

2014 Integrated Waste Management Annual Report

Introduction – What is Integrated Waste Management

Integrated Waste Management is a systems approach to waste handling that focuses on reducing waste where possible, re-using whatever can be given a new purpose, recycling and recovering resources to minimize demand for raw materials, and conscientiously managing what remains to ensure the safety of people and the environment.

The City's core services include:

- curbside garbage and recycling collections for all single-family households;
- a regional landfill;
- optional leaves and grass curbside collections;
- 2 compost depots;
- 4 recycling depots;
- household hazardous waste drop-off events;
- garbage collection for many multi-unit and commercial customers (other buildings and businesses contract to private haulers); and
- multi-unit recycling collection

Other waste diversion programs include home composting education, curbside swap, and integrated waste education.

Reducing Waste – Targets

The City of Saskatoon has adopted a 10-year target to divert 70% of waste from the Saskatoon landfill with a longer term vision of achieving Zero Waste. This ambitious target shows a commitment by the City of Saskatoon (City) to establish new options for waste reduction in recycling, reusing, and composting as well as continuously improving our existing programs. Joining the National Zero Waste Council (NZWC) in 2014 sets a clear visionary direction for reducing waste to the highest degree possible. This global movement towards eliminating waste includes not only recycling, reusing, and composting of produced waste but also requires a philosophical shift towards reducing the waste in the first place through design and planning decisions.

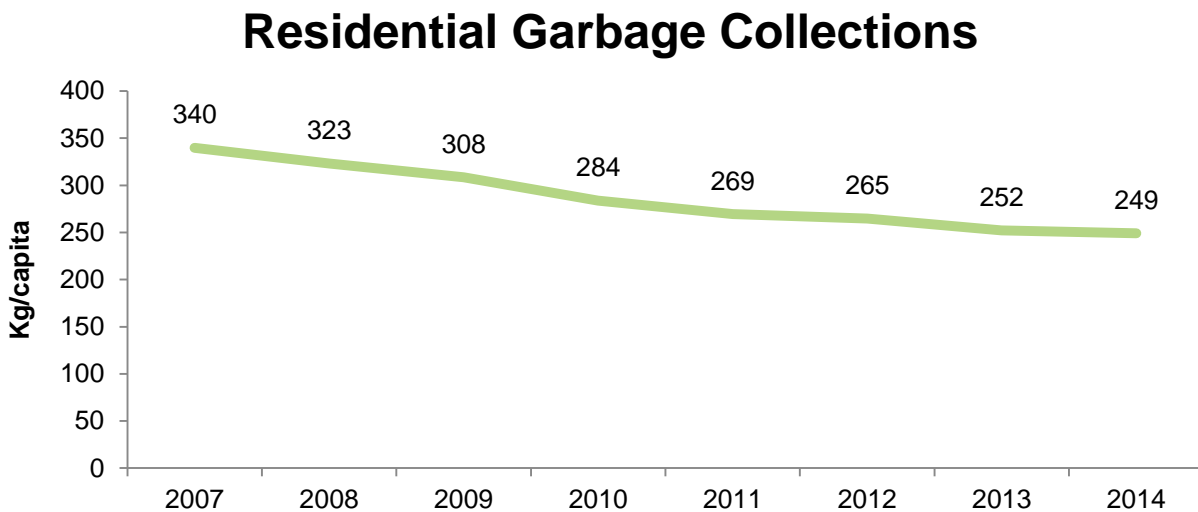
The City's Waste Diversion Rate, at 22.5%, has been relatively stable over the last two years. For this reason the progress toward the target of 70% has been identified as needing improvement.

Saskatoon's Waste Disposal

The amount of garbage collected is reducing every year. In 2014:

- 125,238 tonnes of garbage was disposed of at the City landfill from all sources
- Residential collections by the City accounted for 64,091 tonnes (53,000 tonnes from black carts, the rest from multi-units)
- 249 kg of garbage was disposed per person.

As shown in the figure below, the rate of garbage disposal per person has been declining over time.



Saskatoon's disposal was compared to the national and provincial averages as shown in the table below and compares favorably to both the national and provincial averages.

Region	Year	Total Waste Disposed (tonnes)	Total Waste Rate (kg/capita)	Residential Component (tonnes)	Residential Rate (kg/capita)
Saskatoon	2012	117,660	486	64,363	265
Saskatoon	2014	125,238	484	64,091	249
Saskatchewan	2012	957,669	881	315,987	290
Canada	2012	25,013,204	720	9,586,511	276

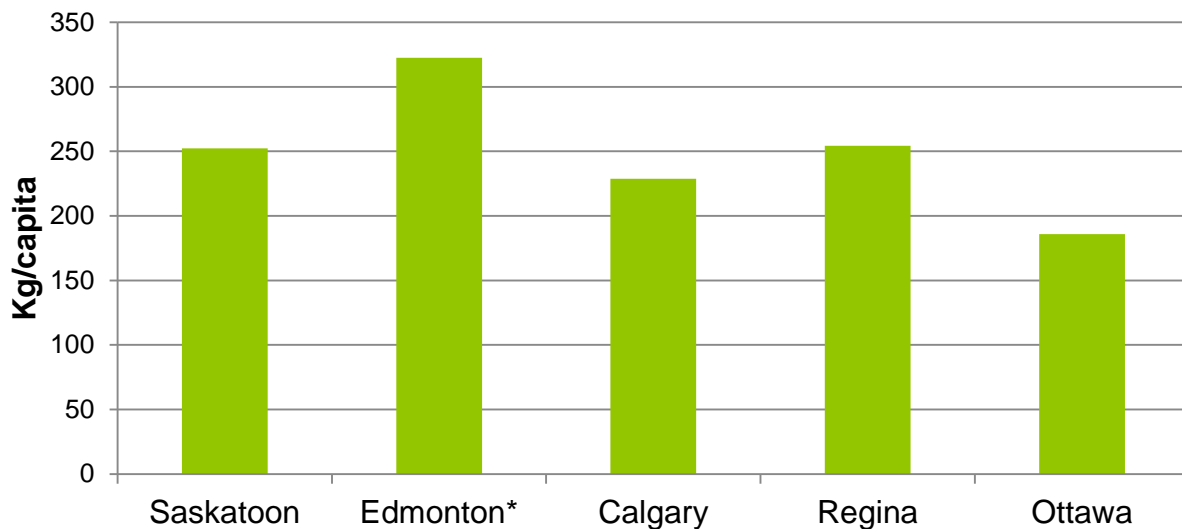
Source: Stats Canada

Saskatoon's Residential Waste Disposal Rate was also compared to other cities in Canada using data from the National Solid Waste Benchmarking Initiative¹ (NSWBI).

¹ National Solid Waste Benchmarking Initiative collects data on waste management in select cities, in 2013 twelve (12) cities participated

As shown in the table below, residents in Saskatoon dispose of a similar amount of waste to residents in Regina, but more waste than three other comparable cities in 2013. NSWBI also reported that on average 0.60 tonnes of waste is collected per single family household, while Saskatoon's average is approximately 0.79 tonnes per household.

