How Communities Divert Food Waste to Feed the Food Insecure

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### Emerging Goals and Laws

#### International

- **United Nations** - 50% reduction by **2030** per capita global food waste at retail and consumer levels

#### National

- **USDA & EPA** - 50% reduction of food waste by **2030**

#### State & Local

- **NYS** - Governor announced commitment to food waste landfill ban
- **NYS** - 2018 Farm **Donations** to Food Pantries **Tax Credit**
- **NYC** - Adoption of several sustainability goals
  - Zero Waste by **2030**
  - 80% reduction in GHG emissions by **2050**
  - Other municipalities also setting waste goals
  - Ex: **Tompkins** County – 85% waste diversion goal by **2030**
Organic Waste Bans & Recycling Laws

What does this mean for us?

Community Perspective

• Growing need for **information and tools** for food waste prevention and diversion and **outlets** for food waste

Business Perspective

• Growing **regulated** community
• Need for good **information** and **outlets** for food waste

Municipality Perspective

• Supporting business community by **providing information**
• Potentially regulated if operating **resource recovery facility**
• Providing **education, resources**, and/or direct **services** to **residents**
NYS Municipalities – Access to Resources

A sample of **458 municipality websites** reviewed

- Approximately 40% of the state (by population) has access to food waste diversion information through their municipalities
- The vast majority of information available is regarding composting, with a small fraction addressing source reduction

Food Waste Information Available on Municipality Websites
(from sample population)
NYS Municipalities – Access to Resources

Map based on representative sample – there may be communities doing great work not captured by this assessment

Tier 1
- Detailed information directly on website
- Implementing programs or activities related to food waste reduction

Tier 2
- Basic information provided with helpful link(s) to more resources

Tier 3
- No basic information on website
- Links present to sites that provide food waste information

Tier 4
- No information/links provided on municipality website

Map based on representative sample – there may be communities doing great work not captured by this assessment.
NYS Municipalities – Feedback

- 21 communities or municipalities completed survey
- 88% identified the food waste issue as important or very important
- 77% very or most interested in materials related to food waste prevention
- 65% feel more could be done to address food waste in their community
NYS Municipalities – Food Pantries

- Not inclusive of all food rescue organizations
- Data from: Foodpantries.org/st/new_york
- Bar heights correlate to the # of pantries in that city
Resources are available for communities and businesses that municipalities oversee, as well as municipalities themselves.

**NYSP2I**
- Direct Assistance
- Community Grants Program
- Material Sets

**ESD**
- $4 million in capital funding

**NYSDEC**
- Climate Smart Communities
- Municipal Waste Reduction & Recycling Grant
NYS Pollution Prevention Institute

- HQ at RIT
- Established in 2008 “NYSP2I”
- Beginning 5th year of second 5 year contract
- Focus on reduction of natural resource consumption (water, raw material, energy) and elimination of waste and hazards
- P2 research, technical assistance, education and outreach
- 15+ full-time staff
Funded Support for Food Waste Initiatives

Guide NYS and its stakeholders to a more sustainable food system by providing the information and tools necessary to reduce and recover food resources.

- ESD Implementation Funds
- NYSP2I Community Grant Funding
- R&D at Partner Universities
- Municipality Engagement
Outreach and Assistance

Brief Assistance
- <1 day of work
- No cost
- Leveraging existing materials/research on hand

Project Support
- 2-4 months
- 10% cost share (typically)
- Involves exploratory work by staff and multiple tasks

Education/Training
- May be subset of another effort or own assistance
- Requirements and application determine cost
### Types of Business Assistance

<table>
<thead>
<tr>
<th>Technical Expertise</th>
<th>Food Related Assistance Examples</th>
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</table>
| **Food waste reduction and pathway utilization** | • Assess restaurant operations to understand food waste sources and reduction opportunities  
• Assist in source separation system set-up                                                                                                     |
| **Reducing waste “footprint” of process or facility** | • Assess processes at food service company  
• Evaluate and recommend on-site management and waste diversion options                                                                 |
| **Technology assessments, validation and effectiveness studies** | • Evaluate effectiveness of on-site pre-treatment technology vs. a baseline                                                                                   |
| **Supply chain sustainability assessments, strategy, and implementation** | • Assist a business in understanding its material flows  
• Recommend options for sustainable use of “waste”                                                                                                  |

* will be expanding direct assistance to include municipalities
Food Waste Reduction Assistance

**Challenge**
- Food waste is the single largest contributor to our solid waste stream

**Objective**
- Help businesses reduce and divert food waste

**Work Performed**
- Collect and analyze data
- Provide recommendations
- Provide implementation assistance

**Results (to-date)**
- 13 “large generators” assessed and guided through:
  - Data driven decision making
  - Understanding food suitable for donation
  - Connecting with local food banks
  - The importance of food safety

**EXAMPLE ASSESSMENT OUTPUT – WASTE COMPOSITION**

- Produce: 60%
- Animal Products: 22%
- Pre-Made Food: 9%
- Bakery: 8%
- Post Consumer: 1%

**Actions taken by clients**
- Increase donations and food waste diverted from landfill
- Purchase smaller serving trays
- Changes to menu options
- Adjustments to amount of food prepared

Funding provided by the New York State Department of Environmental Conservation. © 2018 Rochester Institute of Technology.
Current Work - Waste to Revenue

**Challenge**
- Food waste is a major expense & environmental burden

**Objective**
- Turn a food waste stream into a new saleable product

**Outcome**
- Beet pulp and other processing byproducts dehydrated into powder
- Waste product eliminated
- New product line added, nutrients recycled

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Product example, not the result of a P2I project

“We’re thrilled to launch another product [and] that we’re able to do it in a way that’s making us even more efficient and economical. It’s a win/win for everyone.”

