

Food Waste Self-Assessment How-to Guide

1 Introduction & Purpose

Food waste, which is simply any food that is grown and produced for human consumption but ultimately not eaten (ReFED "A Roadmap to Reduce U.S. Food Waste by 20%." 2016), includes two main types; food scraps and surplus food. Food waste also falls into two categories; pre-consumer and post-consumer. It is typical to find all the types and categories of food waste at a single location, see Table 1 for examples.

	,,				
Categories :	Pre-consumer	Post-consumer			
Type 1: Food Scraps	Serving pan scraps	Plate or tray scraps			
(inedible)	Trimmings & Culling's	Customer returns			
(22 2 2)	Quality related waste				
Type 2: Surplus Food	Past best-by date items	Uneaten food			
(edible)	Overproduction	Unopened Single-serve packets			
(Canala)	(could be donated)				

Table 1: Types and Categories of Food Waste

Food waste studies / self-assessments identify and quantify the food waste generated on-site. The information gained during the food waste assessment will allow businesses and organizations to:

- Provide tangible metrics to help guide organizational improvement efforts and chart progress.
- Reduce operating costs purchase less food, spend fewer hours handling food that isn't sold.
- Reduce disposal costs reducing waste cuts disposal costs.
- Improve worker safety and sanitation separated food waste can reduce lifting and double-handling, and will improve the sanitation of the on-site dumpster when diverted from landfill.
- Feed hungry New Yorkers donating surplus food supports local food banks and pantries.
- Support the community reduce landfill space demand when food waste is donated or recycled.

This guide details step-by-step directions to perform a self-assessment and discover the types, sources, and quantities of food waste in your operations. The 12 step process shown in Figure 1 has three straightforward phases; planning, self-assessment, and analysis of results.

Used with this **How-to Guide** are **Grocer**, **Healthcare** and **Foodservice** specific **Log Sheets**, **Best Practices** and **Results files**, designed to address the unique needs of each. They are available separately at http://bit.ly/NYSP2IFoodStudy.

- Grocer Log Sheets, Best Practices & Results Files Grocery, Supercenter and Big Box Stores
- Healthcare Log Sheets, Best Practices & Results Files—Hospitals and Nursing Homes
- Foodservice Log Sheets, Best Practices & Results files Colleges and Universities, Elementary and Secondary Schools, Correctional Facilities, Conference & Event Centers, Stadiums, Restaurants

The **Best Practices** documents include suggestions for assessment logistics, tips on what to note during the assessment, and details on how to use the **Results Files**. The **Results Files** (MS Excel) detail the waste by source, type and disposal method, and analyzes the potential donation and recycling of food waste.



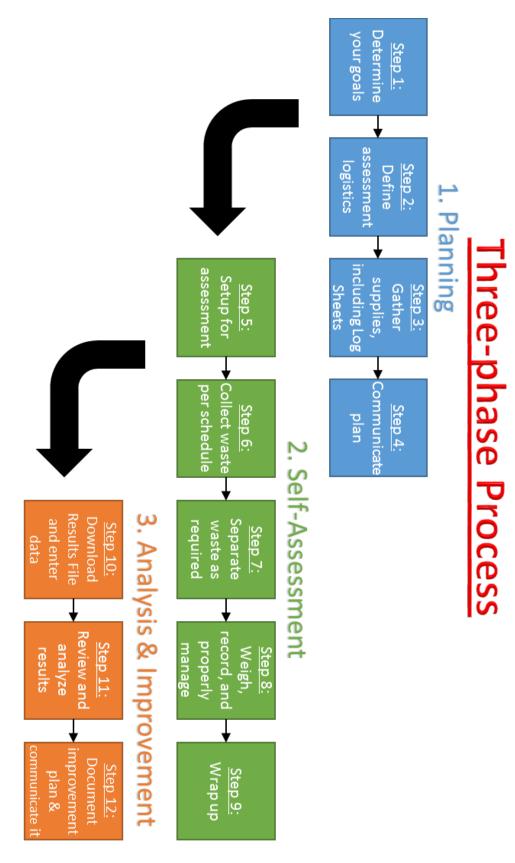


Figure 1: 3 Phases of a Food Waste Self-Assessment



2 Planning

2.1 Step 1: Determine Your Goals

Establishing a few goals is a key part of performing the assessment, because they drive the plan developed in Step 2: Define Assessment Logistics. Some example goals are listed below, other ideas may be found on the NYS Food System Sustainability Clearinghouse (http://bit.ly/NYSP2IFood).

