



Toronto residents' guide to waste

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Acknowledgements:



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Toronto Environmental Alliance (TEA)

This guide is divided into two parts:

waste 101 outlines the basics of Toronto's waste — what's in our waste, why we recycle and compost, where our waste goes and who's responsible.

the state of waste in Toronto explains why we still send half our waste to landfill, and what we can do to change that.

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introduction

Over a decade ago, Toronto faced a crisis on what to do with the growing amount of garbage generated in the city.

A proposed mega landfill in the former Adams Mine in northern Ontario was rejected by Torontonians and local residents. Toronto waste was trucked to Michigan, causing protest from our US neighbours.

Facing rising disposal costs and fewer places to send our garbage, Toronto residents and City Hall agreed that we need to take responsibility for our waste. The City committed to aggressively separating and recycling waste to minimize garbage sent to landfill, and in 2008 purchased the Green Lane landfill near London, Ontario.

More than 10 years later, we've reduced waste going to landfill by 50%, but we still have a long way to go to reach our current target of 70% diversion. We're now facing yet another decision about what to do with our waste.

Toronto is faced with the choice of further investing in waste diversion, green jobs and protecting the environment, or sinking millions into a short term disposal solution.

This guide is for Toronto residents who care about the environment and are curious about what happens to our waste, and want to help build Toronto's waste-free future.



waste 101

It's a sad fact that Canadians generate the highest amount of waste per person compared to similar nations around the world - 777kg per year for every person in Canada. Despite efforts to recycle and reuse, most of this waste is sent to landfill or, less frequently, to incinerators.

what are we throwing out?

About half of our waste is made up of packaging and disposable products, and another third is organic material that can be composted. The rest is a mix of durable goods (like clothing, toys & furniture).

waste diversion

“Waste diversion” means keeping waste out of a landfill or incinerator by reducing, reusing, recycling, or composting it. Waste diversion is good because landfills and incinerators harm the environment and because they are becoming increasingly expensive to site, build, and operate.

Reusing, recycling, and composting our waste is better for the environment than simply throwing it out. Waste diversion uses less energy and resources, sustains green jobs, and it's the most cost-effective way to manage waste in the long term.

what happens to our waste?

The City of Toronto collects waste from nearly 1 million households, along with 20,000 businesses, schools, charities, and religious organizations. Currently, half of the waste collected is diverted from landfill through a range of City diversion services and programs.

Blue bin recyclables are collected and delivered to city-owned Material Recovery Facilities (MRFs), where staff and machines separate paper, plastics, metal, and glass. From there, materials are bundled up and sold to recyclers.

Green bin organics are collected and delivered to either the city-owned composting facility, or a private contractor for processing. Organics are separated from plastic bags and other residue, and the organics are composted.

Yard waste is collected curbside and composted at city facilities. This compost is used in City parks and given out to residents at Community Environment Days.

There are 7 jobs created for every 1,000 tonnes of waste diverted in Ontario, versus 1 job for the same amount of waste disposed.

