

# COMMERCIAL WASTE REDUCTION GUIDE



Environmental Services Department  
Solid Waste Management Division

# CONTENTS

|           |   |          |
|-----------|---|----------|
| <b>1.</b> | <b>Reducing Waste at Your Business.....</b> | <b>1</b> |
|           | Recycling Tips                              |          |
|           | Close the Loop                              |          |
|           | Post-Consumer vs. Pre-Consumer              |          |
|           | Waste Reduction Tips                        |          |
| <b>2.</b> | <b>Plan Your Program.....</b>               | <b>2</b> |
|           | Gain Management Support                     |          |
|           | Choose a Coordinator                        |          |
|           | Conduct a Waste Assessment                  |          |
| <b>3.</b> | <b>Design Your Program.....</b>             | <b>3</b> |
|           | Waste Reduction                             |          |
|           | Materials to Recycle                        |          |
|           | Collection                                  |          |
|           | Costs                                       |          |
| <b>4.</b> | <b>Start your Program.....</b>              | <b>5</b> |
| <b>5.</b> | <b>Sustain Your Program.....</b>            | <b>5</b> |
|           | Track Your Success                          |          |
|           | Keep Customers and/or Employees Informed    |          |
|           | Get Recognition for Your Efforts            |          |
| <b>6.</b> | <b>Technical Assistance.....</b>            | <b>6</b> |
|           | Local Recycling Contact Information         |          |

# APPENDICES

|           |   |           |
|-----------|---|-----------|
| <b>A.</b> | <b>Waste Assessment.....</b>                            | <b>7</b>  |
| <b>B.</b> | <b>Types of Collection Containers.....</b>              | <b>12</b> |
| <b>C.</b> | <b>Garbage Bill Service Charges.....</b>                | <b>13</b> |
| <b>D.</b> | <b>Glossary.....</b>                                    | <b>13</b> |
| <b>E.</b> | <b>Licensed Solid Waste Haulers in Wake County.....</b> | <b>14</b> |

# 1. REDUCING WASTE AT YOUR BUSINESS

The formula for a successful business is to maximize income while minimizing costs. By reducing waste your business can avoid the high costs of waste disposal and lower net operating costs. Most businesses use materials that are easily recyclable, such as paper, plastic, packaging, glass, metal and wood. Some of these commodities such as office paper and metals are valuable recyclables and could add a new source of income to your business.

Customers and employees mean everything to a business - consumer polls show both customers and employees appreciate a commitment to environmentally sound business practices. Use opportunities to promote your sustainable practices to attract new customers.

Reducing, reusing and recycling are the basis of a comprehensive waste reduction program. Often all you need to do to get started is to establish a few simple policies, then communicate those policies to employees.

## RECYCLING TIPS

- Have containers for recycling paper at every workstation.
- Place larger containers for paper near printers, copiers, and in mailrooms.
- Put bins for newspapers, glass, magazines, cardboard and cans in kitchen areas, break rooms or other central locations.
- Place containers for recyclable materials in shops, plants, factories, packaging departments, warehouses and other areas of operation.
- Return trimmings and overruns to the manufacturing process whenever possible.
- Join forces with a neighboring business to consolidate recyclable materials.



## WASTE REDUCTION TIPS

- Make double-sided copies.
- Work with your suppliers to reduce disposable packaging.
- Use coffee mugs and cutlery in place of paper and plastic items.
- Use rechargeable batteries and toner cartridges. It is easy and cost-effective to return used cartridges.
- Reuse single-sided paper, file folders, envelopes and boxes.
- Reuse packaging containers, polystyrene packaging "peanuts" and bags.
- Reduce the number of telephone and other directories distributed.
- Donate obsolete equipment and furniture to charitable organizations instead of throwing them away.
- Cut down on subscriptions and multiple copies, get one subscription and circulate the magazine or newspaper to various departments. Route or post memos.
- Move toward a paperless office by using technology: store computer documents on diskette instead of making paper copies; use voice mail or electronic mail instead of paper memos; use fax/modems to fax and receive documents by computer; and use optical scanners and computers for file storage.

## CLOSE THE LOOP

The three arrows in the recycling loop represent the process of collecting, processing and reusing recyclable materials. Close the loop by purchasing products made from recycled materials. Recycled products are not a different kind of product; they have just been made a different way. The quality of most products made from recycled materials equals the quality of "virgin" materials. For example, recycled-content paper products are available in a wide range of attractive styles, colors and grades and is virtually indistinguishable from virgin paper. Often, there is no difference in quality or price.

## POST-CONSUMER VS. PRE-CONSUMER

Post-consumer products are made from materials people once used and recycled. Pre-consumer materials contain by-products from an in-house manufacturing process that are commonly reused in that process (such as mill trimmings from paper cutting). Many items specify the quantity of pre or post-consumer materials they contain—look for the "recycling" symbol or read the label to be sure.

