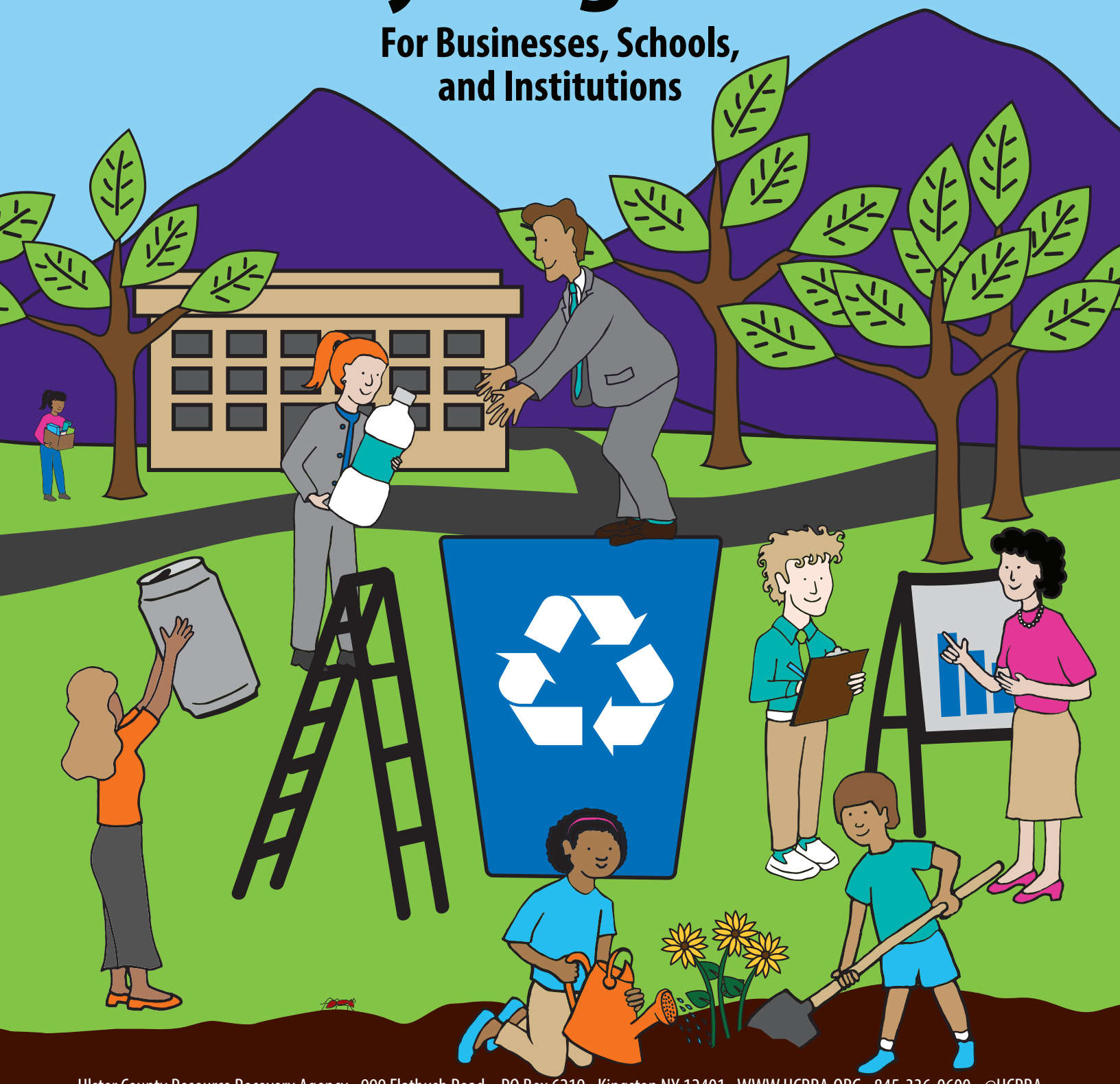
Ulster County Resource Recovery Agency

Waste Reduction and Recycling Guide

For Businesses, Schools, and Institutions



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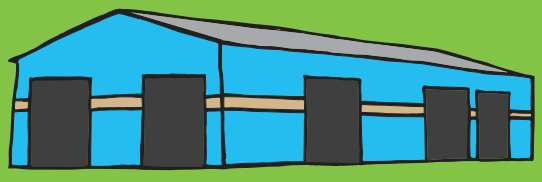


Introduction

This guidebook was developed by the Ulster County Resource Recovery Agency's Recycling Outreach Team, made possible with the support of grants from the New York State Department of Environmental Conservation and the Environmental Protection Fund. This guidebook provides the tools needed to help businesses, schools, or other institutions ("facilities") expand sustainability practices that optimize the source reduction and recycling of municipal solid wastes.

Facilities like schools, offices, healthcare facilities, hotels, retail centers, grocery stores, and restaurants play an important role in achieving the waste reduction and recycling goals for Ulster County. These types of facilities are considered large waste generators that contribute a significant amount of waste to the municipal waste stream. Much of the waste generated by these facilities can be easily diverted from disposal, resulting in improved public health, a cleaner environment, and stewardship of New York's natural resources.

Zero Waste is an emerging concept in sustainable materials management and refers to practices and policies that maximize the diversion of wastes from other traditional methods of disposal, such as landfilling or waste incineration. Zero waste is a goal to strive to generate as little waste as possible, by using creative methods of waste diversion. Waste diversion can include increasing recycling, composting food scraps, donating items and edible food, recovering energy in innovative ways, and increasing material reuse to lessen the negative environmental impacts of waste.

Along with recycling, these strategies for zero waste have many benefits and increase operating efficiencies in businesses, schools, and other facilities. By reducing the amount of waste requiring disposal, large facilities can enjoy significant savings. And by replacing single use items with more durable reusable items, facilities will also see long term cost avoidances, all while growing a more environmentally-conscious organization.

There are many benefits to waste reduction and recycling in the workplace, including:

- Help slow the depletion of natural and nonrenewable resources
- Help reduce environmental pollution and hazards
- Conserve landfill space for future generations
- Increase efficiency in operations
- Reduce expenses on raw materials, office supplies, equipment, and waste disposal costs
- Demonstrate concern for the environment and corporate responsibility, which increases employee morale and customer perception of value
- Add social value to an organization by increasing employee's environmental literacy
- Emerge as a local leader to foster more environmentally sustainable communities

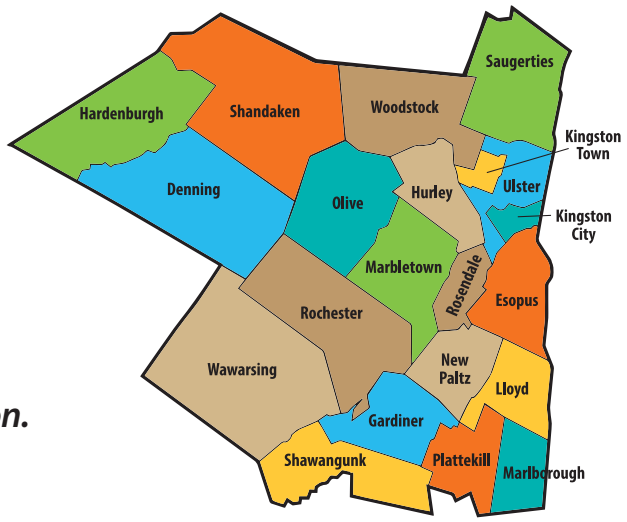
The UCRRA Recycling Outreach Team is dedicated to its mission to serve Ulster County with waste reduction and recycling education, and has developed this guidebook as a resource for facilities that are looking to Rethink Waste!

Please contact the Recycling Outreach Team staff for assistance with any of the programs discussed in this guidebook.

Section 1:
Solid Waste Management in Ulster County

Our Mission

Our mission is to protect public health and the environment and to promote sustainable materials management practices in Ulster County by efficiently managing solid waste materials with a focus on resource conservation.



History of the UCRRA

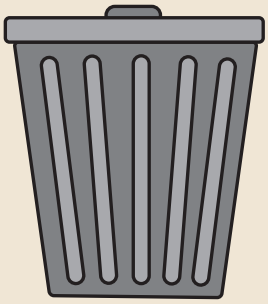
In the mid-1980's, the Ulster County Legislature obtained authorization from the State Legislature for the creation of the Ulster County Resource Recovery Agency (UCRRA, "the Agency"), a Public Benefit Corporation of the State of New York, empowered by Chapter 13-G of the Public Authorities Law to manage solid waste and recyclables in the County of Ulster. For over thirty years, UCRRA has been actively pursuing its mission to *develop, finance, and implement sustainable practices and efficiently manage solid waste with a focus on resource conservation*. UCRRA is the designated solid waste planning unit for Ulster County and manages municipal solid waste, (*See p.5: Flow Control*), construction and demolition debris (C&D), dual stream recyclables, source-separated organics, electronic waste (e-waste), biosolids, and periodically holds household hazardous waste collection events. UCRRA operates two permitted facilities; the Ulster Transfer Station (TS) and the New Paltz TS. The Agency's Material Recovery Facility (MRF) was built in 2002 and processes dual stream recycling only. The Agency's Organics Recovery Facility opened in 2012, was expanded in 2016, and accepts source separated organics (food scraps) from our Partners in Composting. UCRRA produces a local, sustainable compost product that is sold in bulk and in 1 cubic foot bags.

Recycling Outreach Team

The Agency offers free educational services for schools, residents, businesses, and institutions located in Ulster County. Our programs emphasize the hierarchy of sustainable materials management set forth in the New York State's Beyond Waste plan, highlighting the importance of source reduction, reuse, and recycling practices above waste disposal. Our community engagement programs encourage creativity to go beyond the 3R's and rethink our consumption of waste and disposal behaviors. UCRRA's Recycling Outreach Team (ROT) consists of a Recycling Coordinator, a Recycling Educator and a Compliance Officer. The ROT can tailor any program to the unique needs of a facility. UCRRA staff develop and deliver county-wide outreach and educational programs to promote waste diversion, increase recycling and composting, and enforce the mandatory recycling law in Ulster County. Educators are available to assist facilities with understanding their waste stream, enhancing waste reduction and recycling programs, and offering training and support services at no cost! These activities include conducting recycling compliance site visits, assisting with facility waste audits, connecting facility managers to recycling resources, staff training programs, offering tours of the UCRRA recycling and composting facilities, and consultation services about recycling and composting best practices.

Waste Disposal and Recycling at UCRRA
Hours and Accepted Items

Waste Disposal



Ulster Transfer Station
999 Flatbush Road, Kingston
Monday-Saturday 6am-3pm

New Paltz Transfer Station
1 Clearwater Road, New Paltz
Please visit our website for current operating hours.

Accepting: Municipal Solid Waste, and Construction and Demolition Debris

Not Accepting: Industrial Waste, Medical Waste, Hazardous Waste, Bulk Liquids, Friable Asbestos

For more information please visit
www.ucrra.org/waste-recycling/trash

Dual Stream Recycling

Material Recovery Facility
999 Flatbush Road, Kingston
Monday-Friday 7am-4pm

Accepting: Dual Stream Recycling only. (Plastic, glass, and metal can be commingled. Paper and cardboard must be source separated). Please see our recycling brochure for accepted items.

Not Accepting: Single Stream Recycling (all recyclable categories are mixed together). Please refer to our recycling brochure for unaccepted items.

For more information please visit
www.ucrra.org/waste-recycling/recycling

Composting

Organics Recovery Facility
999 Flatbush Road, Kingston
Monday – Friday 7am-4pm
Saturdays 7am-3pm

Accepting: Commercially Source Separated Organics – all food scraps including vegetables, fruit, meat, bones, dairy, etc. Compostable packaging must be approved by the Agency.

Not Accepting: Bulk liquids, packaged food, brewery waste, cardboard or paper products, food service contaminants: gloves, hairnets, produce stickers, forks, straws, etc.

For more information please visit
www.ucrra.org/waste-recycling/food-waste

Electronics Recycling

Electronics Recycling
999 Flatbush Road, Kingston
Please visit our website for current operating hours.

Open to businesses with up to 50 employees, nonprofit organizations with up to 75 employees, and all residents. Large loads: please call ahead.

