On-site Systems: Making Sense of the Options

Ava Labuzetta
Staff Engineer,
Sustainable Food Program Technical Co-Lead
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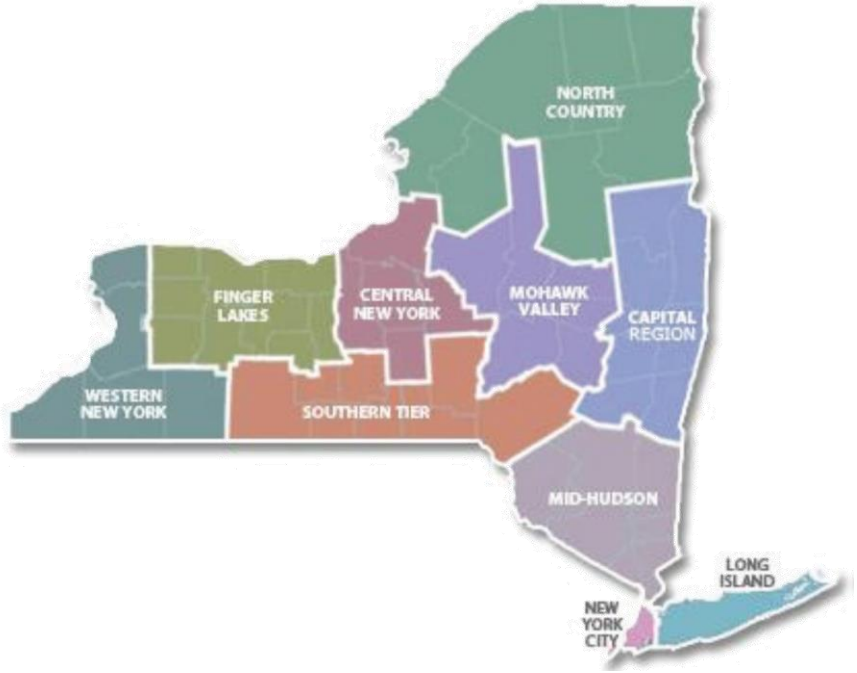
NYS Pollution Prevention Institute



- HQ at RIT
- Established in 2008 "**NYSP2I**"
- 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

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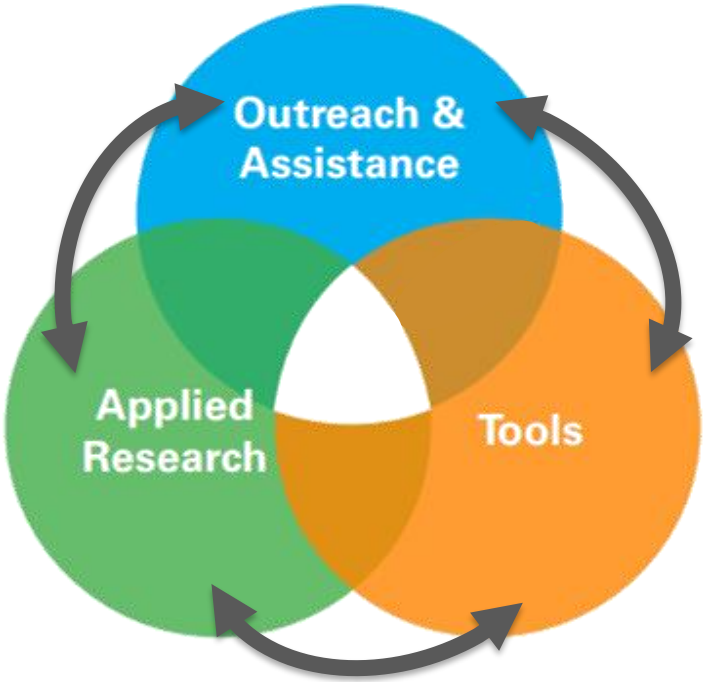
NYSP2I and Food Waste

SUSTAINABLE FOOD PROGRAM
NEW YORK STATE POLLUTION PREVENTION INSTITUTE

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

Business Assistance

Municipality Engagement

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A lot of choices

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A lot of things to consider

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So how do you make a good decision?

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Decision Matrix

What should I do tonight?

What question are you trying to answer?

Sum of scores and weights multiplied

		Criteria			
		Cost	Fun	Practical	
	Weight	2	3	1	Totals
Options	Go to bed early	1	1	4	9
	Make dinner	3	3	5	20
	Get take out	4	4	2	22
	Get a drink	5	4	1	23

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1. Define your question

How should I manage my organics?

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2. Brainstorm the Options

- Get input from the whole group
  - Who is involved in organics management?
- Include only the serious contenders as options
  - Smaller matrix is a simpler matrix
- Include off-site options, too if applicable

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3. Brainstorm the Criteria & Weight

- Group brainstorm → stronger criteria & larger buy-in on decision
- Example criteria
  - **Cost** - can't afford to pay more than we are now
  - **Type of food scraps** - needs to take all organics produced
  - **Regulatory considerations** - will we stay in compliance?
  - **Operational considerations** - needs to be able to be operated with existing personnel
  - **Space** - can be set up in limited space
  - **Applications/end products** - don't want a secondary product to deal with

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4. Set up the Decision Matrix

How should I manage my organics?