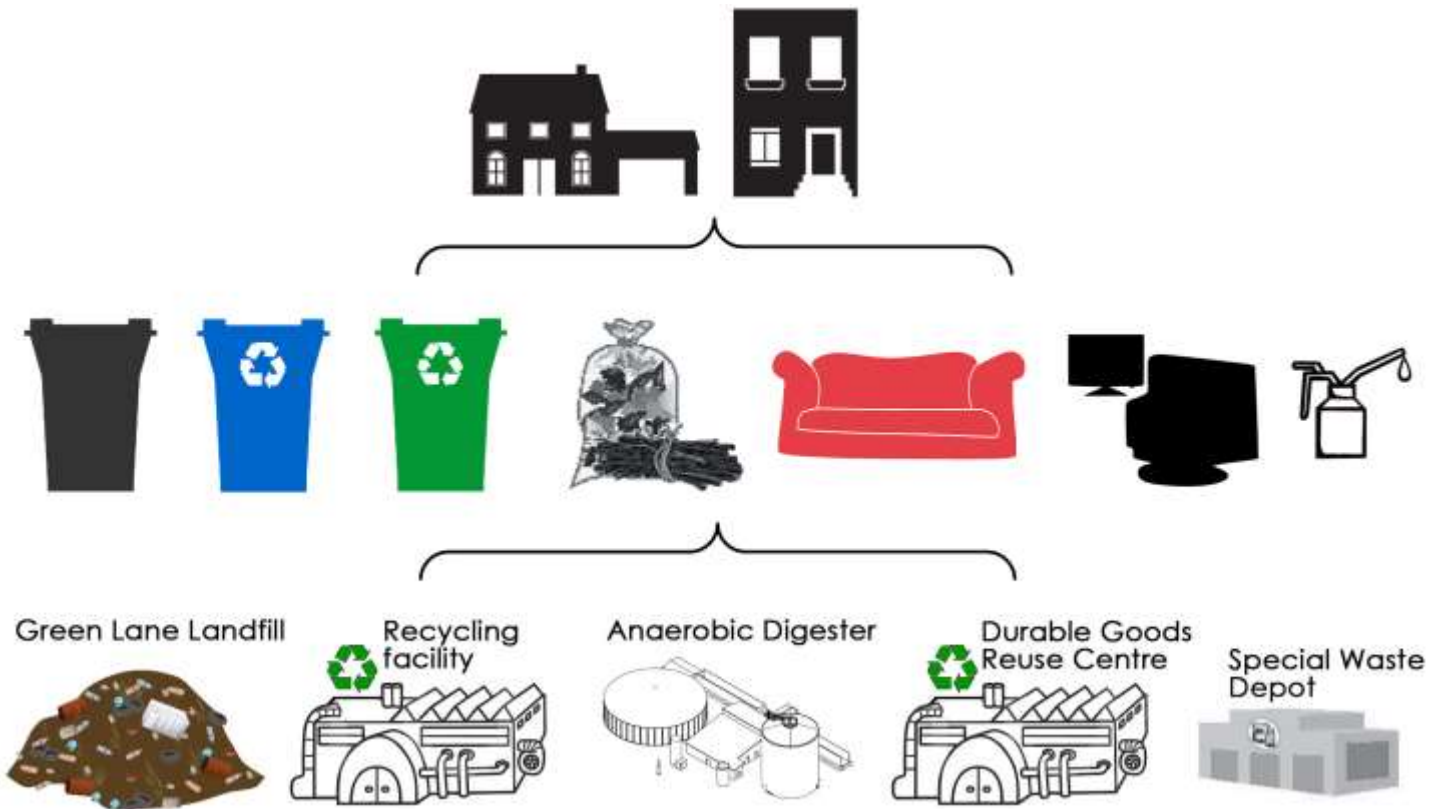
(Source: AECOM)

Bulky, durable goods like appliances and furniture are collected at the curb. Material that is recyclable is brought to the Cherry Street Durable Goods Reuse Centre to be dismantled into recyclable parts, the rest is currently sent to landfill.

Electronic waste or e-waste is collected at the curb, or can be dropped off at City waste depots or Community Environment Days. E-waste is delivered to a contracted recycler to safely dismantle and recycle.

Household Hazardous waste can be dropped off at city waste depots or Community Environment Days, or it can be collected by the Toxic Taxi. These wastes are delivered to a certified handler for safe disposal.

Garbage is collected curbside and the material is taken to one of 7 city-owned transfer stations and delivered to the Green Lane landfill.



who does what in the waste world?

In Ontario, a number of players are responsible for managing our waste as it makes its way through the system.

The Province of Ontario sets the rules for different types of waste, how they are handled and where they can be processed, recycled, composted or disposed. The Province dictates how municipalities, businesses, manufacturers and others manage waste.

The City of Toronto manages all residential waste from single family homes and most multi-residential buildings in Toronto. It also collects waste from many small businesses along major streets, schools, many charities and religious organizations, and all City-run facilities and agencies.

Waste is collected by City workers, or by contracted workers who pick up on behalf of the City. Workers collect waste, and work at waste depots to receive bulky waste, hazardous waste, and more. The City operates a Toxic Taxi program to collect hazardous waste from residents at home for safe disposal. The City also hosts Community Environment Days across Toronto in partnership with local Councillors.

The City follows Provincial rules about what to recycle, and can choose additional materials to recycle and compost. The City can also set some rules to reduce waste, for example the plastic bag fee, and banning bottled water in City buildings. The City also operates (or has contracts with) facilities that process our recycling, waste and organics.

Larger businesses, shopping malls, and offices must offer waste and recycling services in their building under Provincial laws. Few offer organic waste collection. Some small businesses in Toronto pay for City waste services and get the same range of diversion options as residents do, like green bins.