2013 Residential Garbage Collection



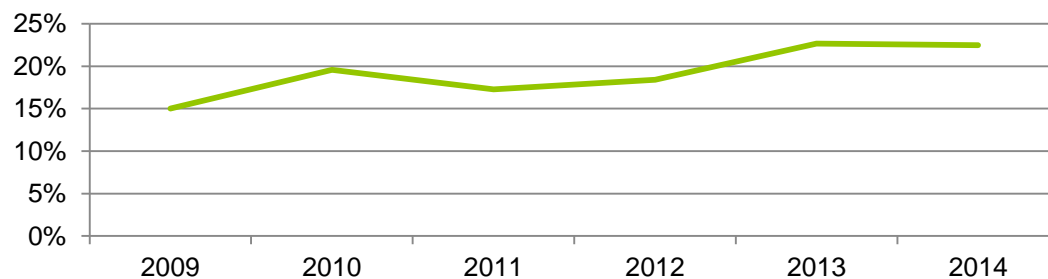
Source: National Solid Waste Benchmarking Initiative 2014

* Edmonton collects organics and garbage in a single-stream. An estimated 37% of the organics is diverted from the collected waste.

Saskatoon's Waste Diversion

Saskatoon's Waste Diversion rate remained stable since last year and is below the national average. On average in 2012 (Stats Canada), Canadians diverted 243 tonnes of waste per capita resulting in an overall diversion rate of 33.7% (almost 8.5 million tonnes) while in Saskatchewan, approximately 143 tonnes per capita was diverted resulting in a diversion rate of 16.3%. Saskatoon's diversion rate in 2012 was well below the national average at 18.4%, it increased to 22.7% in 2013, and remained relatively stable at 22.5% in 2014.

Saskatoon's Waste Diversion Rate



Saskatoon's 2014 diversion rate was also benchmarked against other Canadian Cities, as shown in the table below. Saskatoon's diversion rate is second last amongst compared Cities.

City	2014 Diversion Rate
Halifax	61%
Toronto	53%
Ottawa	52%
Edmonton	51%
Calgary	34%
Saskatoon	23%
Regina	19%

City of Saskatoon Waste Service Delivery

Integrated Waste Management falls within the **Environmental Health** Business Line which is jointly managed by Public Works (Waste Handling Service Line) and Environmental & Corporate Initiatives (Waste Reduction & Resource Recovery Service Line). The goal of the Waste Handling Service Line is to provide efficient, effective, and customer-oriented waste management services. Waste Handling includes:

- solid waste collections;
- the management of City-owned garbage carts; and
- operating the landfill to optimize available space and comply with environmental requirements.

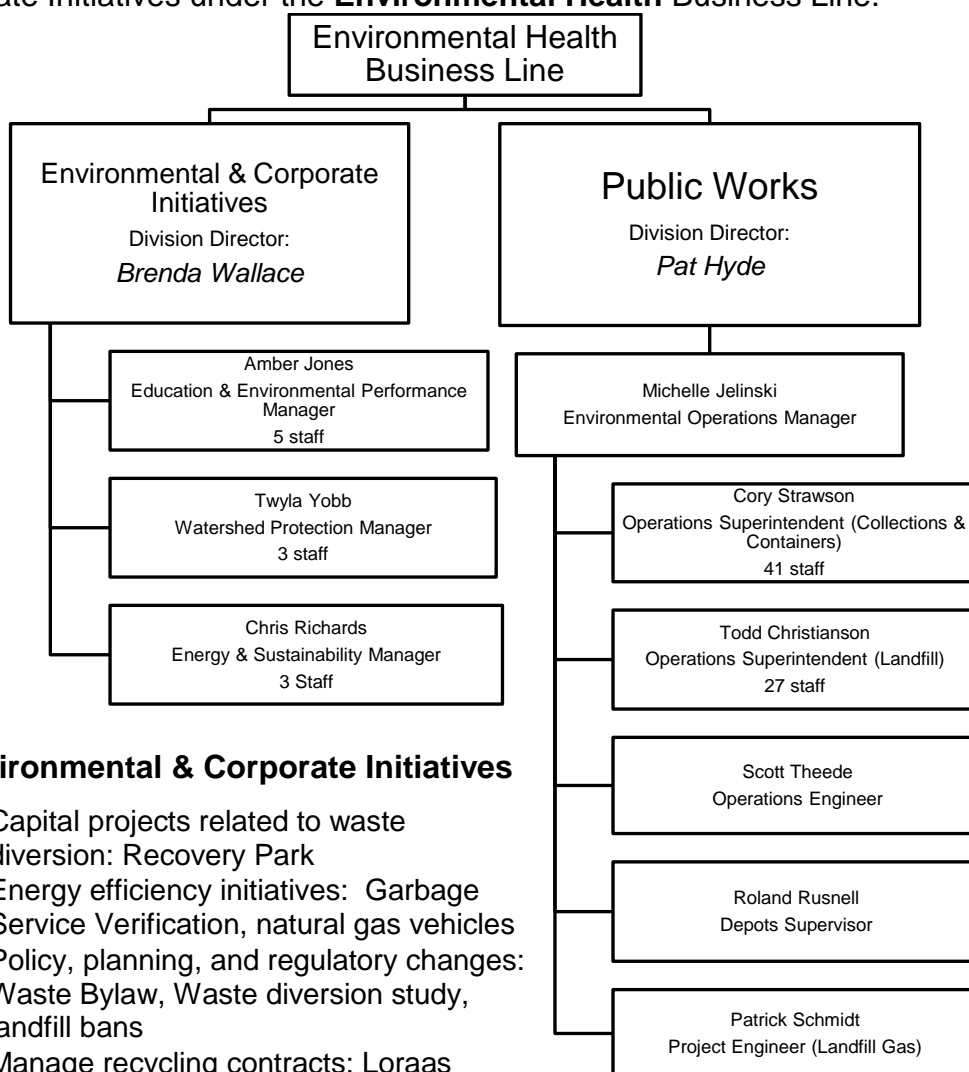


The goal of Waste Reduction is to provide a focus on reducing, reusing, recycling, and recapturing resources while seeking operational efficiencies. Initiatives under this program include:

- recycling contracts for curbside and multi-unit dwellings;
- support for recycling depots located across the community;
- composting of yard waste at drop-off depots; and
- residential subscription yard waste collection initiative.

Role of Public Works and Environmental & Corporate Initiatives

Integrated Waste Management is delivered by Public Works and Environmental & Corporate Initiatives under the **Environmental Health** Business Line.



Environmental & Corporate Initiatives

- Capital projects related to waste diversion: Recovery Park
- Energy efficiency initiatives: Garbage Service Verification, natural gas vehicles
- Policy, planning, and regulatory changes: Waste Bylaw, Waste diversion study, landfill bans
- Manage recycling contracts: Loraas Recycle, Cosmopolitan Industries Ltd.
- Coordinate Household Hazardous Waste Days
- Waste diversion programs and initiatives: Saskatoon Curbside Swap, public space recycling, festival and event sustainability, civic recycling
- Education, outreach and communications pertaining to waste reduction and diversion programs and future diversion initiatives

Public Works

- Garbage containers and garbage collection services
- Manage the Saskatoon Regional Waste Management Facility (Landfill)
- Operate compost and recycling depots
- Leaves & Grass collections including providing green carts
- Deliver recyclable materials from depots to Cosmo
- Communications pertaining specifically to waste management operations

Garbage Handling Service – Keeping Saskatoon Safe and Clean

Containers

Providing waste carts to new homes and repairing carts when they are damaged.

