2017 SWANA Excellence Award Entry, Composting System Award, Onondaga County Resource Recovery Agency

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Jurisdiction: Onondaga County, New York, Population: 468,463 $2.75 / household, Budget: $1,295,650.00

www.OCRA.org
Executive Summary
Since 2013, the Onondaga County Resource Recovery Agency (OCRRA) has composted over 15,000 tons of food scraps and generated over 30,000 cubic yards of STA-certified compost, helping our community of 450,000 residents achieve a 57% recycling rate.

OCRRA’s composting program is:

- The largest municipal food recovery program in NYS, and the only one producing compost certified by US Composting Council’s Seal of Testing Assurance.

- Already used as a model for replication in NYS communities and beyond.

- Processing thousands of tons of food scraps from local commercial and institutional generators, including 25 food service locations in Syracuse’s largest mall, 8 Wegmans grocery stores, 4 school districts involving 7,000 students, 3 hospitals and several universities.

Demand for OCRRA’s compost is surging and is used in green infrastructure projects across the state, including Syracuse’s Zoo, a highway embankment project in southern NY, and the green roof of the Javits Convention Center in NYC.

1. Design and Planning of Composting System
In December 2013, OCRRA constructed its extended aerated static pile (EASP) composting system at its 13-acre Amboy Compost Site in Camillus, New York. It has the capacity to process over 9,600 tons of institutional and commercial food scraps annually, in eight 100-foot long concrete bunkers with positive aeration, which will generate 30,000+ cubic yards of high-quality compost each year.

OCRRA’s EASP Composting Process Overview:

- Incoming food waste is mixed in a 1 to 3 ratio with a bulking agent (yard waste and wood chips) and placed on top of in-ground aeration pipes.

- The food waste is covered with already finished compost to serve as a bio filter to control odors and maintain optimal moisture and temperature.

- Eight 1.5 horsepower blowers are set on automated timers and are typically cycled for 7 minutes every 15-20 minutes, creating optimal aerobic conditions for decomposition.

- After the food waste decomposes for 60 days and has meets all temperature and monitoring requirements, the finished compost is screened for use as a soil amendment.
20-30 days are then allocated for final curing.

The entire process from start to finish takes approximately 90 days; a fraction of typical windrow composting systems.

**Uniqueness / what makes our system special:**
- Over 7,000 students across 17 schools in 4 school districts participate on a daily basis by separating their food scraps for processing at OCRRA’s Amboy Compost Site.
- Impressive growth within a few years from a very small-scale pilot project processing a few hundred tons of food scraps annually to the largest municipal compost operation in New York State processing over 6,000 tons of food scraps each year.
- Finished compost is certified via US Composting Council’s Seal of Testing Assurance.
- Recognition of the original small-scale pilot project via USCC’s 2010 “Composting Program of the Year Award,” and SWANA’s 2011 Silver Excellence Award.
- Model for replication already used in other communities including Bethlehem, NY; Ulster County, NY; and Burlington, VT; a recognized leader in achieving NY State’s goal of reducing waste through expanding organics recovery.
- Unique collaboration with ARC of Onondaga to bag the finished compost; ARC of Onondaga serves local individuals with special needs.

**Considerations included in planning:**
- From a recent waste quantification and characterization study, OCRRA learned that the local waste stream contained approximately 15% food waste (36,000 tons), half of which was estimated to be commercially and institutionally generated (18,000 tons). The site was designed to manage about half of that amount (9,000 tons).
- **Processing capacity** - EASP system has more than quadrupled the site’s processing capacity by: 1) using considerably less space per cubic yard of material processed compared to typical windrow composting; and 2) significantly reducing the material processing time from 180+ days to less than 90 days.
- **Leachate Management** - EASP system minimizes composting footprint and thereby generation of leachate. Aeration to control moisture content and reduced material exposure in bays minimizes leachate quantities. The small amount of leachate generated is collected through a subsurface grate system connected to a 5,000 gallon tank; leachate is recirculated into the aeration bays under dry conditions, or released into the county’s waste water treatment system.
- **Odors and Vector Management** - Odors and vectors are minimized or avoided by ensuring that Best Management Practices are implemented on a daily basis at the site, including: proper initial mix of compost materials in a 1:3 ratio of food scraps to shredded yard waste (bulking agent); consistently monitoring for proper bulk density to promote oxygen circulation; continuous automated positive aeration of the compost pile to maintain ideal aerobic conditions; bio filtration of positive air discharge gases to digest any odorous compounds through a 12” top layer of finished compost; immediate
processing of all incoming food wastes and incorporation into the aerated system; and continual good housekeeping practices that minimize sources of odor or vector attraction.