- George Shropshire, VP, Love Beets.
Food Waste Tool Box - Clearinghouse

- Self-assessment tools
- Food waste estimator tool
- Organic resource locator
- Best practices (reduction/diversion)
- Source separation guidance
- Food donation guidance

https://www.rit.edu/affiliate/nysp2i/food/
Clearinghouse – Key Resources and Tools

- Food waste self-assessment tool
  - A how-to guide for quantifying waste and making data driven decisions

- Food waste calculator
  - Estimator tool for calculating your waste using industry data

- Hauling organics guide
  - A conversation starter for haulers and generators as well as things to consider before hauling organics

- Organic resource locator tool
  - An interactive web-based mapping tool listing sources and processors of organic material

- Food waste management step-by-step guide
  - Guidance for reducing and diverting food waste from collecting data to finding a diversion facility
Improvement Options

- Source Reduction
  - Includes both tangible and behavioral opportunities
  - Tray-less dining, flexible menu planning, customer/employee education
- Donation
  - Overproduced/cosmetically damaged foods
  - Requires proper handling and hauling
  - Tax incentives
- Diversion
  - Options: animal feed, anaerobic digestion, composting, etc.
  - Considerations: availability, travel distance, food acceptance, contamination limits

Takeaways:
- tradeoff between economic, environmental, social
- data driven decision making
- not all food waste is created equal, some streams are better suited for one pathway over another

For more information:
https://www.rit.edu/affiliate/nysp2i/food/diversion-overview
Organic Resource Locator

- Locations of businesses
- Locations of recycling facilities
-Clickable icons
- Food waste estimates
- Point and radius search
- Downloadable data sets
Community Grants Program

Community organizations, academic institutions and municipalities that seek to improve health, the environment and the economy through pollution prevention are funded by NYSP2I.

10 years of funding:
- 100 projects awarded
- Over $1.5 million dollars in funding
- Over 70 organizations in every region of the state
- Over 1 million individuals reached
- Over 500 individual materials created
Community Grants Program Projects

Tompkins County Solid Waste Management
Save the Food Campaign

**Goal:** To reduce and divert residential food waste from landfills by implementing a community-based social marketing and media campaign.

NYS Restaurant Association Educational Foundation (NYSRAEF)
Green Hospitality Initiative’s Restaurant Food Waste Project

**Goal:** To assist restaurants in the NYC and Lower Hudson Valley region to better manage food waste.

Hudson Valley Regional Council
Feeding the Hudson Valley

**Goal:** To educate and generate awareness of food waste through a large public event held in 2016 and 2017 on the Walkway over the Hudson.

Radix Ecological Sustainability Center
The Community Compost Initiative

**Goal:** To reduce and divert food waste from landfills by expanding compost collection and the education system in the Albany, NY area.
Expanding Assistance for Municipalities

- Benchmarking municipalities’ involvement in food waste reduction and diversion

- Understanding existing materials and tools available through municipalities

- Creating a set of materials for municipalities to encourage food waste prevention and diversion

- Providing direct assistance to municipalities

We want you to get involved!  

Other Funding Resources

- **Empire State Development**
  - $4 M for equipment purchases over 3 years
  - Support food waste generators
  - Up to ~50% cost share
  - *Funding not yet available*

- **NYSDEC Climate Smart Communities**
  - 50/50 match
  - $10K-$2M awards
  - Maximum 15% design and engineering

- **NYSDEC Municipal Waste Reduction and Recycling Grants**
  - Up to 50% reimbursement of eligible costs
  - Recycling equipment, facilities, education, coordination
  - Up to $2 million per grant
### Other Resources

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<th>US EPA: Food Recovery Challenge</th>
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<tbody>
<tr>
<td>• Focus: <strong>businesses</strong> and <strong>organizations</strong></td>
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<tr>
<td>• Use tools to <strong>measure baseline</strong> and <strong>set goals</strong></td>
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<td>• Track progress and be <strong>recognized</strong></td>
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<table>
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<tr>
<th>US EPA: Food Too Good to Waste</th>
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<tr>
<td>• Focus: <strong>household</strong> food management</td>
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<tr>
<td>• Resources available for <strong>individuals</strong>, <strong>community organizations</strong>, and <strong>municipalities</strong></td>
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<tr>
<td>• Implementation guide and <strong>toolkit</strong> available</td>
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<th>NRDC &amp; Ad Council: Save The Food Campaign</th>
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<tr>
<td>• Public service <strong>campaign</strong></td>
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<tr>
<td>• Free marketing / outreach <strong>materials available</strong> (Posters, fact sheets, shareable media, etc.)</td>
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<td>• See example below</td>
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Final Thoughts

Overall

- The excess food and food scraps landscape is changing – driven by individuals and regulations (top down and bottom up)
- There are a lot of great people, tools, and resources out there to leverage and learn from
- Build partners, a lot can happen at the intersections between businesses, the community and non-profits

From NYSP2I

- Work directly with us through Community Grants or technical project assistance
- Utilize our Clearinghouse material online
- Support us in creating educational tools for residents
Contact:

Email: food.p2i@rit.edu
Food Clearinghouse: https://www.rit.edu/affiliate/nysp2i/food/

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