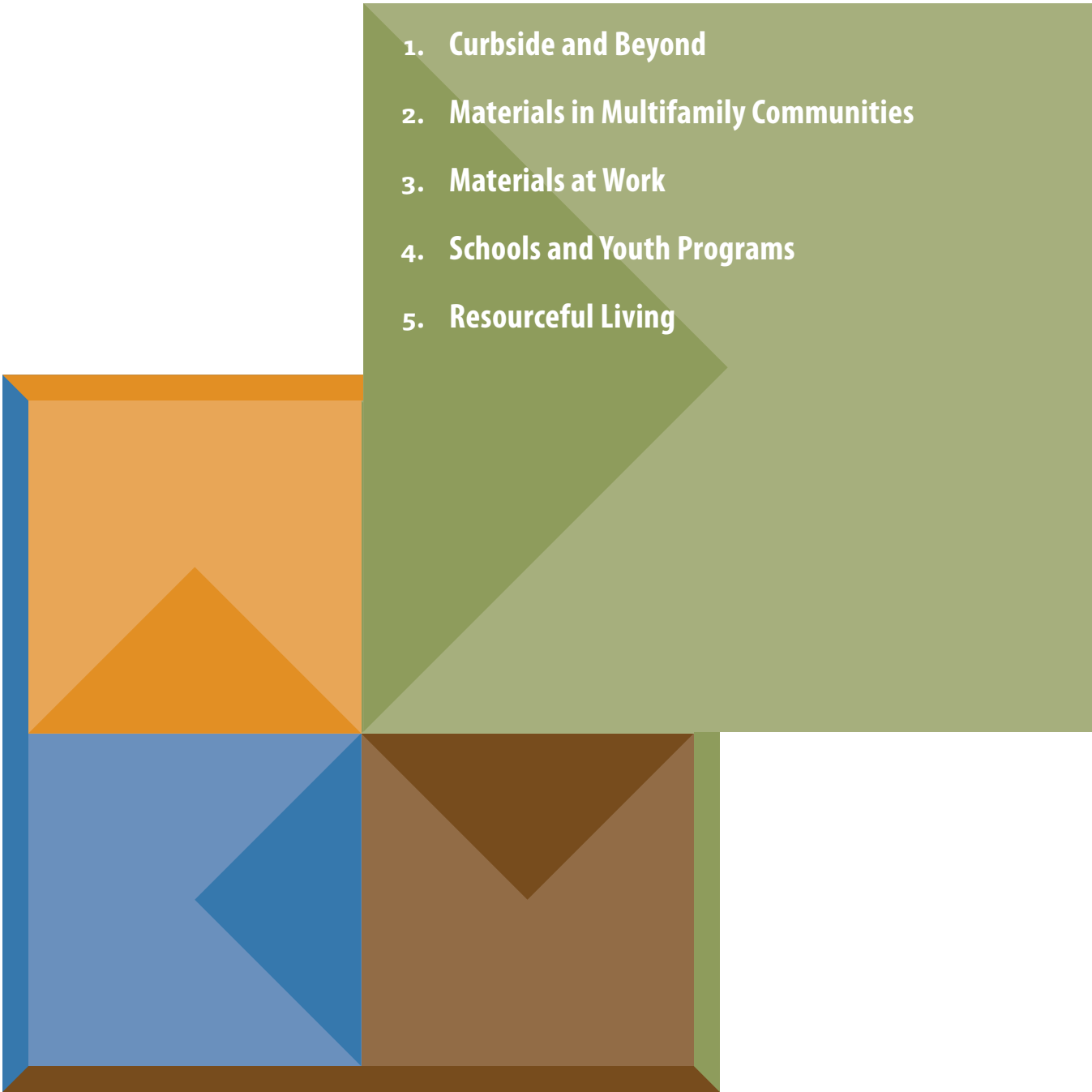

SECTION 2: OUR LIVES

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1. **Curbside and Beyond**
 2. **Materials in Multifamily Communities**
 3. **Materials at Work**
 4. **Schools and Youth Programs**
 5. **Resourceful Living**

How can we be most effective in taking actions in our homes, work, schools and other community gathering places?

CHAPTER 8 CURBSIDE AND BEYOND

- Your curbside collection system
- What is and isn't accepted
- Collection options and best practices within the home
- Food scrap collection and backyard composting
- Who to contact

CHAPTER 9 MATERIALS IN MULTIFAMILY COMMUNITIES

- Beyond the curbside options and cautions
- Opportunities and barriers
- Outreach strategies
- Beyond recycling
- Who to contact

CHAPTER 10 MATERIALS AT WORK

- Take advantage of free available resources and technical assistance
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- Explore places and ideas to reuse, fix and maintain, borrow, rent and share
 - Buy smart by planning ahead, thinking durable and gifting experiences
 - Strategies to engage others in these resourceful living strategies
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CHAPTER 8 CURBSIDE AND BEYOND

INTRODUCTION

We are quite good at recycling in the metropolitan area

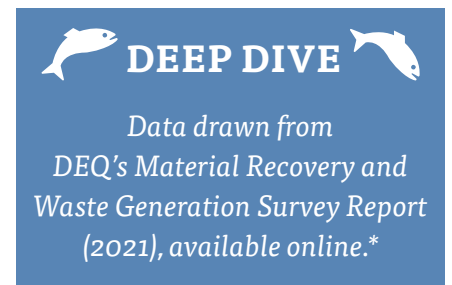
People in our region consider themselves recyclers. No matter the socioeconomic background or race, whether an apartment, fourplex or house dweller, residents resoundingly answer 'yes' when asked if they recycle.

The result of a motivated public combined with a good system is a recovery rate of 37.7. That means 2.4 million tons of material were returned to manufacturers so they can be reused again.*

There is, however, still more work to do. A 2014 Metro study showed that about 14 percent of curbside recyclables were still in the garbage. This means that about 36,000 tons of curbside recyclables, including paper, plastic bottles, aluminum cans and glass containers, are disposed of in garbage carts each year.**

Along with getting more recycled, we learned in previous chapters that recycling needs to be free of garbage in order to be useful for manufacturing. Metro's study found that about nine percent of what people put in their recycling doesn't belong there. That means that processors have to deal with about 9,000 tons of contaminants a year.

Metro, cities and counties work together with local collection and sorting facilities to improve the systems so that we can maximize recycling and minimize contamination. Master Recyclers are an important part of this work because you can help your friends, neighbors and coworkers understand how to best use this system.



DEEP DIVE

*Data drawn from
DEQ's Material Recovery and
Waste Generation Survey Report
(2021), available online.**



DEEP DIVE

*To see the report look for Single-
family recycling and waste
composition studies 2014-15.***



Curbside education table at Washington Square Mall.

As individuals, we can move our community from being good at recycling to being really great at it. This chapter explains the residential curbside collection system for houses, duplexes, triplexes and fourplexes and how to make the most of it.

The accepted materials for recycling in single-family homes and apartments are the same. But because the collection systems are different, larger unit settings are the subject of the next chapter.

As a Master Recycler you will want to be familiar with both types of housing and their collection systems so that you can answer questions for everyone.

This chapter will also discuss tips and tricks that can be implemented inside any type of household and dive into ways to recover material above and beyond what the curbside collection system can accommodate. These sections will be relevant to people who live in houses or apartments and townhouses.

HOUSE OR SMALLPLEX COLLECTION SERVICE

The five components of your curbside collection system

In addition to understanding the five components of curbside collection systems, it is also important to realize that the entire service bill depends on the size and frequency of pickup. Given this, choosing the right size containers and the right pickup schedule can save substantial money.



1. Garbage – Garbage and recycling companies usually provide roll carts, but some customers still have their own containers. Standardized garbage cart size options vary throughout the region. Call your garbage company to find out what is available. Default pickup is weekly in most parts of the region. Portland is an exception, where default garbage pickup is every-other-week. There are options for most customers in the region to have garbage picked up monthly or even on-call. After a special occasion when you have more waste, you can set out an extra bag or can of garbage on your regular collection day for a small fee.



2. Mixed recycling – Companies provide standard roll carts that are usually about 60 gallons and vary in color throughout the region. Standard pickup varies throughout the region between weekly and every-other-week. Smaller containers are available for tight spaces in some parts of the region. Some rural parts of the region have bins instead of carts.



3. Glass recycling – Companies provide a curbside bin that varies in color throughout the region. Standard pickup varies from weekly-to-every other week and a few cities have monthly standard pickup. In areas where bins are still in use for mixed recycling, residents must use a separate bin or rigid container like a bucket for their glass.



4. Yard debris and food scrap compost – This container varies the most in the region. Some rural areas do not have yard debris pickup; some services provide roll carts; some use customer-provided carts; and some accept paper craft bag containers of extra yard debris. Standard container size is 60 gallons, but some cities allow for smaller containers for tight spaces. Frequency is usually every week in service programs throughout the region, although some cities in Washington County pickup only every other week. In Beaverton, Cornelius, Durham, Forest Grove, Gaston, Hillsboro, King City, Lake Oswego, Milwaukie, North Plains, Portland, Sherwood, Tigard, Wilsonville, and unincorporated urban Washington County you can include food scraps.



5. Motor oil – The customer must place used motor oil in a clear one-gallon or smaller container with a twist lid next to one of the other containers. Clackamas County does not require that the container be clear. Motor oil collected at the curbside is not necessarily recycled. Call Metro's Recycling Information Center to find out where you can take motor oil for recycling.

Who to contact?

Multiple agencies, companies, and organizations share responsibilities for different aspects of the curbside collection system. It is helpful to understand these roles so you can help people find the right information. Below we explain how responsibilities are shared and who to contact for questions or services.

Garbage and Recycling Company

- To set up service. (Portland and Beaverton landlords must set up service in the owner's name.)
- To learn your pickup schedule, options and rates.
- To report a missed pickup and lost or stolen containers.

Find your company on the side of your provided roll carts or bins, go to Metro's *Find your hauler* webpage or call your local jurisdiction.

City or County Solid Waste and Recycling Program

- To find the garbage and recycling company in your area.
- With questions about garbage, recycling and composting.
- With a dispute with your garbage and recycling company.
- In Portland and Beaverton, report a rental unit without garbage, recycling and composting service. (Rental property owners are required to provide service for their tenants.)
- In Portland and Beaverton, for help if your garbage service has stopped due to the landlord's non-payment of the bill or the service is not meeting the minimum standard for tenants.
- In Washington County, to report abandoned or accumulating garbage.
- To sign up for collection schedule email reminders and mobile calendar options where available.

Find your local jurisdiction on Metro's *Your home recycling collection service* webpage or call Metro 503-234-3000.

Metro

- With garbage and recycling questions.
- About reuse, waste reduction and recycling of non-curbside items, such as many plastics.
- For transfer station locations, rates and hours.
- To find disposal options for items not accepted through curbside collection, such as computers, monitors and TVs, hazardous waste, needles, chemicals and compact fluorescent light bulbs (CFLs).

Online: Metro's *Find a recycler* webpage. 503-234-3000, askmetro@oregonmetro.gov

CURBSIDE COLLECTION MATERIALS YES/NO LISTS

- Every container has an important role to play to help us all recover as much material as possible.
- Even the garbage can is important. It keeps our recycling and compost free of materials that do not have viable markets, that degrade the more valuable materials, or that cause problems in sorting.
- Some materials don't even go in the garbage and must be taken somewhere special by residents.
- All accepted materials and preparation of those materials for garbage and recycling are the same wherever you live in the region. **Items that are bolded may have a non-curbside alternative.** You can call Metro's Recycle Information Center at 503-234-3000 or look the item up on the Metro's *Find a recycler* webpage to learn more.

Curbside Garbage

PUT THESE IN YOUR GARBAGE CONTAINER



- paper plates, coffee cups, frozen food boxes, and takeout containers and wrappers
- pet food bags
- facial tissue
- Styrofoam™
- **plastic bags**
- Used paper towels, napkins, tea bags, coffee filters and pizza delivery boxes (In Beaverton, Cornelius, Durham, Forest Grove, Gaston, Hillsboro, King City, Lake Oswego, Milwaukie, North Plains, Portland, Sherwood, Tigard, Wilsonville, and unincorporated urban Washington County these can go in your compost cart)
- plastic containers labeled compostable
- **rigid plastics including clamshells, Tupperware®, Rubbermaid®, and other reusable dishware**
- painted or stained wood and plywood
- broken toys
- incandescent light bulbs
- **windows**
- Empty motor oil and pesticide containers

PLACED IN SEALED CONTAINER

- **kitchen fats, cooking oil and grease**



MUST BE BAGGED

- pet waste and cat litter
- diapers and feminine hygiene products
- ashes and sawdust
- **packaging peanuts**
- drinking glasses, flower vases, glass candle holders, pyrex, and eye glasses

KEEP THESE ITEMS OUT OF YOUR GARBAGE CONTAINER

- computers, monitors, TVs, printers, keyboards and mice (search online for DEQ's Oregon E-Cycles program to learn where to take these)
- hazardous waste, propane tanks and compact fluorescent light bulbs (CFLs)



Curbside Recycling | All items must be rinsed and free of food. Do not smash items.

PUT THESE ITEMS LOOSE IN YOUR RECYCLING ROLL CART UNLESS OTHERWISE INDICATED

Paper

- newspapers, magazines, catalogs, phone books
- cardboard boxes, flatten and cut to fit inside the cart or bin, do not bundle with twine or tape
- scrap paper and junk mail (mail, envelopes, fax paper, greeting cards, paper egg cartons, paper tubes, wrapping paper, tissue wrapping paper and cereal boxes)
- cartons: milk, juice, soup, and soy milk, aseptic boxes no need to smash
- shredded paper, must be in paper bag



Plastic (there are only 4 shape and size categories of plastic accepted)

- bottles with neck (6 oz. or larger)
- yogurt or margarine-like round containers (6 oz. or larger)
- plant pots (4 in. or larger)
- buckets (5 gal. or smaller)



Metal

- aluminum trays, pie plates, foil (make into a ball)
- tin and steel food cans (do not flatten, labels are ok, put lid inside can)
- empty, dry, metal paint cans (put lid inside)
- empty aerosol cans
- scrap metal smaller than 2 inches can go loose in the recycling cart or inside food cans and crimped closed (metal lids, bottle lids, screws, nails)
- metal must be smaller than 30 inches and weigh less than 30 pounds



GLASS RECYCLING BIN

Glass bottles and jars only

- mix all colors together, labels are ok



KEEP THESE ITEMS OUT OF RECYCLING

- coffee cups, freezer boxes, food soiled paper or takeout containers
- plastic bags, clamshells or lids
- tire chains or propane tanks
- light bulbs, drinking glasses, flower vases, ceramics, dishware, cookware, mirrors, windows or picture frames, or broken glass



Curbside Compost Collection

Some parts of the region do not have yard debris collection service. These lists are for 1-4 unit residential urban settings only. See the commercial and multifamily chapters to learn what to do with organics in those settings.

THESE ITEMS CAN GO IN YOUR COMPOST CONTAINER OR BACKYARD COMPOST

- weeds, leaves, vines, and grass
- small branches (less than 4 in. thick and 36 in. long)
- flowers
- house plants
- plant clippings
- pumpkins, windfall fruit and other vegetables from garden



FOOD SCRAPS CAN BE INCLUDED IN LIMITED AREAS IN THE REGION

In Beaverton, Cornelius, Forest Grove, Gaston, Hillsboro, King City, Lake Oswego, Milwaukie, North Plains, Portland, Sherwood, Tigard, Wilsonville and unincorporated urban Washington County you can also place these items in your curbside compost container, **bolded items can also go in your back yard compost.**

- meat, poultry, fish, shellfish, bones and shells
- eggs, eggshells, cheese, dairy products
- bread, baked goods, pasta, rice, beans, nuts, and seeds
- **coffee grounds**, filters, and tea bags
- **vegetables and fruit**
- paper napkins and paper towels
- pizza delivery boxes
- food preparation scraps, plate scrapings, leftovers, and spoiled food
- kitchen pail liners: newspaper, paper bags, approved compostable plastic bags



KEEP THESE ITEMS OUT OF YOUR COMPOST CONTAINER

- | | | |
|--|---|---|
| <ul style="list-style-type: none"> • large amounts of grease, cooking oil and liquid • ashes • dirt, rocks, and sod | <ul style="list-style-type: none"> • lumber, treated wood, sawdust, and stumps • pet waste • large branches (more than 4 in. thick or 36 in. long) | <ul style="list-style-type: none"> • corks • even if a plastic product says compostable, please leave it out • food scraps (unless you live in a city participating in food scraps collection) |
|--|---|---|



CURBSIDE BATTERY COLLECTION

Improperly disposed batteries in the garbage or recycling are known to cause fires at our local material recovery facilities, transfer stations, and garbage and recycling trucks. In response to this danger, the cities of Banks, Beaverton, Durham, Gresham, Hillsboro, King City, North Plains, Sherwood, Tigard, all of Clackamas County and cities within, and all unincorporated Washington County have started single-family curbside collection of batteries.