- **Operating Costs** - EASP allows OCRRA to reduce its energy/fuel costs by 50% compared to what is needed in a windrow system, which requires turning piles 5 times in 14 days; electricity to run the eight blowers is only a few hundred dollars per month. The system also avoids the additional labor and equipment maintenance costs that would be needed if the material required regular turning. Specific costs are outlined in the performance, economics and cost-effectiveness section of this application.

- **Greenhouse Gas Emissions (GHGs)** - Greenhouse gases are significantly reduced through the minimized energy input described above, and via the use of electric blowers versus diesel-fueled equipment to periodically turn windrow piles. The use of electric blowers results in an average use of only 560 kWh of electricity per month.

- **State-of-the-Art Environmental Protection** - EASP system offers superb environmental protection. All incoming food waste is dumped for initial mixing with yard waste within a covered structure on an impervious surface. A bed of mulch is used to quickly absorb any loose liquids from incoming food waste loads. Once in the aeration bays, the forced air system can be adjusted for all incoming food waste conditions. The in-bay compost process uses less space than windrow systems and therefore has a much smaller environmental footprint. Automated temperature probes continually collect data to indicate whether aeration adjustments are needed to maximize decomposition and minimize the potential for odor generation.

- **Impacts: Human Health, Environmental Quality and Resource Conservation** - Compost generated at the site is utilized on regional environmental projects to reduce soil erosion, prevent pollution and control storm water runoff, and serves as a soil amendment for “Low Impact Development” projects aimed at promoting long-term, sustainable storm water management, such as environmental remediation projects involved in habitat restoration on the shores of Onondaga Lake in Syracuse, NY (see photo, right).
Considerations of physical space, process time, equipment and fuel usage were the most important factors in our system’s design. EASP system does not require the same large amounts of physical space required by typical windrow systems. The process of turning food waste to finished compost takes less time in this design – as little as 90 days versus an average 9 to 12 months required by windrow, and finally, the EASP system uses less equipment and fuel because there are no rows to be manually turned.
How our compost proves harmonious with local solid waste management efforts:

- **Significant waste reduction**: In 2016, OCRRA’s Amboy Compost Site processed over 6,200 tons (over 12 million pounds) of food waste, both pre- and post-consumer from the municipal, commercial and residential sectors.

- **State-wide goals**: Recovery of organics is a goal within the newest revision of the New York Solid Waste Management Plan, “Beyond Waste: A Sustainable Material Management Strategy.” This plan emphasizes the direction of organic materials to their “highest and best use,” i.e., composting for soil amendments.

- **Replication**: The New York State Department of Environmental Conservation (NYSDEC) is using our system as a model for other NY communities interested in composting; several, including Ulster County and the Town of Bethlehem, are already implementing food scrap recovery/composting systems based upon the OCRRA method. Burlington, Vermont’s aerated compost system is also based on the OCRRA design.

- **Collaboration**: OCRRA is helping local restaurants, universities, supermarkets and businesses meet their sustainability goals via food scraps diversion, and enjoys a unique collaboration with ARC of Onondaga, a not for profit organization serving individuals with special needs, to bag OCRRA’s premium ¼” minus compost.

Composting is compatible with OCRRA’s environmental goals in that it utilizes food and yard waste that was previously disposed of as solid waste, and creates an environmentally beneficial product. Waste is reduced and a natural substitute for chemical fertilizers is produced. In addition to significant waste diversion, OCRRA’s composting system serves as an environmentally sound, cost-effective model that is well-equipped for replication by municipalities across NYS and beyond.

*Overall merits and impacts of our composting system:*
OCRRA’s food waste composting program provides a targeted approach towards organics recovery. As the quantity of materials composted continues to grow, OCRRA is increasing the
2017 Excellence Award Entry: Composting System category: OCRRA

Community’s recycling rate while enabling community partners (schools, universities, hospitals, grocery stores, restaurants, etc.) to achieve their sustainability goals. OCRRA’s program is mentioned on Syracuse University’s sustainability website (http://sustainability.syr.edu/campus/recycling-waste-reduction/composting/).

