

Ulster County Food Waste & Recovery 2021-2022

Is your business ready?



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Prevention Engineer
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About the Food Waste and Recovery Act

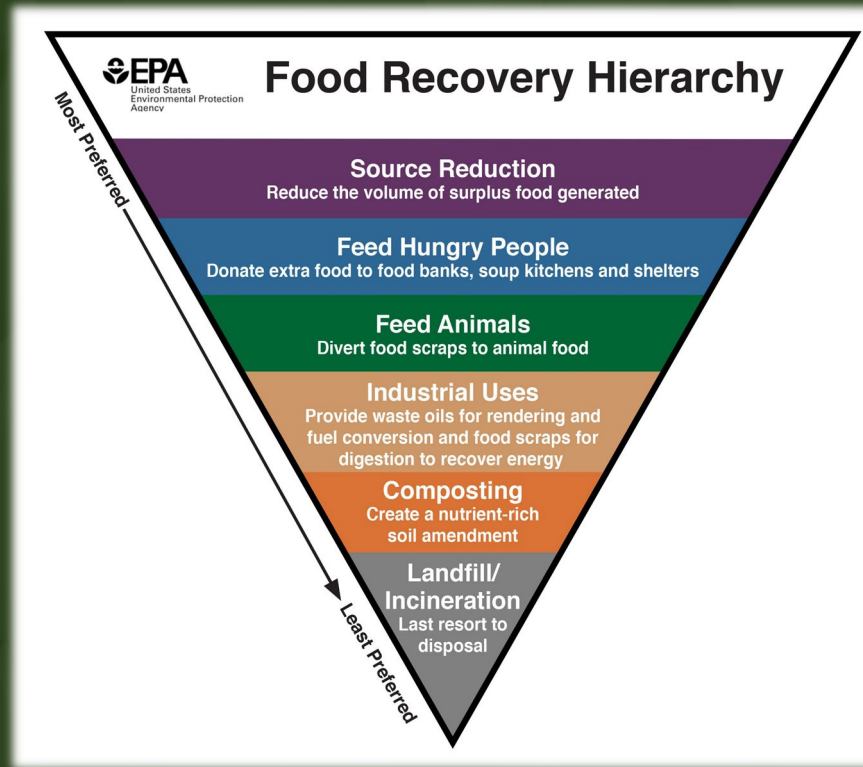
This local law expands food scrap recycling requirements by regulating generators of food scraps, by including schools and hospitals, and through other extensions beyond State law.



The full text of the Act can be found here: <https://ecode360.com/36623724>

About the Food Waste and Recovery Act

Adopted 12/18/2019



Who is Impacted?

Large generators of food scraps who produce:

- ~~Greater than 2 tons of food scraps per week¹ (starting January 1, 2021)~~
- Greater than 1 ton of food scraps per week (starting January 1, 2022)
- Greater than 0.75 tons of food scraps per week (starting January 1, 2023)
- Greater than 0.5 tons of food scraps per week (starting January 1, 2024)