Manufacturers are required by Provincial regulations to take some responsibility for the waste created from the products and packaging they sell in Ontario. This is called Extended Producer Responsibility (EPR) and includes deposit-return programs (like the LCBO), or fees paid by electronics manufacturers, newspapers, soft drink companies and others. The fees help cover some of the cost of recycling by reimbursing municipal governments. *(Read more on page 13 in who pays for managing our waste?)*

Waste processors and recycling companies take waste, organics or recyclable material to dispose, compost or process into new materials for manufacturing.





why is recycling so confusing?

The City collects a range of packaging materials in the Blue Bin, like plastic and glass drink bottles, cans and cartons, as well as food containers, paper packaging and paper. New materials and packaging are added to the Blue Bin regularly.

In Toronto, waste calendars are distributed to all households, and these include pick up schedules and information on how to divert waste. The “Waste Wizard” on the City website (www.toronto.ca/garbage) is a simple search tool to help residents identify what to do with different types of waste.

Despite these tools, it's hard to keep up with what to do with different types of waste and recyclables. It's especially difficult as packaging and products change quickly, and as the City adds new materials to the Blue Bin all the time. To complicate things further, what you can put in the Blue Bin at home may be different from at work or school.

In a survey of GTA residents, 40% said they couldn't keep up with Blue Box program changes and service additions. 97% of people believed that increased education and promotion were needed to improve recycling rates.

(Source: Stewardship Ontario)

why aren't some things blue bin recyclable?

Although some materials may have an internationally recognized 'recycling' logo on the bottom, not all of them can be recycled in your Blue Bin in



Toronto. The City has to manage a great range of recyclables, and find ways to collect, sort and sell all the material they collect. If they can't find a market, or can't easily sort it, they may not be able to recycle it.

For example, after studying the amount of clear plastic 'clamshell' containers in our waste stream, and researching markets to sell collected containers to, the City added this material to the Blue Bin in September 2012. In contrast, after many years of study, they still haven't found a way to easily recycle single-use coffee cups.

the problem with disposal

Sending our waste for disposal in landfill or incinerator instead of recycling or reusing it is bad for the environment, wastes resources and costs more in the long term.

There are many negative environmental impacts of landfills and incinerators. Landfills pollute natural environments by leaching hazardous liquid into soil and groundwater, and produce methane, a greenhouse gas. Incinerators pollute the air, create toxic ash and work against reduce, reuse and recycling efforts.

Reducing, reusing and recycling our waste is always better than simply disposing of it.



why burning waste is bad

Incineration, 'energy-from-waste', gasification, pyrolysis, plasmification or any other 'thermal treatment' of waste isn't good for the environment:

- Burning waste creates a range of toxic emissions and ash during combustion; we can't safely predict the toxins released because every load of garbage is different.
- Burning waste to create energy is not renewable or green energy
- Creating energy from waste relies on burning material with a high energy value: organics and plastics. However, these are the materials we can, and should, be composting or recycling.
- Cities must sign long contracts with incinerator operators to guarantee a certain amount of garbage, or pay the difference. This penalizes a city that decreases their garbage by increasing recycling and composting rates.

who pays for managing our waste?

In Toronto, residents pay a fee for waste collection—either on a utility bill, or through their rent. The fee is based on the amount of waste collected. Recycling and composting collection is included at no extra charge. Each year waste fees must increase to cover the cost of new recycling and waste facilities, trucks and taking care of the City landfill. The City also recovers some costs by selling the sorted recyclable material.

what's wrong with this system?

While cities are responsible for managing waste, they have no control over the waste they receive. As products and packaging get more complicated, and as disposable products increase, municipal governments are left scrambling to figure out how to recycle them, often unsuccessfully.

a better way

The good news is that there's a better way to deal with our waste: Extended Producer Responsibility. In Ontario, we've made a start.



extended producer responsibility (EPR)

Extended Producer Responsibility, or EPR, makes manufacturers of products and packaging responsible for the end-of-life waste management and safe handling of what they sell. This gives producers a reason to create less waste, and choose easy to recycle materials, This is better for the environment and takes the burden off city waste fees.

existing EPR in Ontario

- Blue Box recyclables — bottles, cans, jars, plastic containers & paper
Manufacturers of products and packaging that get recycled in the Blue Box reimburse cities for up to 50% of the costs of Blue Box recycling.
- Deposit return — Beer Store & LCBO
Consumers pay a deposit for refillable beer bottles and recyclable beer, wine and spirit containers, and receive a refund when returned to the retailer.
- Electronic waste (e-waste)
Companies that produce consumer electronics like TVs, computers, and cell phones must pay for the safe recycling and disposal of their products.
- Household Hazardous Waste (HHW)
Companies that produce hazardous products like batteries, cleaners and paint must pay fees to cover the cost of safe disposal of their products.