Accepting: Computers, televisions, office equipment, audio/visual equipment, and wires.

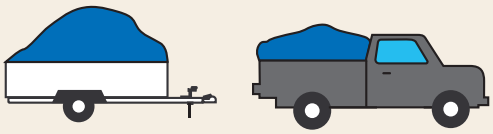
Not Accepting: Small or large appliances, lamps or lighting, medical devices, industrial electronic units, printers over 100 lbs.

For more information please visit
www.ucrra.org/waste-recycling/electronics

Waste Disposal and Recycling at UCRRA
Special Drop-Off Procedures

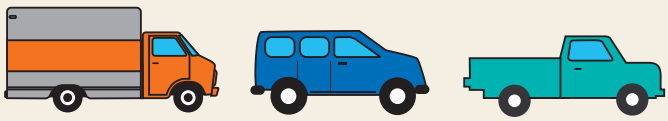
Payment

Accepting Visa, Mastercard, Discover, Business/Personal Checks or pay through a credit account. Please visit www.ucrra.org/waste-recycling/commercial-haulers for the credit application



Tarp Policy

All open trailers, hitches, truck beds, etc. must have their load covered with a secured tarp regardless of the type of waste being transported or whether or not the load contains bagged waste. Violators are subject to additional fees.

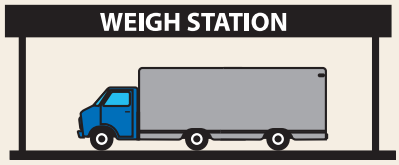


Large Vehicles

Daily access allowed. Open vehicles: see tarp policy.

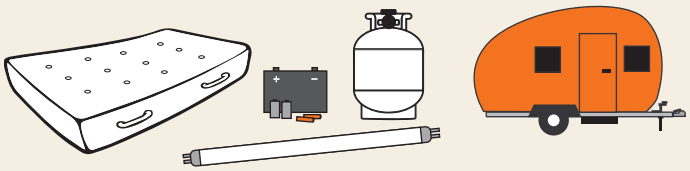
Small passenger vehicles

Restricted access: Saturdays only.



Certified Weigh Service

Vehicles, trailers, or any other item requiring weigh services.



Special Items

Additional fees apply. Please see our price guide.

Curbside Waste & Recycling Options

All businesses and residents of Ulster County have the option to hire a commercial sanitation company to pick up their waste and recyclables at the curb. Recycling is mandatory in Ulster County, and all businesses and facilities must request and obtain recycling services. The Agency maintains a contact list of Permitted Waste Haulers, which is updated on an annual basis. Please refer to the Appendix of this document for the most up to date Hauler List.

If your facility recycles with a curbside hauler, contact the company directly for clarification on recycling rules and guidelines. When planning to improve or implement a recycling/composting program at your facility, it's important to first review your existing contract to determine the scope of services in the current agreement. The hauler should explain the types and cost of all services that are available. Take note of the quantity, size, type, and placement of outside containers and the frequency of collection for each type of material.

Questions to ask your hauler:

- What is the cost per pickup or per container?
- How does container size increase or decrease cost/pick up frequency?
- What are fuel surcharges, taxes, and fees?
- Are there different fees for trash or recycling services?
- Are there reduced fees if the building recycles more?
- Where does the recycling go after it's picked up at the curb?
- Do you provide training or educational literature on what is accepted and not?

Recycling and Composting Laws in Ulster County

Flow Control

The ***Ulster County Solid Waste Management Law, Local Law Number 10 of 2012***, establishes a solid waste system whereas all municipal solid waste (MSW) generated in Ulster County must be disposed of by sites directed by the Agency. This law is commonly referred to as 'Flow Control'. All trash, including curbside collection, must come to UCRRA facilities for consolidation and final disposal. Flow Control allows all users of the system to pay the same rate for waste disposal, ending tax-payer subsidies for waste disposal, making the Agency financially self-sustaining.

Recycling

The ***Ulster County Mandatory Source Separation and Recycling Law was enacted in 1991*** and amended as Local Law Number 4 of 2010. Per Section 8 subpart (a) of the law, all persons in Ulster County are required to source-separate recyclable materials for the purpose of recycling. The regulated recyclable materials include mixed paper, glass bottles, plastic bottles, jugs and jars, metal cans, corrugated cardboard, paperboard and any other materials designated by the UCRRA in accordance with the law. The law applies to all persons including: an association, owner or manager of a business, commercial or industrial establishment, corporation, educational institution, nonprofit organization or any other legal entity such as a municipality or any other waste generator. It is considered an unlawful act for any person to discard or fail to separate regulated recyclable materials. Per Section 19 of the law, the Ulster County Resource Recovery Agency is delegated the authority to enforce this law by investigating possible violations and working with the waste generator to become in compliance with the law through education and enforcement. The Agency may seek civil or criminal penalties for violations of this local law as described in Section 21 subparts (a)(b).

Concerns or complaints about recycling issues can be directed to the Agency's Recycling Outreach Team. All informants remain anonymous throughout our process investigating compliance issues.

Call the UCRRA Recycling Hotline at **845-336-3336** or visit our website to issue a formal complaint.

Single Use Plastics

Polystyrene: The Food Service Waste Reduction Act, Local Law Number 4 of 2015, prohibits the use and distribution of expanded polystyrene containers (Styrofoam) at food service establishments. No food chain service establishment can sell or provide prepared food in any disposable Styrofoam food service containers. In 2020 New York State adopted the Expanded Polystyrene Foam Container and Polystyrene Loose Fill Packaging Ban, effective January 1, 2022. The law establishes that no covered food service provider or store will be allowed to sell, offer for sale, or distribute disposable foam food service containers or distribute polystyrene loose fill packaging (peanuts) in New York State.

Plastic Bags: The Ulster County Bring Your Own Bag Act, Local Law Number 5 of 2018, banned the distribution of single use plastic bags at the point of sale at most retail locations in Ulster County. The Law establishes a minimum five cent fee on recyclable paper bags, and no fee for consumers to bring a reusable shopping bag. The New York State Plastic Bag Ban (effective March 1st, 2020) will supersede the Ulster County BYO Bag Act. All covered stores may provide recyclable paper bags or reusable bags.

Single Use Plastics: The Ulster County Skip the Straw Act, Local Law Number 2 of 2019, requires that single use plastic straws can be made available to patrons of restaurants and fast food establishments ONLY upon the customer's request. The Skip the Straw Act was later amended by Local Law Number 7 of 2019 to include single use plastic stirrers, plastic cutlery, and condiment packets.

Food Recovery and Organics Recycling

Ulster County Food Waste Prevention and Recovery Act

In 2019, the Ulster County Legislature enacted the Food Waste Prevention and Recovery Act, amended as Local Law No. 6 of 2020. This law requires large food scraps generators to separate food from the general waste stream and then either arrange for its reuse by the food insecure or for animal feed, compost it on site, or arrange for licensed services for the purpose of delivering it to a processing facility for composting or anaerobic digestion. Large generators may include 'supermarkets, food service businesses, hotels, correctional facilities, entertainment venues, hospitals, nursing homes, schools and universities and other food processors.' The law will incrementally target large generators producing 2 tons per week (starting on January 1, 2021) to 0.5 tons per week by July 1, 2023. For more information and resources visit https://ulstercountyny.gov/environment/food-waste-prevention-and-recovery-act or contact the Ulster County Department of the Environment at 845-338-7287.

The ***New York State Food Donation and Food Scrap Recycling Law, Title 22***, establishes a hierarchy for the reduction, reuse, and recycling of food scraps by designated generators in New York State. Designated generators are defined as 'supermarkets, large food service businesses, higher educational institutions, hotels, food processors, correctional facilities, and entertainment venues.' The law requires that by January 1, 2022, all generators who produce 2 tons per week or more must donate excess food and recycle all inedible food scraps if located within 25 miles of an organics recycler.

Ulster County Annual Waste and Recycling Report

The Ulster County Resource Recovery Agency (UCRRA) is responsible for maintaining and updating a Local Solid Waste Management Plan (LSWMP) as the designated solid waste planning unit for Ulster County. The Ulster County Mandatory Source Separation and Recycling Law affirms UCRRA is also responsible for implementing reporting procedures to measure progress in achieving recycling goals. UCRRA compiles waste characterization data on an annual basis. UCRRA surveys large waste generators operating and/or accepting waste from within the planning unit, and compiles the data to calculate total waste generation, diversion rate, and a recycling rate for Ulster County. Vendors, businesses, municipalities, schools, hospitals, hotels, and other facilities are required to respond to the survey on an annual basis. Small businesses with less than ten employees may be surveyed and required to submit a report. Section 16 subpart b of the Law states that the Agency may expand reporting requirements in order to track the flow of regulated recyclable materials, or monitor progress in meeting the State and County recycling goals.

Pursuant to Section 16 and Section 10 (b) of the law, all commercial and institutional waste generators of ten employees or more are required to report recycling practices to the Ulster County Resource Recovery Agency. The law empowers the Agency to track the flow of regulated recyclable materials and monitor progress in meeting the State and County recycling goals.

Tips for completing the Annual Recycling Report:

- Keep a folder or file of all the waste and recycling transactions throughout the year. This will make it easier to locate the total weight of all recyclables and contact information requested in the Report.
- Begin working on the report as soon as you receive the request letter.
- UCRRA offers free services to help complete the form, or to advise on ways to increase recycling.
- The official memo sent with the Report includes detailed instructions for how to complete it. Read and follow these instructions carefully to ensure the report is successfully completed. The form may change from year to year. Incomplete forms will not be accepted.

250 thousand tons

2019 Survey Results

Ulster County generated 247,074 tons of solid waste materials in 2019. UCRRA estimates that 85,312 tons was diverted from disposal for the purpose of reuse and recycling. Items like scrap metal, electronic waste, tires, textiles, plastic bags, and other recyclables account for a 34% overall diversion rate.

Approximately 109,212 tons of municipal solid waste (MSW), including residential waste and commercially or institutionally generated waste required disposal. Based on the 2019 survey results, Ulster County recycled 26,366 tons of regulated recyclable materials including cardboard, paper, glass, plastic, and metal containers. Compared to MSW, this results in a 24% Recycling Rate. 17,058 tons of organic materials were composted, including food scraps, yard wastes, fats, oils, greases, leaves, grass clippings, and animal manures. Compared to MSW, this results in a 16% Composting Rate. Large waste generators like businesses, schools, and other institutions play an important role in helping UCRRA and Ulster County reduce the waste stream and achieve its zero waste goals!

Section 2:
Improving and Implementing Programs

How to Design a Waste Reduction and Recycling Program

Step 1. Build a Green Team!

A recycling program can help support team building. Successful programs have a strong crew behind the efforts to plan and implement facility-wide changes to ensure everyone can be informed and involved in the process. A Green Team is a sustainability committee consisting of key staff members who collectively have the skills and resources necessary to design, implement, and maintain a successful waste reduction program. Having an enthusiastic Green Team is essential to improving or implementing recycling programs in a workplace! Green Teams will identify goals and help put the plan into action – including training the rest of the participants on new procedures, recycling rules, etc. Forming a green team should always be the first step to staying organized and developing a consistent message about waste or recycling protocols.

An effective Green Team should represent the entire community involved and should reflect the size of their facility. One member from every department should be represented; upper management, administration, operations, buildings/grounds, owners, board members, stakeholders, etc. Designate a leader to take notes, gather information to move forward with projects, and to direct the team's effort. For large Green Teams, consider having subcommittees or focus groups that can specialize in a certain area: Recycling/Disposal, Reuse/Reduction, Organics, Education are good examples of sub-committees.

Schedule regular meetings at a convenient time/place for all members. Meet once per month or more frequently if necessary to achieve your planning goals. It's important to continue meeting periodically, even after changes have been implemented and the program is up and running. These meetings would be a great time to share your results and findings to make any necessary changes.

STEP 2. Understand the Waste Stream

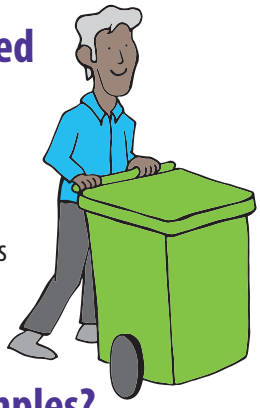
Please read this section completely before getting started. UCRRA's Recycling Outreach Team offers free resources and support to assist facilities with conducting waste audits.

