

Waste & Recycling

Led by: Director of Waste & Recycling Services

Description

Waste & Recycling service is focused on enabling Calgarians to reduce and manage their waste responsibly, now and into the future. The service delivers residential Black Cart, Blue Cart, Green Cart programs, container collection, as well as several community-based waste reduction and diversion programs. The service also manages operations and environmental performance at The City's three active and five closed landfill sites. Waste & Recycling is responsible for planning, delivering and maintaining its assets to meet current and future service needs.

Value and benefits

Calgarians need waste safely removed from their homes, businesses and communities to protect health and the environment. Customers can expect that their waste will be collected on their collection day by a competent and committed team. Customers have access to services and information on how to reduce waste and properly dispose of garbage, recyclables, food and yard waste and household hazardous waste. Once The City has received waste, it is managed in compliance with regulatory requirements to protect the environment. Waste & Recycling is the primary service provider to over 340,000 households. Businesses and organizations select The City as an equal access service provider when their properties are difficult to service and they value customer service. We continually improve and modernize services to manage costs for our customers.

Customers

Our customers include Calgary's residents, businesses and organizations. We also provide service to other waste generators and haulers in the Calgary region. We enable our customers to reduce waste and safely dispose of garbage, recyclables, food and yard waste, and household hazardous waste.

What we deliver

We deliver programs, education, information and bylaws that enable customers to waste less and conserve more. We deliver collection and processing services that support Calgarians to manage waste responsibly. We also provide access to waste management facilities and manage processes, infrastructure and technologies that protect Calgary's environment and reduce greenhouse gas emissions.

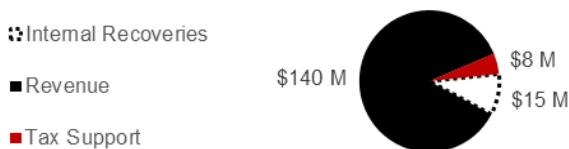
Partners

Other City services & contractors
 Waste Organizations (Alberta Recycling Management Authority, Recycling Council of Alberta, Green Calgary, Compost Council of Canada, National Zero Waste Council)
 Education and community organizations (universities, school boards, community associations)
 Governments (federal, provincial, municipal)

40,000,000	Scheduled Collections for Cart Programs
532,000	Visits to Waste Management Facilities
1,200,000	Total Tonnes Managed
126,000	Tonnes of Green Cart Material Collected

Waste and Recycling

2022 Budgeted Gross Operating Expenditures Funding Breakdown (\$ Millions)*



* Gross operating budget may include internal recoveries that are also included in other services' gross operating cost.

Note: Internal recoveries is how The City accounts for the costs of goods or services between services

Key assets

Key assets to deliver this service include: Three active Waste Management Facilities, composting facility; infrastructure for leachate and landfill gas collection, drainage systems; roads, monitoring wells; buildings and technology supporting collections, diversion and landfill operations. Over one million carts for the black, blue and green programs; commercial bins; and material-specific depots.

What we have heard & what we are watching

What we have heard

The 2022 Spring Pulse survey ranked Waste & Recycling as a primary strength for The City of Calgary based on high satisfaction (85%) and importance (98%) results. Engagement with customers indicated a desire to reduce waste and minimize negative impacts on the environment, aligning with our mission statement "To enable Calgarians to reduce and manage their waste responsibly, now and into the future." Through One Calgary engagement, Calgarians identified affordable, transparent, and fair rates and environmental protection as the top two value characteristics for our service, followed by service reliability, accessibility and safety.

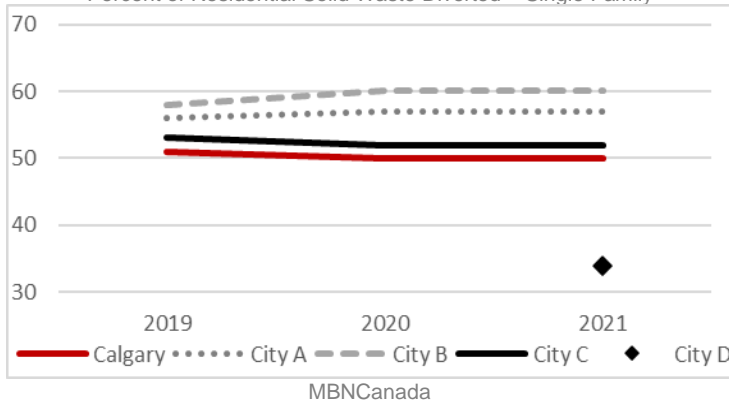
What Council has directed

Waste & Recycling continues to progress on the Council-approved waste diversion goal of 70 per cent by 2025. Council-approved projects include the composting facility expansion, which will increase processing capacity in response to the success of the residential Green Cart Program, and the Mixed Service Delivery Pilot, which will evaluate private-sector to public service delivery. We contribute to the climate and economic resilience elements of Council's Foundations and align with Council's Guiding Principles. We aim to deliver the right services and maintain strong relationships with Calgarians by listening to what they need and care about. We continue to strengthen our financial sustainability to finance our current and future service needs. In response to the Climate Emergency, we are committed to developing strategies that will further reduce greenhouse gas emissions. In support of Council's focus areas, we continue to modernize our services and advance equity in service delivery.