What batteries are accepted?

The proper identification of batteries poses a major challenge to their proper disposal. Some batteries (such as lithium-ion batteries) are more dangerous than others. Make sure to read the battery, as it will often say what type it is.

Accepted	Not Accepted
<ul style="list-style-type: none"> Alkaline batteries (often identified by the words heavy duty, super-heavy duty, alkaline, carbon zinc, 0% mercury, mercury free, or dry cell). The below batteries are accepted but their ends must be taped to reduce fire risk: <ul style="list-style-type: none"> 6-volt -- 9-volt batteries. Button cell batteries (like hearing aid and watch batteries). Lithium batteries. Rechargeable batteries (ex. Li-Ion, NiMH, NiCD). Battery packs (like laptop and cellphone batteries). 	<ul style="list-style-type: none"> Battery back-up (UPS) units. Lead-acid batteries (ex. vehicle batteries). Batteries that do not fit in the 1-quart bag. Damaged, defective, or recalled batteries.

How to include the batteries:

Step 1: Tape the end of batteries that require taping.

Step 2: Place batteries in a 1-quart, zip-sealed, clear plastic bag.

Step 3: Place the plastic bag in your glass recycling bin for collection. If your bin is full of glass, place the bag on top.



Battery safety tips:

- Batteries should be placed in a cool, dry area away from potential heat sources, flammable materials, and metals.
- Damaged batteries should be placed immediately in an absorbent, nonflammable material such as kitty litter or sand and taken to a Household Hazardous Waste Facility. If the material starts to smoke or combust, call 911.
- Never remove embedded or built-in rechargeable batteries. Some rechargeable batteries are not designed or intended to be removed. Take these items to a Household Hazardous Waste Facility.

SPECIAL RECYCLING SERVICES

Sometimes the social, economic, and environmental costs of recycling a particular product can outweigh recycling's benefits. These issues are some of many considered before an item is included on the regional "yes" list. We don't just want to recycle, but recycle responsibly. After all, "Reduce, Reuse, Recycle" is in that order for a reason.

However, not every item is avoidable, and the different lives we lead often dictate how much time and effort we can put into avoiding certain packaging. Many recyclers like to go above and beyond by bringing their non-curbside recycling to drop-off locations and special collection events. This has also given rise to a growing interest in the collection of non-curbside recycling directly from homes through subscription services. These services have caused conflict throughout the region as local jurisdictions debate whether subscription collection services fit within our region's rules and regulations for our franchised collection systems.

The services offered by James Recycling and Ridwell collect materials at homes within the territory of these garbage and recycling companies and outside of established standards and fees. For all intents and purposes, this activity violates long-standing administrative City of County ordinances throughout our region.

The reaction by local jurisdictions to this rule violation has varied. The City of Portland amended city code to allow for these services. Other jurisdictions responded by working with their franchised collection companies to offer the service Recycle+.



James' Pick Up

James Recycling is primarily known throughout the region for its collection events, but it also has James' Pick Up, which includes the collection and sending to markets many of the items not included in curbside recycling. This service is currently limited to the Bridlemile neighborhood in Southwest Portland.

Ridwell

Ridwell is a monthly subscription recycling service that will collect at your doorstep items currently only recyclable through a recycling depot for a fee. Currently, Ridwell operates in Beaverton, Hillsboro, Lake Oswego, Milwaukie, Portland (except for the Pearl District), Sauvie Island, Troutdale, Tualatin, and West Linn.



Recycle+

Recycle+ is a similar, on-call service provided by many local collection companies. To learn more, visit your local jurisdiction's or collection company's webpage. This service is currently offered in urban unincorporated Clackamas County, urban unincorporated Washington County, Beaverton, Durham, Gladstone, Gresham, Happy Valley, King City, North Plains, Oregon City, Sherwood, and Tigard.





RENTAL HOUSES OR SMALLPLEX

Unlike elsewhere in the region where renters can set up their own service, in Portland and Beaverton, landlords of houses and smallplexes (2-4 units) are required to directly pay for and provide adequate curbside collection service. In Beaverton, a rental agreement can override this requirement. In Portland an agreement cannot override the requirement.

The minimum required service is 20 gallons of garbage per unit collected every-other-week in Portland and weekly in Beaverton. Landlords may decide to provide service with larger garbage containers, but they may not change the frequency or provide less than one 20 gallon container per unit. Landlords are also required to provide containers for recycling and composting.

Landlords in Beaverton can apply for an exemption and haul materials from the rental themselves. Portland landlords cannot opt out of providing service for tenants.

Tenants moving into a home or smallplex in either of these cities should talk with the landlord or property manager to set up garbage service. If service is shut off because the landlord did not pay the bill, tenants can contact the City of Portland, 503-823-7202, wasteinfo@portlandoregon.gov or City of Beaverton, 503-526-2665.



PET WASTE

The eggs of certain roundworms and other parasites found in pet waste can linger in your soil, putting your children and pets at risk of exposure while gardening, playing sports or walking barefoot. Pet waste on the ground also contributes to runoff that pollutes waterways.

Always pick pet waste up and dispose of it in a bag in the garbage. Bagging waste protects garbage collectors and sanitation workers from harmful bacteria. Never put feces or litter in your home compost bin. Avoid utilizing the sewer system, as that system was designed to break down bacteria specific to human beings.

GETTING THE MOST OUT OF YOUR CURBSIDE SYSTEM

Understanding options for container size and collection frequency can help you save money and recover the most materials possible.

Right size your containers and frequency

You have all kinds of options!

Many people think that the standard service is the only service. The curbside collection system throughout the region was designed to balance overall system costs to the rate payer and incentives to recycle and compost.

Explore a few of these ideas to fit your household needs, help the environment and save money.

- **Learn all of the collection options in your area:** Contact your garbage and recycling company.
- **Size options:** Most parts of the region have about 4 size options for garbage and some cities even have a couple of size options for recycling and yard debris. People who live in tight quarters prefer smaller containers. Smaller containers for garbage also reduce the bill. Recycling and compost container sizes do not affect the bill.
- **Frequency of pickup:** Most programs also offer variations on how often garbage containers are picked up including monthly or on-call options. Recycling and yard debris pickup frequency changes are not an option except on-call in some cases.
- **Right size your container and frequency:** Watch over several months to see if any of the containers are regularly over- or under-full and make changes accordingly. You cannot change your service more than once in a year.
- **For the occasional extra garbage:** Many areas require the haulers to provide extra pickup service. There is a fee for this extra service, but during a party or the holidays this one-time fee makes it so you don't have to set up your regular service to meet the capacity of the largest events of the year.
- **Set compost containers out every pickup time:** This helps avoid odors and vermin.
- **Set recycling out when the cart is mostly full:** This reduces the number of stops for the collection driver.

RIGHT SIZE YOUR GARBAGE CONTAINER





CHANGES INSIDE YOUR HOME

Much of the activity related to recycling and composting doesn't happen out on the curb. It happens in our kitchens, bedrooms, family rooms, home offices and bathrooms. Strategies that create easy ways to separate waste right where it is generated in the house will increase the chance that things get to the right cart out on the curb and ultimately get recovered.

Walk through the house and ask yourself, "Is it as easy to recycle in this room as it is to throw things away? Are there certain recyclables that are getting tossed in some rooms but not others?"

Buddy system

One principle for good recycling is to provide a recycling container everywhere there is a garbage can. Even in the most motivated households, if you only have a garbage can in place, recyclables may get tossed in the garbage. If you only have a recycling container in place, garbage might end up in your recycling. Signs can help. You can ask your local jurisdiction for stickers or signs for your containers. Fix them or post them where they are visible.

It is also important to check the two containers to ensure that materials are in the right containers. People often make decisions about which container to use by looking into the container and seeing what is already there rather than reading signs or asking questions. One person's mistake can quickly become a household norm.

How clean is clean?

Rinse containers clean of food before you put them in recycling. That way containers do not leak onto paper recycling, and food does not attract rodents at the recycling facilities and shipping containers. They do not have to be sanitary enough to eat from, though. You do not have to use hot water to rinse them. Flower pots should be free of dirt. Paper products, cardboard and aluminum foil should not have any food or grease on them.

Making decisions about what goes in

Folks in our region are such motivated recyclers that some of the bigger recycling problems come from the wishful recyclers rather than missed recycling opportunities. When people do not understand where materials are going they will err on the side of recycling mystery items.

But the lists that are distributed in the community are well thought out, and based on discussions with recyclers and processors. It is important that only the materials that recyclers can use and processors can sort get in the recycling and compost containers. Just think about the huge volume

of materials they are processing. Workers and machines will not be able to take the time to look at each and every item.

What should you do if you don't know whether something should go in or not?

YES:

Check RecycleOrNot.org to look for the item. Don't see your item on the lists? Ask Metro 503-234-3000 or askmetro@oregonmetro.gov or send a photo of your item to @recycleornot.

NO:

Do NOT read the label of the container to determine if it is recyclable or compostable. Packaging labels can be misleading. They simply cannot ensure consistency with the varying rules of the multiple jurisdictions throughout the country.

WHEN IN DOUBT, THROW IT OUT.

RecycleOrNot.org



Household education

Once you know that your system is well set up, have a conversation with the whole household about how to use the system. If some in the house are less motivated to sort materials, aim for the easiest materials and the important *no list*. Let guests know how to use the system, as well. You can request Yes/No information and materials from your local jurisdiction to post next to containers inside the house.

Don't miss your garbage or recycling day again

Residents in Portland and Washington County can sign up for notifications to keep track of garbage and recycling pickup schedules. With the free tools, you can:

- Receive collection-day reminders by phone, email or text.
- Look up your garbage and recycling schedule.
- Print your collection calendar at home.
- Sync your collection schedule with your digital calendar.
- Get notified about schedule changes due to weather and holidays.
- Look up how to recycle or dispose of items.
- Get information on your mobile devices through the Garbage and Recycling Day app (Washington County) or Portland Garbage Day Reminder app. Both are available on Apple and Android.

Say NO to junk mail and phone books

Tired of filling your recycling container with mail you never even opened?

Metro's *Stop Junk Mail* webpage provides post cards and contacts to notify marketing firms that you want to stop their mailings. You can also get the kit from the Metro Recycling Information Center 503-234-3000. Here are some more tips to reduce junk mail:

- Contact catalogs and companies that send unwanted mail directly. Give the name and address exactly as it reads on the envelope.
- When unwanted mail comes with a postage-paid envelope, use it to return the mailing label along with a written request to remove your name from the organization's mailing list.
- Ask organizations you've donated to and anyone who sends you a bill not to sell or exchange your address.
- If you move, directly contact everyone yourself instead of submitting the post office change of address form.
- Don't submit product registration cards.
- Don't use a store's buyer's club card when making purchases.
- Avoid participating in sweepstakes or contests unless you are able to prevent your information from being shared.
- List only your telephone number in your local directory, or choose to be unlisted.

You can also visit Metro's *Opt out of phone books* webpage to find contacts to opt out of delivery.

MAKING THE MOST OF FOOD SCRAPS

Separating food scraps for composting takes a little getting used to but folks in our region are up for the challenge. This next section was designed for the Beaverton, Cornelius, Durham, Forest Grove, Gaston, Hillsboro, King City, Lake Oswego, Milwaukie, North Plains, Portland, Sherwood, Tigard, Wilsonville, and unincorporated urban Washington County curbside collection of food scraps, but much of it is relevant for backyard composting which you can do anywhere you live in the region. So, even if you don't live in these cities you will find these hints about managing food scraps in your house useful.

Three simple steps for food scrap collection

1. Place your kitchen compost container in a convenient location in your kitchen. You can line your container with approved liners that are listed online. Lake Oswego does not accept compostable plastic bags.



2. Include the food! Collect food scraps while preparing meals, scraping plates and cleaning the fridge of leftovers - every little bit counts.



3. Empty your kitchen container, including the liner, into your compost roll cart as frequently as you like. Place your green roll cart out for weekly pickup.





DEALING WITH THE 'ICK FACTOR'

- Use an optional liner in your kitchen container. You can contain food in an approved compostable bag, newspaper or a paper bag to keep your food scraps from touching the inside of your compost roll cart.
- Line the bottom of your compost cart with newspaper, a paper bag or a pizza delivery box to help absorb moisture.
- Layer yard debris in between your food scraps to reduce odors and to contain messier foods.
- Sprinkle baking soda in your garbage and compost carts to reduce odors and deter insects.
- Store your cart in the shade in warm weather.
- Consider freezing some scraps and emptying them in the cart right before pickup day.
- Use soap and water to clean the compost roll cart. Pour dirty water onto grass or gravel, not down the storm drain.

Want some guidance?

Look online for Portland Composts to learn composting basics, explore kitchen container liner options and get tips on caring for your kitchen compost container and compost roll cart.



Kitchen compost containers

Did you know you can collect food scraps in a variety of containers? To collect food scraps in your kitchen, you can try one of these items you may already have in your household:

- Empty yogurt container and lid
- Tupperware type container
- Lidded pail or bucket
- Anything with a snug fitting lid that will fit under your sink or on your kitchen counter.



Tips for messy, stinky or wet food scraps

- Drain as much liquid as possible from food before putting in your container.
- Wrap the food in newspaper and then place in your container.
- Place food scraps in a container in the freezer and add them to the green roll cart the night before your pickup.
- Empty and rinse out your container frequently, and sprinkle baking soda in it or rub vinegar on the inside of the lid to avoid odors and fruit flies.
- Do not set your kitchen container out at the curb.

Optional kitchen container liners

- Newspaper
- Paper bags
- Approved compostable bags, including:
 - BioBag – *Certified Compostable*
 - EcNow Tech – *Compost Me*
 - EcoSafe – *6400 Line*
 - Glad – *Compostable Kitchen*
 - Natur-Tec – *Natur-Bag Compostable*

Note: These approved compostable bags are designed to break down quickly and safely at composting facilities. Other compostable bags and regular plastic bags are NOT allowed.



TERM

Recycling depots: facilities that accept an array of materials that may not be accepted at the curb, including many plastics.

BEYOND THE CURB

Just because something isn't accepted curbside doesn't necessarily mean you have to throw it away!

With a little extra planning, patience and space to store materials, you can take recovery in your household to the next level.

So far, this chapter has discussed the curbside collection recycling and compost, designed to maximize materials that have stable markets and facilities that can prepare those materials so they can be sent to those markets.

Residents can hand sort materials that machines cannot. If you have the space, you can also hold onto materials that sometimes have markets and sometimes do not. Some materials also have more value if you separate and haul them directly to recyclers who will buy them from you.

As a Master Recycler, you can familiarize yourself with the **recycling depots**, recycling drop off and reuse centers in your area and share them with people in the community.

Because depots accept material that often has a less stable market, it is important to explain to people that accepted materials will change at depots frequently. They should call ahead, read signs carefully and plan to take materials back home with them if they are not currently accepted.

RESOURCE

If there is only one resource you remember as a Master Recycler, it's the Metro Recycling Information Center! They also have bilingual staff ready to answer questions in Spanish. Call 503-234-3000 or consult Metro's Find a Recycler webpage.



Metro's Recycling Information Center (RIC) is an excellent resource to find out where recycling depots are located and what materials are accepted. The RIC live operators can be reached six days a week at 503-234-3000. Metro also maintains a **Find a Recycler** webpage, which lets you search for places that recycle many materials.

Caution for recycling drop off and reuse centers

When using drop-off centers and reuse organizations, it is important to ask questions about what happens to items after you leave them. In the Electronics chapter you will learn that improper practices in the recycling industry have led to human and environmental exposure to toxics in Asia and Africa where they are processed, as well as the potential for your personal data to get into the wrong hands. The reused clothing industry also has a surprisingly negative impact on the environment and on markets around the world.