The end product of this restorative process – the finished compost – is highly valued within the community. It is used to enrich backyard gardens, replenish soils on major environmental remediation projects and build green roofs on LEED certified buildings.

Putting the right resources together (people, equipment, infrastructure) was no small endeavor. It took vision from OCRRA’s Board of Directors, state grant support from the NYSDEC, countless hours of researching technology options and performing pilot testing, ongoing marketing for both the incoming organic materials and outbound finished compost, and a dedicated operations team to perform the magic of composting.

2. Use of Equipment/Systems and Technologies
State-of-the-Art Equipment Used at the Facility:
OCRRA uses a variety of state-of-the-art equipment to effectively process yard and food waste:

- **EcoProbe Wireless Compost Temperature System – REOTEMP Instruments.**
  24 automated, wireless temperature probes (3/bay) continually monitor internal temperatures of the compost piles, which helps achieve optimal decomposition conditions by indicating if blower frequency needs to be adjusted. This significantly reduces labor costs and increases efficiency, product quality and safety as temperatures were previously recorded manually with personnel regularly climbing onto 10 ft. piles.

  ![Computer interface of temperature monitoring system](image)

- The EASP system consists of eight blowers (1.5 hp) that work with the eight concrete bays’ piping to add oxygen to the compost piles on a consistent basis. No pile turning is necessary. The blowers run on automated timers for 7 minutes every 15-20 minutes.
• **Komptech Crambo Slow Speed Shredder**, (1).
  Handles large trees that grinders cannot manage.

• **Front-end loaders**, (3) Caterpillar and (1) John Deere. These are the primary machines for material movement and pile construction. Each are in operation roughly 8 hours per day.

• **Hyundai Excavator**, (1).
  This help manage and move material onsite.

• **Vermeer horizontal grinders**, (2). These are used to prepare all incoming materials, brush, pallets and yard waste for composting or mulch. All leaves and yard wastes are ground through a 6” screen for size and volume reduction before entering the EASP system. Two different grinds are done next with brush, pallets and wood wastes. The first grind is a 4” grind, which is utilized as a bulking agent and mix with the compost system. The second is a 2” grind that is marketed as a quality aged mulch product. The horizontal grinders are in operation approximately 4 to 6 hours/day and are increasing as material volumes also increase.

• **McCloskey 621 Trommel Screen.**
  This screens the finished compost. There are two screens, one that produces a finished product to a \( \frac{1}{2} \)”, and one that is finer and will produce \( \frac{1}{4} \)”.
  It is utilized 8 hours per day, 5 days per week, during spring, summer and fall, weather-permitting.

• **Vertical mixer**, (1). Serves as a blender for the food and yard waste that creates a homogeneous blend and also rips open any bagged material that may have come in.

• **Skid loaders**, (2). These are utilized for site maintenance, handling debris, processing small loads, and for loading retail customers with mulch and compost. Each skid loader runs for approximately 7 hours/day.
Equipment Efficiency and Effectiveness:

Equipment is selected based on research of industry best practices and our experience. The equipment is maintained by an onsite professional mechanic and warranted by the manufacturers. Each piece of equipment is maintained based on a manufacturer supplied schedule. A daily checklist is used to inspect equipment. Any documented problems or defects are addressed immediately.

Facility’s waste screening procedure:
OCRRA engages in extensive and continuous public education campaigns and trainings with the participating food waste generators to minimize potential contaminants (see example decal on right). Wastes are screened for contaminants when delivered and are removed by hand. The McCloskey 621 Trommel Screen does a final screening and captures all large contaminants and a vacuum air lift separator removes all lighter contaminants. There are also magnetic head pulleys on the grinders and the trommel screen that remove ferrous metals. End result: contaminant-free, STA-certified compost.

3. Regulatory Compliance

Environmental Laws and Regulations:
The Amboy Compost Site is a NYSDEC Permitted Facility, authorized to receive 9,600 tons of food waste and 48,000 cubic yards of yard waste annually. The site has received no “Notices of Violations.” OCRRA notes that even well-run organic management facilities may receive occasional odor complaints. In the event of such complaints, an OCRRA representative visits the location as soon as possible to verify the odor situation, if any, record existing weather conditions, and determine if site operations should be modified to minimize the impact of any odors. A recent independent, third party engineering review of OCRRA’s Amboy Compost Site concluded: “The facility is well run, with good housekeeping practices and odors that are typical (strength and character) of an organic materials management facility.”

