

Section 5:

Reduce Waste—Save Money and Resources

Reducing waste makes good business sense. That's because every pound of waste you generate costs your business money. So it just makes sense that by reducing waste, you'll save your business money.

Reducing waste involves preventing waste by cutting down on the amount of waste in the design, manufacture, purchase and use of materials. It is the best method of controlling waste because it creates less waste in the first place.



By making just a few simple changes in the way your business handles its waste, you can save money in the long run. For instance, by simply eliminating paper memos or a layer of shipping material, you will save money on procurement, handling and disposal costs.

Waste reduction benefits the environment, too. It helps conserve natural resources, saves energy and reduces the need for additional disposal capacity. It also reduces the pollution associated with the manufacture of products.

Reducing Waste Benefits Your Business

Reducing waste has many environmental benefits. But it also offers numerous advantages to your business. These include:

- Economic advantages. Potential economic advantages of waste reduction include reduced waste disposal fees, savings in material and supply costs, revenues from marketing reusable materials and savings from more efficient work practices.
- Enhanced corporate image. Your enhanced corporate image as an environmentally conscious business can attract and maintain customers. Research shows that more and more consumers and businesses consider a firm's environmental record when making purchasing decisions.
- Improved employee morale. Your employees may appreciate your efforts to prevent waste. This heightened morale could increase employee enthusiasm and productivity.
- Compliance with County recycling regulations and goals. The County has set a goal to reduce waste and recycle more, aiming for Zero Waste. But recycling alone will not achieve this ambitious goal. Businesses will have to reduce the amount of waste they produce to make this goal a reality.



Montgomery County SORRT Program

2425 Reedy Drive, 4th Floor, Wheaton, MD, 20902. 3-1-1 or (240) 777-0311. MontgomeryCountyMD.gov/RecycleRight

Your Business Has Many Waste Reduction Options

Waste reduction activities include, but are not limited to:

- Reusing a product or package in its original form
- Changing purchasing, management, consumption or waste-generation practices to lower the amount or toxicity of waste generated
- Increasing the life-span of a product or package
- Reducing or eliminating the amount or toxicity of the material used and ultimately disposed

Your business has many options for reducing waste. The more you implement, the more you'll reduce. Try adopting a few at a time. Once you get started, you'll see just how easy it is to integrate waste reduction into your work practices. A detailed list of suggestions is found at the end of this section.

Encourage Your Suppliers To Reduce Waste

Your waste reduction efforts can reach beyond the walls of your business. Encourage suppliers to minimize the amount of packaging used to protect their products, or seek new suppliers who offer products with minimal packaging. Work with suppliers to make arrangements for returning shipping materials such as crates, cartons and pallets for reuse.

Preventing Paper Waste

Most likely, paper is one of the largest components of your solid waste stream. There are many ways businesses can use paper more efficiently, including:

- Sending messages via electronic mail
- Printing fewer copies of reports
- Posting memos in a central location
- Storing computer documents electronically rather than making hard-copy files
- Using smaller fonts to save space
- Making note pads from scrap papers



If They Can Do It...

Some businesses have saved thousands of dollars a year by implementing a few simple waste reduction measures. By cutting down on the amount and/or toxicity of the waste your business generates, you often can save money, increase productivity, attract customers and help protect the environment.

While your program will be tailored to your business's needs, you can learn a great deal from the experiences of these area businesses.

Montgomery County SORRT Program

2425 Reedie Drive, 4th Floor, Wheaton, MD, 20902. 3-1-1 or (240) 777-0311. MontgomeryCountyMD.gov/RecycleRight

Here are some examples of how businesses and organizations in Montgomery County have reduced the amount of waste generated:

Girls on the Run Montgomery County: orders items such as t-shirts based on enrollment numbers and not simply projections.

The Heights School: builds sets reusing materials from old sets and uses scrap lumber and hardware as much as possible.

Lockheed Martin Corporation: uses an asset redeployment system corporate wide to reuse assets such as furniture and equipment.

HERE'S HOW TO DEVELOP YOUR WASTE REDUCTION EFFORT

Your business already may have adopted some waste reduction procedures such as reducing paper consumption through the use of electronic mail or making double-sided copies. But there are many more steps you can take to reduce waste and save money, ranging from simple alterations in everyday business operations to large-scale initiatives.

The following are step-by-step instructions to get your waste reduction program started (or expand your existing effort). Get started today – you're sure to see the results almost immediately.

