



# WASTE AUDIT MANUAL

Prepared By

**GT Environmental, Inc.**

For

**Stark-Tuscarawas-Wayne Joint Solid Waste  
Management District**

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**Stark-Tuscarawas-Wayne Recycling District**

9918 Wilkshire Boulevard, NE Bolivar, Ohio 44612



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# CHAPTER 1

## What is a Waste Audit?

How many times a day do you consider your company’s trash? If it’s not part of your daily work, then it’s more likely not thought about. No matter the business, one thing that is given is your business produces waste. A waste audit is a formal, structured process designed to analyze the composition of waste generated. It’s a physical analysis of your business’ various waste streams, such as paper, cardboard, aluminum, plastic wrap, food, and more. Performing a waste audit will help you decide where to begin your waste minimization efforts, for example, what type of recycling to implement or what type of waste to reduce.

The information gathered from a waste audit can be a valuable way to measure improvement. A waste audit gives your business a clear idea of what is being thrown out, how much, and what materials are being produced. By understanding what waste is produced and where, your business will be better equipped to handle and reduce waste, saving money and becoming more sustainable.

Essentially, a waste audit is a sophisticated, measured dumpster dive. Conducting a waste audit will calculate the type of waste and amount of waste that a business generates. Auditors safely sort through, divide, and weigh a representative sample of trash bags or recycling bins to identify, measure and record the types and quantities of waste produced during typical daily or weekly operations.

Any sized organization can conduct a waste audit. The most important factor is that the audit is done as a team. A successful waste audit will obtain support from management prior to conducting the audit. From top level management to new employees, it is important that all members involved in the audit are on board and have a clear objective.

***Businesses have the ability to contribute to a more sustainable, low waste future***

## Why Conduct a Waste Audit?

Data collected from waste audits can help identify the type of waste produced by an organization and determine the effectiveness of the waste management system. The audit is also designed to help identify



ways an organization can be more effective at reducing waste management costs by educating staff on proper waste disposal and making better use of natural resources.

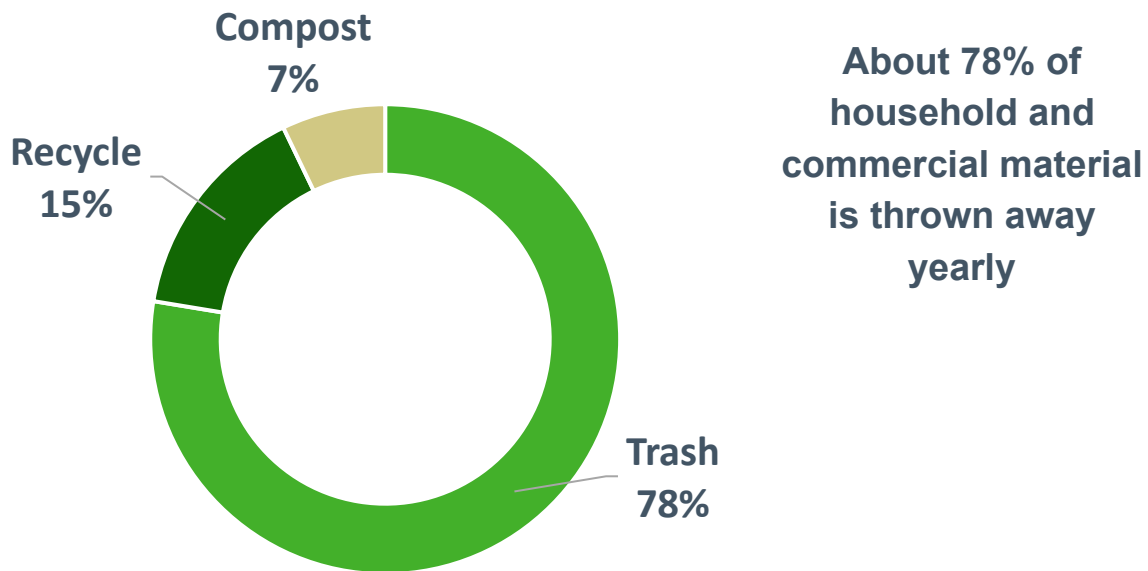
**You can't  
manage  
what you  
don't  
measure**

A good audit of an organization's waste stream will provide insight needed for the organization to streamline trash disposal and recycling practices for the benefit of the organization's waste management. You can't manage what you don't measure! Conducting a waste audit provides tangible data for organizations to be able to monitor the effectiveness of recycling programs, identify populations to target for education, and determine future disposal/ recycling opportunities that best align with the organization's needs.

Organizations conduct waste audits for a variety of reasons:

- To benchmark current processes and environmental impact
- To understand where opportunities are for improvement and cost savings
- To monitor trends and develop new initiatives
- To reduce, reuse, and recycle more waste, preventing landfill disposal and working towards a closed loop sustainable economy

It's important to understand why to be waste wise. Households and commercial businesses in the Stark Tuscarawas Wayne Solid Waste District throw away roughly 78% of materials generated in the trash. There is a significant opportunity for diverting materials away from the landfill through waste minimization, reuse, recycling, and composting.