According to National Public Radio (NPR), the average American discards more than 10 pounds of clothes each year. The EPA states that 13.1 million tons of textiles are landfilled each year. The recovery rate is about 15.3 percent. Several sources state that about half of that is recovered by going to reuse charities. Charities receive so many donations that they can only keep clothes in retail outlets for a very short time. Goodwill reports that they receive one billion pieces of clothing every year. In order to not get backed up, their inventory never stays in their hands more than three weeks. The vast majority is then exported. According to NPR, the United States exports 1,000 tons of used clothes every day. The clothes are sold in bulk for 6 to 12 cents per pound to companies that export the clothes to developing countries. According to Oxfam, about 50 percent of used clothes are shipped overseas to Africa and Latin America. Charities like Goodwill make about \$2 billion in exports every year according to Oxfam.

The assumption is that the clothes help the countries receiving them, but Oxfam and the United Nations want us to think again. In 2002, the UN estimated that tens of thousands of textile workers in Africa had lost their jobs due to the used clothes industry. Alarmed by this trend, the UN encouraged developing nations to ban the sale of used clothes. Thirty countries adopted such bans.

The fundamental cause is that garments are being made so cheaply that they have essentially become a disposable product. They aren't meant to last. So as long as we are hungry for cheap textiles, materials will continue to be pumped through at this alarming rate.

This trend is drastically affecting the livelihood and culture of communities all over the world.

What can we do?

We can take care of our clothes. Wash them on gentle cycles with cold water and low dryer level. Dry them on a clothes line whenever possible to avoid the extreme heat of the dryer that can be hard on clothes. We can also fix our clothes. You can sew buttons on clothes and take tougher jobs down the street to the local dry cleaner.

There will be many more ideas about reuse and waste prevention in the sustainable consumption chapter.

BACKYARD COMPOSTING

Composting is an easy way to manage household organic material (yard debris and some food scraps). Even where there is curbside food scrap collection, the backyard is still the preferred place to do most of your composting because it helps improve local soils and gardens, and can be used as a mulch to control weeds and save water right where you live. Where available, residents can use curbside program for materials you want to keep out of your backyard compost pile, like meat, bones, dairy, eggshells and weeds.



Although some people think it's difficult and requires a great deal of scientific knowledge to do it right, backyard composting is actually quite easy. As a Master Recycler, you can share how easy it is to backyard compost.

This section introduces the four basic ingredients needed for a successful backyard compost pile, do's and don'ts on what to put in your backyard compost, ideas for compost containment, how to use compost, and vermin control methods. The section also discusses how to use a worm bin to compost food scraps.

Four ingredients for a successful compost pile

Whether in a municipal-sized facility or your own backyard, composting takes advantage of nature's decomposition system, in which organisms feed on and break down organic materials. As materials decompose, they generate heat. Then, other organisms begin to participate.

Bacteria start the process. Fungi and protozoa follow. Finally, centipedes, millipedes, beetles and worms finish the job.

These beneficial organisms thrive on a four-ingredient recipe:

1. **Greens (one part)** – fresh grass clippings, green leaves, plant stalks, hedge trimmings, vegetable and fruit scraps, coffee filters and grinds and tea bags.
2. **Browns (two parts)** – old potting soil, dried grass, leaves and twigs, shredded newspaper, straw, and wood chips.
3. **Water** – to keep the pile as damp as a wrung-out sponge.
4. **Air** – provided through regularly turning the pile to allow all of the parts to remain well aerated.

All things rot. You can successfully compost without spending much time thinking about the combination of these ingredients. But the speed at which a pile breaks down depends on the health of the organisms. The more contact the greens and browns have with the water and air, the hotter the pile will get and the faster it will decompose. Attention to this combination will also help avoid some of the problems associated with backyard composting like odor and vermin.

The approaches to backyard composting vary. Some people simply place the materials in a pile or container, regularly watering and turning the contents. This method will produce a harvest about once or twice a year. Others use the hot compost method, where green and brown materials are layered and carefully balanced, and the pile frequently turned. Some home composters successfully harvest from these hot compost piles in as little as six weeks.

Whichever approach you choose, making sure greens and browns are chopped into small parts so that they have more surface area to have contact with the water and air will speed decomposition.

Materials to avoid

Some materials invite vermin, propagate weeds or disease, or produce an odor. These are best in your curbside garbage (G) or yard debris (YD) containers:

- Diseased plants (YD)
- Weeds and seed heads (YD)
- Invasive plants like ivy or morning glory (YD)
- Bread and grains (YD) in Beaverton, Cornelius, Durham, Forest Grove, Gaston, Hillsboro, King City, Lake Oswego, Milwaukie, North Plains, Portland, Sherwood, Tigard, Wilsonville, and unincorporated urban Washington County, (G) in the rest of the region
- Meat, bones, sea and egg shells and dairy (YD) in Beaverton, Cornelius, Durham, Forest Grove, Gaston, Hillsboro, King City, Lake Oswego, Milwaukie, North Plains, Portland, Sherwood, Tigard, Wilsonville, and unincorporated urban Washington County, (G) in the rest of the region
- Pet waste (G)
- Grease (G)



Backyard compost containers

While some choose to use elaborate backyard composting containers or bins, others use simple and inexpensive options.

Turning units allow waste to be conveniently mixed and aerated regularly. They usually have three partitions: one side for greens, one for browns and a middle bin, where the two are layered.

Despite the many, and sometimes expensive, options for containing compost piles, many simply use chicken wire. Others use no container at all, opting instead to (literally!) pile their compostable materials.



Problems that arise in backyard composting are often the result of imbalance in the four essential ingredients. The chart below summarizes the most common difficulties and offers solutions to them.

Troubleshooting compost piles

Symptoms	Problems	Solutions
The heap is wet and smells like rotten eggs. Is attracting rodents.	Not enough air; pile too wet, too much greens.	Turn it; add coarse, dry browns such as straw or corn stalks.
The center is dry and contains tough, woody wastes; never breaks down.	Not enough water in pile. Too much brown, not enough greens. Pieces are too big.	Turn and moisten; add fresh green wastes; chop or shred.
The heap is damp and warm right in the middle, but nowhere else.	Pile is too small; browns and greens are separated; not enough water.	Collect more material and mix; chop pieces and moisten.
The heap is damp and sweet-smelling, but will not heat up.	Lack of greens in pile. Compost is ready to harvest.	Mix in fresh grass clippings or nitrogen fertilizer. Harvest.

Worm composting

No space for a compost pile? Worm composting is an easy and fun alternative to backyard composting. Worms can be used when your yard does not produce enough yard debris for backyard composting. It is also useful when there are space constraints on the property or if you live in an apartment or townhouse. Kids love worms and will often actively participate in this household chore.

Most importantly, worms make the most of our food scraps by eating them and making a nutrient-rich fertilizer for household plants or top dressing for lawns, flower beds and gardens.

To set up a worm bin, you'll need:

- red worms
- a wide and shallow container
- bedding
- fruit and vegetable scraps from your kitchen

Fill the container three-quarters full with moistened bedding. Add the worms. Pull aside some of the bedding and put in some food scraps about once a week, and cover them up with bedding each time. In two to three months, the worms and microorganisms eat the original food waste and bedding and produce rich compost.

The worms

Red worms are recommended because they efficiently process food waste into compost. Regular earthworms and other garden varieties like to burrow deep into the ground and will not survive on the rich organic matter in a worm bin. Red worms are specialized surface dwellers who thrive in very rich organic matter like food scraps.

The amount of worms you need depends on how much food scraps you want them to process. A reasonable guideline to follow is 1/4-1/2 total worm weight in scraps per day. So if you have a pound of worms, they should be able to process roughly 1/4-1/2 lb of food scraps per day.

Keep in mind that red wigglers multiply quickly. You will need to remove worms from time to time or they will overpopulate. It is a great way to finish a presentation on worm bins to raffle off a bin and some worms from your growing population.

You can purchase red worms from local or mail order suppliers or get some from a friend's worm bin. Email: askmetro@oregonmetro.gov or call 503-234-3000 to ask Metro for a list of retail suppliers.

The container

The container should be between 8 and 16 inches deep, with holes drilled in the bottom and sides for aeration and drainage. You can build a wooden worm bin, or use a plastic tub with a lid.

Worm bins can handle about one pound (or one quart) of food scraps per week per square foot of bin surface area. This means a bin with a 1 by 2 foot floor will take about 2 quarts of food per week.

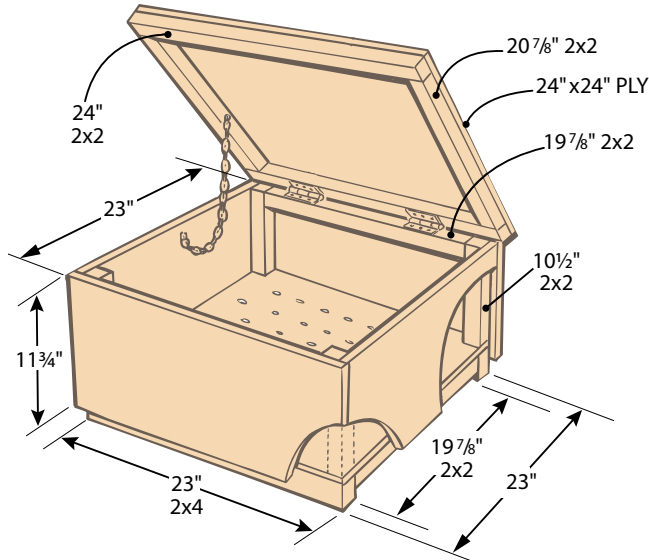
Worm bins need to keep worms moist, dark and not too hot or cold. When temperatures drop below freezing, bins should be moved indoors or be well-insulated. They may be located outdoors, or in the basement, shed, garage, balcony or under the kitchen counter.

You can even make your own worm bin.

Worm bin construction

Wood worm bin

Used mostly for fruit and vegetable trimmings. The bin may require occasional watering. The bin also doubles as a seat. Basic carpentry skills are needed for construction.



side for 2 x 2 uprights. Assemble box by nailing the 1 1/4" overhang of the side walls to the 2 x 2s on the base as drawn. Nail the front and back walls to the 2 x 2 uprights and to the 2 x 4s on the base as drawn. Be sure the hinge support is at the top of the bin.

Lid: Nail lid together as drawn. Attach to box with hinges, making sure to pre-drill screw holes into the 2 x 2s and position hinges as drawn. Attach chain with 1/2" wood screws so lid can rest in opened position.



Plastic worm bin

Used mostly for fruit and vegetable trimmings. It is very easy to build and tidy for indoor use. The plastic bins keep compost moist and will require regular additions of dry bedding.

Materials

1	4 x 4 ft. 1/2" exterior grade non-treated plywood.
3	6 ft., 2 x 2 wood
1	4 ft. 2 x 4 wood
1 lb.	4-penny galvanized nails
2	1/2" wood screws
2	2 inch hinges with Cd screws
1	solvent-free, low VOC, waterproof wood glue

Tools

saw, power or hand
hammer
measuring tape
pencil
square
drill with 1/4" and 3/32" bits
sandpaper

Use proper eye, ear and body protection.

Assembly: Glue all wood pieces before nailing.

Base: Nail two 23 inch – 2 x 4s and two 19 7/8 inch – 2 x 2s to bottom of 23 x 23 inch plywood as shown. Drill at least 24, 1/4" holes for drainage.

Sides: Nail the four 2 x 2 uprights to the two side walls along the 11 3/4" edge, with one end of each 2 x 2 flush with the top edge of the walls. Nail a 19 7/8 inch – 2 x 2 hinge support to the top edge of the back wall piece, leaving a 1 1/2" on each

Materials

1	plastic storage container with a tight fitting lid, measuring 12 to 18 inches tall; 12 x 24" base.
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Tools

power drill with 1/4" and 3/32" bits

Use proper eye, ear and body protection.

Assembly for outdoor use: Drill at least six holes per side for ventilation about one-half to three-quarters of the way up the sides of the bin. Drill at least 12 holes in the bottom of the bin for drainage.

Assembly for indoor use: Drill at least six holes per side for ventilation about one-half to three-quarters of the way up the sides of the bin. To avoid a future mess from moisture dripping out the bottom of the worm bin, you can either forgo drainage holes, or drill drainage holes and use a second plastic storage bin as a catchment tray. If you forgo the drainage holes, be sure to monitor moisture levels and prevent puddling. When moisture content is high, add dry bedding under and on top of the food and worms to absorb excess moisture.

The bedding

Suitable bedding materials include:

- shredded newspaper or cardboard (not magazine pages)
- brown leaves
- straw
- coir (coconut fiber)
- untreated soft-wood sawdust or wood shavings

Setting up and maintaining a worm bin

Fill the bin three-quarters full with bedding that has been moistened so it is as wet as a wrung-out sponge. Add a handful of dirt, crushed eggshells or sand to provide necessary grit for the worms' digestion.

During the course of several months, the worms will eat the bedding. Add more moistened bedding as necessary to maintain the bin at three-quarters full. There should always be about 4 inches of bedding over the worms and compost.

Feeding your worms

When adding food waste to the bin, pull aside some of the bedding and bury the food. Bury successive loads in different locations in the bin.

YES – do feed your worms:	NO – do not feed your worms:
<ul style="list-style-type: none"> • fruit and vegetable scraps (including citrus peels) • coffee grounds and filters • tea bags 	<ul style="list-style-type: none"> • meat, fish or dairy products • greasy or oily foods • breads, grains or dry beans • pet waste (unless it is from a rabbit or chicken)

Harvest your worm compost

Harvest worm compost (also known as worm castings, vermicompost) from the bottom of the bin after several months or when it looks like soil. For small amounts, look for areas in the bin with soil-like compost and few worms and just grab handfuls.

For larger quantities, you can push the contents of your bin to one side and fill the empty half with new bedding, food and some of the active worm compost. Add all new food scraps to this new side for a few months. The worms should migrate over there, leaving pure compost on the side with the older material.



Uses for compost

As a soil amendment: Mix two to five inches of compost into vegetable and flower gardens each year before planting.

As a potting mixture: Add one part compost to two parts commercial potting soil, or make your own mixture by using equal parts of compost and sand or perlite.

As a mulch: Spread an inch or two of compost around annual flowers and vegetables and up to six inches around trees and shrubs.

Top-dressing for lawns: Top-dressing turf areas with compost is recommended to provide a slow release of nitrogen. Mix finely-sifted compost with sand and sprinkle evenly over lawn. Using compost also will improve the condition of your soil and allow for better water retention, which will allow you to use less water.



"I wanted to make sure that I put only what belongs in each cart so that valuable materials get to someone who can turn them into new products."

– Jocelyn

CONCLUSION

Practice at home then share what you learned

Jocelyn is one Master Recycler who learned during the course to get the most out of each container in her collection system. Jocelyn must be doing something right because now she only has to put her garbage out five times a year and when you look in her recycling and compost containers all you see are clean resource-rich materials!

One of the best ways you can be an effective Master Recycler is to try it yourself. Identify new goals for your household that aim to recover more materials and reduce contamination and then share your experiences in the community.

CHAPTER 9

MATERIALS IN MULTIFAMILY COMMUNITIES

INTRODUCTION

Welcome to the diverse world of multifamily recycling!

In the Curbside and Beyond chapter we learned about curbside collection for one to four unit properties as well as best practices that are universal no matter what type of housing you live in. This chapter will focus on the collections systems for multifamily settings, which are defined as five units or more. The chapter will also explore some challenges unique to multifamily properties and strategies that tenants, property managers, local jurisdictions and Master Recyclers can use to address these challenges.

Multifamily communities come in many shapes and sizes: they may be made up of multiple buildings on a single tax lot, a single structure with multiple units, or a property with commercial space on the first floor and housing above. In some parts of the region, micro-apartments with communal spaces are also popping up. Some properties may include five units while others may have 200 or more households. Multifamily housing can include these types of properties:

- Condominiums
- Townhouses
- Apartments
- Moorages
- Manufactured home parks
- College dormitories
- Senior living facilities
- Co-housing communities





Almost half of the residents in the metropolitan region live in multifamily communities. Portland's 5,000 multifamily communities house 40 percent of its population. Washington County's 775 properties house 30 percent of the population, while Beaverton's 264 multifamily communities house 50 percent of the population. In Clackamas County, 25 percent of the population lives in multifamily housing, but in some of its cities the percentages are higher with Lake Oswego at 31 percent, Milwaukie at 41 percent, and Wilsonville at 59 percent.

