

Waste Reduction & Diversion Guidebook

A guide to help you select and complete projects to reduce waste!



Table of Contents

1	Waste Reduction Overview
2	Waste Reduction Target Framework
3	Waste Audits
4	Recycling
5	Construction Waste Disposal
6	EnviroDepots
7	E-Waste Recycling
8	TerrCycle
9	Centralized Waste System
10	Sustainable Printing
11	Go Paperless
12	Waste Free Lunch Program
13	Reusable Cups and Water Bottles
14	Composting



Table of Contents

- | Vermicomposting
- **16** Zero Waste Kitchen and Bathroom Practices
- Recycled Furniture
- Community Clean Up
- | Supply Chain Management



Waste Reduction Overview

This guide is meant to help members select projects that will help reduce and divert waste from landfills. There are tips and resources linked for each project, and our team is available for extra support and guidance throughout implementing these types of projects.

Why is it important to reduce waste?

- Landfills take up a lot of valuable space, and resources and pose potential long-term health and environmental problems
- When you reduce waste, you reduce ground, air, and water pollution, as well as the GHG emissions from waste transportation.
- The most cost-effective alternative
- This reduces resource costs and potential tipping fees.
- Greater employee involvement and engagement- employees involved in waste reduction strategies as they are directly involved in producing waste in the office.
- Can influence public perception- Businesses that are wasteful, can be seen as irresponsible by employees, customers, and the public.

Diversion vs Reduction

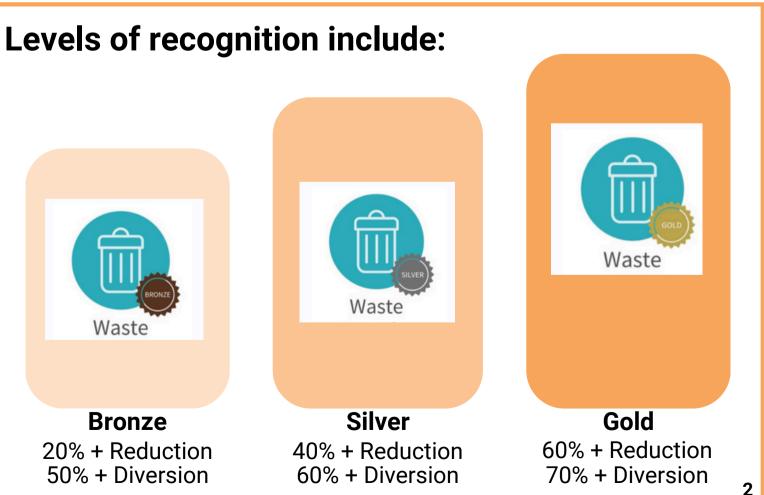
Diversion- the amount of waste that was going to a landfill but has now been diverted to either a recycling stream or an organic stream. The waste is still being produced, but now is diverted from the landfill.

Reduction- less waste is being produced in the first place. And that reduced waste can also be combined with diversion methods to reduce waste going to the landfill even further.

Waste Reduction **Target Framework**

General Notes:

- Office waste is mandatory to track and reduce, production byproduct waste is optional
- Members must develop an initial waste baseline within 3 years of joining Green Economy London
- Targets can be either reduction or diversion based (or both!)
- Members must complete an annual waste audit (can be completed by trained staff) in order to determine diversion and contamination amounts
- Members will be recognized for their achievements.



Waste Audits



A waste audit systematically assesses the quantity and composition of your waste stream, reviewing operations and waste generation. By analyzing how materials enter and exit your facility, it identifies opportunities to reduce waste and increase recycling. Despite not directly reducing waste, an audit is crucial for businesses to strategically allocate resources for source reduction and better recycling programs, especially amid global waste concerns and rising disposal costs.