Containers Provided to Residential (Curbside) Properties

The City of Saskatoon owns and maintains the black roll-out carts provided to street-oriented residential properties. In 2014:

- 1,300 new carts were delivered to new homes
- 6,100 carts were repaired or replaced (430 of these were stolen and could not be recovered)
- Current cart failure rate has been reduced to 0.55% due to improvements in purchasing specifications made in late 2012. In neighbourhoods with carts purchased under old specifications, failure rates can be as high as 15% (i.e. Caswell Hill, College Park, Confederation Park)

Carts are replaced because they reached the end of their useful life or because they were not performing in the field.

Multi-Unit Residential Containers

The City of Saskatoon does not provide garbage containers for multi-unit dwellings and instead offers a Multi-Unit Dwelling Waste Bin Grant to offset the cost borne by condominium associations and property managers for the purchase and maintenance of metal waste bins.

The grant provides \$8 per year per residential unit. \$265,764 was paid to 740 buildings as part of this program in 2014.

Resources

The containers crew is comprised of 3 permanent staff plus 1 additional seasonal staff in the summer. These employees deliver new garbage containers to new homes, as well as repair or replace damaged containers in the field. They also deliver and retrieve the larger 300 gallon garbage containers for Taste of Saskatchewan, the Fringe Festival, Rib Fest, and other special events.

The containers crew, rear loader crew and a customer service representative are overseen by the Utility Customer Service Supervisor (Debbie Donahue).

Garbage Collections

Collecting garbage from black carts and steel bins across the city.



Garbage Collection from Residential (Curbside) Properties

Garbage collection services are provided to 67,000 single-family homes by a fleet of 21 garbage trucks.

In Saskatoon, the average weight of the contents of each cart on collection day ('tip') is 18 kilograms (40 lbs). The national average was 14 kilograms (31 lbs) according to national benchmarking.

Scheduled garbage collections occur from Monday to Friday, including Stat holidays, except for Christmas Day and New Year's Day. In 2014, weekly collections were conducted from April to October inclusive, with the remainder of the year on a bi-weekly collection schedule. Additional garbage collections were also provided during the Christmas holiday season.

Garbage Collection from Multi-Unit Residential Properties

The City of Saskatoon provides one collection per week for each multi-unit residential property as part of the regular service supported by property taxes. Additional levels of

service may be contracted with the City or through a private waste management company.

The City operates 2 fork-lift trucks in the provision of metal bin garbage collection services to multi-unit residential properties and commercial contracts. Approximately 64% of multi-unit residential properties use the services provided by the City of Saskatoon. The remaining 36% of property managers and condominium associations choose to contract services through private options.

Resources

The Collections group in Public Works is comprised of 17 permanent Utility Collections Operators plus an additional 6 seasonal Utility Collections Operators during weekly collections in the summer.

Operators drive specialty equipment called sidersloaders for residential collections and commercial collections of 300 gallon poly containers. Fork truck operators drive large waste trucks outfitted with fork-lift arms to collect waste from metal bins located at multi-unit dwellings and from the commercial sector. They also operate the fork trucks to collect recycling materials from the City-owned recycling depots and deliver this material to Cosmopolitan Industries.



A rear loader crew, consisting of two operators and two labourers, conduct special garbage collection services for elderly or disabled residents. These 4 employees also service the recycling depots by collecting illegally dumped and overflowing materials from in and around the bins. The rear loader crews provide some back lane collection of

illegally dumped materials in the public right of way if the identity of the individual or property from which the material originated cannot be identified.

The Collections crew is overseen by a Supervisor VI (Jose Juarez) and a Supervisor II (Debbie Kautzman).

Commercial Collections

618 commercial customers used the services of the City of Saskatoon in 2014. Rates were last set in 2011 and have remained unchanged. The number of commercial customers has remained relatively stable.

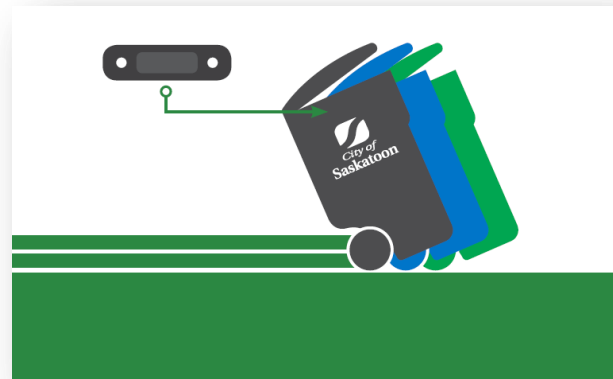
Efficient Waste System

Improving the waste collection system to save fuel, operator time, and improve overall service for residents.

Installation of the Efficient Waste System began in 2014 with the application of barcode tags to carts throughout the city. This initiative was part of a larger project that utilized an internally-provided \$1.2 million productivity improvement loan.

The project components include outfitting trucks with GPS, wireless communications, on-board computers, cameras, and barcode readers and a new software tool to achieve the following benefits:

- Efficient routing for Garbage and Green Cart collections services
- Real-time information about the status of collections activities for improved customer service
- More accurate billing for contracted collections services
- Improved drive logs that include photos of collection issues encountered in the field
- Improved tracking of garbage, recycling, and green carts
- An effective and reliable database that merges cart, collection and customer service requests
- Support tools for Environmental Protection Officers
- Enhanced analysis and reporting capabilities to ensure efficient and effective management of waste services



