

Waste Management


ANNUAL REPORT > 2018



Region of Waterloo

Contents

| | |
|-------------------------------------|---|
| Who We Are | 1 |
| Changes + Commitment = Less Garbage | 2 |
| Diverting Waste | 3 |

| | |
|---|---|
|  2018 Highlights | 4 |
| A Green Bin Success Story | 4 |
| Yard Waste Growing | 5 |
| For the Love of the Blue Box | 5 |
| The Fate of Bulky Items and Appliances | 6 |
| Want Not, Bury Not | 6 |
| Greenhouse Gas Reduction | 7 |
| There's Always Some Garbage | 8 |
| The Power of Landfill Gas | 8 |

| | |
|-------------------------------------|----|
| Managing our Environment | 9 |
| A Master Plan with Long-Term Vision | 9 |
| Working Together | 10 |
| Ways to Say Informed | 10 |
| Our Budget | 11 |



In 2018, the Region of Waterloo diverted an impressive 65% of its waste from the landfill. The 2017 changes to curbside collection and your commitment to the programs led to this significant milestone.
We did it together.

Who We Are

- ✓ Waterloo Region, in Southwestern Ontario, includes the cities of Cambridge, Kitchener and Waterloo, as well as the townships of North Dumfries, Wellesley, Wilmot and Woolwich. Together, we're roughly 1,300 square kilometres with a population of about 590,000 people. The Region of Waterloo is an upper-tier municipality, which means it's responsible for providing certain services – like waste management – to roughly 200,000 households. Approximately 160,000 of those households receive curbside waste collection – single-family homes and small buildings of up to six units in the cities, suburbs, farms and villages that make up our community.

It's our job to pick up curbside residential waste and run the Waterloo landfill, including the operation of a small vehicle transfer station, landfill gas-to-energy system and the Nyle Ludolph Materials Recycling Centre. We manage the Cambridge waste transfer facility, compost site and landfill gas utilization system, plus we monitor five closed landfills – all while continuing to ensure our environmental controls are protecting the air, soil and water at all sites.

Careful management and your commitment to diversion strategies means our landfill has an estimated 20 years of capacity left.

Changes + Commitment = Less Garbage



In March of 2017, we made big changes to how our waste is handled at the curb by introducing garbage limits and collecting garbage every two weeks, instead of weekly. You, the residents, impressively embraced this change. As a result, our green bin, blue box and yard waste collections increased and our garbage decreased. The success we began in 2017 carried over into a full year of incredible waste reduction in 2018, and a record-breaking 65% of our waste kept out of the landfill.

| Curbside Service Levels | |
|-------------------------|--|
| Services | Collection frequency and limits |
| Blue box recycling | Weekly, no limits |
| Green bin | Weekly, no limits |
| Garbage | Every two weeks, 4–10* |
| Bulky items | Every two weeks, 3–10* |
| Yard waste | Seasonally every two weeks, no limit (opposite the garbage schedule) |