Why it matters

Food takes up the most space in our Landfills



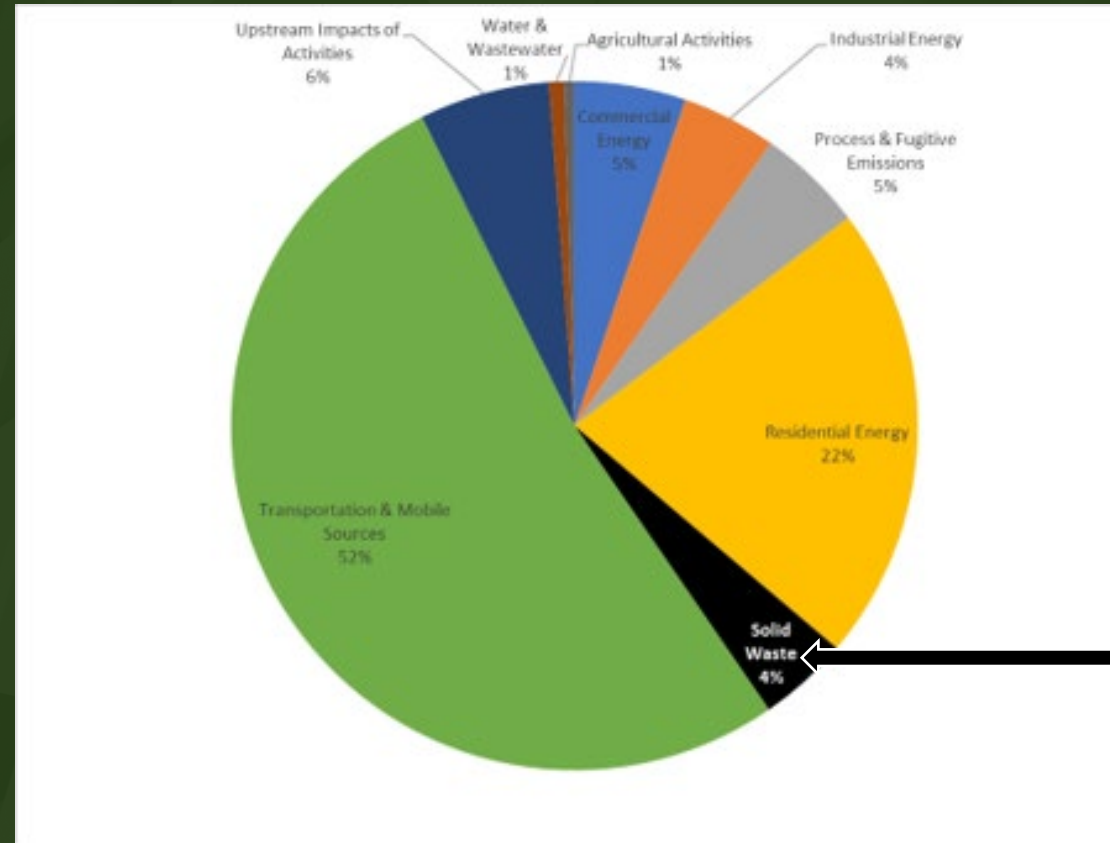
Why it matters

Methane verse CO2



Why it matters

In 2018, 101,379 tons of municipal solid waste (MSW) was generated in the County



Where does food waste come from?

- Industrial
 - Food Processors like dairy, fruit, vegetable processors, and breweries
- Institutional
 - Schools, colleges, universities, correctional facilities, hospitals, and nursing homes
- Commercial
 - Restaurants, grocery stores, fast food, retail establishments, hotels, hospitality, and event centers
- Residential
 - Homes, apartment building etc.

As it is right now.



The Goal.



Reduce

Donations

Animal Feed

Anaerobic
Digestion

Composting

Land Fill

How does the County identify large food scraps GENERATORS?



Ulster County uses the Organic Resource Locator dataset developed and maintained by the New York State Pollution Prevention Institute (NYSP2I) to identify large food scraps generators who are regulated under the law.

<https://www.rit.edu/affiliate/nysp2i/organic-resource-locator>

What's the Difference between the State Law and the County Act

Organics Diversion Legislation, Regulation Timeline, and Regulating Entity (TPW = tons per weeks of food waste generated)							
Effective Date	2021		2022		2023		Notes
	January	July	January	July	January	July	
Ulster County Food Waste Prevention and Recovery Act	>2.0 TPW		>2.0 TPW health care only				UC Legislation includes hospital and schools; No exemption for distance from compost facility
		> 1.0 TPW					
			> 0.75 TPW				
					> 0.5 TPW		
NYS Food Donation and Food Scraps Recycling Law			> 2.0 TPW				NYS regulates generators within 25 miles of a compost facilities. Does NOT include health care or schools

New York State Food Donation & Food Scraps Recycling Law

Agenda

- Overview of NYS Law
- Relationship to County law
- Relevant resources



Europa McGovern

Ulster County Department of the Environment
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New York State Food Donation & Food Scraps Recycling Law

WHEN IS IT EFFECTIVE?

January 1, 2022

WHO WILL THIS IMPACT?

Large generators of food scraps (more than 2 tons of wasted food and food scraps per week on average)

Examples: Restaurants, grocery stores, hotels & motels, colleges & universities, malls, event centers, etc

WHAT ARE THE REQUIREMENTS?

Large generators of food scraps must:

- Separate and donate edible food
- Separate and recycle all remaining food scraps if within 25 miles of an organics recycler

WHO IS EXCLUDED?

