**, each of the Parties had previously entered into an Intermunicipal Agreement (the "IMA") whereby the Parties agreed to fund a Planning Unit Recycling Coordinator position, all in accordance with the terms of the IMA; and

**WHEREAS**, the Planning Unit has prepared a new SWMP, which calls for the continuation of the Planning Unit Recycling Coordinator; and

**WHEREAS**, the term of the IMA expires December 31, 2011, and each of the Parties desire to amend the IMA to extend the term of the IMA through December 31, 2015, and to make certain other housekeeping changes to the IMA; and

**WHEREAS**, this IMA Amendment is not to be construed so as to interfere with or diminish any municipal powers, authority, or regulatory authority of any of the participating municipalities.

**NOW, THEREFORE**, in consideration of the terms and conditions herein contained, the Parties to this IMA Amendment do hereby agree to amend the terms of the IMA as follows:

1. Paragraph 4 of the IMA is amended by deleting the statement "attention: Chris Quirk, Chief Financial Officer" and substituting therefor "attention: Commissioner."
2. Paragraph 11 of the IMA is amended by deleting the date "December 31, 2011" and replacing it with the date "December 31, 2015."
3. The IMA remains in full force and effect subject to the amendments as stated herein.
4. This IMA Amendment may be executed in counterparts, each of which shall be deemed an original and all of which together shall constitute the binding and enforceable agreement of the parties hereto.



**IN WITNESS WHEREOF**, the following Parties through their Chief Elected Officials have executed this agreement.

**City of Albany**

Dated: By: Gerald D. Jennings \_\_\_\_\_  
Mayor

**City of Rensselaer**

Dated: By: Daniel H. Dwyer \_\_\_\_\_  
Mayor

**City of Watervliet**

Dated: By: Michael P. Manning \_\_\_\_\_  
Mayor

**Town of Berne**

Dated: By: George J. Gebe, Jr. \_\_\_\_\_  
Supervisor

**Town of Bethlehem**

Dated: By: Sam Messina \_\_\_\_\_  
Supervisor

**Town of East Greenbush**

Dated:

By: Rick McCabe

\_\_\_\_\_  
Supervisor

**Town of Guilderland**

Dated:

By: Kenneth D. Runion

\_\_\_\_\_  
Supervisor

**Town of Knox**

Dated:

By: Michael Hammond

\_\_\_\_\_  
Supervisor

**Town of New Scotland**

Dated:

By: Thomas Dolin

\_\_\_\_\_  
Supervisor

**Town of Rensselaerville**

Dated:

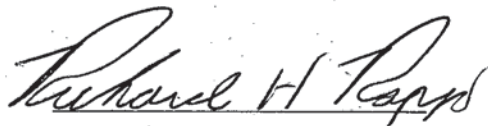
By: Marie Dermody

\_\_\_\_\_  
Supervisor

**Town of Westerlo**

Dated: 11/9/2011

By: Richard Rapp

  
\_\_\_\_\_  
Supervisor

**Village of Altamont**

Dated: By: James Gaughan \_\_\_\_\_  
Mayor

**Village of Green Island**

Dated: By: Ellen McNulty-Ryan \_\_\_\_\_  
Mayor

**Village of Voorheesville**

Dated: By: Robert D. Conway \_\_\_\_\_  
Mayor

STATE OF NEW YORK  
COUNTY OF ALBANY

ss.:

On the \_\_\_ day of \_\_\_\_\_ in the year 2011 before me, the undersigned, a Notary Public in and for said State, personally appeared Gérald D. Jennings, personally known to me or proved to me on the basis of satisfactory evidence to be the individual whose name is subscribed to the within instrument and acknowledged to me that he executed the same in his capacity, and that by his signature on the instrument, the individual, or the person upon behalf of which the individual acted, executed the instrument.

\_\_\_\_\_  
Notary Public

STATE OF NEW YORK  
COUNTY OF RENSSELAER

ss.:

On the \_\_\_ day of \_\_\_\_\_ in the year 2011 before me, the undersigned, a Notary Public in and for said State, personally appeared Daniel H. Dwyer, personally known to me or proved to me on the basis of satisfactory evidence to be the individual whose name is subscribed to the within instrument and acknowledged to me that he executed the same in his capacity, and that by his signature on the instrument, the individual, or the person upon behalf of which the individual acted, executed the instrument.

