



Items Banned from Disposal in Landfills

No person shall knowingly dispose of the following solid wastes in landfills:

1. Used oil.
2. Yard trash, except in landfills approved for the disposal of yard trash under rules adopted by the Commission. Yard trash that is source separated from solid waste may be accepted at a solid waste disposal area where the area provides and maintains separate yard trash composting facilities.
3. White goods.
4. Antifreeze (ethylene glycol).
5. Aluminum cans.
6. Whole scrap tires, as provided in G.S. 130A-309.58(b). The prohibition against landfilling whole tires applies to all whole pneumatic rubber coverings, but does not apply to whole solid rubber coverings.
7. Lead-acid batteries, as provided in G.S. 130A-309.70.
8. Beverage containers that are required to be recycled under G.S. 18B-1006.1.
9. Motor vehicle oil filters.
10. Recyclable rigid plastic containers that are required to be labeled as provided BELOW, that have a neck smaller than the body of the container, and that accept a screw top, snap cap, or other closure. The prohibition on disposal of recyclable rigid plastic containers in landfills does not apply to rigid plastic containers that are intended for use in the sale or distribution of motor oil or pesticides.
 - (a) For polyethylene terephthalate, the letters "PETE" and the number 1.
 - (b) For high density polyethylene, the letters "HDPE" and the number 2.
 - (c) For vinyl, the letter "V" and the number 3.
 - (d) For low density polyethylene, the letters "LDPE" and the number 4.
 - (e) For polypropylene, the letters "PP" and the number 5.
 - (f) For polystyrene, the letters "PS" and the number 6.
 - (g) For any other, the letters "OTHER" and the number 7.

Wooden pallets, except that wooden pallets (mixed into construction waste) may be disposed of in a landfill that is permitted to only accept construction and demolition debris.

Oyster shells.

(Effective July 1, 2011) Discarded computer equipment (includes laptops, desktops, monitors, video displays, printers, scanners, printer-scanner-fax combos, mice and keyboards).

(Effective July 1, 2011) Discarded televisions.



HOTEL/MOTEL

WASTE REDUCTION AND RECYCLING FACTSHEET

This factsheet is designed for full-service and limited-service hotels/motels. The majority of waste collected for disposal is recyclable. The amount of waste disposed can be reduced by practicing waste reduction techniques and implementing a recycling program. This factsheet is intended to help hotels/motels overcome the barriers and start a waste reduction program.

WHY WASTE REDUCTION IS GOOD FOR HOTELS/MOTELS

Positive Public Image - The public appreciates businesses that make efforts to reduce waste

Attract convention and conference business - Many clients want to patronize hotels/motels that practice waste reduction and offer a recycling program

Free Publicity - Join Mecklenburg County's *Wipe Out Waste* Business Recognition Program and receive free publicity in local media

Cost Neutral - Reduced solid waste service fees, fewer supplies to be purchased, and revenues from the sale of recyclables often offset the cost of recycling

HOW TO START A WASTE REDUCTION PROGRAM

- 1. Commit to waste reduction.** Commitment to waste reduction begins at the top. If the management team fully supports waste reduction, employees will follow. Demonstrate commitment with time and resources. Establish a waste reduction team or champion.
- 2. Know your waste.** Determine the types and amounts of waste being discarded. Examine dumpster contents, talk to housekeeping staff about types of waste and percentages, or conduct a waste audit (contact Mecklenburg County Waste Reduction for assistance).
- 3. Set goals.** Decide which waste reduction practices to implement and set reduction targets.

Inform Your Guests

Use as many of the following techniques as possible to educate guests about your waste reduction efforts.

- Send an environmental message with reservation confirmations and in convention/conference packets.
- Require staff to inform guests at check-in of waste reduction efforts such as leaving recyclables on the room's table for collection by housekeeping staff.
- Use placards in rooms to inform guests of waste reduction efforts; for example, signs in bathrooms can tell how much waste has been eliminated by the refillable dispensers for soap, shampoo, and lotion.
- Use table tent cards in guest rooms and meeting rooms to describe the recycling program and encourage guests to participate.
- Place signs near recycling containers that clearly show what materials can be recycled.
- Make sure employees, especially front desk and room service staff, can accurately and clearly respond to guest questions about the waste reduction options in effect.
- Ask meeting hosts to include recycling practices in their facility orientation discussion
- Whenever possible, convey your message in easy-to-understand terms with visual descriptions; for example, tell guests how many trees were saved by waste reduction efforts.



Waste Reduction in Mecklenburg County

4. Start a recycling program.

- a. **Decide what to collect.** Materials commonly collected by hotels/motels include cardboard, mixed paper, newspaper, aluminum and steel cans, glass, and plastic. Start your program by recycling a few of these materials, then add more materials over time.
- b. **Establish a central collection center.** Select a convenient location with easy access for vehicles and employees to collect recyclable materials. Conceal the area with fencing or landscaping as necessary. Compartmentalized covered roll-off containers and/or dumpsters are often used. Full service hotels/motels may want to acquire a cardboard baler.
- c. **Develop a recyclables flow plan.** Involve employees in deciding which materials are to be collected at each location, where recyclables will be staged before transfer to the central collection center, which collection containers will be used (roll-carts, bags hanging from housekeeping carts), task assignments, and the routes that will be used to move the recyclables. First, locate containers near areas where recyclables are generated, such as offices, kitchens, vending areas, meeting rooms, and guest room floors. In public areas, solid waste containers should always be placed near recycling containers to avoid having trash thrown in with recyclables. Use the floor plan to locate storage spaces, hallways, and equipment, and identify employee and guest traffic patterns. Second, identify collection points at work stations and storage areas. Finally, map routes and choose container sizes.
- d. **Obtain a recycling service that fits your needs.** Many recycling service options are available locally. The best services for your hotel/motel will depend on the type and volume of your recyclables.
 - If your waste disposal contract will expire soon, contact solid waste haulers and recycling vendors (see Mecklenburg County Waste Reduction website <http://www.co.mecklenburg.nc.us/coeng> for lists) to negotiate waste disposal and recycling services.
 - If your waste disposal contract will not expire soon, contact your current waste disposal company. Ask about including recycling pickup at a cost that could be adjusted as solid waste quantities decrease. Contact recycling vendors about pickup if the waste disposal company cannot provide all your recycling needs.
 - If using a recycling vendor is not a cost-effective option, collect recyclables and transport

them to one of the County's Recycling Centers. Locations are listed on the Mecklenburg County Waste Reduction website.

5. **Involve/train/motivate staff.** Involve all employees in waste reduction. Seek their ideas for waste reduction, recycling collection, and storage. Include multilingual recycling procedures in new employee orientation and training. Provide department-specific training. Conduct a trial run for collecting recyclables. Include

The City of New York examined the composition of waste in its hotels as part of its 20-year solid waste management plan and found the following approximate mixture:

- 40% mixed paper, newspaper, and cardboard
- 28% organics/food
- 8% glass
- 7% plastic
- 7% yard waste
- 6% metals
- 4% other

ongoing waste reduction training in staff meetings. Recognize and reward employees and departments that show exceptional commitment to waste reduction.

6. **Inform your guests.** There are many ways to inform your guests of your waste reduction efforts. Send the messages clearly and often to avoid confusion and any misunderstanding. (See sidebar on first page.)
7. **Monitor and evaluate.** The waste reduction program should be reviewed periodically and achievements measured against established goals. Monitor waste and recycling containers to determine what items people are continuing to discard. Review participation in waste reduction techniques. If you experience low participation rates or if contaminants are frequently found in the recyclables, review your training and promotion programs and solicit feedback from employees. Revise educational materials and distribute these as needed.

If possible, record the amount of recyclables recovered from the waste stream and use this to calculate cost savings, revenue, and program efficiency. Also, review purchase orders to identify opportunities to reduce supplies and purchase bulk/

concentrate materials whenever possible. Publicize efforts and achievements to top management and employees.



HOW TO REDUCE, REUSE, AND RECYCLE WASTE

- Check the boxes that apply to your establishment.

In the Office/at the Front Desk

- Use e-mail and maintain electronic files instead of paper files
- Make double-sided copies whenever possible
- Reuse office supplies when possible
- Convert scrap paper, outdated forms, and letterhead into memo pads
- Practice preventive maintenance on equipment to prolong the service life
- Use reusable items instead of disposable ones
- Offer newspapers at the front desk or lobby rather than distributing to each room
- Collect mixed office paper, corrugated cardboard, aluminum cans, and toner cartridges for recycling



In Guest Rooms

- Install systems in bathrooms to dispense soap, shampoo, and lotion
- Donate blankets and worn furniture to local shelters
- Condense printed information or use a television channel to convey information
- Convert worn towels or linens into cleaning rags
- Place a placard in the room giving guests the option of not having their sheets and towels changed daily
- Collect newspapers, aluminum cans, and glass and plastic bottles from guest rooms
- Put a recycling container near the elevators, vending machines, and in other convenient locations
- Provide reusable glasses and cups instead of disposable ones
- Eliminate the use of plastic liners in ice buckets
- Have worn mattresses remanufactured
- Redye linens and carpet to match remodeled décor
- Redye stained towels for use as pool towels
- Rotate draperies to expose different sections to sunlight; this will extend their life
- Implement a paperless complaint and message system

(A typical occupied guest room generates 1 to 2 pounds of waste on each non-checkout day and double that on the checkout day.)