Example goals:

- Establish a food waste baseline figure out how much waste there is and where it comes from
- Lower waste management and operating costs
- Identify opportunities for waste reduction
- Reduce double-handling of waste bags and lessen risk of worker injuries due to lifting

2.2 Step 2: Define Assessment Logistics

This is when the detailed planning occurs for the food waste assessment.

Step 2a: Define the length and date(s):

Typical length is from 1 to 8 hours (not all active time). See Table 2 in Section 2e for estimated sorting and weighting times. A few key points:

- Pick a day that is representative of normal or average customer volumes.
- Pick a day that has the least amount of deliveries.
- A best practice to capture waste from a full 24 hour period without requiring staff to be there the entire day is to hold waste from the previous night (e.g. dinner) and measure the next day.
- Multi-day assessments capture differences in prep and serving schedules, and limit the amount
 of employee assessment time spent during a single day.

Step 2b: Identify waste collection locations by doing a walkthrough:

Food waste is created in many locations, including: prep areas, dish / pan washing stations, and trash bins. Do a walk-through and create a list of areas to be studied. Figure 2 shows pickup locations in the "back of house" areas 1-2-3 (solid arrows) and post-consumer trash bins labeled 'A' (dashed arrow).

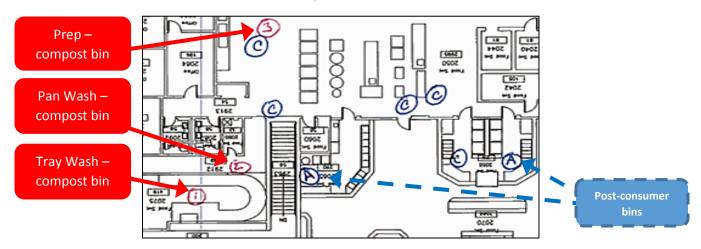


Figure 2: Collection points in a Cafeteria



Step 2c: Locate space to do the sorting and weighing:

Food waste is often mixed with non-food waste, causing the need to sort, identify and weigh it away from prep and serving areas. Choose an area where there is enough room for a table and a few people to maneuver the waste containers, yet is near the final waste disposal area (E.g. dumpster, dish room).

- For donated food, weigh it where it is stored (e.g. refrigerated or frozen food items), or take it to the sorting space and then return it to its pickup location.
- Separated food scraps in the prep areas may be weighed right there in the container they are placed into (no need to repack).

Step 2d: Set your schedule - Identify waste collection locations and pickup times:

Use the collection locations from Step 2b, the prep/serving schedule, and if applicable, dirty tray pickup times, to setup the collection schedule. Measuring waste from different production departments (E.g. cold vs. hot prep, produce vs. bakery) may require a staggered schedule for higher volume operations.

- Post-consumer waste is an ideal candidate for taking representative samples (less than 100%) a
 few times during the serving window. Sampling minimizes interruptions and assessment time,
 while still collecting valuable information. Details are in Step 6: Collect Waste per the Schedule.
- If holding waste from a previous night to study the following day, be sure to work out where it will be held the day before the study is conducted.
- An example cafeteria assessment schedule for 1-3 people is in Figure 3. In the example both preand post-consumer waste are studied (prep kitchen, dish room and dining area trash bins).

-				Employee		
Day	Timeslot	Α	В	С	D	E
	8-9 am	Х			Х	
Tuesday	10-11 am		Х	Х		X
4/26	4-5 pm		Х	Х		
	7:30-8:30 pm				X	
	8-9 am	Х			Х	
Wednesday 4/27	10-11 am		Х	Х		Х
	4-5 pm		Х	Х		
	7:30-8:30 pm				Х	

Figure 3: Assessment Schedule for two person teams

Step 2e: Determine how many people are needed:

Establish the number of people needed based on where the sorting/weighing will occur and collection schedule. Typical assessments need 1-3 people.