\_\_\_\_\_  
Notary Public

STATE OF NEW YORK  
COUNTY OF ALBANY

ss.:

On the \_\_\_ day of \_\_\_\_\_ in the year 2011 before me, the undersigned, a Notary Public in and for said State, personally appeared Michael P. Manning personally known to me or proved to me on the basis of satisfactory evidence to be the individual whose name is subscribed to the within instrument and acknowledged to me that he executed the same in his capacity, and that by his signature on the instrument, the individual, or the person upon behalf of which the individual acted, executed the instrument.

\_\_\_\_\_  
Notary Public

STATE OF NEW YORK  
COUNTY OF ALBANY

ss.:

On the \_\_\_ day of \_\_\_\_\_ in the year 2011 before me, the undersigned, a Notary Public in and for said State, personally appeared George J. Gebe, Jr., personally known to me or proved to me on the basis of satisfactory evidence to be the individual whose name is subscribed to the within instrument and acknowledged to me that he executed the same in his capacity, and that by his signature on the instrument, the individual, or the person upon behalf of which the individual acted, executed the instrument.

\_\_\_\_\_  
Notary Public

STATE OF NEW YORK  
COUNTY OF ALBANY

ss.:

On the \_\_\_ day of \_\_\_\_\_ in the year 2011 before me, the undersigned, a Notary Public in and for said State, personally appeared Sam Messina, personally known to me or proved to me on the basis of satisfactory evidence to be the individual whose name is subscribed to the within instrument and acknowledged to me that he executed the same in his capacity, and that by his signature on the instrument, the individual, or the person upon behalf of which the individual acted, executed the instrument.

\_\_\_\_\_  
Notary Public

STATE OF NEW YORK  
COUNTY OF RENSSELAER]

ss.:

\_\_\_ day of \_\_\_\_\_ in the year 2011 before me, the undersigned, a Notary Public in and for said State, personally appeared Rick McCabe, personally known to me or proved to me on the basis of satisfactory evidence to be the individual whose name is subscribed to the within instrument and acknowledged to me that he executed the same in his capacity, and that by his signature on the instrument, the individual, or the person upon behalf of which the individual acted, executed the instrument.

\_\_\_\_\_  
Notary Public

STATE OF NEW YORK  
COUNTY OF ALBANY

ss.:

On the \_\_\_ day of \_\_\_\_\_ in the year 2011 before me, the undersigned, a Notary Public in and for said State, personally appeared Kenneth D. Runion, personally known to me or proved to me on the basis of satisfactory evidence to be the individual whose name is subscribed to the within instrument and acknowledged to me that he executed the same in his capacity, and that by his signature on the instrument, the individual, or the person upon behalf of which the individual acted, executed the instrument.

\_\_\_\_\_  
Notary Public

STATE OF NEW YORK  
COUNTY OF ALBANY

ss.:

On the \_\_\_ day of \_\_\_\_\_ in the year 2011 before me, the undersigned, a Notary Public in and for said State, personally appeared Michael Hammond, personally known to me or proved to me on the basis of satisfactory evidence to be the individual whose name is subscribed to the within instrument and acknowledged to me that he executed the same in his capacity, and that by his signature on the instrument, the individual, or the person upon behalf of which the individual acted, executed the instrument.

\_\_\_\_\_  
Notary Public

STATE OF NEW YORK  
COUNTY OF ALBANY

ss.:

On the \_\_\_ day of \_\_\_\_\_ in the year 2011 before me, the undersigned, a Notary Public in and for said State, personally appeared Thomas Dolin, personally known to me or proved to me on the basis of satisfactory evidence to be the individual whose name is subscribed to the within instrument and acknowledged to me that he executed the same in his capacity, and that by his signature on the instrument, the individual, or the person upon behalf of which the individual acted, executed the instrument.

\_\_\_\_\_  
Notary Public



STATE OF NEW YORK  
COUNTY OF ALBANY

ss.:


On the \_\_\_ day of \_\_\_\_\_ in the year 2011 before me, the undersigned, a Notary Public in and for said State, personally appeared Marie Dermody, personally known to me or proved to me on the basis of satisfactory evidence to be the individual whose name is subscribed to the within instrument and acknowledged to me that he executed the same in his capacity, and that by his signature on the instrument, the individual, or the person upon behalf of which the individual acted, executed the instrument.