- Hospitals, nursing homes, adult care facilities, K-12 schools



New York State Food Donation & Food Scraps Recycling Law

- Webpage: <https://www.dec.ny.gov/chemical/114499.html>
- June 1, 2021: NYSDEC published:
 - (first) [list](#) of designated food scraps generators (DFSGs)
 - waiver & annual report forms
 - methodology for identifying designated food scraps generators
 - resources
 - list of food scraps transporters
 - list of food scraps recyclers
 - food donation (under development)
- NYS Pollution Prevention Institute (NYSP2I)
 - under contract with NYSDEC to support implementation of the NYS Food Scraps law
 - Organic Resource Locator mapping tool, Food Waste Calculator, and other resources



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How to identify Large Food Scraps Generators

- Site-specific information on food scraps generated is not readily available (or in many cases, not even known by the generators)
- To identify DFSGs, *proxy* factors were used to approximate the amount of food scraps generated
 - based on other known information
 - such as number of employees, students, inmates, etc...
- [NYS Methodology](#)
 - Food Scraps Generation Factors selected include:
 - Supermarkets and convenience centers
 - 3,000 lb/employee/year
 - Minimum employees for 2 tons per week = 69 employees
 - Hospitality
 - 1,983 lb/employee/year
 - Minimum employees for 2 tons per week = 105 employees
 - Full Service Restaurants
 - 3,000 lb/employee/year
 - Minimum employees for 2 tons per week = 69 employees



How to identify Large Food Scraps Generators

- Regulated Sectors include:
 - Colleges & Universities
 - Correctional Facilities & Jails
 - Full & Limited Service Restaurants
 - Food Wholesale & Distribution
 - Hospitality
 - And other generators
- To obtain *proxy* factors:
 - For businesses:
 - D&B Hoovers database
 - NAICS (North American Industry Classification System) or SIC (Standard Industrial Code)
 - # of employees, etc...
 - For non-businesses (colleges & correctional facilities):
 - publicly available information was used
 - # of students, inmates, etc...

New York State Pollution Prevention Institute (NYSP2I) Resources

- [NYS P2I Organic Resource Locator](#)
 - Use to find organic waste resource State-wide, including:
 - Large food scraps generators
 - Organics recycling facilities
 - Data available for download*
- [NYS P2I Food Waste Estimator Calculator](#)
 - Use to estimate food waste generated for various industry types (using proxy methodology)
- [Reimbursement Program](#)
 - Available to businesses or not-for-profits that produce, haul, or recycle greater than one ton of food waste per week
 - Offsets costs for projects (up to 44%) which result in an increase of food waste diversion from landfill or incineration through the use of equipment or technologies
- Other technical support to businesses



NYS P2I Organic Resource Locator

The screenshot displays the NYS P2I Organic Resource Locator interface. The main map shows Ulster County, NY, with various towns and landmarks labeled. A pop-up window titled "Food Retail" provides details for a specific facility:

Food Retail	
Facility Name	Adams Fairacre Farms, Inc.
Address	1560 Route 9W
City	Lake Katrine
State	New York
ZIP	
County	Ulster
Estimated Food Waste (ton/week)	2.9
Type	Grocery & Specialty Foods

Below the table is a "Zoom to" button. The right sidebar, titled "Resource Locator", contains the following sections:

[Add your company to the Organic Resource Locator](#)
[Questions or Comments?](#)

Follow steps below to find the data you're looking for. Don't forget you can download search-specific data after performing a search, or you can download full datasets [here](#).

1. Choose Layer:

- ☐ CAFOs
- ☐ Hospitality
- ☐ Manufacturing
- ☐ Food Service
- ☐ Institutions
- ☐ Food Wholesale & Distribution
- ☒ Food Retail
 - ☒ Convenience Stores
 - ☒ Grocery & Specialty Foods
 - ☒ Supercenters
- ☐ Organics Recycling
- ☐ Food Donation
- ☐ Miscellaneous