- Sort times vary based on: travel distance between waste collection and measurement locations, the type of waste sorted, and the number of people sorting.
- As a reference, see Table 2 for estimated sorting and weighing times based upon real-world studies conducted by NYSP2I at over 15 organizations.



Table 2: Estimated assessment task times

	NYSP2I Estimated Sorting and Weighing times							
		Total Time	Number of People Participating					
	Item to be sorted	(Minutes)	2 3		Notes			
	Full serving pan of prepared food	5	3 min		More than (2) people / pan aren't needed - maximum of one to weigh and dispose of the waste, and one to record results.			
	Donated food (2 small pallets or 4 shopping carts)	20	15 min	10 min	Sort, weigh (or record net weights if packaged) and return the items to storage.			
rash	Dry, mixed waste	10	5 min	3 min	Dry, mixed waste is easily separated because food and non-food items are not stuck together.			
65 Gallon trash bags	Wet, mixed waste	20	10 min	7 min	The most difficult to sort: bags are heavier, liquids are not easily removed, non-food items are soiled with food, and food is stuck on packaging / plates.			
40 -	Cart with 3 to 5 trash	30 - 60	15 min -	10 min -	Time depends upon how wet the waste is for			
4	bags (mixed waste)	30 - 60	30 min	20 min	sorting and fullness of the bags.			
	Packaged goods that remain in packaging (10 - 20 boxes)	10	5 min	3 min	Sorting, counting and recording of net weights are the only tasks.			
	Packaged goods that have to be depackaged (10- 20 boxes)	15	7 min	5 min	Having multiple people separate food from packaging improves efficiency as long as there is room for the people and trash bins.			

2.3 Step 3: Gather Supplies, print out Log Sheet

For the supplies checklist of recommended materials for an assessment, see http://bit.ly/NYSP2IFoodStudy or the appendix. Download and print the **Grocer**, **Healthcare** or **Foodservice** specific **Log Sheets** from http://bit.ly/NYSP2IFoodStudy.

2.4 Step 4: Communicate Your Plan

After the plan is established it is important to communicate it to all affected employees. Emphasize that the study is a chance to identify food waste sources, quantify the waste, and uncover improvement opportunities. Also, verify that any areas holding waste from the night before know where to save it.

3 Self-Assessment Day Activities

3.1 Step 5: Setup for the Assessment

Setting up for the assessment includes several key activities:

- Reminding employees that the assessment is being performed, posting signs as needed.
- Recording the weight of each empty bucket or pail used to weigh the food.
- Setting up the tarp / table(s) for separation, sorting and weighing see figure 4.





Figure 4: Sorting and weighing area



3.2 Step 6: Collect Waste per the Schedule

Waste should be collected and sorted according to the plan from Step 2: Define Assessment Logistics.

Best Practice: Do periodic walkthroughs of the prep and post-consumer waste areas to reduce the likelihood that something is missed. Observe how full the trash cans are and what they contain.

Step 6a: Sampling, or measuring less than 100% and scaling the results:

The most efficient way to measure post-consumer plate scrapings (E.g. hospital patient waste in the dish room) is to take a representative sample of the food waste. The representative sample can be used to determine the **food waste per person**. Food waste per person, combined with the customer count/volume information allows the calculation of the average food waste for the facility. An example is shown in Figure 5 of the printable **Log Sheet page 2**.

To perform a sample:

- 1. Coordinate with housekeeping or dishwashing to get a fresh trash can or bag.
- 2. **Count and record in the Notes column the number of trays / customers** as the trash is added to the can.
- 3. If measuring a single trash can, block off other trash bins to collect the sample faster.
- 4. For a full bag, or when the desired number of trays has been reached, remove the bag.
- 5. Sort the waste collected during the sample, weighing the food portion and recording.
- 6. Gather numbers for the total customers served per meal service on the assessment day.