And this population is growing! In 2014, 80 percent of construction permits in Portland were for multifamily buildings. In Washington County multifamily households increased by 12 percent between 2014 and 2016.

Clearly, with this many people living in multifamily communities, ensuring good recovery programs for this type of housing can have significant impacts.



MULTIFAMILY RESIDENTS AND RECYCLING SYSTEMS

Curbside collection for single family homes can be uniform throughout a jurisdiction because the housing is fairly uniform. Multifamily housing includes a great variety of settings and so the way in which garbage and recycling is stored and collected varies from site to site.

Moreover, multifamily properties typically involve a number of stakeholders. With single family properties, usually the decision maker is the property owner or the renter. With multifamily communities there may be a number of extra players that may affect services. There may be a property manager who manages the bills and communicates with the garbage and recycling company. There may be a homeowner's association that sets rules about container enclosures or pickup services to ensure a specific aesthetic. In some cases such as in dormitories and senior living facilities there are also staff or custodians.

Such a variety of building structures and multiple stakeholders present a situation in which each community needs to be evaluated individually.

Collection services for multifamily communities are generally considered to be commercial accounts by the collection companies and the jurisdictions in which they are located. Except in Portland, the franchise or certificate system dictates which collection company is available to the multifamily community. In Portland, commercial accounts are set up individually, with the property owner choosing a garbage and recycling company based on cost and services provided.

Regardless of which commercial garbage and recycling service a multifamily community uses, the local governments (and thus the haulers that provide the collection service on behalf of the local governments) are responsible for providing recycling services according to Oregon State Law ORS459, ORS459A. In addition, the property managers are responsible for providing residents the opportunity to recycle per Oregon State law ORS 90.318.

Portland and Beaverton have gone one step further to directly require landlords to provide recycling services to their residents through local ordinance. Although other local governments may not have a local ordinance requiring landlords to provide recycling services, they often have adopted rules or code language that requires the haulers to provide recycling services to their multifamily customers. The combination of these hauler requirements and local government assistance programs allows multifamily managers to easily set up a recycling system that works for their community.

On-site collection systems also vary. Most communities use shared garbage and recycling areas with dumpsters and carts or even a compactor. Some multifamily housing has individual carts assigned to each unit. This is often found in single level settings such as manufactured home parks, townhomes and courtyard apartments.

Although collection equipment may vary, the recycling program is the same in multifamily communities as in single-family homes with:

- Mixed recycling containers for paper, cardboard, metals and plastic.
- Containers for glass jars and bottles.

This is also known as a *two-sort* system and can be provided at all multifamily settings regardless of the garbage and recycling company used. Ideally, recycling bins are located near all garbage bins.

Unlike one to four unit properties, motor oil is not collected in multifamily settings. Yard debris is optional and usually not part of the collection system because most multifamily settings utilize landscaping companies that haul yard clippings when necessary. We will discuss how this affects renters' ability to collect food scraps for composting in a later section.

Nearly 90 percent of the region's multifamily households report that they recycle most of the time. So while one of the biggest self-identified challenges from property managers is better recycling, it isn't so much a question of getting residents to recycle, as it is assisting property managers with setting up their systems so they are easy to use. After that it is to recycle correctly.



OPPORTUNITIES

Examining barriers to recycling can be an excellent first step in discovering opportunities for change and improvement. So, what prevents multifamily residents from recycling correctly and consistently?

If you build it they will come and recycle

As we learned in the Behavior Change chapter some barriers to recycling may be very real physical ones. In multifamily settings the most common barriers are physical or structural. Some multifamily communities were built long before recycling was a standard expectation and therefore the enclosures are only designed to have space for garbage collection. This often means that recycling is squeezed in the back of the space, set outside the space or in a completely different building. Some buildings in the region even still have garbage chutes. Recycling must then be carried to a separate location. Cities for the most part, have updated their building requirements to address these problems in newer buildings.

Along with enclosure problems, property managers often do not know how many cubic yards of garbage and recycling is appropriate for their property. A site visit and advice from the multifamily specialist listed later in this chapter can help to overcome these barriers.

Location, location, location

We have learned that the buddy system where garbage and recycling are equally easy to access is an important strategy for ensuring that people recycle. Space inside some multifamily kitchens makes multiple containers for sorting more challenging. Often garbage collection is provided in multiple locations that are easy to access. Meanwhile, recycling containers may be in just one location and less accessible.



This creates a disincentive to recycle as tenants must transport their recyclables to this location. Unfortunately, they often opt to place recycling in a plastic bag which they then place in the recycling container which we have learned is a major problem for recycling processing facilities. Many local jurisdictions now provide durable, light-weight bags as part of their multifamily outreach efforts.

Common ground and social norms

Living in a multifamily community means living a shared life: shared walls, outdoor spaces, parking areas, and garbage and recycling areas. Frequently, residents share other resources as well including water, heat and other utility bills. This collective setting can be a benefit and a barrier to improving recycling. Individuals don't always see the rewards and benefits of preventing waste or conserving water when their personal bills are not significantly affected. However you can improve the recycling situation for hundreds of households at one time. Residents also often know each other, have established lines of communication and can build momentum for new recycling efforts.

Usually the central figure in these communities is the property manager. A property manager can take the lead in educating residents about recycling and sustainable practices and communicate the community expectations from the moment residents apply for housing or purchase a unit. Property managers can thus establish norms about recycling and common space. Working with a group of committed residents, facilitating a green team or working with the property management company to affect behavior change can be a wonderful opportunity for Master Recyclers.



Communication

Poor or out-of-date signage is a common problem that prevents successful recycling even for residents who want to do the right thing.

More people who live in multifamily communities will be linguistically isolated or speak English as a second language. Children who do not yet read, or are not tall enough to see signs, are often the ones tasked with taking out the garbage and recycling. The multifamily programs in the region have all designed signage, brochures and webpages with more pictures than words, color coding, and instructions on good sign placement.

Revolving doors

Another obstacle can arise in communities with high turnover, whether in management, ownership and/or residents. Residents who live in multifamily settings tend to move more often and be the newest members of a community. This may mean that they come with a lack of prior experience living in a city or they know a different recycling system. A constant revolving door at the front office or in management can create inconsistencies and shifts of priorities. Adopting a multifamily community by creating links between the property managers, the garbage and recycling company, and residents is a great way for a Master Recycler to make a difference.

SPECIAL MATERIALS CHALLENGES

Multifamily settings, much like single-family residences, face a number of challenges related to special materials. Fortunately there are resources designed to meet these challenges.

Hazardous waste disposal: Pesticides, batteries, paint thinners and fluorescent light bulbs don't go in the garbage. *Ask Metro* signage is available that tells people to call the Metro Recycling Information Center at 503-234-3000 about hazardous waste collection events and other options for safe disposal. This can help avoid accumulation of these items in waste enclosures. Some property managers will also provide a location for these items and regular pickup in order to avoid improper disposal.

Electronics: Landfills do not accept electronics. The Oregon E-cycles program will provide tenants and property managers information about the nearest location that provides free recycling of computers, monitors and televisions, keyboards, computers and mice.

Holiday waste reduction and tree disposal: Properties can coordinate holiday tree pickup and recycling with Boy and Girl Scout troops and other civic minded groups. Winter is a great time for Master Recycling outreach at community events and multifamily resident meetings with a focus on waste reduction and tree collection! The Metro Recycling Information Center will also provide information about how to reach groups collecting trees.

Bulky waste: When residents move out, they often leave a little (or a lot) behind in the form of abandoned furniture and other household items. This is consistently identified by property managers as the greatest resident-related garbage and recycling challenge. Sometimes the discarded objects even obstruct the regular collection of debris and prevent other residents from using the area. To address this issue, the Metro regional workgroup for multifamily recycling has developed English and Spanish language Resident Move-out Guides. Some creative property managers (and Master Recyclers) are also coordinating quarterly or seasonal clean-ups, yard sales, or community swap areas and bulletin boards to avoid illegal dumping and assist with timely and appropriate disposal.



COMPOSTING FOOD SCRAPS IN PORTLAND

For rentals of one to four units in Portland, landlords are required to provide food scrap compost collection as part of the service. Composting food scraps is optional at multifamily communities. Most properties do not provide this service for their tenants. Many do not even have containers for yard debris because landscaping is managed by a separate company from the garbage and recycling company.

Portland multifamily residents are highly interested in food scrap composting and if you volunteer in this city you will likely be asked questions about why they don't have food scrap composting in their community or how to get it started. Property managers and landlords pay for the services and will need to decide if it is right for their property. Here are some tips for property managers.



Knowing When to Get Started

While composting isn't required, it is increasingly popular with residents. Before a property manager kicks off a composting program at their multifamily property, determine if they are set up for success or whether it's best to hold off.

Evaluate the current system. Composting works best when multifamily residents already manage garbage and recycling well. Evaluate collection at the property to see if the set up needs to be fine-tuned. If problems exist in this area, it is best to focus on improving recycling before taking on the challenges of composting.

Assess interest. Composting is most successful when at least half of the residents will commit to participate. Send an email survey or post a tear-off sheet near the mail-boxes to assess interest at the property.

Think the property is ready?

Here are the next steps for the landlord.

- **Get in touch with the garbage and recycling company.** Together, you can discuss everything you need to get started:
 - Number of containers needed
 - The best location for collecting food scraps
 - Food scrap collection days and frequency
 - Potential costs
- **Update the set up.** Add signage to the collection area that includes food scraps, recycling, glass and garbage. Make sure all collection containers are clearly stickered. Free signs and stickers are available through your local jurisdiction.
- **Contact residents.** Email or post updates to ensure residents know about the new composting program and any changes in service frequency. Order the composting guide and magnets to give to residents and help them compost the right way. Ensure that new residents receive materials as they move in.
- **Define success.** Create a few measures to evaluate the success of food scrap composting at your multifamily property, such as:
 - High resident participation
 - Less garbage collected
 - Increased sense of *doing the right thing*
- **Odor and vermin control.** With a little care, food scrap collection should not increase odor or vermin problems. Don't forget that food scraps are already in the garbage containers. Food scraps should be picked up with the same frequency or even more frequently as garbage. Property managers are responsible for keeping these containers clean. Store the containers outside and out of the sun, whenever possible. Line newspaper along the bottom of the container to help reduce smell. Ask maintenance staff to wash out the container after collection. Check with your garbage and recycling company to see if they clean, line or switch out containers.

MASTER RECYCLER PROJECTS IN MULTIFAMILY COMMUNITIES

The potential for creating better recycling at multifamily communities is huge

Property managers don't always have the time, motivation or know-how to recycle better. A little technical assistance can go a long way. Volunteering in multifamily communities is rewarding because you can help conserve high volumes of natural resources. With relatively simple projects, you can directly help 20, 30 or even 300 households recycle better!

Here are just a few ways you can help:

Door to Doors

Look in the Master Recycler newsletter or calendar for door to door outreach efforts. Door to Doors are a great way to answer individual residents' questions and clarify what goes in each container. They can also help clarify why recycling problems may be happening at a property. This sort of outreach is frequently requested by property managers who have high levels of contaminated recycling and want help in educating their residents. They are best to conduct after any problems with containers and signage are resolved so that the instructions you give can be consistent and simple. Some jurisdictions even include a free bag as a hand out for residents.



Adopt-a-community

Another way to help is to commit to supporting a multifamily community's recycling efforts over a period of time. If you've identified a multifamily community to adopt for the summer or longer term, your first action should be to contact the multifamily specialist who serves the area for this property. These specialists are listed later in this section. Every local government provides free educational materials including durable signs for collection sites, container stickers, posters, and resident brochures or door hangers. They also have bags for recycling collection.

These specialists can provide a site visit and technical assistance. They can often also provide information about how to reach the property manager and any history of working with this manager on the property.

The next steps will vary depending on the community. They may include, but are not limited to, any of the following:

- Assessing the garbage and recycling situation and recommending changes to service.
- Stickers and posting signs at garbage/recycling enclosures, community rooms, laundry rooms or mail centers.
- Working with the hauler or property manager to shift container sizes, enclosures or locations.
- Monitoring recycling containers to identify contamination or measure increase in recycling or decrease in waste as a result of your actions.
- Distributing educational materials.
- Conducting a one-on-one door to door. (You can contact the Master Recycler Program Manager if you would like to invite more Master Recyclers to help you with this effort).
- Presenting at a resident meeting or facilitating a recycling and waste prevention discussion.
- Setting up a display or tabling at a resident event.
- Coordinating a community yard/garage sale.
- Coordinating a community recycling collection event.
- Designing a community swap bulletin board.
- Helping set up a community swap area.

Clean-up, swap or reuse collection events

These can be a great way to manage bulky items. A few tips about putting on a clean-up event at a multifamily community:

- Contact the local jurisdiction specialist to tell them about your project. They can provide assistance with planning, funding ideas and/or outreach materials.
- Read the Metro Community Cleanup Guide, available online.
- Create a team that includes a member of management, a facilities staff person, and at least one active member of the community.

Washington County Master Recyclers have organized many of these types of events and share these tips based on their experience: Learn as much about the residents as possible. What are the primary languages spoken in the home? You will want to translate the information into the top two or three languages. Are there many families with children? If so, plan to include a kids activity to maximize participation. How do they prefer to receive information? Do not rely on Facebook if only 10 percent of the community has liked the community's page.

Schedule your event to avoid other major events and to best serve your audience. A Saturday morning may not be the best if the residents are usually busy with other activities on Saturdays.

Be clear in advertising about what you want and don't want. Have a plan for any unclaimed, leftover materials and use the event to advertise year-round recycling and reuse options to attendees.

Start by contacting the multifamily recycling coordinator in your area

City of Beaverton:

Phone: 503-526-2665

Website: www.beavertonoregon.gov/recycling

Email: recyclingmail@beavertonoregon.gov

City of Portland

Phone: 503-823-7202

Website: www.portland.gov/bps/garbage-recycling/multifamily-recycling

Email: multifamily@portlandoregon.gov

Clackamas County

Phone: 503-557-6363

Website: www.clackamas.us/recycling/multifamily.html

Email: wasteinfo@clackamas.or.us

Washington County

Phone: 503-846-3605

Website: www.WashingtonCountyRecycles.com

Email: recycle@co.washington.or.us

City of Gresham

Phone: 503-618-2525

Website: www.greshamoregon.gov/recycling/

Email: recycle@greshamoregon.gov

RESOURCE

*Find the Metro Community
Cleanup Guide online*

BEYOND RECYCLING

Increasingly, multifamily property managers and residents want to incorporate other environmentally positive approaches to community living. Many local governments have resources that Master Recyclers should be aware of and share with interested parties. Some of these topics and areas include:



Energy savings. Tax credits and cash incentives are available to property owners in a variety of ways for simple things such as replacing windows and doors; insulating pipes; caulking and weather-stripping windows; and insulating attics, floors and walls. In addition, communities may be eligible for assistance with installing energy-efficient appliances. For more information, call Energy Trust of Oregon at 866-368-7878. Another option is free energy audits offered by metro-area utilities, including Portland General Electric, Pacific Power, NW Natural and Cascade Natural Gas. They help evaluate current energy use and provide assistance with energy-efficiency improvements.

RESOURCE

Look for information on multi-family water conservation online at Conserve H2O.

Water conservation. Time and money savers can include installing low-water fixtures and appliances. Check out the new outreach flyer specific to multifamily communities available at the Regional Water Providers Consortium's website. This site is dedicated to water conservation education and resources.



Alternative transportation. Residents can be encouraged to use available buses and light rail simply by providing them with information through Trimet. A popular way to encourage residents to bike is by providing safe, covered bike storage on-site; additional resources and ideas can be found at Metro's *Drive Less, Save More* site.

Natural gardening and composting . A landscape can look beautiful without toxic chemicals. Simple things like leaving grass clippings on the lawn reduces fertilizer needs by 50 percent and saves staff time usually spent bagging the clippings; using compost can save money on fertilizer, control weeds, nourish plants and reduce the need for water. On-site composting of yard and garden waste may be an option for some multifamily communities depending on size and approach; more information and assistance can be found through local governments and Metro. The City of Portland's commercial food composting program is available to commercial properties including multifamily communities when it is feasible for the site; region-wide residential food composting is under development.

