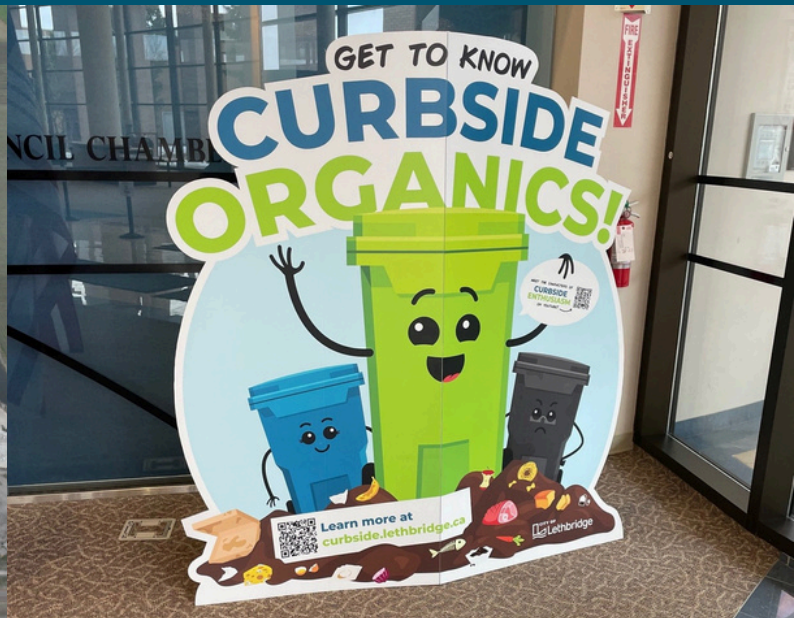


WASTE & ENVIRONMENT

2024 Annual Report



TERRITORY ACKNOWLEDGEMENT

For many generations, the place we now call Lethbridge had another name given to it by the Siksikaitsitapi, the Blackfoot Peoples. This name, Sikóóhkotok, is a reference to the black rocks found in the area.



The City of Lethbridge acknowledges that we are gathered on the lands of the Blackfoot people of the Canadian Plains and pays respect to the Blackfoot people past, present and future while recognizing and respecting their cultural heritage, beliefs and relationship to the land. The City of Lethbridge is also home to the Metis Nation of Alberta, Region III.

Sikóóhkotok

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WASTE & ENVIRONMENT

2024 HIGHLIGHTS

During 2024, the Waste & Environment department advanced numerous projects and initiatives moving the community closer to our waste management and sustainability goals. Some notable achievements include:

- Council's approval for the Waste Management Masterplan
- Full year of operations of an organics processing facility and collection of residential curbside organics
- Implementation of the mandatory organics and recycling program for businesses
- Public access to the Blue Sky education center on Friday afternoons

All of this work will help to reduce waste in the community and reach the waste diversion targets set out in the City Council Waste Diversion Policy. This work would not have been possible without the hard work and dedication of both our Waste & Environment administration team, Collection Operations team, and the staff and contractors who operate the Waste and Recycling Centre.

VISION

We will be an educated, accountable community, whereby residents and businesses expect and participate in sustainable waste management and reduce waste disposal.

MISSION

The purpose of the City of Lethbridge Waste & Environment department is to provide the community with an integrated and sustainable waste management system so as to maintain a clean, healthy urban environment.

SERVICE LEVEL AREAS



OUR SERVICE PROGRAMS

RESIDENTIAL GARBAGE

- Bi-weekly garbage collection
- Two cart size choices - 240 L + 360L
- Includes two large item service pick ups/year and up to 250 kg/load free on Saturdays at the landfill
- Multi-family serviced through common collection

RESIDENTIAL RECYCLING

- Bi-weekly recycling collection
- Two cart size choices - 240L + 360L
- Multi-family serviced through common collection

RESIDENTIAL ORGANICS

- Weekly (Summer), bi-weekly (Winter) organics collection
- One cart size - 240 L
- Multi-family serviced through common collection

RECYCLING STATIONS & YARD WASTE SITES

- Three recycling stations North, South, and West locations for residential use only
- Includes yard waste sites drop-off available from April until November
- Includes fall leaf and Christmas tree collection

DIVERSION PROGRAMS & EDUCATION PROGRAMMING

- Waste Wizard and Loop collection reminders
- Blue Sky Centre and Waste & Recycling Centre tours
- Community surveys and What We Heard reports
- Outreach events and communication
- Oops tagging and collection outreach

LANDFILL & HYDROVAC WASTE FACILITY

- The landfill receives mixed solid waste and industrial soil and waste.
- The Hydrovac Waste Facility receives hydrovac waste from businesses.

MATERIAL RECOVERY FACILITY

- Opened in 2019, the MRF receives mixed recycling from residential and commercial sectors

ORGANICS PROCESSING FACILITY

- Opened in 2023, the OPF receives residential source separated organics and commercial organics included packaged organics.

PUBLIC & CONSTRUCTION DROP-OFF

- PDO for residents includes household hazardous, electronics, tires, paint and more
- CDO for businesses includes wood, concrete, shingles, drywall and more

BUSINESS RECYCLING & PROGRAMMING

- Industrial, commercial and institutional and construction and demolition waste diversion support.
- Mandatory recycling and organics program for businesses

ENGINEERING & ENVIRONMENT

- Engineering includes any construction projects and system analysis and data collection
- Environment includes the City's Sustainability work that includes focus areas of land, air, water, energy and waste.

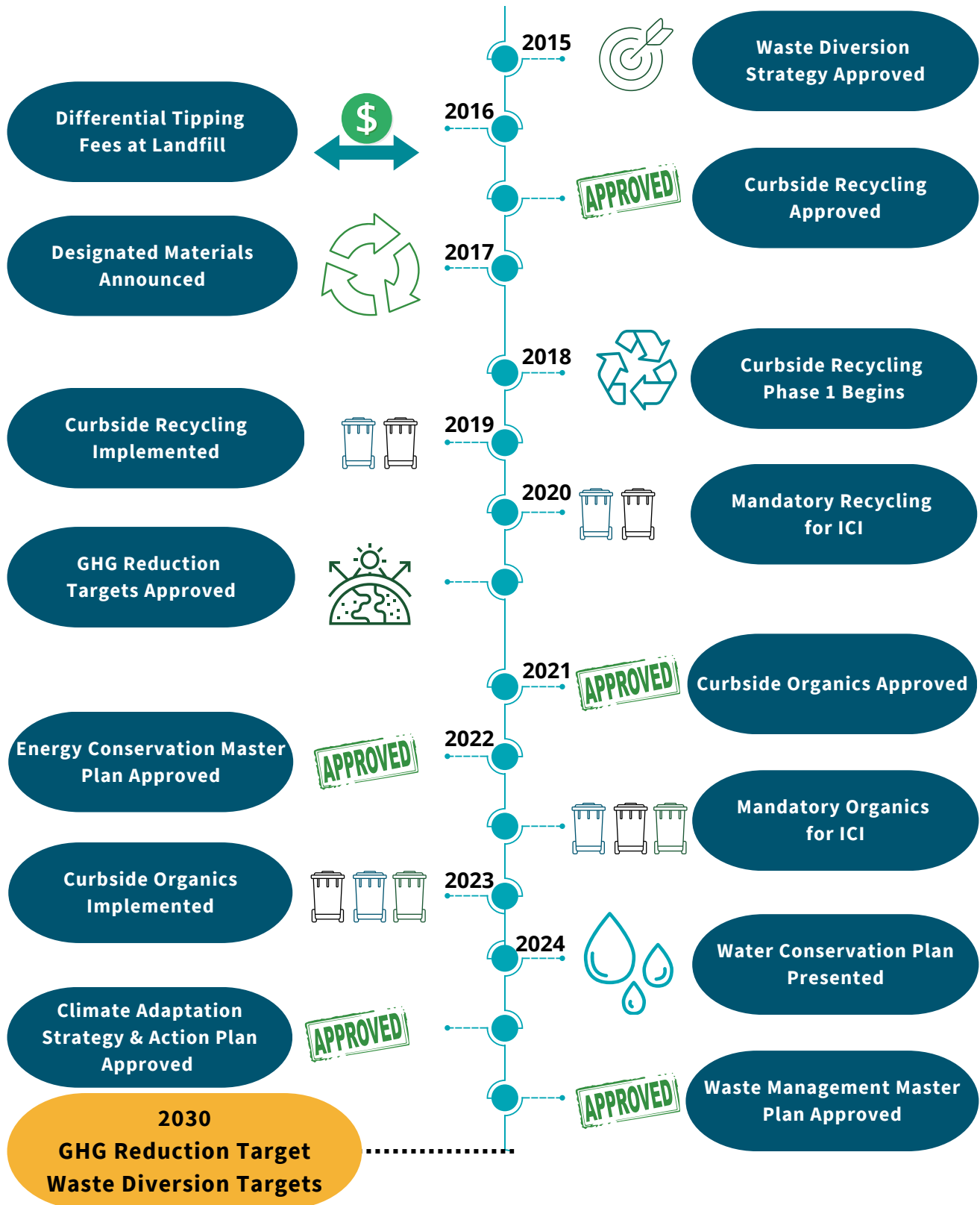


LETHBRIDGE WASTE GENERATION

	2013 Baseline	2021 Target	2024 Actuals	2030 Target
Residential kg/capita	330	180	236	140
Residential Waste Diversion %	20%	50%	39%	65%
Residential Waste Reduction %	0%	30%	30%	45%
Industrial, Commercial & Institutional (ICI) + Construction & Demolition (C&D) kg/capita	860	640	586	470
ICI + C&D Waste Reduction %	0	25%	32%	45%
Total Lethbridge kg/capita	1,190	820	810	610
Total Lethbridge Waste Reduction Since Baseline	0%	30%	32%	50%

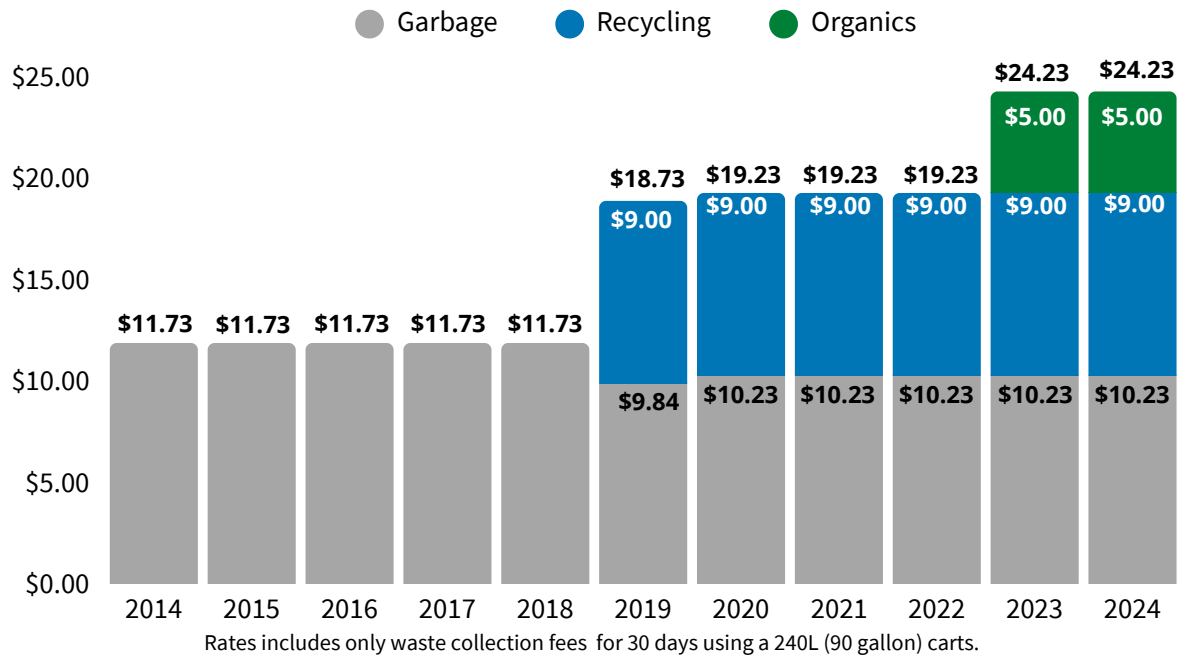
**2030 Waste Disposal and Waste Reduction % targets
based on Waste Diversion Policy CC54**

