Large Generators and a New Resource at Their Disposal

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P2 Engineer
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The Question

- NYS considering banning food from “large generators” going to landfill

- How would this affect the State?
NYSP2I Approach: 2-Scenario Analysis

- ‘Large generator’ food waste

Capacity of current recycling technology

Geospatial analysis via mapping

The ‘gap’ in processing capability

- Scenario 1: current-state
- Scenario 2: expanded-state
Analysis Boundary

- Large generator ≥ 2 t/week
- 50 mile radius constraint
- Excluding NYC
Large Generator Food Waste (t/week)

- Supermarkets: 8,780 t/week
- 1,710 businesses

Categories:
- Supercenters
- Convenience stores
- Wholesale
- Hotels/motels
- Restaurants
- Correctional facility
- Colleges & universities
- Hospitals
- Nursing homes
Current State - AD Coverage

Processed: 1,680 t/week (19% of all large generator waste)

Constraints:
- 50 mile radius
- 2 t/week
- Excluding NYC
- AD currently accepting food waste

- Retail
- Institutions
- Service & Hospitality
Current State - Compost Coverage

Processed: 390 t/week
(4% of all large generator waste)

Constraints:
- 50 mile radius
- 2 t/week
- Excluding NYC
- Compost currently accepting food waste

- Retail
- Institutions
- Service & Hospitality
Findings: Food Waste Remaining

<table>
<thead>
<tr>
<th>Sector</th>
<th>t/week</th>
</tr>
</thead>
<tbody>
<tr>
<td>Retail</td>
<td>1,400</td>
</tr>
<tr>
<td>Service &amp; Hosp.</td>
<td>290</td>
</tr>
<tr>
<td>Institutions</td>
<td>370</td>
</tr>
<tr>
<td><strong>Total Processed</strong></td>
<td><strong>2,060</strong></td>
</tr>
<tr>
<td><strong>Total Remaining</strong></td>
<td><strong>6,720 (75%)</strong></td>
</tr>
</tbody>
</table>

- Scenario 2: expanded-state: 1,830 t/week (21%) remaining
Is food retail or service a part of your operation? Do you generate food waste?

The first thing to realize is that food waste is actually a valuable resource when handled appropriately. This website is here to help you successfully utilize that resource by preventing and diverting your food waste.

www.rit.edu/nysp2i/food
### Food Waste Estimator

**Pick A Category**
- Colleges and Universities - Residential
- Colleges and Universities - Non-Residential
- **Correctional Facilities**
  - Distribution and Wholesale
  - Elementary and Secondary Schools
  - Hospitals
  - Lodging and Hotels
  - Nursing Homes
  - Restaurants
  - Supermarkets and Grocery Stores
  - Venues and Events
  - Venues and Events (Large Venues)

**Food Waste Generation Factor**

<table>
<thead>
<tr>
<th>Factor</th>
<th>Value</th>
<th>Unit</th>
</tr>
</thead>
<tbody>
<tr>
<td>College Non-Residential</td>
<td>7.00</td>
<td>lb/inmate/week</td>
</tr>
</tbody>
</table>

**Input Field**

<table>
<thead>
<tr>
<th>Input Field</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of Inmates</td>
<td>500</td>
</tr>
<tr>
<td>Total Food Waste (lb/week)</td>
<td>3,500.00</td>
</tr>
<tr>
<td>Food Waste (tons/week)</td>
<td>1.75</td>
</tr>
</tbody>
</table>

www.rit.edu/nysp2i/food
Self-assessment and Tracking

Self-Assessment Tools

NVSP2i is conducting food waste assessments at large non-manufacturing food retail and service businesses around New York State and developing a self-assessment tool along the way. It will be available for public use in mid-2016. Until then, there are several other resources to guide you through conducting an assessment.

Food Waste Tracking

Tools tracking food waste generation daily gives you the benefits of conducting an audit but on a continuous basis. It allows real-time feedback as to what food is being wasted and why. Food waste tracking can be done manually, by weighing and keeping documentation on the weights and types of food. There are also tools like the ones linked below that will help semi-automate the process of food waste tracking.

www.rit.edu/nysp2i/food
Donate Food

Much of the food that goes to waste is overproduced or cosmetically damaged but still edible. The most direct benefit this food can have is to be sent to feed hungry people. Donating food usually has little to no cost to the donor, especially once tax deductions are considered. In New York State, there is an organized system of food banks that each cover a specified region of the State, making it possible for any business to find an outlet for donating food.

Read More

Feed Animals

In keeping with the food recovery hierarchy, ideally one would reduce the amount of food waste produced first, feed people or animals and then divert what is left to an industrial use or compost facility.

In practice, however, many businesses will start diverting first and then work their way back up to prevention. The major benefit of this approach is that it provides a visual of how much and what kind of food waste is being generated. Seeing all the food waste in one place can help to motivate staff and management to take further action, such as preventative measures.

www.rit.edu/nysp2i/food
Organic Resource Locator

www.rit.edu/nysp2i/food
What’s next?

- Providing direct **business assistance** to help reduce & divert food waste
- Adding info for haulers and recyclers to the **Clearinghouse**
- Refining and updating the **Organic Resource Locator**
- Research and development in food waste diversion and management technologies
Questions?

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