RESOURCE

Call Metro at 503-234-3000 or visit Metro's Yard and Garden webpage for more on natural gardening.



CONCLUSION

For Master Recyclers who live in multifamily settings or for those of you who are looking to have a very big impact quite quickly, working to improve recycling and materials management in multifamily housing can be a terrific option. Multifamily settings are a wonderful opportunity to reach many people at once and change habits and behaviors for an entire community. It is also worth noting that multifamily housing is becoming more and more common as the region's population grows. Working in multifamily settings does pose some specific challenges. It is quite common for recycling and garbage collection areas to be poorly designed or sited, and recycling can be difficult in communities with high turnover. That said, there are many wonderful resources to help you with such projects.

Start by reaching out to the multifamily recycling coordinator in your area who can likely provide you with recycling history for this location and give you outreach materials, including signs and brochures. From there you can try some of the strategies presented in this chapter, including one-on-one outreach and cleanup events. Beyond recycling, multifamily settings afford opportunities to share resources about composting, gardening best practices, alternative transportation, green remodeling, and ways to save energy and water. Remember that any work that you do in multifamily settings has the potential to reach many, many people and to make a big difference!

CHAPTER 10 MATERIALS IN THE WORKPLACE

INTRODUCTION

Master Recyclers are usually the sustainability champions wherever they go, including the workplace.

As a Master Recycler, it is likely that your co-workers will look to you for information and motivation because they see your commitment. You can help keep momentum going, seek out answers and resources, and identify barriers in your workplace.

Sustainability champions should also realize that it is not sustainable to try and go at it alone. You can pull out recyclables from the garbage, bring your own mug to work, and lug special plastics to the local depot yourself, or you can get your workplace organized so everyone plays a part and policies are put in place that dramatically reduce the consumption of our natural resources.

The free resources available in our region work best when a workplace champion is onsite and can tailor the approach to their specific workplace. This chapter will help you think through the best way to utilize these resources.



COMMERCIAL MATERIALS MANAGEMENT

As you can imagine, there are many work sectors in the metro area and each use and discard a large quantity and variety of specific materials. The strategies to manage these materials are equally variable. Despite the wide range, some approaches can be generalized and tailored for each sector. Master Recyclers utilize their skills and enthusiasm to help conserve our natural resources in each and every one of these sectors, and in settings that range from a tiny office to a large factory. Master Recyclers have found making change at work to be rewarding because these changes can make a big impact.

Some Master Recyclers have also found that including the training and experience from the program on your résumé can greatly increase your value to potential employers who want to improve their sustainability practices.



COLLECTION PROGRAMS AT WORK

Standard collection services

Like in the residential collection system, in Washington County (excluding unincorporated areas), Clackamas County and Multnomah County (excluding Portland), garbage and recycling companies serving businesses are franchised. You will recall from previous chapters that means they contract to serve designated territories and offer standardized services and fees, much like the residential services.

Portland differs in that hauling companies compete with one another for commercial accounts. They also set their own rates and services. Haulers do, however, have to meet some basic requirements to receive a permit to operate in Portland. These basic requirements include providing at least the basic recycling and composting that is required of businesses. Commercial haulers in unincorporated Washington County have certificates that regulate a set of standards, much like the franchised system.

Throughout the region, the same materials that residents may leave at the curb are also accepted from businesses. However, businesses will often separate out more valuable materials like cardboard, scrap metal, or office paper to be sold or to reduce costs in hauler fees.

RESOURCE

Find the Business Food Separation Requirement factsheet online to learn more about the types of businesses and types of materials included in the policy. There is also an estimation guide to help you estimate the quantity of food scraps the business where you work generates.

Business Recycling Requirements (BRR)

Lots of businesses throughout the metropolitan region are doing their part by recycling at work. However, during an average year, businesses in the area still throw away more than 100,000 tons of recyclable paper and containers. These valuable materials should be recovered and processed to help us conserve natural resources.

For this reason, Metro adopted Business Recycling Requirements (BRR), where businesses must:

- Recycle paper, cardboard and containers (aluminum cans, plastic bottles, jugs, buckets, and round container, and glass bottles and jars).
- Ensure there are collection containers for these materials.
- Post signs at collection areas, indicating which materials should be recycled.

RESOURCE

To find your local contact go to Metro's guide to recycling at work online.

While this is a Metro requirement, local governments are responsible for enforcement and most cities and counties have adopted local ordinances to match the Metro rule. These requirements can sometimes seem complicated due to many players such as a landlord, property manager, multiple tenants and staff. Ultimately, it is the property manager's responsibility to ensure compliance with proper business recycling through hauler provided services.

In July 2018, the Metro Council adopted code language requiring most food producing businesses to separate their food scraps from other garbage by the end of 2024.



Metro and local jurisdictions focus on an assistance-based approach to gaining compliance and supporting businesses to achieve sustainability goals above and beyond basic recycling requirements.

Most Metro area jurisdictions provide free, customized assistance to all types of businesses. Recycling Specialists can help your business with:

- On-site evaluations
- Working with waste haulers and property managers
- Finding solutions for some items not accepted curbside
- Resources for sustainable purchasing
- Free education materials, containers and signage
- Presentations
- Employee training
- Additional business sustainability opportunities

Awards programs

Along with technical assistance, local jurisdictions also recognize businesses that go above and beyond. Clackamas and Washington Counties and the City of Gresham have certification programs to showcase businesses demonstrating a deeper commitment to sustainability. Visit your local business assistance program website to learn what is available. These programs are a great way to encourage your workplace to strive to do better.



MAKING A DIFFERENCE

What counts as Master Recycler volunteer hours at work?

Master Recyclers are a volunteer outreach corps. The program was not created to train professional sustainability coordinators or managers. However, that does not mean that projects at work are off limits for volunteer hours. On the contrary, it is incredibly valuable to have trained workplace champions.

If you decide to do a project at work, it will count as Master Recycler hours if the work involved with the project is above and beyond your normal job description. Master Recycler bartenders, administrative assistants, bus drivers, veterinarians, factory managers and nurses have implemented long lasting changes in their workplaces. Starting a green team, acting as an office champion, helping implement strategies and systems of change, organizing events and lunch and learn presentations all count as hours. Tasks that are expected of you as part of your job because you are a sustainability coordinator do not count as volunteer hours.

If you are thinking about doing a project in your workplace and are not sure if it would count as volunteer hours you can ask the Master Recycler Program Manager (masterrecycler@oregonmetro.gov).

FIVE PROJECTS

Getting started on a workplace project is easier than you think. The five ideas listed below (and discussed in greater detail in the rest of this chapter) are great potential projects. Business Recycling Specialists will help you tailor these strategies to fit the specific needs of your organization.

1. **Form a green project team.** You may be the recycling champion who will track and guide your workplace efforts, but you don't have to do it alone. Starting a green project team spreads the work and improves communication with co-workers, business and building managers, custodial staff and haulers. Importantly, it also helps spread this knowledge out in your workplace and helps ensure the practices stay in place as people change jobs.
2. **Conduct a sustainability assessment.** Examining purchasing, waste, and other aspects of your business can reveal opportunities for reducing consumption and disposal while improving your organization's financial, social and environmental bottom lines.
3. **Implement best practices.** Put a few best practices in place and you will be pleasantly surprised at the results.
4. **Promotion and outreach.** Once your workplace recycling system is set up, it's crucial to let co-workers know how to use the system through varied and ongoing outreach strategies.
5. **Setting policy.** Sustain your efforts by setting purchasing policies, contracts and job descriptions.

Before you get started!

Find out if there is already a designated sustainability coordinator and then work collaboratively with them.

Form a green project team

Recruit committed co-workers

A motivated green project team will share the workload, build support among coworkers and make sure that your recycling efforts are successful.

A Recycling Specialist can help you identify a potential project and get a green project team started. If necessary, they can help you educate leadership and management on the importance of allocating resources and time to a green project team. Support from your management will also ensure that the project is a priority.

Invite committed co-workers who can devote time and energy to the project, and be sure to include a representative from your facilities, maintenance and purchasing departments when applicable to the project. Any co-workers that be directly affected by the project should help with its design.

Once your team is in place, clarify the roles and expectations for each member. Then work together to establish goals and objectives for your project.

Start with an assessment

A sustainability assessment can help evaluate the flow of materials through your organization. There are many different assessments you can conduct. A purchasing assessment includes everything from one-time large procurement, such as constructing a new building, to smaller day-to-day purchases such as office supplies. Purchasing entails contracts as well as one-time expenses. A waste assessment includes such activities as reviews of disposal records, walk-through evaluations of facilities and operations, and manual sorting of material pulled from garbage containers. Assessments may also include onsite use of materials or manufacturing options in certain sectors.

Policy assessment

A good place to start is by looking at current policies and contracts that control the flow of materials in and out of the workplace. An audit of the purchasing policies and waste contracts will help you get a good sense of the existing trends and priorities. Do your purchasing policies only focus on cost? If so, then you will know that a good place to start is by integrating environmental and social requirements into the policies. If the current policies include environmental and social requirements, are they being implemented?

A scan of policies and contracts can also alert you to specific obstacles that you may have to work around. Some policies may exist that will conflict with goals you may want to set. Contracts may already be in existence with paper purchasing or custodial companies that do not include new potential requirements or tasks. It will be helpful to know this ahead of time so that you can plan a work-around until the contract term ends and a new one can integrate the new requirements and tasks. Learn this ahead of time so that you can plan a work-around until the contract term ends and the new one starts that includes new requirements and tasks.

Waste assessment

A waste assessment can reveal opportunities for reducing disposal costs and improving your organization's financial and environmental bottom lines. It allows you to develop baseline data on the quantity and type of waste your organization generates. **Baseline data can be used to:**

- Estimate cost savings potential of recycling and waste prevention activities.
- Identify specific materials to target for inclusion in recycling and waste reduction efforts.
- Measure progress and communicate results to employees.

Conducting a waste assessment may involve many people within an organization. However, one person will need to be responsible for coordinating the assessment and recruiting a team. This individual should be familiar with the overall operations of the organization and in particular with purchasing, garbage collection services, and janitorial contracting. The team size will vary depending on the size of the organization. A small sort team may consist of one or two people and larger organizations may create a team that includes staff from environmental health and safety; building supervisors; officials involved with the technical/operational, administrative, facilities maintenance and/or purchasing aspects of your organization; or employees interested in waste reduction.

Conduct a facility walk-through

A facility walk-through provides the waste assessment coordinator with valuable information regarding the day-to-day activities that ultimately affect the waste stream. A walk-through can include more than just waste assessment. Most Recycling Specialists are trained to include other materials management goals when helping you with a walk-through.

A waste assessment walk-through lets you:

- Observe the types and amounts of waste produced.
- Identify waste-producing or waste-reducing activities.
- Account for all garbage and recycling collection equipment and locations.
- Detect inefficiencies in operations.
- Map the path by which waste moves through the organization.
- Observe the layout of operations.
- Observe current recycling and waste prevention educational efforts.

The facility walk-through and assessment provide the coordinator with the information necessary to plan a sort strategy. What is the date and time the waste should be collected for sorting? Where is a good location to conduct the sort? How much waste needs to be sorted? From which parts of the facilities should waste be pulled from to compile the sample? What material categories should waste be sorted into? Answering these questions along with information gained from employee interviews or surveys, will help the waste assessment coordinator properly manage the sort preparation and implementation.

Staying safe during the waste sort

Develop a health-and-safety plan for the unexpected injury or accident to occur while conducting a waste sort. Communication is crucial to ensure that each team member understands the correct procedures, the potential hazards, and the risk reduction plan.

Risks will vary for each workplace. However, common hazards include: sharp objects in the materials being sorted, such as needles or broken glass and chemical or infectious waste. Injury can also occur from lifting heavy waste bags or encountering on-site vehicles or machinery.

Plan the waste sort

Determine sort categories and prepare data sheets before the sort. Information gathered from the walk through will help determine what categories of waste to include on your data sheets. Determine sampling and sorting procedures and set a standardized process for all participants to follow. This will help maintain consistency and ensure data integrity.

Consider the following questions:

- Are there waste containers that should not be included in the waste audit because they include dangerous materials such as medical waste, potentially hazardous materials, loose animal or human waste, medical syringes, or broken glass?
- Are you going to audit all waste containers or sample from various parts of the work place?
- Are you going to focus on just one potential waste stream (like food waste or paper or plastics) or will all of the material be assessed?
- Are you sorting materials for curbside recycling or are there other materials you also want to identify (like non-curbside plastics)?
- When are containers most full, so that you don't set your sorting date right after containers are emptied?
- What is the safest location to sort?

Most local jurisdictions have waste audit scales, containers and instructions that you can check out, use, clean and return. Check with your local Recycle Specialist to see what is available.





Implement best practices

Once you have all key participants on board and have a plan for who will haul the recycling and compost where, you now know how materials should be separated. Next step is to get containers and signage. Smaller containers are best located close to workers and larger containers with clear signage to collect materials in one place for servicing by the garbage and recycling companies. Most local governments will provide free internal containers and signage that can be tailored for your work. Here are a few best practices that will maximize success.

Buddy system

Always pair garbage and recycling containers side-by-side. This will make it more likely to capture more recycling while keeping contamination to a minimum.

Most local governments can provide free desk-side recycling boxes to set next to garbage containers at desks or other work spaces. Unless you have a highly motivated group, do not consider removing the garbage can. This approach will likely result in contaminated recycling.



Centralized vs. distributed recycling pickup

Often custodial contracts include garbage collection at each desk, but office workers have to get up and empty their recycling when their desk side boxes are full. If deskside garbage pickup is provided, find out if recycling can be included. If not now, when it is time for contract renewal, consider including this option. You can also cut custodial costs by having office workers take both garbage and recycling to the central collection container.

Signage

Rather than making your own, request signage from your Recycling Specialist. These signs were designed to be the most effective tools possible in getting materials where they belong. They utilize more pictures than words, and can include specific languages that may be needed in your work place.





Promotion and outreach

Education, incentives and fun

Often people think that the reason that their co-workers are not recycling right is because they just don't know better or worse, don't care. It is more likely that the system is confusing. After ensuring the best practices above are in place, education is the next step.

Here are some ways to tell your co-workers how to use the new system:

- Send out periodic emails with instructions and eco-tips.
- Utilize existing communication channels such as a staff newsletter, lunchroom board, or employee website to share messages about changes, to give instructions and to keep people engaged.
- Offer green-bag lunch time presentations on special topics.
- Let everyone know about goals and how they can do their part to meet them. Post charts in prominent places that show the progress toward goals. Make announcements during meetings, by email, through an office newsletter or on a shared web page that let people know when you have passed a major milestone toward the goals.
- Consider prizes to reward folks who do a great job and encourage others.
- Competitions are effective, fun ways to give feedback. Teams or individuals can strive to get to certain goals first.
- Share stories about how co-workers are making changes and succeeding.
- Have co-workers wear buttons or place signs in their workplace to show they are on board with the changes.

Setting policy

Don't let all your great efforts go to waste. Take advantage of the positive support that current management is showing toward these sustainability efforts by ensuring that they will continue into the future. Setting policies that make clear requirements toward environmental and social goals, define who is responsible for carrying out these goals, and measure the progress will help ensure the shifts you made today become a lasting part of the institution where you work.

One place to focus is workplace purchasing. Sustainable procurement means taking into account your procurement actions and carefully evaluating what you buy. Make an impact by purchasing specific products and services with high environmental performance that include social and economic benefits.

Sustainable procurement activities can range from buying recycled paper or less-toxic cleaning products, to the retrofitting or construction of buildings with high energy efficiency standards or developing an alternative fuel fleet.

Contracts can also include socially responsible requirements such as paid sick leave for workers and safety training and standards.

Sustainable purchasing policies and contracting may include:

- Recycled content.** Setting a policy that supplies are made from 100 percent recycled material is likely not a realistic policy. Not all products are offered with such a high level of recycled materials and some are much more expensive than those made from virgin materials. But you could identify the top three supplies that must be made from at least some recycled content. Identify the supplies that are purchased most frequently in your work place and research if there is a similar product that is made from at least 30 percent post-consumer recycled content. Determine if the price of this alternative is within your organizational budget.
- Toxics.** Use cleaning products with less toxic chemicals. When chemicals must be used, train staff to use only what is needed. Require that products disclose ingredients used.
- Buildings.** Identify required standards for buildings, furniture and office fixtures that include sustainable material, reuse and salvage.
- Sweatshop free.** Purchase products or prioritize products that offer safe and dignified work for their employees and the contracted companies.
- Lunchroom.** Install a dishwasher and provide durable dishes. Pay for a service to wash and put away dishes so staff don't have to. Set up food scrap collection.