Getting Started

A waste reduction program is most successful when everyone is aware and involved. When setting up your waste reduction program, remember to include:

Top management. As with your recycling program, the success of your waste reduction effort is greatly enhanced by the support of top management. Top management should endorse your effort at its onset. Once the program is operational, managers should continue their support by endorsing program goals and encouraging employee commitment and participation.

The waste reduction team. Establish a team of employees to help plan, design, implement and maintain your waste reduction program. The size of the team should be related to the size of your business – a larger business probably will need a larger team than will a five-person business. Be sure to appoint a leader who is knowledgeable and motivated about waste reduction. This person will act as a liaison between management, employees and the waste reduction team.



You may want to ask your recycling coordinator to serve as the leader. However, you may also look beyond the recycling coordinator, to someone in procurement or an employee with a commitment to the environment or cost savings, to serve as the team leader. The team's responsibilities will include:

- Working with your business to set the preliminary and long-term goals of the waste reduction program
- Promoting the program to employees and motivating them to participate

Montgomery County SORRT Program

2425 Reedie Drive, 4th Floor, Wheaton, MD, 20902. 3-1-1 or (240) 777-0311. [MontgomeryCountyMD.gov/RecycleRight](https://montgomerycountymd.gov/RecycleRight)

- Monitoring the progress of the program
- Periodically reporting to management about the status of the program
- Gathering and analyzing information relevant to the design and implementation of the program through a waste assessment

Goal setting. Perform a waste assessment to collect data on your current waste collection and disposal procedures and on the types and amounts of waste produced. From this baseline information, work with management to establish and record realistic, measurable goals for waste reduction. These goals might include collecting revenues from the exchange of materials or reducing inefficiencies in operations.

Employee involvement. Keep employees apprised of the program and actively encourage their participation. To emphasize the program's high priority, begin with an announcement from the owner or chief executive officer. The announcement should:

- Explain how waste reduction can benefit both the business and the environment
- Encourage employees to offer suggestions to the team leader
- Outline the design and implementation stages of the program

In addition, provide reminders periodically to maintain employee support and participation. Consider offering incentive awards to employees most committed to waste reduction.

Conducting a Waste Assessment

Once you've established a framework for your waste reduction program, you're ready to conduct a waste assessment. While this step is not necessary to begin reducing waste, the data gathered can provide you with a much greater understanding of the amount and type of waste your business generates.



The data you collect can be used to identify and evaluate potential waste reduction options, including alternative purchasing practices, reuse, and material exchanges. The waste assessment also will enable you to examine current waste reduction practices, and to quantify them.

If you do not have the time or resources to conduct a waste assessment, use industry averages of the amount of waste generated by businesses in your field (industry associations should have this information) to approximate the amount and type of waste your business generates. While this information will not be as accurate as that provided by a waste assessment, it is a good starting point.

Your waste assessment should consist of one or all of these three methods of data collection:

1. Examining facility records

Take a look at the following types of records to gauge your business's waste generation and removal practices: purchasing, inventory, maintenance and operating logs; supply, equipment and raw materials invoices; equipment service contracts; repair invoices; waste/recycling collection records and contracts; contracts with recycling facilities and records of earned revenues from recycling.



2. Conducting a facility walk-through

Tour your business to observe the activities of different departments, and talk with employees about waste-producing activities and equipment. A walk-through is a relatively quick way to examine your waste-generating practices.



You will see the type and amount of waste produced, identify waste-generating activities and equipment, detect inefficiencies in operations, observe the layout and operations of various departments, assess available space and equipment that could be used for storage, assess current waste reduction efforts and collect other information through discussions with employees.

While the records examination provides you with data, the walk-through is an opportunity to observe the connection between the types of waste generated and the actual waste-generating activities or processes.

3. Performing a waste sort

A waste sort will provide you with more information than a review of records or a walk-through. It involves the collection, sorting and weighing of a representative sample of your business's waste. The goal of the sort is to identify each waste component and calculate its percentage of the waste your business generates. It can focus either on all your waste or it can target specific areas.



Be sure to document all information gained through the assessment. This information will serve as baseline information from which you will develop and evaluate your program.

Selecting, Implementing and Monitoring Waste Reduction Options

The information collected in the waste assessment can be used to list, analyze and choose appropriate waste reduction measures for your business.

Use the findings from the waste assessment to list all the possible waste reduction, materials exchange and purchasing measures you feel would be effective. The list should be compiled based on the goals of your waste reduction program. Then assess the list for its feasibility; determine if the options substantially reduce waste removal costs, reduce purchase costs, have low start-up costs or boost employee morale. You'll need to weigh these criteria based on your own particular goals.