2. Choose a Radius and Location:

5 miles

Choose Location From Map

Ulster County, NY, USA Clear Map

3. Filter Businesses by Estimated Food Waste:

Greater than or equal to 0 tons per week

*Filter will only apply to businesses with food waste estimates

Run Search



NYS P2I Organic Resource Locator

Resource Locator

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- ☐ Food Wholesale & Distribution
- ☐ Food Retail
- ☒ Organics Recycling
 - ☐ Anaerobic Digestion
 - ☒ Compost Sites
 - ☐ Biosolids / Other
 - ☐ Roadkill / Mortalities
 - ☒ Source Separated Organics
 - ☐ Yard Waste
 - ☐ Other
- ☐ Food Donation
- ☐ Miscellaneous

2. Choose a Radius and Location:

5 miles

Choose Location From Map

Ulster County, NY, USA

Compost Sites

Facility Name	UCRRA Ulster Transfer Station
Address	999 Flatbush Road
City	Kingston
State	NY
ZIP	12401
County	Ulster
Type	source separated organics

[Zoom to](#)



NYS P21 Food Waste Estimator Calculator

Pick A Category

Colleges and Universities - Residential

Colleges and Universities – Non-Residential

Corporate Cafeterias

County Jails and Other Institutions

Food Wholesale and Distribution

Grocery, Specialty Foods, and Convenience Stores

Hospitals

Lodging and Hotels

Nursing Homes

NYS Correctional Facilities

Residential Households

Restaurants - full service

Restaurants - limited service

Schools - elementary

Food Waste Generation Factor

57.69 lb/employee/week

1.00 lb/meal

Input Fields

Number of Employees

35

OR

Number of Meals

0

2,019.15 lb/week

1.01 tons/week

New York State Food Donation & Food Scraps Recycling Law

CONCLUSION

- NYS regulates >2 tons per week large food scraps generators (not under County law)
- Ulster County primarily uses the NYS methodology (ORL data) to identify County-regulated generators as well
- Relevant resources are available via NYSDEC webpage & NYSP21



New York State Food Donation & Food Scraps Recycling Law

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How to Set up a Food Scraps Diversion Program for Your Business

Missy Hall, Food Waste Diversion Program Manager

November 15, 2021



NYS Pollution Prevention Institute

- Reduce the environmental footprint of New York State by working with businesses, non-profits and municipalities
- Direct 1:1 assistance, outreach and education, grant programs, research
- 5 partner universities, HQ in Rochester, NY at RIT
- \$3.9M in annual NYS funding administered through the NYS Department of Environmental Conservation

Examples of assistance projects:



- **Food waste inventory** including **source reduction solutions** for a food manufacturer to achieve waste reduction targets
- **Food waste strategy development** and **implementation support** for a restaurant to grow a diversion program
- **Technology assessment** for an organics recycler to evaluate feasibility and viability of alternate processing methods
- **Process improvement** support for an institution managing its food waste on-site



Food Waste Reduction & Diversion Reimbursement Program

- Reimbursement funding for equipment purchases
- Eligible projects must divert food waste from landfills or incinerators
- Eligible applicants include NYS businesses and non-profits that generate, recycle or haul >1 ton/week of food waste
- Funding available until May 2022 or until funds run out
- Reimbursement up to 44% of eligible equipment expenses, in most cases not to exceed \$100K

Process

1. Apply to the program
2. Enter into contract
3. Purchase equipment/implement project to divert food waste
4. Document food waste diverted and purchase made
5. Receive a reimbursement



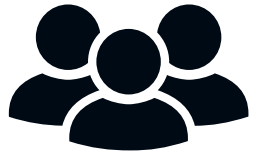
nysp2i.rit.edu/collaborations

Examples of approved projects:



- **Inventory management software** allowing a grocery chain to reduce their shrink across all NYS stores
- **Food waste collection & storage equipment** allowing a food manufacturer to collect and store food scraps to be picked up for recycling
- **Composting equipment** used to establish composting on site at a large resort
- **Aerobic digester** providing an on-site recycling option for a hotel kitchen
- **De-packaging unit** used at a food manufacturer to reclaim and recycle out of spec canned items