By purchasing products that have a high percentage of "post-consumer" recycled content your business will directly increase the demand for recycled-content products, strengthen the market for products that contain recycled materials and eventually lower prices. By creating a market for recyclable materials, you are contributing to the rise of new businesses that are using recyclables in innovative ways. There are literally thousands of products made from recycled materials. Ask your vendors/distributors to supply your company with recycled content materials.

## 2. PLAN YOUR PROGRAM

### GAIN MANAGEMENT SUPPORT

Management support is critical to the success of your program. When doing so, it is important to show how a recycling program can impact the company's bottom line and to help all employees understand the benefits. Use management support to:

- Implement company-wide recycling policies
- Allocate resources (personnel and money)
- Assist with ongoing employee communication about program successes
- Attend kick-off event or other company-wide activities for the program

### CHOOSE A COORDINATOR

Look for someone who is enthusiastic about recycling and can communicate well with co-workers, custodial staff and management about the program. The coordinator should be responsible for:

- Conducting a waste assessment
- Evaluating which materials can be reduced or recycled
- Organizing the program
- Procuring equipment
- Negotiating contracts and working with service providers
- Contacting suppliers and staying current with recycled product prices
- Teaching employees how to recycle
- Ensuring that recyclables are ready for pick-up
- Telling everyone in the business about program goals and successes

If your business has several departments, you may want to create a recycling team to work with the coordinator. The team should include representatives of each department or division including maintenance, purchasing, personnel, food service and customer service. Each team member should have an interest in recycling, good communication skills and the authority to devote work time to the program.

### CONDUCT A WASTE ASSESSMENT

The process of looking at what your business throws away and the costs associated with doing so is a critical step in developing your program. A waste assessment will determine the following: (1) the quantity of waste your business generates; (2) your current disposal costs; (3) what your business throws away and could potentially be recycled; and (4) the cost/benefit of your recycling program. *Conduct a waste assessment using Appendix A.*

#### Step 1: How much waste does your business produce?

Determine how much waste your business generates annually by completing *Part 1: Waste Generation Worksheet in Appendix A*. You will need to know the number of garbage containers and their volume. *See Appendix B if you are unsure about the size of your collection containers.* Note: if your garbage containers are unlocked, make sure the waste is actually coming from your business.

#### Step 2: How much does your waste disposal cost?

Disposal costs are either charged as a flat fee or included in rent or based on the volume and weight of waste your business generates. To get an overview of the specific costs associated with your current service, determine how your disposal costs are charged. If your company is in a multi-tenant building, disposal costs may be included in your lease or charged as a flat fee. You may need to get this information from your hauler, building manager, property management company or custodial staff. Once you have determined how the business is charged for waste disposal complete the *Part 2: Annual Disposal Cost Worksheet in Appendix A*.

### Step 3: What is in your garbage?

Now that you know the amount of waste your business throws away and how much it costs, determine the types of materials and the percentage of waste each material comprises by completing the *Part 3: Waste Stream Worksheet in Appendix A*. Walking through your business will help you identify materials that can be reduced, reused or recycled. Plan to walk through on several different days and estimate the percentage of each type of material in the garbage (example: 60% mixed paper, 15% white paper, 10% plastic bottles, 10% food waste, 5% computer equipment). Visit each part of your business where waste is generated and where materials are stored. Now that you know which materials are thrown away, the relative volume of those materials and how much it costs to dispose of them, you need to decide what percent could be reduced, reused or recycled or purchased with recycled content materials. Focus first on the materials that make up the largest parts of your waste. Contact Wake County Solid Waste if you need help deciding on the best ways to reduce, reuse or recycle any materials that your business throws away.

### Step 4: What is your potential annual costs or savings?

Now you have the information needed to assess the costs and benefits of reducing, reusing and/or recycling at your business. Focus first on the materials that make up the largest part of your waste. Be sure to include start-up costs and projections for cost-savings. Use *Part 4: Cost/Benefit Worksheet in Appendix A* to help.

## 3. DESIGN YOUR PROGRAM

Once you have gathered the information you need, it is time to design a program that works for your business.

### STEP 1: WASTE REDUCTION

Start by looking for ways to reduce waste.

**Purchasing:** Are you overloaded with disposable merchandise? Try purchasing durable or reusable merchandise that is made from recycled materials instead of costly disposables.

**Manufacturing:** What happens to trimmings or unavoidable overruns from your manufacturing processes? You can make it a priority to return these materials to the production process whenever possible.

**Packaging:** Try to use just the amount of packaging you need—don't over-package items. Recycle or reuse boxes, packaging peanuts and bags.

**Distributors/Suppliers:** Can your distributor deliver products in less packaging or take back old packaging for reuse? Do they offer products that are made from recycled materials?

**Food Service:** Use refillable containers for condiments instead of individual packets. Serve beverages from dispensers rather than individual bottles or containers. Purchase washable and reusable aprons, gloves, linens and rags.