WASTE & ENVIRONMENT TIMELINE

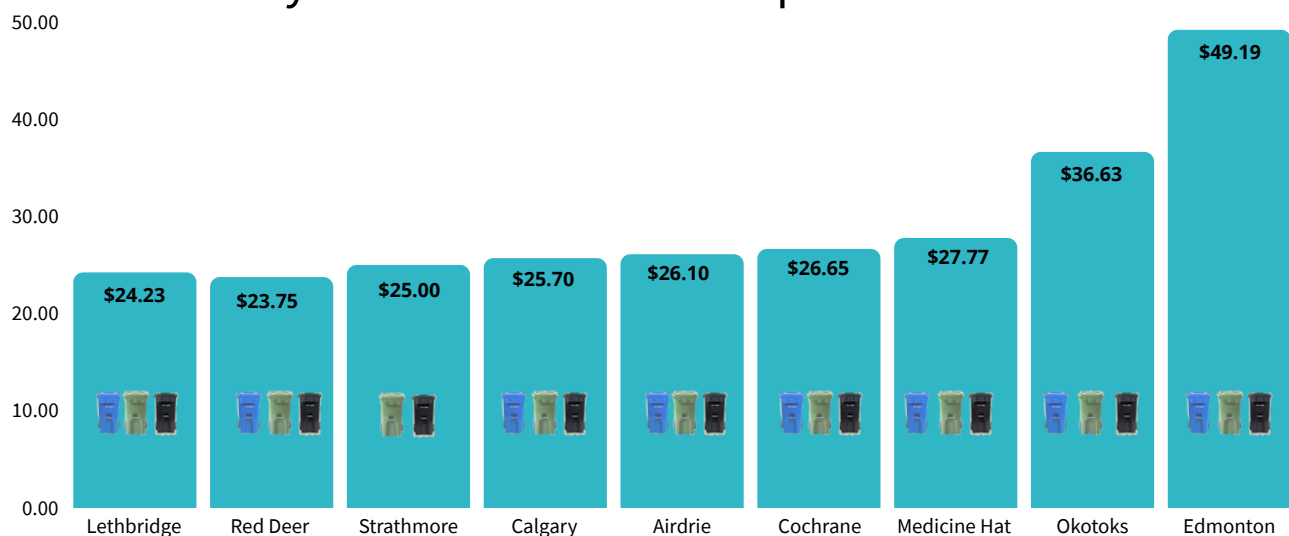


UTILITY RATES

Utility Rates History in Lethbridge



Utility Collection Rates Comparison in Alberta



1- Rates comparison includes only waste collection fees for 30 days using a 240L (90 gallon) carts.
 2- All rates are as February 2024

UTILITY RATES BREAKDOWN

2024 Monthly (30 Days) Residential Rate for all Services

GARBAGE COLLECTION

\$10.23 (240L) / \$11.94 (360L)

Fee covers costs of collecting and disposing of residential garbage on a bi-weekly basis. Fee also includes Free Saturday Disposal, Large Item Service and the Clean Community Initiative



RECYCLING COLLECTION

\$9.00 (240L + 360L)

Fee covers costs of collecting and disposing of residential recycling on a bi-weekly basis.



ORGANICS COLLECTION

\$5.00 (240L)

Fee covers costs of collecting and disposing of residential organics on a weekly (summer) and biweekly (winter) basis.



WASTE REDUCTION FEE

\$3.60

Fee covers cost of City's three Recycling Stations and Yard Waste Sites, Fall Leaf Collection, Christmas Tree Recycling, and the collection of Household Hazardous Waste.



LANDFILL FEE

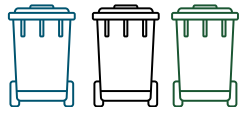
\$1.00

Fee covers the payment of landfill services and ownership of the landfill.



WASTE FACTS

2024



Waste Operations
picked up over
1.89 MILLION
recycling, organics, and garbage
carts from Lethbridge households



The MRF has shipped over
49,014
Tonnes of recyclables to
market since opening



22%
of waste delivered to the
Waste & Recycling Centre was
diverted from the landfill



Corporate Greenhouse Gas
emissions were reduced
15%
from 2018 baseline levels



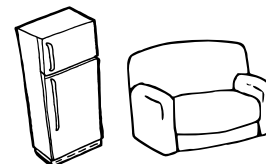
1,251
Christmas Tree
Pick-ups



35,684
WASTE WIZARD
searches



The Waste & Recycling Centre
processed
146,523
tonnes of waste



3,502
Large Item Service
pick-ups

Waste & Environment

2024 Accomplishments

Corporate Diversion Program Approved:

The approved policy focuses on corporate waste diversion with four key areas: recycling, organics, daily materials (waste matrix), and construction waste diversion. It outlines how the City of Lethbridge will manage waste and set up necessary processes. A key initiative is the pilot program for contractors to submit a diversion form to the City in collaboration with the Lethbridge Construction Association. While the policy is approved, we are currently working on its rollout across the corporation.

Green Meeting Policy Approved:

The Green Meeting Policy, approved in November 2023, aims to reduce the ecological footprint and waste of meetings by promoting sustainable practices, such as reusing reusable materials instead of single use items. City of Lethbridge Employees have access to Green Meeting Kits (food and/or beverage kits) and a Green Meeting and Event Guide.

Waste Management Master Plan Completed:

The City of Lethbridge has developed a comprehensive Waste Management Master Plan to guide future waste diversion and prevention efforts. Building on existing programs, the plan introduces new initiatives to enhance waste diversion and create a sustainable, efficient system to protect the environment and community for the next decade.

The plan was presented to City Council on October 24, 2024, through the Governance SPC. The city's first waste master plan, created in 2008, has played a key role in reducing waste and increasing landfill diversion. The engagement process, which began in May 2020, received over 1,800 responses, setting a record for participation in city projects.



WASTE COLLECTION

2024



3,434

tonnes of
Curbside Recycling collected



17,240

tonnes of
Curbside Garbage collected



6,495

tonnes of
Curbside Organics collected



460

Fall Leaf
service requests



238

Demolition bins service requests

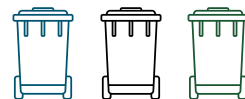
808

Tonnes of recycling hauled to the
Recycling Stations



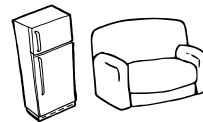
1.89 MILLION

recycling, organics, and garbage carts
collected from Lethbridge households



728

new carts delivered



3,502

Large Item Service
pick-ups



9,283

Service Requests



32,811

of Yard Waste Visits

994

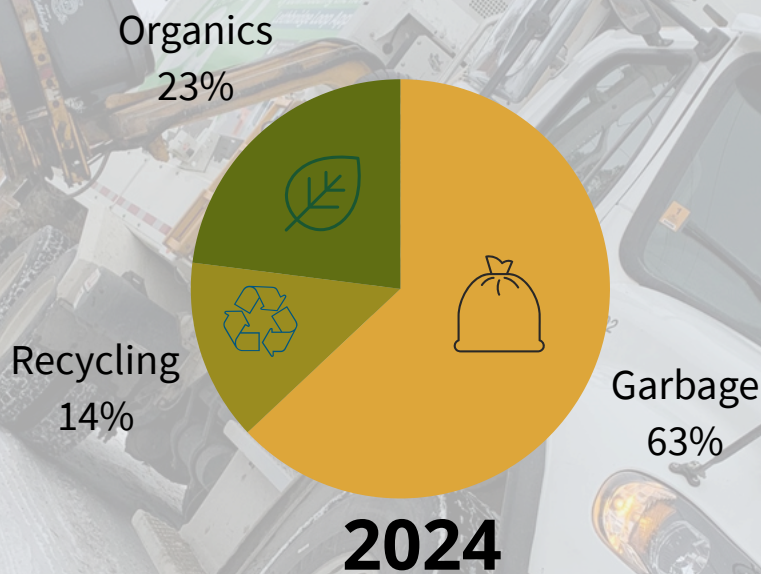
Tonnes of yard waste hauled to the Yard
Waste Sites

WASTE COLLECTION

Services & Programs

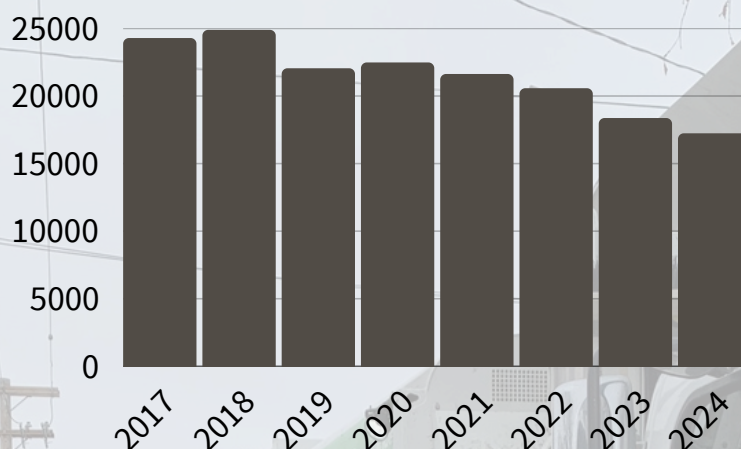
- Residential bi-weekly garbage collection
- Residential bi-weekly recycling collection
- Residential organics collection
- Multi-family recycling collection
- Corporate waste diversion program
- Commercial garbage collection
- Recycling Stations
- Seasonal fall leaf collection
- Seasonal yard waste sites
- Large item service
- Clean community program
- Christmas tree recycling
- Assisted collection program

Waste Collection Material Type Breakdown



Residential Bi-Weekly Garbage Collection

ANNUAL CURBSIDE GARBAGE COLLECTION TONNES



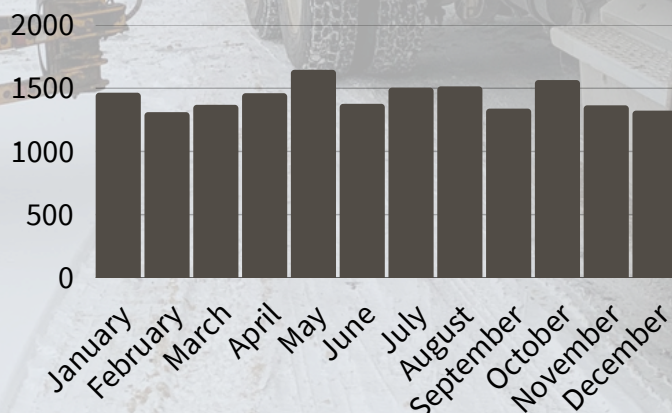
2024 Black cart waste audit results

	Organics	39%
	Garbage	42%
	Recycling	15%
	Product Stewardship	4%

In 2024, there was a 12% drop in total organics found in garbage carts from the previous years (2019-2022)