The best way to understand your waste is by conducting a waste audit, an inspection of bins/dumpsters to determine the type, quantity and source of waste that is generated in specific rooms/locations. Waste audits can be conducted by collecting and sorting samples of waste, or they can be conducted informally such as with a facility walk-through, making observations and notes about waste and recycling practices.

The information gathered from a waste audit will be a valuable tool for considering hauler services; container sizes, placement of containers, and recycling rates. Waste audits can save money by uncovering inefficiencies in inventory management, or by uncovering alternate ways to replace single use items with reusable, durable items. Waste audits help identify the specific items that can be targeted for reduction or targeted for improved recycling rates later in the planning phase. Waste audits serve as a baseline that facilities can use to measure progress toward their zero waste goals. Be sure to contact upper management to inform them or get permission to do a waste audit study.

Before you get started: Know your recycling program! If you are not sure what is recyclable, contact your waste hauler for clarification on the recycling rules or guidelines the company can provide.

Waste Audit Tools Needed



- Rubber Gloves
- Tarps
- Scale (such as a luggage scale)
- Table
- Clipboard & Waste Audit Tracking Forms
- Camera (optional)
- Plastic Bags or Boxes

How to collect trash samples?

Don't tell staff, students, or customers about the audit – you want to collect an average, normal sample of trash and telling the participants may change their disposal pattern. Collect one sample from each location with a trash bin (kitchen/cafeteria, office, common areas, high traffic areas, etc.). Collect the entire bag as the sample and don't forget to label each bag so you know where each sample came from. Collect samples that are full – 1-2 days before your trash collection day.

Sorting Party

- Designate a note taker, 1-2 waste/recycling handlers, and a camera person (optional).
- Before opening any bags, first weigh the entire sample and make note of the total weight and which room the sample came from using a Waste Audit Tracking Form, See Appendix.
- Safety First! Wear gloves and dump the entire contents of the bag out onto a tarped table. This is important for safety so you can see everything you're touching. **Do not hand-pick items out of the bag**. Skip the items that may be "too gross to sort."
- Sort through the sample slowly and carefully, sorting material into distinct categories. Sort into as many or as few categories as you want in order to analyze the composition of the waste. See examples below.

TIP: When sorting, put the material directly into another container or plastic bag for easy weighing.

Waste Audit Categories

Simple

- Recyclables
- Trash

Recommended

- Recyclables
- Compostables
- Trash

Advanced

- Film plastics and plastic bags
- Deposit beverage bottles and cans
- Paper
- All other recyclables
- Food and other compostable items
- Non-recyclable trash

Collecting Data

- Take photos during the waste audit to use in a final report or use in staff trainings.
- Weigh each category separately and make note on the waste audit forms.

TIP: If using a plastic bag or a cardboard box to separate the categories, consider weighing the bag/box/container to get a tare weight which will be subtracted later.

TIP: One sample at a time, after sorting and weighing, do the calculations described below immediately and record on the Waste Audit Tracking Forms. See Appendix.

Calculations

At this point in the waste audit, you have sorted through a sample, weighing each category. A simple equation can help to determine what percentage of the sample was recyclable, compostable, and trash.

Ws = Weight of the entire sample prior to sorting

Wr = Weight of the recyclables after sorting

Wt= Weight of the non-recyclable trash after sorting

Wc = Weight of compostables after sorting

Wb = Weight of the bag or box used to hold each category

$$\text{Percentage of recyclables} = \frac{(Wr-Wb)}{(Ws-Wb)} \times 100$$

$$\text{Percentage of compostables} = \frac{(Wc-Wb)}{(Ws-Wb)} \times 100$$

$$\text{Total percent of actual trash in the sample} = \frac{(Wt-Wb)}{(Ws-Wb)} \times 100$$

$$\text{Total Percentage that can be diverted through recycling and composting} = \frac{((Wr+Wc)-2(Wb))}{(Ws-Wb)} \times 100$$

Analyze Your Results

Have the team look at the results and discuss these important questions:

- Are certain rooms/areas better at recycling than others? Why might this be?
- What was in the trash sample that can easily be reduced, or swapped for more reusable/reduced packaging options? Are there more recyclable packaging options? Can items be ordered in bulk?
- How much of what was in the trash can be recycled? Were there recycling bins in the room/area where the sample was collected? Where were the bins located? Were they labeled clearly? What can be done differently to increase recycling? Discuss these same questions for compost/composting.
- Was there anything in the trash that was surprising, or really shouldn't be in there (electronics, hazardous wastes, scrap metal, etc.) How can the management of those wastes be improved?

Want to dig deeper?

What is the total cost and volume of waste that is generated at the company per year? Ask your waste hauler or estimate using the number of dumpsters and the average monthly costs from a waste/recycling invoice. Compare this estimate to the % of actual trash found in your samples. Could a lower service fee be reached with greater diversion practices?

The following conversion factors[1] can be helpful when analyzing the questions mentioned above.

1 cubic yard of recyclables = 0.131 tons
1 cubic yard of trash = 0.150 tons

Did you know?

According to one study[2] over 78% of school waste could be diverted from the trash to recycling/composting programs.

1 U.S. Environmental Protection Agency (EPA) 2016: Volume-to-Weight Conversion Factors Fact Sheet
2 Minnesota Pollution Control Agency

Example:

Joe's Restaurant has two 10-cubic yard dumpsters for trash and one 5-cubic yard dumpster for recyclables. Both dumpsters are serviced once per week. How much waste capacity is the restaurant paying for?

Trash capacity:

2 dumpsters x 10 cubic yards x 0.150 tons x 52 weeks = 156 tons per year

Recycling capacity:

1 dumpster x 5 cubic yards x 0.131 tons x 52 weeks = 34 tons per year

$$\frac{\text{(34 tons)}}{\text{(156 tons)}} = \textbf{21.79 \% diverted from disposal}$$

Joe's staff conducted a waste audit and found that 80% of the waste could be diverted through better recycling and by implementing a food scrap composting program. The staff used the results of the waste audit to convince Joe they should make some changes to the waste and recycling services. According to the waste audit, they found that 45% of the restaurant waste was food, 25% was corrugated cardboard, and another 10% was bottles and cans for recycling. The team added recycling bins and signs in the kitchen and trained the kitchen staff on how to separate the food scraps for composting. The restaurant down sized to one 5-cubic yard dumpster for trash, and upgraded to a 10-cubic yard dumpster for recycling. A local company provided two 35-gallon tote bins for the organics to be composted. All dumpsters are serviced once per week and Joe has reduced his waste disposal costs!

UCRRA's Recycling Outreach Team offers free resources and support to assist facilities with conducting waste audits. Contact the Recycling Outreach Team at 845-336-0600.

Step 3. Putting a Plan into Action

The Green Team can use the information gathered in the waste audit to identify waste streams or specific locations that can be targeted for reduction, recycling, or composting. The Green Team should work with upper management to review your findings and identify goals and practical strategies that can be implemented. It's important to set realistic, measurable goals that directly addresses your findings and focus your activities.

Some goals you may consider:

- Reduce paper waste in the office by 25%
- Replace single use plastics in the café/lunchroom with reusable and bulk options
- Reduce the total volume of trash by 10 % in the first year, and by 15 % next year
- Reduce garbage removal costs by 10 % or more
- Compost 75% of food scraps on site or with a composting company

Now, who does what?

Delegate responsibilities among the Green Team members including who is responsible for researching, purchasing, education, etc. It's useful to create subcommittees that can research, plan, and drive focused projects forward. But it's important to always come back together and communicate ideas to the entire team – keeping upper management informed each step of the way.

To compost…or not to compost?

Organics make up a substantial portion of the waste stream, especially for businesses such as bakeries, cafes, restaurants, food processors, schools and other food establishments. Many environmental benefits and substantial reduction in waste disposal costs can be achieved for these types of businesses that compost.

See page 24 Section 5: Composting for more information.

How much will this cost up front?

Identify any costs for new purchases of materials such as bins, educational signs, reusable goods, services, etc. How will these costs be met? Are there any funding opportunities or creative ways to raise money to cover these costs? Remember that long term savings are greater than upfront costs!

Establish designated collection areas.

Move and/or add garbage or recycling bins according to your plan. You may also consider adding designated areas for film plastics recycling, donation or reuse items, electronic recycling etc. It's important to create a collection bin area where what and how to recycle is clearly communicated. Placement of bins is very important. Place bins where items are generated: copier, vending areas, entrances/exits, cafeterias, etc.
See p.19 Zero Waste Sorting Stations.

Step 4. Educate the Participants

A training program should be conducted with everyone in the facility to discuss the new changes to how and where they should recycle or compost. Informing, educating, and motivating the participants is a crucial step in a waste reduction program and can also improve the work environment. Develop a plan to educate all the participants (staff members, students, customers, etc.) on how the new recycling or composting program will work, but don't forget to also educate the participants on why these changes are being made. The "why" is often more important than the "how" to motivate people to become better recyclers! Campaign in as many creative ways as possible to maximize interest and participation in the new program.

How to get the word out?

It's often not enough to just move bins around and hang a few signs. Here are some ideas to help educate and motivate everyone!

- Create a contest with rewards and incentives.
- Develop informational posters or fact sheets and place in common areas.
- Use positive messaging and recognition. Enlist employees or students to be "Recycling Heroes." They can help promote the program to other employees or students.
- Host a kickoff event such as a zero waste potluck, a zero waste lunch challenge, or play an interactive game that helps everyone understand the importance of recycling.
- Create bright, clear posters that state what is or is not accepted.
- Post memos or notes to encourage the behavior change you're asking them to do.

This guide is filled with tips for educating about recycling and composting. *See p. 21-22 for Community Engagement Ideas for Recycling Trainings.*

Step 5. Evaluate the Program

It's a good idea to have the Green Team continue to meet periodically, even after changes have been implemented. Keep the conversation going! Gather feedback from the Green Team members, staff, custodial department, or other participants to identify any challenges or opportunities to enhance the program. The Green Team can look at disposal costs or other purchasing information to quantify the savings achieved by the program. Consider conducting another waste audit to assess if your reduction goals are met, or if the Team can set new milestones.

To keep participants engaged, share reminders about the success of the program. Recognize the Green Team for their efforts. Thank customers, students, or employees by letting them know how much waste they helped divert or how much money they helped save by their efforts. Evaluate the program in as many creative ways as possible. You may contact your recycler for information about the quantity and quality of materials collected for recycling, and any feedback about contamination. Post updates on a newsletter or in an email. Prepare a report on the program. These efforts make all the difference to keeping participants engaged and motivated to reduce, reuse, and recycle.

Step 6. Adapt to Change

After evaluating the program progress, the Green Team may find ways to improve or expand the program. Perhaps certain rooms need more bins or posters, or additional training may be needed for new staff or new participants joining the program in the future. Look for interesting ways to continue the conversation about waste reduction. Now that you've mastered recycling and composting, are there are other ways the facility can reduce waste?

Section 3:
Waste Reduction

Why reduce?

Save Resources

The first line of defense in waste management is waste prevention! Making less waste is the most effective way to protect the environment, save natural resources, water, and energy.

Reduce Costs

Waste reduction practices can cut costs of purchasing raw materials and supplies that are wasteful. Since facilities typically pay according to the volume of waste they generate, facilities can also enjoy savings by reducing waste.

Grow Ulster Green

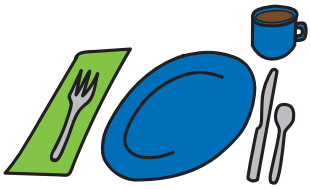
Making green choices demonstrates your leadership and pledge to the environment and your community, which increases staff/student morale and customer perception of value.

Reduce Paper Waste

Recycling 1 ton of paper saves 17 trees!