Post-consumer Plate Waste Log & Customer / Patient Count

Observers Name(s):_ Facility Name: Veterans Memorial Hospital / Park Place Cafeteria Post-consumer Waste - Representative Sample - Measuring less than 100% of the customers / patient that were served **Empty** Total Disposal Food Description Trays and Beverages Counted/Notes Meal Source Loss Contain Weight Service / Location Method Reason E.g. Lettuce, vegetable mix, apples, turkey Weight Time cafeteria (lbs.) E.g. 12 milk and 3 juices counted animal feed burgers, cheddar cheese, etc (lbs.) - Breakfast patient rendering anaerobic patient Tare food and L 11:30 beverages Weight of (Lunch digestion together waste at 11:30) coffee container compost Breakfast landfill 18 patient Pancakes, eggs, sausage, applesauce 2 79 trays (2 bags) patient plate Breakfast landfill 2 17 Milk, Juice - sorted out 79 trays, 19 juice (4oz), 11 milk (8oz) beverage Lunch landfill 28.4 patient Sandwiches, grilled chicken, salad, rice 2 88 trays (2 bags) patient plate Lunch landfill Milk, Juice - sorted out 24 88 trays, 24 juice (4oz), 18 milk (8oz) beverage plate Lunch landfill Pizza, French fries, pasta, roast beef 11 45 trays cafeteria Refused meal (patient non-selected, Lunch patient 3.2 1 tray, 1 milk waste ER) - sandwich, salad & dressing, milk plate Dinner landfill 2 22 trays cafeteria Pizza, French fries, rice, chicken 11 plate 8 Dinner 35 patient Pasta, bread, salad, salmon 2 99 trays (3 bags) plate 11 Total Meals Served - Assessment Day Patient: Other Location: Lunch 214 365 216

Figure 5: Plate Waste - Representative Sample

Other Meal (Optional)



The Figure 5 lunch results are calculated as follows in the **Results File (step 10):**

- Lunch Patient tray waste = (28.4 2) + (3.2 2) = 27.6 lbs. / (88 + 1) trays = 0.31 lbs. per person
- Lunch Patient beverage waste = (24 2) = 22 lbs. / 88 trays = 0.25 lbs. per person
- Lunch Cafeteria plate scrapes = (11 2) = 9 lbs. / 45 trays = 0.2 lbs. per person
- 214 patient meals are served, the calculated patient lunch waste is 214 x (0.31 + 0.25) = 120 lbs.
- 365 cafeteria meals are served, the calculated cafeteria lunch waste (eat-in) is 365 x 0.2 = 73 lbs.

3.3 Step 7: Separate Food from Non-Food Waste as Required - Sort it & Record it

Pre- and post-consumer waste categories should be measured separately. Measure the two food waste types, food scraps and surplus food, separately. Measure multiple bags from the same source location together. Typically one person fills-in the log sheet as seen in Figure 6, while other people sort. Take photographs and notes, highlighting improvement opportunities.

Note: Each line is from a single source location & loss reason. Repeat Steps # 7 and # 8 for EACH LINE.

Pre-consumer Waste Log

*****	Timeframe	C	D:I		5 I D I	Empty	Total	Al-A A Adial	
Meal Service / Time - Breakfast - L 11:30 (Lunch waste at 11:30)	(hrs.) - E.g. 12 hrs. - leave blank if 24 hours	Source Location - kitchen - cafeteria - coffee bar - other	Disposal Method - donation - animal feed - rendering - anaerobic digestion - compost - landfill - other	Loss Reason - prep waste - expired - surplus - quality - other	Food Description -What is it? -E.g. Lettuce, vegetable mix, apples, turkey burgers, cheddar cheese, etc.	Empty Container Weight (lbs.) - Tare Weight of container	Weight (lbs.) - Weight of food and container together	Notes -Any additional information or observations - E.g. Item could be donated or composted - Production information, e.g. cold prep is done twice per day, before 9am & before 3pm Soups are prepped for both patient meals and cafeteria - Etc.	
Dinner 8:30		Kitchen	Compost	Prep	Potato peels and trimmings				
D 8:30		Kitchen	Donation	Surplus	Rice, pasta	Fi	ll-in th	e columns to the Left	
Breakfast 9:10		Kitchen	Compost	Prep	Cut watermelon and cantaloupe rinds			hile the sorting and	
B 10:00		Kitchen	Compost	Surplus	Scrambled Eggs, Pancakes	se	, parati	ng is being done, then	
B 10:20		Cafeteria	Landfill	Surplus	Pan scrapes, leftovers from serving line			nove to step #8	
Lunch 2:15	48	Cafeteria	Other	Surplus	Pre-made sandwiches				
L 2:15		Kitchen	Compost	Prep	Carrot, onion, pepper and lettuce trimmings				