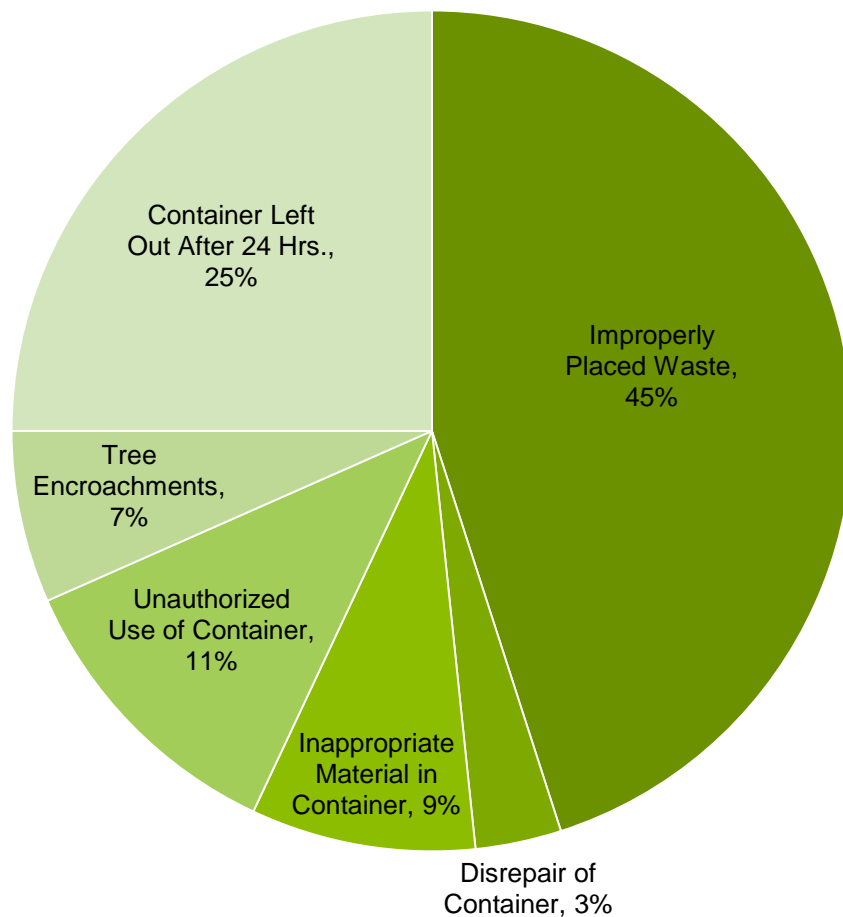
The project also includes improvements to the '306-975-2486' customer service line people call for waste-related matters. System commissioning will be complete in 2015 and new, efficient collection routes will be launched in January 2016.

Waste Bylaw Enforcement

Providing education and enforcement to ensure garbage and recycling are managed by the community in a way that is safe for people and the environment.

Two Environmental Protection Officers (EPO's) focus on issues in the community related to the Waste Bylaw 2004 (Bylaw No. 9071). In addition to enforcing the Waste Bylaw, EPOs are primarily responsible for responding to hydraulic spills, illegal dumping and waste & recycling cart complaints as well as conducting bylaw related education initiatives for the general public.

In 2014, the EPO's addressed more than 486 individual complaints. A breakdown of the types of complaints received is identified below.



New in 2014, the EPOs and landfill staff conducted load inspection blitzes at the landfill during three different summer weekends. These blitzes were intended to educate residential customers on the Waste Bylaw requirements for covering/tarping loads as well as to clarify what materials are accepted or not accepted at the landfill. Nearly 600 individual loads were inspected and customers were provided information on:

- appropriate disposal options for compostable materials;
- paint;
- tires; and
- household hazardous waste.

No tickets were issued during these blitzes as they were conducted as an educational public outreach initiative.

Also new in 2014, was the implementation of neighbourhood blitzes for cart placement requirements under the Waste Bylaw. This education campaign was developed in response to numerous complaints about:

- unsightliness;
- congestion;
- scavenging; and
- theft and damage to waste and recycling carts left in back lanes after collection day.

Back lane inspections were carried out by the EPOs in the Buena Vista, North Park and Caswell Hill neighbourhoods since these neighbourhoods generated the most complaints and operational challenges for back lane garbage and recycling collection.

The EPOs delivered education letters to residents whose black or blue carts were left out for more than 24 hours (contravention of the Waste Bylaw) followed by a warning letter and ultimately a notice of violation (\$100 ticket) if subsequent inspections showed that compliance was not achieved. Initial inspections showed that up to 35% of homes in certain areas were in non-compliance resulting in more than 1,400 education and warning letters being issued to residents. Following the distribution of education and warning letters to these homes, only 7% of homes were still found to be in non-compliance and a total of 68 tickets were issued in 2014. Cart placement education blitzes have continued in different neighbourhoods in 2015.

Saskatoon Regional Waste Management Centre (Landfill)

A sophisticated facility that is designed and operated to maximize available space and ensure solid waste is managed in a safe and environmentally sound manner.



The Saskatoon Regional Waste Management Centre (landfill) has been in operation since 1955. The Saskatchewan Ministry of Environment currently regulates the operations of the Facility under a Permit to Operate a Waste Disposal Ground.

In 2014, approximately 168,300 tonnes of material was accepted at the landfill, 125,238 tonnes of garbage requiring burial and 43,400 tonnes of clean earth fill used for construction purposes or landfill cover. Over 800 tonnes of metals, white goods, propane tanks, batteries and 49,000 litres of used oil were removed from the site for recycling or disposal as hazardous waste.

Tonnes of Garbage Received at Landfill



The landfill is open to the public every day of the year except for Christmas Day and New Year's Day. The site is a secure compound with fencing and security checks after-hours. Six transfer bins are located on site for public waste disposal. In addition, several public drop-off areas are provided for metals, white goods, batteries, propane tanks, used oil, oil containers, filters and used antifreeze.

Resources

Costs incurred at the Landfill for each tonne of material disposed has increased significantly over the past 10 years, due in large part to significant investment in capital improvements during this period, and increased operating costs to meet regulatory requirements and service levels. Also of significance is the fact that annual tonnages are trending downward, resulting in fixed costs being spread over fewer tonnes. A Continuous Improvement initiative is now underway and cost mitigation strategies are being implemented, including reducing overtime, reducing fleet downtime impacts, and general operating improvements.

The landfill experiences a lot of equipment downtime due to the age of equipment (older than industry averages) and the number of pieces of equipment (fewer than industry averages). A significant proportion of the cost escalation is also attributable to the capital improvement program required to ensure the landfill achieves its full lifespan and complies with current environmental regulations. 41% of 2014 expenditures at the landfill were put toward capital projects.

Landfill attendants carry out various duties including:

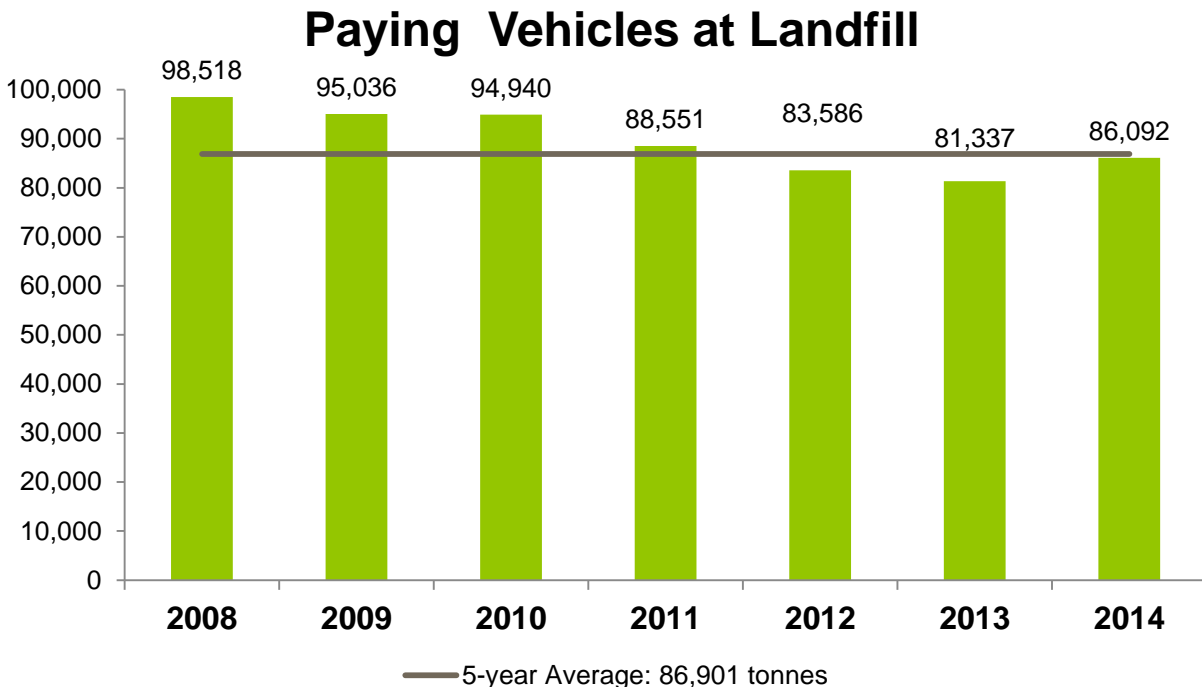
- operation of the landfill scales
- traffic control and load inspection duties at the blue transfer bins and at the active face
- operation of roll-off trucks to haul waste from the public transfer station to the active face
- operation of water trucks for dust control and fire suppression
- operation of equipment for snow removal, sanding
- grading and road maintenance or repairs
- safe operation of the used oil facility and other recycling areas on site