- Make sustainable paper purchases. Choose paper products that are sourced from sustainably forested areas, and paper made with high post-consumer recycled content.
- Use online or cloud storage options for files.
- Distribute memos electronically with emails, newsletters, etc.
- Get off the junk mail lists! Contact catalog companies directly or register with the Direct Marketing Association at www.DMAchoice.org, www.yellowpagesoptout.com, or www.catalogchoice.org
- Circulate one memo with an employee check list to verify everyone has seen it, or post memos in a central location like a bulletin board or dry erase board.
- Reuse blank or one-sided paper for scrap paper.
- Use electronic means to take notes during meetings – use tablets, PC, or smart phones to type notes or take pictures rather than using a pad and pen.
- Make sure that Two Sided Printing is the default setting on all printers and copiers.
- Don't use a cover sheet when faxing information that's not sensitive or confidential.
- Store employee manuals and policies online so they're easily accessible and don't require printing.
- Check your margins. Standard settings leave a large side margin in word documents. Increase the amount of printable space per page and use less paper!
- Use electric hand dryers in restrooms.
- Compost hand washing paper towels (if they didn't wipe up chemicals).

Eliminate Single Use Disposables



Americans use enough plastic straws to wrap around the Earth 2.5 times each day!

- Start small and think big. Eliminate one single use disposal item at a time.
  The coffee break room is an easy place to start! Replace individual serving packets with bulk dispense options for sugar and cream. Use a spoon instead of individual coffee stirrers. Use durable mugs, plates, and cups. *See p. 35, Transitioning to Reusable Service ware for more information.*
- Eliminate single use coffee pods – use refillable coffee pods.
- Hotels and healthcare facilities: switch to refillable shampoo and lotion dispensers.
- In staff breakrooms and cafes: use durable, reusable utensils instead of single use plastic utensils. Compostable utensils are only a better option if they are being composted!
- Offer a discounted price for customers who bring their own beverage or take-away containers.

- Buy refillable ink cartridges, rechargeable batteries, refillable pens and writing utensils, etc.
- Instead of bottles of water or a water cooler, install drinking fountains or water refill stations or use a water filter on the tap or in the fridge.
- When ordering take-out for the team, request reduced packaging and skip the condiments or utensil packages.

Sharing is Caring

Tax benefits for donating certain items may be available!

- Donate or sell old office furniture and equipment. Your facility may be eligible for tax credits when items are donated to charitable organizations.
- Set-up a 'Share Closet' or a table where staff members can circulate unwanted items like books, magazines, office supplies, etc.
- Schools: set up a free food pantry and encourage food donations for students who face food insecurity. *See p. 33, Share Tables or set up a share closet for school supplies, binders, etc.*
- Donate excess edible food to local food pantries and meal centers. *See p. 32*
- Share the recycling bins - Remove personal bins from underneath each desk. Staff will be more likely to use a central recycling station rather than the closest quickest way to trash an item.

Create a Culture of Reuse

The average American generates over 4 pounds of trash every day!

- Reuse shipping containers, bubble wrap, envelopes and cardboard boxes.
- Ask suppliers to reduce packaging (Plastic packing pillows and bubble wrap can be recycled).
- When shipping an item look for ways to minimize packaging waste and reuse the packing materials you received.
- Make your own packing materials with shredded paper.
- Reclaim wooden pallets for reuse.
- Encourage staff to use reusable cups/mugs and utensils.
- Encourage employees to bring in a waste-free lunch with reusable containers, napkins and utensils – which can be encouraged with a mini fridge.

Reduce Food Waste

40% of food grown in America is never eaten!

Food loss occurs at every stage of the food production and distribution system; beginning on the farm before food ever leaves the field. From there, inefficiencies in storage, transportation, refrigeration, product labeling, and for other reasons, millions of tons of edible food goes to waste each year. According to ReFED,[3] consumer-facing businesses account for 40% of the wasted food generated in the U.S. This translates to $54.7 billion losses per year! Reducing food loss is good for business, good for the environment, and has the potential to impact millions of Americans who face hunger and food insecurity. We've compiled a list of our favorite food waste reduction ideas from reports by leading experts[4] across the country!

Food Waste Source Reduction Opportunities

Grocery Stores/Supermarkets

- Conduct a 'food waste audit' to better understand what foods are going to waste and why.
- Create displays that educate consumers about purchasing 'ugly' produce.
- Redesign product displays with less excess, especially for perishable foods.
- Use dynamic pricing, markdowns, digital coupons, etc. to sell damaged/ugly produce or to promote the sale of items reaching peak freshness.
- Utilize blemished or discolored produce in prepared meals made at the store.
- Design ready-to-go meal kits for customers.
- Do not discard products pre-maturely as they reach sell by dates, or offer dynamic pricing and markdowns to sell products reaching peak freshness.
- Freeze meat products prior to their expiration and donate to food bank partners.
- Donate fresh produce, bakery products, ready-made foods, and packaged foods.
- Communicate with suppliers to update frequency and size of orders—more frequent/smaller orders will lessen inventory and reduce food waste.

3 ReFed, 2018: Retail Food Waste Action Guide
4 List compiled from NYS Pollution Prevention Institute, NYS Association for Reduction Reuse & Recycling, National Resources Defense Council, and the REFED Road Map.

Restaurants/Cafes

- Conduct a 'food waste audit' to better understand what foods are going to waste and why.
- Train staff on knife skills to improve yield when preparing ingredients and meals.
- Create value-added products from the trimmings of vegetables, fruits, (sauces, jams, quiche, etc.) Visit www.savethefood.com for ideas.
- Large menus require more ingredients on hand – consider the cost benefits of offering a smaller, seasonal menu.
- Offer customers the option to order smaller portion sizes. Today, portion sizes can be 2-8 times larger than USDA or FDA standard serving sizes.[5]
- Offer tapas style or family-style portion sizes.
- Partner with local farms to access foods that may be imperfect produce – and utilize those vegetables/fruits in meals.
- Regularly check the settings and temperatures of refrigeration appliances to ensure food safety standards.
- Cook or freeze foods that are approaching the end of their peak freshness.
- Donate excess food from catering events or buffet style meals.
- Donate food (not at peak freshness) to nearby livestock farmers (pigs, chickens, etc).
- Implement a good system for dating/labeling prepared foods that should be used first.
- Encourage build-your-own meal options so consumers choose the food items they want, which will minimize waste. On average, diners leave 17% of meals uneaten, but 55% of these leftovers stay on the table.[6]

Healthcare Facilities

- Conduct a 'food waste audit' to better understand what foods are going to waste and why.
- Repurpose leftover food from one meal service to the next when possible.
- Cook made-to -order patient meals to reduce the amount of food returned on patient trays.
- Implement trayless dining in the cafeteria to encourage diners to take only what they'll eat.
- Implement a good system for dating/labeling prepared foods that should be used first.
- Track (manually or electronically) preparation and overproduction of certain meals.
- Donate excess edible food from uneaten food from self-serve hot/cold salad bars.
- Donate perishable foods to the staff/nurses (such as fruit reaching peak freshness).
- Train staff on knife skills to improve yield when preparing ingredients and meals.
- Create value-added products from the trimmings of vegetables, fruits, (sauces, jams, quiche, etc.) Visit www.savethefood.com for ideas.
- Regularly check the settings and temperatures of refrigeration appliance to ensure food safety standards.
- Cook or freeze foods that are approaching the end of their peak freshness.

Educational Institutions

- Conduct a 'food waste audit' to better understand what foods are going to waste and why.
- Set up a cafeteria "share table" where students can share their unwanted food items with other students *See p. 33 for more information.*
- Create a 'backpack program' for students who face food insecurity – allow them to take excess food home on the weekends/holidays.
- Track (manually or electronically) preparation and overproduction of certain meals.
- Train staff on knife skills to improve yield when preparing ingredients and meals.
- Implement a good system for dating/labeling prepared foods that should be used first.
- Track (manually or electronically) preparation and overproduction of certain meals.
- Create value-added products from the trimmings of vegetables, fruits, (sauces, jams, quiche, etc.) Visit www.savethefood.com for ideas.
- Large menus require more ingredients on hand – consider the cost benefits of offering a smaller, seasonal menu.

5 National Resources Defense Council, How America Is Losing up to 40% of It's Food From Farm to Fork to Landfill.
6 National Resources Defense Council, How America Is Losing up to 40% of It's Food From Farm to Fork to Landfill.

7R's to Rethink Waste

Simple acts and creative thinking can greatly reduce the amount of waste we make. Be mindful of your consumption and your relationship with 'things'.

Refuse

Don't consume what you don't need! It's okay to say no to excess packaging and unnecessary plastic waste.

Reduce

Small acts make a big difference! Buy in bulk. And try to avoid purchasing items whose packaging is not recyclable.

Reuse

Bring your own bottles, mugs, and shopping bags! Look for creative ways to reuse and upcycle unwanted items.

Repair

Fix broken items before you toss them! Visit a Repair Café for free! **www.repaircafehv.org**

Regift

Donate unwanted items that are still in usable condition! Furniture, home goods, clothing, toys, books, and more can be donated to charitable organizations!

Recover

Try composting! Recover energy from wasted food and make gardeners black gold!

Recycle

Know your program and follow recycling rules! Contact your hauler, town transfer station, or call the UCRRA for recycling Do's and Don'ts. #RecycleRightNY

Section 4:
Recycling

Why recycle?

Save Resources

Recycling reduces the need to extract natural raw materials and resources, disturb the land, use water and energy. Recycling reduces the environmental pollution associated with manufacturing raw materials into new goods and disposing of the items in landfills.

Reduce Costs

Recycling reduces the total volume of waste requiring disposal, so having a great recycling program can result in cost savings!

Grow Ulster Green

Recycling demonstrates your commitment to the environment and your community, and consumers are aware of environmental issues and are looking to support companies that make greener choices!

Support Green Jobs

When we recycle, it supports up to ten times more jobs than if we were to throw the item away as trash. The recycling industry employs 757,000+ Americans nationwide and these careers represent $36 billion in wages and $6.7 billion in tax revenue each year.

It's the Law!

Who is required to recycle?

The Ulster County Mandatory Recycling Law applies to any person, individual, partnership, co-partnership, association, owner or manager of a business, commercial or industrial establishment, joint venture, corporation, trust, estate, institution, not-for-profit organization or any other legal entity including a municipality residing in Ulster County.

What are regulated recyclable materials?

Failure to source-separate the following materials for the purpose of recycling is considered an unlawful act and violation of the Ulster County Mandatory Recycling Law: newspaper, mixed paper, glass bottles, jugs and jars, metal cans, plastic, corrugated cardboard, paperboard, and any other materials as may be designated by the Agency.

If my hauler is not recycling what can I do?

It is an unlawful act for any hauler to fail to provide recycling services or fail to source separate the regulated recyclable materials by commingling recyclables with municipal solid waste. UCRRA investigates all recycling compliance issues and informants remain anonymous. Contact UCRRA's Recycling Outreach Team at 845-336-0600 or visit www.ucrra.org and complete the form under Contact Us.

Know Your Program, Avoid Wishcycling

Why is recycling so confusing?

Are pizza boxes in or out? Should you leave the bottle cap on or off? What plastics can go in the bin? Recycling programs can vary from region to region for many reasons. Recycling is a global commodities marketplace where many economic factors influence the industry, including supply and demand for the raw materials that are used to manufacture goods. Recycling rules can vary depending on the markets (the buyers) available for the recyclable materials. Quality influences the value of recyclables, so recyclers must follow strict standards from their buyers and pass those standards down onto the users of the system to ensure no undesirable items, or *contaminants*, make their way into the recycling stream. Recycling rules can vary depending on the types of equipment the recycling facility uses to sort and capture various containers. Some recyclers have more specialized equipment that can sort a complex stream of plastics, while other facilities might do most of the sorting using workers. These are only some of the reasons why recycling guidelines may be different from company to company. For recycling to be sustainable, both environmentally and economically, consumers should follow the recycling rules set by their recyclers and should not assume the same rules apply everywhere.

Avoid being a wishful recycler!

Wishcycling occurs when people put items in the recycling bin when they're not certain those items are recyclable. Just because an item is made from plastic, glass, or metal DOES NOT mean it automatically belongs in the recycling bin. Some common items that get wishcycled include: plastic utensils, plastic toys, flower pots, broken dishes, ceramics, butcher knives, garden hoses, diapers, and miscellaneous scrap metal. Putting items in the bin with the hopes that they are recyclable can actually lead to damaged equipment and operational inefficiencies that create financial losses for recyclers. Because recyclables are sorted and handled by sanitation workers, it's important not to discard dangerous or hazardous items as they could seriously injure workers. And in some cases, contaminated loads of recycling are no longer sellable to buyers if the material doesn't meet strict quality standards and the contamination can't be effectively sorted out. Some say 'when in doubt, throw it out' but an even better motto is when in doubt, ask! Contact your recycler for guidelines for what and how to recycle.