Steps to Launching a Diversion Program



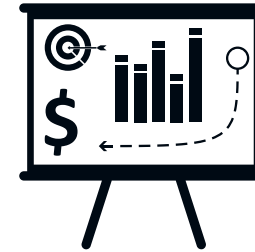
**Form a
team**



**Get to know
your waste**



**Organize
your plans**



**Navigate
solutions**



**Start your
program**

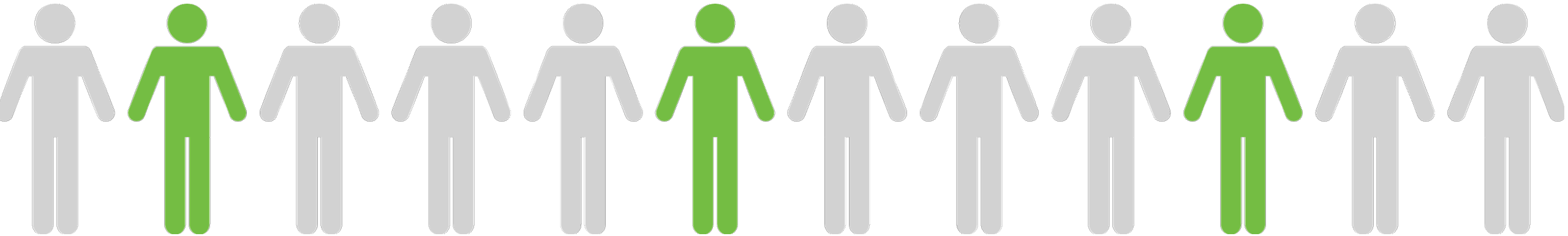
Form a team

Form a team

A Diverse Team

A Champion

A Knowledge Expert



Benefits of forming a team

- Those doing the work know best
- Inclusion yields sense of ownership
- Team members help facilitate the culture change as trainers, ambassadors, etc.

Get to know your waste

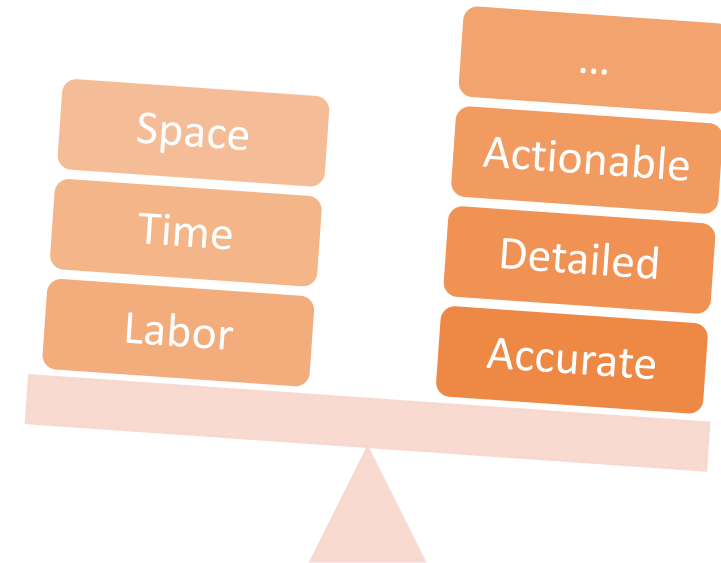
What to look for

■ Walk the floor with your team

- See the waste, listen and observe
- Where is it generated, where does it go, why was it wasted

■ Estimate food waste

- Proxy measures
- Weighing
- Volume estimates
- Visual inspection
- Company or waste records



Estimate food waste: proxy measures

Pick A Category

- Colleges and Universities - Residential
- Colleges and Universities – Non-Residential
- Corporate Cafeterias
- County Jails and Other Institutions
- Food Wholesale and Distribution
- Grocery, Specialty Foods, and Convenience Stores**
- Hospitals
- Lodging and Hotels
- Nursing Homes
- NYS Correctional Facilities
- Residential Households
- Restaurants - full service



Food Waste Generation Factor

57.69 lb/employee/week

Input Fields

Number of Employees

4,038.3 lb/week

2.02 tons/week

Available at nysp2i.rit.edu/resources

Estimate food waste: tracking volume/weights

Month	Week	Type	Input Volume					Input Weight	Observations / Comments
			# Containers / week	Container Type	% Full (on average)	Density	lb	lb	
Jan	1	Pre	2	35 gallon tote	80%	med	240		general kitchen food scraps
		Post	3	35 gallon tote	75%	med	337		general kitchen food scraps + prep for party went bad in walk- in
	2	Pre						230	
		Post						80	
	3	Pre	5	35 gallon tote	25%	low	125		
		Post						103	
	4	Pre							
		Post							

Estimate food waste: conducting an audit



RIT / New York State Pollution Prevention Institute / Resources / Food Waste Self-Assessment - Grocery Industry

Conducting a food waste assessment allows you to not only quantify your food scraps but also begin to understand the primary sources and potential causes for its generation in the first place. Performing an assessment is a practical first step to right sizing a diversion program as well as identifying opportunity areas for food donation and waste prevention, which often leads to cost savings.