*Depending on property type

GREEN BIN
↑ 139%
16% INCREASE FROM 2017

BLUE BIN
↑ 11%
2% INCREASE FROM 2017

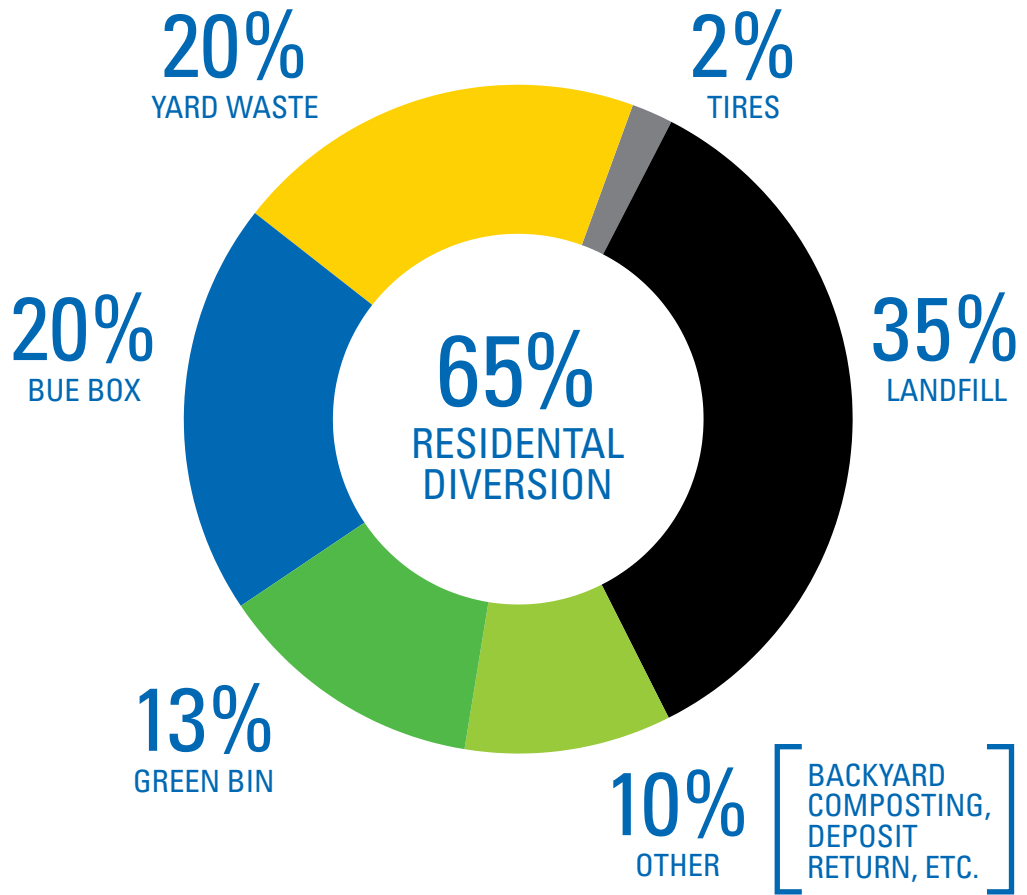
GARBAGE
↓ 31%
9% DECREASE FROM 2017

YARD WASTE
↑ 15%
12% INCREASE FROM 2017

Diverting Waste



Instead of being buried in the ground, valuable resources were recovered and re-used through recycling and composting.



The success of our two-stream blue box system depends on proper sorting. Paper, plastic bags and wrapping go into one box. Aluminum and steel cans, glass and plastic containers and paper cartons go into the other. Your commitment to separating these items correctly means not only less waste, but better realized prices from the buyers of recyclables.

BLUE BOXES
COLLECTED
EVERY WEEK.
SORT YOUR
RECYCLABLES
INTO 2
BLUE BOXES.





Our trucks make over a million stops a month during curbside collection.

A Green Bin Success Story

Green bin use has been slowly increasing over the years, but nothing like it did in 2017 and 2018 following our curbside policy changes. Once we began collecting garbage every second week, green bin use doubled. Thanks to you, we collected nearly 25,000 tonnes in 2018 – about 4,000 tonnes more than our previous record-breaking green bin amounts in 2017!

GREEN BIN TONNAGE (000's) 2010-2018



Green bin material is turned into compost and used by farmers and landscapers.

Yard Waste Growing

Approximately 18,000 tonnes of yard waste was diverted from our landfill in 2018, an increase of almost 2,000 tonnes over 2017. The brush, plant material and Christmas trees we kept out not only saved landfill space, it reduced greenhouse gases. It also meant we had wood chips and compost to give away, returning nutrients to the soil.

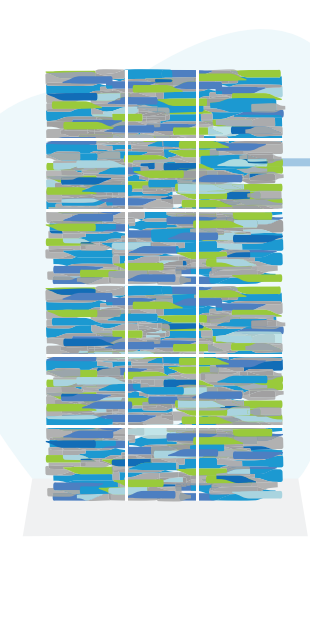
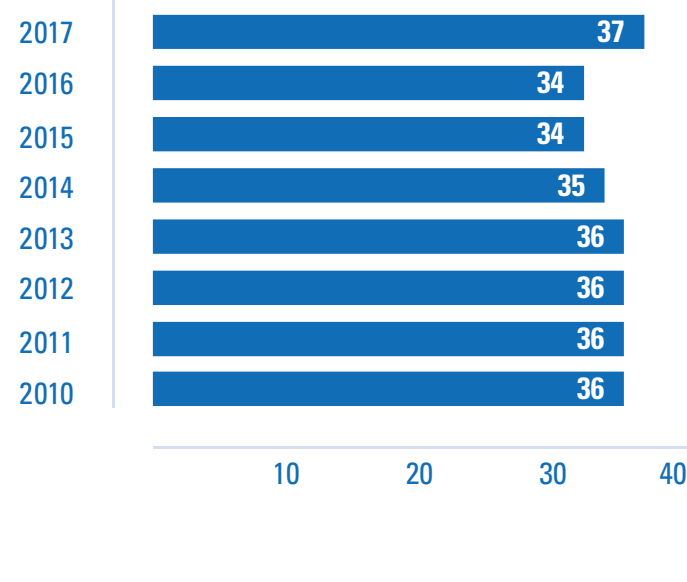
Almost 38,000 tonnes of blue box material collected and sorted.