What we are watching

The primary trends and risks affecting Waste & Recycling relate to financial sustainability and customer relationships. Global changes to recycling markets, evolving regulations and service changes in response to customer needs and expectations affect the cost of service we deliver. Efforts to finance our future and improve financial sustainability by moving toward a cost of service model also impacts our rates and customer relationships. The City is working toward extended producer responsibility and enabling waste reduction, reuse and a more circular economy. Continued engagement of customers to strengthen the relationship with Calgarians enable better customer service and increased participation in programs. These efforts support our shared responsibility to reduce and manage waste responsibly, now and into the future to protect the environment and reduce greenhouse gas emissions.

Percent of Residential Solid Waste Diverted – Single Family



Comparing our service

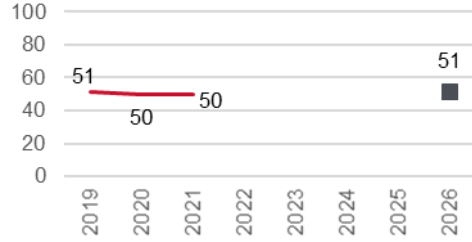
When comparing results with other municipalities the implementation of a curbside organics program is the largest influencer of the percent of residential solid waste diverted, since organic waste tends to be heavier than recyclable materials. In Calgary, residential waste collected through the Black and Green Cart Programs is higher than pre-pandemic levels. The Blue Cart Program continues to receive less material as packaging changes and printed materials decline. Calgary's diversion programs are now mature, so results are expected to remain relatively stable under the current service model.

Measuring performance & where we want to go

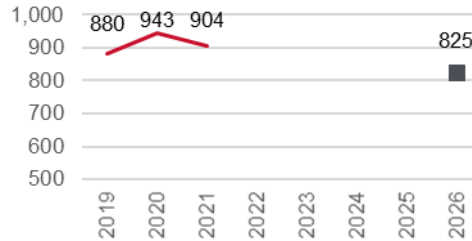
For Council Approval

— Actuals ■ Expected Future Performance

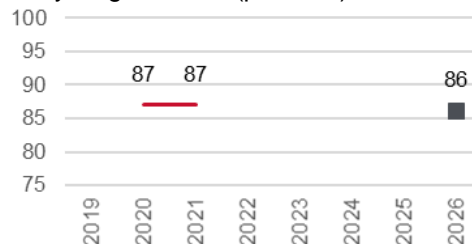
PM1: Residential Waste Diverted from Landfill through Blue and Green Cart Programs (per cent)



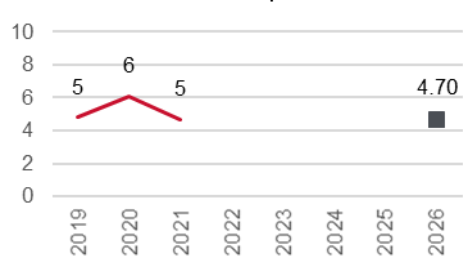
PM2: Residential Waste Generated through Black, Blue and Green Cart Programs (kilograms per household)



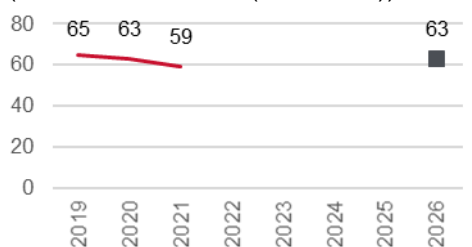
PM3: Calgaryans who are satisfied with the job The City is doing providing Waste and Recycling services (per cent)



PM4: Waste Collection Interruptions per 10,000 Scheduled Stops



PM5: Greenhouse Gas (GHG) Emission Reduction from Landfill Gas Management (1,000 tonnes CO₂e (kilotonnes))



Story behind the curve

Waste collected through the Black and Green Cart Programs is higher than pre-pandemic levels. The Blue Cart Program continues to receive less material as packaging changes and printed materials decline. Black Cart collection was changed from weekly to every other week when the Green Cart Program began in 2017. In 2018, Green Cart service was reduced from weekly to every other week in the winter. The Blue and Green Cart diversion programs are now mature, so this measure is expected to remain relatively stable under the current service model.