The Provincial government of Ontario needs to revise waste rules so that the companies that import and make products are responsible for the full life cycle of what they sell.

The safe recycling and disposal of products in Ontario needs to be a cost of doing business, just like wages, rent, and gas. It cannot be passed on to the consumer or the municipality.

the state of waste in Toronto

Toronto residents generated nearly 800,000 tonnes of waste in 2012, and half of this was diverted from landfill. This put Toronto's residential waste diversion rate at 50%. This is lower than the City's target of 70% by 2010 and far lower than the 80% diversion level we can meet with some simple changes.

Without any new diversion, Toronto's Green Lane landfill will be full by 2029. Getting to 70% diversion or higher would extend Green Lane's capacity by at least 10 years.

If Toronto can divert 70% of residential waste from landfill, Toronto will reduce its greenhouse gas (GHG) emissions by 155,000 tonnes, which is equal to taking over 25,000 cars off the road.

Toronto's residential waste diversion rate 2000 - 2012



why are we stuck at 50%?

Toronto is stuck at diverting only 50% of our waste for three main reasons:

- 1) Not all Torontonians have Green Bins: While Toronto has a range of great waste diversion programs, not everyone has the tools to divert waste. Most importantly, most apartment buildings and condos in Toronto don't have green bins.
- 2) We can all divert more, with a little help: Most of what we put out as 'garbage' could be recycled or composted. More public education and support would help Toronto residents, schools and businesses know what can and cannot be diverted.
- 3) Too much waste in the first place: Waste is increasing, especially with excessive packaging, and more disposable products. Governments need to make companies reduce wasteful packaging upstream.

“Living in an apartment building after having been in houses for 30 years has opened my eyes up to a big gap in residents' knowledge, and ability to separate and direct waste correctly.”

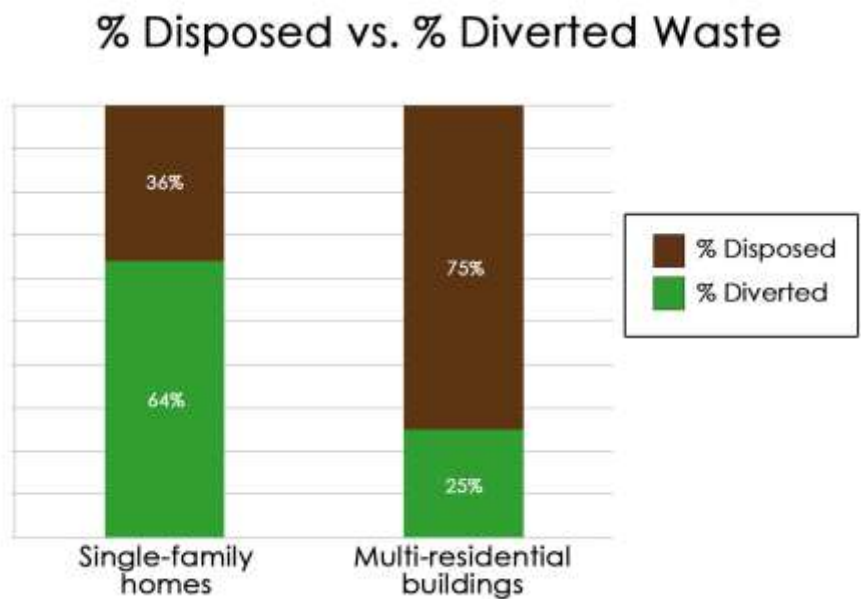
(Toronto resident)

not all Torontonians have green bins

Looking closely at the numbers, we can see that Toronto's residential waste diversion rate depends on where you live: In 2012, single family homes in Toronto had a diversion rate just under 65%, but multi-residential buildings diverted only 25% of their waste.

Half of Toronto households live in multi-residential buildings, but most of them **don't have Green Bins. Less than 20% of the 4500 buildings with city waste** pick up have Green Bins.

Without Green Bins, residents in apartments and condos can't divert as much of their waste. Getting green bins into all multi-residential buildings could increase Toronto's diversion rate by up to 12%, saving 100,000 tonnes of waste from landfill per year.



getting green bins across the city

Research shows that a combination of approaches is needed to increase recycling and composting in multi-residential buildings. Convenient locations for bins, clear signs, and a property manager who understands and cares about waste diversion are all important.