For the Love of the Blue Box

The trusty blue box was invented right in Kitchener, introduced in 1983. We've been embracing the blue box for over 30 years, and last year we collected almost 38,000 tonnes of recyclables, an increase of close to 1,000 tonnes over 2017. This is impressive as recyclables weigh less and less because of lightweight plastics; it takes a lot of air-filled plastic recyclable containers to equal a tonne of material.

BLUE BIN TONNAGE (000's) 2010-2018



The Fate of Bulky Items & Appliances

Things like furniture, medium-sized household items and carpet rolls that don't fit in a regular garbage can or bag are considered bulky items and are collected with garbage. In contrast, appliances, which have a high metal content, are collected by a special truck and recycled.



391,000 transactions handled at all waste sites.

Want Not, Bury Not

When you drop off things at our transfer station like tires, electronics and household hazardous waste, you're keeping them out of the landfill and saving space. In 2018, over 6,400 tonnes of waste was diverted this way because of your efforts.

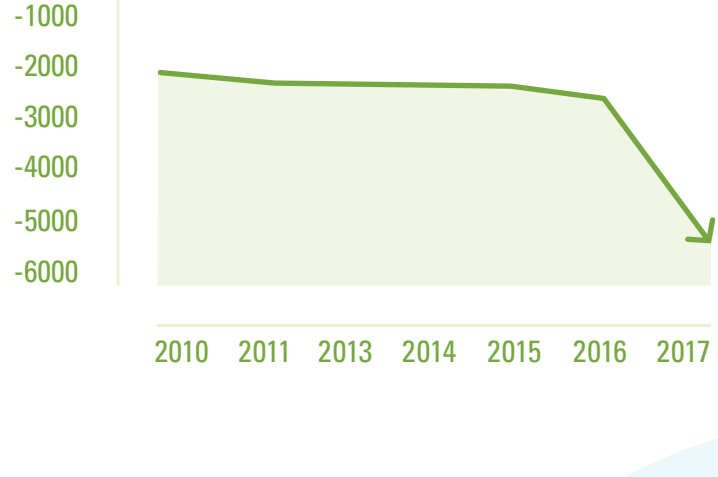
| | | | |
|---|---|----------------------------------|--|
| APPLIANCES 840 TONNES | HOUSEHOLD HAZARDOUS WASTE 580 TONNES | TIRES 4,270 TONNES | ELECTRONIC WASTE 320 TONNES |
| SHINGLES AND PALLETS 460 TONNES | WE WORK WITH CHARITABLE PARTNERS SUCH AS GOODWILL INDUSTRIES, HABITAT FOR HUMANITY AND LOCAL GROUPS FOR BIKE REPAIR. THEY DIVERT MANY RE-USABLE ITEMS FROM THE LANDFILL. | | MULCH AND COMPOST 10,340 TONNES GIVEN AWAY |

Greenhouse Gas Reduction

Your enthusiastic use of the green bins means we're also reducing greenhouse gases, which are a significant environmental concern for us all. Over 22,000 metric tonnes of greenhouse gas emissions have been reduced since implementing the green bin program. In 2017, following the curbside policy changes, green bin use spiked and the reduction in GHG emissions doubled. While exact emission reduction numbers are not yet available, this trend continued in 2018.