Source: 2021 STW Solid Waste District Annual Report to Ohio EPA

The most common issue that organizations must solve is what is recyclable, reusable, and disposable. Many common items found in waste audits such as paper, plastic, and metal, have markets that organizations can

sell their waste to. These markets buy the desired waste material and recycle it, turning it into new products to be sold. This is a great way to reduce environmental impact and operating costs! Overall, there is much more waste that can be recycled, conducting a waste audit is a great way to kick off a high-performance recycling program!

The primary objective of a waste audit is to identify the type of materials being disposed of. However, performing a waste audit can yield data and information other than just the type of materials being disposed of! Waste audit objectives are to:

- Determine the composition and quantity of waste being generated
- Measure the effectiveness of current recycling programs and strategies
- Identify opportunities for improving or implanting recycling programs and strategies
- Identify opportunities to improve procurement policies
- Identify potential cost savings from waste collection, transportation, and procurement
- Verify the management level needed to divert waste
- Obtain management support and approval to implement programs

Waste audits are a powerful tool for organizations looking to save costs, lower environmental footprints, and close the loop to help facilitate a circular economy.

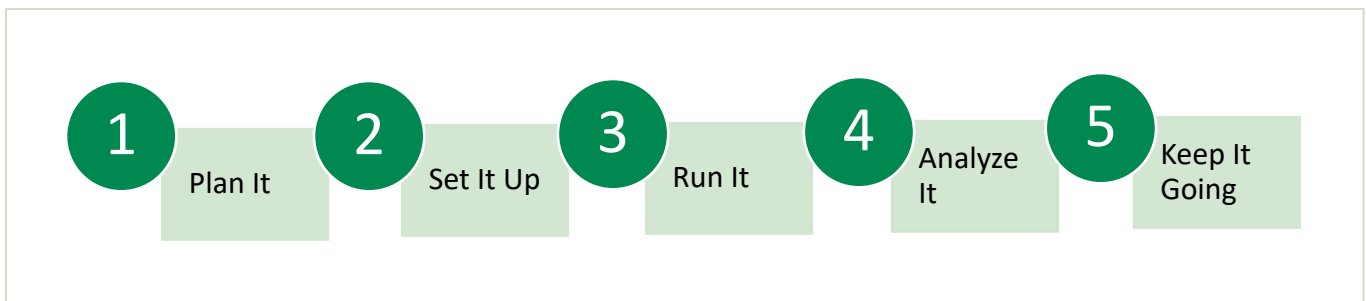
# CHAPTER 2

## How to Conduct a Waste Audit?

The primary goal of a waste audit is to gather data and information on the materials in an organization’s waste stream. To do this, the organization conducting the waste audit will analyze the composition of waste generated in two ways. First by quantity of waste, usually measured in cubic yards from containers that are then weighed as the audit takes place. The second way waste is analyzed is by the type of material. Waste audits break down the waste stream into categories such as paper, plastic, glass, etc., so that organizations can see what makes up their waste stream.

When performing a waste audit, the organization should not tell staff about the audit prior to the completion of the waste audit. Informing staff in advance may skew the results of the audit as staff may alter their disposal behaviors. Doing so would paint an inaccurate picture of normal waste disposal habits resulting in counterproductive results.

A waste audit can be broken into five easy steps:



### 1

#### STEP 1: Plan It

Planning is a vital step in the process of a waste audit. Without proper planning, the results may be inconclusive, counterproductive, or unusable. It is important to figure out who, how, and why to get a waste audit done correctly.

##### 1. UPPER MANAGEMENT SUPPORT

Communicating with upper management and obtaining their support is needed. After support is obtained and an organization has the go-ahead to conduct an audit, an audit team must be gathered.

##### 2. BUILD A TEAM

A representative of each area of an organization – maintenance, cleaning, mailroom, sales, production, building manager, top level management, etc. – must be included. It is important to gather a diverse team spanning all the various aspects of an organization as each one contributes to the waste stream. It is especially important for upper management to serve on

the team, both to authorize the release of necessary records and to demonstrate the company's commitment to the effort.

Depending on the size of an organization, two to three people will head up the waste audit team. These individuals should be motivated, personally interested, and committed to getting the facts. The team leaders should have the desire to follow the waste audit with a program designed to reduce and recycle the maximum number of materials that is specifically catered to the organization's internal needs and goals.

### 3. DEVELOP OUTLINE & TIMELINE

Once the project team has been assembled, host a meeting, and invite audit members to discuss how to conduct the waste audit. Run through the basic collection process and sorting process. Outline exactly what is expected from the team so no questions are left unanswered.

Set a logical time and date for the waste audit(s) that work best for all team members involved. Also describe the time frame for the waste audit(s) so that all team members are in the loop. The checklist in **Profile 1** will help to keep the project and team organized.