Labourers are primarily responsible for litter management and other site maintenance requirements. Equipment operators ensure that all waste delivered to the active face is compacted and buried in a safe and environmentally acceptable manner.

The landfill employs 5 heavy equipment operators, 12 permanent landfill attendants, 4 seasonal landfill attendants, and labourers. Landfill operations are overseen by two Supervisor VI's and two Supervisor II's who report to the Landfill Superintendent, Todd Christianson.

Landfill Customers

Paying customers at the landfill increased slightly in 2014 over 2013 with a total of 86,092 visitors. While more customers used the landfill in 2014 than 2013, the number of commercial haulers has decreased while residential and other subsidized haulers have increased. Some of the decline in commercial visitors may be a result of competition from the Northern Landfill operated by Loraas Disposal and more recently, competition from Green Prairie Environmental, the new owner and operator of the former South Corman Park Landfill.



Saskatoon has one of the highest rates of residential garbage self-hauled to the Landfill in Canada. The average size of chargeable loads delivered to the Facility has been shrinking and was approximately 0.6 tonnes in 2014. A review of rates and subsidies in 2012 led to changes to the schedule of fees. As of January 1, 2013, all subsidies previously available to customers at the Landfill were removed with the exception of a 75% subsidy which is applied to very small loads weighing less than 250 kilograms. The rationale for this subsidy is to offer options to residents in the absence of a curbside service for the handling of bulky items that may not fit in City-provided roll-out garbage carts. This subsidy, however, is contributing to the shrinking sizes of average loads at the landfill. This, in turn, increases demands for traffic management and can increase wait-times for customers.

According to nation-wide benchmarking for 2014, the range of fees for tipping waste among 31 municipal landfills across Canada is \$36.15 to \$140 per tonne. Saskatoon's fees, at \$95 in 2014, fall in the middle of this range.

Environmental Protection

A number of environmental protection measures are part of the regular operations of the landfill.

Surface water management ensures that any storm water that may have come in contact with garbage does not flow off-site. Storm water management infrastructure also helps minimize the creation of leachate ('garbage juice') and protects roadways and other customer-serving assets of the site. Improvements to storm water infrastructure are integrated into the capital improvement plan for the site.

Ground water monitoring results are reviewed by an independent party each year to ensure the landfill is not impacting the environment beyond its site. In 2014, there were 43 monitoring locations analyzed. Additional leachate collection system development is planned on the basis of monitoring results. 27 hectares of the waste footprint at the Landfill Facility is unlined and leachate interception is therefore an important environmental protection measure.

Fire prevention and suppression is critical. Materials within the mound have the potential to burn for prolonged periods and to release toxins into the atmosphere. Landfill staff are trained in fire prevention and suppression and operate a water truck on-site to respond to incidents in a timely manner. A strong relationship with Saskatoon Fire and Protective Services has also been developed as landfill fires pose a unique challenge.

Landfill gas management began in 2012 with the completion of the clay cap on the north mound of the site. Since then, 29 vertical gas collection wells have been drilled into the waste, the Landfill Gas Collection and Power Generation Facilities were completed and the system was fully commissioned in late 2013. In 2014, the landfill gas system collected and combusted over 190,000,000 cubic feet of landfill gas, reducing the greenhouse gas emissions from the landfill by more than 49,000 tonnes of CO₂e or the equivalent of removing 10,200 vehicles off Saskatoon roads.

Greenhouse gas emissions reduction efforts occur at two levels at the landfill. The destruction of landfill gases (which have greenhouse gas concentrations up to 21 times stronger than carbon dioxide) is addressed through landfill gas management. As equipment is replaced, Tier IV emissions-compliant equipment is being selected to significantly reduce this impact.

Customer Service for Garbage Handling Services

Over 10,000 phone calls and voicemail messages are received on an annual basis regarding containers, missed collections, and other inquiries. In addition, the garbage@saskatoon.ca webmail address received more than 2,600 emails which were all responded to in a timely manner.

In 2014, collections staff responded to over 2,400 calls about missed garbage collections. With over 2.8 million cart collections conducted on an annual basis, this equates to a 99.9% garbage collection reliability. Approximately 75% of the recorded missed collection calls originated from collections operators themselves when they were unable to collect carts for various reasons such as carts placed too close to fences/power poles/parked vehicles, carts on wrong side of the lane, overfilled carts, inappropriate materials identified in carts (i.e. propane tanks), or other issues.