TONNAGE OF GHG EMISSION REDUCTION 2010-2017



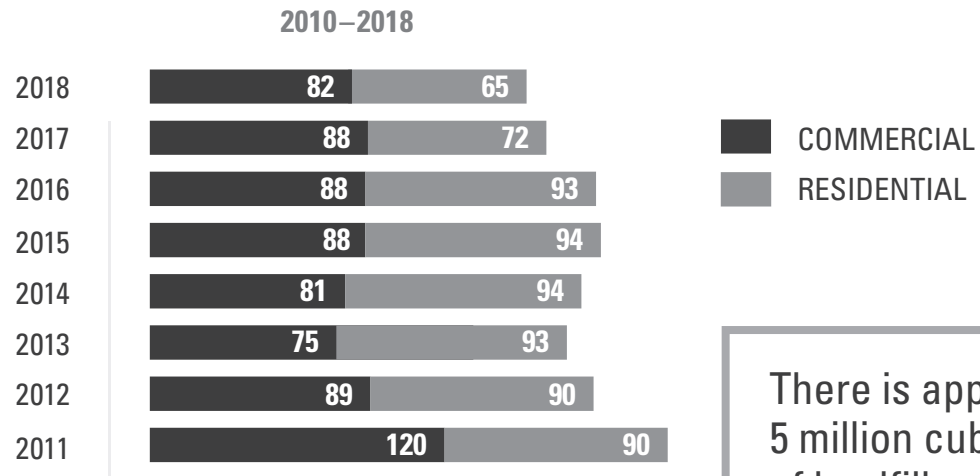
As green bin use increases, greenhouse gas emissions reduce.



There's Always Some Garbage

Even after we've diverted everything we can, there's always something left over. Last year we landfilled just over 147,000 tonnes of garbage – 44% was residential, while 56% came from commercial and other landfill customers.

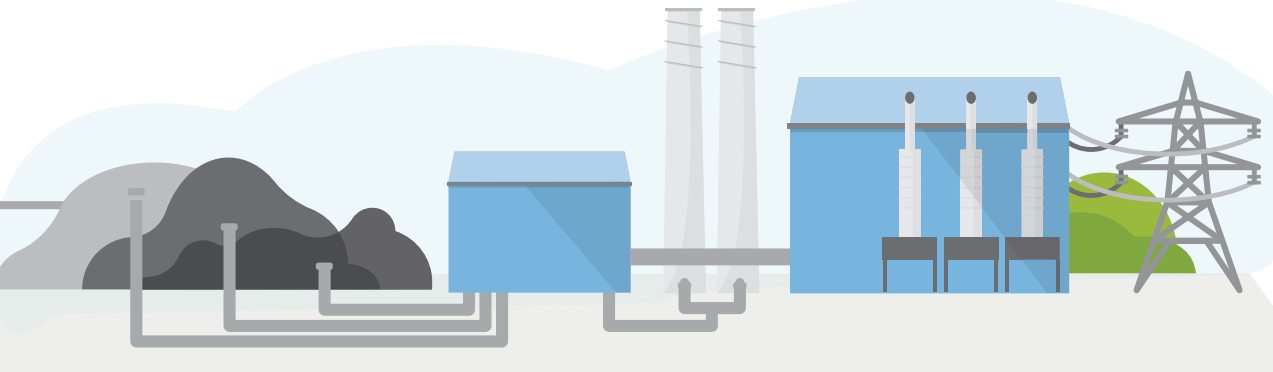
GARBAGE TONNAGE (000's) 2010-2018



There is approximately 5 million cubic metres of landfill capacity left.

The Power of Landfill Gas

When organic waste, like food and wood scraps, begin to decay in the landfill, gas is produced. Those gases include methane, a potent greenhouse gas that contributes to climate change. We harness our landfill methane and either use it to power a Cambridge steel recycling plant, or turn it into electricity at our Waterloo site – enough to power between 4,000 and 6,000 homes.



LANDFILL GAS GAS TREATMENT CONTINGENCY FLARES GENERATORS POWER GRID

We regularly monitor over 500 groundwater wells and 200 landfill gas wells at various sites to protect the surrounding environment.