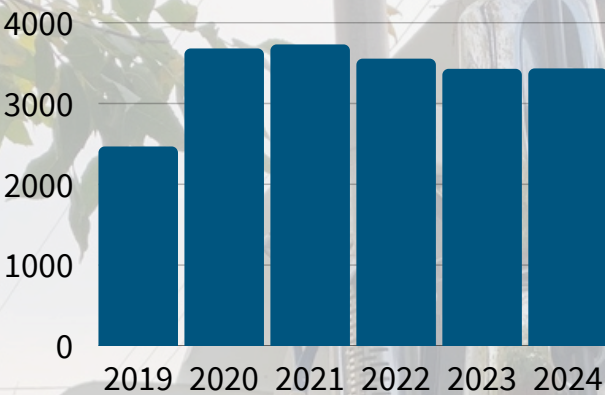
↓ **12%**

2024 MONTHLY CURBSIDE GARBAGE COLLECTION TONNES







Residential Bi-Weekly Recycling Collection

ANNUAL CURBSIDE RECYCLING COLLECTION TONNES



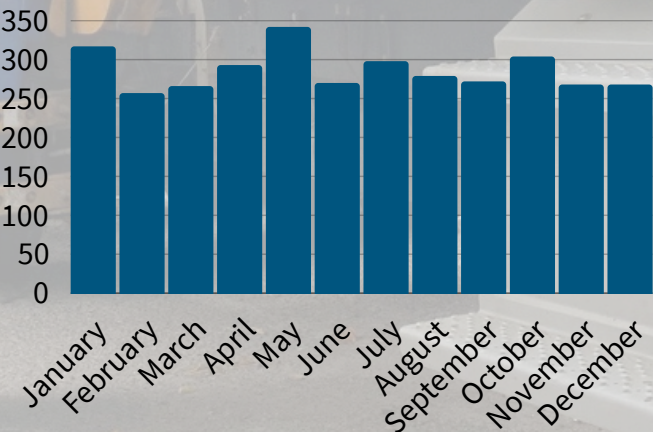
2024 Blue cart waste audit results

	Recycling	89%
	Garbage	6%
	Organics	3%
	Product Stewardship	1%

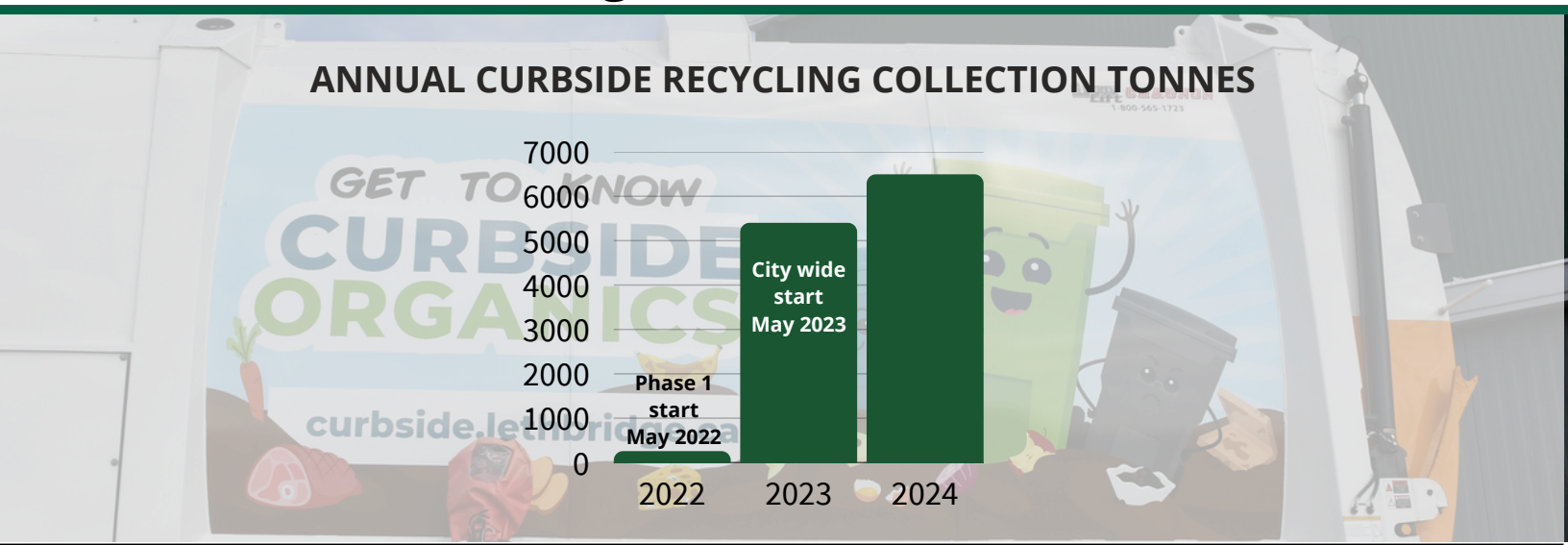
89%

of materials in the
blue carts is
recyclable material





2024 MONTHLY CURBSIDE RECYCLING COLLECTION TONNES



Residential Weekly (Summer) + Biweekly (Winter) Organics Collection

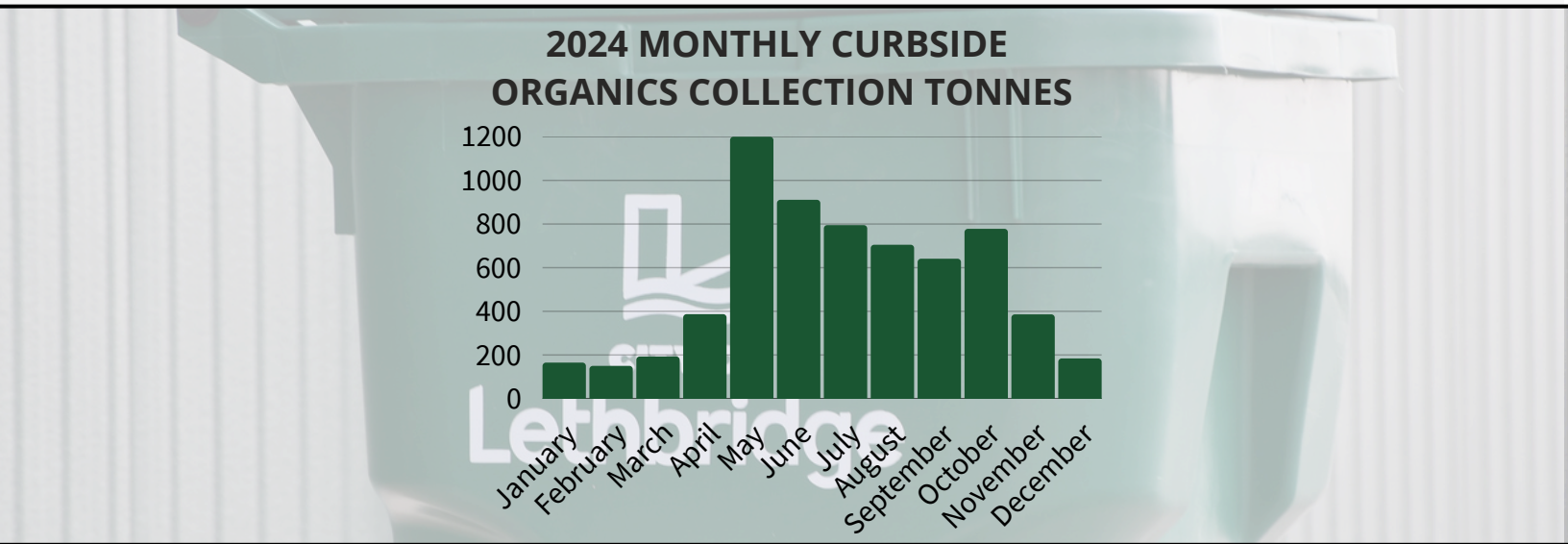


2024 Green cart waste audit results

	Organics	95%
	Recycling	4%
	Garbage	1%
	Product Stewardship	0%

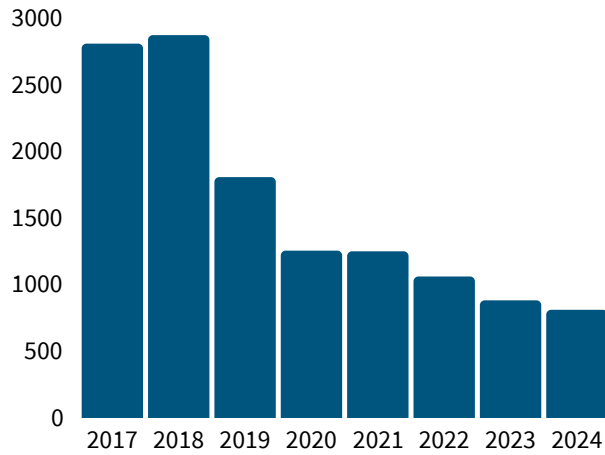
95%

of materials in the
green carts is
compostable
material

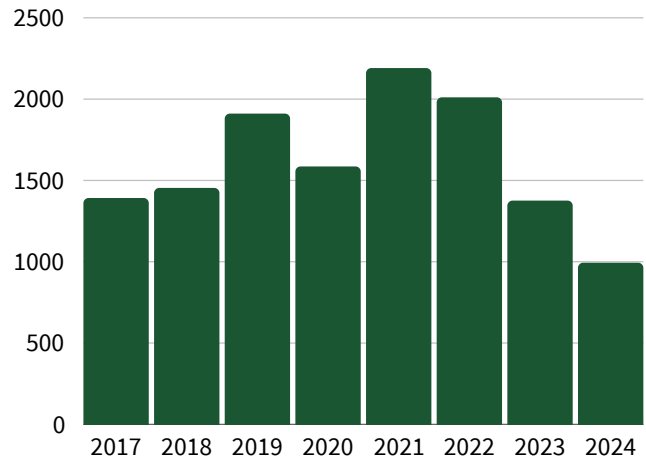


Recycling Station & Yard Waste Drop-Off

RECYCLING STATION TONNAGE



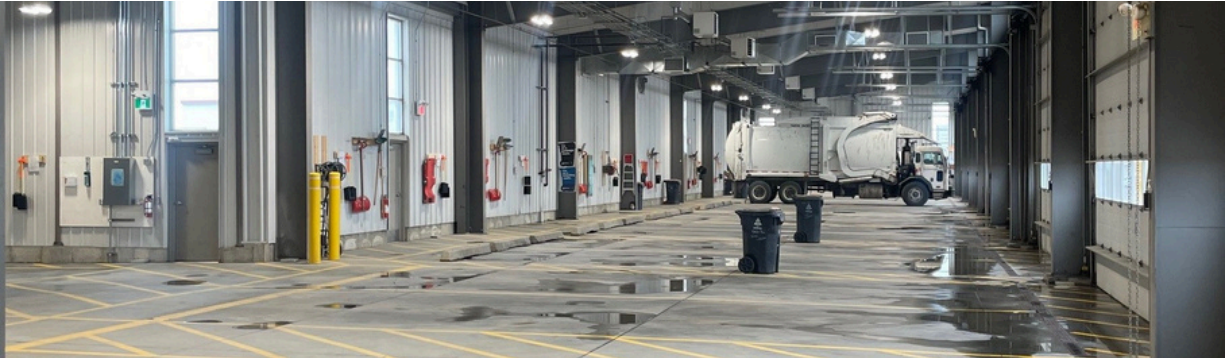
YARD WASTE SITES TONNAGE



Waste Collection 2024 Highlights

Sanitation Garage Expansion:

The sanitation parking garage expansion adds 570m² to the existing building, providing heated parking and storage for 8 waste collection vehicles. This expansion was necessary to accommodate the growing fleet serving residential and business customers. Construction began in 2023 and was completed in early 2024.



Electric Garbage Truck Pilot:

In March/April 2024, the Collections team partnered with Fleet Services to test an electric body/conventional chassis side-load collection vehicle. This pilot provided valuable data to guide future procurement decisions as the department explores sustainable alternatives to conventional fuel vehicles.



Phase 1 Multifamily Organics Roll out:

After the single-residence organics collection rollout, the Waste Collection department began working with multi-residence property managers and condominium boards to introduce communal organics collection. Implementation for properties with fewer than 45 units was completed in 2024, while larger properties are expected to be fully implemented by early 2025.

Waste Collection 2024 Highlights

AI Project - Contamination:

Lethbridge has temporarily suspended the Oops Tagging Program to pilot a partnership with Prairie Robotics (PR), a Canadian Clean-Tech company. This initiative uses PR's advanced hardware and software to automate cart checks on selected collection routes, starting with recycling carts and expanding to organics. When contamination is detected, the system generates a postcard with a photo of the contamination, which is reviewed by staff before being sent to households with targeted educational information on proper waste sorting. The pilot has reduced per-cart audit costs, sent over 1,000 postcards, and proven unobtrusive to collection workers while enhancing safety.



Internalization of the Recycling Stations and Yard Waste Sites:

As of December 2023, the City of Lethbridge began servicing Recycling Station and Yard Waste Site bins with its own roll-off trucks, replacing external contractors. This change has reduced annual operating costs compared to previous per-bin rates. In 2024, the Waste Collection team continued managing these services internally, meeting or exceeding the targeted average weight of 5,000kg for Yard Waste Site bin hauls while keeping costs at or below contractor levels.

Naming and Tracking of Waste Collection Trucks:

The department collaborated with Corporate Communications and local elementary schools to name 15 trucks. These names were then added to the site where residents can track the real-time location of collection vehicles, showing when their waste will be collected. The system received 3,361 views in the first 4 1/2 months.