### STEP 2: MATERIALS TO RECYCLE

Start with the materials that make up the largest portion of the waste stream or with the most commonly recycled items – paper products, glass bottles, plastic bottles, aluminum and steel cans. Determine if the material can be eliminated or reduced through a change in operations or reused by your company or someone else. Collect just a few recyclable materials at first. As customers and employees make recycling a habit, new materials can be phased in. For businesses with large quantities of recyclable materials, consider establishing a pilot program to work out any kinks before expanding the program company-wide.

### STEP 3: COLLECTION

Determine how the recyclable materials will be handled. Will you hire a private hauler to collect the materials or will you self-haul them to a recycling drop-off that accepts materials from businesses? If you are in a multi-tenant building, contact neighboring businesses to find out:

- Are they already recycling?
- Who is their recycling hauler?
- What suggestions do they have based on their experiences?
- Can you consolidate your efforts and reduce collection costs?

## Choose a recycling hauler

Recycling haulers offer different services and collect a variety of recyclable materials. Decide which materials your company will recycle and check with several haulers about their services and business practices. *See Appendix E for a listing of licensed solid waste & recycling haulers in Wake County.*

### QUESTIONS TO ASK A POTENTIAL HAULER

1. What materials do they collect?
2. Do the materials need to be sorted or can they be commingled (mixed together in one container)?
3. Will they provide internal containers for your recyclables, and if so, at what cost?
4. What type of internal collection containers do they recommend for your business?
5. What type of external collection containers are the recyclables picked up in?
6. Will they provide decals and/or signage for the recycling containers?
7. Is there a minimum amount materials required for collection?
8. Are pickups regularly scheduled or on an on-call basis?
9. How frequently will they pick up your recyclables?
10. Do they charge to pick up materials, accept at no charge or pay your company for materials?
11. What are their payment terms?
12. Do they already pick up recyclables from neighboring businesses?
13. Can they provide your business with solid data on how much material your business is recycling?
14. Do they require (or does your company want) a contract for services?
15. Will they discount services if they collect your business' garbage and recycling?
16. Do they have educational materials for your employees?

## Collection Containers

Consider the following when deciding what type of collection container to use at your business:

**Style** – Many different styles of bins exist to fit different types of materials or different size collection or storage spaces. Your service provider may provide containers as part of your contract. If not, several varieties can be purchased at office supply and hardware stores. *See Appendix B for a list of different types of collection containers.*

**Placement** – Place containers in areas where recyclables are generated – near copiers, printers, fax machines, soda machines, desks, garages, bars, housekeeper carts, etc.

**Signage** – Placing proper signage on and/or above all of the recycling containers will reduce contamination.

## Storage Space

A proclaimed deterrent to recycling at work is the lack of space to collect and store recyclables. If space is limited at your business try to:

- Use stackable containers or utilize your vertical space with shelving.
- Place individual containers under desks.
- Place collection containers under tables, in cabinets, or outside.

## STEP 4: COSTS

Possible costs associated with starting a recycling program include:

- Purchase or rental of recycling containers
- Ongoing collection charges by recycling haulers
- Costs of transporting materials to a local drop-off center if not contracting with a hauling company
- Processing fees
- Signage and other informational materials

Control costs by thoroughly research recycling services and remember that haulers compete for customers. Determine whether purchasing the containers for your business is more cost effective than having the hauler include them as part of their service. Use opportunities to commingle materials to reduce labor (to separate recyclables) and the number of containers used. Once you have your recycling program in place, you may notice that you are NOT filling up your garbage dumpster as fast. Offset the cost of recycling by reducing your garbage collection frequency.

### SAVE ON DISPOSAL COSTS

- Save money by simply making sure that containers are full when they are collected.
- If containers are not full, how often would you estimate pickup should occur? Decrease collection services as needed.
- Could fewer or smaller disposal containers be used (saving rental or maintenance costs)?
- Will the hauler provide “as needed” pickup service rather than a predetermined schedule?
- Carefully review your haulers’ invoices and be aware of *Garbage Bill Service Charges in Appendix D*.



## 4. START YOUR PROGRAM

Customer and/or employee participation is critical to the success of your program. If you want strong participation, you must educate customers and/or employees about the program and make it easy for everyone to participate. Hold training sessions at staff meetings. Someone should be prepared to answer questions, provide encouragement and discuss the benefits of your company’s recycling program. Provide literature explaining the benefits of recycling. Your hauler may be able to supply educational materials. Some businesses have hosted a special event or party to kick off its program. To publicize your program consider making special recycling posters, buttons or banners. Once your program is launched, continue to encourage input and ideas from customers, staff and management.

To help ensure employee participation, you can post or electronically circulate an announcement highlighting that the new program has full management support and is a priority for the business. Be sure to mention:

- The commitment of the business to reducing waste, recycling and buying recycled products.
- The new procedures being adopted.
- The recycling coordinator’s name and number.
- That ideas and suggestions from employees are welcome.

## 5. SUSTAIN YOUR PROGRAM

After you have launched your new recycling program, you will want to ensure its continued success. Let management know how the program is improving the bottom line. Company and public recognition will keep customers and/or employees motivated and enthusiastic.