### 4. UNDERSTAND HOW WASTE IS CURRENTLY MANAGED

Prior to the waste audit, fill out **Profile 2A** to research how waste is currently managed. It is important to know how waste is currently being managed and identify any inefficiencies or opportunities to improve. Describe what happens from the time the trash is generated, to the hauler collecting it, to when it arrives at the landfill with the project team.

After the research, the project team will conduct a walk-through of the facility. **Profile 2B** is a data worksheet for the walk through. Select an area to start the walkthrough note all areas that generate waste, inventory of containers, what type of waste is being produced, and any obvious barriers. Pay attention to particular types of material discarded at each disposal point (restrooms, breakroom, offices, etc.). Note how hard it is to manage materials such as E-waste are being managed and take note of any gaps in the process. The walk through completes a visual examination of materials in containers and if possible, examine all dumpsters.

Larger businesses may need several **Profile 2B** worksheets depending on the number of areas in the building. The walk-through may result in preliminary conclusions about waste reduction/recycling opportunities. Take notes and refer to them when the entire audit is completed.

## 2

### STEP 2: Set It Up

Waste is generated in every place of business, but the type and amount of waste can vary significantly from establishment to establishment. A waste audit will familiarize you with the waste that your business generates. When conducting a waste audit, the waste materials are collected, physically sorted into specific material categories, and weighed.

## 1. ASSIGN ROLES

Preparing for a waste audit starts with identifying the core team. Assign team members specific roles and describe responsibilities of each role. An audit team can be comprised of the following roles.



- Team Manager: The team manager is the person(s) responsible for leading the waste audit. The team manager(s) will ensure all staff are properly trained and equipped, organize staff, and oversee the success of the audit.
- Waste Sorter: The waste sorters are the team members sorting through and separating waste during the audit. Waste sorters will separate materials into designated categories to be weighed and tracked. To maximize efficiency, most of the audit team should be assigned this role.
- Waste Weigher: The waste weigher is responsible for weighing the separated materials and communicating the bin weight to be recorded.
- Data Recorder: The data recorder is responsible for keeping track of the quantity of material sorted. This team member will work with the weighing staff to accurately record the amount of waste for each material category in the sort.

## 2. SAMPLE SIZE

If trash bins are typically emptied once per week, conduct the audit just before collection and the audit period is one week. Since this may be impractical for larger businesses, use a representative sample from each collection container. If the amount or type of trash varies substantially from day to day, the project team may want to conduct a sort on random days over the course of two weeks and then compute an average profile of one day's waste. Determine whether this is a representative snapshot of the facility or organization being audited.

## 3. WASTE MATERIAL CATEGORIES

**Profile 3** contains a full list of waste categories and a description of each category. Keep in mind sorting every category takes more time and resources. Identify what material categories will be sorted and how specific the category. For instance, sort for a general category like plastics or more specific such as plastic film, HDPE plastics, etc.

## 4. PREP FOR WASTE AUDIT

- Audit Worksheet - **Profile 4** is waste audit worksheet you will need to capture the data during the audit. Make sure to have enough copies for the sample size.
- Confirm Waste Sort Location - Assign a location for the actual sort to take place. Determine whether the location is a suitable size for project team and waste to be kept. If the current location is too small, identify other possible areas that could suffice.



- Prepare Sorting Supplies and Equipment – **Profile 1** contains a checklist of the proper equipment and common tools needed for waste sorts. However, no project is the same. Before conducting a waste sort, it is important to assess the expected materials in the stream, location of sort, and to identify any hazards that may require additional equipment. Several containers for holding the sorted waste and a scale for weighing the sample are needed. Size of containers depends on the amount of waste to be sorted.
- Develop Safety Plan - A safety plan should be developed prior to a waste audit. In this plan, basic elements for safety should be identified. A description of the site and any hazards, scope of work, and project roles should be outlined here. It is important to also identify emergency response and medical treatment procedures as well as general health and safety procedures. It is recommended that in this plan there is a safety plan acknowledgment page where all team members will sign after reading through the plan.
- Train Staff - Provide any necessary training to team members and conduct pre-sort safety meetings.
- Set Up Sorting Area - The following are common methods to use when setting up a sorting area.
  - Set up two tables with a plastic cover over them to sort waste on.
  - Make sure scale is set up and verify accuracy.
  - Set up, label, and obtain unladen weight of sorting containers.
  - Stage first-aid, water, and support equipment.
  - Provide material tracking sheets to the designated data recorder.