WASTE PROCESSING

2024



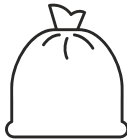
Waste & Recycling Centre received

★★★★+
ratings on Google



The Waste & Recycling Centre
processed

146,523
tonnes of waste



114,591
total tonnes of
garbage



17,203
total tonnes of
recycling



14,728
total tonnes of
organics



33

wind closures (>70km/h)

506,456

litres of leachate
managed



34,061

Free Saturday hauls



The Materials Recovery Facility
processed

9,741

tonnes of recyclables



The Organics Processing Facility
processed

8,893

tonnes of food and yard waste

WASTE PROCESSING

Services & Programs

Waste Processing

- Mixed solid waste landfill disposal
- Industrial soil landfill disposal
- Hydro-vac waste disposal
- Organics Processing Facility
- Materials Recovery Facility
- Construction material diversion
- Landfill gas plant

Hazardous & Special Product Recycling and Safe Disposal

- Electronic waste
- Tires
- Used & cooking oil
- Household hazardous waste
- Paint

Special Disposal Programs

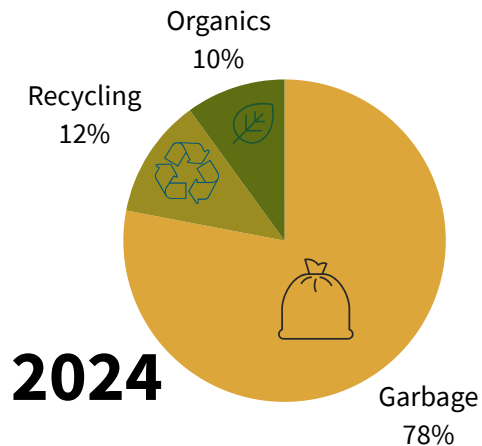
- Free Saturday Subsidy Program
- Coaldale Landfill Subsidy Program
- Lethbridge County Neighbours Disposal Program



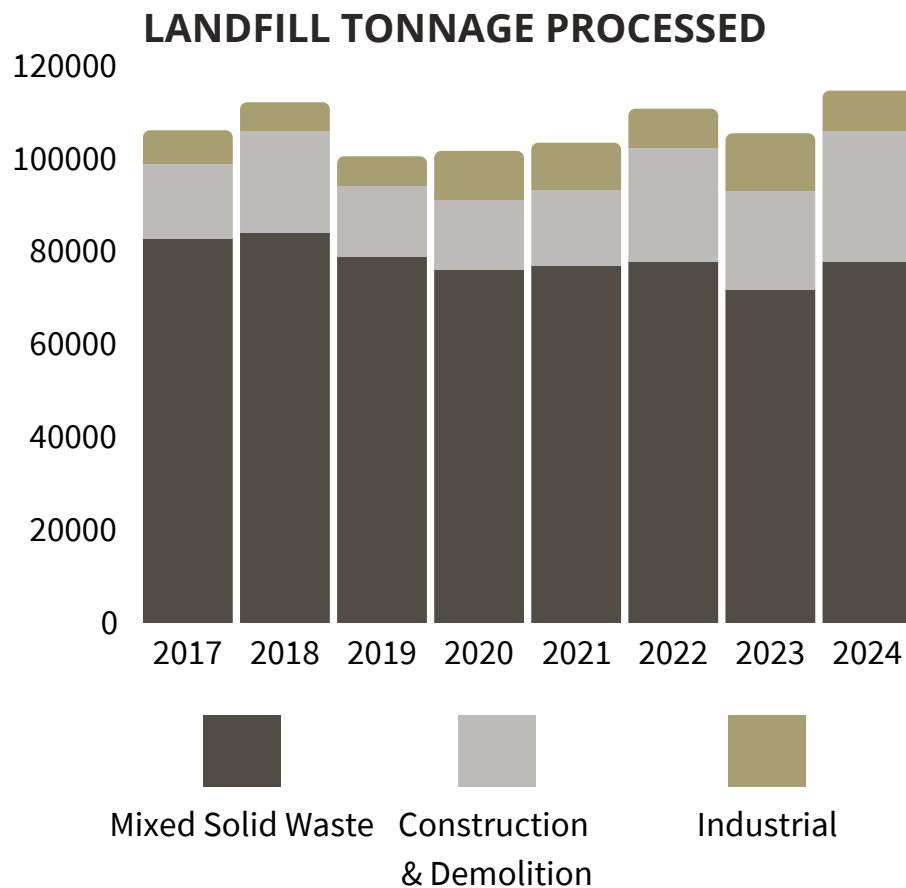
101,651

total hauls to and from the
Waste & Recycling Centre in 2024

Waste Processing Breakdown



Waste & Recycling Centre Landfill



Waste & Recycling Centre Diversion

CONSTRUCTION & PUBLIC DROP-OFF - 2024

Material	Tonnes	Material	Tonnes
Recyclable shingles	2,257	Metal	304
Lumber & pallets	2,550	Glass	190
Concrete	2,836	Electronic waste	70
Drywall	559	Tires	83
Asphalt pavement	565	Mixed recyclables	67
Brick & block	134	Used oil	66
Sand & gravel	193	Household hazardous waste	45
Porcelain & stone	29	Paint	22

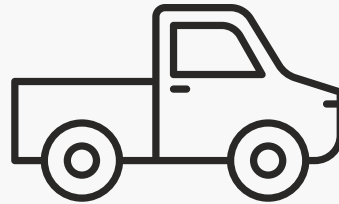
12,892

**Total loads at the
Construction Drop-Off (CDO)**



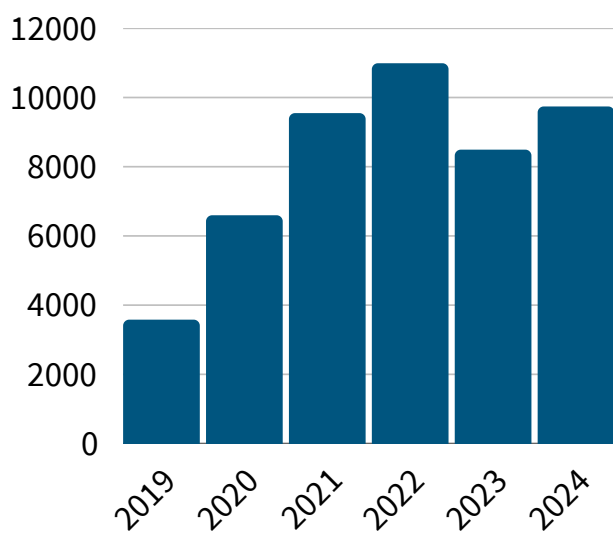
4,082

**Total loads at the
Public Drop-Off (PDO)**

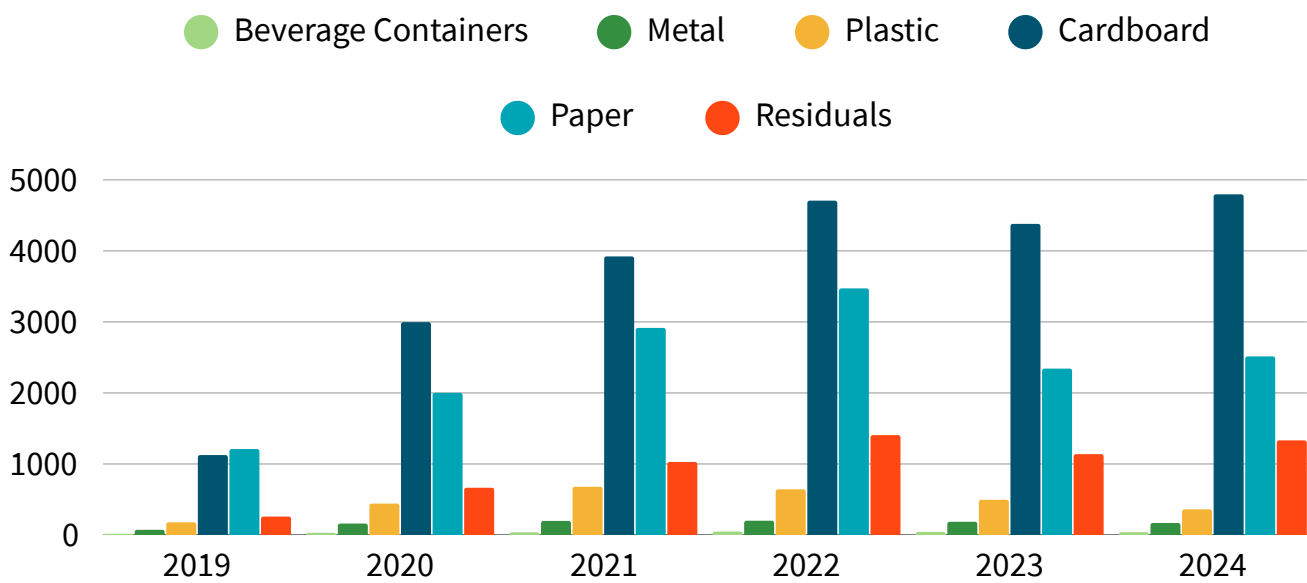


Materials Recovery Facility (MRF)

ANNUAL MRF RECYCLING PROCESSING TONNES

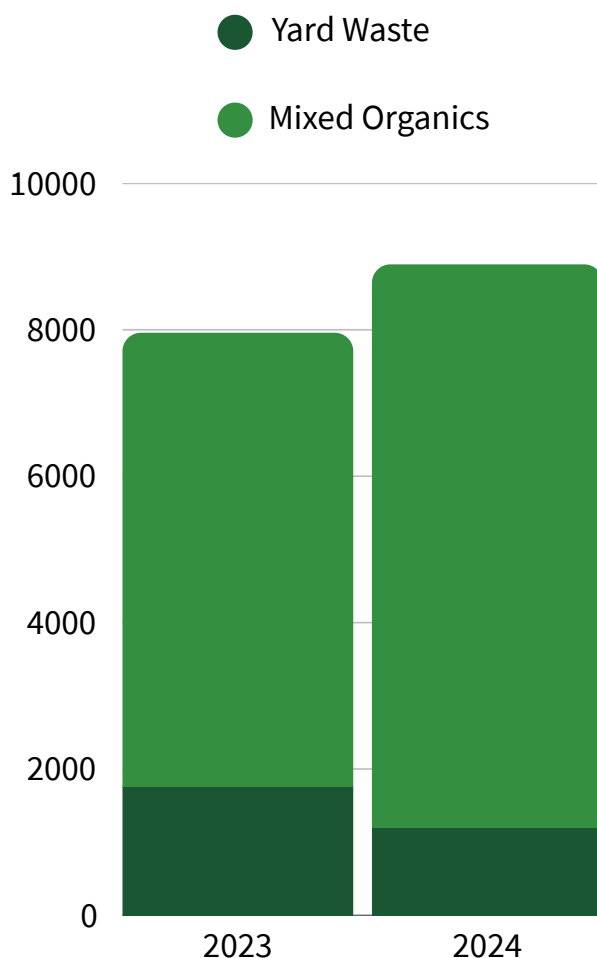


ANNUAL MRF OUTBOUND MATERIAL TONNES



Organics Processing Facility (OPF)

ANNUAL OPF PROCESSING TONNES



COMPOST SOLD

In the first two years of operation, the OPF has sold over 5,800 tonnes of compost. About 50 tonnes of compost has been given away to residents for free at community events.



Waste Processing

2024 Highlights

New ICS Cell Under Construction:

The current industrial contaminated soil (ICS) cell is nearing capacity. ICS is non-hazardous waste with elevated levels of hydrocarbons and other contaminants. To address this, a new ICS cell began design and construction in 2024. The new cell will accommodate larger volumes of contaminated soil with an engineered liner and advanced leachate control systems. With a capacity of 180,000m³, it will support over a decade of waste acceptance and enable the department to bid on large-volume contracts with environmental reclamation clients.

Marketing of Coulee Compost:

In its first two years, the OPF has navigated the seasonality of compost markets and secured bulk sales of its finished compost product, also known as Coulee Compost, to the agricultural and landscaping industries. Notably, the City of Lethbridge has successfully partnered with Scotts Canada to include Coulee Compost as an ingredient in their premium products. Coulee Compost is also available for purchase at the WRC and distributed at community events.

Carlson LandfillGrade GPS:

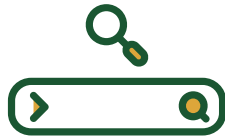
The Carlson LandfillGrade GPS system was installed on the landfill's processing equipment in 2024. LandfillGrade enhances compaction efficiency, allowing machines to achieve optimal density in less time, saving both time and resources. Site supervisors and operators can easily track compaction in real-time with color mapping using pass counts or vertical deflection. Design models can be uploaded into the system, simplifying overall operations for the site. Carlson's complete landfill solution includes Carlson Command, which has allowed us to analyze productivity and generate live reports.

WRC - 2 Electric Site Vehicles:

The MCCAC and iZEZ grant/rebate programs were used to replace two site vehicles with electric counterparts: a Chevy Volt and a Polaris Ranger Kinetic EV. These were among the first EVs introduced into the city fleet and have been in continuous use. With lower operating costs, these EVs are expected to have a lower total cost over their lifespan.

EDUCATION & OUTREACH

2024



35,684

WASTE WIZARD
Searches



460

Fall leaf
service requests



217,469

Total website visits



74

Calls responded to



31,834

Cumulative collection
schedule reminders sent



1,251

Christmas tree pick-ups



3,991

Participants in school tours,
engagements, etc

Services & Programs:

- Waste prevention programs
- Diversion education activities
- Waste Wizard
- Landfill tours
- Community surveys
- What We Heard reports
- Outreach events
- Christmas tree diversion program
- Fall leaf collection communication
- Oops tagging
- Customer service

Education & Outreach

2024 Highlights

Community Based Social Marketing Campaign for Food Waste:

The Community-Based Social Marketing campaign for food waste uses creative tools and tactics to encourage more food waste to be placed in residential green carts. The goal is to engage the public, increase food waste composting, and reduce the amount of organic materials sent to the landfill.



The campaign included:

- A media event and news release celebrating one year of green carts, sharing first-year statistics, thanking residents, and encouraging more food waste diversion.
- Influencer marketing with Creatorade: Four videos and posts by local influencer Erin Lucas over an 8-week period.
- A Food Waste ad campaign, using personified organics like coffee filters and apple cores with messages such as "Food waste is not garbage!" The ads direct people to the City's Composting and Green Carts webpage and were shared on social media, in the Lethbridge Herald, and in the Recreation and Culture Guide.
- The Lethbridge Loop campaign message, congratulating the community for diverting over 8.5 million kg of organic waste since June 2023, and encouraging more diversion through the green bin.