Evaluate which options are most appropriate for your program by considering the benefits and drawbacks of each. After evaluating the options, review the long-term feasibility of the program as a whole. Remember that successful programs can be designed around complementary options that take advantage of their different strengths. For instance, the cost of implementing an expensive option could be offset by savings from another option or its own overall benefit.

Once you've determined which waste reduction measures will work for your business, it's time to implement them. You may want to build your program slowly, implementing a few options at a time. This way, staff are not overwhelmed by changes in procedure, and you'll have an opportunity to identify, assess and solve any issues in the program's early stages. Be sure that all employees are aware of your waste reduction program, and know their role in it.

In addition, update staff as your program evolves. Encourage them to submit new ideas on increasing your program's efficiency.

Evaluate your program on occasion, since waste reduction is a dynamic process. Keep track of its successes, identify new opportunities for waste reduction, identify areas for improvement in your current program and be sure to provide documentation to the County in your recycling plan and annual waste reduction and recycling report. Your program should be active and dynamic, with applications to future purchases and procedures as well as existing ones. Resolve to consider waste reduction in all your future business practices.

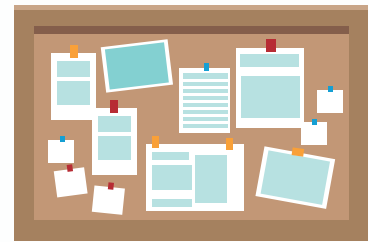
Business Waste Reduction Techniques

Waste Reduction, also known as Source Reduction, includes programs for the reduction of the amount or toxicity of waste including, but not limited to the design, manufacture, purchase and use of materials or products (including packaging) in ways that reduce their amount or toxicity before they enter the waste stream for disposal. It is based on the premise that it makes more sense to prevent waste in the first place than to manage it. Waste reduction activities include, but are not limited to: reusing a product or package in its original form; increasing the life-span of a product or package; reducing or eliminating the amount of toxicity of the material used and ultimately disposed; or changing purchasing, management, consumption, or waste generation practices to lower the amount or toxicity of waste generated.

The following are suggestions for programs your business or organization can implement to reduce waste that would otherwise be disposed. It includes proven techniques used by other organizations throughout the County and the country.

For Writing/Printing Paper:

- Make double-sided copies
- Keep mailing lists current
- Make scratch pads from used paper
- Reuse envelopes or use two-way envelopes
- Circulate shared memos, documents, periodicals, and reports rather than printing individual copies
- Use outdated letterhead for in-house memos
- Save documents electronically instead of making hard copies
- Use voice or electronic mail or put messages on a central bulletin board
- Do not print e-mails unless it is necessary
- Buy recycled paper
- Reduce production errors
- Print more words on each page
- Eliminate unnecessary reports
- Where appropriate, use non-toxic fluids and art supplies in your graphic arts department and general use
- Maintain central files instead of filing in multiple files
- Proof documents on the computer before printing
- Donate unwanted magazines and journals to hospitals, clinics, or libraries



Reduce the amount of advertising mail you receive by writing to:

DMAchoice
Consumer Preferences
P.O. Box 900
Cos Cob, CT 06807

Ask that your business be removed from mailing lists. Registration may also be completed online through the DMA website at: www.dmachoice.org.

For Packaging:

- Order merchandise with minimal packaging, in concentrated form, and in bulk
- Ask suppliers to minimize packaging on orders
- Request that deliveries be shipped in reusable and returnable containers
- Return, reuse, and repair wooden pallets (see Section 8 of SORRT Handbook)
- Reuse newspaper and shredded paper for packaging

For Equipment:

- Reuse packaging materials such as bubble wrap or air pillows and cardboard boxes, or find someone who can
- Set up a system for returning cardboard boxes to distributors for reuse
- Use reusable boxes for shipping to branch offices, stores, and warehouses
- Where appropriate, consider rebuilding or fixing packaging material (e.g., reels, wooden pallets)
- Rent equipment that is used occasionally
- Use repaired or re-manufactured office equipment (computers, telephones)
- Invest in equipment that facilitates waste reduction, where feasible, such as high quality, durable, repairable equipment copiers that make two-sided copies
- Institute maintenance practices to prolong the use of copiers, computers, and other equipment
- Reclaim usable parts from old equipment
- Rotate tires on company vehicles on a regular basis to prolong tire life
- Keep tires properly inflated
- Find uses for worn out tires (e.g., landscaping, swings)
- Recharge or rebuild fax and printer cartridges
- Use rechargeable batteries
- Install reusable furnace and air conditioner filters
- Sell or give old furniture and equipment to employees, or donate it to a local charitable organization (see SORRT List of Organizations Offering Reuse Opportunities)