How to Perform an Internal Waste Audit:

For detailed instructions see the Resources listed below. The basic steps include:

- Assemble a team
- Determine waste categories
- Gather your tools
- Collect waste
- Sort and weigh waste
- Analyze results

Resources:

- <u>5 Steps to Conduct a Waste Audit</u>
- <u>Guide for Industrial, Commercial, and</u>
 <u>Institutional Sectors</u>
- <u>Waste Audit Template</u>

Third-Party Waste Auditors in London:

<u>Waste Solutions Canada</u>

Recycling

Recycling is a straightforward solution for reducing the waste destined for landfills. Not only does it showcase corporate social responsibility, but it also significantly reduces landfill volumes and cuts down on greenhouse gas emissions released from waste sites.

It's crucial to sort your recycling correctly, especially if your hauler collects separate streams. While some haulers handle mixed streams, others require distinct sorting of recyclables. Educating employees on sorting guidelines is key to reducing contamination. Using clear signage helps ensure everyone knows what belongs in each bin, promoting effective recycling practices.

While recycling is an effective way to reduce waste in landfills, the best way to minimize your business waste footprint is to reduce it. First look into how you can reduce the amount of waste and recyclables to begin with, if there are areas where you can reuse any of that waste, and then look into how to divert waste to the recycling stream.



Resources:

- <u>TryRecycling</u>
- <u>Miller Waste</u>
- Green Valley Recycling

Diversion

Project

Construction Waste Disposal



Proper disposal of construction waste is important as it does not go into your waste bin for the landfill. Renting a dumpster specifically for construction/demolition debris or delivering the waste to designated sites for this type of waste are the best options.

Recyclable construction debris include:

- Concrete
- Porcelain
- Rigid Plastics
- Tile
- Lumber
- Metals
- Masonry
- Plastic
- Rock
- Carpet
- Insulation

Resources:

- <u>Waste Management: Construction</u>
 <u>and Demolition Disposal</u>
- <u>TryRecycling</u>
- <u>Better Bin Company</u>



EnviroDepots

London's EnviroDepots are facilities operated by the City of London where you can drop off yard waste, recyclables, and certain waste items. See below for a full list of accepted materials.

Proper disposal of hazardous waste including:

- Yard waste
- Electronics
- Scrap metal
- Bikes: Repaired by Big Bike Giveaway and Squeaky Wheel Bike Co-op and made available to those in need
- Appliances (\$20 fee for appliances containing refrigerant)
- Tires
- Batteries
- Propane tanks
- Fluorescent bulbs and tubes
- Empty oil & antifreeze containers (no liquids)
- Fats, cooking oils, and grease (FOG cups)

Resources: <u>EnviroDepot locations</u> <u>Paint/ paint can disposal locations</u>

6







E-Waste Recycling

The requirement for this project is that your business sells/donates old equipment or computer tech for recycling or refurbishment

Impacts of Technology Waste:

- Electronics thrown into landfills have serious environmental impacts, as most contain nonbiodegradable materials, heavy metals, and toxic materials like lead and mercury, that can leak into groundwater sources potentially contaminating drinking water
- Producing and manufacturing new technology has an intense carbon footprint, therefore when old electronics can be refurbished into a workable and effective device it reduces the demand for more nonrenewable resources like heavy metals to be extracted and mined.

Resources

- <u>Electronic Waste Depots in the City of</u> <u>London</u>
- <u>Tech Equipment Donation Company</u>
- <u>TryRecycling</u>



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TerrCycle



TerraCycle offers free and paid recycling programs funded by brands, manufacturers, and retailers to help you collect and recycle your hard-torecycle waste. Simply choose the programs you'd like to join; start collecting at home, school, or office; download free shipping labels and send off your waste to be recycled. You can earn rewards for your school or favourite non-profit.

Click <u>HERE</u> to check out their website, and to learn about their programs and what materials they accept

How it works

The Zero Waste Box program allows you to recycle almost any type of waste. Simply follow the steps to recycle your waste with TerraCycle and make a positive impact on our planet.