### STEP 1: TRACK YOUR SUCCESS

It’s important to monitor and evaluate the program to ensure its viability and success. To demonstrate that the program is cost-effective, track any income generated from the sale of recyclables and any savings in disposal costs. Ask your hauler to provide data on the quantity of materials recycled. Demonstrate how recycled materials purchased by your company have reduced the need for virgin materials or even how the program has saved purchasing or handling costs. Monitor the types and prices of recycled products used by your company to make sure you are getting the best deal. Prices for recycled content products can vary throughout the year.

## STEP 2: KEEP EVERYONE INFORMED

Provide regular updates to customers, employees and management about the program. Everyone likes to hear a good word. Employees need to know that their commitment helps achieve the program's goals. Positive communication and employee recognition are critical to the long-term success of the program. Post announcements from management to let everyone know of changes in the program. Emphasize the program's success. Remember to reward good behavior. Consider giving awards to employees who have shown creativity, initiative or innovative strategies for waste reduction and recycling. Encourage each work area to designate a "recycling team leader" to monitor efforts, train new employees and encourage others to use the program.

## STEP 3: GET RECOGNITION FOR YOUR EFFORTS

When your business joins the hundreds of other businesses already recycling, say so! Publicize your efforts by getting the message to employees, management and the public. When you make the commitment to recycle, you're helping to reduce waste and improve the environment—the public, including your customers, will appreciate that.

### GET THE WORD OUT

- Have "Printed on Recycled Paper" printed on your company letterhead and materials such as bills, annual reports or brochures.
- Post signs in public areas of your company that state "We Recycle."
- Let the public know about your commitment. Send news releases about your efforts to local papers, trade and environmental publications. Print the story in your in-house newsletter.
- Help other businesses set up their own programs. Speak about your program at business meetings and seminars.
- Let the community know your business cares!

## 6. TECHNICAL ASSISTANCE

If you need assistance establishing a recycling and waste reduction program contact Wake County Solid Waste Management. We are committed to helping your business recycle, reduce waste and buy products made of recycled materials. We can provide you with the following technical assistance: Identify recycling haulers; Provide recommendations on self-waste assessments; Assist with the design of a collection system; Award Commercial Waste Reduction Grants for businesses to start or expand their waste reduction and/or recycling program; Online database Trash Takers - [www.wakegov.com/trashtakers](http://www.wakegov.com/trashtakers) - to find haulers, drop off sites and locate markets. See our website for more information: [www.wakegov.com/recycling/business](http://www.wakegov.com/recycling/business).

Let us know how you are doing and remember that Wake County Solid Waste Management is here to help. We want to know about your company's success recycling, reducing waste and buying recycled products. We also want to know if you need assistance to make your program maximize its potential. Good luck recycling and reducing waste!

### LOCAL RECYCLING CONTACT INFORMATION

Apex Public Works  
919-249-3427  
[www.apexnc.org](http://www.apexnc.org)

Cary Public Works  
919-469-4090  
[www.townofcary.org](http://www.townofcary.org)

Fuquay Varina Public Works  
919-552-1408  
[www.fuquay-varina.org](http://www.fuquay-varina.org)

Garner Public Works  
919-772-7600  
[www.ci.garner.nc.us](http://www.ci.garner.nc.us)

Holly Springs Public Works  
919-552-5920  
[www.townofhollyspringsnc.net](http://www.townofhollyspringsnc.net)

Knightdale Public Works  
919-217-2212  
[www.ci.knightdale.nc.us](http://www.ci.knightdale.nc.us)

Morrisville Public Works  
919-481-3394  
[www.ci.morrisville.nc.us](http://www.ci.morrisville.nc.us)

NC Dept. of Pollution Prevention & Environmental Assistance  
919-715-6500  
[www.p2pays.org](http://www.p2pays.org)

Raleigh Solid Waste Services  
919-831-6890  
[www.raleighnc.gov](http://www.raleighnc.gov)

Rolesville Utilities Management  
919-556-3506  
[www.ci.rolesville.nc.us](http://www.ci.rolesville.nc.us)

Wake County Solid Waste Management  
919-856-6186  
[www.wakegov.com](http://www.wakegov.com)

Wake Forest Public Works  
919-554-6120  
[www.wakeforestnc.gov](http://www.wakeforestnc.gov)

Wendell Public Works  
919-365-3616  
<http://townofwendell.com>

Zebulon Public Works  
919-269-5285  
[www.ci.zebulon.nc.us](http://www.ci.zebulon.nc.us)

This waste assessment includes four worksheets designed to help you plan your business waste reduction program.

- Part 1: Waste Generation Worksheet
- Part 2: Annual Disposal Cost Worksheet
- Part 3: Waste Stream Worksheet
- Part 4: Cost/Benefit Worksheet

These worksheets will help your company better understand the types and amounts of waste generated, the costs associated, and the options for reducing this waste. The worksheets are designed to be flexible in order to meet the waste reduction needs of different businesses. There is a wide range of waste reduction programs and these worksheets are intended to offer guidance.