For Landscaping/Organics:

- Use a mulching lawnmower and grasscycle your grass clippings by leaving them on the lawn when mowing (time savings should reduce cost of lawn maintenance and reduce need for fertilizers)
- Compost grass clippings and leaves or request your landscape contractor to compost these materials
- Use compost as a top dressing or topsoil amendment and request the landscape contractor to use it as well
- Choose a landscape design that needs low maintenance to reduce the amount of yard trim generated

For Purchasing:

- Substitute less toxic or non-toxic materials for toxic materials (i.e., some inks, paints, cleaning solvents)
- Where appropriate, use products which promote waste reduction (durable, concentrated, recyclable, reusable, high quality)
- Order supplies online, by phone or e-mail
- Buy products that can be accepted for recycling at a local recycling center
- Use optical scanners, which give more details about inventory, allowing more precise ordering
- Order supplies in bulk to reduce excess packaging
- Avoid ordering excess supplies that will never be used – maintain inventory control

For Over-Stocked, Exchangeable Items:

- Donate surplus produce and past-pull date perishables to local food banks if still edible (check with food banks first)
- Make arrangements to donate or exchange surplus and reusable items
- Set up an area in your business for employees to exchange unused items
- Donate used and surplus building and construction material to the County's Don't Dump Donate program



For Food And Personal Service And Employee Lounges:

- Use durable towels, tablecloths, napkins, dishes, flatware, cups, and glasses
- Use hot air dryers in restrooms
- Offer smaller portion sizes (e.g., child's menu) to reduce food scraps
- Arrange to donate edible food to local food banks

Montgomery County SORRT Program

2425 Reedy Drive, 4th Floor, Wheaton, MD, 20902. 3-1-1 or (240) 777-0311. MontgomeryCountyMD.gov/RecycleRight

- Use unbleached coffee filters
- Encourage customers to take home extra food (use recyclable packaging such as aluminum foil or #1 PET plastic clamshell containers)
- Purchase condiments in bulk and use reusable containers instead of single-serve packets

In Retail And Wholesale:

Teach your customers about the importance of reducing waste. Effective tools for getting across the message include: promotional campaigns, brochures and newsletters (remember to use recycled paper), banners, newspaper advertisements, product displays, special store signs and labels to promote products that are refillable, reusable and recyclable.

Encourage reuse of shopping bags by offering customers the choice of buying their own bag, complimenting customers who reuse bags, or providing a financial incentive for reuse.

Offer customers a rebate or price cut when they reuse grocery bags, containers, mugs, or cups for refills.

Provide a choice of products that include products that can be recycled locally and are made of recycled fiber or material.

Offer customers waste-reducing choices, such as:

- Items in bulk or concentrate
- Solar-powered items, such as watches, calculators, and flashlights
- Rechargeable batteries
- Razors with replaceable blades
- Durable merchandise
- Repairable merchandise
- Refillable bottles
- Encourage the return of metal or plastic hangers to the dry cleaners

Montgomery County SORRT Program

2425 Reddie Drive, 4th Floor, Wheaton, MD, 20902. 3-1-1 or (240) 777-0311. MontgomeryCountyMD.gov/RecycleRight

Reducing And Recycling Yard Trimmings

When developing a plan to properly reduce and recycle yard trimmings (i.e., leaves, grass clippings, brush, garden trimmings and other plant materials), consider implementing the following:

Reduce Waste Generation

Slow down the growth rate – especially useful with managing grass clippings. Reducing the amount of fertilizer applied will reduce the amount of foliage growth and clippings. By grasscycling – leaving grass clippings on the lawn when mowing – it is easy and economical to reduce nutrient application since the grass clippings serve as a nutrient source. Substituting compost as an organic top dressing provides primary and micro-nutrients to turf areas. Lastly, check with your supplier or local dealer for more information regarding slower-growing hybrids.



Select perennial or permanent plant materials – many parks and public gardens now choose to install perennial plant materials in beds and borders, rather than replacing annuals from season to season. Perennial plantings incur lower maintenance costs, provide long-term savings on plant materials, produce less waste, provide better drought and disease resistance, while also responding to new design preferences – massing ornamental grasses, clumping native species, and so on.

