Waste Reduction & Diversion Guide Book



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

Table of Contents

- 1 Framework Overview
- 2 Waste Audit
- 3 Recycling
- 4 Construction Waste Disposal
- 5 Envirodepots
- 6 E-Waste Recycling
- 7 TerraCycle
- 8 Centralized Waste System
- 9 Sustainable Printing
- 10 Go Paperless
- 11 Waste-Free Lunch Resources
- **12** Discourage Single Use Cups/Waste Bottles
- 13 Composting
- 14 Vermicomposter
- **15** Zero Waste Ideas for the Bathroom and Office Kitchen
- 16 Recycled Furniture
- 17 Community Clean Up
- **18** Supply Chain Management



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Waste Target Framework Overview

Overview of the Waste Guide Book:

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 are the primary method of solid waste disposal. Landfills can pose potential long-term health and environmental problems, despite safeguards currently in place. When you reduce waste, you also reduce litter, ground, air, and water pollution from landfill sites and incinerators, as well as the GHG emissions from waste transportation. The most cost-effective alternative to sending waste to a landfill is to reduce the amount of material thrown away in the first place. This reduces resource costs and potential tipping fees. A key part of waste reduction and diversion is having employees involved in waste reduction strategies as they are directly involved in producing waste in the office. Businesses that have wasteful practices, can be seen as inefficient and/or irresponsible by employees, customers, and the public. Reducing, reusing, and recycling present excellent opportunities for your business.

General Notes on the Waste Reduction Target Framework

- 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 (which can be completed internally by trained staff) in order to determine diversion and contamination amounts
- Members will be recognized for their successful actions and achievements.

Diversion vs Reduction

- **Diversion** refers to 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** of waste means that 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.

Ideally, you want to reduce waste as much as possible, and then look at how to divert the remaining waste.

Levels of Recognition



20%+ Reduction 50 %+ Diversion



60 %+ Diversion



60%+ Reduction 70 %+ Diversion

Setting Baselines/Tracking

Waste Audits

What is a Waste Audit?

A waste audit is a systematic procedure to determine the quantity and composition of your waste stream. An audit will review operations and waste generation. It will identify the composition of your waste by examining how materials enter and exit your facility. With the concern of global waste generation and increasing costs of collection and disposal, finding ways to reduce waste, and increase recycling, all while reducing disposal costs just makes sense. While an audit alone will not reduce your waste, it is a necessary starting point to allow your business to make strategic decisions on how to allocate resources for source reduction and improved recycling programs.

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>
- Guide for Industrial, Commercial, and Institutional Sectors
- Waste Audit Template

Third-Party Waste Auditors in London:

Waste Solutions Canada



Recycling

Recycling is a no brainer when it comes to reducing the waste you send to landfills. Recycling is not only a great way to demonstrate corporate social responsibility in business, it plays an important part in minimizing the volume of waste in landfills, and the overall GHG emissions released from landfills.

However, it is important to sort your recycling properly if you have separate recycling streams picked up by your hauler. Some haulers collect a mixed stream, whereas others require proper sorting of different types of recyclables. To minimize contaminated recycling, educate employees on what can go in each stream. Signage is a great way for people to remember what is accepted in each bin.

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.

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

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.

Construction & Demolition Recycling

Not sure if those leftover materials are recyclable? Some examples of recyclable construction debris include:

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

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

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: Bikes will be 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)

For more information and EnviroDepot Locations, click <u>HERE</u>

Looking for places to dispose paint cans and leftover paint?

Click <u>HERE</u> to locate the nearest drop off location for your paint products.

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. Since most electronics contain non-biodegradable materials, heavy metals, and toxic materials like lead and mercury, they can leak into groundwater sources, potentially threatening drinking water sources.
- 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 non-renewable resources like heavy metals to be extracted and mined.

Click <u>**HERE**</u> to find the closest electronic waste depots the City of London has in place. <u>TryRecycling</u> also accepts Ewaste at no charge.

If you would like to donate your old computers and tech equipment to a refurbishing company click <u>HERE</u>



TerraCycle

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

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.



What Happens to Your Recyclables?

The collected waste is mechanically and/or manually 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.

Check out the Office Supplies Zero Waste Box

Send your discarded, non-electronic office tools such as tape desk organizers, card and document filers, binders, calendars, labels, staplers, writing instruments, hole punchers, dividers, paper cutters, and correction supplies. As well as fasteners including paper clips, staples, binder clips, and discarded backing from sticker and label sheets.

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

Centralized Waste System

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

What is the benefit of a centralized waste management system?

When people are surrounded by others who are also sorting their waste, they become more conscious of their own disposal habits. Instead of simply tossing everything into their personal garbage can for convenience, individuals are more likely to take the time to sort their waste into the appropriate categories. Additionally, clear graphics displayed above the sorting bins educate people on what can and cannot be recycled or composted. This results in proper waste sorting and a reduction in stream contamination. Stream contamination occurs when non-applicable items are mixed in with the wrong waste stream, leading to additional fees or your waste hauler's refusal of pick up.

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.

PAPIER

PAPER

Resources:

Why Centralized Waste Systems Work

Sustainable Printing

This project can help reduce paper waste, save spending costs, and reduce the impacts of deforestation.