Education & Outreach

2024 Highlights

Environment Week:

Canadian Environment Week takes place annually in June. In 2024, the Waste & Environment (W&E) department collaborated with Communications on a media campaign encouraging residents to reduce textile waste, conserve water, and learn about environmentalism in Lethbridge. W&E also partnered with Environment Lethbridge, the Helen Schuler Nature Centre, and Health & Wellness for cross-promotions, including events like Nature Play Fest, Bike to Work Day, and nature/wildflower walks. Internal events included a free bike check-up at the Transit building and textile donation bins at City Hall. The Household Hazardous Waste (HHW) and Electronics Recycling event, along with a Water Conservation Information Session, also coincided with Environment Week. Over 950 vehicles attended the HHW and Electronics Recycling event, diverting over 22,600 kg from the landfill.

Blue Sky Centre Open to the Public:

The Blue Sky Centre opened to the public every Friday from 1 p.m. to 4 p.m. starting May 3, 2024. It features interpretive displays and activities on topics like waste reduction, landfill operations, recycling, and organics processing. A monthly ad for the centre is published in the City of Lethbridge's Recreation and Culture Guide, with 2-7 visitors most Fridays. The centre also hosts school groups during the spring and fall Too Good to Waste tour seasons.

Waste Reduction Week:

During Waste Reduction Week in October, the City of Lethbridge hosted a series of events to promote waste reduction. On Saturday, October 19, the Household Hazardous Waste & Electronics Recycling Roundup took place at Park Place Mall, allowing residents to recycle old electronics and hazardous waste. On Tuesday, October 22, Environment Lethbridge hosted a free screening of the documentary Plastic People at the Movie Mill, exploring the impact of plastic and microplastics on human health. On Thursday, October 24, the Compost & Mulch Giveaway event at the VisitLethbridge.com Arena offered residents free compost and mulch for their gardening needs. The City's social media also shared tips on waste reduction throughout the week.

BUSINESS WASTE DIVERSION

2024



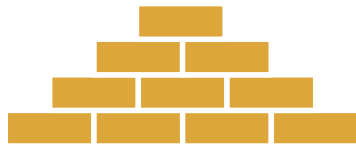
4,407

loads inspected at the
Waste & Recycling Centre



160

1:1 waste diversion interactions with
stakeholders



5,147

tonnes of
construction and demolition material
diverted from the landfill



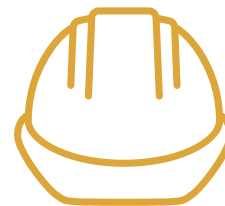
207

tonnes of asphalt shingles repurposed
for a pilot gravel road dust suppression
application



25%

decrease of ICI kilograms per capita from
the 2013 baseline level



46%

decrease of C&D kilograms per capita
from the 2013 baseline level

Services & Programs:

- Industrial, commercial and institutional (ICI) and construction & demolition (C&D) diversion programs focused on diverting waste from the landfill
- Provide education and outreach to support the business community
- Mandatory recycling and organics programs
- Designated material and inspection program design and monitoring

BUSINESS WASTE DIVERSION

2024 Highlights

In 2024, the ICI and C&D Waste Diversion Strategy entered its second year. Waste and Environmental Services (W&E) took significant steps to engage the non-residential community, ensuring businesses were well-informed about the new regulations and had the necessary support for compliance. Throughout the summer, assistants visited 133 businesses and organizations, gathering insights on their waste diversion practices and educating them on the City's mandatory recycling and organics programs.

The second year of the self-compliance annual report, which the non-residential sector is required to submit by January 31, 2025, is underway. To ensure businesses are well-informed about the mandatory organics and recycling programs, a comprehensive communications and engagement strategy was launched in November. This effort included public service announcements, social media promotions, internal and external emails, digital billboards, newspaper advertisements, and radio campaigns. The initiative proved successful, with 629 reports completed by the ICI community.

W&E participated in the Community Conversation event, setting up a booth exclusively dedicated to non-residential waste diversion programs. Held at the visitlethbridge.com arena, these events provided a valuable opportunity for direct public engagement.



In the early months of 2024, the Waste and Recycling Centre experienced a decrease in material intake. A significant portion of the tonnage was being sent to a facility that accepted waste, processed it into a waste-to-energy product, and then shipped it to a waste-to-energy facility. However, the facility faced a fire in 2024, leading to its shutdown in October. As a result, much of the material that had been diverted for waste-to-energy processing was ultimately disposed of in the Lethbridge landfill due to the closure. The materials accepted by the facility included construction and demolition (C&D) waste, MRF (Materials Recovery Facility) recycling material, and general solid waste.

BUSINESS WASTE DIVERSION

2024 Highlights



On the innovation and construction materials recycling front, W&E continued its project to repurpose tear-off asphalt shingles (RAS) as a dust suppressant material for gravel roads. In 2024, 207 tonnes of pulverized shingles were applied to 900 m of gravel road located at 10 St West, in partnership with the City of Lethbridge's Transportation Operations Department. Additionally, the Waste and Recycling Centre (WRC) used 520 tonnes of shingles as a base for the new road to Cell 5B.

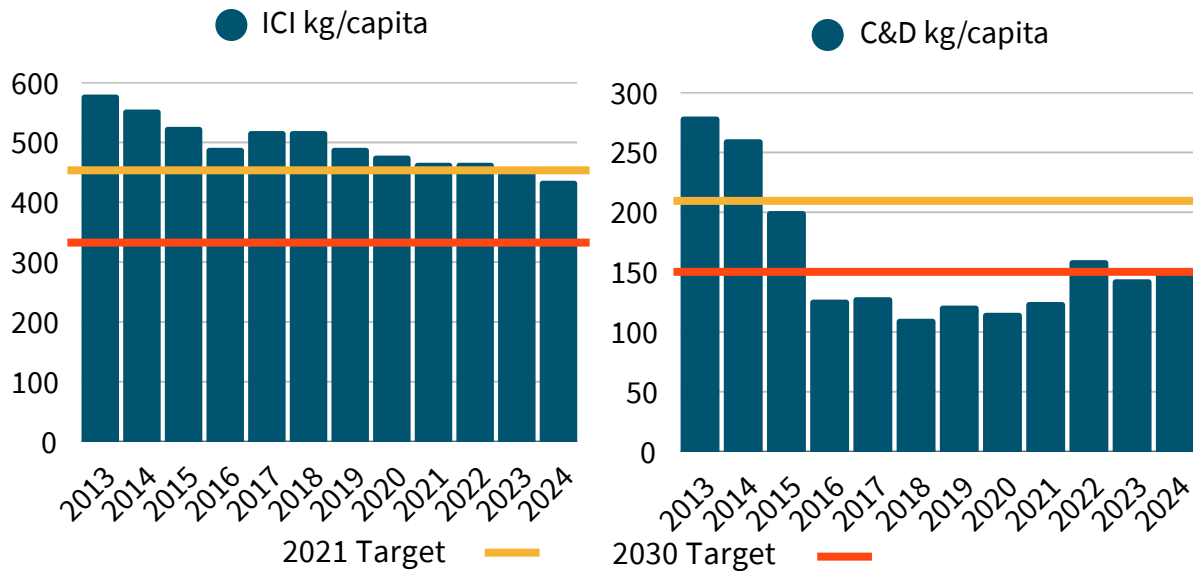
The WRC accepted 3,200 tonnes of white wood, some of the shredded white wood was sold as a finished landscaping material. In total, 1,813 tonnes of white wood was sold to end users for various purposes, while the 615 tonnes was processed into compost.

The WRC also continued to accept clean, unpainted drywall as a divertible material, which was shipped to a local farm. The drywall is repurposed as cattle bedding material, which is then composted with manure and used as a nutrient-rich fertilizer.

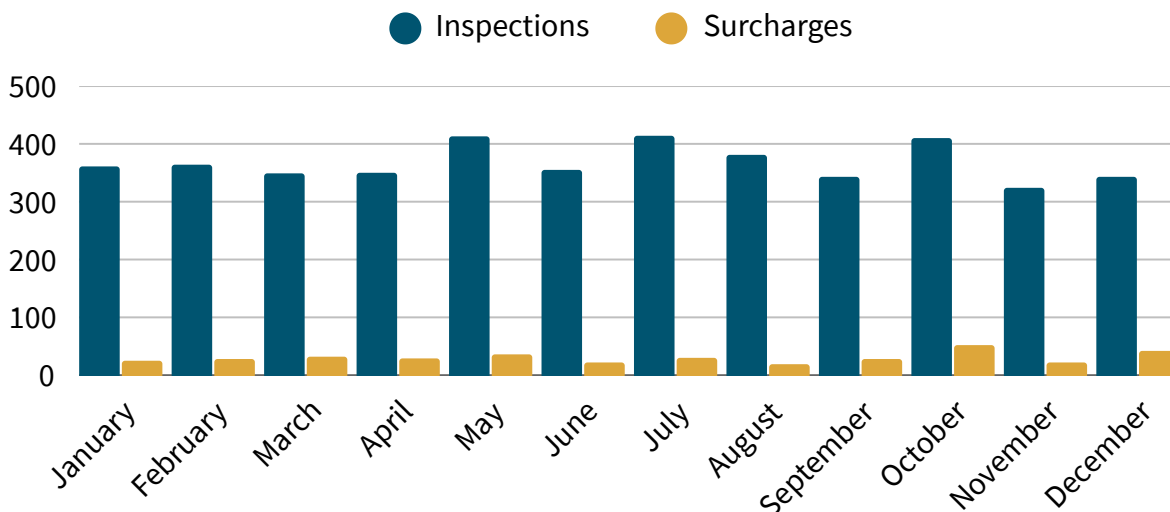
In 2024, 3,009 tonnes of concrete was crushed, with one-third of the processed material used in the road construction at the WRC. The remaining crushed material will be used as a base for future projects around the Waste and Recycling Centre.

Business Sector Waste Generation

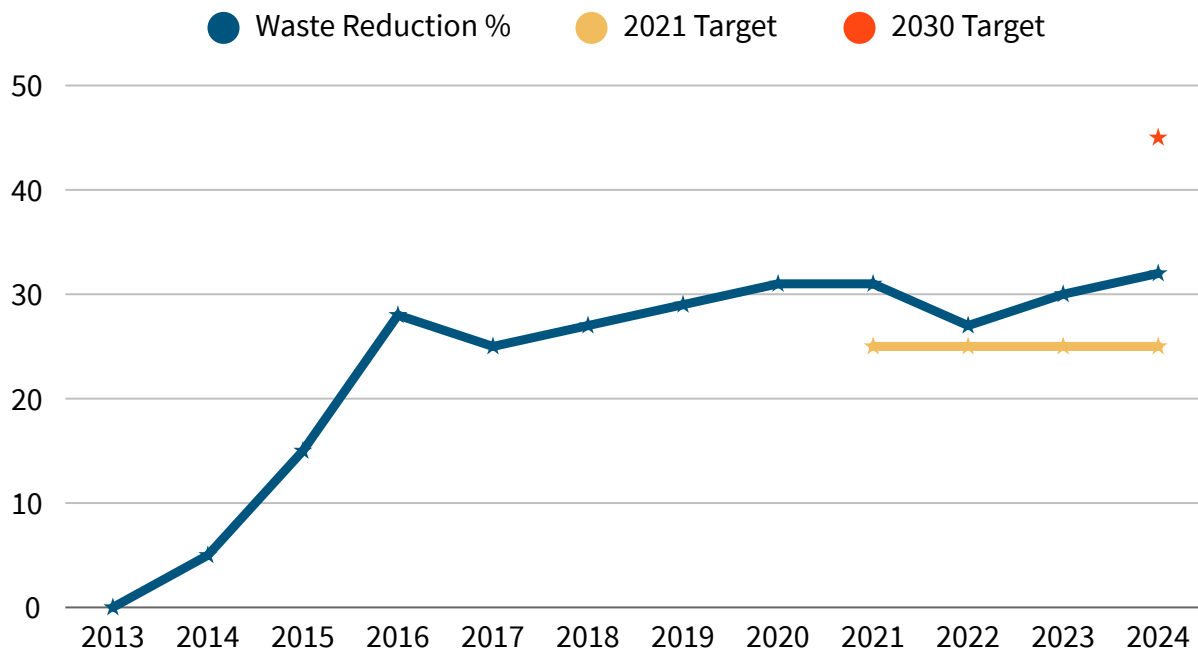
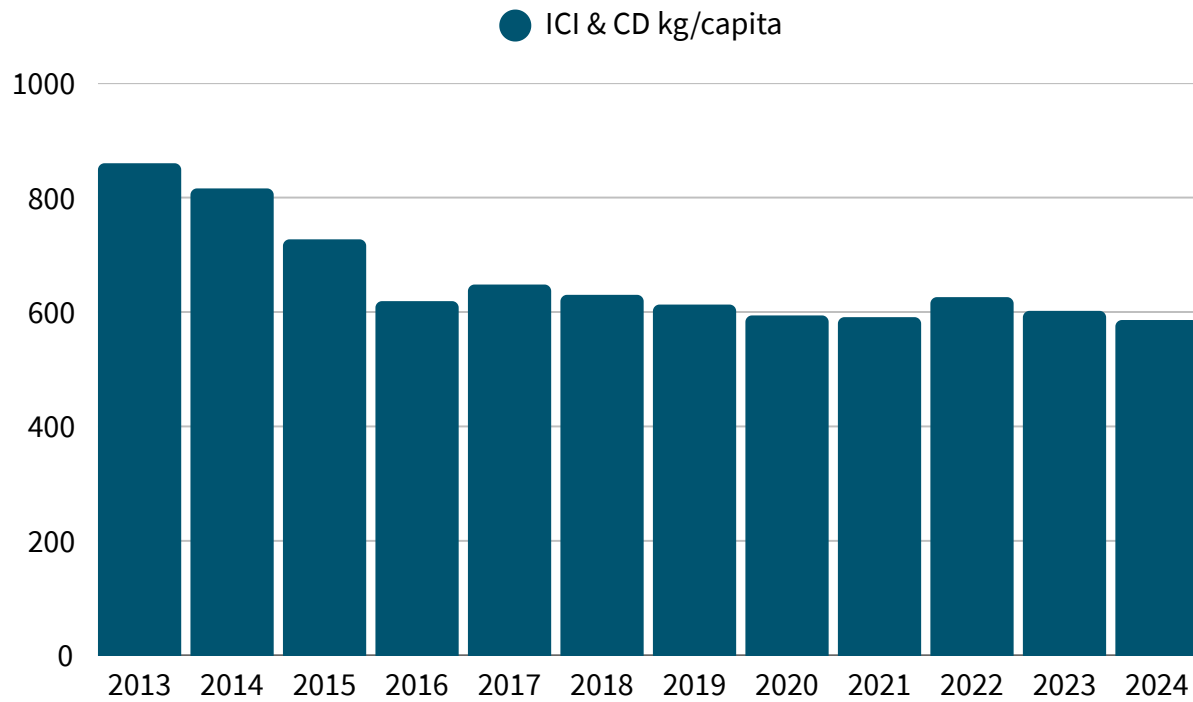
Overall, 47,061 tonnes and 16,122 tonnes of garbage were received at the landfill during 2024 from Lethbridge ICI and C&D sources, respectively. In 2024, ICI Waste was 436 kg/capita, while C&D was 150 kg/capita. In 2024 waste shingles tonnage decreased 99% from 2013 baseline levels.