\_\_\_\_\_  
Notary Public

STATE OF NEW YORK  
COUNTY OF ALBANY

ss.:

On the 9<sup>th</sup> day of November in the year 2011 before me, the undersigned, a Notary Public in and for said State, personally appeared Richard Rapp, personally known to me or proved to me on the basis of satisfactory evidence to be the individual whose name is subscribed to the within instrument and acknowledged to me that he executed the same in his capacity, and that by his signature on the instrument, the individual, or the person upon behalf of which the individual acted, executed the instrument.

  
Notary Public

GERTRUDE A. SMITH  
Notary Public, State of New York  
Qualified in Albany County  
No. 4846298  
Commission Expires 11-30-2013

STATE OF NEW YORK  
COUNTY OF ALBANY

ss.:

On the \_\_\_ day of \_\_\_\_\_ in the year 2011 before me, the undersigned, a Notary Public in and for said State, personally appeared James Gaughan, personally known to me or proved to me on the basis of satisfactory evidence to be the individual whose name is subscribed to the within instrument and acknowledged to me that he executed the same in his capacity, and that by his signature on the instrument, the individual, or the person upon behalf of which the individual acted, executed the instrument.

\_\_\_\_\_  
Notary Public

STATE OF NEW YORK  
COUNTY OF ALBANY

ss.:

On the \_\_\_ day of \_\_\_\_\_ in the year 2011 before me, the undersigned, a Notary Public in and for said State, personally appeared Ellen McNulty-Ryan, personally known to me or proved to me on the basis of satisfactory evidence to be the individual whose name is subscribed to the within instrument and acknowledged to me that he executed the same in his capacity, and that by his signature on the instrument, the individual, or the person upon behalf of which the individual acted, executed the instrument.

\_\_\_\_\_  
Notary Public

STATE OF NEW YORK  
COUNTY OF ALBANY

ss.:

On the \_\_\_ day of \_\_\_\_\_ in the year 2011 before me, the undersigned, a Notary Public in and for said State, personally appeared Robert D. Conway, personally known to me or proved to me on the basis of satisfactory evidence to be the individual whose name is subscribed to the within instrument and acknowledged to me that he executed the same in his capacity, and that by his signature on the instrument, the individual, or the person upon behalf of which the individual acted, executed the instrument.

\_\_\_\_\_  
Notary Public



**The Town of Westerlo Town Board adopted the following Solid Waste Management Partnership for the Capital Region Solid Waste Management Partnership and the SEQR finding statement issued by the lead agency: and authorizing the execution of an extension to the existing inter-municipal agreement**

**Motion to adopt: Richard H. Rapp, seconded by Councilman Zeh and passed with a unanimous decision.**

**WHEREAS:** in order to promote the public health, safety and welfare and further the purposes of the New York State policy on solid waste management articulated in New York State Environmental Conservation Law Section 27-0106, the Town of Westerlo is a member of the Capital Region Solid Waste Management Partnership Planning Unit: and

**WHEREAS:** on behalf of the Planning Unit, and the guidance of the Steering Committee consisting of representatives from each municipality in the Planning Unit, among other stakeholders, the City of Albany has prepared a Solid Waste Management Plan (SWMP) which has been submitted for acceptance to the New York State Department of Environmental Conservation; and

**WHEREAS:** the City of Albany Common Council was designated Lead Agency for the review of the Draft SWMP pursuant to the State Environmental Quality Review Act (SEQR); and

**WHEREAS:** the City of Albany Common Council, as Lead Agency, has accepted the Final Generic Environmental Impact Statement (FGEIS)/SWMP, and issued its Findings Statement, which among other things concluded that the requirements 6 NYCRR 617 have been met and that, the SWMP avoids or minimizes adverse environmental impacts to the maximum extent practicable; and

**WHEREAS:** the implementation of the SWMP will require that the existing Inter-municipal agreement (IMA) between the member municipalities of the Planning Unit be extended beyond its current expiration date; and

**WHEREAS:** the Town of Westerlo Town Board has reviewed the FGEIS/SWMP and the Finding Statement;

**NOW THEREFORE, BE IT RESOLVED, AS FOLLOWS BY THE WESTERLO TOWN BOARD:**

- 1) The Westerlo Town Board accepts and adopts the FGEIS/SWMP{ for the Planning Unit, and the Findings Stat3ement adopted by the Lead Agency, for this action.
- 2) The Supervisor of the Town of Westerlo is hereby authorized to enter into and execute an extension of the existing IMA with members of the Planning Unit.
- 3) This resolution shall take effect immediately