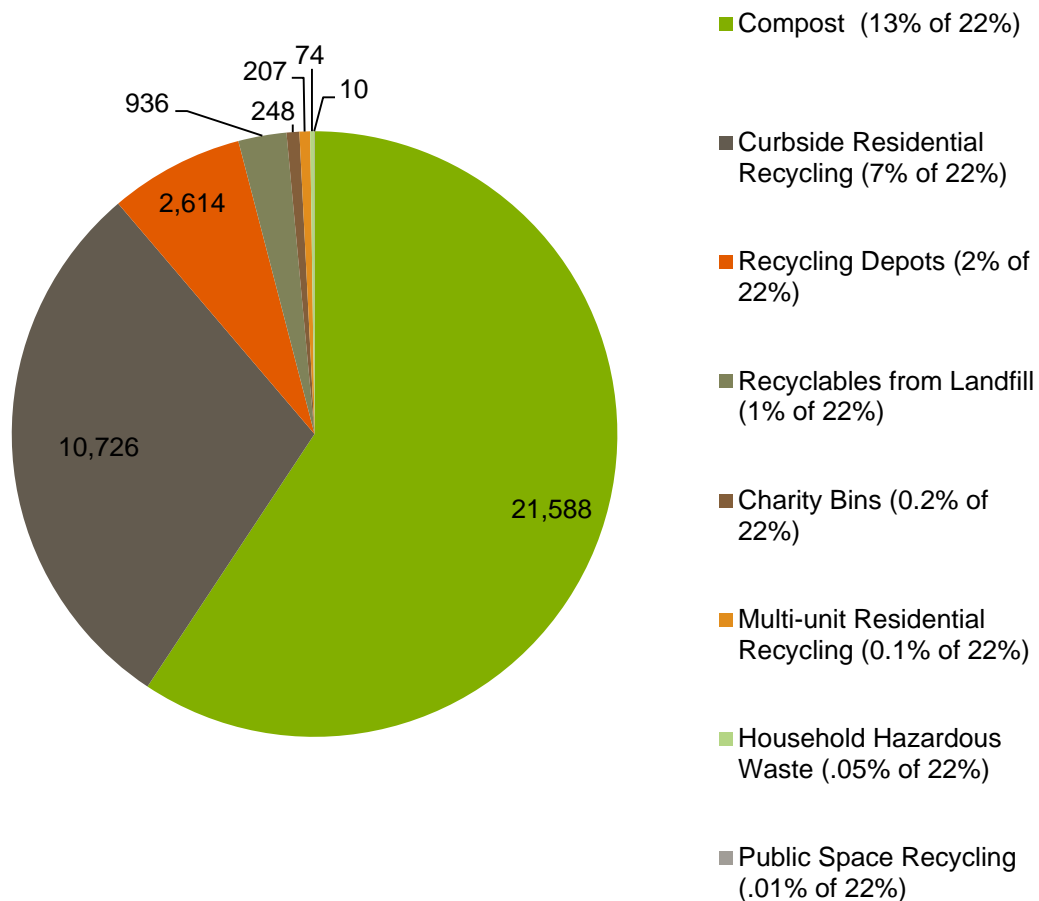
One customer service representative responds to phone calls received at the 306-975-2486 Waste Stream Management Customer Service Line.

Towards a Waste Diversion Target of 70%

Waste Diversion

Waste is diverted from going to the landfill through a variety of programs and initiatives including recycling, composting, and hazardous waste collection. Additional outreach and education programs include the Saskatoon Curbside Swap, charity bin program, and home composting education that contribute to waste reduction and raise awareness. The figure below shows the tonnes of recyclables diverted from each program (total of 36,338 tonnes), and how each contributed to the diversion rate of 22.5% in 2014.

Tonnes of Diverted Materials



Recycling

Providing convenient programs for all residents to recycle their paper and packaging.

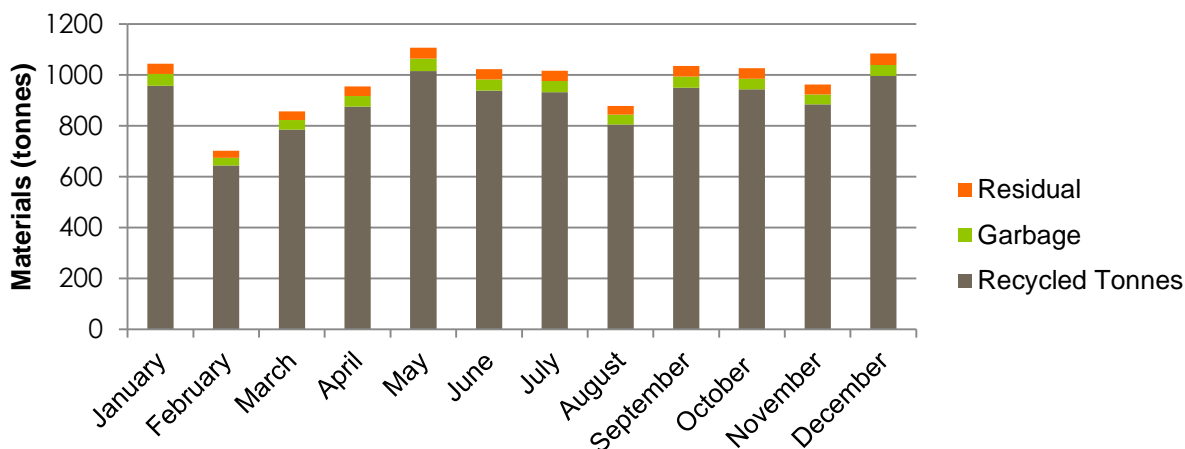
Collections Provided to Residential (Curbside) Properties

Loraas Recycle has been providing curbside recycling service to single family households in Saskatoon since 2013. Each of the 66,793 households participating in the City's curbside program is provided with a blue cart that is collected from their curb every second week based on a published schedule.

- 10,724 tonnes of recyclable materials were recycled, contributing 7% toward the City's waste diversion rate
- 11,104 tonnes of material were collected
- 4% contamination (materials placed in the cart that are not recyclable) and 4% residual (materials that are technically recyclable but could not be recovered usually because of their small size).
- A net reduction in greenhouse gas of 29,027 tonnes can be attributed to the recycling program (includes the 387 tonnes from diesel fuel used in recycling trucks)



Materials collected through the Curbside Residential Recycling Program



The set out rate (or proportion of carts placed at the curb on collection day) averaged 67% for the program in 2014. This does not indicate how many people use their blue carts since many do not necessarily put them out each collection. The participation rate (or proportion of residents using their recycling carts) will be calculated annually starting in 2016 as part of a waste characterization study.

Carts not being collected due to incorrectly placed or overfilled carts continue to occur; there were 1,110 occurrences in 2014. To put this in context, there were over 1.1 million blue carts tipped in 2014, a non-compliance rate of 0.1%. Other ongoing concerns include carts left out in back lanes for more than 24 hours and scavenging of high value materials. These issues are addressed through communications and through warnings and tickets issued by the Environmental Protection Officers (EPO's).

Multi-Unit Residential Properties

The Multi-Unit Residential Recycling (MURR) program was launched on October 6, 2014; approximately 207 tonnes of material was collected through the program in 2014, a greenhouse gas reduction of 448 tonnes over landfilling the same amount of material.

Program deployment went well and residents seem generally pleased to have the service in place. A challenge with the program is the high volume of garbage being found in the recycling containers. Cosmo's initial characterization established that approximately 18% of the materials being collected are non-recyclable. A multi-unit recycling program could be expected to have higher rates of garbage than curbside programs due to the use of large bins placed in publicly-accessible areas.

Customer Service for Recycling Programs

Resident inquiries on curbside and multi-unit recycling programs are responded to by the service providers, Loraas and Cosmo. Inquiries regarding the curbside residential recycling program continue to be low at an average of 0.6% or 368 inquiries per month.