In the Restaurant/Lounge*

- Serve beverages from bulk dispensers instead of individual bottles/cans when possible

- Order items in bulk quantities to reduce packaging
- Rotate (first-in, first-out) perishable stocks at every delivery to minimize spoilage
- Reduce use of disposable items where possible
- Collect cardboard, glass, and steel and aluminum cans for recycling
- Ensure that grease traps are properly maintained
- Clean deep fryers daily and use filters to extend the life of fryers and cooking oil
- Recycle grease and cooking oil
- Donate excess edible food to a local food bank
- Contact Mecklenburg County Waste Reduction for facilities that accept non-edible food waste



In Meeting Rooms

- Send an environmental message with reservation confirmations and in convention/conference packets.
- Ask meeting hosts to include recycling practices in their facility orientation discussion.
- Serve beverages from bulk dispensers instead of individual bottles/cans when possible
- Reduce use of disposable items where possible
- Locate recycling containers at exits and near elevators to make recycling convenient for attendees

In Housekeeping

- Reuse plastic drums and buckets for recycling or solid waste collection containers in employee-only areas
- Use concentrated multi-purpose cleaning supplies
- Use pump-style sprays instead of aerosol cans

In Purchasing

- Purchase paper products—stationary, tissues, towels—made from recycled paper fibers
- Purchase recycled-content food trays, to-go boxes, floor mats, solid waste containers and liners, and storage bins
- Buy concentrated multi-purpose cleaning supplies
- Purchase supplies with minimal or reusable packaging
- Ask suppliers to take back unwanted packaging and pallets and use returnable or reusable boxes or crates
- Purchase non-toxic or less toxic materials when possible

In Renovations*

- When renovating, specify building materials made from recycled-content, such as ceiling tiles, carpets, floor tiles, and wallboard
- Contact carpet recycler about recycling any removed carpet and padding
- Segregate construction and demolition (C&D) debris for recycling

*Contact Mecklenburg County Waste Reduction to obtain

Waste Reduction Barriers and Solutions

Guest Impressions

- Implement a trial run to gauge guests' impressions
- Offer waste reduction participation upon request
- Publicize your waste reduction efforts to your guests
- Advertise your company's commitment to environmental conservation

Limited Space

- Use collection containers that hang on waste containers or stackable collection containers
- Use a recycling service that allows comingling
- Use smaller recycling containers and have more pickups
- Downsize and/or reduce the number of waste containers to provide space for recycling containers

Cost

- Practice techniques to reduce the amount of waste that needs to be disposed or recycled
- Contact several recycling vendors for services that meet needs and negotiate for best price
- Use County Recycling Centers

- Reduce number and/or size of waste containers and pickup frequency
- Work with employees to maximize recyclable collection

High Employee Turnover

- Incorporate waste reduction responsibilities in employee position descriptions
- Incorporate recycling procedures into new employee orientation and training
- Discuss waste reduction and recycling practices in staff meetings
- Inform employees of program's progress

Inconvenience

- Integrate the separation and collection of recyclables into normal waste management procedures
- Sort recyclables the first time they are handled (for example, collect cardboard boxes for recycling as soon as they are unpacked)
- Locate recycling containers in or near work areas where recyclables are generated

RESOURCES

For more information on Waste Reduction and Recycling in Mecklenburg County, commercial waste assessments, or to sign up for the Wipe Out Waste Business Recognition Program:
Mecklenburg County Waste Reduction
700 N. Tryon St.
Charlotte, NC 28202
704-336-3777 or 704-336-6087
<http://www.co.mecklenburg.nc.us/coeng>

For industry-specific factsheets and educational materials:
NC Division of Pollution Prevention and
Environmental Assistance
800-763-0136
<http://www.p2pays.org>

For general information on recycling and pollution prevention:
U.S. Environmental Protection Agency
<http://epa.gov/p2>

Supports ecological consciousness in the hospitality industry:
"Green" Hotels Association®
P.O. Box 420212
Houston, TX 77242-0212
713-789-8889
Fax 713-789-9786
<http://www.greenhotels.com>
e-mail: green@greenhotels.com

Promotes market development and procurement of recycling products:
Carolina Recycling Association
7330 Chapel Hill Road, Suite 207
Raleigh, North Carolina 27607
919-851-8444
e-mail: CRA@CRA-recycle.org



Waste Reduction in Mecklenburg County



Printed on Recycled Paper

This Commercial Waste Reduction and Recycling Resource Guide is designed to provide members of the commercial sector with information regarding the Mecklenburg County Source Separation Ordinance and the benefits a Waste Reduction and Recycling Program can provide to their business and the community; and with practical detailed information to assist a business in starting and/or enhancing a waste reduction program.

Why should businesses be interested in Reducing Waste and Recycling?

There are numerous sound business reasons to reduce waste such as:

Corporate Leadership Through Sustainability Initiatives

- Sustainability for business means making responsible decisions today that will have positive effects for the future allowing future generations to have access to the same resources and environmental benefits that we enjoy today.
- Reducing waste and recycling is good for the environment and is a prime example of corporate leadership and environmental stewardship.

Economic Reasons

- A waste reduction and recycling program saves money through cost avoidance.
- It can turn Trash into Cash!
- Operational costs are reduced by implementing proper waste management throughout the business process.
- It can increase your customer base - the public patronizes businesses that make efforts to protect the environment.
- Recycling creates jobs, and that is a boost for the local and state economy.

Instills Employee Pride

- Employees feel good about having a positive impact on the environment, being recognized and rewarded for their cost reduction and waste reduction efforts, and working for a socially responsible company.
- Attract the best of the best! Many employees who are knowledgeable and experts in their fields are also socially responsible and want to work for companies which demonstrate the same values.

It's the Law

- The Mecklenburg County Mandatory Source Separation Ordinance requires businesses to keep corrugated cardboard and office paper separate from their trash for the purpose of recycling and to inform all employees or, in the case of property managers, tenants, that recycling is required.
- The state of North Carolina currently bans several items from landfills, and in January 2008 and 2009, additional items generated by businesses will be banned from landfills and must be recycled.

North Carolinians throw away enough trash to fill 2,555 miles of dumpsters each year, enough dumpsters to line the length of N.C.'s Interstate 40 more than six times.



What is Waste Reduction?

Any action you take to reduce the amount and/or toxicity of waste. It includes waste prevention, recycling and composting, as well as purchasing and manufacturing goods that have recycled content or produce less waste.

It doesn't have to be complicated. You don't have to get bogged down in a comprehensive plan. A complex approach to developing a waste reduction program would be to review all business operations to identify and implement as many opportunities for reducing waste as possible. However, the implementation of any strategy will result in economic and environmental benefits for a business. You don't have to construct an expensive waste management facility. Just start somewhere.

Make a plan to lower waste removal costs. Decide to lower expenditures on raw materials, office supplies, and equipment. Streamline your operations to reduce waste

AND reduce operational costs. Just deciding to make informed choices about source reduction, waste reuse and recycling strategies is a great start!



Did You Know?

With a 64 percent national recycling rate, nearly all the steel made in the United States and in the world is made from scrap.

Many steel products are recycled at a high rate in North Carolina, though less than 20 percent of steel cans were recovered in 2001.

Look at Appendix B "Recycling A-Z" to see what can be recycled.

Ways to reduce waste (in order of importance) include:

1 Reduce

Do anything you can to prevent waste generation from the source. Source reduction should be your first strategy before recycling, since it will save you the most money and have the greatest positive effect on the environment. For example, you can:

- Purchase or produce items in just the quantity needed
- Choose items that use less packaging
- Avoid using a material altogether
- Choose items that have a longer life and can be readily recycled

2 Reuse

Focus on reusing materials again in their original forms. Many reuse options eliminate the transportation, energy and resource requirements associated with recycling alternatives. It's easy to:

- Reuse office furniture
- Re-label file folders
- Remanufacture toner cartridges

3 Recycle

Use a material again to make another product.

- Turn recycled tires into materials for cushioning playgrounds
- Turn plastic bottles into clothing or plastic lumber.
- Turn newspapers into insulation

Step One - *Obtain Management Support and Involvement*

Unless management is behind it, it won't happen. Your managers must endorse your company's waste reduction program from Day One. Their support can take the form of an informal endorsement, or better yet, they can implement a formal waste reduction and recycling company policy. Management must support the waste reduction team by endorsing program goals and implementation, communicating the importance of reducing waste within the company, setting an example, guiding and sustaining the program, and encouraging employee commitment and participation through rewards and incentives.

Step Two - *Establish A Waste Reduction Team*

A team approach to planning, designing, implementing and maintaining your program allows tasks to be distributed among several employees from different departments within the company. It also establishes essential communication links.

Team members should meet regularly to develop a plan and begin program implementation. How long will it take? Generally, large facilities incorporating many different options will need several months to start up a program. Department-specific or more modest programs might be implemented in less than a month. Some businesses might even be able to implement simple options within a matter of days. Regardless, time and resources invested will undoubtedly be returned by the savings a successful waste reduction program generates year after year.

Waste Reduction Team Responsibilities

- Works with management to set preliminary and long-term goals and plans for waste reduction efforts.
- Conducts a waste assessment by gathering and analyzing information on processes, procedures, and the company waste stream.
- Plans for implementation of waste reduction efforts.
- Educates employees and promotes participation
- Monitors the progress of the program.
- Provides management with program status reports.

Size and Composition of Team - What size team do you need?

It depends on the size of your company, and should represent as many departments or operations as possible. For a one-person team, choose someone who can wear many hats and is familiar with the overall operations of your company. Likely candidates for a two-person team would be a company manager and an administrative or technical support person.