Your Recycling Specialist can help you get resources to meet these goals.

FOOD IN A COMMERCIAL SETTING

Whether you are managing food in your lunchroom or you work in a large food waste generator like a school, grocery or restaurant, food is an important part of any sustainability plan due to its high climate impact. As you will learn in the food chapter, the growing and processing of food requires enormous natural resources. Meanwhile there are people in our region who do not have access to fresh healthy food. Businesses can play a role in utilizing those resources to their maximum level with three words: Prevent. Donate. Compost.

Food Waste Stops with Me

As food professionals, businesses have the power to eliminate significant amounts of waste. They can order just the right amount, use it from tip to tail and root to leaf, show colleagues and customers what's possible—and delicious.

Food Waste Stops with Me is a great resource available on Metro's website that provides resources such as webinars, podcasts and case studies in three main categories: Prevention, donation and composting. Topics address different parts of the business food cycle – things like purchasing, menu planning, storage, food prep, staff training and inventory management.

Food Waste Stops with Me is a collaboration between Metro, the Oregon Restaurant & Lodging Association, the Oregon Department of Environmental Quality, as well as city and county governments to help food service businesses reduce food waste

Other resources available to businesses to help reduce food waste:

- The Oregon Department of Environmental Quality's "Wasted Food Wasted Money" campaign provides resources and information that can help food service businesses take meaningful steps to reduce their food waste and save money.
- Hotel Kitchen also provides a toolkit to help employees of food service businesses reduce waste at various stages in the preparation and serving of food.
- The National Restaurant Association's Conserve program provides information and practical tools that assists food service businesses to reduce food waste.
- The U.S. Environmental Protection Agency also provides tools to help businesses prevent and divert wasted food. These tools include guides for assessing and analyzing where food waste occurs, calculators for measuring the cost competitiveness of alternatives to food waste disposal, training webinars and other resources.

DEEP DIVE

Explore Food Waste Stops with Me to learn more about how you can reduce food waste at work.





Food Donation

The long-term solution to hunger is not food donation, but to address the root causes of food insecurity—equitable access to food, housing, healthcare, transportation and more. The excess food that businesses have to donate is not the answer to food insecurity and food banks will never be able to eliminate hunger through collecting and distributing excess and donated food alone, no matter how big their networks may grow.

Secondly, surplus food being produced by businesses is a result of inefficiencies that point to opportunities to reduce waste and prevent the excess from happening in the first place.

That said, although we need to strive to prevent hunger while at the same time reducing surplus food waste in businesses, rescued and donated foods can still play a role in getting nutritious food to people who are experiencing food insecurity.

CREDIT

Oregon Food Bank's mission is "to eliminate hunger and its root causes...because no one should be hungry." Through a network of 21 Regional Food Banks and more than 1,200 food assistance sites, the organization works to end hunger on two fronts: helping people access nutritious food today; and building community power to eliminate the root causes of hunger for good.

Benefits to businesses:

While steps can be taken to plan and prepare food carefully, sometimes excess food and unused ingredients are inevitable. Benefits include:

- Support the community - Donating healthy, edible food can have a big impact in people's lives.
- Stay competitive - Employees and customers want to support businesses that have sustainable practices. By tracking the type and amount of donations, businesses may identify other opportunities to reduce food waste and costs through their operations.
- Conserve resources - donations help ensure that the valuable resources such as water, land and energy that went into producing, processing, shipping and storing food are not wasted.
- Liability and tax incentives - Federal and state laws protect businesses from liability when they donate food in good faith that they believe to be safe and edible (Bill Emerson Food Donation Act and Oregon Good Samaritan Law). Businesses that donate are eligible for federal tax deductions. They should work with their accountant or business manager for financial advice.

How to help connect food businesses to food rescue agencies:

Go to foodwastestopswithme.org/donate to connect with local government program staff who can:

- Help you identify local organizations serving donated food in the community.
- Help you identify supplies the businesses may need (e.g., labels, food-grade plastic bags, durable containers with lids, donation tracking logs).

- Provide free resources, technical assistance and food waste prevention tools.

Tips for successful donation:

- Build partnerships and get to know the food donation organizations in the community to understand what types of foods they can accept.
- Always call ahead. Food donation organizations need to assess the time, effort and coordination necessary to pick up or receive donated food.
- Prioritize the donation of healthy food most desired by food rescue organizations and the people they serve; avoid sending unusable food that they then may have to dispose of later.
- If possible, establish a regular frequency of donations and provide larger quantities of food rather than small sporadic donations. For small or infrequent quantities consider donating to employees first.
- Work with donation partners to establish a system for labeling and tracking donations.



Compost

Food waste that can't be donated (food prep scraps, uneaten plate waste, and food that's gone bad) can be composted. Composting has many benefits.

Wasted food that ends up in our closed landfills breaks down and emits methane which is a potent greenhouse gas. Our landfills are able to capture some of the methane, but the rest is released into the atmosphere. Food scraps from businesses in the region are transported to a compost facility and turned into biogas, compost, mulch and fertilizer.

Please note: We learned in the Recovery Infrastructure Chapter that residential and commercial organic waste go to different facilities that accept different materials. Facilities that accept food scraps from residential curbside collection program need a certain level of carbon matter to function correctly. Residential compost is made mostly of yard debris which is high in carbon materials like leaves and wood. Residential food scrap programs also accept some other fibrous materials such as paper products including napkins, teabags, coffee filters and pizza boxes.

To start food composting in your workplace, contact your local Recycling Specialist.





CONCLUSION

There are a lot of business people who believe that climate change is a problem and that we ought to take action now. Because our region started early on the path of green business practices and because we have been leaders in improving how we make products, we are able to prosper by exporting sustainable goods, services and ideas. People are moving to this community because they like the sustainability values that they see here.

As a Master Recycler, you are uniquely positioned to have significant impacts at your place of work. No one knows your workplace and its unique challenges like you do.

CHAPTER 11 MATERIALS IN SCHOOLS

INTRODUCTION

Master Recyclers care a lot about recycling. Master Recyclers are also parents, grandparents, uncles, aunts and neighbors to children and youth in our community. Some of you work in our school system or are retired teachers, janitors, administrative and district staff. A few of you are even young adults who want to give back to your old school. For these reasons, many of you will decide that you want to spend time making change in schools. Some of you may already be involved in a school and see a problem or have an idea about recycling or food waste. A few of you actually took the Master Recycler course to learn how to make improvements at a school. Some of you just like kids and think that the future of our environment depends on what children learn when they are young. Still others may be interested in doing a volunteer project that involves your kids and other families in your community.



This chapter will let you know about regional programs that offer technical assistance to schools in recycling, composting and waste prevention. You will also learn about the regional approach to educate youth on this topic, and ways you can get involved as a Master Recycler.

Some of the educational tools will also be useful for those of you who want to offer outreach and education for youth in other settings like your church, a sport team or scouts.

TECHNICAL ASSISTANCE AND RESOURCES FOR SCHOOLS

Operations technical assistance

Schools are considered a business as they relate to garbage and recycling services, which means in almost all parts of the region, local city and county recycling specialists who offer support to businesses also offer support for waste management and prevention in schools. These recycling specialists meet regularly to discuss how they support schools and collaborate across jurisdictions.

If you would like to get involved in waste reduction at a school, it is best to first reach out to your local jurisdiction. However, if the school is within the Portland Public Schools District, they have their own waste reduction program and prefer to be contacted directly (see sidebar for contact information).

RESOURCE

You can find more information about the support your local jurisdiction offers schools by visiting their website.

Portland:

Portland Public Schools
Sustainability Team
sustainability@pps.nett

Metro's website

has many resources and links to further information about recycling and schools.



Metro education program

Metro staff provide free classroom presentations and other educational materials on waste prevention. Metro's programs engage students in activities and discussions, encouraging them to think critically about how the choices we make impact our lives, resources and the future.

Elementary school classroom presentations. Metro's classroom presentations for first to fifth graders teach students about waste prevention, recycling, natural resources, composting and alternatives to toxics. Each presentation is approximately 45 minutes.

Elementary school curriculum resources. Resources to teach students about composting, recycling and waste prevention.

Middle and high school classroom presentations. Metro's interactive, hands-on presentations help middle and high school students learn about waste prevention and the connection between people, consumer products and nature. Presentations are approximately 50 minutes.

Waste reduction education at outdoor school. Metro provides curriculum resources for waste reduction education at outdoor school, helping to keep an Oregon tradition alive while inspiring students to make sustainable choices through learning in the natural environment.

Distance learning. Metro has online resources for youth and families who are interested in learning about reducing their waste, responding to climate change and protecting natural resources.

Additional education programs

Oregon Green Schools. At schools across Oregon, students, teachers and staff are making a difference in their communities with programs to recycle, reduce waste, save energy and conserve water.

Oregon Green Schools (OGS) helps with:

- Curriculum and funding resources
- Recognition and events

OGS is a nonprofit organization formed in 1997 with 25 regional coordinators throughout the state and nearly 300 participating schools. Regional coordinators help schools conduct waste audits, provide guidance and training for new programs and recommend curriculum resources and grant opportunities. They also help schools become Certified Green Schools.

Eco-School Networks. Eco-School Networks (ESNs) are composed of parents leading projects in elementary schools (K-5) in Portland Public Schools and Washington County (Beaverton, Hillsboro and Forest Grove districts). Their goal is to introduce sustainable practices and raise environmental awareness through the daily experiences of children in school. Parents in each network complete the Center's no-cost, four-session Eco-School Network Leadership Training. The training gives participants the tools and confidence needed to take on projects.

RESOURCE

Videos and handouts available on the Metro Resource Conservation and Recycling Education webpage.

RESOURCE

Additional information is available on the Oregon Green Schools website.

OREGON GREEN SCHOOL

This certificate is proudly presented to

East Gresham Elementary School

in recognition of outstanding efforts in waste reduction and resource conservation.
Certified May 21, 2015 through May 21, 2018.



Shanna Slocum and Gregg Harwood,
OGS Regional Coordinators
City of Gresham

Oregon Green Schools Association

Gresham Sustainability Services
Oregon Green Schools Sponsor

RESOURCE

Additional information is available on the Eco-Schools Networks webpage.



RESOURCE

Additional information is available on the Schoolhouse Supplies website.

Schoolhouse Supplies. Schoolhouse Supplies is a nonprofit that supports Portland public education by giving students and teachers free classroom supplies. Their Free Store for Teachers is stocked with gently used and new supplies donated by the community. The reuse program reduces the need to purchase new supplies.

RESOURCE

Additional information is available on the SCRAP PDX website.

SCRAP PDX. SCRAP is a nonprofit dedicated to inspiring creative reuse and environmentally sustainable behavior by providing educational programs and affordable materials to the community. SCRAP provides a number of educational offerings that promote creative reuse. You can bring a group of kids there for a tour or workshops or attend teacher trainings on creative reuse. SCRAP also donates art supplies and classroom education to one school every year.



TACKLING WASTE AT A SCHOOL

Helping a school improve their operations and become more sustainable can be extremely satisfying and such work might be a good fit if:

- You are good at organizing people and planning projects.
- You are interested in researching and working with the unique logistical and financial factors at play in schools surrounding waste management.
- You plan to devote a lot of time and energy to one project.
- You are a patient person who sees yourself playing an ongoing role as a partner in helping a school.

Certainly there are times when Master Recyclers and parents find themselves needing to play an advocacy role in improving sustainability at a school. But it is important to remember that it is most effective to consider yourself and others at the schools as working partners who are interested in shared goals. To get to that point, start by carefully investigating the current projects and roles of all players in a school, the resources available and the limitations of what you might be able to accomplish.



Start with your local resource

You will want to start by finding out if anything is already happening at your school, who the key players are, and what obstacles currently exist.

The Recycling Specialist or Conservation Coordinator at your local jurisdiction and Oregon Green Schools are great places to go to find someone who knows what is already happening in a school. Contact these organizations and find the person who is focused on your area. This person should be your number one local resource.

Before you call your local resource, consider: What is it you are really wanting to do? Is it specific, like you don't like seeing Styrofoam in the school lunches? Or is it more general like you see a lot of food or paper thrown away and would like to help? Or is it even broader like you just want to get involved in any way that is helpful and be a part of a larger effort. What does the school or district website say about current activities or programs? Once you have considered these questions you are ready to call your local resource and tell them about your goals. **Here are questions you should ask:**

- Are there sustainability activities already going on at the school? Is someone already trying to tackle this particular issue?
- Who are the key players at this school?
- Who are your allies and where are the sticky problem areas?
- Who in Facilities Operations manages the hauling contract and how do I reach them?
- Are there district-wide constraints I should know about?
- Is the project I am thinking of something that will last longer than I plan to stay involved?
- Is there any other homework that your resource suggests you do before calling the school?

Be sure and ask your resource for specific tools and resources such as curriculum, free signage and containers that they think will be helpful for your project. These programs are designed to equip you with what you need to succeed.

If there is absolutely nothing going on already at this school with respect to recycling or sustainability, ask them what they recommend you do to get the ball rolling? How can you help do some fact finding in order for your resource to best help you?

↔ RESOURCE ↔

Go to bit.ly/schoolwastereduction for a quick guide created by the Portland metro area School Resource Conservation Network.



↔ RESOURCE ↔

Look online for the Oakland Unified School District Food Donation Guide.



Connect with your school

You might ask your local resource which of these three options is the best approach to connecting with your school:

1. Have your local resource make an email introduction to your principal.
2. Meet with your principal to share your ideas, get their perspective, and learn about school protocols.
3. Have your principal connect you to the school's leadership, green team, or Parent Teacher Association (PTA).

Potential internal allies to consider in your project:

- Facilities staff
- Principals
- Other parents or a parent organization (like a PTA)
- Existing green team
- Student groups like Leadership, Student Council, volunteer or environmental club
- Teachers (especially science teachers)
- Local businesses who already partner with the school

Background checks

Most districts require volunteers to have gone through a district background check before working in a school. Master Recyclers can either do whatever background check each particular district requires or can register themselves with the *Oregon Online Central Background Registry* (application available online), which is utilized by all school districts.

Jump in!

Having done your homework, you're likely already on a successful path to making a difference at your school.

Examples of Master Recycler Projects

- Durable silverware drives to eliminate spork packages (plastic spork, plastic straw, paper napkin).
- Milk carton recycling (see case study).
- Fundraising for Steel Cow milk dispenser and durable cups.
- On-site food composting and wormbins.
- Conducting a waste audit for the school to assess potential goals and savings.

- Teacher and student school supply collection day in spring to gather and save materials for the fall.
- Designating a closet in the school for supplies and promoting its use especially in spring and fall.
- Setting up boxes to collect paper that has been used on one side, but can still be used on the other side.

RESOURCE

Look online for the EPA's Guide to Conducting Student Food Waste Audits: a Source for Schools.



SPECIAL EVENTS, FUNDRAISING AND COLLECTION EVENTS

Perhaps you were thinking of a project that would allow you to connect with other families, kids and teachers. Or a project that is a bit smaller and has a distinct beginning and end. From sporting events to fundraisers, environmental clubs to PTAs, there are lots ways for Master Recyclers to help with community gatherings at schools.

Many of the steps and resources are similar to those for recycling projects in schools. Oregon Green Schools and the Eco-School Networks have many great ideas and resources.

Examples of Master Recycler projects

(If you are considering doing any of these types of projects and they are larger than a single classroom, start working with the facility operations early in the process.)

- Waste-free lunch days.
- Waste-free auction and raffle prizes such as experiences, durables, and compost containers.
- Supplies, sporting equipment, costume, or clothing exchanges.
- Non-curbide recycling drives (electronics, Styrofoam, X-mas lights, etc.).
- Collection of gently used household goods donations for the Community Warehouse.

Party Packs Case Study



Where:

Skyline Elementary in NW Portland

Lead parent & Master Recycler:

Jill Inahara (Class 43) and
Jessica Zahn-Laughter (Class 43)

Problem:

Classroom parties create a lot of waste.