Use alternatives in landscape design – developing mulch islands, expanding natural plantings to connect existing, scattered stands of trees, establishing large natural areas to replace turf, or using a variety of ground covers instead of grass also helps to reduce the volume of landscape trimmings generated. Sites employing such alternatives have seen reduced long-term maintenance efforts, improved natural habitat and scenic value, reduced energy costs for heating and cooling – where conservation plantings are emphasized – and reduced costs for plant replacement and feeding.

Recycle Yard Trim On-site

Grasscycling – mulching grass clippings back into lawns and turf areas is clearly the most cost effective measure in reducing waste, while deriving a tangible value in the form of free fertilizers and organic soil amendments.

Many firms traditionally have grass clippings collected and hauled away for recycling or disposal. Those clippings, however, represent a considerable nutrient value, with over 50 pounds of nitrogen, 18 pounds of phosphorous, and over 45 pounds of potassium in a single ton of freshly-cut grass, which might have been returned to the soil at no extra cost to ensure continued turf vigor. Instead, those same clippings are often collected, which can take 40-50 percent of the time spent mowing (making that labor twice as expensive as necessary), or transporting to a transfer station/recycling center (more time, more expense – including tipping fees).

Mulching – use fallen leaves, pine straw, and woody landscape trimmings to enrich the landscape both aesthetically and environmentally, while reducing the need for purchased mulches and soil amendments, such as peat moss.

Obviously, heavily-treed landscapes produce large amounts of leaves.

Typical management practices have generally involved the use of high-decibel leaf blowers and hours – sometimes days of labor to corral those leaves for collection and costly removal. Several less expensive solutions present themselves:

Mower-Mulching – the process of mulching thin layers of leaves directly into the soil over turf areas using mowing equipment. Rather than collecting leaves from lawn areas, the leaves are shredded by the mower’s blades and returned to the soil to add valuable organic matter.

Shredder-Mulching – rather than simply disposing of collected leaves, those leaves could be processed with one of the numerous shredding or grinding machines available for long- or short-term rental, reducing them to a fraction of their original size, and then applied several inches deep as a mulch in planting beds or around trees, shrubs, and foundation plantings.

Chipping-Shredding – often equipment suitable for shredding leaves can be used to chip brush, fallen limbs, and other woody prunings into either coarse or finely shredded wood mulch, which can then be used for pathways in natural areas, tot lots, or around trees and shrubs. Aging wood chips in a pile for six to twelve months will produce a darker, richer looking mulch and allow it to be used safely around tender herbaceous plants.

Composting – using yard trim materials collected from your grounds, such as shredded or whole leaves, grass clippings, discarded annuals, or trimmed flowers and hedges, can produce a beneficial soil amendment which can help reduce or eliminate the use of commercial fertilizers. Composting also eliminates disposal costs.

Composting, even on a large scale, seldom requires more than access to a tractor-mounted front end loader and a suitable processing area.

Smaller institutions, such as colleges, schools, public gardens, parks, and places of worship, can often operate a composting system reusing old wooden pallets assembled in bin fashion.



Take Materials to an Approved Composting Facility

Some large-scale commercial facilities accept materials for a fee and then process the materials into a finished compost product for resale. Other smaller facilities, often associated with farms or nurseries, allow landscapers, in some instances, to back-haul finished materials for use as a soil conditioner.

Under no circumstances are yard trimming materials to be “dumped” at non-permitted sites; doing so constitutes illegal dumping.

Use the County Recycling Center

Materials which cannot be processed on-site can be brought to the Montgomery County Shady Grove Processing Facility and Transfer Station located at 16101/16105 Frederick Road in Derwood (near the intersection of Route 355 and Shady Grove Road). There is a tipping fee for recycling yard trim materials, and facility users must be registered. For more information, call 3-1-1 or (240) 777-0311. The following procedures must be observed when recycling yard trim materials:

- **Keep brush separate from other materials: brush is processed through a tub grinder into shredded mulch.**
- **Leaves, grass, and other materials should be clean:** no rocks, plastic, wood, metal, construction debris, or soil.
- **Stumps and logs are not accepted at the Montgomery County Shady Grove Processing Facility and Transfer Station.**
- **Materials from out-of-county cannot be imported to the Montgomery County Shady Grove Processing Facility and Transfer Station.**

For information regarding grasscycling, mulching, composting, landscape alteration, or the yard trim recycling program, contact the Recycling and Resource Management Division/Waste Reduction and Recycling Section at 3-1-1 or (240) 777-0311.

For tours of the Recycling Center, visit www.montgomerycountymd.gov/sws/facilities/rc/.