Larger businesses should create a team of employees from different departments to encourage widespread input and support. Environmental managers, building supervisors, technical, operational, administrative, maintenance or purchasing staff members, and other employees interested in waste reduction make good team members.

Company management, or the team itself, should appoint a knowledgeable and motivated team leader. Depending on the size of the company and type of program, the position can require a significant amount of time and energy. The leader must be capable of directing team efforts; administering the planning, implementation and operation of the waste reduction program; and acting as a liaison between management and the team. You might choose a facilities manager, an environmental manager, or an employee who has championed waste reduction in the company. If possible, the task should be incorporated into the person's job description.



Step Three - Set Preliminary Goals

The team's first task is to work with management to establish and record specific preliminary goals for the program. The amount of waste that can be reduced will depend on the level of effort the company is willing to dedicate to the task. Remember that goals provide a framework, but should be flexible – you may need to reexamine and adjust them as the program proceeds.



Do!

Communicate regularly to maintain employee support.

And don't forget that employees will appreciate being asked to join in the company's waste reduction efforts – find ways to ask them for help.

Step Four - Get Participation From the Whole Company

Once you've established the general direction of the waste reduction program, you'll want to present the program to the rest of the company. Now's the time to get employees in the loop and give the team momentum! Start with a direct announcement by the president or representative of upper management, demonstrating that the program has full management support and is a high priority for the company. The announcement should:

- Introduce employees to waste reduction
- Explain how waste reduction will benefit both the company and the environment
- Outline program design and implementation stages
- Publish the team leader's name and contact information



Do!

Solicit suggestions from employees.

Post announcements in a prominent place or distribute them through electronic or voice mail to save paper.

Step Five - Look at Your Waste - Assess the Waste Stream

What kind of wastes are you generating? How much of each type of waste is going into the dumpster? The data you collect in your waste assessment can be used to identify and evaluate potential waste reducing options, including alternative purchasing practices, reuse, material exchanges, recycling, and composting. If time or resources prevent conducting a waste assessment, you can approximate your waste generated by using industry averages of the amount of waste generated by companies in your related field.

Many effective waste reduction and recycling measures can be adopted without the help of a formal waste assessment. For small businesses or businesses with very few items in the waste stream, a complex waste assessment may be unnecessary. Larger companies will find it helpful to determine the types and amounts of waste generated. Refer to Section V, "Find the Cash in Your Trash," of this guide for help in conducting your own waste assessment!

Step Six - Select Ways to Reduce and Recycle

This is where the most satisfying work begins! Use the following information to list, analyze, and choose appropriate waste reduction measures for your company.

A. Compile and Screen Your Options

Use the results of your waste assessment as a tool to aid the team in listing all possible waste prevention, recycling, composting, materials exchange, and purchasing measures that might be effective. Consider program goals as you compile your list.

B. Analyze and Select Your Options

At the outset, strive to consider all three types of options: source reduction and reuse, procurement, and recycling.

Source Reduction and Reuse Options

Think waste prevention first – it delivers the most bang for the buck!! You'll find that just one source reduction option can result in savings in purchasing, storage, materials handling, removal costs and other areas. Make sure your analysis is comprehensive and take into account savings in all related areas.

Source Reduction and Reuse Strategies are located on pages 10 and 11.

Procurement Options

Commit to new purchasing strategies and establish new habits in which procurement with waste reduction in mind becomes the norm rather than the exception.

Ideas:

- Buy supplies with reduced packaging.
- Beef up inventory control to avoid over ordering and possibly throwing away perishable items.
- Use the company's buying power to reduce waste and encourage growth of recycling markets.
- Contact your suppliers and discuss alternative products that would meet new purchasing criteria.

Procurement Strategies are located on page 11.

Recycling Options

Do you have waste that cannot be prevented? Evaluate recycling options. Determine the marketability of the materials to be collected, and weigh the cost-effectiveness and potential operational effects of recycling options. Your team should also consider whether the new recycling program will affect current purchasing practices. For instance, the company might want to buy exclusively aluminum cans for vending areas instead of glass and plastic containers to take advantage of strong markets for aluminum.

Appendix B, "Recycling A-Z," lists markets for recycling.





Step Seven - Plan Your Program

Now that you've decided to adopt specific waste reduction options, your team is ready to forge into planning and implementation. This is not a race. Plan to build your program slowly, especially if your waste reduction program is complex. Implement a few options at a time, so employees are not overwhelmed by changes in procedure. In addition to making the program manageable, your efforts to carefully phase in options will give time to identify, assess, and solve any operational problems in the early stages.

If your program involves only a few simple measures, it might be possible to implement all options at once. Give it a shot.

Remember that cost-effectiveness may not always be the overriding criteria for selecting options. Other criteria, such as improved environmental awareness, employee morale, community relations and legal requirements, may be equally important.

If your company is most focused on cost-effectiveness, don't automatically disregard options that have large start-up costs. When the long-term feasibility of such options are considered, they may show impressive multi-year savings that make them viable.

In selecting your options, you should also review the long-term feasibility of the program as a whole. Successful programs can be designed around complementary options that take advantage of their different strengths. Don't remove an option from consideration until you consider whether it may, over time, save enough money to pay for other waste reduction activities that improve environmental awareness, employee morale, or community and customer relations.



Keep In Mind!

Some options do not require extensive analysis.

For example, a facility that already has a copy machine that can make two-sided copies efficiently, easily adapts to a policy mandating double-sided copying.

Step Eight - Roll Out Your Program

You've gotten great input from employees, Your teams have proved their analytic skills. Now it's time to kick the program into high gear. Set a date for the kickoff of the program and make it fun, creative and exciting. Your team can decide the best way to motivate and educate your staff, considering a wide range of communication media including:

- Newsletters
- Electronic mail
- Training sessions
- Posters
- Employee orientation
- Special events -- slogan contests, cash awards, or other recognition for waste reduction activities.

Management should ensure that waste reduction training and education become part of every employee's job. Incorporating waste reduction responsibilities into employee job descriptions works well.



Note:

Implementing a Recycling Program requires a somewhat different approach and is covered in Section III.



TIP: Section VI contains great education Ideas.



Step Nine - Reward Employees and Publicize Results

Let your company bask in the glow of its success. Publicize waste reduction results so everyone knows they are making a difference. Monitor the program and make improvements or modifications as needed. Respond to employee questions with enthusiasm and retrain employees when necessary. Incentives, prizes and awards keep people pumped up and eager to participate.

Your success makes great press internally and externally. Waste reduction and recycling can boost your company's image. Let your customers and your community know that you are taking positive steps to manage waste and protect the environment.



Step Ten - Monitor and Evaluate Your Waste Reduction Program

Once your program is underway, your team should judge results against goals. As the potential for reducing waste in the company becomes better understood, consider establishing long-term goals for the program. It is important to evaluate the program periodically to:

- Keep track of overall program success and to build on that success
- Identify new ideas for waste reduction
- Identify improvement areas
- Document compliance with any regulations
- Determine the effect of any new additions to the program
- Keep employees informed and motivated

The best way to assess and monitor program operations is through continued documentation. Perform your first evaluation after the program has been in place long enough to have an effect on the company's waste generation rate, usually about one year after roll-out. You may find that conducting additional periodic waste assessments to determine further changes in the company's waste output is worthwhile as well. Data and procedures from the initial assessment make subsequent assessment much faster and easier.



Tip!

TIP: Read Section VII, "Recognition Ideas," for effective ways to recognize and reward employees and great education ideas.

Join Mecklenburg County Waste Reduction and Recycling's Business Recognition Program and enjoy the public recognition you deserve!



Source Reduction and Reuse Strategies and Ideas

In Office Areas

- Use e-mail and maintain electronic (instead of paper) files
- Establish a company website instead of printing brochures
- Print on an as-needed basis, instead of mass producing documents and forms, to avoid extra copies
- Receive faxes through computers and print only as needed
- Make double-sided copies whenever possible
- Set up computer software to default two-sided printing
- Reduce size and double-side standard forms
- Eliminate unnecessary reports
- Maintain central files instead of filing in multiple files
- Proof documents on the computer screen before printing
- Update mailing lists to avoid duplication and returned mail
- Route magazines, reports, and other documents
- Install computer-based training for new employees instead of printing training manuals
- Participate in a Commercial Mail Reduction Program (see Appendix F)
- Convert scrap paper, outdated forms, and letterhead into memo pads
- Use non-toxic fluids and art supplies
- Reuse office supplies, such as file folders and manila envelopes, when possible; collect and store excess reusable items in a central location for future use
- Use outdated letterhead for in-house memos
- Sell or donate used equipment and furniture
- Provide reusable cups for staff use, instead of disposables, and reduce use of other disposable items where possible
- Donate old magazines and journals to clinics and shelters
- Reuse cardboard boxes

Equipment

- Practice preventive maintenance on equipment to prolong service life
- Consider:
 - Renting equipment that is used infrequently
 - Using repaired or remanufactured office equipment
 - Using rechargeable batteries
 - Installing reusable furnace and air conditioner filters
- Invest in equipment that facilitates waste reduction, where feasible, such as:
 - High quality, durable, repairable equipment
 - Copiers that make two-sided copies
- 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 or swings)
- Recharge fax and printer cartridges

Coordinate efforts within your company:

- Can waste produced by your company in its manufacturing process be used as raw material in one of your suppliers' products? If so, make this part of your bid evaluation
- Develop a review and approval procedure for all raw materials and supplies purchased. The purchasing agent can regulate the quantity of materials ordered to reduce excess and out-of-date inventory
- Inspect materials before acceptance; do not accept incorrect orders, off-specification materials, impure feeds, etc.
- Have an inventory control system in place, so on-hand quantities and expiration dates are easily identified; this will prevent over-purchasing that leads to excess and out-of-date inventory
- Use just-in-time ordering to eliminate inventory by moving raw materials from the receiving dock to the production area for immediate use
- Find uses or markets for off-specification material that would otherwise be disposed
- Store inventory under appropriate conditions and temperatures to maintain shelf life
- Arrange storage so materials can be easily accessed and handled to prevent spills and breakage
- Purchase more efficient and durable equipment
- Prevent poor operating practices or carelessness by properly training forklift drivers to prevent damages to materials and products
- Repair rather than replace. Return, reuse, and repair wooden pallets



Food service areas

Donate surplus, edible produce and food to food banks

- Consider using durable towels, tablecloths, napkins, dishes, flatware, cup, and glasses rather than disposable items
- Offer smaller portions to reduce food scraps
- Use unbleached coffee filters
- Encourage customers to take home their extra food
- Buy sugar, cream and condiments in bulk and use reusable serving containers instead of packets

Retail Areas

- Let your customers know you are environmentally responsible
- Encourage customers to use their own reusable bags, mugs, or cups
- Encourage customers to return their metal hangers at dry cleaners
- Promote items that are refillable, reusable and recyclable
- Offer customers waste-reducing choices such as:
 - Items in bulk or concentrate
 - Solar powered items – watches, calculators, batteries
 - Recycled content items – paper, plastic
 - Rechargeable batteries
 - Razors with replaceable blades
 - Durable merchandise
 - Repairable merchandise

Landscaping

- Use a mulching lawn mower on grounds – time savings should reduce cost of lawn maintenance and reduce need for fertilizers
- Compost grass clippings and leaves or request that contractor compost these items
- Use compost as a top dressing or soil amendment
- Ensure that yard trims are sent to the Mecklenburg County Composting Facility or chipped into mulch to be used on company property to reduce weeds and conserve moisture around plantings
- Choose a landscape design that needs low maintenance
 - Slow-growing species and evergreen trees do not generally create large amounts of debris
 - Xeriscaping is a water-conservative approach to landscaping. Plants whose natural requirements are appropriate to the local climate are emphasized, and care is taken to avoid losing water to evaporation and run-off

Procurement Source Reduction and Reuse Strategies and Ideas

- Order items in bulk quantities to reduce packaging
- Purchase material in appropriate-sized containers; for example, if used in bulk, buy in bulk; if used by the can, buy by the can
- Purchase copiers and printers that are designed for high-volume double-sided copying
- Purchase supplies with minimal or reusable packaging
- Purchase multi-purpose and concentrated products, such as cleaning supplies
- Purchase non-toxic or less toxic materials when possible
- Purchase supplies with minimal or reusable packaging
- Ask suppliers to take back unwanted packaging and to minimize packaging on orders
- Request that deliveries be shipped in reusable returnable containers
- Reuse newspaper and shredded paper for packaging
- Reuse foam 'peanuts' and 'bubble wrap' and cardboard boxes or find someone who can reuse them. Or set up a system to return them to the distributor for reuse
- Use just-in-time
 - ordering to eliminate inventory by moving raw materials from the receiving dock to the production area for immediate use
 - delivery on low-use materials to minimize spoilage
- Purchase energy efficient products where available and practical
- Require longer warranties
- Review and/or revise current packaging standards
- When renovating, purchase building materials made from recycled-content, such as ceiling tiles, carpets, floor tiles, and wallboard
- Negotiate with suppliers up front
 - for return of leftover/unused product or material on which shelf life has expired
 - for return of scrap material for recycling in manufacture of new product
- Purchase recycled products when economically feasible
- Develop life cycle costs for the products you purchase
- Keep records on suppliers' capabilities
- Find out costs involved in maintaining various levels of inventory
- Learn what raw materials comprise the products that you purchase
- Determine which products contain recycled materials



In Section II, you evaluated your waste stream and now know what recyclables are in your trash. The key to getting them recycled is using a team, following a plan and generating excitement for workplace recycling!

Step One: *Obtain Management Support*

To make recycling a success, you will need staff time for planning, implementation and oversight. You may need to make changes to janitorial or waste hauling contracts. You may need capital or operational expenditures, as well as purchasing or process changes to improve material recovery and decrease material contamination. Section IV of this guide, WHY RECYCLE, provides reasons for starting a program. It's helpful in gaining management support for a workplace recycling program.



Did You Know?

Remember to target office paper and cardboard, because they are specified in the Mecklenburg County Mandatory Source Separation Ordinance!

As much as seventy percent of office waste is paper. More than ten percent of waste in the typical office is corrugated cardboard.

Each week, N.C. workplaces throw away enough potentially recyclable office paper to fill two soccer fields three feet deep.



Step Two: *Designate A Recycling Program Coordinator*

The program needs to be "somebody's baby." The designated recycling coordinator will plan and implement the recycling program and act as a liaison among management, employees, maintenance staff, outside vendors, and customers. This individual will monitor and publicize the program to keep participation rates up and contamination rates down. In larger offices, a team of program monitors are made up of employees representing different work areas or different work shifts can work with the program coordinator to help keep employees educated and enthused about recycling.

How much time will it take? Your recycling coordinator may need to dedicate about one day per week to initial planning and implementation. Once the program is underway, he or she will only need a few hours a week to maintain the program.

In multi-tenant buildings, the property manager should coordinate the building's recycling efforts. Each tenant can choose a monitor to assist with the program.

Step Three: Find A Market For The Materials

Finding a market for the recyclables and understanding just how that market accepts the materials is an important part of the recycling coordinator's job. An extensive list of potential markets can be found in this guide.

See APPENDIX B – "Recycling A-Z: Markets for Recyclable Materials." You can also visit www.wipeoutwaste.com for the most current markets.

Many vendors can offer assistance in setting up your recycling program. Some offer collection services and will help you decide if you are generating enough materials to support pick up. Some private recyclers will provide containers. You may choose to take paper and cardboard to one of the Mecklenburg County Commercial Drop Centers (see APPENDIX C of this guide for a location map).

Industrial Waste Recycling

Finding markets for industrial waste that cannot be reduced or reused is not as simple as plugging into your local community recycling program. But, if you are producing large enough quantities of homogeneous waste, the potential reduction in disposal fees makes working to find a market worth the effort.

Today, local industries are recycling a variety of items in their waste streams: cardboard, chemicals, fiber drums, metals, plastic film, and other plastics and packaging, petroleum products, textiles, and wood pallets.

Resources for finding additional industrial markets can be found in the APPENDIX G of this guide, "Resources and Links."

You can also call Mecklenburg County Commercial Recycling Technical Assistance at 704-432-3200 for assistance.



TIP: Your waste hauler or paper recycling vendor may be able to provide a container for cardboard. For most containers, except compactor boxes, the corrugated cardboard boxes must be flattened for collection. Employees can place the corrugated boxes in a central location; custodial staff or designated employees flatten and stack the boxes in the recycling container.

See Appendix A – "How to Choose a Waste or Recycling Service Provider" for detailed information.

Get Your Stuff Together

When you contact a private recycling vendor, you'll need to have a description of your wastes and an estimate of how much of each your business generates. Typically, an office generates ½-to-one pound of paper waste per person per day. Ask the vendor these questions:

- (1) What containers and educational support can you provide?
- (2) What do you charge for pick up?
- (3) Do you pay for our materials?
How much?
- (4) What happens if we have a contaminated load?
- (5) How do you handle billing, payment, and tonnage reports?
- (6) Do you require a contract? How long?



Did You Know?

Aluminum and glass companies rely heavily on secondary materials for their product, and many plastics manufacturers also depend on recovered material. Only half of NC's aluminum cans are recycled despite a statewide disposal ban on the material.

Step Four: *Design The Program*

After you have determined what materials you can market, your recycling coordinator will plan exactly how you will separate, collect, store and transport recyclable materials.

The coordinator will need to determine answers to these questions:

- Who will handle the recycling collection within the facility?
- Can the cleaning crews collect recyclables at each workstation or only at centralized locations?
- Will the cleaning contract need to be renegotiated?
- Is there adequate storage space for recyclables? Where?
- What containers will be used to collect and store the materials?
- Will the recyclables be stored near the final pickup location? If not, how will the containers be moved to the loading area?
- Will the loading area be clear at the scheduled pickup time or will the recyclable collection be competing with customer needs?



Container Considerations

Container size will depend on where containers are located and how often they will be emptied. Desktop or desk side containers serve individual employees at their workstations and are either emptied by a custodial staff or by the employee into a larger centralized container. Centralized containers can be located in well-traveled hallways, the mailroom or copier room, and any other areas where large quantities of paper are generated. These centralized containers can be large enough to serve as final storage containers and moved to the loading dock for pickup. They may alternately be emptied into larger storage containers.

It's smart to run a pilot collection program in one department or work area to determine if the containers, collection, and separation methods you've chosen are convenient for employees and custodial staff. If you purchase large quantities of containers and later find out they don't meet the needs of your program, you may be faced with a restocking fee to return them.

Safety Considerations

Use common sense when storing paper or other flammable recyclables. Do not block passages, keep paper away from heat sources, and post no smoking signs. A covered storage container is preferable. If you have any questions about fire safety contact the fire marshall's office. In Charlotte call **704-336-2101**; in other parts of Mecklenburg County call **704-336-2154**.



Good Idea!

One Charlotte Company uses the mailroom as the cardboard box collection area. Anyone in need of boxes takes what they need and the rest are flattened and put into a wire cage on the loading dock where the recycling vendor collects them.