How-To Guide



Best Practices



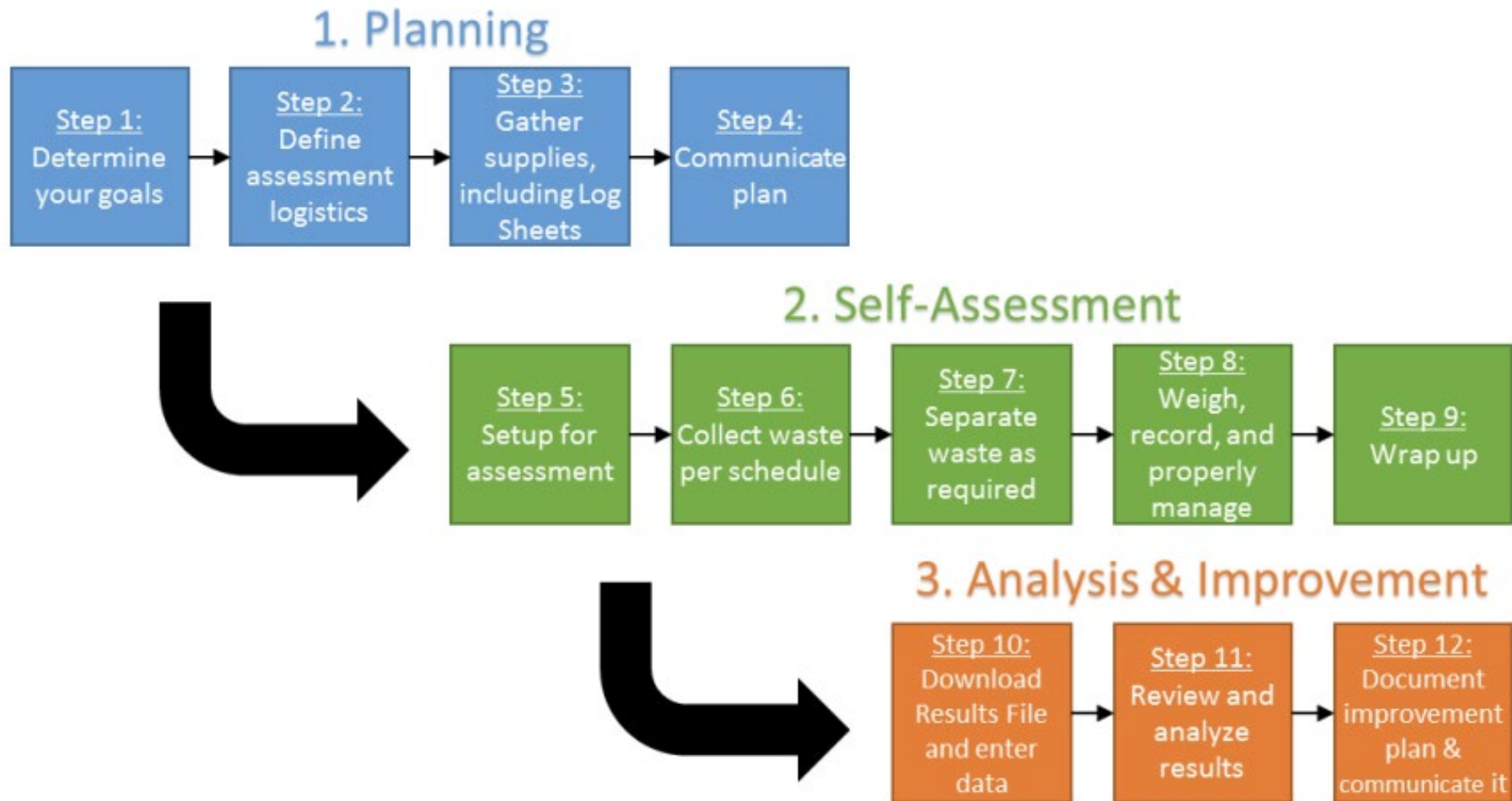
Log Sheet



Results Worksheet

Available at nysp2i.rit.edu/resources

Estimate food waste: conducting an audit



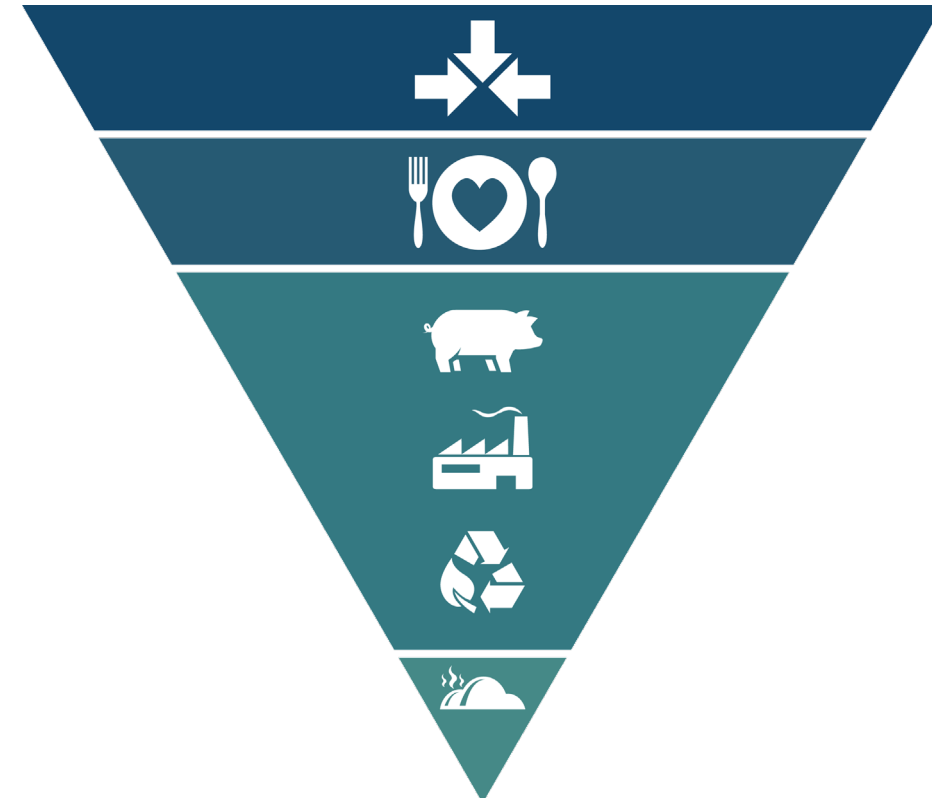
What your waste can teach you

■ Learning areas

- Context for goal setting
- Potential challenges: space, contamination, etc.
- Wasted food items available for donation
- Waste reduction opportunities

■ Important Aspects

- There will be a lot to process
- Beware of analysis paralysis
- Prioritize ideas
- Every company journey is different



Organize your plans

Organize your plans

Benefits of planning and goal setting

- Public commitment and accountability
- Visibility into targets and progress
- Clear expectations and prioritization
- Sense of program ownership

Goal Examples

- Increase food donated by 10% by end of next quarter
- Train all wait staff by the first of the month
- Improve production yield by 5% before the end of the year
- Go one month with no contamination incidences reported



Navigating Solutions

Navigating Solutions

- **Level of visibility into the recycling process**
- **Staff availability**
- **Budget – initial vs. ongoing**
- **Desired level of control**
- **Use for output material**
- **Available space**



Starting your program

Source separation

- Collection bins
- Clear signage
- Staff training
- Timing
- Contamination
- Costs



Collection bins

- Different and consistent
- Intuitive placement
- Appropriate number
- May be supplied by hauler
- Supplement if necessary



<https://www.grainger.com/>



<https://cultivatecolorado.com/>



<https://www.homedepot.com/>



<https://www.homedepot.com/>

Clear signage

- Paired with every bin
- Clearly visible
- Sized appropriately
- Pictures > words
- Specific to your operation
- Update as necessary