How to make your printing more sustainable:

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

For more tups to reduce your printing's environmental impact click **HERE**



Go Paperless

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

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 ecofriendly, 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

- 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

Check out these 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
- <u>Simple Guide to Going Paperless for SMEs</u>



What does a waste-free packed lunch mean?

Simple - it means not creating extra waste by bringing your food to and from where you are going. This equals out to no plastic bags, plastic wraps, tin foil, parchment paper, napkins, plastic straws, plastic utensils, single-use bags and containers. The easiest and greenest way to transport your food from home to where you are going would be glass or stainless steel containers.

Here are some ways to increase zero-waste lunches:

- Promote waste-free lunches, and provide educational materials and posters in the kitchen to gather employee interest.
- Provide stainless steel/reusable utensils in the kitchen or give each employee their own set.
- Provide or encourage employees to bring or use reusable cups/mugs for coffee and reusable water bottles they can fill up.
- 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.





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

Discourage Single Use 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.

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.

Check out this fun resource on preventing disposable coffee cups in the office:

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





Composting

An outdoor composter is a great way to encourage all employees to help divert organic waste from landfill. As much as 30% of all waste that goes into the landfill is organic and can be composted. This can have a huge impact on the life of the local landfill, land-use planning, and contamination of groundwater. 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.

Composters can be purchased in London from an <u>EnviroDepot</u> for \$35 each (taxes included).

Technical Information:

Composting is the process of naturally breaking down organic materials into its soil-like form called humus. This process requires air, moisture, and bacteria. Organic material, such as kitchen scraps, plant material, or paper can be disposed of in this manner, even during the winter. The humus can be used as a fertilizer for your lawn, outdoor gardens or potted plants. Small pieces of varied types of organic material will compost well. If the compost is too dry, it will take longer to break down and if it is too wet it may begin to smell. Regular turning of the material is recommended to allow for an influx of oxygen to the mix, which is essential for proper decomposition. **Compost can be used as an organic fertilizer on company grounds, or even by**

compost can be used as an organic fertilizer on company grounds, or even by employees at home.

Resources:

- Information on Pest-proofing your Composter
- Information on Setting up an Outdoor Composter
- List of Appropriate Materials for Compost

Pickup Compost Haulers:

If you happen to have a significant amount of compost that needs to be picked up, there are several companies that provide compost pickup services. These services come in handy, particularly if you have a lot of compostable items like compostable plates, paper towels, and cutlery.

- Waste Connections
- Davidson Environmental

Vermicomposting

Indoor composting using worms, also known as <u>Vermicomposting</u>, 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 high-quality 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

Resources:

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



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)

Adding Zero Waste Practices to the Bathroom and Kitchen

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

Usually, hand soap is packaged in plastic jugs for refilling soap dispensers. However, you can reduce plastic waste by opting for refillable soap in reusable containers. At <u>Reimagine Co: Zero</u> <u>Waste Store</u>, 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.

<u>Dispenser Amenities</u> has refillable soap dispensers that are easy to refill and tamper-proof. Click <u>HERE</u> to check out their selection.

Dish Soap in Kitchens

To reduce waste from your dishwasher packaging, you can buy individual tabs that do not come in a plastic bag. The individual wrapping on each tab dissolves in the dishwasher making them completely waste-free! They also have a powdered version as well, that you scoop out and place into your dishwasher.

Reimagine Co offers a variety of cleaning products that you can have refilled including all-purpose cleaner, toilet bowl cleaner, laundry detergent, hand sanitizer, and glass cleaner. This is a great way to reduce your waste related to cleaning practices! It is also a great employee engagement strategy, and educating employees on zero waste will help them transfer that knowledge into their life at home. 15

Recycled Furniture

Did you know that businesses can significantly reduce their furniture expenses by up to 50% through the purchase of recycled office 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.

Technical Information:

Furniture that has been recycled can encompass a wide variety of items, such as chairs, desks, cubicle components, filing cabinets, and more. 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.

If you require new furniture or replacements for your office, consider inquiring about recycled options from potential vendors. By choosing recycled furniture, you are demonstrating that your company values resource conservation and manages assets responsibly. It is important to assess both the cosmetic and functional quality of the furniture to ensure it meets your needs. If possible, it is advisable to personally inspect any recycled furniture before making a purchase.

Some furniture may have a recycled material percentage, so it is worthwhile to ask which parts were recycled - for example, the structure may be salvaged while the cushions are new. Keep in mind that designer recycled furniture may cost more than new furniture.

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



Community Clean Up

London CLEAN S Green 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 photos of you and your team on social media with us.

For more info click HERE

If you can't participate on the scheduled day, no worries, you can still get a project completion point by organizing your own team's clean-up. Just send us details of what you did and snap a few photos that we can share on social media!

Supply Chain Management

<u>This project involves your business taking steps to make your supply chain more sustainable.</u> You will need to research supply chains in-depth and create a supply chain report. Your business takes 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.

Overall, there are key overriding factors to be considered in defining and optimizing any end-to-end Supply Chain strategy from an environmental perspective:

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

Click HERE to learn more

More Resources:

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

Thank You to our Supporters!





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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 **greeneconomylondon.ca** or contact **kaitlin@londonenvironment.net**





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