The Solid Waste Authority of Central Ohio

and

The City of Columbus GreenSpot Program

<u>Business Waste Audit Tool</u>

Most businesses spend a lot of money getting rid of their waste. A business can minimize its impact on the environment and significantly reduce hauling costs by reducing the amount of waste it produces. This waste audit tool will help identify current practices and improvement opportunities. Businesses that make a conscious effort to reduce waste motivate people and other businesses to do the same.

The materials in this document are intended solely for guidance
Businesses are subject to local, state and federal regulations governing the proper disposal of solid, wastes, hazardous wastes, and recyclable materials. These regulations and laws differ greatly from the requirements for residential waste disposal and recycling. For more information on local, state and federal regulations and permits regarding waste disposal and recycling for businesses please refer to SWACO, Ohio EPA or US EPA websites:

SWACO
http://swaco.org/SmartBusinesses.aspx
Ohio EPA
http://ohioepa.custhelp.com/app/home
US EPA
http://www.epa.gov/lawsregs/topics/#waste

Waste Disposal Practices and Costs

What types of wastes does your facility generate? Some potential examples are included below, but please refer to definitions section for more information.

☐ Municipal Solid Waste
☐ Electronic Waste – (computers, monitors, phones)
☐ Recyclable Material – (office paper, plastic bottles, metal cans, glass bottles)
☐ Yard Waste
☐ Other Waste – (textiles, food, certain plastics, paper towels, tissues, waxed cardboard, aseptic containers, etc.)
☐ Hazardous Waste (solvents, waste containing heavy metals, oil-based paint)
☐ Universal Waste – (fluorescent bulbs, batteries, pesticides, thermostats with mercury ampoules)

WASTES		ESTIMATE PERCENTAGE OF WASTE STREAM	APPROXIMATE CUBIC YARDS
Municipal Solid Waste			
Electronic Waste Computers, monitors, phones, and other electronics			
Recyclable Materials	**Paper** Basically all paper that will tear and is dry. Grades include: **Higher Grade** (i.e. white copy, letterhead, register receipts, computer, folders, post-it-notes, color bond paper, junk mail) **Lower Grade** (i.e. corrugated cardboard, chip board, newspaper, magazines, phone books).		
	Plastic Please list all including polystyrene, bottles, jugs, film, etc.		
	Metal Aluminum, steel, bi-metal, paint cans, aerosol cans, food cans, aluminum foil, sheet metal, etc.		
	Glass Bottles and jars (brown, green, clear).		
Yard Waste Grass clippings, leaves, brush, other.			
Other Waste Textiles, food, certain plastics, hazardous wastes, paper towels, tissues, waxed cardboard, aseptic containers, etc.			
Hazardous Waste Solvents, waste containing heavy metals, oil-based paint.			
Universal Waste Fluorescent light bulbs, pesticides, rechargeable batteries, thermostats containing mercury, etc.			

Municipal Solid Waste

How many municipal solid waste collection points are inside your business?

What is the average volume (cubic yards) or weight (pounds) of municipal solid waste in these containers?
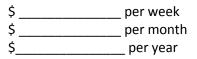
Who is you municipal solid waste hauler?

How often is your municipal solid waste collected?

☐ Weekly
☐ Monthly
☐ Other: _____

Where is your municipal solid waste taken for disposal?

What is the cost for disposal?

$ _____ per week
$ _____ per month
$_____ per year

Formula:

Number of Containers **(X)** Number of Dumpster Pulls Per Month **(X)** Cost Per Dumpster Pull **(X)** 12 Months

(=) Total Annual Cost $_____.00 for Disposal.

Electronic Waste

How many electronic waste collection points are inside your business?

What is the average volume (cubic yards) or weight (pounds) of electronic waste in these containers?

Who is your electronic waste hauler?

How often does your hauler collect the electronic waste?

☐ Monthly
☐ Quarterly
☐ Annually
☐ Other: _____

Where is your electronic waste taken for disposal?

What is the cost for disposal?

        $ _____ per week
        $ _____ per month
        $_____ per year

Formula:

Number of Containers **(X)** Number of Dumpster Pulls Per Month **(X)** Cost Per Pull **(X)** 12 Months

(=) Total Annual Cost $_____.00 for Disposal.

<u>Recyclable Material</u>

Who is currently responsible for collecting and disposing of waste/recyclable materials generated in your facility? Check all that apply.

- ☐ Facility cleaning/maintenance department
- ☐ Custodial service (contracted or staff?)
- ☐ Office/plant employees
- ☐ Regular employees on shift schedule
- ☐ Manufacturing work areas
- ☐ Other: please specify

If not currently recycling, is there space available outside for the placement of a recycling dumpster?

Are there access constraints for recycling equipment and/or trucks?

Does your current waste hauler offer recycling services? If so, check accepted materials:

- ☐ Paper
- ☐ Plastic
- ☐ Metal
- ☐ Glass

How many recyclable material collection points are inside your business?

What is the average volume (cubic yards) or weight (pounds) of recyclable material in these containers?
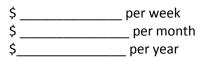
Who is your recyclable material hauler?

How often does your hauler collect the recyclable material?

☐   Weekly
☐   Monthly
☐   Quarterly
☐   Other: _____

Where is your recyclable material taken for disposal?

What is the cost for disposal?

$ _____ per week
$ _____ per month
$_____ per year

Formula:

Number of Containers **(X)** Number of Dumpster Pulls Per Month **(X)** Cost Per Dumpster Pull **(X)** 12 Months

(=) Total Annual Cost $_____.00 for Disposal.