The Skyline Green team noticed that classroom parties were creating a lot of waste. They audited and found that the 200 parties each year each produced on average 30 gallons of extra garbage. The audit showed that party waste consisted of disposable plates, cups, juice boxes, napkins, plastic candy or chips wrappers, plastic cutlery, decorations, and tablecloths, as well as food packaging. The group piloted with two classrooms to see if they would use alternative durable packs and it was a success. They then worked with the Eco-School Networks to identify DEQ grant money to pay for party packs for each classroom in the school.

Plates, cups and bowls, tablecloths and napkins were purchased through a restaurant supply company, and tubs were used to store the kits and carry dishes to the cafeteria for cleaning. Instructions were included in each kit, including messaging for the kids about why they use durable goods instead of disposables.

Milk Cartons Case Study



Where:

Ridgewood Elementary
in Beaverton

Master Recycler:

Katie Reed (Class 37) and
Kristen Wesel (Class 39)

Problem:

Several tons of milk cartons were
being thrown away every month.

Milk cartons are a good source of fiber for some recyclers, but they can't be mixed with office paper because they have plastic injected into the pulp. This means they have to go to a separate recycler. On top of that, if not properly managed, milk in cartons can spill on other recyclables and even rot the paper in the cartons themselves before they get recycled.

When Katie approached the school about why they weren't recycling the cartons the custodian, Greg Poulin, decided to investigate what it would take for the closest material recovery facility, Far West Recycling to take them. Far West Recycling said cartons need to be emptied, rinsed and dried. So Katie, Kristen and others from the school formed a green team, they got a barrel into which kids can empty their milk and they got racks donated to dry milk cartons on. They organized a system where kids earn prizes for taking turns lightly rinsing and drying the cartons. Then parents bag milk cartons and hand them off to the custodian who pokes holes in the bags and hands them to the hauler.

This program resulted in a significant enough reduction in garbage that the school renegotiated its contract with the garbage hauler and continues to pay thousands of dollars less for garbage each year. The program was so successful that Oregon Green Schools and the Eco-School Networks asked Katie and Kristen to share their story. Today many schools in the Beaverton school district are recycling their milk cartons.

Unfortunately, the milk carton project lost steam at Ridgewood because the custodian was assigned new duties and the parents who managed the process left as their kids moved on to other grades. But what started as a milk carton project became so much more.

Kristen shares, "In order to create a legacy of sustainability for Ridgewood, we had a meeting of stakeholders including parents, teachers and garden volunteers to decide our future focus. We chose to re-start the Ridgewood Student Green Team. Our adult sustainability team connected more closely with the Ridgewood Parent-Teacher Co-op (PTC) to get more invested volunteers so that we can grow and continue the program without having gaps when committed parent volunteers leave the school and move on. Since then we have a very well established adult Sustainability Team and nearly forty 4th graders on our student Green Team. We organize clothing swaps and other events. Even though milk cartons are back in the garbage, the garbage service fee has not increased to its former level because the overall amount of discards is still less than it was previously. We are committed to keeping our trash low and will concentrate on Oregon Green Schools trash audits every three years to monitor our progress."



Earth Day Events

Where: Alameda Elementary School in NE Portland

Master Recycler: Jaylen Schmitt (Class 38)

The Alameda Green Team wanted to build a culture of sustainability in the school. One way they did that was to organize Earth Week activities. They started with an eco-friendly fundraiser. They sold 150 reusable sandwich wraps, 72 water bottles and 1 durable lunch kit for the green team. They then held an Earth Day assembly where kids learned about their carbon footprints and went home to log activities they did at home. The 200 kids who turned in a form entered a raffle for prizes such as compact fluorescent light bulbs, bike helmets, waste-free lunch boxes and garden kits. Logs were entered and the school newsletter featured the collective carbon footprint of participating students and specific action items that would make the biggest difference.

The following two years the green team used the Metro Community Cleanup Guide to plan a collection event. In the first year they collected about 40 cubic feet of Styrofoam that was recycled at Recology, 250 pounds of batteries that were recycled at Batteries Plus, nearly 200 pairs of shoes that were reused by a church with some recycled for sports surfaces, and 37 pairs of eye glasses that were reused by the Lions Club.

CLASSROOM EDUCATION AND CURRICULUM RESOURCES

Perhaps you like public speaking, creating interactive activities or have a group of kids or youth you would like to share ideas with. If you don't already have a school community, the contacts listed to the left can help you find one where you can carry out a project.

You can take groups to see the great materials management facilities we have in this region! To find facilities that host school field trips look on Metro's website for the *Portland Metropolitan Area Field Trip and Resource Guide*. Organizing a field trip to facilities listed in this guide would count as volunteer hours.

The following websites and webpages are deep with resources, curriculum, games, activities and options for joining clubs.

- Facing the Future
- EPA Lesson Plans, Teacher Guides and Online Resources for Educators
- Green Education Foundation
- Resources for Rethinking

DISTRICT LEVEL CAFETERIA ACTIVITIES

Activities in individual schools are driven primarily by their principals and parents. However, some problems are better tackled at the district level.

Tackling such problems especially in the cafeteria on a district level, can effectively capture impressive amounts of waste for compost and recycling, reduce waste at impactful levels and save schools money. According to LeanPath, a Portland-based company that provides food waste tracking systems to the hospitality, foodservice and restaurant industries, 45 percent of all waste generated by weight by the average K-5 school is food related and 31 percent of waste at middle and high schools is food related.

Wasted food is not only an environmental problem, but also a barrier to kids' health and well-being. In 2012 the U.S. passed the Healthy, Hunger-Free Kids Act. The act set new standards for healthy meals for kids. A U.S. General Accountability Office survey released in January 2014 found that 48 of 50 states reported that food waste and the costs have been their two top challenges in implementing the rules. Their research is finding that the wasted food tends also to be some of the healthier food. Studying waste and student attitudes about waste helps the U.S. school meals programs make better decisions about how and what to serve students so that less food is wasted and kids get balanced nutrition.

Replacing Styrofoam™ trays

In 2010, all school lunches in Portland Public Schools (PPS) were delivered on Styrofoam™ trays. The David Douglas and Parkrose Districts in Portland had not done away with their dishwashers and continued to use durable trays, but school by school, PPS had moved to disposables because of what they thought at the time was a cost savings. It turns out that disposable trays must be bought over and over again and they pile up in the garbage, so the schools were actually spending more money because of this change. Meanwhile a group of parents in eight different schools in Portland who were involved with the Eco-School Networks decided that they wanted to change this practice. They learned that Nutrition Services was receptive to budgeting money for labor to wash durable trays, but facilities did not have the initial resources to pay for the dishwashing machines and durable trays. The Eco-School Networks' parents appealed to the City of Portland, Bureau of Planning and Sustainability who identified one time funds to pay for trays. It took several more years for the procurement of dishwashers and the implementation process, but by 2014 almost all elementary schools were using durable trays.



RESOURCE

Look online for the Oakland USD School Food Donation Guide for step-by-step instructions and customizable templates.

RESOURCE

Information is available online about the Milk Dispensers in Clackamas County Schools program.

Milk carton recycling

A number of individual schools in the region have tried milk carton recycling. The Hillsboro School District (HSD) partnered with the Washington County Solid Waste & Recycling program to establish milk carton recycling at 33 of the district’s 35 schools, and the impacts are impressive. The HSD purchases upwards of three million milk cartons per year, weighing in at nearly 48 tons of material. Eliminating milk cartons along with the wet weight of leftover milk, allowed HSD to decrease service pickups for a garbage cost savings of about \$85,000 per year.

Food donation

Two state and federal policies have made it so both the Portland Public Schools and Hillsboro School District could set a district-wide policy aimed at donating food not eaten during school breakfast and lunches to local food pantries and the Oregon Food Bank.

First, the Oregon Department of Education School Food Safety Inspection Requirements state that prepared food and food that has been handed to the consumer cannot be donated to hunger organizations. However, pre-packaged products, such as pre-packaged vegetables and sandwiches, can be recovered for redistribution, as long as they are not labeled potentially hazardous. The packaging on a potentially hazardous product will almost always indicate whether or not a food item needs to remain refrigerated at all times or after opening (indicating that the food is potentially hazardous and thus, not allowed to be re-served/resold).

The second is the U.S. Department of Agriculture’s, *Offer Versus Serve* policy. This policy allows servers to give children choices of the food they want, so that food that does not get chosen can be donated.



Recess before lunch: a waste prevention strategy

U.S. Department of Agriculture, the School Nutrition Association, and the Centers for Disease Control and Prevention have studied the timing of lunch in relation to recess to understand if children will eat or waste more food. Studies show that implementing recess-before-lunch (RbL) results in children consuming significantly more food during the lunch period and wasting significantly less food. Recess before lunch also increases the average student's productivity levels post lunch. As noted in a study conducted by the *University of Mississippi's National Food Service Management Institute*, "When students go to recess before lunch they do not rush through lunch and tend to eat a more well-balanced meal including more foods containing vitamins, such as milk, vegetables and fruits."

When recess is before lunch, an average school's student population:

- Wastes less food (on average, a 27 to 40 percent decrease in waste).
- Consumes as much as 35 percent more calcium and protein.
- Decreases its number of post-recess nurse visits, for such issues such as headaches and stomachaches.
- Is calmer and ready to get to work immediately instead of needing cool-down time.
- Increases its post-recess on-task classroom time.
- Decreases its discipline referrals.
- Decreases the need for cafeteria-based supervision.
- Decreases the number of lunch break-related accidents.
- Generates less litter on school grounds and inside the school.



Several schools in the Hillsboro School District already implemented recess before lunch. Larger school districts will likely not have the same opportunity as lunch and recess are carefully timed between grades. However, in districts where it is possible, it is clear that recess before lunch is a win-win.

How to get involved in district-wide programs

Whether you have an idea or concern or just want to get involved, discussions concerning efforts of this magnitude can be tricky, as they will most likely involve numerous people, mostly administrators. The best approach is to start with your local resource as described in the first section of this chapter. They would know what might already be underway, what resources are available and how you might best connect with key decision makers.



CONCLUSION

Working with schools and other youth groups is appealing to many Master Recyclers. Even though it is a cliché, youth are our collective future and it is vitally important that we educate them about recycling and sustainability. Projects focused on recycling, composting, and other sustainability efforts can be terrific ways not just to reduce waste at schools, but also to engage young people in this work. Many of the strategies and resources that you would use in a school setting are similar to those you would use at an event or in residential settings. But there are important differences and special considerations and this chapter explored many of those. You now hopefully have a good sense of how to find a school to work with, how to establish effective relationships with key players, and how to find and use resources such as curriculum, presentations, and field trips. While many Master Recyclers are interested in working with one school, there are also opportunities to connect with district-wide initiatives focused on recycling and waste reduction.

CHAPTER 12 RESOURCEFUL LIVING

INTRODUCTION

By making simple changes in our everyday choices, it is possible to consume in ways that benefit ourselves, our families and our communities.

In the sustainable consumption chapter we learned that there is a need on a systems level to shift not only how much we consume but also how we consume. Economic metrics currently focus on the movement of consumable products and the money exchanged. Research shows that such metrics do not do a good job of measuring satisfaction and whether basic needs are being met. The chapter described different ways that we can measure success so that it includes values such as the protection of our natural resources and improved quality of life for all people.

But what does this look like on a personal level? Are there ways that we can refocus our lives in the same way? The material world is an essential component of the human experience. Food, medicine, clothing, housing, art and books all contribute to our well-being. But evidence mounts that the accumulation of material possessions, once our basic needs are met, does not help us feel more creative, connected, secure and healthy. There is indeed such a thing as enough when it comes to possessions.

This chapter will focus on four broad strategies that have been shown to satisfy residents' desires to save money, support the community, conserve natural resources and reduce climate emissions, all while enjoying more time with friends and family. The four broad strategies are: 1. reuse, 2. borrow, rent or share, 3. fix and maintain and 4. buy smart. You will learn about how to find specific resources that will help you and your community practice these strategies.

This chapter will also share how Master Recyclers can focus volunteer hours on resourceful living by connecting people to these existing resources and organizing projects in your own communities that create even more opportunities to take these four actions.



Four strategies of resourceful living:

1. *Reuse*
2. *Borrow, rent or share*
3. *Fix and maintain*
4. *Buy Smart*



Upcycled or repurposed, second hand, salvage and vintage – all of these words essentially mean **reuse**, and reusing can save you money and space and avoid waste. Need clothes, storage solutions, back-to-school supplies or craft materials? Many of these items can easily be found at second-hand stores, or you may even have what you need on-hand but not recognize it.

The easiest form of reuse is to use durable products instead of disposable products. We don't usually think of using our dinner plates as reusing them, but when we are at a food cart our food is delivered in a disposable single use container. We can reuse a coffee mug or water bottle, a take-away container, and packaging for lunch at work. We can even use durable boxes for moving instead of cardboard boxes that need to be recycled.

TERM

Reuse is about reusing something exactly as it was meant to be used without having to process it like we do for recycling. Reuse can also be about thinking differently about the objects around us and seeing if they can meet new needs.

Purchase reused

Explore our region's many second-hand stores to find new-to-you clothing, furniture, electronics, household or craft items, salvaged building materials and more.

It is important to close the loop with reuse. To fully recycle we don't just place recyclables in the cart, we must also make a market for those recycled products by purchasing products that are made from recycled material. The same is true for reuse. Some reuse organizations are about getting materials to communities who do not have the resources to purchase new, but many of the organizations that we donate to also depend on the resale of reused materials to help with operation costs. The reuse business community is entirely about the resale of products, so they need customers. If we want to see the reuse community (be it non-profit or for-profit) thrive we must see them as not just a place to donate but also a place to get what we need. Free Geek, SCRAP, and the Community Warehouse are non-profits that serve important purposes in our community. They also all have shops packed with all sorts of treasures!

Non-profit and for-profit resale shops exist in all parts of our region. Do some internet searching using phrases like: resale, vintage, consignment, second hand and gently used. You will find places to buy used furniture, tools, an electrical cord, clothes and baby accessories. Also, check your local library to find out when their next book sale will take place and find reading treasures while you support an important resource in the community.

RESOURCE

- **Free Geek** provides free computers, technology and education to people who would not otherwise have access through the reuse and recycling of old computers.
- **SCRAP** inspires creative reuse and art through education projects and the creative reuse and donation center.
- **Community Warehouse** is Oregon's only furniture bank. They provide gently used household items to people transitioning back into housing and have locations in Northeast Portland and Tualatin.



Online reuse shopping

Did you think just because you prefer to use your laptop to shop that you would be left out of reuse shopping? Well, think again! There are many great resources for the online shopper. Most of us are familiar with Freecycle or Craigslist as great ways to find bargains, but there are many more resources for reuse online. Through websites like Poshmark, Threadflip and eBay you can shop closets all over America and sell your clothes too! Support Free Geek and Community Warehouse by exploring some of their special finds listed online.

Can reuse be communal?

Swapping is nothing new, but it is experiencing a revival. People in our region swap everything from tools, clothes, baby accessories, plants and seeds, and skills and knowledge.

Swap Positive promotes *free frugal and fun* by listing over 25 regular Free Swap events that take place from Sherwood to Beaverton, Portland to Milwaukie.

Portland community centers, called Swap n Plays, exist in Northeast and North Portland. These community hubs are gathering places for play, conversation and swapping children's toys, accessories and clothes.

Repurposing



So far we have been talking about reusing items in the way that they were originally meant to be used. We can also avoid having to run to the store every time we have a need by **repurposing** the objects that we already have around to meet a new or different need.

The objects around us can have so much more use if we expand our concept of what we can do with them. If a solid wood door is taken out of a house before demolition and doesn't fit any of the new door frames, it has outlived its purpose. But that is true only if we consider it a door. If we consider it a solid slab of wood, the potential uses multiply. It could be used as a desktop or fit together with other doors to make a solid wood floor.

RESOURCE

- **Swap Positive** is a non-profit that provides training and ground rules for coordinators to organize Free Swaps. The website lists 25 regular Free Swaps plus a blog for one-time Free Swaps. Coordinators focus on sizes and types of items to be swapped. If you love clothes (or electronics, toys or other stuff), and you love being with fun, thrifty, kind people – why not start a swap? They also organize a holiday gift Free Swap each year.
- **St. Johns Swapnplay and NE Swap and Play** are cooperatives that include indoor play areas, ongoing exchange of kid's clothing and toys, and all sorts of events and classes. This model encourages reuse instead of buying new as well as building positive relationships — a great message to pass on to kids.