Managing our Environment

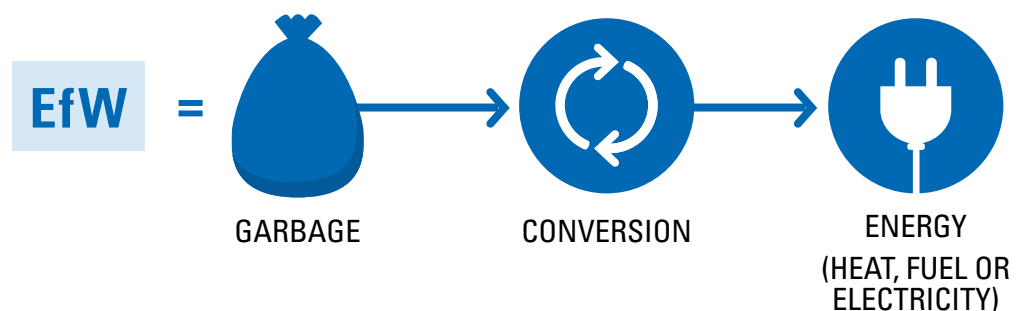
- ✓ We have a plan to manage the remaining life of our landfill. The original fill area in the centre and the north expansion at the Waterloo and Erb Street end are both full, so we're now filling at the south Kitchener and Glasgow Street end. Going forward, we'll build new cells at the landfill as needed, while maintaining our focus on the environment by collecting storm water and controlling gas and leachate.

Odour abatement at the landfill is a priority. We communicate with neighbours so they are aware of developments, we monitor air quality, collect landfill gas, and are sure to cover the waste fully at the end of each day.

Our engineering team monitors our Environmental Management System to confirm that we are meeting or exceeding Provincial requirements.

A Master Plan with Long-Term Vision

- ✓ We need a plan for when the landfill is full and our 2013 Waste Management Master Plan considers the options. The recommendation endorsed by Regional Council was to explore technologies which manage and treat waste in order to recover energy. This is known as Energy from Waste, or EfW. Since we've still got an estimated 20 years of capacity left, there's no immediate need for active EfW planning. But we'll continue to monitor EfW developments, provincial waste legislation, and our own waste programs, reporting back to you in the future with an update.



Working Together

- ✓ The success of our programs depends on your participation and feedback. Our team works hard at customer service, promotion and education so everyone can understand our programs, but we're always open to hearing how we might improve or do more. Currently, we offer free environmental education programs to schools and community groups, host two public tour days a year and speak at many events.

OVER

2,000

STUDENTS PARTICIPATED
IN THE ON-SITE EDUCATION
CENTRE PROGRAM.

WE HANDLED

50,000

WASTE PROGRAM
INQUIRIES THROUGH
OUR 24/7 CALL CENTRE.

5,900

RESIDENTS VISITED OUR
WASTE MANAGEMENT
EXHIBITS AND DISPLAYS.

54,000

MOBILE AND ONLINE
USERS ACCESSED THE
MY WASTE APP

Ways to Stay Informed

- ✓ And there are lots of them. You can download our free waste app, which will give you your collection schedule, remind you when it's garbage week, and connect you to the Waste Whiz search function if you're not sure which items go where. You can also find us on Facebook and Twitter. Our social media accounts had more than 196,000 impressions each month in 2018, and over 3,000 of you subscribed to our free waste e-newsletter.



The cost to the average household through regional property taxes was about \$148 in 2018 for all waste programs and services – the rough equivalent of a cup of coffee a week.*

Our Budget





In 2018, a total of \$71.2 million was spent on program and service delivery by the Region's Waste Management Division.

Our biggest expense was curbside collection, which accounted for 28% of our total costs. Other expenses include staffing, costs to construct and operate the landfill and waste transfer and receiving facilities, hauling and processing of green bin, yard waste and blue box materials, and monitoring and reporting of our services and their environmental impacts.

Funding to pay for these costs comes from many sources, including user fees, sale of recyclables, landfill gas royalties, Extended Producer Responsibility (EPR) funding and property taxes.

* Based on an average residential property having an assessed value of \$333,800.

For More Information

- › Visit our waste [website](#)
- › Read our [Waste By-law](#)
- › Schedules and helpful reminders from our free waste app
- ›  @ROWWasteManagement
- ›  @WasteWR
- › Don't know where something goes, ask the [Waste Whiz](#)
- › [Subscribe](#) to the waste e-newsletter

Customer service call centre: 519-575-4400
(staffed 24 hours a day, seven days a week)

To request an alternate format of this document,
call: 519-575-4400.

Deaf and hearing impaired TTY:
519-575-4608

“Recycling is something
each one of us can do to
help the environment.”

Blue Box inventor and former Kitchener
resident Nyle Ludolph, 1927–2011