Food Scraps	
YES	NO
 <ul style="list-style-type: none"> • Dairy • Meat • Bones • Paper napkins • Onion cores • Plate scraps • Vegetables • French fries 	 <ul style="list-style-type: none"> • Stretch wrap • Straws • Packaging • Wax paper • Gloves • Take-out boxes • Cardboard • Plastic • Coasters • Cloth napkins

Staff engagement and training

- Assign a champion
- Engage from the start
- Listen to feedback
- Regular checks
- Positive reinforcement



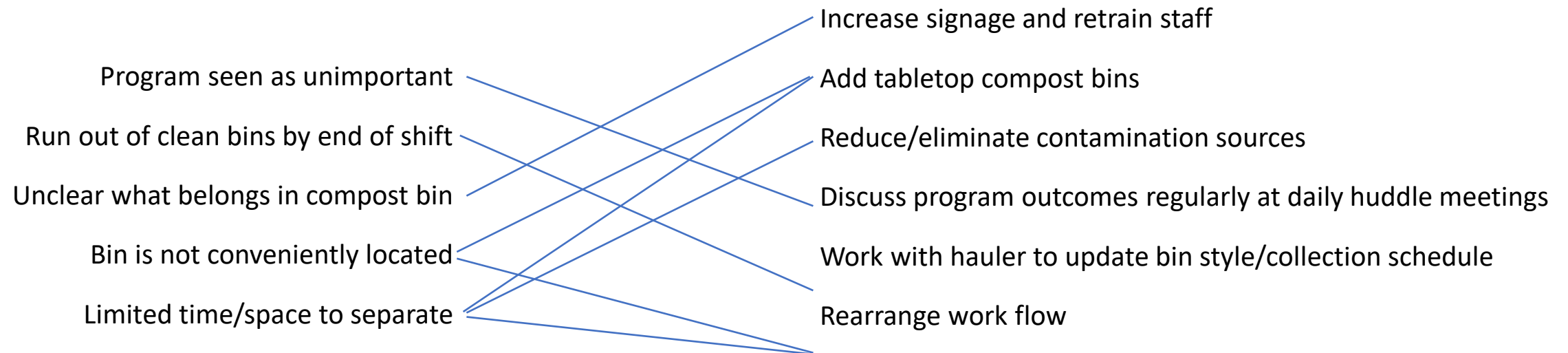
Timing

- Consider a phase – in approach
- Easier areas first
- Expand over time as habits are formed
- Adjust if necessary



Contamination

- Contamination issues don't all have the same cause
- Uninformed solutions may not address the problem
- Work with a team to understand and solve the issue

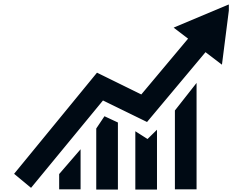


Costs

- Ongoing fee for service
 - Variables : # bins, # of pick ups
- Additional bins
- Sign printing
- Negotiate trash bill
 - Depends on billing structure
 - Decrease # pick-ups
 - Decrease size of bin



Final thoughts



Form a
team



Get to know
your waste



Organize
your plans



Navigate
solutions



Start your
program

...and stick with it

New habits take time to form, mistakes will be made. Encourage dialogue, track progress and use those learnings to make stronger programs.

Thank You

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RIT



Cornell CALS
College of Agriculture and Life Sciences



Rensselaer

Resources

<https://ulstercountyny.gov/environment/food-waste-prevention-and-recovery-act>

- Ulster County Resource Recovery Agency (UCRRA): <https://ucrra.org/waste-recycling/food-waste/>
- New York State Pollution Prevention Institute (NYSP2I): <https://www.rit.edu/affiliate/nysp2i/organic-resource-locator>
- Food Bank of the Hudson Valley: <https://foodbankofhudsonvalley.org/donate-food/>
- New York State Association for Reduction, Reuse and Recycling (NYSAR): <https://www.nysar3.org/page/strategies-for-businesses--institutions-129.html>





Already regulated under the New York State Food Donation and Food Scraps Recycling Law?

Submit a Waiver form and supporting documentation by November 30

<https://www.dec.ny.gov/chemical/114499.html>

Thank you for attending!

<https://ulstercountyny.gov/environment/departments-environment>

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