If you would like more assistance on how to use this information or how to develop a waste reduction program, please contact us at 919-856-5698 or mail completed forms Wake County Solid Waste Management, Commercial Waste Reduction, P.O. Box 550, Raleigh, NC 27602.

### Company Information

Business Name: \_\_\_\_\_

Contact Name: \_\_\_\_\_

Phone Number: \_\_\_\_\_ Fax Number: \_\_\_\_\_

Email Address: \_\_\_\_\_

Address: \_\_\_\_\_ City: \_\_\_\_\_ State: \_\_\_\_\_ Zip: \_\_\_\_\_

### Type of Business

- |                    |                   |                   |                              |
|--------------------|-------------------|-------------------|------------------------------|
| _____ Construction | _____ Industrial  | _____ Government  | _____ Research & Development |
| _____ Institution  | _____ Retail      | _____ Health Care | _____ Multi-Family           |
| _____ Office       | _____ Hotel/Motel | _____ Service     | _____ Restaurant/Bar         |

### Facility Background

Describe Products/Service: \_\_\_\_\_

Facility Square Footage: \_\_\_\_\_ Number of Employees: \_\_\_\_\_ Days/Week of Operation: \_\_\_\_\_



## Part 2 ANNUAL DISPOSAL COSTS WORKSHEET

Name of Waste Removal Company: \_\_\_\_\_

Telephone Number: \_\_\_\_\_ Contract Expires: \_\_\_\_\_

Number of Collections \_\_\_\_\_ per (day or week or month) \_\_\_\_\_

Complete *either* Table A, B, or C depending on how your business is charged for waste removal. (Note: only complete one of the following tables below to determine disposal costs.)

### Table A If disposal is charged as a flat fee or included in rent

|                   |   |                        |   |                                    |
|-------------------|---|------------------------|---|------------------------------------|
|                   | X |                        | = |                                    |
| Waste Removal Fee |   | Times charged per year |   | <b>Annual Waste Removal Charge</b> |

### Table B If disposal is charged by weight (tons) OR volume (cubic yards)

|  |   |   |   |                       |
|--|---|---|---|-----------------------|
|  | X |   | = | (a)                   |
| Waste Removal Charge by weight or volume |   | Total Waste Removed Annually (use tonnage total in Table 1) |   | Annual Removal Charge |

|                              |   |                 |   |                              |
|------------------------------|---|-----------------|---|------------------------------|
|                              | X | 12              | = | (b)                          |
| Monthly Container Rental Fee |   | Months per Year |   | Annual Container Rental Fees |

|                               |   |                                      |   |  |
|-------------------------------|---|--------------------------------------|---|--|
| (a)                           | + | (b)                                  | = |  |
| Annual Removal Charge (above) |   | Annual Container Rental Fees (above) |   | <b>Annual Waste Removal Charge (a+b)</b> |

### Table C If disposal is charged per collection

|                               |   |                 |   |                          |
|-------------------------------|---|-----------------|---|--------------------------|
|                               | X |                 | = | (a)                      |
| Monthly Charge per Collection |   | Months per Year |   | Annual Collection Charge |

|                              |   |                 |   |                              |
|------------------------------|---|-----------------|---|------------------------------|
|                              | X | 12              | = | (b)                          |
| Monthly Container Rental Fee |   | Months per Year |   | Annual Container Rental Fees |

|                               |   |                                      |   |  |
|-------------------------------|---|--------------------------------------|---|--|
|                               | X |                                      | = | (a+b)                                    |
| Annual Removal Charge (above) |   | Annual Container Rental Fees (above) |   | <b>Annual Waste Removal Charge (a+b)</b> |

# APPENDIX A: WASTE ASSESSMENT

## Part 3

### WASTE STREAM WORKSHEET

This worksheet will help you identify the materials that your business currently throws away and what percent could be recycled. Walk through your business (make copies if you have several departments or sections where waste is produced) and estimate the amount of each material that is in the garbage. Once you have a visual estimate of what is in your garbage, approximate what percentage of each material could be reduced, reused, recycled and disposed.

| Material                             | Visual Estimate (%) | Recycle (%) | Dispose (%) |
|--------------------------------------|---------------------|-------------|-------------|
| <b>Construction Debris</b>           |                     |             |             |
| Concrete                             |                     |             |             |
| Asphalt                              |                     |             |             |
| Lumber/Wood                          |                     |             |             |
| Vinyl Siding                         |                     |             |             |
| <b>Electronics</b>                   |                     |             |             |
| Small Appliances                     |                     |             |             |
| Large Appliances (A/C, Washer/Dryer) |                     |             |             |
| Computers                            |                     |             |             |
| Small Consumer Electronics           |                     |             |             |
| Televisions                          |                     |             |             |
| <b>Glass</b>                         |                     |             |             |
| Bottles/Jars/Containers              |                     |             |             |
| Plate/Window Glass                   |                     |             |             |
| <b>Hazardous Waste</b>               |                     |             |             |
| Paint                                |                     |             |             |
| Vehicle and Equipment Fluids         |                     |             |             |
| Chemicals                            |                     |             |             |
| Batteries                            |                     |             |             |
| <b>Metal</b>                         |                     |             |             |
| Aluminum Cans                        |                     |             |             |
| Steel Cans                           |                     |             |             |
| Scrap                                |                     |             |             |
|                                      |                     |             |             |
| <b>TOTAL</b>                         |                     |             |             |