### 3

#### STEP 3: Run It

With a basic understanding of the organization’s waste management, a team gathered, and preparations made for the sort, the audit team is ready to take a hands-on approach. A typical waste audit lasts between 2-4 hours, depending on the amount of waste being sorted and number of members on the team. **Wearing protective clothing, the audit team will meet at a designated time to physically sort through waste generated during that day.**

Since this exercise will require the team to physically sort through waste, puncture-proof gloves and old clothes are a must. To conduct the waste sort, spread out a large plastic sheet and dump the day’s waste on it. Do not sort recyclables in an area where they may come into contact with food or other contaminants. Using a scale, weigh each category in the waste stream. If there is too much waste produced, use a representative sample of the waste stream. Be sure to conduct the waste sort in a garage or other enclosed location to prevent waste from being exposed to the elements or blown away.

### 1. CONDUCT THE AUDIT

- Collect waste and transport to sorting area. Collect trash from the day to sort. Waste to be sorted in the audit and begin to sort materials into previously identified categories using the tarp, labeled bins, and project team.
- Separate Materials and Record Waste Composition/Quantities. During the sort, each labeled bin must be weighed and recorded when full on **Profile 4**. After the weight has been recorded, properly dispose of the waste and be sure not to let it back into the waste audit stream. Remember to subtract the unladen weight of the bins to get the accurate weight of the waste. Be aware that the list might not include everything found in the waste stream that you may want to sort into categories. There is room at the end of the list to add other categories.
- Take Pictures. Be sure to take photos of the waste being audited and record any out of the ordinary materials in the waste stream.
- Dispose of Waste and Clean Area. After all the material has been sorted, weighed, and recorded, properly dispose of waste, and clean the area.

# 4

## STEP 4: Analyze Waste Audit Data

After broadly identifying the types of waste generated and conducting the waste audit, the team has reached the final element in the process – quantifying the amounts of each material category. The quantification of materials generated is important because even though many items in the stream might be recyclable, they must be present in sufficient volume to make separate collection feasible. This is especially true for smaller organizations that might need to cooperatively market their recyclables to generate enough volume.

Use **Profile 5** to determine the monthly tonnage of each material in the waste stream by calculating the weight over the audit period.

- 1) Enter Data Worksheets Into Spreadsheet.

Take the raw data recorded on the tracking sheets and input it into a spreadsheet for data tracking and manipulation.

- 2) Calculate each category’s percentage of total waste sample.



It is important to take a macro level view of the waste stream. Instead of just weight totals, taking a look at the percent of composition for each material can provide valuable insights into the waste stream. You will want to calculate the sorted waste versus the total waste collected to give you an understanding of how much each material is in your waste stream.

3) Perform Any Other Relevant and Project Specific Data Analysis.

Apart from waste composition, there are many other helpful charts and tables that can be created to better prepare data for presentation or analysis. Each organization's goals are different, tailor data analysis to best meet the needs of the organization. Waste audit data can provide details on recycling rates, contamination, capture rates, per capita generation, and much more.

4) Prepare Waste Audit Report.

The most important part of the waste audit is the report. This report will help guide decision making based on hard data and quantitative analysis. Spend time analyzing the data recovered and creating compelling charts or tables for a report. Include any photos and highlight all opportunities found in the audit.

# 5

## STEP 5: Keep It Going

If the waste audit was the first one completed by the organization, then the data will act as a baseline starting point. There is nowhere to go but up! If the organization has already conducted a waste audit previously, compare the two and identify trends, gaps, and opportunities to explore moving forward. Either way schedule your next audit.

Establish new goals to improve the waste management process. Remember to make quantifiable goals that are reasonable and attainable given the organization's resources, needs, and desires. Asking the right questions like 'what can I recycle for money?' and 'how much can landfill diversion be reduced by?' are questions every waste audit can help determine.



# CHAPTER 3

## Resources Available in Stark-Tuscarawas-Wayne

Below is a list of current options located within the Solid Waste District to assist your organization with recycling. Please note, the organizations below and any products associated are not directly associated with the Stark-Tuscarawas-Wayne Joint Solid Waste Management District.

### Ohio EPA Grants

Community Development Grants: Community Development Grants allow Ohio communities to support and expand community recycling and litter prevention efforts. Grants provide funding for equipment to support recycling collection and materials processing. Those eligible to apply include municipal corporations, counties, townships, villages, state colleges or universities, solid waste management districts and authorities, park districts, health districts, statewide recycling and litter prevention trade associations, non-profit organizations, and state agencies.

Link: <https://epa.ohio.gov/divisions-and-offices/environmental-financial-assistance/recycling/grants/community-and-litter-grants>

Litter Management Grants: Litter Management Grants allow Ohio communities, local government agencies and non-profit organizations to support litter and tire amnesty collection projects. Additionally, grant funding is available to support Keep Ohio beautiful (KOB) Communities and KOB activities. Grant proposals must include an actual clean-up activity to take place on public land or public waterways.

Link: <https://epa.ohio.gov/divisions-and-offices/environmental-financial-assistance/recycling/grants/community-and-litter-grants>

Market Development Grants: Market Development Grants are offered to Ohio businesses and non-profit organizations that propose to create equipment infrastructure for successful markets of recyclable materials and related products.