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Think Ahead!

Ask your recycling vendor what containers they can provide.

If you don't have money to purchase containers, think about labeling existing cardboard boxes, trashcans or other suitable containers for recycling collection.

**Need to purchase containers?
Refer to Appendix E, "Sources For
Recycling Containers."**

Step Five: *Educate Your Employees*

It's the single most important variable in making a recycling program work --employee education. What should you cover? The program's purpose, its method of operation, and the importance of each employee to the program's success.

Spell it all out in memos posted on bulletin board. Reiterate it in the in-house newsletter. Say it again in 15-to-20 minute training sessions. Emphasize the new collection, introduce the new collection containers, and explain the collection methods. New employees should be trained as part of their orientation.

Keeping contaminants out of the recycling stream is very important to maintain the value of your commodities and to retain your reliable recycling companies. Reminding employees about contamination prevention will be an on-going education process. See Section VI of this guide, "Education Strategies and Ideas."

Step Six: *Kick Off The Program*

Set a date for kickoff. Announce it in a memo or in-house publication. Recruit and train program monitors. Schedule all employees for a recycling training session. Check with your recycling vendor, container vendor, and janitorial staff or building manager to be sure everything is in place for the kickoff date.

Make sure and everyone knows their role. Position the labeled recycling containers the night before the kickoff; distribute desk containers at the training sessions. Hit the ground recycling!

Step Seven: *Employee Recognition and Company Recognition*

A workplace recycling program gets employees involved in a common project. It also gives employees who recycle at home the satisfaction of bringing their environmental ethic to work. Section VII of this guide, Recognition Ideas, will inspire you with ways to recognize and reward employees.

**Don't Forget!**

Recycling saves natural resources, can lessen air and water pollution, and creates jobs within the recycling infrastructure.

Join Mecklenburg County Waste Reduction and Recycling section's Business Recognition Program to get well-deserve public recognition for your company's efforts.



Recycling Ideas and Strategies For Small Business

- In a small office there may not be enough materials generated to warrant pickup by a vendor. One solution is to combine recyclables with those of neighboring offices. Or you may want to deliver materials to a private recycler or a County-operated recycling center. See Appendix C, County Recycling Drop-Off Center Map.
- If you are a tenant, check with your property manager about the recycling services they provide. Property management companies are included in the Mecklenburg County Source Separation Ordinance. If the complex meets the ordinance criteria, the property manager is required to provide tenants with paper and cardboard recycling options and provide the tenants with written information about the options.
- Small businesses can band together with other businesses. Check with other businesses in your building, complex, mall, or block. Coordinated efforts can raise recyclable volumes enough to make recycling services more affordable.
- Sponsor a Free Commercial Drop Center for paper and cardboard at your location for your group of small businesses. See Appendix D, "How to Sponsor A Commercial Drop-Off Recycling Center"
- Piggyback with a large business in your area that is already recycling. Check to see if a large business will allow you to empty recyclables into their large recycling bins.
- Ask trucks that bring supplies to your business if they would be available to back-haul clean recyclables to a recycling vendor.



TIP: Many items are easily recycled in the Charlotte Region. Look at Appendix B, "Recycling A-Z, Markets for Recyclable Materials," to see what can be recycled.

What's Right For Your Business?

While the basic practices of commercial recycling and waste reduction are common to all businesses, your company's size, type and location can impact your program choice. Mecklenburg County has developed a number of waste reduction and recycling information sheets specific to different types of businesses, including banking/finance, hotel/motel, industry, places of worship, property management, restaurants, small business and construction and demolition.

All sheets are available on the Mecklenburg Solid Waste website www.wipeoutwaste.com.

You may also request that free sheets be mailed to you—just call the Business Recycling Infoline at 704-432-3200.



Keep In Mind...

Although the City of Charlotte may provide trash collection service to your small business, it does NOT provide recycling service to businesses.



Reason to Recycle #1: It's The Law!

The Mecklenburg County Source Separation Ordinance is a mandatory source separation ordinance that targets office paper and corrugated cardboard generated by businesses.

The intent of the ordinance is to reduce the amount of waste being sent to landfills.

FAQs About The Mecklenburg County Source Separation Ordinance

What is required of the business?

Businesses are required to keep corrugated cardboard and office paper separate from their trash for the purpose of recycling. A business entity may either contract with a vendor to pick up their corrugated cardboard and office paper or they may take these materials to a recycling facility including one of the County's Recycling Drop-off Centers (see Appendix C). A business is allowed to commingle corrugated cardboard and office paper with the rest of their trash if they are contracting with a certified mixed waste recycler who will do the separation for them. Otherwise, once separated, these materials may not be mixed together. The business must also inform its employees or tenants (in the case of property managers) about the ordinance and the source separation system in writing.

Who does the ordinance affect?

Any business that contracts for 16 cubic yards or greater of uncompacted trash per week is included in the ordinance unless the business qualifies under one or more of the exemptions (see below). Compacted solid waste will be measured on a 3:1 ratio basis against uncompacted solid waste (e.g., 5.33 cubic yards of compacted waste will be regarded as equivalent to 16 cubic yards of uncompacted waste).

Who is exempt?

- Businesses that generate less than 500 pounds of corrugated cardboard per month will be exempt from separating corrugated cardboard from their solid waste.

- Businesses that generate less than 500 pounds of office paper per month will be exempt from separating office paper from their solid waste.
- Source separation is not required if doing business from a temporary location (e.g., street vendor, construction site, outdoor festival).
- Businesses may apply for an exemption if physical constraints preclude compliance with the ordinance. These will be evaluated on a case-by-case basis.
- Businesses may be exempted if compliance with the ordinance would require them to violate codes or regulations such as the Zoning Ordinance.

What are the penalties for non-compliance?

The County will provide the business with three notices before penalties will be assessed. Each notice will be accompanied by an offer of technical assistance. A civil penalty of \$50 per day will be assessed if a business fails to comply with the ordinance within thirty days of receiving a third notice of violation.

The ordinance in its entirety can be found at www.wipeoutwaste.com.

North Carolina Legislation

The State of North Carolina currently bans the following materials from landfills: Whole tires, used oil, yard waste, aluminum cans, white goods (large appliances), antifreeze, lead acid batteries and tires.

Near Future State Requirements

House Bill 1518, effective January 1, 2008: "Holders of on-premises malt beverage permits, on-premises unfortified wine permits, on-premises fortified wine permits, and mixed beverages permits shall separate, store, and provide for the collection for recycling of all recyclable beverage containers of all beverages sold at retail on the premises." This is to include aluminum, plastic and glass beverage containers.

House Bill 1518, effective October 1, 2009:

"An ACT to prohibit the disposal of motor vehicle oil filters, rigid plastic containers, wooden pallets, and oyster shells in landfills." See Appendix H for detailed information on NC State Legislation.



Reason to Recycle #2: *It Saves Money*

Waste reduction programs are designed to provide economic benefits through the reduction of operational costs by implementing proper waste management throughout the business process. Conducting a waste assessment allows a business to discover the "Cash In Its Trash." Through assessment, employees become aware of what waste is created and how it is managed. Staff can then target opportunities for waste reduction and recycling.

Waste reduction and recycling reduce the demand on our natural resources, save valuable landfill space, save energy, provide materials for new products and create opportunities for new industries.

TIP: If you generate large quantities of cardboard, you should look at the economics of baling the cardboard on site. Baled cardboard will generally bring in twice as much in revenue as loose cardboard. Determine what size and weight bales your recycling vendor will accept before purchasing a baler. Small balers that generate bales of about 300 pounds sell for about \$5,000.00. As bale weight and size increase, the price of the baler increases to as much as \$50,000.00. In addition to baler cost, consider staff time to operate a baler and related costs such as baling wire, maintenance and electricity.

Reason to Recycle #3: *It Creates Jobs*

Consider these fast facts from the North Carolina Department of Environment and Natural Resources:

- Recycling employs more than 13,000 North Carolinians and recycling jobs have increased about 48 percent in the last 10 years
- The United State's major industrial sectors need recycled materials now more than ever and are counting on expansion
- There are around 530 recycling businesses in North Carolina employing more than 14,000 people
- Recycling businesses make at least \$25,000/year creating a \$325 million annual payroll, which is plowed back into the economy through purchasing, home buying, savings in local banks and property and income tax payments
- A 20 percent increase in recycling would create as many as 500 new jobs in this state creating a stronger economy
- Almost 80 percent of U.S. paper mills rely on recovered recycled paper. In fact it supplies 37 percent of their material
- Ultimately, the major industrial sectors would suffer severe difficulties if the supply of recycled materials suddenly disappeared



Did You Know?

Creating jobs: Recycling is an increasingly important part of our state's economy. A recent study showed that more than 10,000 recycling jobs exist in North Carolina, an increase of 12 percent in the last five years. Many small businesses have been created in our state to recycle discarded materials and products.



Reason to Recycle #4: It Reduces Business Operating Costs

Part of the cost of running a business is waste disposal. Some costs, such as the rental, tipping and disposal fees paid for waste hauling services, are obvious. Other costs, such as government provided waste disposal and processing facilities, are passed on to businesses through taxes. Recycling can save money now by reducing disposal costs for your business. Effectively managing waste can help local government hold down future costs for waste processing and disposal.

Have you ever researched what your company currently pays for waste disposal? Recycling saves your company money if the cost of waste handling and recycling is less than current waste handling costs.