A total of 4,407 loads were inspected for designated materials at the WRC in 2024 for an average of 367 inspections per month. The number of loads over the acceptable tolerance (25% designated materials present in the load) was 365 for a rate of 8% surcharged per month.



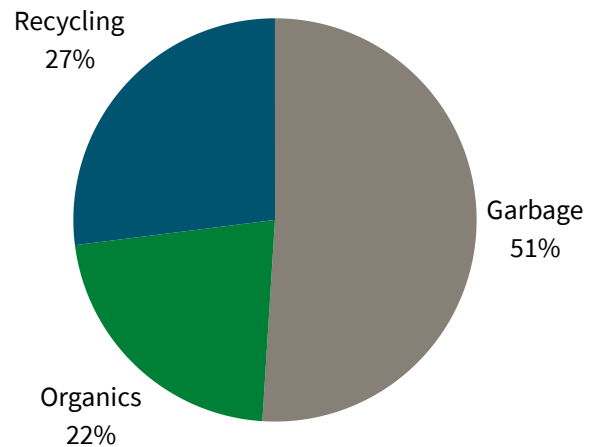
Business Waste Generation



Business Waste Generation

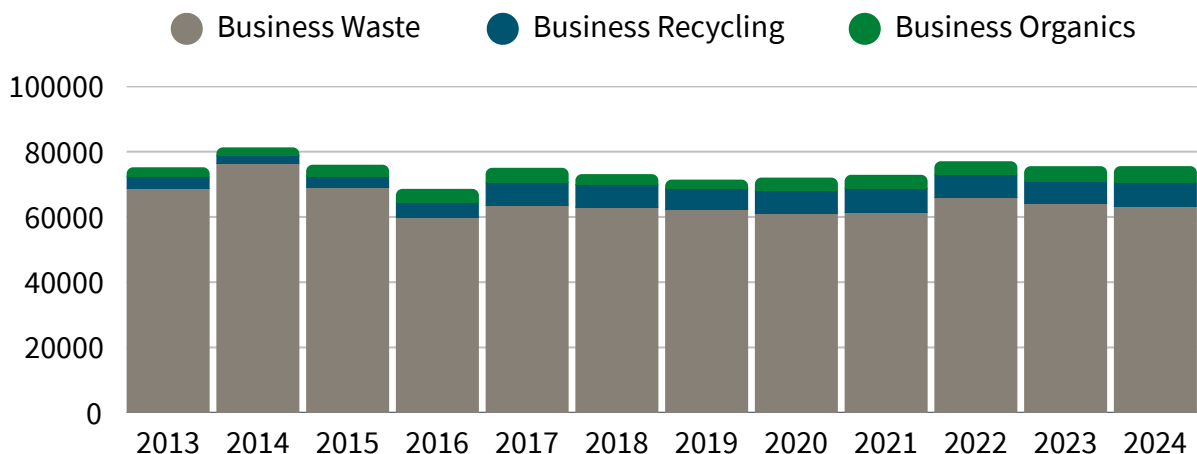
Waste from the C&D and ICI sectors combined is 30% below the 2013 baseline.

More than 7,293 tonnes of recyclables and 5,099 tonnes of organics were received in 2024, which is similar to business diversion in previous years. This demonstrates an endurance of the businesses' behavior change throughout the last years. It should be noted that this is only a portion of the potential diversion found in the community as there are several outlets for diversion that are not received at the WRC. The recent updates in the Waste Bylaw requiring all businesses to provide access for their staff and visitors to recycling and organics containers should contribute to further reduction of garbage and increased diversion from businesses in the coming years.



**2024 ICI
Diversion Potential**

The graph below illustrates the tonnes of waste received at the WRC in 2024 as garbage, recycling and organics. As we can easily note, landfilled waste represented the majority of the volume received. On the other hand, audits completed in 2024 on commercial routes (graph above) indicated that 27% of what is sent to be landfilled by the non-residential sector as garbage could be diverted to recycling and 22% is organics. This indicates that from the 63,183 tonnes of commercial waste landfilled in 2024, more than 30,000 tonnes could be potentially diverted. Those numbers heavily contribute to the need for the continuation of the City's efforts in promoting non-residential waste diversion programs.



ENVIRONMENT

2024



SUSTAINABILITY

Projects and programs within this focus area address multiple environmental sustainability aspects and thus are not specific to one focus area.



ENERGY

Energy projects and programs focus on energy conservation, fuel efficiency, and alternative energy technologies.

Goal: Reduce corporate fuel and energy consumption and increase renewable energy generation.



AIR

Projects and programs within this focus area cover air quality and greenhouse gas (GHG) emissions.

Goal: Reduce corporate greenhouse gas emissions by 40% from 2018 baseline levels.



LAND

Projects and programs within this area cover biodiversity, land stewardship, and contaminated sites.

Goal: Increase biodiversity and environmental stewardship while sustaining, restoring, and enhancing the natural ecosystem.



WATER

Water projects focus on how the City uses its water resources efficiently and protects the local watershed.

Goal: Reduce corporate water consumption and protect the local watershed.



WASTE

Waste projects and programs focus on corporate waste diversion and the City's adherence to its own Business Waste Diversion Strategy.

Goal: Reduce waste generation and increase waste diversion.

Services & Programs:

- Environment reports database
- Environmental property searches
- Corporate organics & recycling
- Partners for Climate Protection
- Compliance/due diligence monitoring
- Energy acquisition
- Policy implementation support
- Implementation of environmental master plans and policies
- Environmental program corporate support

Lethbridge Climate Projections

Climate data indicates that Lethbridge is experiencing an increase in mean annual temperature, fewer very cold days, and more very hot days per annum than in the past. These trends will continue into the future; for example, the number of days hotter than 30°C is estimated to increase by 16 days by 2050.¹ The following extreme weather and climate events occurred in 2024:



January

Extreme cold in Alberta straining provincial electrical grid



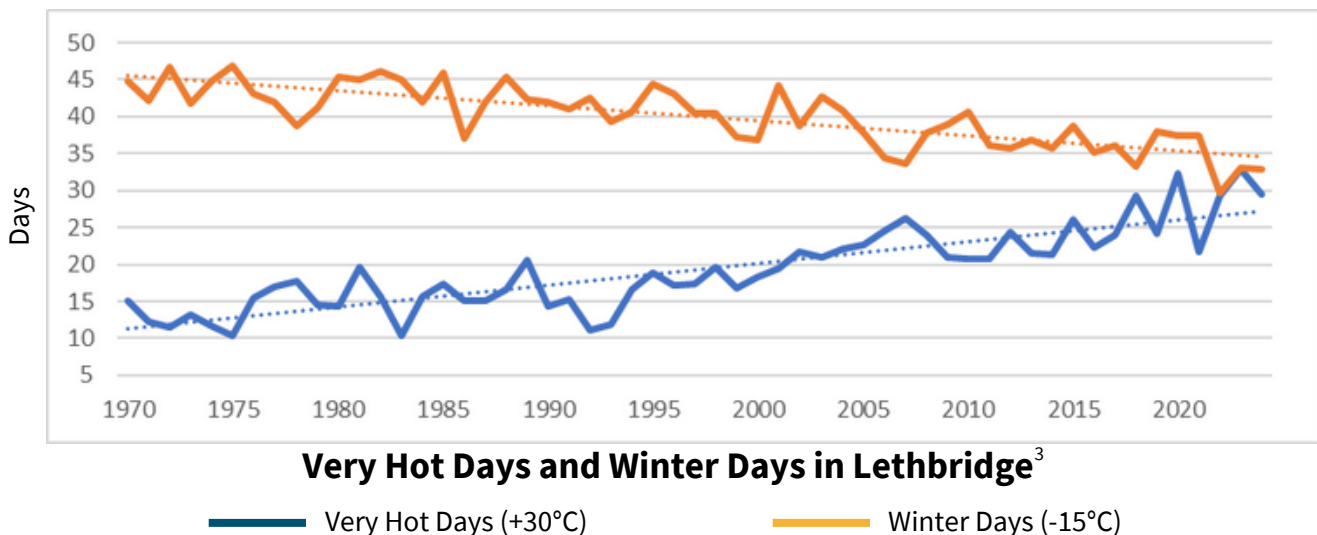
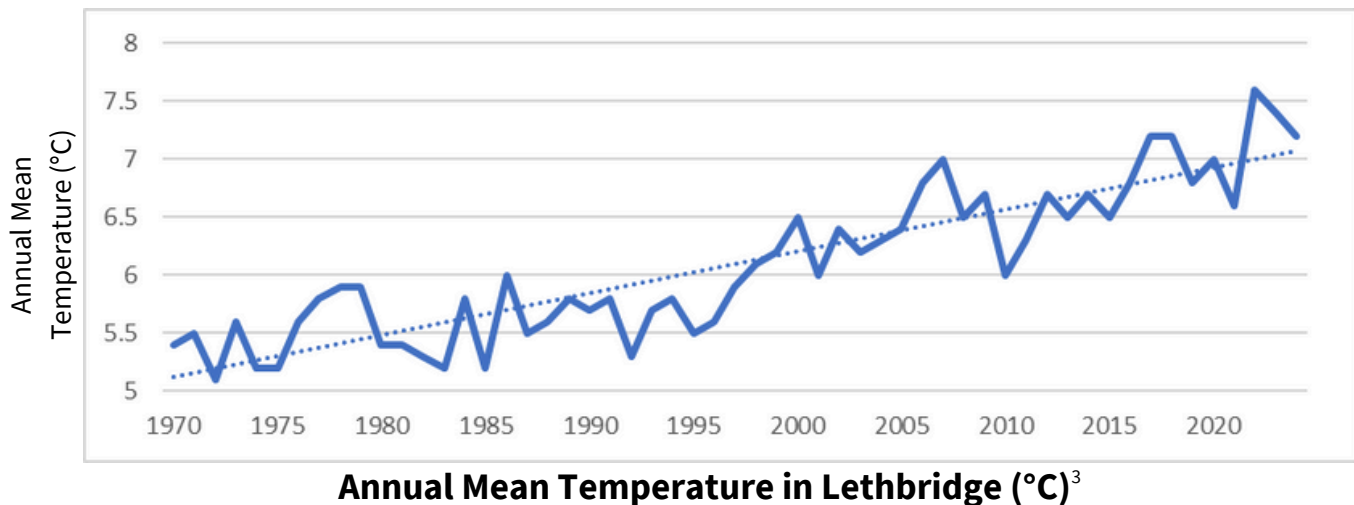
April - December

Drought leads to water conservation and water sharing agreements



July

Heat warnings issued for Lethbridge and area



¹ <https://albertaclimaterecords.com/#>

² City of Lethbridge Climate Change Vulnerability and Risk Assessment

³ <https://climateatlas.ca/>



Sustainability

MDP Policies

151

to

175

The impacts of climate change are becoming increasingly evident in our community. Climate change is a risk multiplier, so it increases the intensity of extreme weather events including precipitation, high winds, and very hot days. These extreme weather events can increase fire risks, increase property and infrastructure damage, and intensify public health challenges. The Waste & Environment group has a focus on climate mitigation, climate adaptation, and climate resilience, as illustrated below:

MITIGATION

Address and minimize the cause of climate change



Electrification



Waste Reduction



Renewable Energy



Green Infrastructure



Water and Energy
Conservation



Disaster
Preparedness



Extreme Weather
Readiness



Natural Area Preservation
and Restoration

Helen Schuler Nature Centre Highlight



69

City staff participated in professional development related to climate-literacy



45+

residents participated in the Janes Ride and other programs, exploring water conservation and water resiliency planning



75

students participated in shoreline clean-ups



100+

students participated a schoolyard naturalization project



602

students



21

teachers



60

parents

attended monthly climate-informed ecosystem education programs exploring water, conservation, natural resources, and consumption



\$488,900

environmental
grants awarded

Competitive grant funding from federal and provincial governments and other sources supports an assortment of corporate projects and programs. A number of different City departments - Waste & Environment; Fire and Emergency Services; and Water, Wastewater and Stormwater - were awarded competitive grants in 2024 to further environmental initiatives throughout the organization and the community.