		Criteria			
		Cost	Food Scraps Accepted	Space	
	Weight	3	2	1	Totals
Options	Haul away				
	In-vessel compost				
	Aerobic digester				

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Cost – Considerations

- Consider <u>total cost</u>
- Normalize (e.g. $/lb)
- Incorporate decrease in trash bill
- Don't forget about managing output material
- Pre-processing vs. full processing

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Food Scraps Accepted - Considerations

Technical Specifications	
Model Name and Number	**Eco-Safe Digester 400**
Material Types Accepted	Meat, seafood, poultry, produce, dairy, liquids, prepared foods, grains, breads, pastries
Material Types Not Accepted	Big bones, fat trimmings, clam or mussel shells, bread dough, packaging, paper, chemicals
Operation Method	Aerobic Digestion
Additional Inputs Required	Wood chips, micro-organisms, water
Output Material and Suggested Management	Grey water / nutrient-neutral effluent
Wastewater Discharge	Yes
Sample Tests Available	Yes

http://www.recyclingworksma.com/wp-content/uploads/2013/07/On-Site-Systems_edits_062615.pdf

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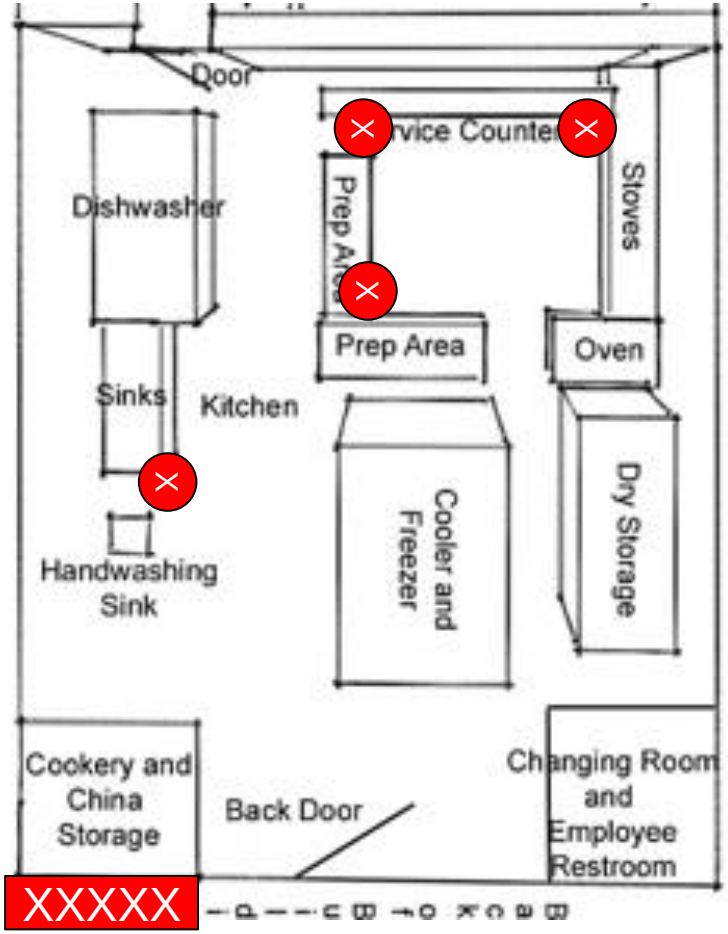
Space - Considerations

- Use spec sheets for physical size information
- Also consider:
  - Space for output material if applicable
  - Indoor vs. outdoor (or both required?)
  - Proximity to other activities
  - Staging areas



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5. Put it all together -fill in the matrix

How should I manage my organics?

		Criteria			
		Cost	Food Scraps Accepted	Space	
	Weight	3	2	1	Totals
Options	Haul away	2	3	2	14
	In-vessel compost	3	3	1	16
	Aerobic digester	1	2	3	10

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Final Considerations

- Talk to others who have used the product or service you're considering
- Lease if possible to try it out
- Don't forget about off-site management
- Consider creative financing
  - Rent or lease
  - Investigate capital funding available

  https://www.rit.edu/affiliate/nysp2i/food-reimbursement
- Compare your quantitative answer with your gut feeling

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Questions?

Contact:

Ava Labuzetta

Email: allp2i@rit.edu

Phone: (585) 475-7038

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

- On-site Systems Page https://www.rit.edu/affiliate/nysp2i/food/onsite-food-waste-management

New York State Pollution Prevention Institute

Rochester Institute of Technology

111 Lomb Memorial Drive, Bldg. 78-2000

Rochester, NY 14623

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