If your business is located in an office park or rents a portion of a larger building, the costs for waste disposal may be paid indirectly through your lease payment. Make sure your building manager is aware of how recycling can positively affect the building's

waste disposal cost. If you are a small company that doesn't generate enough recyclables to warrant collection by a private vendor, pooling recyclables from the entire building or office park can make collection cost effective.

Be sure to restructure your waste hauling contracts after you have implemented a recycling program. You may be paying for more service than you need if waste containers are being emptied before they are full.



Did You Know?

In 1994, North Carolina had 306 recycling companies. In 2004, there were 532, a 74 percent rise in only 10 years. Translation? More recovered materials. More jobs. More money flowing through our economy - all because of recycling! The 1994 study indicated a 20 percent increase in recycling would create as many as 500 new jobs.

-From the North Carolina Department of Environment and Natural Resources

How To Determine The Full Cost/Savings From Recycling

Estimate of Recycling Savings

A forty-five employee company generates about 550 lbs. mixed office paper and 400 lbs. cardboard, but does not recycle. The company has an 8-cubic yard waste container that is emptied twice per week at a low monthly cost. However, the waste disposal contract is up for renewal and monthly fees are expected to increase. The increase can be mitigated by starting a recycling program for paper and cardboard.

Here's an estimate of the monthly cost of waste disposal and recycling using a vendor.

Existing Waste Service Fee		= \$ 87
Projected Waste Service Fee* (current level of service twice weekly)		= \$218
Projected: Downsized Waste Service* (weekly pickup of 8-cubic yard waste container)		= \$109
Recycling Vendor Fee* (Bi-monthly pickup of 10 roll carts for paper and cardboard)		= \$ 58
Total		= \$167
Estimated monthly saving:	\$218 - \$167	= \$ 51

*based on information obtained from Mecklenburg County waste assessments



Reason to Recycle #5

Tax Incentives

If your company purchases equipment or constructs facilities used exclusively for recycling, you may benefit from special recycling tax provisions provided by North Carolina. North Carolina offers a tax exemption on equipment and facilities used exclusively for recycling and resource recovery. If you are interested in finding out how to apply for a Tax Certification, it is first advisable that you refer to the North Carolina Solid Waste Management Rules regarding the standards for special tax treatment. If you are not sure if the equipment or facility you own qualifies, there are resources available to help you determine your eligibility. You can also access examples of qualifying equipment and facilities as well as additional tax provision information. Information on Tax Incentives can be found at <http://www.p2pays.org/ref/26/25939.htm>

Resource Saving Facts

- One ton of uncoated virgin (non-recycled) printing and office paper uses 24 trees.
- Every ton of steel recycled saves 2,500 pounds of iron ore, 1,400 pounds of coal and 120 pounds of limestone.
- Producing recycled paper causes 74 percent less air pollution and 35 percent less water pollution than producing virgin paper.
- The pollutants created in producing one ton of aluminum include 3,290 pounds of red mud, 2,900 pounds of carbon dioxide (a greenhouse gas), 81 pounds of air pollutants and 789 pounds of solid wastes.
- Recycling one ton of steel reduces air pollution by 86 percent and water pollution by 76 percent, and saves 74 percent of the energy and 40 percent of the water that would have otherwise been used.

(NCDENR)

Energy Saving Facts

- Recycling an aluminum can saves 95 percent of the energy required to make the same amount of aluminum from virgin materials.
- Producing new plastic from recycled material uses only two-thirds of the energy required to manufacture it from raw materials.
- Producing glass from virgin materials requires 30 percent more energy than producing it from crushed, used glass.
- Producing recycled paper requires about 60 percent of the energy used to make paper from virgin wood pulp.

(NCDENR)

Reason to Recycle #6: Corporate Leadership Through Environmental Sustainability

Sustainability for business means making responsible decisions today that will have positive effects for the future. It entails being thoughtful in our actions and careful enough to allow future generations to have access to the same resources and environmental benefits that we enjoy today.

Reducing waste and recycling are prime examples of corporate leadership and environmental stewardship. The public appreciates and patronizes businesses that make efforts to protect the environment and reduce waste.

Businesses that have implemented a waste reduction and recycling program are eligible to join the Wipe Out Waste Business Recognition program which recognizes and rewards Mecklenburg County businesses that have made efforts in the workplace to reduce and recycle waste and to buy recycled products.

Conducting a waste assessment involves determining what wastes you generate and how much of each, which can be prevented, which can be reduced, and which can be recycled.

1. Determining The Approach

Planning and executing an appropriate waste assessment involves determining its scope, scheduling the different assessment activities, communicating the necessary information to employees, and performing the actual assessment. Depending on the objective of your waste reduction program, a waste assessment can involve examining facility records, conducting a facility walk-through, performing a waste sort or a combination of the three.

The assessment team should determine what type of assessment is most suited for the company based on such factors as the type and size of the facility, the complexity of the waste stream, the resources (money, time, labor, equipment) available to implement the waste reduction program and the goals of the program. In a facility generating only a few types of waste materials, the team might only need to review company records and briefly inspect facility operations. If the company generates diverse types of waste and has established a goal to cut waste disposal by 50 percent, the team will need to thoroughly examine and quantify the waste generated in most company operations by performing a waste sort.

A. Examining Company Records

Examining company records can provide insight into the company's waste generation and removal patterns. The type of records you might find useful include:

- Purchasing, inventory, maintenance and operating logs
- Supply, equipment, and raw material invoices
- Equipment service contracts
- Repair invoices
- Waste hauling and disposal records and contracts
- Contracts with recycling facilities and records of earned revenues from recycling

B. Conducting a Facility Walk-Through

A walk-through involves a complete tour of the facility and its grounds, observing the activities of the different departments and talking with employees about waste-producing activities and equipment. Include all departments and shifts. A walk-through is a relatively quick way to examine a facility's waste-generating activities and processes. Specifically, it will enable the team to:

- Observe types and amounts of waste produced.
- Identify waste-producing activities and equipment.
- Detect inefficiencies in operations or in the way waste moves through the organization.
- Observe the layout and operations of various departments and shifts.
- Assess existing space and equipment that can be used for storage, processing recyclables, and other activities.
- Assess current waste reduction efforts.
- Collect additional information through interviews with supervisors and employees.

The team should be careful during the walk-through not only to record the types of waste observed and the ways in which waste is generated, but also to consider the potential waste reduction opportunities that lie in increasing the efficiency of these operations.

Before conducting the walk-through, check with the managers of the departments that will be toured to avoid disrupting special deliveries, rush orders, or other department functions. Request that the supervisor and employees of each department be available during the walk-through to answer questions or describe operations. These interviews can offer important additional detail on waste generation and removal practices. Interviews also help keep employees informed and interested in the evolving waste reduction program, and offers an opportunity for them to ask questions. Employees are a valuable source of ideas for reducing waste.



C. Conducting a Waste Sort

Should more data be required than company records or a facility walk-through can provide, you may want to do a waste sort. A waste sort involves the physical collection, sorting and weighing of a representative sample of the company's waste. The goal of the sort is to identify each waste component and calculate as precisely as possible its percentage of the total waste the company generates. A waste sort can focus on the entire company's waste, or target certain work areas. If the team believes one or more specific functional areas are responsible for much of the facilities waste, it may chose to concentrate its waste sort accordingly.

It may be feasible for some companies to assemble and measure one day's worth of waste. In larger firms where this is impractical, the team might choose instead to assemble a portion of the waste from each department for measuring. Regardless of the approach taken to structure the waste sort, consideration must be given as to whether waste generation at the company varies significantly enough from one day to the next to distort results. Seasonal and periodic variations in waste generation are also common.

The assessment team might want to sort samples on more than one day. Multi-day sampling might provide a more accurate representation of the waste generated at the company. Since the data gathered in the waste sort will be used as the basis for key waste reduction and recycling program decisions, it is important that you obtain a truly representative sample of the company's waste. If a representative sample is not obtained, calculations on waste generation, waste composition, and waste removal costs can be skewed significantly.

If your company has an active recycling program in place, the assessment team will need to decide whether the waste sort should

measure all materials, or target just the portion of the waste streams not currently being recycled. For a complete assessment of the types and amounts of waste being generated, the waste reduction team should locate all recycling collection areas and measure the contents.

If your focus is on ways to reduce just the materials that are not being recycled, you can exclusively target waste collected in company dumpsters. This will also help identify the amount of materials that could have been recycled under the current program, but ended up being thrown away.

In organizing a waste sort, you must determine which waste categories to quantify. The major components of a businesses' waste include paper, plastic, glass, metal, and organic material such as wood, yard trimmings and food scraps.

The team needs to decide whether to limit the waste sort to identifying and measuring only the major waste component categories or to sort the waste into subcategories (such as breaking down paper into newsprint, corrugated cardboard, magazines, and other). Precise measurements are important because they will be useful later when determining which materials can be exchanged, reused, sold, or recycled.



Did You Know?

Saving energy: Enormous amounts of energy are required to make products and materials worldwide. Energy is saved by not using products and materials when at all possible, or by reusing products in their current form. Tremendous energy savings come from using recycled instead of virgin materials in manufacturing.





2. Documenting The Waste Assessment

Documenting all information gained through the waste assessment is important. Worksheets guide the waste assessment process, and function as a record of your waste assessment activities and data. Worksheets recorded during your waste assessment should be part of your company's permanent records. Documenting your findings serves several purposes, including:

- Providing a record of the company's efforts to reduce waste.
- Developing a record-keeping system that tracks costs, savings, and waste reduction quantities.
- Obtaining baseline data to use for investigating the economic and technical feasibility of waste reduction options and to evaluate the impact of these options once implemented.