The collected waste is separated into metals, fibres, and plastics. Metals are melted so they may be recycled. The fibres (such as paper or wood-based products) are recycled or composted. The plastics undergo extrusion and pelletization to be moulded into new recycled plastic products.

Office Supplies Zero Waste Box

Send your discarded, non-electronic office tools like tape, desk organizers, card and document filers, binders, staplers, writing instruments, hole punchers, dividers, paper cutters, correction supplies, and fasteners such as paper clips

Resources:

- <u>Zero Waste Box Program</u>
- <u>Office Supplies Zero Waste Box</u>
- Plastic Packaging Zero Waste Box

Centralized Waste System

This project involves taking away personal garbage cans at people's desks, and having a centralized waste and recycling collection area.

Benefits of a Centralized Waste Management System:

- Creates higher level of consciousness surrounding personal disposal habits.
- Individuals are more likely to take the time to sort their waste into the appropriate categories.
- Clear graphics displayed above the sorting bins educate people on what can and cannot be recycled or composted.
- Results in proper waste sorting and a reduction in stream contamination.

A centralized system is a great way to educate employees on proper waste and recycling sorting. The office kitchen is a great place to have a big collection system in place.

Resources: <u>Why Centralized Waste Systems</u> <u>Work</u>



Diversion Project

Sustainable Printing

Taking a step further and in combination with the paper procurement project, the sustainable printing project comes with making changes to your entire process.

How to make your printing more sustainable

- 1. Implement paperless policies to reduce the amount of printing
- 2. When necessary, encourage 2-sided printing when possible
- 3. Using eco-friendly printer ink and toner and recycling ink cartridges
- 4. Using soy-based ink and toner in lieu of traditional petroleum-based
- 5. Choose an ENERGY STAR-certified printer, copier, and/or scanner
- 6. Using printer paper that is Forest Stewardship Council (FSC) certified
- 7. Certified recycling ink and toner cartridges
- 8. Return empty cartridges to where you purchased them, most retailers will take back empty cartridges
 - If using HP or Canon printers, <u>TerraCycle</u> accepts Inkjet cartridges in their e-waste recycling program



Diversion Project





Go Paperless

The goal of going completely paperless may not be possible in a lot of cases. However, there are many areas that can easily be switched to a paperless system.

<u>Getting Started:</u>

1. Switch to online billing

 It's a simple decision to make. Transitioning your utility, financing, and phone bills to electronic bills is not only eco-friendly, but it can also provide a streamlined method of organizing and storing this information on your computer. This way, you can save on paper and file folders.

2. Send out electronic invoices

 Save time and paper on mailing invoices, by switching to sending them over email.

3. Transfer files to digital copies

- $\circ~$ This can take time if you have an office full of filing cabinets
- First step is to not print out forms and reports if possible. Start a filing system on your server
- You can transfer older documents by scanning them and adding them to folders on your computer

4. Consider paperless marketing

 More social media and online campaigns to replace paper and mail campaigns

Resources for more in-depth strategies to help your business go paperless:

- <u>Strategies to Convert to a Paperless Office</u>
- 7 Steps to Going Paperless
- Simple Guide to Going Paperless for SMEs

Reduction

Project

Waste Free Lunch Program

Reduction Project

What does a waste-free packed lunch mean?

Simply put, it means minimizing waste by transporting your food in reusable glass or stainless steel containers, avoiding plastic bags, wraps, foil, parchment paper, napkins, straws, utensils, and single-use bags and containers.

Ways to increase zero-waste lunches:

- Promote waste-free lunches, and provide educational materials and posters to gain employee interest.
- Provide stainless steel/reusable utensils to each employee
- Provide or encourage employees to use reusable cups/mugs and water bottles
- When possible, if there are catered events try to make them as zero waste as possible.
- Have zero waste lunch days, and send out memos by email to encourage everyone to participate.