Yard Waste

How many yard waste collection points does your business have?

What is the average volume (cubic yards) or weight (pounds) of yard waste in these containers?

Who is your yard waste hauler?

How often does your hauler collect the yard waste?

☐   Monthly
☐   Quarterly
☐   Annually
☐   Other: _____

Where is your yard waste taken for disposal?

What is the cost for disposal?

$ _____ per week
$ _____ per month
$_____ per year

Formula:

Number of Containers **(X)** Number of Dumpster Pulls Per Month **(X)** Cost Per Dumpster Pull **(X)** 12 Months

(=) Total Annual Cost $_____.00 for Disposal.

Hazardous Waste

How many hazardous waste collection points are inside your business?

What is the average volume (cubic yards) or weight (pounds) of hazardous waste in these containers?
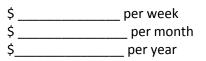
Who is your hazardous waste hauler?

How often does your hauler collect the hazardous waste?

☐ Monthly
☐ Quarterly
☐ Annually
☐ Other: _____

Where is your hazardous waste taken for disposal?

What is the cost for disposal?

$ _____ per week
$ _____ per month
$_____ per year

Formula:

Number of Containers **(X)** Number of Dumpster Pulls Per Month **(X)** Cost Per Dumpster Pull **(X)** 12 Months

(=) Total Annual Cost $_____.00 for Disposal.

Universal Waste

How many universal waste collection points are inside your business?

What is the average volume (cubic yards) or weight (pounds) of universal waste in these containers?

Who is your universal waste hauler?

How often does your hauler collect the universal waste?

☐ Monthly
☐ Quarterly
☐ Annually
☐ Other: _____

Where is your universal waste taken for disposal?

What is the cost for disposal?

$ _____ per week
$ _____ per month
$_____ per year

Formula:

Number of Containers **(X)** Number of Dumpster Pulls Per Month **(X)** Cost Per Dumpster Pull **(X)** 12 Months

(=) Total Annual Cost $_____.00 for Disposal.

Benefit/Cost Analysis

If you do not already recycle, could your trash pick-ups be reduced if you started recycling?

Would you see a cost-savings by reducing the volume in your trash dumpster and increase the volume in a recycling dumpster?

Formula:

Existing Annual Disposal Costs **(-)** New Disposal Costs **(+)** Recycling Costs (if applicable)

(=) Net Savings or Additional Costs

Definitions

Electronic Waste or **E-Waste** means unwanted electronic appliances and devices, including but not limited to: computers, monitors, fax machines, copy machines, televisions, stereo/audio equipment, phones, cellular phones, personal digital assistants (PDAs), game consoles, video recorders, and electronics from industrial sources.

Hazardous Waste means waste which requires special handling and disposal because it is listed as a hazardous waste by Ohio EPA or because it exhibits characteristics of corrosivity, ignitability, reactivity

or toxicity. Some common examples may include, but are not limited to, solvents, waste containing heavy metals, and oil-based paints. Note: special rules exist depending on the quantities of hazardous waste generated. Also, wastes may need to be tested to determine if it qualifies as hazardous waste. http://codes.ohio.gov/oac/3745-51-03

Lamp or **universal waste lamp** means the bulb or tube portion of an electric lighting device. A lamp is specifically designed to produce radiant energy, most often in the ultraviolet, visible, and infra-red regions of the electromagnetic spectrum. Examples of common universal waste electric lamps include, but are not limited to, fluorescent, high intensity discharge, neon, mercury vapor, high pressure sodium, and metal halide lamps.

Mercury-Containing Equipment means a device or part of a device (including thermostats, but excluding batteries and lamps) that contains elemental mercury integral to its function. Some commonly recognized devices are thermostats, barometers, manometers, temperature and pressure gauges, and mercury switches, such as light switches in automobiles.

Recyclable Material means waste that is, or may be, collected, sorted, cleansed, treated, or reconstituted for return to commerce. Recyclable Materials include, but are not limited to: corrugated cardboard, office paper, newspaper, fiber materials, glass containers, steel containers, aluminum containers, plastic containers, wood packaging and pallets, lead-acid batteries, major appliances, electronic devices and Yard Waste.

Solid Waste means such unwanted residual solid or semisolid material as results from industrial, commercial, agricultural, and community operations, including, but not limited to, garbage, tires, combustible and non-combustible material, street dirt, and debris. "Solid Waste" does not include any material that is an infectious waste or a Hazardous Waste. Also excluded are earth or material from construction, mining or demolition operations, or other waste materials of the type that would normally be included in demolition debris, nontoxic fly ash, spent nontoxic foundry sand, and slag and other substances that are not harmful or inimical to public health.

Universal Waste means any of the following hazardous wastes that are subject to the universal waste requirements of Chapter 3745-273 of the Administrative Code: batteries, pesticides, mercury-containing equipment, lamps. http://codes.ohio.gov/oac/3745-273-09

Yard Waste means all garden residues, leaves, grass clippings, shrubbery and tree prunings less than one-quarter inch in diameter, and similar material. Yard Waste collected for residents by political subdivisions or their contractors is considered municipal Yard Waste. All other yard waste is non-municipal Yard Waste.

This document was adapted from the SWACO waste management audit form with technical support provided by Gresham, Smith and Partners' and City of Columbus office staff

GRESHAM SMITH AND PARTNERS