Figure 6: Record what is being sorted

Use the **Timeframe** column to record how much time the waste represents. A few examples:

- The measured prep waste is disposed of only once a day, enter 24 hours or leave it blank.
- Two days' worth of bakery items were set aside for donation were measured, enter 48 hours.
- Pre-made sandwiches are prepped Mon-Wed-Fri, the assessment measures donated surplus sandwiches on Tuesday afternoon, enter 48 hours because the prep covers (2) days.
- The coffee bar serves from 7am to 7pm, and the assessment runs 7am to 3pm. The key is to figure out how much of the day was measured for both pre-consumer and post-consumer waste.
 - o For pre-consumer / prep waste, the prep staff left at 3:00pm and an entire day was captured, enter 24 hours or leave it blank.
 - For post-consumer tray / plate waste, the serving window runs to 7pm, so only 8 of the
 12 hours were captured, record the following: [8 / 12] x 24 = 16 hours.



Step 7a: Sorting and separating methods

Method 1 – Waste bucket

Separate the food waste from the mixed trash bag or container with hand tools (Figure 7) or gloved hands, and add the waste to a bucket or pail to be weighed. Use a second trash bin for non-food waste.

Note: Be mindful of any sharp objects or biohazards in the waste. Exercise caution and use trowels or small shovels as often as possible.





Figure 7: Trowel for sorting food waste & waste bucket

Note: Identify food scraps that make sense to be segregated. The example in Figure 8 shows 20 deli sandwiches that were thrown away after a lunch meal. Tracking waste down to this level of detail (by item), supports waste and cost reduction efforts.



Figure 8: Surplus Deli Sandwiches

Method 2 – Original bag or container

Separate the <u>loose</u> non-food waste (i.e. packaging, napkins, utensils, etc.) from the mixed trash bag or container and once fully separated, weigh the food that remains in the <u>original</u> bag. Use a second trash bin for non-food waste.



Method 3 – Packaged goods

Use the net weight on the packaging if available (Figure 9). If no weight is shown, then separate the food from the package and weigh it if time allows. Assume thin plastic packaging bags have no weight, eliminating the need to separate this food from the bag.



Figure 9: Net weight from packaged goods

Step 7b – Sorting donated goods

Count donated items in their original packaging or on clean surfaces away from food scraps. If the donated items are stored under temperature control, sort, count and weigh them where they are stored.

3.4 Step 8: Weigh the food waste and record it - Properly Manage the Waste

At this point, record the container weight, total weight and any notes on one line on the log sheet. This step is performed <u>immediately</u> after step #7 for <u>each</u> line on the log sheet, see Figure 10. Repeat steps #7 and #8 for each line until the study is completed. Properly handle the food waste and non-food trash once the weights are recorded.

Facility Name: Veterans Memorial Hospital / Park Place Cafeteria Date: 6/29 Observers Name(s): T. Jones							e(s): T. Jones, M. Evans		
Meal Service / Time - Breakfast - L 11:30 (Lunch waste at 11:30)	Timeframe (hrs.) - E.g. 12 hrs. - leave blank if 24 hours	Source Location - kitchen - cafeteria - coffee bar - other	Disposal Method - donation - animal feed - rendering - anaerobic digestion - compost - landfill - other	Loss Reason - prep waste - expired - surplus - quality - other	Food Description -What is it? -E.g. Lettuce, vegetable mix, apples, turk burgers, cheddar cheese, etc.	key	Empty Container Weight (lbs.) - Tare Weight of container	Total Weight (lbs.) - Weight of food and container together	Notes -Any additional information or observations - E.g. Item could be donated or composted - Production information, e.g. cold prep is done twice per day, before 9am & before 3pm Soups are prepped for both patient meals and cafeteria - Etc.
							2	11	Dinner from last night
Fil	Fill-in the columns to the Right , while the						2	18	Freeze for foodbank
	weighing and / or counting is being done,						2	34.2	
							2	5.6	
	then go back to step #7 until the study is						3	11.4	
	completed.						2	12	Given to maternity ward (reused internally)
							2	6.8	

Figure 10: Record the weights, time frame and notes

The **Notes** column includes:

- Information on the customer count (e.g. patients, customers, number of trays sampled, etc.)
- Other items of note, e.g. number of unopened single-serve food or beverage containers, customer counts.