On a bimonthly basis, samples are collected from the site. This is not actually required to meet the NYSDEC’s Class I/A compost standards. However, OCRRA, in participation in the US Composting Council’s (USCC) Seal of Testing Assurance Program, analyzes the compost and compares any data which exceeds NYSDEC requirements for Class I compost. The 2016 and 2017 laboratory results of the compost at both sites were both well within the NYSDEC parameters to be considered Class I/A compost and received the USCC’s Seal of Testing Assurance. OCRRA’s compost product is tested regularly. Data is available to the public at the compost site, and online at www.ocrra.org/about-us/information/reports-and-policies.

4. Worker Health and Safety

Employee Training Frequency and Safety Procedures Topics:
Permanent OCRRR employees at the compost sites are given continual safety training by Occupational Safety & Environmental Assoc., Inc. Training classes include, but are not limited
to: Heat & Cold Stress, Back Injury prevention, Material Handling, Walking Working Surfaces, Industrial Hygiene Basics, Lockout/Tagout, Fall Protection, PPE/Eye/Hearing, and Blood Borne Pathogens. Temporary employees that staff the compost sites receive onsite training and operational awareness info from agency staff before proceeding with duties.

*Injury rates and methods to reduce injuries:*
OCRRA’s compost sites have experienced one minor recordable injury in the past seven years. OCRRA intends to continue this excellent record with regular safety training and easy access to preventative equipment. Any injuries are recorded in writing, and include an analysis of future prevention. All on-site safety requirements and safe operating procedures are set forth in the operating agreement with the unionized workforce, which includes agreed upon disciplinary measures in the event safe operating procedures are violated. A Safety Committee meets regularly to discuss potential risks and hazards, and measures to prevent injuries.

### 5. Performance, Economics and Cost-Effectiveness

*Measured Success:*
OCRRA measures success for the composting program utilizing a number of metrics and has consistently achieved its goals to: increase the quantity of material processed, verify product quality through an industry standard testing assurance program and grow revenues to be financially self-sustaining:

- **Continued Growth in Quantity of Materials Processed.** Currently, OCRRA processes more than 100 tons of institutional and commercial food scraps each week; a 120% increase from the year before. The quantity of food scraps composted has grown exponentially since program launch in 2013. Over 15,000 tons (30 million pounds) of food scraps have been processed into an STA-certified compost since 2013.

- **Maintain High Quality of Finished Compost.** OCRRA’s finished compost is regularly lab tested as part of the US Composting Council’s [Seal of Testing Assurance](#) (STA) Program, and meets all USCC, NYSDEC and USEPA criteria; all lab results are posted online at [www.ocrra.org/about-us/information/reports-and-policies/#USCCReports](http://www.ocrra.org/about-us/information/reports-and-policies/#USCCReports) To date, OCRRA has produced over **35,000 cubic yards** of STA-certified compost.

- **In 2016, Compost revenues again grew 30%** compared to 2015, and exceeded budget projections, approaching $655,000. Revenues have grown over 300% since 2010 as materials recovered, processed, and sold has increased accordingly, driven by increasing demand and market recognition of OCRRA compost quality. While revenues continue to increase, costs continue to exceed revenues. This is why recognition through award programs, like this one, provide value to entities like OCRRA, which also consider the environmental benefits of composting as important as the potential financial returns.
• **Increase Demand for Finished Product**

OCRRA works hard to communicate the benefits of compost on all environmental projects, whether for highway embankment stabilization or backyard landscapes, through professional seminar presentations, regular facility tours and authoring industry trade articles.

The result: demand for OCRRA’s finished product is surging. It is used in green infrastructure projects across New York State, including locally at the Rosamond Gifford Zoo in Syracuse and as far away as the green roof of the Jacob Javits Center in New York City; 3,000 yards of compost were just utilized for habitat restoration on Onondaga Lake in Syracuse, NY.

Recognizing the high quality of OCRRA compost, retail outlets well beyond Central NY are ordering hundreds of yards to sell to their customers, and the sale of OCRRA’s bagged premium compost continues to grow. More than 30 local retailers sold over 10,000 bags since product launch 3 years ago.