What's in a number?

The one through seven number printed on plastic items is called a resin identification code, and it is used to identify the type of plastic polymer that the item is made from. The number alone is not a good indicator that the item is accepted in your recycling program. Many plastic items have a number printed on them, and that doesn't necessarily mean the item can be processed, captured, and marketed. For example: plastic lawn furniture, plastic children's toys, laundry baskets, plastic take-out containers, black plastic, and kitty pools may have a number on them indicating the type of plastic it is made from, but these items are not recyclable in most recycling facilities.

Recycle Right NY

Recycle Right NY is a public outreach campaign launched in January 2019 in coordination with recycling professionals in the public, private and not for profit sectors of New York. The campaign aims to address common contaminants that strain the sustainability of recycling programs. The Recycle Right NY campaign features monthly guidance on recycling Do's or Don'ts: items that should either be "in" a recycling bin due to its value in recovery or "out" because it is either a contaminant to the recycling stream or appropriately recycled elsewhere. **The campaign offers free ready-to-go social media kits that are a great resource to incorporate into your recycling training program. www.RecycleRightNY.org**

How to Recycle

- ✔ Rinse containers clean and dry
- ✔ Break down cardboard boxes
- ✔ No bags or plastic films in the cart
- ✔ Keep recyclables loose - do not bag them
- ✔ No wires, chains, or other 'tanglers'
- ✔ No hazardous wastes
- ✔ No food or liquids

When in doubt, ask!
Contact your recycler for recycling Do's and Don'ts.

Did You Know?

The chasing arrows symbol and "Please Recycle" printed on products and packaging doesn't necessarily indicate an item is recyclable. It could mean the item is made from recycled materials, or that some consumers may have limited access to recycling programs for that item.

1=PET **2=HDPE** **3=PVC** **4=LDPE** **5=PP** **6=PS** **7=OTHER**

Business Recycling Tips

Use this check list of ideas to improve facility recycling practices.

Recycling Best Practices	Why it Works
Every trash bin has a recycling bin placed directly next to it. Recycling bins are not lined with black garbage bags.	Some people will use the first bin they come across regardless of how it is labeled, even if it is separated by only a couple feet or placed on opposite ends of a room. The further apart they are, the greater the risk of crosscontamination you're likely to experience.
Recycling bins are consistently a different color than trash bins.	Pick a uniform bin style, color scheme and label message and stick to it. In the same way a person comes to recognize and associate particular qualities and characteristics with a consumer product brand, applying a standard look for recycling bins helps to "brand" them in people's minds.
Clear, simple labels or signs show what can be recycled.	Listing out each material with detail can lead some people to not read the signage at all. Colorful pictures are more universal and easy to understand at a glance. Recycling decals and labeled bins are also an effective way to send the message – *we care about recycling!*
Recycling bins are clean, well maintained, and emptied regularly.	Overflowing or badly contaminated recycling bins will also lead to people treating them as trash.
Use clear recycling bins	Seeing cans and bottles already inside the bin communicates that it is meant for recyclables.
Provide employees with the company's recycling policy and remind them that everyone must participate in recycling.	Participants need clear instructions for what and how to recycle. Frequent reminders help enforce the company recycling policy, especially for new staff or participants.
Periodically share recycling program results with the participants (how many lbs recycled, how much pollution prevented).	Assuring employees that their efforts are encouraged, valued, and acknowledged will help reinforce recycling behaviors. Your recycler will be able to estimate how many lbs have been recycled over a given time. Displaying recycling stats or awards is a good public relations message to share with staff, customers, students, etc.

Zero Waste Sorting Stations

Sorting stations are key to any successful recycling or composting program! A zero waste sorting station is a collection bin area where all wastes are sorted into separate categories - RECYCLING, COMPOSTING, and TRASH. Zero waste stations come in a variety of styles; they can be various sizes, shapes, colors, simple and handmade or utilize store bought bins and signs. Choose a design and layout that best fits your particular situation. When setting up zero waste sorting station:

- Always offer all three options together in every location where someone would discard trash.
- Sorting stations should be placed in high traffic areas, kitchens/cafeterias, vending areas, entrances/exits, restrooms and breakrooms.
- Colors help distinguish the type of waste ex. Blue = Recycling, Green = Composting and Black = Trash. All the sorting station areas should look consistently the same.
- People like convenience. Signs or stickers on or above the bins should be bright, eye catching and easy to read at a glance. If the signs are too wordy, most people won't read the whole message. Signs should be placed eye level so they are easily noticed.
- The stations should be monitored, especially during the roll out of a new program, to eliminate any contamination in the recycling and composting bins.
- Order matters! Especially in instances where food is served directly onto trays (like in a school or in a healthcare setting) composting should be the last option in the line of options, so when a person taps the tray over the bin only food scraps are emptied into the bin.

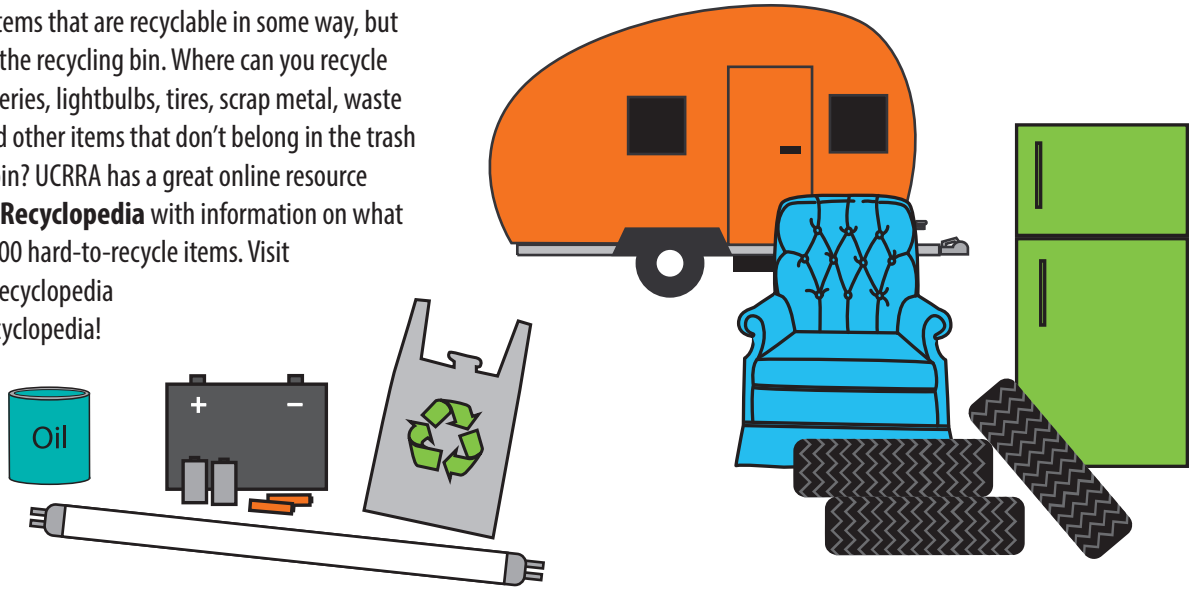
845-336-0600

UCRRA can provide FREE stickers or posters upon request to help establish zero waste sorting stations.

Please contact the Recycling Outreach Team at (845) 336-0600 to access these free resources.

Odd Recyclables – and What to Do with Them

There are many items that are recyclable in some way, but do not belong in the recycling bin. Where can you recycle plastic bags, batteries, lightbulbs, tires, scrap metal, waste vegetable oil, and other items that don't belong in the trash or the recycling bin? UCRRA has a great online resource called our **A to Z Recyclopedia** with information on what to do with over 100 hard-to-recycle items. Visit www.ucrra.org/recyclopedia to access the Recyclopedia!



www.ucrra.org/recyclopedia

Community Engagement Ideas

Take advantage of these annual opportunities to engage your business, school, or facility. Keep the conversation going all year round and plan a meeting, event, party, or challenge around these eco-friendly topics – a great chance to train staff and students about the importance of recycling, waste reduction and composting! Promote your activities in as many creative ways as possible to encourage everyone to participate. Use social media, a newsletter, an email memo, special announcement or posters and flyers on a central bulletin board. UCRRA's Recycling Outreach Team is available to help with ideas, provide literature or to present at one of your events/celebrations.

Skip the Straw Day 4th Friday in February	• Americans use 500 million drinking straws every day! That's enough to fill 125 school buses every day! • Provide reusable straws to customers, employees or students. • Talk about the Ulster County Skip the Straw Law (straws and other single use items must be available only by request).
National Pack Your Lunch Day March 10th	• Look inside your lunchbox for items that can be replaced with reusable options!
National Plant a Flower Day March 12th	• Learn about the importance of pollinators. • Plant a flower bed to brighten up an entrance way or a view from a window. • Plant flowers in upcycled pots to donate to a nursing homes, rehabilitation centers, etc. Use local compost to plant your flowers!
Earth Day April 22nd www.earthday.org	There are thousands of examples of Earth Day activities for all ages! Plan an Earth Day Celebration! Invite the UCRRA Recycling Outreach Team to play games or give a presentation about zero waste, or tour the UCRRA recycling and composting facilities for free!
Arbor Day April 24th www.arborday.org	• Learn about the importance of trees. • Host a make your own paper activity. Talk about the impact of paper recycling. • Plant a tree and dedicate it in memory of someone. • Donate a tree to a school, nursing home, library, etc. • Use local compost to plant your trees!
International Compost Awareness Week First week of May www.compostfoundation.org/ICAW/ICAW-Home	• Learn about the benefits of using compost! Compost adds organic matter to the soil, helps retain moisture, suppress weeds, suppresses plant diseases and some pests, and adds good structure to the soil. These are only a few of the many reasons to use compost! • Learn about the environmental, economic, and social impact of food waste and how food waste can be recycled through composting. • Start a composting program! • Plant a flower or tree using local compost. • Tour the UCRRA composting facility!
Endangered Species Day May 15th www.endangered.org	• Learn about endangered species in your area. • Learn about how animals are impacted by litter. • Make an animal art project out of upcycled items. • Organize a litter clean up!

World Environment Day June 5th www.worldenvironmentday.global	• Learn about nature, ecology, and the study of ecosystems. • Learn about the science of climate change and the hundreds of solutions to slow global warming. • Organize a litter clean-up event!
World Oceans Day June 8th www.worldoceansday.org/	• Learn about oceans, marine biology, and ocean plastic pollution. • Have a Beach Theme Day! Dress for the beach, have an ocean themed luncheon! • Invite the Recycling Outreach Team to play games or give a presentation about protecting our oceans from plastic waste!
National Waste & Recycling Workers Week June 17th www.waste360.com/business/honoring-industrys-workforce-national-garbage-man-day	• Sanitation workers face more workplace deaths, injuries, and hazardous conditions than you may realize. Learn about wishcycling and how you can recycle right to protect these workers. • Show your appreciation by saying thanks to your garbage workers, janitors, custodians, etc. Thank them for all their hard work recycling! • Prepare thank you notes by upcycling something from the recycling bin or make a thank you video! Creativity makes the gift even more special!
Plastic Free July Challenge Month of July www.plasticfreejuly.org	• How long could you go without single use disposable plastics? Challenge everyone to refuse any new plastic for as long as possible. • Use do-it-yourself workshops to make some easy plastic-free alternatives, like toothpaste, soap, etc. in reusable containers. • Make your own reusable shopping bags from fabric or old t-shirts. • Learn about how plastic is made from nonrenewable resources and how plastic recycling can reduce environmental pollution. • Learn about microplastics and how to prevent them.
World Food Day October 16th www.fao.org/world-food-day/home/en/	• Have a potluck lunch with meals from all over the world. • Host a food drive, hunger walk, or volunteer at a local meal center. • Host a presentation on using all parts of food items so there is no wasted food at all!
America Recycles Day November 15th www.americarecyclesday.org **Use Less Stuff Day** November 19th www.worldnationaldays.com/use-less-stuff-day/ **Buy Nothing Day** November 27th www.holidayscalendar.com/event/buy-nothing-day/	• Learn about the importance of recycling, how does recycling work, what do recycled materials get turned into? • Discuss what can be recycled in your recycling program, and how to reduce contaminants in the recycling bin. • Host a bottle recycling drive to raise funds for new recycling bins or signs. • Collect hard-to-recycle items all month long (clothing, plastic bags, American flags, eyeglasses, etc.) and donate them to various organizations. • Tour a recycling center! UCRRA offers free tours for all ages. • Invite the Recycling Outreach Team to host fun games and activities.
World Soil Day December 5th www.un.org/en/observances/world-soil-day	• Learn about the importance of soil organic matter. • Learn about how soil suffers from erosion, and learn some practical ways to prevent erosion in gardens.