Link: <https://epa.ohio.gov/divisions-and-offices/environmental-financial-assistance/recycling/grants/market-development-grants>

### Recycling Pick-Up for Businesses

Kimble Recycling and Disposal  
800-201-0005

Royal Oak Recycling  
216-325-1500

River Valley Paper Company  
330-525-1001

Republic Services  
800-247-3644

Recycle-it, LLC  
216-214-0108

Northcoast Inc. Recycling Specialists  
440-943-6968

Waste Management  
866-797-9019

Gateway Recycling  
216-341-8777

# ATTACHMENTS

# Profile 1: Checklist

## Company

- Upper Management Approval and Support
- Clear Objectives and Goals for Conducting Audit
- Selected Date / Time of Sort
- Health and Safety Plan
- Sort Training
- Post Audit Progress Plan

## Waste Audit Team (adjust depending on size of audit/ organization)

- Team Leader
- 3 – 5 Waste Sorters
- 1 Material Weigher
- 1 Data Recorder

## Supplies

- Clip Board
- Pens
- Camera/Phone for Pictures
- Water
- 2 Foldable Tables

- Tarp to Place Waste On
- Bins for Each Material Category
- Bin Labels
- 5 Buckets (5-Gallon)
- Large Shovel
- 1 Scale
- Cones (if needed for safety reasons)
- Caution Tape (if needed for safety reasons)
- First Aid Kit
- Trash Bags
- Audit Worksheets
- Cleaning Supplies

## Personal Protective Equipment (PPE)

- Hard Hat (if needed for safety reasons)
- Safety Vest
- Safety Glasses
- Face Masks
- Closed-toe Shoes
- Nitrile Gloves
- Puncture Proof Gloves
- Tyvek Suite/Apron

# Profile 2A: Walk Through

To assess company waste generation, the first thing the audit team will do is research how waste is currently managed, and **fill out Profile 2A**.

Following the completion of Profile 1, the team will **conduct a walk-through of the facility**. The inspection should start where materials are first received, noting all operations that generate waste, what types of waste are produced, and how they are managed. Pay attention to the particular types of material discarded at each point of disposal. The walk-through may result in

preliminary conclusions about reduction/recycling opportunities. Take notes and refer to them when the entire audit is completed.

## PROFILE 2: CURRENT WASTE OPERATIONS

Name of Hauler: \_\_\_\_\_

List all collection points inside and outside the company: \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Amount currently collected by weight: \_\_\_\_\_

Amount currently collected by volume: \_\_\_\_\_

Frequency of collection: \_\_\_\_\_

Average bill: \_\_\_\_\_

Billing Frequency: \_\_\_\_\_

Bills based on weight or volume: \_\_\_\_\_

Where waste is finally disposed: \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

List current recycling efforts: \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Materials collected: \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

How they are collected: \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Amounts of each material collected by weight: \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Percentage of overall waste currently recycled: \_\_\_\_\_

Recycling revenue: \_\_\_\_\_

\_\_\_\_\_

Recycling costs: \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Avoided disposal costs (i.e., savings accrued by not paying for material to be hauled to final disposal facilities): \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_



# Profile 2B: Walk Through Inventory

Use Profile 2B to note all areas that generate waste, inventory of containers, what type of waste is being produced, and any obvious barriers.

LOCATION		Name:	Date:
1	Room Type		
2	Location Description / Name		
3	Approx. Size or Staff or other metric (if applicable)		
4	Major employee waste generating activities		
CONTAINERS			
5	Trash (Y/N)		
6	<i>Container Descriptions (approx. counts, types, sizes)</i>		
7	Recycle (Y/N)		
8	<i>Container Descriptions (approx. counts, types, sizes)</i>		
9	Compost (Y/N)		
10	<i>Container Descriptions (approx. counts, types, sizes)</i>		
11	Other (Y/N)		
12	<i>Other Notes</i>		
13	Containers paired (Y/N)		
14	Observable Recyclables in Trash (Y / N)		
15	<i>Describe</i>		
16	Observable Trash in Recycling (Y/N)		

17	<i>Describe</i>	
18	Signage for Recycling (Y/N)	
19	<i>Notes</i>	
20	Who Collects Trash	

**MAJOR TYPE OF WASTE**

*Select all that apply - Circle the top 2 or 3 materials*

21	OCC	
22	Office paper	
23	Food waste	
24	Compostable paper (towels, plates, etc.)	
25	Recyclable containers (plastic or metal)	
26	Styrofoam	
27	Plastic film	
28	Pallets	
29	Metal	
30	Haz waste	
31	Electronics	
32	Other (s)	
33	<i>Describe</i>	
34	<i>Notes</i>	