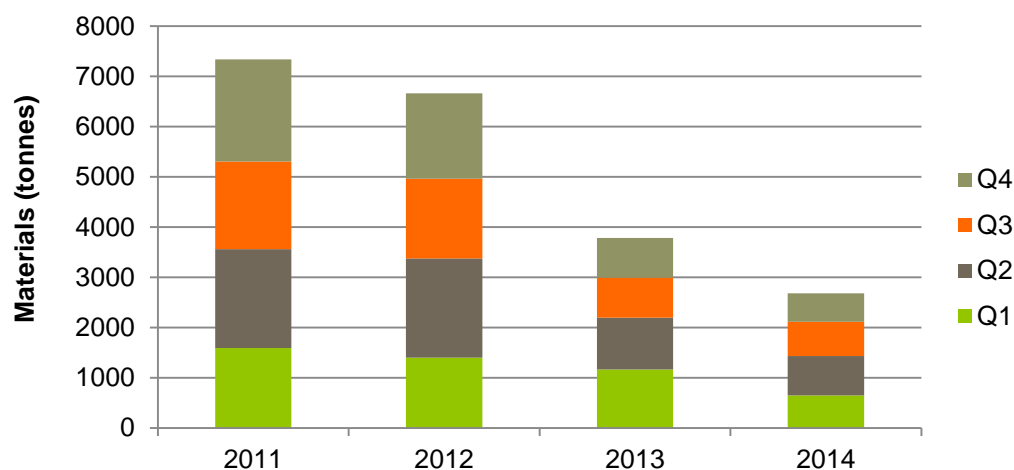
Inquiries were fairly high for the MURR program in the first month at 276, mostly regarding container information. These inquiries decreased to 138 in December.

Recycling Depots

In 2014, 2,679 tonnes of material were collected at the depots contributing 2% to the City's diversion rate, a monthly average of 223 tonnes. Changes were made to the depots program including the closure of the Edmonton Avenue depot and depots on private land. These closures were in response to the decrease in material being received at the depots as shown in the figure below.

In 2014, the Edmonton Avenue depot was closed and the City ceased collections from any depots on private land. These closures were in response to the decrease in material being received at the depots as shown in the figure below. The four remaining depots now accept the same materials accepted in the MURR and curbside programs in a single stream with no sorting, as does all recycling at Civic facilities (started at the end of 2014). The bins at the depots remain the property of Cosmopolitan Industries Ltd. and all materials are collected by the City and processed at Cosmo's Material Recovery Facility. New signage and bin decals have been updated to communicate the change.

Materials Collected at City Depots



Materials from the recycling depots are collected and delivered to Cosmopolitan Industries by Civic staff Monday, Wednesday, Friday, and Saturday; and clean-up crews visit the depots Monday, Wednesday, and Friday.

Education and Engagement

Making sure Saskatoon residents know how to Put Waste in the Right Place.

Information about the City's waste and recycling programs are available online, through Facebook, Twitter, and at festivals and events.

Visitors to the City's website (Saskatoon.ca) and the SaskatoonRecycles.ca microsite access up-to-date information on anything they need to know to manage their waste including:

- collection schedules;
- how to use their blue, black, and green carts;
- landfill rates and hours; and
- other tips on reducing or diverting waste.

There were 164,809 page views on SaskatoonRecycles.ca.



Each household received a personalized print calendar with the garbage, recycling, leaves and grass, and household hazardous waste schedules. Residents can also:

- view their calendar online;
- download a PDF calendar from the website;
- sign up for collection reminders by e-mail, phone, or twitter; or
- add their schedule to their own online calendar.

Personalized online collection calendars were viewed by 24,589 unique households, 5,455 calendar PDF downloads, and 4,418 residents were receiving collection reminders.

The public can also find out about other local recycling opportunities through the Saskatchewan Waste Reduction Council's province-wide online database of information on where to recycle a variety of materials. The City of Saskatoon partners with the Council in promoting this online tool: <http://www.saskwastereduction.ca/>



Citizens were engaged at events using the “Spin and Sort” and “Yep, Nope” sorting game. Summer staff attended 12 events in 2014, where they encouraged children and adults to learn about waste management through interactive activities. Other communications occurred through the “Put Waste in the Right Place” campaign on radio, newspaper, social media, and online advertising.

Saskatoon Curbside Swap

Building community while keeping reusable items from ending up in the landfill.

Curbside Swaps are fun and environmentally friendly ways for residents to get rid of unwanted items that are still in good condition, as well as “hunt” for new treasures. In 2014, four curbside swaps were held in College Park, City Park, Buena Vista, and Meadowgreen. The City supported the community association to organize and promote the swap in their neighbourhood. The swaps were well attended as long as the weather held and feedback through a survey of participants showed that survey respondents wanted an event to occur the next year.

Want free, useable stuff? Come to a Curbside Swap!

What is a Curbside Swap?

When a neighbourhood has a Curbside Swap date, participating households mark items as “FREE” and set them on their curb for others to collect. This keeps reusable items out of our landfill and reduces our community’s environmental footprint!

What will I find at a Curbside Swap?

- appliances
- books
- electronics
- bicycles
- yard equipment
- furniture

Where can I find more info?

Simply visit Saskatoon.ca and click on “C” for Curbside Swap.

SASKATOON
**CURBSIDE
SWAP**

Check out Curbside Swaps in these neighbourhoods:

Sept 6 in College Park

Sept 13 in City Park

Sept 14 in Buena Vista

Sept 20 in Meadowgreen

9 a.m. to 6 p.m.

Watch for the signs!



Composting Programs

Services such as voluntary curbside collection, drop-off depots, and education programs help residents divert organic waste from the landfill.

The Leaves and Grass Subscription Program served 3,900 households in 2014. Leaves, grass, and non-woody yard waste is collected at the curb from May to November on a bi-weekly basis. Materials are composted at the City's Highway 7 compost depot along with materials from public and commercial customers.

Two compost depots, one on McOrmond Drive and the other on Highway 7, provided residents the opportunity to drop off yard waste at no charge. These temporary locations accept leaves, grass, non-elm tree and shrub branches, as well as garden waste that would otherwise end up in the landfill.



More than 51,000 vehicle visits were made to the depots in 2014, including 40,000 visits made by residents, 9,400 visits from commercial haulers and 2,000 visits from City departments. An estimated 22,000 tonnes of compostable material was managed at the depots in 2014, resulting in the avoidance of approximately 5,000 tonnes CO₂e.



Approximately 150 commercial companies purchased \$200 permits which provided unlimited access to the depots for the season. Commercial haulers brought in approximately 28% of the materials delivered to the depots.

The depot on McOrmond Drive closed at the end of the 2014 season. A new compost depot transfer station opened on Highway 5 in 2015.

Compost depot operations are overseen by the Depots Supervisor (Roland Rusnell).

Compost Education

The City provides composting education through a partnership with the Saskatchewan Waste Reduction Council (SWRC). The SWRC has been running composting education programs since 1993; and in partnership with the City since 1995. New Master Composters are trained each year (there is now over 200) and in turn engage the community through volunteer work providing education at events, presentations, workshops, and home visits. Home visits were a new initiative in 2014 that was expanded in 2015. Master Composters visit a new composter at their home to help them set up a composting system or troubleshoot an existing one.

In 2014, 16 new Master Composters were trained and they along with existing Master Composter volunteers attended 13 events and made 10 home visits.

Compost bin rebates of \$20 were also offered to residents in 2014 (an increase from \$10 in previous years). 60 compost bin rebates were administered.