Waste Assessment Approaches

Methods	Waste Sort: Facility Wide	Waste Sort: Specific Functional Areas	Facility Walkthrough	Records Examination (Purchasing Records)	Records Examination (Hauler Records)
Strengths	<ul style="list-style-type: none"> • Provides waste generation estimates for the entire facility. • Provides quantitative information on each waste component. 	<ul style="list-style-type: none"> • Provides quantitative information about specific types of waste and functional areas; appropriate if targeting specific types of waste. 	<ul style="list-style-type: none"> • Can require less time and effort than waste sorts. • Allows first hand examination of facility operations. • Can provide qualitative information about major waste components and waste generating processes. • Allows interviews with workplace personnel. 	<ul style="list-style-type: none"> • Can provide data on waste generation of specific materials or products. • Tracks major potential waste from the point of origin. • Can require less time and effort the facility walkthroughs or waste sorts. • Can be more accurate than waste sorts of tracking small items, low volume waste materials, and occasional or seasonal waste materials. 	<ul style="list-style-type: none"> • May provide accurate data on the weight or volume of waste generated at the facility. • Can require less time and effort than facility walkthroughs or waste sorts.
Limitations	<ul style="list-style-type: none"> • Requires significant time and effort to conduct. • Might not be representative if only conducted once. • Does not provide qualitative information on how or why wastes are generated. 	<ul style="list-style-type: none"> • Does not provide data on waste generated facility-wide. • Might omit major components of the facility's waste. • Might not be representative of the waste in the specific area if only conducted once. 	<ul style="list-style-type: none"> • Might not identify all waste generated. • Might not be representative if only conducted once. • Does not provide precise information about the quantity of waste generated. 	<ul style="list-style-type: none"> • Not likely to provide a full picture on waste generation. • If company purchasing is not centralized, can be incomplete or require substantial effort to collect and analyze. 	<ul style="list-style-type: none"> • Might not provide adequate data, if accurate waste hauling records do not exist. • Not likely to provide information about specific waste components. • Can be difficult to use if more than one business shares a dumpster.



Waste Assessment Kit

7 Easy Steps

Just fill in the blanks to determine the *type* and *amount* of trash you generate.

- 1** Estimate the amount of waste you generate that currently is dumped into the landfill. You may need to contact your waste collection company for this information

Container Type	Container Size (cu)	Number of Containers	Estimated % Full at Pickup	Number of Monthly Pickups	Volume (cu yd)
Dumpster		Multiply By		Multiply By	Equals
Compactor					
Other					
Add volume column for total waste					Cu. Yds.

- 2** Determine total monthly waste disposal and collection costs. This information should be on your waste hauling bill. If container rental costs, disposal (tipping fees) fees and hauling costs are not itemized, include the total costs.

Monthly Container Rental Cost	Plus	Monthly Disposal Cost	Plus	Monthly Transportation Cost	Equals	Monthly Total Cost

- 3** Determine the waste stream and amounts. For an understanding of the types of waste generated, identify each waste stream from point of generation to placement in the garbage dumpster.

Dept/Area	Waste Stream	Who Collects & With What	Est. Amount of Waste Produced
Example: Offices	White Paper Aluminum Cans Cardboard Food/Food Waste Wrappings Paper Towels	Janitor collects materials from garbage cans with a rolling 35 gallon garbage container and places in 8 yard dumpster on loading dock. Cardboard is broken down and collected separately.	An 8 cubic yard dumpster is full every night. About 50% of the waste is office paper, 30% of the waste is cardboard, 5% is aluminum cans and plastic drink bottles and 15% is restroom waste and food waste.
Common Areas Lobby Restrooms Copy Room Mail Room			



4 Determine the percentage of material in the waste stream. Use Section 3 to help estimate the percentage of materials in the waste stream. Often, it is helpful to interview individuals who are more familiar with the waste stream such as janitorial or cleaning staff.

Material	% of Total Waste	Material	% of Total Waste
Office Paper		#1 Plastic Bottles	
Corrugated Cardboard		#2 Plastic Bottles	
Newspaper		Textiles	
Magazines		Food Waste	
Aluminum Cans		Other	
Tin Cans		Other	
Glass Bottles & Jars		True Garbage	

Total should equal 100%

5 Determine the percentage of recyclables or materials that could be reduced in the waste stream by using the information in section 4. Choose only those that you plan to recycle or reduce.



**Experience indicates 75% is an average recovery rate for the total amount of your recyclables*

6 Determine the adjusted amount of trash to be landfilled if a recycling/reduction program is started.



*100% minus percentage from 5

7 Determine the potential savings from reduced trash. Using the adjusted volume of garbage found in section 6, call your waste hauler and find out the waste disposal charges for the adjusted amount of waste. Call other waste haulers and get price quotes as well. Compare the new costs with the costs found in section 2. **Example:** If 50% of your trash will be reduced or recycled, you may be able to cut your collection costs in half. Or if you currently have an 8 cu. yd. dumpster and after recycling you only need a 6 cu yd dumpster, you may be able to save money by reducing your container size.



**These funds may now be available to cover the cost of your new recycling program.

**Costs do not take into consideration the environmental and societal benefits that occur as a result of recycling

-See Next Page for conversion table to help in estimating numbers-



D E N S I T Y C O N V E R S I O N

Volume \rightleftarrows Weight

MATERIAL	VOLUME	WEIGHT (lbs)
PAPER		
Corrugated Cardboard (uncompacted)	1 Cubic Yard	50-150
Corrugated Cardboard (compacted)	1 Cubic Yard	300-500
Corrugated Cardboard (baled)	1 Cubic Yard	700-1,100
Mixed Office Paper (uncompacted)	1 Cubic Yard	400
Mixed Office Paper (compacted)	1 Cubic Yard	755
1 Case Office Paper	5000 Sheets	42
Ream 20# bond 8 1/2 X 11	500 Sheets	5
Ream 20# bond 8 1/2 X 14	500 Sheets	6.4
Newspaper (uncompacted)	1 Cubic Yard	360-505
Newspaper (compacted/baled)	1 Cubic Yard	720-1,000
Newspaper	12" Stack	35
Phonebooks	Set-Charlotte White and Yellow	6.75
METAL		
Aluminum Cans (whole)	1 Cubic Yard	50-75
Aluminum Cans (manually compacted)	1 Cubic Yard	250-430
Uncompacted	1 case - 24 cans	0.9
Steel Cans (whole)	1 Cubic Yard	150
Steel Cans (flattened)	1 Cubic Yard	850
PLASTIC		
Soda Bottles (uncompacted)	1 Cubic Yard	30-40
Soda Bottles (compacted)	1 Cubic Yard	515
2-Litter Bottles	8 Bottles	1
Dairy/Detergent Bottles (uncompacted)	1 Cubic Yard	24
Dairy/Detergent Bottles (compacted)	1 Cubic Yard	270
GLASS		
Whole Bottles	1 Cubic Yard	500-700
Semi-crushed Bottles (manually broken)	1 Cubic Yard	1,000-1,800
Uncrushed to manually broken bottles	55 gallon drum	300
ORGANICS		
Food Waste (solid/liquid fats)	55 gallon drum	400-410
Leaves (uncompacted)	1 Cubic Yard	200-250
Grass Clippings (uncompacted)	1 Cubic Yard	350-450
Pallets	Each	40 (average)
AUTOMOTIVE		
Car Tires	Each	12-20
Truck Tires	Each	60-100
Used Motor Oil	1 gallon	7

Common Conversion Factors

1 Gallon = 0.0049 Cubic Yards
1 Cubic Yard = 202 Gallons

90 Gallons = 0.45 Cubic Yards
1 Ton = 2000 Pounds

Some companies can effectively reach all their employees by circulating memos or holding information meetings. Others might need to conduct a full-scale education or training campaign to be sure the entire company is aware of and involved in the program. Either way, employees appreciate feedback and frequent updates on the success of the program. Employee interest may increase if the team encourages them to submit new ideas for increasing the efficiency of company operations. Other ways to “educate” your employees:

- Integrate waste reduction & recycling into normal work routine.
- Place waste reduction and recycling information on the employee Web page.
- Send out periodic emails with information about the program and successes as well as issues.
- Sort recyclables the first time they are handled – If you are going to keep cans separate from bottles, then have one bin for cans and one bin for bottles and make sure they are clearly labeled.
- Place signs near recycling (or reuse) containers that clearly show what materials can be recycled/reused and, if necessary, what items must stay out of the bin.
- Place recycling containers in all meeting and employee dining rooms.
- Make sure every office staff person has a desk-side bin and a recycling guide.
- Make announcements at conferences, company events, picnic, etc., to please remember to recycle.