Dedicated City waste staff can provide support to building managers by offering site visits, waste audits, workshops, training and educational support for residents. The City has some staff to do this work, but additional staff and funding are needed to get green bins into all buildings quickly, and to ensure that they're adopted by all residents.

not enough composting capacity

The City delayed getting green bins into apartments, schools and charities because there isn't enough processing capacity to compost what's collected in green bins.

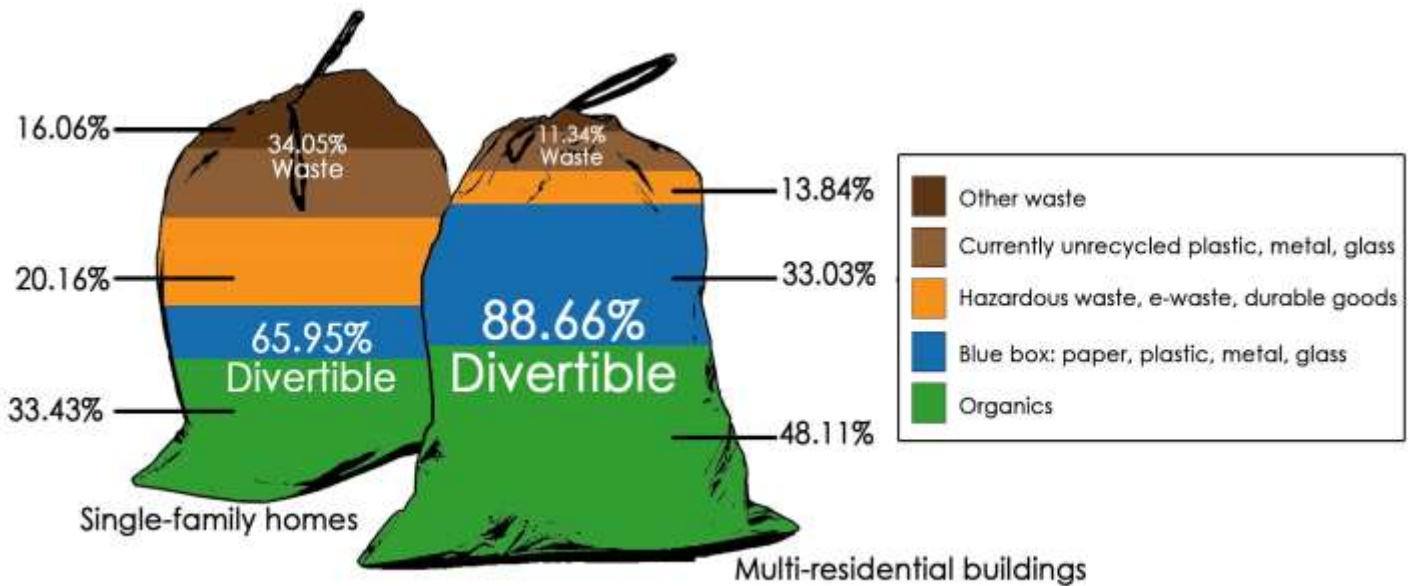
The good news is that the City is currently quadrupling the city-owned composting capacity by doubling the size of our current facility, and building a second one.

But we still need more composters! After all multi residential buildings have green bins, so will more businesses, schools, non-profits and city facilities. The volume of organic waste will increase drastically! Additional city composting facilities will be needed to ensure that all Torontonians can divert the maximum waste.

we can all divert more, with help

Whatever the waste diversion rate is, the average Toronto household - whether in a single family home or in a multi-residential building - can divert even more than they already do.

Two-thirds, or 66% of what single family households put out as garbage can be diverted, and 89% of what multi-residential households put out as garbage is recyclable or compostable.



more education is needed

As discussed earlier in this report, keeping up to date with how to handle our waste takes work. City Hall needs dedicated City staff to provide more education and support for residents to help all Torontonians sort their recyclables, compost correctly, and safely handle hazardous and electronic waste.

too much waste in the first place

One of the biggest challenges for managing Toronto's waste is the volume of garbage. The amount of waste generated per person in Canada continues to climb, and much of it is single-use packaging and disposable products.

When companies that manufacture and sell these products don't have to take any responsibility for the environmental impact of their product choices, our waste, our environment and our wallets pay the cost.