| Material   | Visual Estimate (%) | Recycle (%) | Dispose (%) |
|--|---------------------|-------------|-------------|
| <b>Other</b>                                       |                     |             |             |
| Yard Waste   |                     |             |             |
| Food   |                     |             |             |
| Bulky Items  |                     |             |             |
| Medical Waste                                      |                     |             |             |
| Textiles, carpet, clothing                         |                     |             |             |
| Tires  |                     |             |             |
| Other  |                     |             |             |
| <b>Paper</b>                                       |                     |             |             |
| Newspaper  |                     |             |             |
| Cardboard/Chipboard                                |                     |             |             |
| Office Paper                                       |                     |             |             |
| Magazines & Catalogs                               |                     |             |             |
| Mixed Paper  |                     |             |             |
| Phone Book & Directories                           |                     |             |             |
| Other Misc. Paper                                  |                     |             |             |
| <b>Plastics</b>                                    |                     |             |             |
| PETE #1 (Soda, peanut butter bottles)              |                     |             |             |
| HDPE #2 (Milk, detergent bottles, grocery bags)    |                     |             |             |
| PVC #3 (Shampoo, salad dressing and water bottles) |                     |             |             |
| LDPE #4 (Trash bags, food wrap, squeeze bottles.)  |                     |             |             |
| PP #5 (Dairy product containers, bottle lids)      |                     |             |             |
| PS #6 (Styrofoam trays, egg cartons, plates, cups) |                     |             |             |
|  |                     |             |             |
| <b>TOTAL</b>                                       |                     |             |             |

**Part 4  
COST/BENEFIT WORKSHEET**

Complete this worksheet to determine your company's potential annual savings.

**STEP 1: CURRENT DISPOSAL COSTS**

**Annual Waste Removal Charges from Part 2 (A) \$** \_\_\_\_\_

**STEP 2: ESTIMATED RECYCLING PROGRAM STARTUP COSTS**

Estimated costs for collection and storage containers and processing equipment if required: \$ \_\_\_\_\_

Labor (extra janitorial or collection personnel costs, if any): \$ \_\_\_\_\_

Leased space (if required for storage): \$ \_\_\_\_\_

Program administration, promotion and education: \$ \_\_\_\_\_

Equipment installation (one time): \$ \_\_\_\_\_

Transportation (self-haul only): \$ \_\_\_\_\_

Other: + \_\_\_\_\_

**Total program setup costs (B): \$** \_\_\_\_\_

**3. SAVINGS OR REVENUES (resulting from program implementation)**

Decrease in disposal costs: \$ \_\_\_\_\_

Decrease in material supply costs\*: \$ \_\_\_\_\_

Revenue from recyclables/other materials: \$ \_\_\_\_\_

Other: + \_\_\_\_\_

**Total program savings (C): \$** \_\_\_\_\_

**4. NET PROGRAM COSTS**

**Net annual costs = A + B - C: \$** \_\_\_\_\_

**Payback period (in years) = A + B / C: \$** \_\_\_\_\_

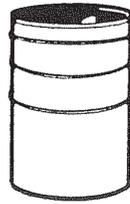
*\*Includes the savings realized through internal material reuse, decreased use of supplies (e.g., less copy paper through double-sided copying), increased product durability, or other waste prevention programs.*