**BARRIERS (OBSERVED)**

35	Note any obvious barriers to recycling:	
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**RECOMMENDED ACTIONS**

36	Recycling / Diversion (containers, signs, other)	
37	Waste Minimization (Major materials, actions)	

# Profile 3: Municipal Solid Waste Category Definitions

Category	Description
Paper	
OCC (Old Corrugated Cardboard)	Corrugated container boxes.
High Grade Paper	White and lightly colored bond, rag, or stationery grade paper. This includes white or lightly colored sulfite/sulfate bond, copy papers, notebook paper, envelopes, continuous-feed sulfite/sulfate computer printouts and forms of all types, excluding carbonless copy paper.
Mixed Low-Grade Paper	Includes junk mail, magazines, colored papers, bleached Kraft including bags, boxboard, mailing tubes, carbonless copy paper, ground wood computer printouts, telephone directories, paperback books, hardcover books.
Newsprint	Printed ground wood newsprint (Advertising “slicks” (glossy paper), if found mixed with newspaper; otherwise, ad slicks are included with mixed low grade.).
Polycoated Paper / Aseptic Containers	Beverage and food containers made of bleached and unbleached paperboard coated with HDPE film. This includes polycoated milk and juice containers, ice cream cartons, paper cups, takeout containers, frozen food packaging, and aseptic juice boxes, including those with plastic spouts attached. Excludes juice concentrate cans.
Compostable Paper	Waxed papers and cardboards, other papers that were soiled with food during use (e.g., pizza box inserts); paper towels, wipes and napkins; paper plates, platters, cups and bowls
Unrecyclable Paper	Paper with other materials attached (e.g., orange juice concentrate cans and spiral notebooks), and other non-recyclable papers such as carbon copy paper, label backing, and photographs. Includes gypsum board tape rolls.
Plastic	
#1 PET Bottles/Jars	#1 Polyethylene terephthalate translucent or colored (green, blue, red, amber, yellow, orange, and opaque) narrow neck bottles and jars.
#2 HDPE Bottles/Jars	High-density translucent polyethylene (#2) bottles. Milk, juice, beverage, vinegar, distilled water bottles with necks and jars. Liquid detergent bottles, some hair care bottles and jars with necks. Includes empty motor oil bottles. (Chemical bottles that

Category	Description
	contain product are sorted according to that material-for instance, pesticides.)
#1 PET non-bottle	All other non-bottles with resin code #1.
#2 HDPE non-bottle	All other non-bottles with resin code #2.
Expanded Polystyrene #6	Includes #6 packaging and finished products made of expanded polystyrene. Includes EPS trays used for packaging and shelf display of meats and groceries as well as plates, bowls, and platters, but excludes Styrofoam cups.
Mixed Rigids	All non-bottle rigid plastic containers and packaging made of any resin. Thermoform molded trays, clamshells, and other packaging, typically used for food items. White plumbing pipe, identifiable PVC packaging other than PVC bottles/tubs. Injection molded wide mouth containers without a neck, such as cottage cheese and margarine tubs, of any resin type. Includes lids to the tubs and plastic bottle caps, pill bottles, #6 rigid polystyrene containers and packaging. Also, clear trays, clamshells, and cases
Bulky Rigids	Bulky rigid plastic items larger in size than a breadbox. Includes plastic furniture, tools, toys, plastic crates, and soda bottle carriers. Includes 5-gallon buckets and large planters. Excludes plastic appliances.
Other Plastics	Plastic items made entirely of plastic or predominantly of plastic not elsewhere classified. As a rule of thumb, smaller in size than a breadbox. Includes pens and markers, lighters, 3-ring binders, small toys and housewares, toothbrushes, razors, dental floss containers, CD/DVDs, VHS tapes. Plastic single use spoons, forks, knives, plates, cup lids, bowls, straws, and platters of various resins.
Film / Grocery Bags / Retail Bags	Plastic bags given to customers by any retail establishment for transporting purchased goods, including labeled grocery and merchandise, dry cleaner, and newspaper polyethylene film bags. Does not include garbage bags, baggies, or Ziploc bags; or bags heavily soiled with food.
Garbage Bags	Plastic bags designed and marketed to contain garbage or other materials for disposal.
Other Film	Other film bags not elsewhere classified and other plastic film products. Film that is heavily contaminated with food, liquid or grit during use (including baggies, Ziploc bags and plastic wraps); is woven together (e.g., grain bags); contains multiple layers of film or other materials that have been fused together