Ideas for Training New Participants

Education is key to a successful recycling program. Without the proper training and instruction, participants may mix up materials; putting trash in the recycling bin, or they may miss out on important messages that help motivate the team to recycle right. What information should be reviewed with new participants? Here's an outline for a new employee training and a sample outline for an annual refresher.

A first-time training session is a great time to:

- Discuss some of the many benefits of recycling, and some facts about what happens to our waste – or how much is generated each year.
- Explain that recycling is the LAW and that recycling is part of the company policy.
- Discuss how recycling will benefit the company, school, etc.
- Discuss what is acceptable and not accepted in the recycling program. Ask your recycler for a list ahead of time.
- Discuss the location of the recycling bins. Point out where the nearest bin is, or provide a simple map for larger facilities.
- Discuss what recyclable items can be turned into.
- Seek Green Team participants and discuss responsibilities.
- Use creativity, make up a catchy phrase or slogan, or use a fun interactive game.
- Leave some time for questions, or explain how to follow up if there are any questions.

An annual refresher is a great time to:

- Remind participants what is and is not recyclable.
- Explain new items that can be reused or recycled (office supplies, e-waste, etc.)
- Provide some stats. How much has been recycled over the year? How much pollution has been prevented because of everyone's efforts? Ask your hauler for the total amount of recyclables collected, and then use a Green House Gas Calculator[7] to look up real environmental savings! Has the company saved any money from recycling and composting?
- Answer any questions anyone has regarding the recycling policy.
- Discuss any ideas that someone would like to share regarding the program.

7 Environmental Protection Agency (EPA) Green House Gas Equivalency Calculator www.epa.gov/energy/greenhouse-gas-equivalencies-calculator

Give Recyclables a New Life

Section 5:
Composting

Why compost?

Pollution Prevention

Food waste in landfills produces methane, a greenhouse gas more potent than carbon dioxide. Nationwide, food waste makes up the largest component of material that gets buried in landfills – approximately 22% or over 30 million tons per year[8].

Resource Conservation

When we waste food, we're also wasting all the natural resources invested in producing and transporting that food. 19% of U.S. cropland, 18% of fertilizer use, and 21% of fresh water usage is dedicated to food that goes to waste each year[9].

Reduce Costs

For businesses, schools, and institutions, 30-50% of waste could be avoided with better food handling and composting. Since facilities typically pay according to the volume of waste they generate, they can enjoy lower disposal costs by increasing reduction and composting activities.

Grow Ulster Green

Composting produces compost – an organic matter resource that, when added to the soil, has many horticultural benefits! Compost can reduce the need to use chemical pesticides and fertilizers and it helps improve soil structure and the soil microbiome, increased moisture retention, adds micronutrients, and makes any soil easier to work and cultivate.

It's the Law

The Ulster County Food Waste Prevention and Recovery Act requires that large generators in Ulster County must donate excess edible food and manage all food scraps by organics recycling. The New York State Food Donation and Food Scrap Recycling Law will go into effect state-wide in 2022, and has similar requirements. *See p. 8 Food Recovery and Organics Recycling.*

How Does the Composting Process 'Work'?

This guide will provide a brief overview of the composting process, and there are many resources available to learn about the science of composting! For facilities that want to manage an onsite composting system, it's essential to understand the in's and out's of composting. For facilities that want to separate their food scraps and have another facility do the composting, this section will provide some practical knowledge of how it works, but don't get bogged down in the details!

Composting occurs when certain plant materials like yard wastes and food scraps are mixed together and managed in a controlled way. "Food scraps" refers to inedible food waste such as the peelings, ends, cores of vegetables and fruits, or scraps of meat and fish bones, coffee grounds, etc. or any other food residuals generated in the preparation of a meal or food residuals from plate-scrapings (post-consumer).

Any natural material, organic material that originated from plants or animals is technically compostable. However, not all organic wastes will break down completely or safely in a small scale composting system. Waste vegetable oil or other bulk liquids and grease, meat, bones, and dairy should be avoided in small scale systems.

The composting process can be controlled with certain management practices that speed up decomposition, and the end result is compost. Compost has the unique ability to improve the chemical, physical, and biological characteristics of soils. Compost can be used to grow vegetables, flowers, trees, shrubs, and lawns. It can be mixed with other amendments and used in container gardening, in landscaping projects, and in architectural or storm water management projects.

8 Environmental Protection Agency (EPA), 2019: Advancing Sustainable Materials Management 2017 Fact Sheet

9 Natural Resources Defense Council (NRDC), 2017: Wasted - How America Is Losing Up to 40 Percent of Its Food from Farm to Fork to Landfill.

The composting process is aided by a complex food web of soil organisms like bacteria, fungi, actinomycetes, mites, spring tails, beetles, worms, ants, and other macro and microscopic organisms. Bacteria jumpstart the decomposition process. These organisms are naturally occurring on the plant wastes, or residuals, that are mixed together in the compost bin or pile. The soil organisms create a mini-ecosystem inside of a compost pile, preying on each other and using the decaying plants as their food source. As the soil organisms break down the plant waste, they generate heat energy – which is why composting is hot! An active compost pile can reach up to 165 degrees F, though cooler temperatures are more common, especially in small scale systems.

The composting process undergoes three distinct heat phases where the compost pile will heat up quickly and stay hot for a period of time, and then the material slowly cools as the soil organisms consume all the available nutrients and their activity slows. Certain management techniques, like turning the pile when it's cold can help accelerate and invigorate the composting process. Having the right mix of 'browns and greens', and by keeping the pile moist also helps the material compost faster!

Greens

"Greens" are fresh, moist, nitrogen-rich plant materials that typically break down quickly and should be mixed or covered with a thick layer of browns. All food scraps, and some yard wastes, are considered to be 'greens.' In addition to adding nitrogen, greens typically add moisture. Tip: always bury or cover your food scraps completely. This helps reduce odors, pests, and control moisture.

Compost these greens: Food scraps including:vegetable and fruit scraps (cores, skins, ends, etc.), coffee grounds, coffee filters, tea bags (staples removed), stale bread, nut shells, egg shells, uneaten cooked foods like rice, pasta, etc. Other 'greens' from the garden include: grass clippings, fresh plant leaves, weeds (no seeds). Animal manures are also considered greens: chicken, rabbit, pig, goat, sheep, cow, horse manures mixed with natural animal bedding.

Avoid composting these greens: Butter, fats, cooking oils, meats (cooked or raw), bones, fish scraps, milk or dairy products, salad dressings, cooked foods with excessive oils/sauces, vegetable/fruit seeds, dishwater, etc.

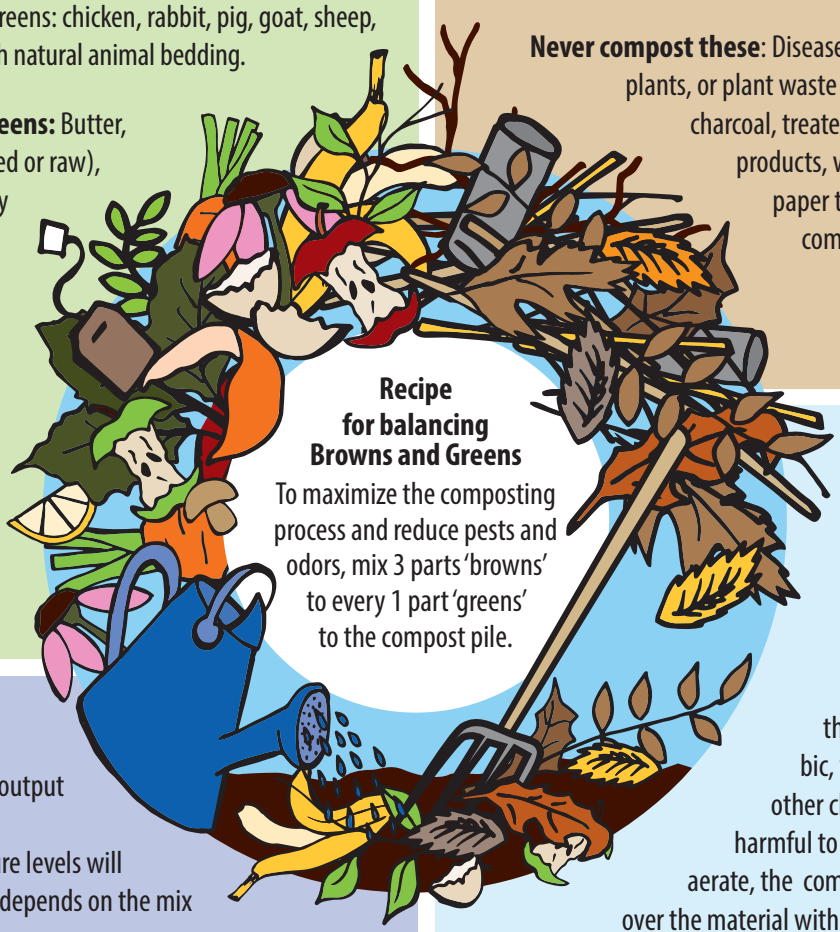
Never compost these: Diseased plants, chemically-treated plants or grass clippings, weeds with weed seeds, etc. cat, dog, bird manures or cat litter bedding.

Browns

"Browns" are dry, woody, carbon-rich plant materials that typically break down very slowly. In addition to adding carbon, browns also add good structure and porosity to the compost mix, allowing air to flow freely through the pile. Tip: smaller pieces = faster composting.

Compost these browns: Garden wastes including: dry leaves, small branches (twigs, sticks, pine cones, pine needles, etc.), natural wood chips/sawdust, soil, old potting mix, hay, straw, corn stalks, etc. Other 'browns' include: Cardboard (shredded, no tape/dyes), uncoated paperboard (paper towel rolls, toilet paper rolls, etc.) shredded paper, newspaper (no glossy or magazine type paper), clean paper towels/napkins (no chemicals).

Never compost these: Diseased or chemically treated plants, or plant waste with weed seeds, ashes/coal, charcoal, treated/painted wood, colored mulch products, waxed cardboard, glossy paper, paper towels with cleaning chemicals, compostable packaging.



Recipe for balancing Browns and Greens

To maximize the composting process and reduce pests and odors, mix 3 parts 'browns' to every 1 part 'greens' to the compost pile.

Water

Water is both an input and an output during the composting process, so moisture levels will always be changing. Moisture depends on the mix of materials being composted, and if your pile is exposed to weather. Always look for moisture when adding new materials.

You may need to add water if the pile is dry. Or you may need to add more dry (brown) materials if the compost pile is too wet. This isn't an exact science, but a good rule of thumb is to aim for 45-60% moisture, damp enough so that a handful of material feels moist, but dry enough that a hard squeeze produces one or two drops of water.

low moisture = slow decomposition, soil microbes go into dormancy
high moisture = slow decomposition, dense or compacted pile, odors, and nutrient leaching

Air

Composting is an aerobic process, meaning it requires oxygen. Air should be able to move freely throughout the pile or it can become anaerobic, which leads to foul odors and other chemical byproducts that can be harmful to plants. To add air, or to aerate, the compost pile, manually mix or turn over the material with a pitchfork, shovel, or specialized tool. Some compost systems aerate passively by the design of the bin.

Turning fluffs and loosens compacted areas, mixes material to better blend browns with greens, and re-charges the composting process with fresh air. Turning the pile can also help control moisture, release trapped gases, and invigorate the process.