TERM

Repurpose: the use of something for a purpose other than its original one.



Reuse for Master Recycler hours

Want to see more opportunities for people to reuse, repurpose and swap in your area? Make it happen! Master Recyclers spend hundreds of hours every year helping their neighbors and coworkers reuse, repurpose and swap.

Reuse projects can be small-scale. Invite your friends and family to a party where everyone brings items that are in good condition. Put on some music. Add some food. And let folks peruse for new found treasures. Some Master Recyclers have these parties so frequently they actually rotate the topic. At one party, they swap clothes, while the next is focused on kitchen supplies or books.

Save your company money by repurposing the supply room to a reuse and supply room. (One Master Recycler calls it *the room of requirement*. For those of you who haven't read the Harry Potter series this is a magical room that appears when you are in great need of it). You can regularly encourage coworkers to replace unused supplies and go there first before looking for new supplies. You can even set up a process so that the office purchaser calls on the staff to return supplies and inventories of existing materials before new ones are ordered.

Help neighbors make a little money by organizing a neighborhood-wide garage sale. In Portland, Master Recyclers participate in their local neighborhood cleanups by organizing a reuse or you-price-it area.

Perhaps you want to organize a larger scale project. Swap Positive (mentioned before) and the Center for a New Dream both offer extensive information (available online) on how to organize a community swap event. Find videos, instructions and case studies focusing on how to organize a community swap on the New American Dream's website. There they talk about swapping everything from seeds to toys, food to books. Don't forget you can invite other Master Recyclers to join you in the planning by putting an announcement in the Newsletter. Apartments and condo communities are also fantastic settings for a swap event.

A team of Master Recyclers helped solve a huge, bulky waste problem at Pacific University by organizing swap events in the spring, right before the students left for the summer and dumped their extra futons, night stands and desks. The University stored what didn't get taken and then had a free stuff event in the fall for incoming students.

BORROW, RENT OR SHARE

Who doesn't have a drill that sits charged and ready for that moment when you decide to tighten the screw on the loose cabinet door in the kitchen? There are many objects in our lives that sit idle waiting for a seasonal or temporary time when we need them. From power washers to snow shoes, we can reduce clutter and free up space by borrowing, sharing or renting these products. Sharing, borrowing and renting can be as simple as loaning a specialty baking pan to your neighbor, renting a rototiller from your hardware store down the street, or simply checking out books from the library. Renting supports the local service industry while purchasing new may support unfair labor practices in other countries. Borrowing and sharing builds community by fostering connections with neighbors and friends, which makes the region a better place for all of us.

Libraries: more than just books to borrow

There is something truly satisfying about curling up to a good book and our libraries have millions of them. But did you know that there is so much more you can borrow in our local libraries? Movies, video games and music are available at just about every library branch in our region. Library community spaces are free to reserve and use for meetings and workshops. Each library is a hidden source of fun stuff to check out. Many local libraries have a Cultural Pass or My Discovery program, which lets families check out one-day passes to local cultural venues such as the Evergreen Aviation and Space Museum, and the Oregon Zoo. Find out if your local library has a Library of Things. Many of our region's libraries now have stuff that you can borrow with your library card, including: slow cookers, cherry pitters, puzzles, tortilla presses, and even a Jack-o-Lantern cake pan.

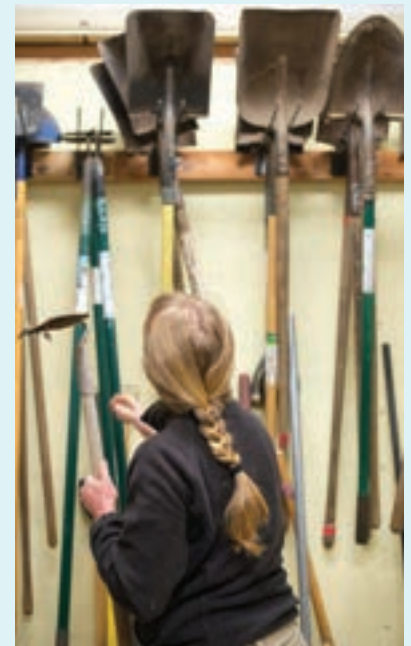
Tools when you need them

The easiest way to reduce the number of tools you have to store in your shed is to get in the habit of borrowing and loaning tools with your neighbors. However, some folks find it hard to do this if they don't know their neighbors well enough to trust them with expensive equipment or they may be afraid of breaking their neighbor's prized power tool.

Luckily, the community has other ways to get tools you need. Tool libraries are membership-based resources that build community and foster sustainability by providing nearby neighbors with tools and empowering them to use them. Most local hardware stores as well as large ones like Home Depot have rental services as well.

Cooking tools are becoming increasingly available to borrow or rent as well. The NE and SE Kitchen Shares are cooperatives that loan out dehydrators, canning equipment, ice cream makers, juicers, mixers, bread makers, durable dishes and more.

TOOL LIBRARIES



Southeast Portland Tool Library, Northeast Portland Tool Library, North Portland Tool Library and Green Lents Tool Library all check out tools to residents of the area they serve.



Special events

Planning a wedding, birthday party or community gathering can be expensive and end up generating a lot of waste. We often clutter our lives with table settings, furniture and formal wear just so that they can be used for events that happen sometimes years apart. We even live in larger living quarters to accommodate the occasions when we need to cook large meals, house guests and have large gatherings. Some people are choosing to break free of these objects and live in smaller quarters by looking to community space to serve these special events. Churches, schools and some restaurants will loan or rent kitchen space. Linens, table settings, and furniture for events can all be rented at a price usually much less than the cost of purchasing them. Search on the internet for words like *party rental* or *event rental* and you will find affordable options all over the region. Several of the Swap n Plays mentioned earlier also have dishware that local residents can check out for family reunions or company picnics.

Master Recyclers and sharing

Just about any community that you are a member of could benefit from a little more sharing. It takes trust to share, but research shows that sharing also builds trust. Two Master Recyclers in Hillsboro organized a tool sharing program with their home owners' association. Thanks to another Master Recycler's project, the Alameda Elementary School has a classroom party kit that teachers share. Rather than every classroom needing its own set of dishes, napkins and party decorations, one set is stored in the supply room for teachers to check out. A Master Recycler in the Pearl District of Portland helped her neighbors save space in their studio apartment building by identifying a communal space where shared tools, equipment, kitchen gadgets and cleaning supplies can be stored.

If you are feeling more ambitious, the *New Dream Guide to Sharing* (available online) has step-by-step instructions on how to start a lending library in your area.

FIX AND MAINTAIN

There is a growing repair movement that is empowering people to make their stuff last longer.

Maintenance and repair can be surprisingly easy and creative, too. If you're a do-it-yourselfer, how-to classes and online tutorials can help you improve your sewing, bike or home repair skills quickly. YouTube has an endless supply of resourceful people who have uploaded their success in fixing just about anything you could possibly need to fix. iFixit.com includes a forum where people upload step by step instructions for fixing everything from your smart phone to your coffee maker. iFixit even sells parts and tools that might be necessary to do the job.

Not feeling so handy yourself? You would be surprised how economical it can be to take your broken object to a local repair shop. There is a lively economy based on the repair industry. Simply Google tailor, alterations, furniture restoration, cobbler, computer repair, or lawn mower repair and you'll likely discover a nearby business that is ready to help.

An ounce of prevention is worth a pound of cure. Basic maintenance extends the life of your stuff, saving you money while reducing waste. Keeping our appliances running smoothly and efficiently can even save energy during the use phase of these products.

Repair events

Master Recyclers participate in events aimed at extending the life of stuff in our area. In these events handy volunteers (often Master Recyclers) offer to help fix small appliances, sew hems and tune up bikes. Events in Portland and Gresham are called by Repair Cafes and events in Clackamas and Washington Counties are called Repair Fairs. Master Recyclers also help organize, promote and greet fair goers for volunteer hours.



BUY SMART

All of the strategies mentioned so far are about ways to get what we need without having to purchase a new product. But there are times when you do need to purchase something new. Planning ahead, researching product choices and rethinking gifts are three areas where we can maximize our purchasing power and minimize our negative impacts.

Plan before you shop

For groceries, make a list based on your plans for the week, then shop your cupboards and fridge first, crossing off the items you already have on hand. At the store, stick to your list. Consider purchasing in bulk so that you can buy the exact quantity you need. For consumable products, such as paint or decking stain, measure the area that you plan to cover and check your shelves to see if you already have some on hand. At the store, read the label to find out the amount you can expect to need to cover the area you measured.





How was the product made?

Choose quality, durable products rather than disposable items. For example, buy Mason jar drinking glasses or stainless steel canteens, rather than disposable cups or bottled water. Select items that are durable and that can be repaired when they wear out. For example, buy shoes which can be resoled. Consider the materials options for each product. For each material, can you weigh the carbon footprint of the extraction and production, its toxicity, and how workers were treated?

Think outside the gift box

Holidays, birthdays, weddings and anniversaries bring special pressures to purchase the perfect gift. Gifts of experiences (rather than stuff) offer loved ones a chance for a memorable outing, and remove the potential for pressure to find space for something they may not need. Who doesn't love tickets to a show or a special spa service? How about donating to a cause or organization important to the person? Does the person you want to buy for have a special talent or want to learn something new? If so, a class might make a perfect gift. How about taking your loved one on a tour of a local vineyard or a historic area? If you have a lifetime event where people will want you to set up a registry, consider companies that offer options for gifts of experiences. So Kind Registry is one non-profit registry. There are also some for-profit online platforms that will help you set up a registry so that your guests can purchase part of your honeymoon.

TRANSITIONS

Major life transitions such as a move or the birth or adoption of a child as well as seasonal transitions such as spring cleaning, back-to-school and holidays are often times of heightened consumption. They are also times of heightened advertising pressure and consumers are bombarded with messaging. Rather than let advertisers and businesses suggest what you want and need, why not decide more independently and carefully consider your personal needs and resources. This could lead to decreased consumption, lower expenses, and increased satisfaction. To be sure, a new baby needs a place to sleep, clothes to wear and toys that entertain and provide stimulus. But these needs can likely be met creatively and at a lower cost by using some of the strategies presented in this chapter.

Times of major life transitions can also be opportunities for behavior change. People may be more receptive to new ideas and new ways of doing things. Just as sharing, borrowing and creative purchasing help us bring more meaning to our daily lives, these strategies can also help us ensure that our life transitions reflect our values.

RESOURCEFUL PDX

The City of Portland developed the Resourceful PDX program to give Portland residents tools and ideas for reducing waste, and specifically, to let them know how to take action and where to find resources.

The City conducted research through phone surveys and focus groups and learned that a diverse range of Portlanders feel that taking the actions described in this chapter would make life more interesting. It would leave them with more time to spend with their families. They would save money and feel more creative. They also thought that it would be good for the local economy and the environment.

What Portlanders also said is that they do not know where to go or how to do some of these actions. So the program focuses not on why we should make these changes, but on how to do so and where to go.



RESOURCE

Visit the Resourceful PDX website and blog for more information.

The Resourceful PDX campaign:

- Connects residents with resources, including community-based organizations, local businesses, government agencies, and each other, to help them be successful in reducing waste.
- Offers resources specific to times of life transition that are often periods of increased stress, pressure, clutter, consumption and waste. These transitions create opportunities to try simple changes and reduce waste. The program focuses on a number of specific transitions: Moving, Growing Family, Home Improvement, and Kids in School.
- Provides on-going ideas and tips of how to use these resources.

To get these resources out in the community, Resourceful PDX uses a blog, a website and advertisements, as well as an information booth (staffed by Master Recyclers, of course). Resourceful PDX also partners with community groups to help spread their key messages.

MAKE EVERY THREAD COUNT

Choose quality clothes that save money, last longer and reduce waste. Poorly made clothes wear out quickly, clutter closets and use up precious natural resources. Well-made clothes are available for every budget, are built to last, and can be worn often and for years to come. Quality clothes just make sense.

RESOURCE

Visit the Resourceful PDX website and blog for more information.



Three ways to help

Quality doesn't have to be code for expensive. Well-made clothes aren't determined by the price tag and simple care can make those pieces last, which saves you the hassle and cost of replacing them. You can extend the life of your clothes and your investment by taking a few easy steps:

Step 1: Look for quality

- **Fabrics:** All types of fabrics, whether natural or synthetic, have advantages and disadvantages. Consider the quality of the fabric itself (thickness, softness, stretch, etc.) and how suitable the fabric is for that particular item. Will it be comfortable and durable?
- **Good quality thread and strong, even stitches:** Give the fabric a gentle pull to see if the thread breaks or pops. Check for rippled, puckered or twisted hems and seams. Avoid garments that don't appear to hang smoothly.
- **Edges and hems:** Cut or raw edges and hems can lead to unraveling and loose, hanging threads. Be careful in choosing vgarments with these features as they may require special laundering.
- **Matched patterns:** If the garment has stripes or plaid, the pattern should match up at the seams.
- **Linings:** For suits and other lined garments, check to see if the lining hangs loosely and doesn't cause any pulling or puckering.
- **Quality buttons and buttonholes:** Buttonholes should be well stitched with no loose threads or raw fabric showing. Test the button in the buttonhole to make sure it's easy to button up the garment.



Step 2: Care for your clothes

- **Clean correctly:** Follow labels when washing your clothes to keep them looking better and lasting longer.
- **Consider cold water:** For most laundry, you can use cold water and less detergent than directed. This prevents exposure to excess heat or chemicals that contribute to fading or wearing out.
- **Group similar items and turn inside out:** When washing, turn jeans and graphic shirts inside out to prevent fading and wear. Wash similar items together (for example, all jeans) to prevent harsher fabrics from wearing on softer ones.
- **Use the dryer sparingly:** High heat fades and shrinks material, and also breaks down elastic fibers in clothes, causing breakage and stretching. When possible, line or flat dry your clothes. If you must dry your clothes, use the lowest setting.
- **Stain removal:** Discover what sort of care is best for the stain. Cold water, hot water or stain treatment? Some quick online research can save that garment you love.
- **Simple fixes:** Learn the simple but satisfying art of re-attaching a button, mending a tear or applying a patch.
- **Call in the experts:** Locate a good dry cleaner and tailor that can help keep your clothes clean and well-fitted.



Step 3: Wear those clothes often and for years to come!

- **Every item in your closet has a cost-per-wear:** the longer you wear that shirt or pair of jeans, the more you get out of your investment. A closet carefully stocked with several quality items will outlast a closet packed with poorly made, disposable clothes. So choose quality — you'll look good, save money and help care for our environment.



CONCLUSION

Let's face it: materials matter. From the delicious pasta shared with a friend, to the pendant given as a gift, materials contribute much toward our health and well-being. They are sustaining parts of the human experience.

Unfortunately, the rate at which we produce, consume, use and discard materials has serious global environmental and social consequences. The United States' relentless fixation on low price products has created a marketplace that is full of cheap, disposable products that people discard with little thought.



Today, our relationship with our material possessions is, all too often, turned on its head. Instead of seeking material possessions that meet our personal needs, we are increasingly becoming defined by our things. Popular culture (driven by massive advertising campaigns) has manufactured portraits of who we should be. Teens are especially vulnerable to relying on their things to feel accepted, attractive, and good about themselves. And the drive to purchase all this stuff leaves Americans on what is often referred to as a *work-to-spend treadmill*. Many of us are working harder and working longer hours so we can consume more.



We can, however, do things differently. We can decide for ourselves what it is we need (or even want) rather than waiting for someone else to tell us. We can determine for ourselves what is enough stuff based on our internal values rather than someone else's profit margin. We might decide to fill some needs with things, but research shows that we are most satisfied by making connections in our community and family, and by focusing on our health and that of our families. Many of the activities, like sharing and borrowing, described throughout this chapter give us opportunities to connect with others in our community. Even investing in local services helps us feel more connected to the people around us.



Another key way of changing our relationship with our stuff is to recognize that materials are actually vibrant parts of our experience on this planet. The discount culture has cheapened their value. But turning against materialism is not necessarily the answer as it denies the physical world that is our reality.



What if we turned around instead and learned again to truly love our possessions? If we cared deeply about our things again, we would want to find out where they came from and what they are made of. We would ask who made them. We would take care of them and share them with others. We would fix them when they get damaged. And we would find a good place for their next life cycle — be it reuse, repurposing or recycling.