Category	Description
	(e.g., potato chip bags). Includes drink pouches made of multi-layer film plastic and including foil.
Metal	
Aluminum Cans	Aluminum beverage and food cans and bi-metal cans made mostly of aluminum. Includes removed aluminum lids.
Aluminum Foil / Containers	Aluminum food containers, trays, and foil.
Aluminum Other	Aluminum products and scrap that are 50% or more aluminum by weight, such as window frames and cookware.
Other Non-Ferrous	Non-aluminum not derived from iron, to which a magnet will not adhere, and which are not significantly contaminated with other metals or materials. Includes copper, brass, lead, stainless steel, zinc.
Ferrous Containers / Tin Cans	Steel food containers, including bi-metal cans mostly of steel. Includes removed steel lids.
Empty Aerosol Cans	Empty, mixed material/metal aerosol cans. (Aerosols that still contain product are sorted according to that material-for instance, solvent-based paint.)
Other Ferrous	Ferrous and alloyed ferrous scrap metals to which a magnet adheres, and which are not significantly contaminated with other metals or materials. Includes ferrous metal caps/lids to containers of other material types.
Other Metal	Items that are predominantly metal with other materials attached such as motors, insulated wire, and finished products containing a mixture of metals, or metals and other materials, that are not classified as an appliance. Includes piece of white goods. Included certain non-computer insulated wiring such as holiday light strands if the wiring is half or more of the weight.
White Goods / Appliances	Appliances made predominantly of ferrous metal (steel) and stainless steel). Appliances such as washers, dryers, stoves, refrigerators, dishwashers, etc. Toasters, microwave ovens, power tools, curling irons, and light fixtures.
Glass	
Glass Bottles and Jars	Manually sortable, recyclable bottles and jars that are greater than 2" x 2"
Other Glass	Window glass, mirrors, light bulbs (except fluorescent tubes), decorative glassware (e.g., vases), decorative glass bottles

Category	Description
	(e.g. perfume bottles), drinking glasses, other non-container glass.
Organics	
Yard Waste	Any plant materials from a yard or garden area, including grass clippings, leaves, weeds, garden wastes, pruning, trimmings, limbs, stumps, etc. Includes cut flowers and house plants.
Food Waste	Vegetative and non-vegetative food wastes and scraps. Includes vegetative food wastes as well as bones, shells, husks, rinds, etc. Excludes food containers, except when container weight is not appreciable compared to the food inside and separation is not practical. Includes vitamins and supplements.
Other Organics	Other organics not classified. Vacuum cleaner bags contents
Diapers / Sanitary Products	Diapers and sanitary products made from a combination of fibers, synthetic, and/or natural, and made for the purpose of single use. This includes disposable baby diapers, adult protective undergarments, and feminine hygiene products.
Textiles / Leather	Clothing and non-clothing textiles such as fabrics made of rag stock fabric materials including natural and synthetic textiles such as cotton, wool, silk, woven nylon, rayon, and polyester. Includes handbags, linens, draperies, tablecloths, nylon rope.
Shoes/Rubber/Leather	Finished products and scrap materials made of natural and synthetic rubber, such as bathmats, inner tubes, rubber hoses, foam rubber, tire pieces, latex gloves. Leather jackets, belts, bags, purses. Shoes, sneakers, sandals, and boots.
Carpet/Padding	General category of flooring applications and non-rag stock textiles consisting of various natural or synthetic fibers bonded to some type of backing material. Includes traditional mattresses made of a combination of foam and metal coil construction with upholstered exterior.
Furniture/Bulky Items	Mixed-material furniture such as upholstered chairs. Furniture that is made purely of one material, such as plastic or metal would be categorized according to that material (e.g., plastic products or other ferrous metal).
Special Waste	
Electronics / TVs / Computers	VCRs, digital video recorders, DVD players, digital converter boxes, cable or satellite receivers, electronic or video game

Category	Description
	consoles. Radios, Stereos, Tape Decks, Cameras, GPS devices, cell phones, calculators. Computer monitors and other items containing cathode ray tube. Includes flat screen monitors, laptops, and Televisions. Flat screen TVs. Other computer equipment. Computer cords and regular extension cords.
Batteries	Wet and dry cell batteries. Includes lead-acid batteries, cell phone, button, and various sizes and types commonly used in households.
Fluorescent tubes and bulbs	Fluorescent tubes and compact fluorescent light bulbs (CFL).
Medical Waste / Pharmaceuticals / Syringes	Syringes, IV bags, medical tubing, bandages, gauze, diabetic strips, and needles.
Paint	Latex Paint. Solvent-based paints, varnishes, and similar products. Various solvents contaminated with other products such as paints, degreasers and some other cleaners if the primary ingredient.
Pesticides / Herbicides	Variety of poisons with the purpose of discouraging or killing insects, weeds, vermin, or microorganisms. Fungicides and wood preservatives, such as pentachlorophenol, are also included.
Automotive fluids	Antifreeze, oil
Used Oil Filters	Metal oil filters used in cars and other automobiles.
Other HHW	Water or Oil/resin/volatile solvent-based glues and adhesives, including epoxy, rubber cement, two-part glues and sealers, and auto body fillers. Mercury laden wastes such as thermostats, thermometers, and other items. Fire extinguishers and other compressed gas cylinders. Other caustic acids and bases whose primary purpose is to clean surfaces, unclog drains, or perform other actions; photography chemicals, chemistry sets; household disinfectants and pool chemicals; gasoline/diesel fuels; motor oils and automotive fluids not elsewhere classified; smoke detectors, explosives.
Treated Wood	Wood that has been treated with paint, stain, or pressure treated.
Tires	Various tires of all types. Inner tubes and put into the rubber category.
Construction & Demolition	