3.5 Step 9: Wrap Up

At the end of the assessment:

- Perform a final walkthrough after all scheduled waste pickups have been performed, notify staff that the assessment is over.
- Dispose of protective clothing or clean for re-use. Clean scales, tarps, trowels and pack up.

4 Analysis and Implementation

4.1 Step 10: Download Results File and Enter the Data

Three customized **Results Files**, available for download at http://bit.ly/NYSP2IFoodStudy, are designed to address the unique needs of Grocer, Healthcare and Foodservice operations:

- Grocer Results Grocery, Supercenter and Big Box Stores
- Healthcare Results Hospitals and Nursing Homes
- Foodservice Results Colleges and Universities, Elementary and Secondary Schools, Correctional Facilities, Conference & Event Centers, Stadiums, Restaurants

Follow the instructions provided in each **Results File** to enter the assessment **Log Sheet** (Figure 11) information and generate the results.

Facility Name: Veterans Memorial Hospital / Park Place Cafeteria Date: 6/29 Observers Name(s):_ Food Description Total Meal Timeframe **Empty** Notes -Any additional information or (hrs.) Service / Location Method Reason -What is it? Container Weight observations - E.g. 12 -E.g. Lettuce, vegetable mix, apples, turkey Weight (lbs.) Time kitchen donation prep wast - E.g. Item could be donated or composted burgers, cheddar cheese, etc. - cafeteria animal feed expired (lbs.) - Weight - Production information, e.g. cold prep is - Breakfast leave of food Tare Weight done twice per day, before 9am & before coffee bar rendering surplus - L 11:30 blank if of container - other anaerobic (Lunch waste at container 24 hours digestion other - Soups are prepped for both patient meals and cafeteria 11:30) compost landfill other Dinner Kitchen Compost Prep Potato peels and trimmings 2 11 Dinner from last night D 8:30 Kitchen Donation Surplus Rice, pasta 2 18 Freeze for foodbank Breakfast Kitchen Compost Prep Cut watermelon and cantaloupe rinds 2 34.2 B 10:00 Kitchen Compost Surplus Scrambled Eggs, Pancakes 2 5.6 B 10:20 Landfill 11.4 Cafeteria Surplus Pan scrapes, leftovers from serving 3 Lunch Cafeteria Other Surplus Pre-made sandwiches 2 12 Given to maternity ward (reused 2:15 internally) L 2:15 Kitchen Compost Prep Carrot, onion, pepper and lettuce 6.8

Pre-consumer Waste Log

Figure 11: Log Sheet Example - Healthcare

The Figure 11 lunch results are calculated as follows in the **Healthcare Results File:**

- Cafeteria lunch waste is 12 -2 = 10 lbs. of surplus; which is added to the total for the day and analyzed. The **Results Files** summarize waste by source, disposal method and loss reason.
- Kitchen lunch waste is 6.8 2 = 4.8 lbs. of prep waste; also added to the total and analyzed.

In addition to the **Log Sheet** information collected during the assessment, information on customer counts / sales volumes is required to scale the results and needs to be input to the **Results file**. Customer



counts or revenue the day of the assessment and average customer counts or revenue go on the **Customer Info** tab.

4.2 Step 11: Review and Analyze Results

In the Results File, the results are detailed by source, type and disposal method, including potential donation and recycling of food waste, beginning with the **Overview** tab. Additionally, a comparison of actual results to the expected food waste value from the <u>NYSP2I Food Waste Estimator Tool</u> (http://bit.ly/NYSP2IFood) is provided. When reviewing the results, look for:

- Areas, departments, or particular food items that represent a large portion of the waste (either in surplus or food scraps)
- Over-production or surplus foods that may be suitable for donation in the future
- Any unexpected results (e.g. surplus of a certain item)

4.3 Step 12: Document Improvement Plan and Communicate It

Using the results and observations from the assessment, work the study team and management create an improvement plan. Ideas for reducing food waste and diverting food from landfill may be found on the Clearinghouse (http://bit.ly/NYSP2IFood)

Publicize the results and improvement plans to the organization, and follow-up with a status review of the opportunities. Once improvements have been implemented, consider doing a follow-up assessment. Conducting regular food waste assessments will identify trends, chart improvement progress and help minimize food waste, ultimately saving money.