*Downtime:*

To minimize downtime, OCRRA’s full time, on-site mechanic ensures that: heavy equipment is well-maintained and subject to daily pre-checks, that all scheduled preventative maintenance is completed, and that repairs are implemented as quickly as possible. All such repairs are closely tracked and recorded. As a result, there has been no significant downtime in operations.

*Customer Service:*

OCRRA fosters customer service by first hiring friendly, people-oriented gatekeepers. Gatekeepers are trained on compost usage and are continually reminded that as the public face of OCRRA, they are depended upon to treat all residential and commercial customers with respect, patience and friendliness. Customers seeking material loading services are accommodated within minutes of arrival.

OCRRA offers clear and concise information about the compost sites, such as hours, directions, products, fees, as well as a list of convenient locations to purchase bagged compost and tips for application: [www.ocrra.org/services/compost/](http://www.ocrra.org/services/compost/).
In addition, email blasts are sent to more than 10,000 subscribers reminding them of the benefits of compost and how to avail themselves of the product they need.

Onsite personnel assist customers, answer questions and provide compost loading services for both small and large users. Evidence of high customer satisfaction is clear in the outstanding survey results presented on the next page.

OCRRA regularly conducts compost site user surveys to better understand how they view the operations and to help identify areas that need improvement. In our most recent customer survey, a question was specifically poised regarding customer service as follows:

- Survey Q: Do you find that OCRRA’s compost site employees are helpful, courteous, and friendly?

The above graph is aggregated to illustrate customers’ views of the compost site workers. Please note that this is on a scale of 1 – 4.
- Thus, the compost site workers got very high ratings, averaging 3.6 out of 4.

Please see additional results of the most recent customer survey presented on page 14, where 96% of respondents indicated overall impression of the compost sites as good or excellent.

**Operations:**
- Over 2,000 yards of compost and 23,000 yds. of mulch were sold in 2016.
- Through a collaborative partnership with ARC of Onondaga, OCRRA’s premium compost is sold in conveniently packaged 1 cu. ft. bags at 30+ local retail outlets. In 2016, bagged compost sales grew by 28%.
- Residents may buy OCRRA compost through the “Residential Pass Program,” a selection of three different compost passes: the Basic Pass for $20 allows drop off an unlimited amount of yard and food waste; the Plus Pass for $35 allows drop off an unlimited amount of yard and food waste and self-loading of up to 3 cu. yds. of compost or 6 cu. yds. of mulch; the Premium Pass for $50 allows unlimited drop off of yard and food waste and OCRRA staff-loading of up to 3 cu. yds. of compost or 6 cu. yds. of mulch.
In 2016, residents purchased over 3,800 compost passes and made over 29,500 visits to the sites. There were more than 2,300 commercial and municipal drop-offs in 2016. This demonstrates that the community highly values the quality product and is willing to travel to the sites of their own accord, even if municipal pick-up is not available to them. The success of the program and appreciation of the product is evident in residents’ feedback, such as the following recent comments received on OCRRA’s Facebook page:

“Wonderful, friendly folks at the mulch and compost site. Our yard looks great and you can’t beat the price! Thanks for all the hard work!” (5/13/17)

“I’ve used premium compost by OCRRA for the past 2 years and my garden LOVES it!” (5/16/17)

**Costs:**
The system operates within budget unless responding to truly unpredictable needs for equipment repair or replacement. Since expenses currently exceed revenues, OCRRA is pursuing strategic opportunities to maximize revenue potential, including expansion of bagged compost sales. The operating expenses in 2016 totaled: $1,295,650. This sum includes depreciation as well as overall operating expenses from equipment and salaries to compost testing and bagging.

The EASP system has expanded the Amboy Site’s processing capabilities while minimizing operational expenses and yielding savings in labor, time, equipment and fuel usage. Equipment and staffing improvements are made every year to serve our customers better and to increase the quality of our products and service. The compost sites’ total revenues are consistently increasing each year (and are projected to continuously do so).