How Often Should You Turn the Pile?

Turn the pile as often as you can or whenever you have the time. Once per month is commendable, but more importantly, consider turning according to the pile conditions like when it has cooled down, or when adding new material to help control moisture.

Will compost piles smell bad and attract pests?

It is entirely possible to mix materials together in such a way that may attract nuisance animals or produce foul or sour odors, but this is just as easily avoidable with simple management techniques. Best practices include: making sure food scraps are chopped into small, 1 inch pieces so they degrade quickly and are not laying around the compost pile; always covering the greens (food) with a thick layer of browns (leaves, etc.); being mindful of moisture; using a fully enclosed compost bin or compost system; avoiding food scraps like meat, bones, grease, fats, and dairy products. Odor usually indicates that the material is too damp, and by effect, there is not enough airflow through the pile. Regularly turning the pile can help reduce odors. By implementing these best practices, a good composter will not have any pests!

Composting takes time.

With passive management and stubborn feedstocks, composting could take up to 2 years before you can use the finished product in the garden. With more active management and best practices, composting could be done in as little as six weeks! Finished compost is dark, crumbly, looks and smells like soil, and contains no recognizable pieces of food or plants. Once compost is finished, it should rest, or mature, for a period of several weeks before it can be used. Using compost before it is mature can damage plants. The longer the compost rests and matures, the better it will be!

Contact the UCRRA Recycling Outreach Team for professional consultation for onsite composting. Or if composting sounds unmanageable, let someone else do the composting for you! There are many options, discussed in the following section.

Local Composting Options

Facilities can manage their food scraps on-site and make their own compost, or they can hire a company to pick up the food scraps just like a curbside trash/recycling service, or they can self-haul (deliver) the food scraps to a local composting site. There are pros and cons to each of these options, which are summarized on the following pages.

Option 1: On-site Management

There are many types of medium-to-large scale community composting systems to suit your facilities' unique needs. The size of your composting system should be large enough to correlate with the amount of food scraps you generate. Some examples of community-scale composting systems include; large three-bin-systems, vermicomposting (an indoor worm bin), aerated static piles, or other in-vessel composting systems. When deciding which system is best for your situation, consider: how much food waste you produce, how much yard debris you have on hand to mix with the food scraps, how much labor are you willing to do to manage the compost pile, and how will you use the finished compost?

PROS

- Improves carbon footprint/most environmentally-friendly option.
- This option provides the greatest value for hands-on learning experiences.
- You make and use your own finished compost - great for use in gardens or potted plants.
- Lots of options for which bin or composting system to choose.
- Can be very low cost if you build your own system, and no transportation costs or tip fees means you can maximize savings.
- Grants may be available to support your project.
- Facility has total control of how the program is designed, managed, and the quality of the finished compost.
- Cost effective way to manage yard wastes (if they're abundant on site).

CONS

- This option requires the most work, time, planning, and commitments. Need a reliable Green Team to sustain the program!
- Small compost systems should avoid composting things like: meat, bones, dairy products, compostable products, etc.
- You will need to source your own yard waste (if it's not abundant on site).
- Can potentially be high cost.
- You will need to troubleshoot any issues (odors, pests, contamination, etc.)

Sizing Your Composting System

1. Estimate the amount of food scraps you may generate on an annual basis.
2. Estimate the volume of browns/bulking agents you generate, and add that number to the food scraps total. If you're unsure about the volume of browns you generate, a good rule of thumb is to size your system allowing for three times the amount of browns to greens (C:N ratio).
3. When choosing a composting system, pay special attention to the gallon or cubic yard capacity of the compost bin or system.
4. Composting takes time. To size the system appropriately, assume you should size the system to meet the full required capacity for a whole year. Or if you're an expert composter, scale down to 75% of your estimated need, but you will need to manage the compost pile accordingly!

Food Waste Estimator[10]	
Elementary School	1.13 lbs/student/week
Middle School	0.73 lbs/student/week
High School	0.35 lbs/student/week
College (non-residential)	0.72 lbs/student/week
Restaurant (full service)	57.69 lbs/employee/week
Restaurant (limited service)	42.31 lbs/employee/week
Supermarket/Grocery Store	57.69 lbs/employee/week
Events/Street Fairs	0.45 lbs/visitor/day
Hotels	6.63 lbs/room/week
Hospital	23.94 lbs/bed/week
Nursing/Assisted Living	12.6 lbs/bed/week

Helpful Conversion Factors

1 yard^3 = 201.97 gallons
1 gallon = 0.00576 yard^3
1 ton = 2,000 bs
1 foot^3 = 7.5 gallons
1 yard^3 = 27 feet

1 yard^3 food waste = 1500 lbs
1 yard^3 woodchips = 0.122 tons
1 yard^3 leaves = 0.125 tons
1 yard^3 animal manure = 0.325 tons
1 yard^3 paper = 484 lbs

Example:

An elementary school wants to build a three bin composting system to compost all the food waste produced by the school. The school has 235 students and there are 25 weeks in the school year.

$$235 \text{ students} \times \frac{(1.13 \text{ lbs food waste})}{(\text{student/week})} \times \frac{(25 \text{ weeks})}{(\text{school year})} = \textbf{6,638.75 lbs food waste per school year}$$

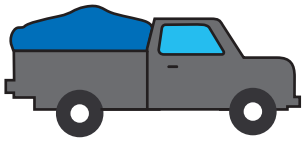
$$6{,}638.75 \text{ lbs food waste} \times \frac{(1 \text{ cubic yard food waste})}{(1500 \text{ lbs})} = \textbf{4.42 cubic yards food waste per school year}$$

Estimating for the browns needed to compost this much food waste:
4.42 x 3 = 13.26 cubic yards browns
4.42 + 13.26 = **17.68 cubic yards total capacity**

To build a three bin system requires seven standardized wood pallets, where each pallet measures 48 x 40 inches. Using this estimate, a standard three bin system would hold up to 5.93 cubic yards at a time.

Conclusion: The school should have a composting system that can handle up to 17.68 cubic yards of material per year. The school would need to construct three or four of the standard three bin systems in order to compost 100% of their food scraps on site.

10 New York State Pollution Prevention Institute: Food Waste Estimator Tool



Option 2: Hire a Hauler for Curbside Service

Local companies offer the convenience of picking up your food scraps just like you set out your trash and recycling bins. A hauling company may also provide collection bins, posters, and educational training to help launch your composting program. UCRRA maintains a contact list of all the Food Waste Management Services in Ulster County, including composting sites, hauling companies, educational services, and grant opportunities. Access the Appendix for the most current contact list.

PROS

- Convenience! You collect the food scraps and someone else does the composting for you! There are no concerns about troubleshooting, sourcing browns, mixing and making the compost.
- Can include meat, bones, dairy products that are harder to manage on-site (ask the company).
- You may be able to include compostable products (ask the company).
- Bins, stickers, signs, etc. may be provided for you (ask the company).
- Convenience of pick up requires less staff time.
- Supports the local economy & 'green jobs'.

CONS

- You don't get to use the finished compost (unless you purchase it).
- This option doesn't offer much hands-on experience for participants to learn about the composting process.
- This method may be a more expensive option.
- 5, 6, or 7 day pick-up is not always available.
- Billing is usually done by # of totes vs. by pound, which is not always accurate and can cost the customer more.
- One step removed from the compost site; lack of feedback if there are contamination issues.
- Odors/vectors can become an issue with the collection bins, especially during the summer.

Best Practices for Source Separating Food Scraps

Adapted from Recommendations by NYS P2I[11]

✔ Identify locations where food scraps are generated and where the food scraps are being thrown away. Obtain a separate bin for food scraps, and always pair them with the trash receptacles at each waste point identified.

✔ Clearly label the food scrap bins so they can be easily distinguished from trash bins. Make sure the bin is identifiable from the top as well as the sides of the bin. *See p.18-19 Collection area tips.*

✔ Food scrap bins should have a sanitary lid that forms a closed seal on the container (no open-lid containers) when not in use.

✔ Line the bin with a certified compostable bag. This helps keep the bin clean and sanitary and makes emptying the bin easier. *Check with your compost site for guidance on compostable products.

✔ Regularly wash the bin with hot soapy water after each collection day. Only use natural soaps and cleaning agents, like vinegar and water. Never use harsh chemicals that could persist in the bin and contaminate the food waste. Let the bin dry completely before use.

✔ As part of kitchen staff training, conduct a demonstration to show what goes into the food scrap bin, and how to open/close/clean the bin.

✔ Identify the team members responsible for cleaning/moving the bins. *Check with your compost site for guidance on when to set out bins for collection.

✔ Tape off the floor where bins should be placed.

✔ When training kitchen staff, incorporate food waste reduction tips.

✔ Identify any food service items that might contaminate the bin. Train participants on acceptable/unacceptible items!

✔ Regularly empty the bin so that it does not become too heavy to move or unload.

11 New York State Pollution Prevention Institute, 2018: Restaurant How-To Guide Diverting Food Waste

Option 3: 'Self-Haul' Food Scraps to a Composting Site

Collect your food scraps and let us do the composting for you! UCRRA can provide a high level of instruction, consultation, and tools for our Partners in Composting, which makes composting easy and convenient! UCRRA can provide free educational services like staff training, posters, signs, window decals, and food waste tote bins to help launch your program. UCRRA does not provide any pick up services. Our Partners designate an employee/Green Team member to deliver the food scraps to our composting site. There's no appointment necessary to deliver food scraps to the Agency, and no minimum load fee on delivery. View our Partners in Composting Guidebook[12] online or contact us to learn more!

Become a UCRRA 'Partner in Composting'!

Step 1
Contact UCRRA to meet with Staff and take a tour of the Organics Recovery Facility. You'll be asked to complete a Questionnaire to gather important information about your facility.

Step 2
Develop a strategic plan to engage and educate your participants – how will employees, students, or customers be informed of your new composting program? The UCRRA Recycling Outreach Team is available to assist with a free consultation service, staff trainings, and site visits to offer guidance on program planning.

Step 3
Upon approval of your program details, you'll become our Partner in Composting! We'll use the information from your Questionnaire to set up your account and start tracking how many lbs. of food you've composted. UCRRA can provide posters, tote bins, facts about your environmental savings, and other resources to our Partners.

View our Partners in Composting Guide online or contact us at 845-336-0600 to learn more!

PROS

- Convenience! You collect the food scraps and someone else does the composting for you! There are no concerns about troubleshooting, sourcing browns, mixing and making the compost.
- There are a several local composting sites that you can self-haul to.
- See for yourself how the compost is made and get direct feedback about any contamination issues.
- Affordable! UCRRA charges a flat fee (per ton) that makes composting accessible!
- Can include meat, bones, dairy products that are harder to manage on-site (ask the compost site).
- You may be able to include compostable products (ask the compost site).
- Bins, stickers, signs, etc. may be provided for you (ask the compost site).
- UCRRA will track your waste and provide environmental savings facts and figures upon request. Use these stats to promote your sustainability practices!
- Supports the local economy & 'green jobs'.

CONS

- You don't get to use the finished compost (unless you purchase it).
- Need a reliable Green Team – and a dedicated person and appropriate vehicle to deliver the food scraps to the composting site.
- This option doesn't offer much hands-on experience for participants to learn about the composting process.
- May need special permitting if hauling over 1 ton.
- Time/labor commitment of 1-2 hours per week (varies).

12 *UCRRA, 2020: Partners in Composting Guidebook accessible online at www.ucrra.org/waste-recycling/food-waste/compost-food-ucrra/*

"What an important time to embrace composting! Bread Alone Bakery has worked in partnership with UCRRA for almost five years. It is an initiative that is embraced by all company associates, as Bread Alone's culture is one of sustainability and protecting all the Earth's resources. Bakery ingredient overage is transported to UCRRA weekly to become part of their quality compost production. We are very fortunate to have UCRRA. The team there is passionate about their mission. If you haven't visited their website, you should! I'd encourage a site visit as well, as you'll learn an incredible amount of information that will foster your own personal sustainability initiatives above and beyond!"