FUN FACTS FOR NEWSLETTERS, BULLETIN BOARDS, E-MAILS, ETC

- If one-third of North Carolina’s households sent junk mail reduction cards to the Mail Preference Association, it would save North Carolina local governments almost \$1.3 million in disposal fees per year.
- Making products from recovered materials instead of virgin materials saves energy. For aluminum cans, the energy saved is more than 90 percent, for newspaper 40 percent and for steel 60 percent.
- North Carolinians recycle 68 pounds of materials a second. That’s impressive! But we throw away 679 pounds of trash a second. That’s almost 10 times what we recycle.
- Each month, North Carolinians throw out glass that would fill up more than 13 miles worth of tractor-trailers lined up end-to-end. That’s a half marathon of tractor-trailers each month!
- Glass bottles can be used hundreds of times over to make new bottles. North Carolina has three glass plants capable of consuming thousands of tons of “cullet” or recovered glass.
- Newspaper and corrugated cardboard are the highest recycled types of paper in North Carolina we recycle 57 percent of all newspaper and 50 percent of all cardboard.
- North Carolinians throw away more than \$20 million in aluminum cans each year.
- Every 43 days, North Carolinians throw away enough trash to fill dumpsters lining the entire North Carolina coastline.
- The amount of trash North Carolinians throw away in just five and a half days would fill dumpsters that reach as high as Mount Mitchell. That’s 6,684 feet!
- The amount of waste disposed in North Carolina has increased from 6.8 million tons in 1991 to 10.23 million tons in 2003.
- The State picked up more than one pound of litter for each of the state’s 8.4 million citizens in 2003, according to figures released by the State Department of Transportation. You can help report litterbugs by reporting the license plate of a car and the date and location of an incident to the DOT. Forms can be obtained by calling (800) 331-5864 or reports can be made here.
- In 1994, our state had 306 recycling companies. In 2004, we had 532 recycling businesses in North Carolina, a 74 percent rise in only 10 years. That means more materials are being recovered, more jobs are being created, and more money is flowing through our economy - all because of recycling! A 20 percent increase in recycling would create as many as 500 new jobs, according to information from the 1994 study.
- North Carolina recycles 26 percent of its waste stream, composts 6 percent, sends 67 percent to landfills and incinerates 1 percent.
- North Carolinians throw away enough trash to fill dumpsters from Boone to Bald Head every 47 days.

*Unless stated, all facts are from DPPEA or DENR 2003 data. <http://www.re3.org/facts.html>

When considering a recognition program, keep these ideas in mind.

- Keep the program simple, with categories that are easily measurable.
- Consider funding for the recognition and award program from site or facilities management, or from the revenues from the recycling program itself.
- Make regular program reports to both participants and site management.
- Highlight program success (either financial or otherwise) to all employees. Since each and every member of your company has participated in the success of your program, it is important that all employees receive recognition of their involvement through regular reporting on the quantity of material reduced through the source separation, reuse and recycling elements of your program. This may be done via bulletin boards, newsletters, or memos to building occupants. To demonstrate source reduction, e-mail should be used where feasible. If your results are particularly good, you may wish to involve the public relations staff to give your program more visibility.

Group recognition

- A surprise break with snacks for the most recyclables collected

Department recognition

- Lunch paid for by the company for the department that collects the most recycled (paper for instance)
- Recycled content mugs, hats, or team t-shirts for the department with the largest reduction in paper usage due to double-sided use of paper

Whole company recognition

Money saved in the total program is placed in the company benefits fund or donated to a charity on behalf of each employee.

Consider rewards for the employee:

- Who makes the most contributions to the program; offers suggestions or assists in the program concept. Recognize him/her at a staff meeting or through interoffice e-mail or create a Thank You poster.
- Who collects the most cans and bottles during a specific time frame. Award a gift certificate.
- Who makes a suggestion to save the company money through a waste reduction suggestion. Award a bonus (commensurate with the amount of money saved).
- With the most recyclables in their bin, during an on-the-spot inspection, Award a small gift (recycled content) on the spot.

Individual recognition

- Certificates of appreciation. See Samples below. If you would like an electronic copy of the certificates call **704-366-3777**.
- Recycled content gifts (it always helps to walk the walk)
- Gift certificates for local restaurants or local health food stores.
- Time OFF – this is always a favorite with staff. An extra hour for lunch or leaving early on a Friday afternoon can make anyone feel appreciated.





Supplier/vendor can also be recognized for outstanding accomplishment, innovation, or contribution.

Mecklenburg County Business Recognition Program

The Wipe-Out-Waste Business Recognition Program recognizes and rewards Mecklenburg County businesses that have made efforts in the workplace to reduce and recycle waste and to buy recycled products. Sponsored by Mecklenburg County Solid Waste, the program is free and voluntary. Any business in Mecklenburg County that recycles and has a waste reduction program can join.

Rewards For Joining

Invitation to attend the annual Wipe-Out-Waste Business Recognition Waste Reduction and Recycling Awards Banquet. Networking with other businesses. Recognition by County Officials. Opportunity to submit an application to be selected for one of the annual Business Recognition Awards. Use of Wipe-Out-Waste logo for education and promotion materials. A Wipe-Out-Waste decal to display at their business. Free technical assistance from the County. Free publicity in local media. Publicity through the Wipe-Out-Waste educational events, presentations, and forums.

How Does My Business Join?

There are two levels of membership - Member or Mentor. Members agree to make a three-year commitment to implement a comprehensive solid waste reduction program and annually report their accomplishments in the following areas: Waste Reduction, Recycling and Buying Recycled

Products. Mentors agree to act as a mentor to another business, offering information and technical assistance including over the phone assistance, tours of facilities, etc. Mentors also assist in recruiting other businesses to join the Wipe-Out-Waste Business Recognition Program.

Get your Application Form at www.wipeoutwaste.com. Select Business Recycling and then select Business Recognition Program or call 704-336-3777 for a form to be mailed to you or for additional information.

Kudos!

Mecklenburg County
Business Recognition Program
Medium Business Recycler Of The Year

The Building Center, Inc. (medium business - 25 - 99 employees): Recycles wood, plastic, steel, paper and cardboard. The company has an incentive to give back to employees the proceeds from the sale of recyclable material, encouraging employees to separate materials. Last year, forty employees split \$10,000 and the company saved money by not having to send the material to the landfill.

Zero Waste Award

Recreational Equipment, Inc.: Thirty-nine part-time employees work out of three large warehouses and set-up events throughout Mecklenburg County. The waste reduction and recycling program is so exceptional that the company does not use a dumpster. The company generates about the same amount of trash at work as a small family does in one week, so employees simply take it home and put it in their residential rollout container.



Way To Go!

May 31, 2006

Recyclers Of The Year:

Mecklenburg County Recognizes Organizations For Waste-cutting Programs

Charlotte, NC – Four businesses and four schools were recognized today for their efforts in recycling and waste reduction. The Business Recycling Awards luncheon is an annual event hosted by Mecklenburg County Solid Waste and Recycling, recognizing businesses and organizations for their innovative approaches to waste disposal, waste reduction and commitment to business recycling.

FWA Group, Architects

(small business - 24 employees or less): Employees voluntarily recycle glass, plastic and metal and rotate the duty of carrying materials to the recycling center. Large architectural drawing sheets with errors on them are donated to schools for use in art and other classes. Employees are encouraged to track their personal home energy and water use on a provided spreadsheet.

UNC Charlotte

(large business - 100+ employees)
Last year, UNC Charlotte recycled 1,639,769 pounds household and office materials and 308,060 pounds of construction and demolition materials; composted 23,383 pounds of food waste and 1,815 pounds of sawdust; donated 6,210 pounds of food (from on-campus cafeteria) to Urban Ministries; and collected 18,000 pounds of non-perishable food, clothing, furniture and small appliances, then donated to local organizations. UNC Charlotte collects more than forty items that can be recycled on campus. The per capita recycling rate increased 15.65% over the last school year. The most successful project to date was a renovation of locker rooms into laboratories in Belk Gym - of more than 40,000 lbs. of metal, and 80,000 lbs. of concrete, only 10,000 lbs. of material were sent to landfills.



Every business has a basic responsibility to its community and our world -- to ensure that its waste does not become litter. The public appreciates businesses that keep their properties clean and litter free. In addition to the stigma of litter, your business may be charged and fined under state and local littering laws.

Litter Prevention Musts

Keep all outdoor recycling and waste receptacles covered.

Make sure receptacles are the appropriate size and collections are frequent enough to avoid overflows.

Conduct end-of-day cleanups in loading and unloading areas, parking lots, and sidewalks.

Place litter containers near entrances and walkways.

For additional information call Keep Mecklenburg Beautiful: [704-432-1772](tel:704-432-1772)

Litter Fact

Litter is everyone's problem and the problem is getting worse. Each year 11 million pounds of litter (one pound of litter per person) is deposited on the streets and highways of NC. Surveys indicate that a sizable portion of litter in Mecklenburg County comes from business operations, especially in loading dock and dumpster areas.

North Carolina LITTER LAWS

G.S. 14-399-effective 3-01-02

Definition of littering: (a) No person.... shall intentionally or recklessly (a1 * unintentionally) throw, scatter spill or place ...cause to be blown, scattered, spilled, thrown or placed or otherwise dispose of any litter upon any public or private property not owned by the person within this State or in the waters of State.

(b) When litter is blown, etc...from a vehicle or watercraft, the operator shall be presumed to have committed offense.

Penalties:

(c) less than 15 pounds: not commercial=Class 3 misdemeanor, ~first offense: fine \$250-\$1,000; 1 point on license; may require community service of 8-24 hours.

(*c1=infraction, *\$100, *4-12 hours)
~subsequent offense within 3 years: fine \$500-\$2,000; 1 point on license; may require community service of 16-50 hours

(*c1=infraction, *\$200, *8-24 hours)

(d) 15-500 pounds; not commercial=Class 3 misdemeanor; fine \$500-\$2,000; 1 point on license; shall require community service of 24-100 hours (*d1=infraction; *200, *8-24 hours)

(e) 500 + pounds or any quantity for commercial purposes or hazardous waste=Class I felony:1 point on license, vehicle subject to seizure; shall require cleanup, repair of property, community service; in civil action for damages- - shall pay court costs/attorney's fees and greater of 3x cost of damages or \$200 to injured party.

(*e1 not commercial or hazardous=infraction, *\$300, *16-50 hours)