CLIMATE ADAPTATION STRATEGY



On July 9, 2024 City Council adopted the City of Lethbridge Climate Adaptation Strategy and Action Plan (CASAP). The CASAP identifies ways we can better weatherproof our assets, services, and environment for extreme weather and climate change by outlining priority actions for the City of Lethbridge to consider implementing over the next 10 years (2024-2034). A progress update is provided below.



14

actions not started



15

actions in progress



2

actions ongoing



2

actions complete

Eight Themes

- 1** **Enabling Initiatives**
- 2** **City Emergency Preparedness Planning**
- 3** **Healthy, Safe, and Prepared Communities**
- 4** **Protecting Critical Infrastructure**
- 5** **Resilient Design**
- 6** **Water Stewardship**
- 7** **Transitioning Landscapes**
- 8** **Protecting and Enhancing Nature**



WATER
CONSERVATION
PLAN &
STRATEGY
2024

Climate Adaptation Project Highlight

Action 6-1 of the Climate Adaptation Strategy and Action Plan was completed in 2024 with the development of a Water Conservation Plan and Strategy (WCP), including an update to the Water Rationing Action Plan (WRAP). The WCP investigates long-term behavioural changes in water usage and proactively addresses concerns of water scarcity and drought. Drought is one of the top climate risks to Lethbridge, and the WCP and WRAP are great examples of how the City of Lethbridge is advancing climate adaptation in the community.



Energy

28

151

152

153

169

174

For corporate facilities and assets only.



267,729
total natural gas consumption
in 2018 (GJ)

17%**313,490**

total natural gas consumption
in 2024 (GJ)

From 2023
↑

**62,345,016**

total electricity consumption
in 2018 (kWh)

5%**65,560,145**

total electricity consumption
in 2024 (kWh)

From 2023
↓



3,564,716
total fuel consumption
in 2018 (litres)

8%**3,285,489**

total fuel consumption
in 2024 (litres)

From 2023
↑

Change since 2018

Compared to the 2018 baseline, there has been an increase in corporate facility energy consumption. These increases can be attributed to many factors including the addition of City-owned facilities since 2018. For example, the baseline values do not include facilities such as the Material Recovery Facility, the Airport, Fire Hall #5, etc. While electricity consumption has increased 5% from the baseline, usage in 2024 was less than 2023. Energy efficiency and renewable energy projects such as the solar carport in Civic Commons help reduce corporate electricity usage. Natural gas usage has increased by 17% since the baseline year and also saw an increase between 2023 and 2024, which could be due to colder weather. Although there has been an overall decrease of fuel usage by the City compared to the 2018 baseline, fuel consumption increased between 2023 and 2024. The increase in fuel consumption compared to the previous year is mainly due to increased usage of heavy-duty vehicles.

Energy Efficiency Projects

Several energy efficiency projects have been completed since 2020 based on energy audit recommendations, and as part of regular life cycle planning. Notable accomplishments in 2024 are as follows:

LED lighting retrofits were completed at:



Police HQ



Fritz Sick Centre



Galt Museum & Archives



Labor Club Ice Centre



Lethbridge Public Library

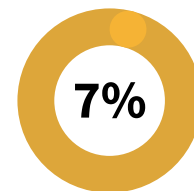


Nicholas Sheran Ice Centre



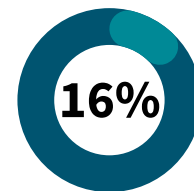
Nicholas Sheran Pool

17 Audited Facilities



From 2023
↓

Energy Reduction
Since 2018 (ekWh/m²)



From 2023
↑

Water Reduction
Since 2018 (m³/year)



Air

MDP Policies

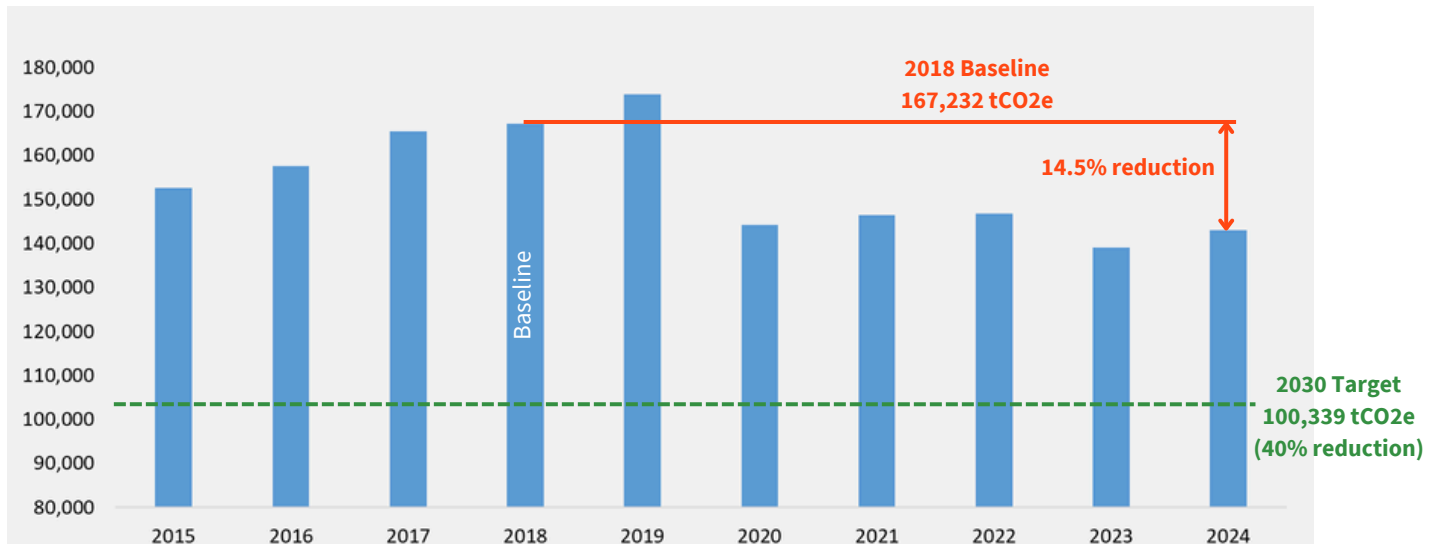
161

169

171

174

170



Corporate Greenhouse Gas Emissions (tCO2e)

Using the Partners for Climate Protection (PCP) methodology

There has been a 14.5% reduction in corporate greenhouse gas emissions compared to the 2018 baseline. The emissions increase from 2023 to 2024 is primarily driven by a 17% rise in natural gas emissions from buildings. Diesel emissions from the fleet also increased by 9%, mainly due to increased usage of heavy-duty vehicles. Over the past 5 years, the City of Lethbridge has maintained a reduction of around 12%-16% compared to the baseline year with no significant decrease in emissions since 2020.

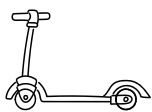
Alberta fully phased out coal-fired electricity generation in June 2024, which has a positive impact on provincial and local greenhouse gas emissions. Increased residential and business waste diversion (recycling and organics), the landfill gas capture and flaring system at the Waste & Recycling Centre, and energy efficiency improvements at City facilities have contributed to the City's emission reductions.

Alternative Transportation



1,400

meters of protected cycling infrastructure installed since 2023



107,834

kilometers of micro-mobility usage in 2024

Corporate Fleet Emissions



8,499

tCO2e vehicle emissions from corporate fleet



16%

decrease from 2018 (baseline) vehicle emissions



Land

64

65

66

67

76

113

115

156

159

161

163

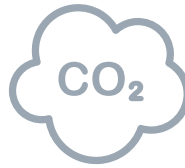
164

170



274

hectres of parkland
grazed by goats



12,915

tonnes of carbon
stored by public trees⁵
and



14

million gallons of
rainwater intercepted
by public trees⁵

8

tonnes of pollution removed from
environment by public trees⁵



151

privately owned trees
registered

As part of the Helen Schuler Nature Centre 1000 trees initiative, 151 privately owned trees on residential property were registered by the end of 2024. The registry was developed to act as a historical record to document the human stories behind why certain trees were selected and the meaning they hold for people in our community. It will also assist Urban Forestry in climate resiliency planning and understanding the condition and biodiversity of the urban forest.

80

cottonwoods planted
in River Valley



In 2024, the Urban Forestry team planted 80 cottonwoods in Indian Battle Park with the help of 45 volunteers. Trees had >85% survival rate in the first season, and all materials were donated. More opportunities to get involved in cottonwood regeneration is expected in 2025!



⁵ based on 2024 iTree analysis on the public tree inventory



Land

64

65

66

67

76

113

115

156

159

161

163

164

170



244

**boulevard trees
planted in 2024**

244 trees were planted on boulevards throughout Lethbridge in 2024. As noted in the graphs below, we continue to diversify our urban forest - and it's showing! The proportion of our tree canopy represented by ash trees is 21% (down from 23% in 2019 and down from over 30% in the early 2000s)! A diverse tree canopy is critical to building resilience to climate change and ecoregion shift.

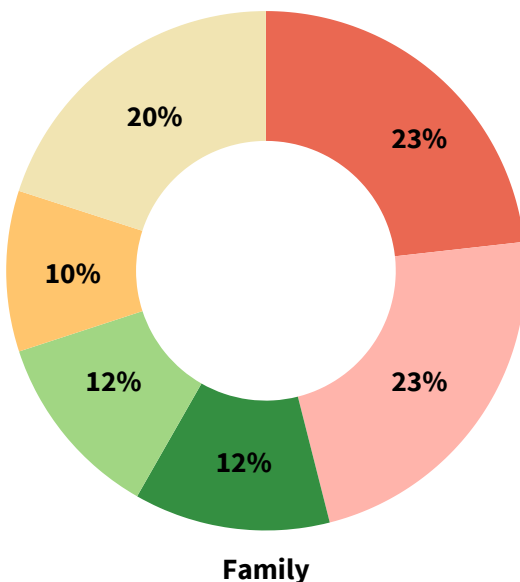
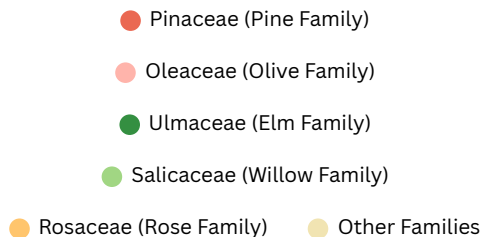


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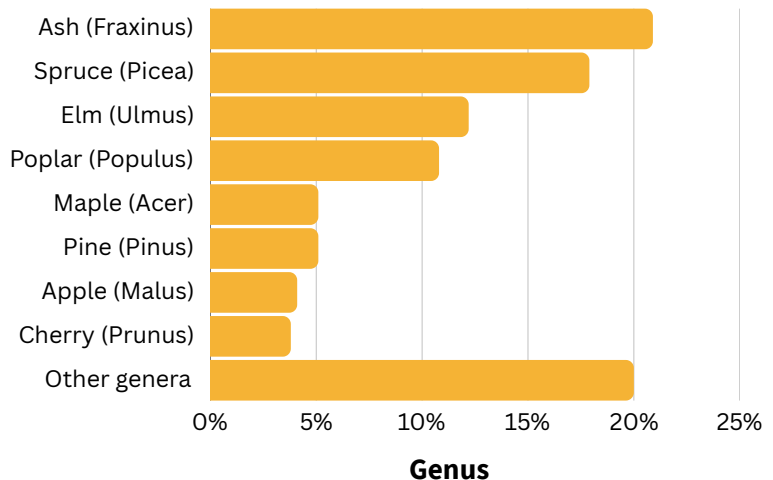
**public trees
with Dutch Elm
Disease**

In 2024, the City's Urban Forestry team completed **5,696 Dutch Elm Disease inspections** on public trees and **no infected trees were found**. The Municipal Arboreal Pest Inspectors added 10,893 private elm and ash trees to the inventory in 2024 bringing the total inventory in Lethbridge to over 32,000 trees! This will serve as a very important tool to continue to defend Lethbridge's urban forest from invasive Dutch Elm Disease and Emerald Ash Borer.