5 Funding and Acknowledgement

Funding for this guide is provided by the Environmental Protection Fund as administered by the New York State Department of Environmental Conservation. Any opinions, findings, conclusions or recommendations expressed are those of Rochester Institute of Technology and its New York State Pollution Prevention Institute and do not necessarily reflect the views of the Department of Environmental Conservation.

6 Appendix

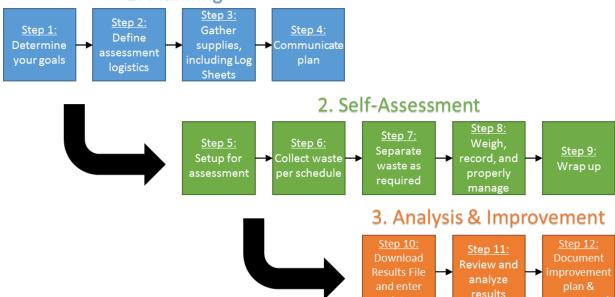
- One-page 12-Step Food Waste Self-Assessment Checklist Appendix A
- Supplies list Appendix B (2 pages)



NYSP2I Food Waste Self-Assessment: Step-by-Step Checklist

Three-phase Process

1. Planning



Planning

- ☐ Step 1: Determine Food Waste Study Goals
- ☐ Step 2: Define Logistics
 - o Reference: Best Practices documents Grocer, Healthcare, Foodservice
 - o Key items assessment date(s), assessment space, staffing, collection schedule
- ☐ Step 3: Gather Supplies & Print the Log Sheet
 - o Reference: Supplies Checklist and Log Sheets Grocer, Healthcare, Foodservice
- ☐ Step 4: Communicate Plan to affected employees

Self-assessment Day Activities

- ☐ Step 5: Setup for Assessment
- ☐ Step 6: Collect Waste per Schedule
- ☐ Step 7: Separate Food/Non-Food Waste as Required, Record the food waste on Log Sheet
 - o Reference: Log Sheets Grocer, Healthcare, Foodservice
 - o Note: Exercise caution and use hand tools as often as possible.
- ☐ Step 8: Weigh, Record, and Properly Manage the waste
- ☐ Step 9: Wrap Up

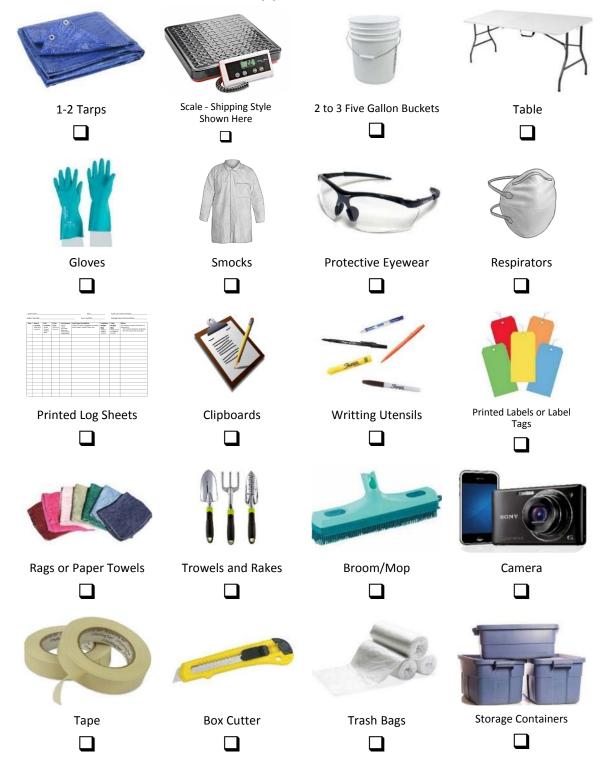
Analysis & Improvement

- ☐ Step 10: Download Results File and Enter Data
 - o Reference: Microsoft Excel Results Files Grocer, Healthcare, Foodservice
- ☐ Step 11: Review and Analyze Results
- ☐ Step 12: Document Improvement Plan and Communicate It