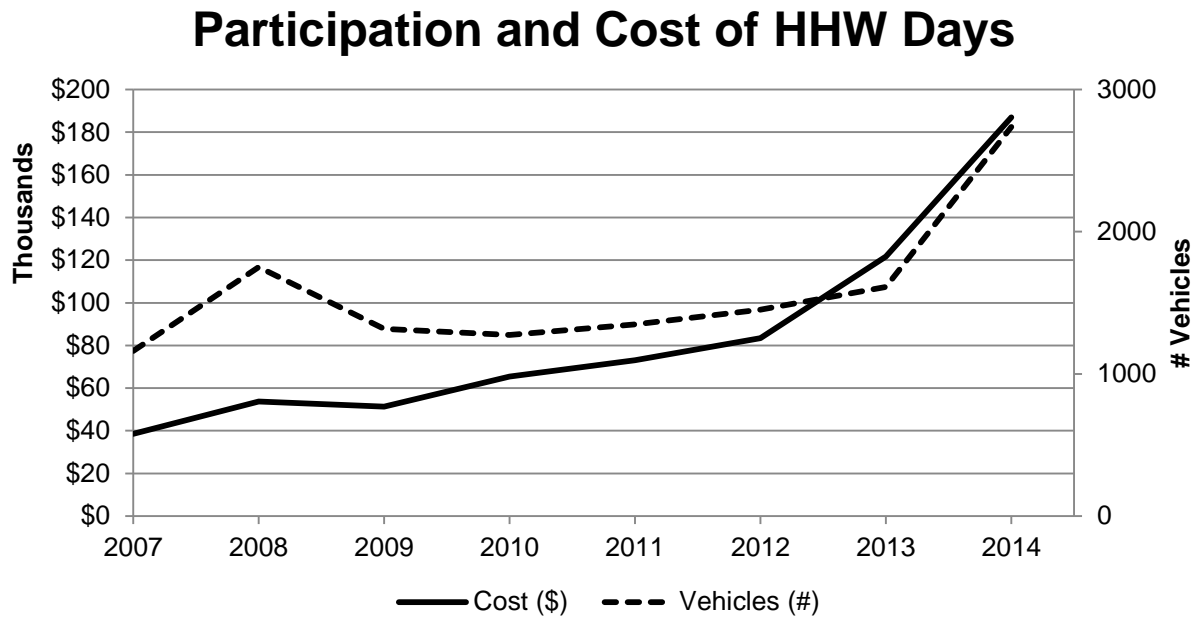
Composting, and the use of compost, will also be encouraged through the Healthy Yards program started in 2015; a partnership with the University of Saskatchewan Master Gardeners and the Food Bank and Learning Centre.



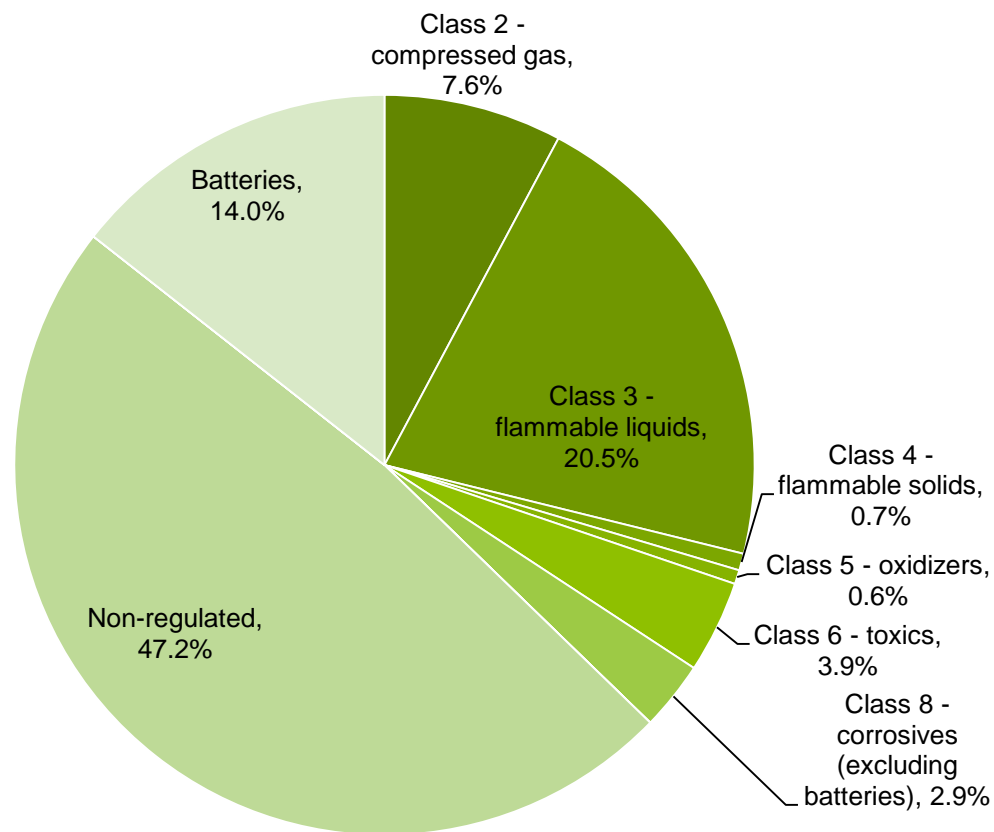
Hazardous Waste

Keeping hazardous waste out of the landfill, waterways, and environment.

In 2014, 12 Household Hazardous Waste Collection Days collected 72,126 kilograms (an increase over 2013 of 40%) of hazardous materials from 2,737 customers. The number of vehicles, the amount of hazardous materials collected, and the cost of the program have all risen since 2013.



Hazardous Materials Collected through HHW Days in 2014



Class 2 (compressed gas): aerosols, propane tanks, inhalers, fire extinguishers

Class 3 (flammable liquids): flammable liquids, paint and paint-related materials, adhesives, printing ink

Class 4 (flammable solids): flammable solids

Class 5 (oxidizers): oxidizing solids and liquids, organic peroxide

Class 6 (toxics): toxic liquids, pesticides, pharmaceuticals

Class 8 (corrosives): corrosive liquids and solids, mercury, ammonia solution

Batteries: alkaline, lead-acid, lithium

Non-regulated: oil, oil filters, oil containers, antifreeze, fertilizers, liquid cleaners, non-PCB light ballasts, fluorescent tubes, CFL bulbs, ink cartridges, lighters, treated railway ties

Other/miscellaneous: PCB light ballasts, sharps, smoke detectors, e-waste, test samples (unknowns)

Household hazardous waste materials are also responsibly managed at the landfill. An Eco-Centre for the recovery of oil, oil containers, and oil filters has been established in partnership with Saskatchewan Association for Resource Recovery Corporation (SARRC). The Eco-Centre (one of 36 across Saskatchewan) captures in excess of 20,000 litres of used oil, over 1,000 used oil filters, and more than 1,200 kilograms of oil containers each year. These materials are reused and recycled, saving approximately 53 tonnes of CO₂e each year.