Resources:

- <u>Zero Waste Lunch Tips</u>
- <u>Reimagine Co. Store (Find all the products you</u> <u>need to create the perfect zero-waste kit)</u>







Reusable Cups and Water Bottles

In an office setting, coffee cups and plastic water bottles are frequently discarded. While they can be recycled, it's ideal to decrease the amount of

waste produced, including recyclables.

A straightforward solution is to replace these disposable items with reusable options, such as mugs, glasses, and water bottles. By providing these alternatives, employees are encouraged to avoid single-use items.

To further promote this culture of sustainability in the workplace, consider offering free coffee and incentivizing the use of reusable mugs.



Reduction Project

Employee engagement initiatives could also be implemented, such as designated days or even weeks or months that discourage the use of single-use items. Finally, providing each employee with a personal water bottle and mug would be an excellent way to encourage this behaviour change and reduce overall waste output.

Resource on preventing disposable coffee cups in the office:

 <u>Office Initiatives and Activities to</u> reduce Disposable Coffee Cup Waste



Composting

An outdoor composter is a great way to encourage employees to help divert organic waste from landfill. A conscious effort to reduce the amount of waste that ends up in a landfill can increase its lifespan, thereby reducing the need for new landfills and allowing municipalities to devote their limited resources elsewhere

How It Works

- Composting breaks down organic materials into humus, a soil-like substance, with the help of air, moisture, and bacteria.
- You can compost kitchen scraps, plant materials, and paper year-round.
- Humus from compost can be used as fertilizer for lawns, gardens, or potted plants.
- Ensure diverse organic materials in small pieces for effective composting.
- Proper moisture balance is crucial; compost that is too dry decomposes slowly, while overly wet compost may develop odors.
- Regularly turning the compost helps maintain oxygen levels necessary for efficient decomposition.
- Compost can be used as an organic fertilizer on company grounds, or even by employees at home.

As much as 30% of all waste that goes into the landfill is organic and can be composted

Diversion

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Resources:

- <u>Pest-proofing your</u>
 <u>Composter</u>
- <u>Setting up an</u>
 <u>Outdoor Composter</u>
- <u>List of Appropriate</u>
 <u>Materials for</u>
 <u>Compost</u>

If you have a significant amount of compost that needs to be picked up, there are several companies that provide compost pickup services.

- Waste Connections
- Davidson Environmental

Vermicomposting

Indoor composting using worms, also known as Vermicomposting, is an effective method to dispose of organic matter. Red Wrigglers are commonly used for this purpose and the castings they produce are high-quality fertilizers that can be used for landscaping. The setup and maintenance of a vermicomposter is relatively simple, but it is recommended that at least one staff member has knowledge of worm composting. Additionally, posting a list of appropriate materials to be placed in the vermicomposter is advisable.

Compared to anaerobic digestion or aerobic composting bins, a wellmaintained vermicomposter releases fewer GHGs and produces highquality fertilizer for home or office landscaping use. It is recommended to feed the worms 1-2 times per week instead of daily. Worms can live up to 10 years, and while organic kitchen matter is appropriate, meat or dairy products should not be included



Left: Stacked bin system simplifies separating finished vermicast from the earthworms and fresh waste. Right: Raised vermicasting beds (Photos courtest of Cathy's Crawly Composters, Toronto) **Resources:**

- Vermicomposting 101
- <u>Composter and Worm</u>
 <u>Supplier</u>
- FAQ About
 Vermicomposting

Diversion

Project

Zero Waste Kitchen and Bathroom **Practices**

Reduction Project

There are many projects you can do to help reduce the waste that is related to the bathroom and office kitchen.

Hand Soap in Washrooms/ Kitchen

Reduce plastic waste by opting for refillable soap in reusable containers. At Reimagine Co: Zero Waste Store, you can find a refill station for liquid hand soaps, where you can bring your own containers and have them fill it up. Also, you have the option to have the product delivered in a mason jar, or repurposed container.