– Paul Amos, Director of Operations/Food Safety Coordinator, Bread Alone Bakery

The O Zone is a proud partner of UCRRA's Composting Program. What an honor it is to work with such a professional, knowledgeable organization whose aim is to provide quality service and invaluable education to our community. Their diligent work is improving not only our community here in the Hudson Valley, but the world at large. Thank you for all that you do!

– Amelia LeGare, Owner of The O Zone (Redhook NY)

We have been sending food scraps to UCCRA's Compost Facility since early 2017. UCRRA supports food scrap recycling as their primary goal. This motivation shows in all aspects of their operations and it's been a pleasure working with UCRRA! They were one of the first composting facilities in the area, setting a model for others. Their operations are set up to support food scrap recycling programs, they accept the items needed for these programs to be successful. They set a low tip fee that promotes [composting] as a financial saving and they are a consistent and expanding facility to bring food scraps to.

– Village of Scarsdale and Scarsdale Conservation Advisory Council

Did you know?

UCRRA provides free consultation services, to help facilities find the best option for their needs!

We have loved working with UCRRA. They have made it so easy to [compost] in an efficient and easy way. We love their commitment to composting and recycling. It's so important to keep food waste out of landfills and incinerators in order to decrease methane production and build healthy soils. The UCRRA gets all of this and they are a pleasure to work with!

– Michelle & Java Bradley, Owners of JAVA'S COMPOST

Donating Excess Edible Food

Composting improves communities by drawing attention to all the food that goes to waste. In a recent survey by the Recycling Partnership, 81% of citizens reported that they feel society isn't doing enough to reduce waste[13]. Community composting intersects with many other social issues like food justice, addressing food insecurity, improving access to excess edible food, community gardening, neighborhood resiliency, and environmental literacy.

The Ulster County Food Waste Prevention and Recovery Act establishes a hierarchy of preferred management for food waste by large generators, emphasizing that, to the greatest extent possible, excess edible food must be donated rather than recycled through composting. *See p.5 Food Recovery and Organics Recycling.*

What are the benefits of food donation programs?

- Cost effective way to manage wasted food.
- Many donation centers will have volunteers to pick up the donation.
- Costs associated with making a food donation are tax deductible.
- Creates an outlet for inventory that may be otherwise difficult to move.
- Promotes food justice to food insecure neighbors in need.
- Reduces solid waste sent to landfills and pollution associated with transport and disposal.

Companies and organizations that donate food to nonprofit organizations are protected from criminal and civil liability under the Bill Emerson Good Samaritan Food Donation Act[14].

This law:

✔ Protects from liability when donating food to a nonprofit organization;

✔ Protects from civil and criminal liability should the product donated in good faith later cause harm to the recipient;

✔ Standardizes donor liability exposure;

✔ Sets a floor of "gross negligence" or intentional misconduct for persons who donate grocery products.

Donate non-perishable foods, bulk or raw foods, fresh produce, dry-store goods, beverages, refrigerated items, and frozen perishable foods to local food pantry and soup kitchen/meal centers to maximize support within your community. For a list of local food pantries and meal centers throughout Ulster County, visit www.ulstercorps.org/agencies/food-pantries.

Tips for Starting a Food Donation Program

- Conduct a 'waste audit' to better understand what food items go to waste and why.
- Grow partnerships –Work with one or two pantries and ask them for the names of other businesses who donate to that pantry so you can network, learn, and gain skills and ideas about food donation.
- Start small – begin with the easiest, most accessible foods you could donate and scale up at your own pace.
- Track your donations –Some pantries may help with tracking how many lbs you've donated, so you can calculate disposal cost savings, reduction in greenhouse gases, and social benefits to your community.

13 The Recycling Partnership, 2020: Americans Strongly Believe in Recycling

14 On October 1, 1996, President Clinton signed this act to encourage donation of food and grocery products to non-profit organizations for distribution to individuals in need.

School Cafeteria Share Tables

In an effort to reduce waste and encourage the consumption of food, many school food service operations have established "sharing tables" where students can leave their unconsumed, unwanted food items and beverages for other students to take at no cost to them. The New York State Department of Health and New York State Education Department (NYSED) have developed a formal guidance document providing information on the safe use of sharing tables.

The official Memorandum dated April 2016 states:

"Although Part 14 of the State Sanitary Code prohibits the re-service of food that has already been exposed to consumer or other forms of contamination, foods that are protected from contamination and immediately donated following the guidance below are not considered previously served. School food service operators should consult with their local health departments to discuss any additional requirements."

The Memorandum further declares that: Sharing tables can safely be implemented provided the following conditions are met:

- Food items are protected from contamination (wrapped in plastic wrap or in covered containers); fruits requiring peeling (e.g. oranges) are considered protected.
- The sharing table is supervised by a school food service staff person.
- Students must leave unwanted food items on the sharing table before sitting down to eat.
- The use of a sharing table is included in the school's standard operating procedures and food safety plan.
- Time/temperature controlled for safety (TCS) foods placed on the sharing table must be held under temperature control or (with a Time as a Public Health Control (TPHC) waiver from the local health department) discarded at the end of the lunch service (not more than four hours).
- Donated food may not be returned to the kitchen and sold again.

Please contact your Regional Field Coordinator or Darby Greco at 518-402-7600 with any questions.

Section 6:
Green Purchasing

Reduce Hazardous Waste

Hazardous wastes are any liquid or substance that is ignitable (could catch fire), reactive (cause a chemical reaction), corrosive (caustic or acidic), or toxic (harmful to human health). Hazardous wastes can be found in nearly every type of facility and these wastes include (but are not limited to) chemical cleaning agents, aerosols, oil based paints and solvents, fluorescent lightbulbs, pesticides and fertilizers, poisons, adhesives, or waste fuels. Toxic or hazardous materials need to be properly stored, used safely, and discarded responsibly to protect both human health and the environment. Hazardous wastes require special disposal, which can be very costly. These are some of the reasons why a hazardous waste reduction plan is beneficial alongside a new recycling program.

Tips to Reduce Hazardous Wastes

- ✔ When buying or replacing toxic chemicals or hazardous products, try to substitute them with all natural and non-toxic alternatives.
  - Use latex paint instead of oil based paint.
  - Use 'green' cleaning products instead of bleach and harsh detergents.
  - Use LED lightbulbs in place of fluorescent lighting.
  - For facility grounds/maintenance projects, use integrated pest management practices instead of using harsh chemical pesticides, fungicides, etc.
- ✔ Buy Only What You Need. Carefully calculate how much of a product you need to complete a job so you can buy only what you need. Avoid buying in bulk if you really don't need or use the product daily.
- ✔ Evaluate purchasing procedures to see where wastes can be prevented, reduced, replaced, or eliminated. Talk with management about implementing a 'green' procurement policy.
- ✔ Donate any usable leftover products, such as paint. There may be a charitable organization or a local non-profit group (such as a theater group, school drama club, etc.) that could use it.

Always use and store chemicals according to their directions. Do not mix chemicals or move them into unlabeled containers. If you're unsure about the toxicity or hazards of a certain chemical, ask management for the Material Safety Data Sheet for the product in question.

UCRRA maintains a list of Hazardous Waste Removal Companies. Refer to the Appendix for the most updated list.

Close the Loop - Buy Recycled!

When we recycle, consumers are collecting a feedstock for companies who will transform those raw materials into new products. A healthy and sustainable recycling economy means that there is a constant demand for products made with recycled materials. Using recycled materials uses less energy in manufacturing processes. Municipalities, commercial businesses, schools, and residents play an important role in sustaining the demand and success of recycling systems by choosing to purchase products made from recycled materials.

Various types of office supplies can be made from recycled materials. Green purchasing is usually cost-neutral, but in some cases it is less expensive to purchase recycled items. The quality of these items are just as good as the products made using virgin materials, and in some cases the quality is better than items made using new resources. Look for items that contain a high amount of 'Post-Consumer Recycled Content.' Some common items made from recycled content:

- Office paper and envelopes
- Paper napkins, paper towels, and toilet tissue
- Plastic garbage bags
- Office writing tools
- Clipboards
- Paper clips
- Chair mats for office chairs
- Linens (ex. Table cloths & towels)
- Toner/Ink Cartridges

A good place to start researching green purchasing is to access the New York State Green Procurement Resources[15] to find out if an item you're looking for is available on a statewide contract. The Northeast Recycling Council offers a Recycling Demand Champion[16] program with additional resources and lists of vendors.

15 NYS's Green Procurement resources: www.ogs.ny.gov/greenny

16 NERC Recycling Demand Champion Program: www.nerc.org/projects/government-recycling-demand-champions

Transitioning to Reusable Serviceware

Food service activities generate a lot of waste that could be easily reduced. Reusable options may cost a little more upfront or per unit, but they have an extended 'usable life' compared to their disposable counterparts that need a continuously replenished supply. Purchasers not only pay to keep restocking these items, but they also bear a hidden expense in their disposal costs. Over time, replacing disposable with reusable options can radically reduce costs for businesses or facilities with food-related services.

Consider if your facility can swap out any of these disposable items for a more durable, reusable option:

- Baskets
- Plates
- Bowls
- Ramekins
- Trays
- Utensils
- Condiment Dispensers
- Coffee Cream Dispensers
- Napkin Dispensers
- Straw Dispensers
- Hot cups/mugs
- Take-Out Containers
- Water Pitchers
- Table clothes
- Straws
- Cold cups
- Coffee stirrers

Analyzing the cost 'break event point' can help guide purchasing decisions and help you understand when you could possibly recover your investment into reusable options.

Breakeven point calculator:

$$\frac{\text{(Cost of reusable (each)}}{\text{Cost of disposable item (each)}} = \textbf{Breakeven point = \# of uses}$$

Reusable Cup Example:

$$\frac{\text{reusables:\$1.00 each}}{\text{disposable:\$0.05 each}} = \textbf{20 uses}$$

After you have used the cup 20 times, you're saving money!

Cost isn't the only reason why switching to reusable options is the way to go. Single use service ware also contributes to litter and environmental pollution, and litter is more likely to be found around businesses and facilities that provide single use disposable items. The organization Keep America Beautiful (KAB) has conducted extensive research on the composition and sources of litter across U.S. roadways. KAB has found that packaging litter comprises 46% of litter 4 inches and greater[17]. This includes fast food, snack, tobacco, and other product packaging. KAB asserts that litter cleanup costs the U.S. more than $11.5 billion each year, with businesses paying $9.1 billion, and that the presence of litter in a community can decrease property values by 7%.

An association called Rethink Disposables, an organization of Clean Water Action and Clean Water Fund[18], has done extensive research on the impact of swapping out disposables with reusables. The organization claims that *120 billion disposable cups are used by Americans each year (54 billion paper cups, 28 billion plastic cups, and 26 billion foam cups)*[18]. Disposable single use cups are widely considered to be not recyclable.

By replacing one disposable cup with a reusable cup every day for one year conserves:

- 23 lbs. greenhouse gas emissions
- 281 gallons of water use
- 16 lbs. of solid waste
- 1 tree from being chopped down
- Saves $91.00

Straws are another easy switch. It's estimated that American use 500 million straws every day. End to end, straws used DAILY in the United States could circle the planet more than two-and-a-half times.

The Truth about Compostable Products

Compostable products play an important role in helping achieve waste reduction goals. But the benefits of using compostable products are only fully realized when the products are actually being composted. Compostable products should not be placed in the recycling bin, and when they are placed in the trash they are still contributing to environmental pollution and natural resource degradation.

Compostable packaging may have limited composting options – these products are only compostable in industrial settings, and only if the compost site accepts them. Compostable products do not fully degrade in home composting systems, and they may not fully degrade even in industrial composting systems. These products often have confusing labels; a package labeled 'plant based', 'biodegradable', 'eco-friendly' etc. is not necessarily a certified compostable product.

Look for the BPI logo on compostable products. BPI is the Biodegradable Products Institute and is the industry standard for certifying and testing compostable products and packaging. **Visit www.bpiworld.org to learn more**.

17 Keep America Beautiful Litter in America Key Findings Fact Sheet. www.KAB.org
18 Rethink Disposables 2016 Disposable Cup Fact Sheet www.rethinkdisposable.org

Appendix

Information changes from time to time. In order to provide you with the most accurate information, we have made our Appendix accessible online so that it is always up to date! Please visit **www.ucrra.org/resources** for the full Appendix documents.

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