See *who pays for managing our waste?* on page 13 for more information about how companies that create consumer waste need to pay for the cost of recycling it.

Companies that sell products and packaging in Ontario ought to be responsible for the material choices they make. When producers have to pay the full cost of recycling and disposal of the products they put on the market, they have an incentive to create less packaging, choose less toxic materials and ensure their products are easily recyclable.

Refillable food containers and reusable packaging can drastically reduce waste. The Beer Store deposit return program collects 99% of the refillable beer bottles it sells in Ontario. Refillable beer bottles are reused an average of 15 times before recycling the glass. Operating for over 85 years, it's one of the most effective bottle-deposit program in North America!

getting beyond 70% diversion

Toronto's residential waste diversion rate stalled at around 50% for the last few years, but we can do so much better! Toronto's target is 70% diversion, but with a few simple and inexpensive changes, Toronto can reach 80% diversion or higher!

Toronto has great waste diversion programs and services set up to deal with recyclables, organic waste and special waste, but they don't reach all Torontonians. The City needs to provide more education and support to all residents so we can get the recyclables out of the garbage bag!



what you can do:

- Choose reusables and less packaging. Consider the environment when you shop: buy less, repair and reuse when you can. Avoid disposables.
- Handle your waste wisely. Recycle and compost what you can, divert your e-waste and hazardous waste safely, and avoid contamination.
- Push the City to make sure all residents, schools and businesses have the tools to divert their waste! Let your City Councillor know you care about waste diversion. If you live in an apartment, urge your building manager to help residents recycle and compost their waste.
- **Let your Provincial MPP know that your municipal waste fees shouldn't be subsidizing the wasteful packaging habits of companies.** Ask your elected official to vote for programs that make companies pay for the waste they create.

“Learning about composting at the Community

Environment Days made a huge difference for me. Now I compost, recycle, and green bin the vast **majority of my waste.**”

(Toronto resident)

what the city can do:

- Toronto needs more City staff to provide waste and recycling education. Despite great waste diversion programs, residents in Toronto still aren't sure about what to do with their waste. More education staff can teach and remind residents about new materials in the bin, and provide hands-on education support for apartments just starting green bin service.
- The City needs to start building a third composting facility in Toronto now. The City delayed green bins in high rise buildings for nearly a decade because there wasn't anywhere to compost all the waste. The City is currently building a second composting facility to digest Green Bin waste, but this won't be enough once all apartments and schools have Green Bins.



glossary

- anaerobic digestion

The process of breaking down biodegradable material in an enclosed space in the absence of oxygen. Toronto's green waste is composted in anaerobic digesters.

- e-waste or electronic waste

Discarded electronic or electric devices. In Ontario, only a portion of e-waste is managed under the Waste Electronic and Electric Equipment (WEEE) program.

- extended producer responsibility (EPR)

A policy approach to making end-of-life (waste) management of products the responsibility of the manufacturer (or first importer) of the product or packaging.

- household hazardous waste (HHW)

Household items that contain toxic or hazardous ingredients and require special disposal. Typical HHW includes paint, cleaners, motor oil, batteries and any other products with a hazard symbol on the container.

- incineration

The process of disposing of waste through burning or combustion. Incineration includes variations such as pyrolysis, gasification, plasmification and other methods of thermal treatment. Incineration of waste creates toxic emissions as ash, gas or air pollution.

- recycling

The process of breaking down materials to be used to manufacturing new products in the place of raw or virgin materials. E.g. melting down metal cans to be reformed into new metal products.

- reducing

Minimizing waste by avoiding its production in the first place - includes things like reducing the amount of packaging, avoiding disposable products.

- reusing

Minimizing waste by repairing, reselling or otherwise reusing something instead of creating waste, for example a refillable coffee cup, or donating clothing to a resale charity.

- waste disposal

Dealing with waste by putting it in a landfill or burning it in an incinerator.

- waste diversion

Diverting waste from disposal by reducing, reusing, recycling or composting it.

sources

City of Toronto, Solid Waste Management Services.
www.toronto.ca/garbage

Ontario Ministry of the Environment.
www.ene.gov.on.ca/environment/en/subject/waste_diversion

AECOM “Economic Benefits of Recycling in Ontario” presentation to Ontario Waste Management Association, 2012.

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Stewardship Ontario “Communication & Benchmark Survey Enhanced Blue Box Recovery Program, Focus Group Results”, 2006.

The Beer Store “85 Years of Environmental Excellence – Responsible Stewardship 2011-2012”, 2012.

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