## APPENDIX B: TYPES OF COLLECTION CONTAINERS

32 gallon can



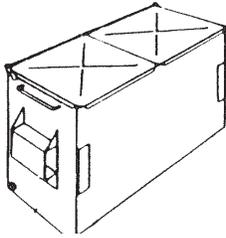
55 gallon drum



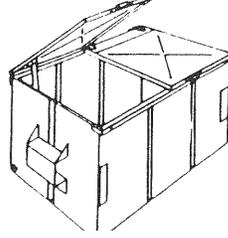
90 gallon roll cart



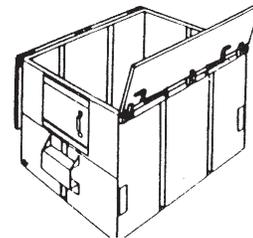
2 cubic yard dumpster



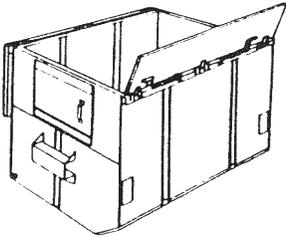
4 cubic yard dumpster



6 cubic yard dumpster



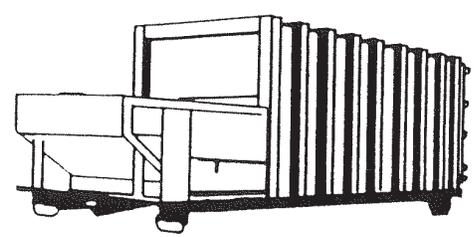
8 cubic yard dumpster



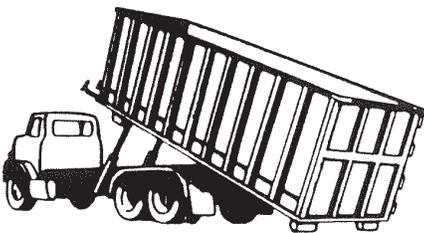
40 yard roll off



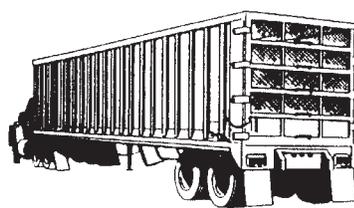
Compactor



Roll off truck



Tractor trailer



- RECYCLING CONTAINER MANUFACTURERS**
- A-1 Plastics
  - Barco Products
  - Busch Systems International
  - Fibrex Products
  - Meese Orbitron Dunne Company
  - Norseman Plastics
  - One Earth Corporation
  - Otto Industries
  - Recy-Cal Supply
  - Rehrig Pacific Company
  - Rubbermaid Commercial Products
  - Scepter Corporation
  - T. M. Fitzgerald & Associates
  - Techstar Plastics Inc.
  - Toter Inc.
  - Tulip Corporation
  - Windsor Barrel Works

## APPENDIX C: GARBAGE BILL SERVICE CHARGES

Your garbage collector may add special charges to their regular pick-up fees. You need to be aware of these charges in order to assess cost savings from your reduce-reuse-recycle program. These charges can include:

**Access/distance** - Extra fee to go inside a building or to travel excessive distance from truck to container.

**Bin/container repair** - Charge for any bin/container repair work necessary beyond normal wear and tear.

**Flasher** - Charge for a flashing light attached to containers placed in roadways.

**Hasp/lock/key** - Charge for any one or all of these security items.

**Multiple containers** - Fee to offset frequent collection of small containers.

**Placement** - Charge for initial placement of a container.

**Relocation** - Charge for relocating container after initial placement.

**Return check** - Charge assessed to checks that are returned.

**Special pick-up** - Charge for additional or non-scheduled service.

**Steam clean** - Charge for cleaning container that may be dirty beyond normal use.

**Weight** - Charge for heavy (wet) garbage if the average container weight exceeds a maximum amount.

## APPENDIX D: GLOSSARY

**Broker** - A company who locates markets for recyclables for a fee.

**Buy back center** - A facility that offers to pay money for recyclables. This could be a processor or an end user.

**Close the loop** - Buying products that are made with recycled materials.

**Commingle** - To mix different types of recyclable materials together into one container to be separated by a MRF.

**Compost** - The product resulting from decomposition of organic wastes such as vegetable, yard and wood wastes.

**End user** - A company that will convert recyclables into new products.

**Hauler** - A company that one can contract with to carry recyclables to a processor or end user.

**Material recover facility (MRF)** - A facility that accepts a variety of mixed recyclables and separates the useful material to market it through an end user.

**Post-consumer content** - The portion of a product that is made from materials that were previously recycled by business or consumers.

**Pre-consumer content** - The portion of a product that is made from scraps leftover from a manufacturing process.

**Processor** - A company that prepares bulk materials for shipment to end users.

**Recycle** - The process of collecting, sorting, cleansing, treating and reconstituting materials.

**Recycled content** - The portion of a product that is made, at least in part, from other products that have been recycled.

**Recycling vendor** - A company that specializes in collecting recyclable materials and selling these materials for reuse or re-manufacturing.

**Reduce** - To decrease the amount of waste generated.

**Reuse** - To use something over again in its current form.

**Tipping Fee** - A per ton or per vehicle fee paid at a landfill or transfer station at the time disposal of solid waste.

**Virgin paper** - Paper made entirely from new wood or non-recycled materials.

**Waste assessment** - A tool to learn how much and what types of waste is generated.

**Waste reduction** - Eliminating or reducing the amount of materials headed for a landfill.

## APPENDIX E: LICENSED SOLID WASTE HAULERS IN WAKE COUNTY

The following is a list of licensed solid waste and recycling haulers in Wake County. Be sure to contact each company for acceptable materials, availability and rates. Highlighted companies provide recycling collection services for aluminum, glass, paper and plastic.