Category	Description
Clean Wood / Pallets and Crates	Untreated, milled lumber commonly used in construction for framing and related uses, including 2 x 4's, 2 x 6's.
Composite / Other Wood	Predominantly wood and lumber products that are mixed with other materials in such a way that they cannot easily be separated. This includes wood with metal, gypsum, concrete, or other contaminants.
Gypsum	Calcium sulfate dehydrate sandwiched between heavy layers of Kraft-type paper. Also known as drywall. This category includes drywall that has not been painted or treated in other ways.
Rock / Concrete / Bricks	Rock gravel larger than 2" in diameter, Portland cement mixtures (set or unset), and fired-clay bricks.
Ceramics	Finished ceramic or porcelain products such as toilets, sinks, cups, and dishware.
Fines / Dirt	Contains mixed fines smaller than 2" in diameter, including floor sweepings from construction sites and other inorganic waste.
Other Construction Debris	Construction debris (other than predominantly wood) that cannot be classified elsewhere.

# Profile 4: Identifying Wastes

Use Profile 4 as a worksheet, estimate what percentage each material comprises of your daily waste stream. Be aware that the identification list might not include everything you find in your waste. There is room at the end of the list to add other categories.

Each material category sorted should have a container to collect the sorted waste into. Containers need to be labeled and stay consistent to the material being sorted. Record the weight of the empty container in the column labeled "Weight of Container". After waste is sorted weigh the container and sorted waste and record the weight in the column "Sorted Weight." To determine the weight of only the sorted material, use this sample calculation and record the weight in the column "Material Only Weight".

Sample Calculation:

$$\text{Sorted Weight} - \text{Weight of Container} = \text{Material Only Weight}$$

For example, if the container weighs 3 pounds and the sorted material weighs 7 pounds the material only weighs 4 pounds.

Major Waste Fractions	Waste Component Categories		Weight of Container (pounds)	Sorted Weight (pounds)	Material Only Weight (pounds)
Paper	1	OCC (Old Corrugated Cardboard)			
	2	Mixed Paper			
	3	Poly Coated Paper / Aseptic Containers			
	4	Unrecyclable Paper			
Plastics	5	#1 Plastics - Bottles/Jars			
	6	#2 Plastics - Bottles/Jars			
	7	#1 Plastics - non-bottle			
	8	#2 Plastics - non-bottle			
	9	Cartons			
	10	Plastics - Mixed Rigids			
	11	Plastics -Bulky Rigids			
	12	#5 Plastics			
	13	Plastic Film			

Major Waste Fractions	Waste Component Categories		Weight of Container (pounds)	Sorted Weight (pounds)	Material Only Weight (pounds)
Metals	14	Aluminum Cans			
	15	Steel Cans			
Glass	16	Glass			
Bulky Items	17	Bulky Items – Furniture, Appliances, C&DD, Pallets			
Organic Material	18	Food			
	19	Yard Waste			
	20	Compostable Paper			
Tanglers	21	Hoses, Wires, Cords, Chains, Electronics			
Textiles	22	Clothing & Textiles			
Trash	23	Diapers, Styrofoam, Dead Animals, Yard Waste, HHW Materials (lightbulbs, batteries)			

# Profile 5: Audit Quantification

Use Profile 5 to quantify the amount of waste disposed monthly per material. List the material in the first column. Record the pounds weighed of the material only weight (see Profile 4 worksheet). (Note this is weight of material only, not container and material.) Then multiply based on service level. If the waste sorted was over a one-week audit period, the multiplier would be 4 (each week of the month) to calculate a total monthly weight of material disposed. If the service is picked up more frequently the waste audit period may be less than a week. An adjustment would need to be applied to determine the full week of waste disposed.

If the weight was too light to measure on the scale and visual volume estimate was made. Then first multiply the gallons or cubic yards by a conversion factor to determine the pounds. Once the pounds are calculated use the same step as above to calculate a monthly weight of material disposed.

To calculate the percent of material in the waste stream divide each material monthly weight by the monthly total to give you the percent of that material.

Sample Calculation:

$$\text{Cardboard Monthly Weight} / \text{Total Monthly Weight} = \text{Percent of Cardboard in Waste Stream}$$

For example, if cardboard monthly total is 100 pounds and the total monthly weight of trash is 1,000 pounds the percent of cardboard in the waste stream is 10%.

Material	Disposed Per Week (cubic yards or pounds)	Conversion to Pounds	Weight Per Month (weekly disposed x 4)	Percent of Material in Waste Stream

Material	Disposed Per Week (cubic yards or pounds)	Conversion to Pounds	Weight Per Month (weekly disposed x 4)	Percent of Material in Waste Stream
TOTAL Monthly WEIGHT				
TOTAL Annual WEIGHT (multiply monthly total by 12)				