Dispenser Amenities has refillable soap dispensers that are easy to refill and tamperproof. Click HERE to check out their selection.

Dish Soap in Kitchens

To minimize dishwasher packaging waste, opt for individually wrapped tabs that dissolve in the dishwasher, leaving no waste. Alternatively, choose powdered versions for scooping directly into your dishwasher. Reimagine Co provides refillable cleaning products like all-purpose cleaner, toilet bowl cleaner, laundry detergent, etc, helping to reduce waste in cleaning routines. This not only promotes sustainable practices but also serves as an effective employee engagement strategy. Educating employees about zero waste encourages them to apply these principles 16 at home as well



Recycled Furniture



This sustainable option not only helps to divert furniture from ending up in landfills but also brings them back to the market for consumers. By opting for this type of procurement, businesses can enjoy immediate cost savings at the point of purchase.

Businesses can reduce their furniture expenses by up to 50% through the purchase of recycled office furniture

Furniture that has been recycled can encompass a wide variety of items, such as chairs, desks, cubicle components, filing cabinets, etc. These items typically fall into three categories: remanufactured, refurbished, or reused.

- Remanufactured furniture is disassembled, inspected, and reconstructed (often with some new components) in order to be resold in "like new" condition.
- **Refurbished** furniture had undergone minor repairs, touch-ups or cosmetic improvements before being sold.
- **Reused** furniture is sold "as-is" and has not received any improvements.

When sourcing new office furniture, inquire about recycled options from vendors to demonstrate your commitment to resource conservation and responsible asset management. Assess both cosmetic and functional quality carefully, and if possible, inspect recycled furniture in person before buying. Some furniture includes recycled materials; ask about specific recycled components (e.g., salvaged structure versus new cushions).

Resources:

- <u>CR Products</u>
- <u>Festival Furniture</u>

Community Clean Up



London's Clean and Green is a yearly event that encourages businesses and individuals to participate in a community clean-up.

The goal of the Community Clean Up is to spruce up the Forest City for the spring season. Organize with your team and head out into the community to pick up litter and help clean up our city.

Share your team photos with us on social media!

If you're unable to join on the scheduled day, no problem! Organize your team's clean-up and still earn a project completion point. Just share what you did along with a few photos for us to post on social media!

Resources:

London Clean and Green



Reduction Project

Supply Chain Management

This project involves your business taking steps to make your supply chain more sustainable. These steps include:

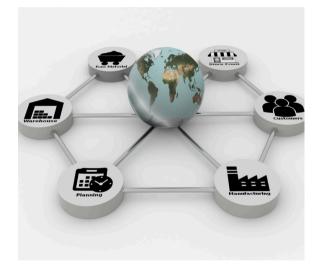
- 1. Researching supply chains in-depth and creating a supply chain report
- 2. Take steps to offset/mitigate impact within the supply chain, which can include switching suppliers, changing operations to involve more sustainable sources of materials, and conducting offset activities for unavoidable GHG impacts within the supply chain.

Key factors to be considered in defining and optimizing any end-to-end Supply Chain strategy from an environmental perspective include:

- Reduce waste and improve efficiencies
- Reduce carbon emissions
- Reduce energy usage
- Conserve natural resources
- Reduce Reuse Recycle
- Promote clean, sustainable resource utilization

Resources:

- Supply Chain Information
- <u>The Ultimate Guide to Supply Chain</u>
 <u>Management</u>
- <u>6 Keys to Successful Supply Chain</u>
 <u>Management</u>
- <u>Carbon Footprints in the Supply Chain</u>





Reduction Project

Thank You to our Supporters!



Together, we're demonstrating a sustainable economy is possible.

For more information on any of these projects, or to get started on your sustainability journey, visit <u>greeneconomylondon.ca</u> or contact kaitlin@londonenvironment.net





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