Santamour's Rule: Tree Diversity



Santamour's Rule is often referred to as the 10-20-30 rule or the 10% rule in the urban forestry vernacular. It is a guideline to diversify the urban tree population to reduce the risk of substantial tree loss due to disease or pests. Namely, the tree population should include no more than 10% of any one species, 20% of any one genus, or 30% of any family. The tree composition ratios for 2023 are illustrated. Since 2018, there have been positive steps toward urban forest diversity.



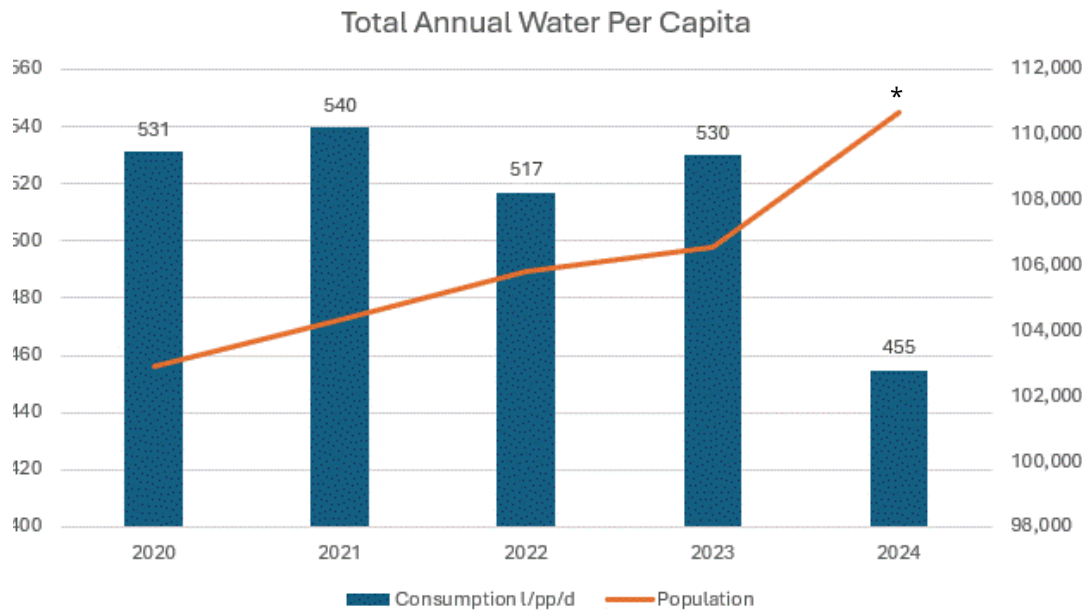


Water

MDP Policies



2024 Water Consumption



18,373 ML
total water consumed
in 2024



192
litres/person/day
average residential
water use



14%
reduction
from
2023



230
parks with central
controllers



37
parks utilizing
non-potable water

Total annual water used per person per day in the City of Lethbridge (includes residential, industrial, commercial, and institutional use).

The Water Conservation Plan and Strategy sets reduction targets for residential and business water consumption. Reporting on water consumption will be completed annually as part of the Waste & Environment annual report.

Water conservation target: 20%

City of Lethbridge water conservation actions:

install water efficient fixtures, optimize irrigation, leak investigation and fixes, and education and outreach

The city offers many programs, initiatives, and events that encourage actions for water conservation:

Adopt-A-StormDrain, Yellow Fish Road, Shoreline Clean-Ups, Coulee Clean-Ups, Hydration Stations, blueW

*Population is based on Alberta Government [2024 Population estimate for Lethbridge](#).



Water

MDP Policies



Water Conservation



8% ↓

reduction in
corporate water
usage from 2023 to
2024



3997

water
conservation
survey responses



5

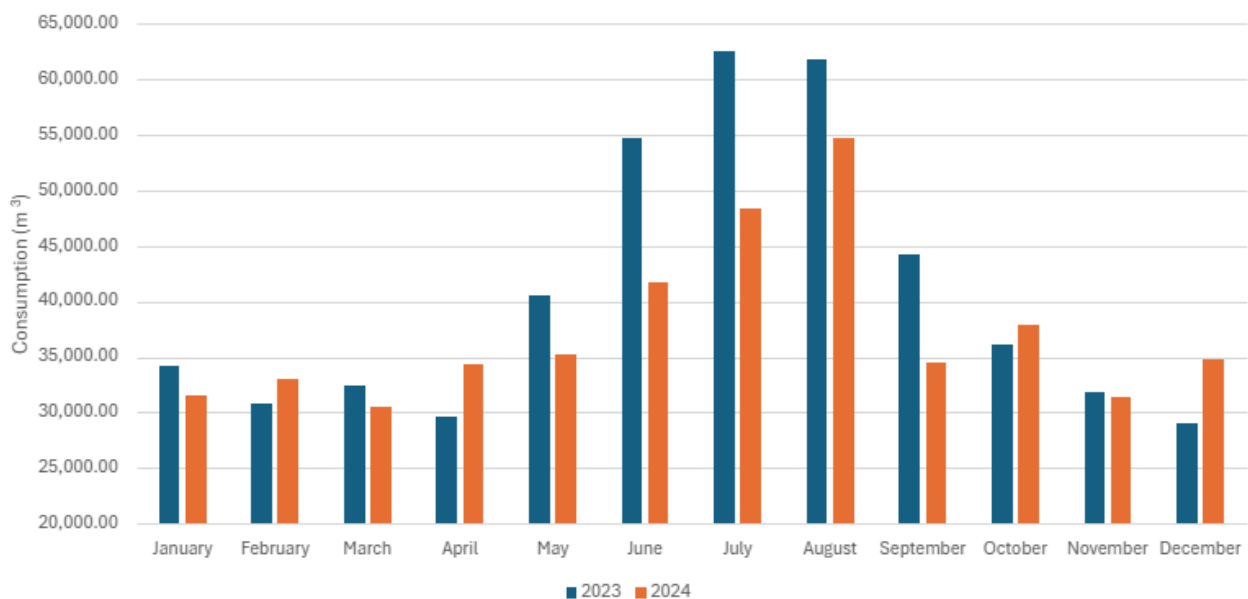
water
conservation
open houses



~4000

clicks on Water
Wednesday
articles

Lethbridge Corporate Water Use
An 8% reduction over 2023



Water Conservation Engagement

- Water Conservation Plan Survey: What We Heard Report, Get Involved
- Water Wednesday Articles and Social Media Posts
- SWAG (toilet leak tablets, shower timers, water bottles)
- Open Houses (Wednesdays in June)
- Stormwater Programs and Education



Waste

MDP Policies

150

168

167

172

Household Hazardous Waste & Electronics Recycling Roundups



~32,463

kg of household hazardous waste collected



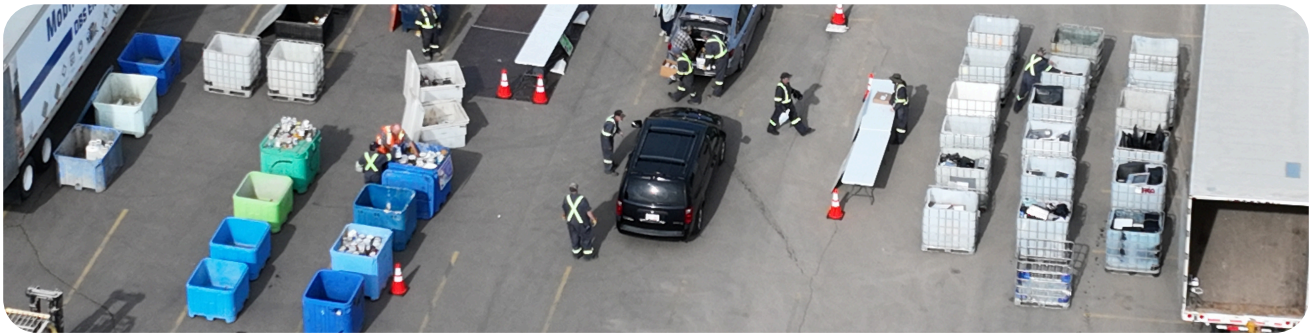
~22,522

kg of e-waste collected



~2,423

vehicles served at the two roundup events

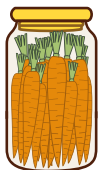


City of Lethbridge Waste Reduction



10+

bags of used clothes donated to local organizations through City of Lethbridge clothing swap



15+

jars of pickled carrots and beets donated to local food bank through City of Lethbridge canning workshop



218

paint totes, pails, and drums recycled by the Transportation department



all LEDs and metal from streetlight and traffic signal poles are recycled by the Transportation department



2

ambulance boxes remounted onto new chassis by Lethbridge Fire and Emergency Services



493

desktops and laptops resold, refurbished, or recycled between June 2022 and June 2024

Environment Project & Program Summary

Activity	Description
2024 Projects and Programs	<ul style="list-style-type: none">• Water Conservation Plan and Strategy• Water Rationing Action Plan updates• Energy Conservation Masterplan & Strategy implementation• Climate Adaptation Strategy and Action Plan• Partners for Climate Protection Corporate Milestone 3 - Implementation Plan• Carbon credits• Environment Week• Circular Economy Month• Net Zero Community Accelerator Program• Solar Carport



ACKNOWLEDGEMENTS

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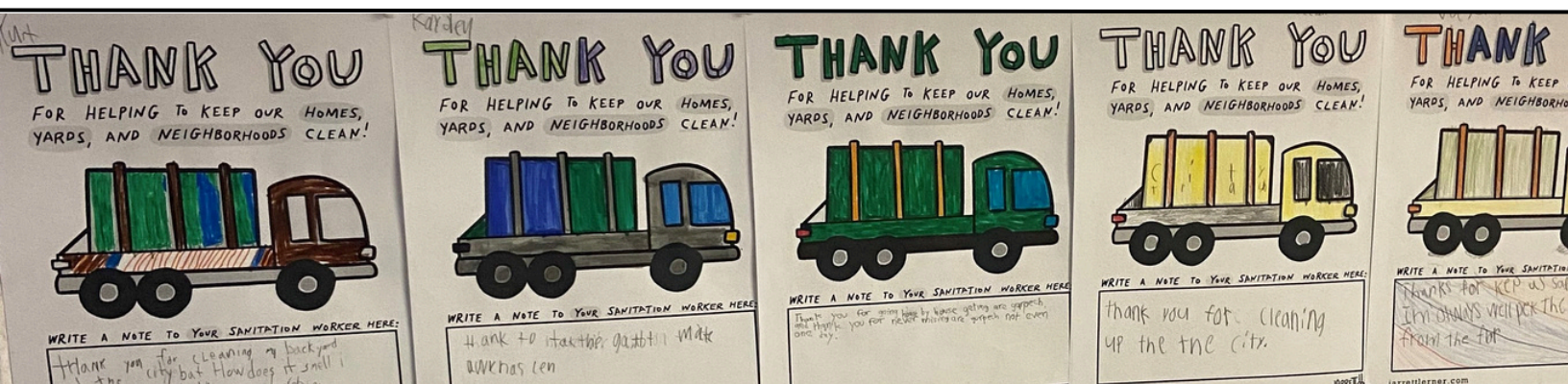
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Sam Conard, Facilities Planning and Projects Manager

Waste & Environment collection operations team

Waste & Recycling Centre contractors & staff



FOR MORE INFORMATION

Waste & Environment:

- Please visit [our website](#)
- Read our [Waste Bylaw](#)
- [Waste & Recycling Centre webpage](#)

Curbside Collection:

- [Composting and Green Carts](#)
- [Recycling and Blue Carts](#)
- [Garbage and Black Carts](#)
- Ask the [Waste Wizard](#) what's In and Out and check your collection schedule
- Download the [Lethbridge Loop App](#) for collection reminders
- [Report a problem](#) like missed collection or mess in lane

Phone: 311 or 403-320-3111 (if outside Lethbridge)