Appendix A



7 Food Waste Assessment Supplies*



^{*}Image sources noted at the endi



8 Supplies Checklist

Freque	ntly Used:
	Gloves (medium thickness, mid-arm or elbow length)
	Protective Clothing/Smock
	Printed Log Sheets
	Clipboards
	Writing Utensils (pens and permanent markers)
	1 to 2 Tarps (one for the ground, one to cover the table)
	Scale (300 lbs. capacity, ½ lb. accuracy or better)
	2 to 3 Five Gallon Buckets/Collection Receptacles - ID them (#1, 2, 3 or A,B, C) and weigh them (tare weights)
	Rags or Paper Towels
	Broom/Mop
	Camera
	Table
	Trash Bags
	Storage Containers to hold equipment
Occasio	onally Used:
	Labels
	Box Cutter
	Gardening Trowels and Rakes
	Disposable Nitrile Gloves
	Protective Eyewear
	Respirator
	Таре
	Hairnets (if entering food prep area)



¹ Image sources for the supplies list:

Tarp - http://www.harborfreight.com/7-ft-4-inch-x-9-ft-6-inch-all-purpose-weather-resistant-tarpaulin-877.html

Gloves - https://www.amazon.com/Ansell-AlphaTec-Immersion-Resistant-

Thickness/dp/B00SMMZG4I/ref=sr 1 2?ie=UTF8&gid=1473446000&sr=8-

2&keywords=medium+thickness+chemical+resistent+gloves

Smock - http://www.mcmaster.com/#disposable-jackets/=143gixo

Scale- http://www.uline.com/Product/Detail/H-479/Shipping-Weighing-Scales/Rubbermaid-Digital-Utility-Scale-400-lbs-x-5-lb?pricode=WY784&gadtype=pla&id=H-479Q&gclid=CIXp4 eDyc4CFZRbhgodurEFlg&gclsrc=aw.ds

Bucket - http://www.usplastic.com/catalog/item.aspx?itemid=65918

Tags - http://www.staples.com/BOX-4-3-4-x-2-3-8-5-13-Point-Pre-Wired-Shipping-Tags-Assorted/product 1004806

Trash bags - http://www.interplas.com/trash-bags/high-density-trash-bags

Camera - https://unteaglestrategies.com/2016/04/23/camera-phones-or-compacts-the-choice-is-up-to-you/

Clipboard - https://en.wikipedia.org/wiki/File:Clipboard.svg

Writing - http://www.terracycle.com/en-US/brigades/writing-instruments-brigade-r

Table - http://www.overstock.com/Office-Supplies/Cosco-6-foot-Center-Fold-

Table/8002945/product.html?refccid=NLTU7VNANJFZDTKK4MAUSLEGEQ&searchidx=1

Rags - http://thinkactprosper.blogspot.com/2012/06/replace-paper-towels-with-rags.html

Broom - http://www.walmart.com/ip/Leifheit-Click-System-3-in-1-Rubber-Broom-for-Indoor-and-Outdoor-Cleaning-Turquoise/38423093

Box cutter - http://www.overstock.com/Home-Garden/Yellow-18-mm-Box-Cutter-Bucket-of-30/6395302/product.html

Trowel - http://www.hometoolsworld.com/product/3-piece-gardening-tools-set-rake-trowel-and-planter-home-garden-lawn-care-equipment-fit-most-tool-bags-and-belts-great-for-men-women-seniors-rust-resistant/

Tape - http://www.jerrysartarama.com/drafting-tape

Safety glasses - http://www.rx-safety.com/prescription-safety-glasses/prescription-safety-glasses/prescription-safety-glasses-rx-456.html

Respirator - http://www.mcmaster.com/#5450T52

Storage Containers - http://recyclenation.com/2015/11/how-to-recycle-plastic-storage-bins