|   |   |  |  |
|---|---|--|--|
| 1-800-GOT-JUNK<br>(800) 468-5865<br>7413 Six Forks Rd<br>Raleigh, NC 27615                | Debris Removal Partners<br>(919) 773-9899<br>PO Box 576<br>Garner, NC 27529                             | PCM Construction Services<br>(919) 362-1701<br>130 Edinburgh South Dr. 200<br>Cary, NC 27511             | Tidewater Fibre Corporation<br>(919) 957-8803<br>PO Box 11498<br>Durham, NC 27703                            |
| ABC Sanitation<br>(919) 662-2988<br>PO Box 1235<br>Garner, NC 27529                       | East Wake Container Inc.<br>(919) 217-3699<br>PO Box 1519<br>Knightdale, NC 27545                       | <b>PRR Services (Phoenix Resources Recycling)</b><br>(919) 787-0883<br>PO Box 91343<br>Raleigh, NC 27675 | Top Shelf Containers, LLC<br>(919) 625-9050<br>P.O. Box 1027<br>Clayton, NC 27528                            |
| <b>Allied Waste</b><br>(919) 991-1000<br>PO Box 12018<br>Research Triangle Park, NC 27709 | Harrod and Associates Constructors, Inc.<br>(919) 828-7782<br>4425 Beryl Rd.<br>Raleigh, NC 27606       | Raleigh Metals Processors<br>(919) 828-5426<br>PO Box 25037<br>Raleigh, NC 27611                         | Tousley Waste & Recycling Systems, LLC<br>(919) 567-3479<br>6340 Dwight Roland Rd<br>Fuquay-Varina, NC 27526 |
| American Recyclers<br>(919) 212-0021<br>2025 Castle Pines Dr<br>Raleigh, NC 27604         | Kernis Shaw Specialty Hauling<br>(919) 217-1623<br>PO Box 27681<br>Raleigh, NC 27611                    | Reliable Sanitation and Recycling, Inc.<br>(919) 858-0452<br>PO Box 916<br>Holly Springs, NC 27540       | Trebor Industries of NC, LLC<br>(919) 577-1172<br>PO BOX 986<br>Holly Springs, NC 27540                      |
| AmeriWaste<br>(919) 832-2901<br>2220 Capital Blvd.<br>Raleigh, NC 27604                   | McConnell Waste Systems & Recycling<br>(919) 669-1212<br>113 Flint Point Ln.<br>Holly Springs, NC 27540 | Republic Services of NC, LLC<br>(919) 772-1316<br>825 Purser Dr<br>Raleigh, NC 27603                     | Triangle Recycling Service<br>(919) 366-9001<br>PO Box 2001<br>Wendell, NC 27591                             |
| Brocks Sanitation, Inc.<br>(919) 779-8726<br>1021 Toy Ct<br>Raleigh, NC 27603             | NEO Corp.<br>(919) 481-0555<br>289 Silkwood Drive<br>Canton, NC 28716                                   | Residential Construction Service<br>(919) 467-4335<br>PO BOX 1614<br>Cary, NC 27512                      | Turbo Haul of Raleigh<br>(919) 231-3313<br>800A Freedom Dr.<br>Raleigh, NC 27610                             |
| <b>Brooks Contractor</b><br>(919) 837-5914<br>1195 Beal Rd<br>Goldston, NC 27252          | Noble Oil Service<br>(800) 662-5364<br>5617 Clyde Rhyne Dr<br>Sanford, NC 27330                         | Shamrock Environmental Corporation<br>(800) 881-1098<br>PO Box 14987<br>Greensboro, NC 27415             | <b>Waste Industries Garner</b><br>(919) 662-7100<br>3741 Conquest Dr<br>Garner, NC 27529                     |
| Bryant Grading, Inc.<br>(919) 552-3420<br>305 Spence Mill Rd<br>Fuquay-Varina, NC 27526   | Norwake Contractor Service<br>(919) 954-8585<br>PO Box 61337<br>Raleigh, NC 27661                       | <b>Shaw Sanitation Service, Inc.</b><br>(919) 570-3332<br>2718 Superior Drive<br>Wake Forest, NC 27587   | <b>Waste Management</b><br>(919) 405-2440<br>10411 Globe Rd<br>Morrisville, NC 27560                         |
| Canco Disposal NC, Inc.<br>(919) 957-0877<br>1101 Ellis Rd<br>Durham, NC 27703            | ONYX Environmental Services<br>(919) 528-3996<br>2176 Will Suit Road<br>Creedmoor, NC 27522             | <b>Shimar Recycling</b><br>(919) 680-6262<br>PO Box 51334<br>Durham, NC 27717                            | WCA of North Carolina<br>(919) 866-1211<br>PO Box 17822<br>Raleigh, NC 27619                                 |
| Capital Container, LLC<br>(919) 427-3519<br>PO Box 99093<br>Raleigh, NC 27624             | <b>Orange Recycling Service</b><br>(919) 688-5660<br>1010 East Pettigrew St<br>Durham, NC 27701         | Specialty Builder, Inc.<br>(919) 865-2889<br>10940 Raven Ridge Road #100<br>Raleigh, NC 27614            | Woods Sanitation Service<br>(919) 552-3908<br>6299 US Hwy 401 North<br>Fuquay-Varina, NC 27526               |
| Collection Services, Inc. (CSI)<br>(919) 319-3404<br>PO Box 3161<br>Cary, NC 27519        |   |  |  |

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this guide as a reference. If  
not, share it with another  
business or please recycle it.



Environmental Services Department  
Solid Waste Management Division