<table>
<thead>
<tr>
<th>Revenue Type</th>
<th>2016 Total Income Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sales-Compost Passes</td>
<td>$119,915</td>
</tr>
<tr>
<td>Tip Fees</td>
<td>$86,006</td>
</tr>
<tr>
<td>Food Waste Tip Fees</td>
<td>$218,493</td>
</tr>
<tr>
<td>Food Waste Discount</td>
<td>($7,510)</td>
</tr>
<tr>
<td>Compost Sales Revenue</td>
<td>$91,150</td>
</tr>
<tr>
<td>Mulch Sales Revenue</td>
<td>$113,514</td>
</tr>
<tr>
<td>Bagged Compost Revenue</td>
<td>$25,969</td>
</tr>
<tr>
<td><strong>TOTAL INCOME</strong></td>
<td><strong>$647,537</strong></td>
</tr>
</tbody>
</table>

2016 income of $647,537 reflects a **31% increase** over 2015 income of $493,539.
6. Public Acceptance, Appearance and Aesthetics:

Appearance/Aesthetics/Being a Good Neighbor: Continuously maintained cleanliness of the site and vehicles establishes a positive public image and improves safety conditions for employees. All facilities are kept free of litter. The site is swept of organics materials at the end of each day using a skid steer with brush attachment. Tours for local schools and professional associations are regularly provided to educate about the benefits of composting.

Acceptance:
OCRRA places a high priority on customer feedback, which is captured during annual surveys. The most recent user survey was conducted in March 2017. Over 460 people responded with their level of customer satisfaction of the operation and products.

96% of the respondents indicated their overall impressions of the compost sites were “good” or “excellent.” Furthermore, 83% of respondents rated the OCRRA pass and fee system as reasonable for use and a good value for the price.

![Image of compost site]

![Image of tours for local schools]

![Bar chart showing overall impression of compost sites]

Overall Impression of Compost Sites
n=458

- Excellent: 60%
- Good: 36%
- Fair: 3%
- Poor: 1%
The survey yielded comments such as:

- “The compost site is a wonderful resource for those of us who can't compost or don't have room to do so. Thanks!”
- “All of my experiences with the compost sites have been positive. The system and process is very organized and I typically leave feeling like ‘well, that was easy’.

The increasing requests for compost presentations and national award recognition indicate that the public is accepting of the OCRRA compost sites’ appearance and aesthetics. One site user believed the sites are:

- “Well maintained sites with clean mulch & compost for a minimum cost. A good place to take yard waste for proper disposal.”

This graph shows the average satisfaction for compost and mulch on a scale from 1 to 5.

- 5 is “very satisfied”
- 1 is “very dissatisfied”

Ultimately, 4.4 and 4.3 out of 5 is very strong; neither mulch nor compost are rated disproportionately better than the other.
Public Relations and Education Program:
OCRRA invests in an expansive public educational effort to promote composting via a wide variety of traditional and digital media platforms, as well as via OCRRA’s quarterly newsletter (right), which is distributed to 100,000 residents. Additionally, OCRRA’s email blasts, which are sent to over 10,000 people, regularly highlight compost site information.

Compost information is posted on OCRRA’s Facebook page:

- [www.facebook.com/OCRRA/?hc读后ref=PAGES_TIMELINE&fref=nf](www.facebook.com/OCRRA/?hc读后ref=PAGES_TIMELINE&fref=nf)

Numerous compost videos produced by OCRRA and its communications agency, as well as local news stories about the process, are posted on YouTube: [www.youtube.com/user/OCRRA](www.youtube.com/user/OCRRA)

OCRRA also offers:

- Master Composter Training Classes in conjunction with the Northern Onondaga County Library System;
- Compost education and training to local businesses and schools;
- Personal guidance and assistance to home composters seeking to recycle their food waste with worms (also known as vermicomposting);
- Details on yard and food waste composting are available on the OCRRA website;
- An award-winning, online educational learning program aimed at 3rd – 5th graders, ([https://ocrra.org/services/education-program/](https://ocrra.org/services/education-program/)) including segments dedicated to composting, that feature a video, classroom activities aligned with NYS curriculum requirements, and a compost video game.

OCRRA’s innovative composting system serves as a convenient, efficient, environmentally-sound means of recycling residential and commercial yard, wood and food wastes. OCRRA’s composting program receives great feedback from the community, exceeds goals financially and environmentally, and serves as a model for other municipal compost operations in New York State and beyond.

Thank you for your consideration of recognition via the SWANA 2017 Composting System Excellence Award.