Now that Calgary has implemented the major diversion programs, it is important to focus on the upper levels of the waste hierarchy (prevention, reduction, and reuse/repair of materials). This measure allows us to monitor the impact that waste policy decisions have on amounts of contamination received through diversion programs. This measure is expected to decline as residential activities and associated waste generation return closer to pre-pandemic levels, and as less packaging and printed materials are received in the Blue Cart.

This measure is based on results from the Spring Pulse Survey. Responses falling into “very satisfied” and “somewhat satisfied” make up the per cent of responses that are satisfied. It’s reasonable to expect that this measure will remain within the range of consistently high satisfaction as we work towards the Council focus area of modernizing government and WRS goals of delivering value through waste services and strengthening business and financial management. This measure and its expected performance reflect The City’s current service delivery model.

This measure captures 311 service requests related to interruptions in Black, Blue and Green Cart waste collection. Results support improvements to operational processes and targeted citizen engagement. A collection day change was implemented for Green Cart in 2020, resulting in increased requests. Requests related to interruptions also increased during the pandemic. Expected performance reflects The City’s current service delivery model, including the April 2022 commencement of contracted Black Cart collection to residents in most of the northwest and part of the southwest quadrants.

Methane is a potent greenhouse gas (GHG) that is emitted when organic materials decompose in a landfill. Landfill gas emissions happen over decades and contribute to climate change. Reducing the organics disposed in the garbage can reduce how much landfill gas is generated in the future. The City collects and destroys the gas at all three active landfill sites. Combusting landfill gas in a flare reduces its global warming impact by about 94 per cent. The City is also building a facility that will convert landfill gas to renewable electricity, which is scheduled to be completed in 2024.

What we plan to do

Result for 2023-2026

We will enable Calgarians to reduce and manage their waste responsibly now and into the future.

How we are going to get there

Deliver safe and efficient waste processing and disposal services at The City's waste management facilities by complying with regulatory requirements and continually improving assets and operations in response to service demand.

Provide safe and reliable collection services for residential black, blue and green cart programs by adjusting to demand, continually improving service performance and investing in technology and responding to growth.

Continue supporting Calgarians and the community to reduce and manage their waste responsibly by providing community-wide waste management programs.

Provide safe and reliable container collection services to multi-residential developments, businesses and organizations through investments in technology and responding to customer needs.

Enable Calgarians to move towards zero waste and a more circular economy by improving access to and participation in waste reduction and diversion through communications, education, enforcement and engagement with customers.

Improve customer experience by designing and adapting services to be equitable and inclusive reflecting what Calgarians need and expect, through customer engagement, partnerships, pilots and modernization.

Contribute to corporate climate change actions by reducing greenhouse gas emissions through strategies to manage organic waste, expand landfill gas management and improve energy efficiencies of fleet and facilities.

Continue advancing provincial and regional waste management solutions, including Extended Producer Responsibility (EPR), through alignment with legislation, advocacy, collaboration and partnerships.

Continue strengthening Waste & Recycling business and financial management through implementation of the business and financial plans that are responsive to customer needs, Council's Strategic Direction and Calgary's changing economic environment.

Continue developing and delivering the Waste & Recycling Infrastructure Investment Plan in collaboration with Infrastructure Services.

Continue providing a positive work environment through a commitment to safety, employee engagement, development and inclusion.

Operating budget needed to achieve results

For Council Approval

Breakdown of net operating budget (\$000s)

	2023		2024		2025		2026	
	Base	One-time	Base	One-time	Base	One-time	Base	One-time
Previous Year's Net Budget	7,596		7,596		7,596		7,596	
Previously approved One-time budget		-		-		-		-
2022 One-time carry forward		-		-		-		-
Revenue Changes	(10,235)	-	(5,288)	-	(5,025)	-	(5,439)	-
Internal Recoveries Changes	(1,098)	-	(187)	-	(337)	-	(211)	-
Inflation	1,094	-	1,435	-	1,553	-	1,590	-
Operating Impact of Previously Approved Capital	134	-	792	-	912	-	1,154	-
Operating Impact of New Capital (Incremental)	-	-	-	-	-	-	-	-
Service Reductions	-	-	-	-	-	-	-	-
Service Increases	-	-	3,094	-	2,498	-	2,433	-
Transfers to/(from) reserves	10,104	-	155	-	398	-	473	-
Total net budget	7,596	-	7,596	-	7,596	-	7,596	-

Total Operating Budget (\$000s) for Approval

	2022 Budget	2023			2024			2025			2026		
	At April 30	Base	One-Time	Total	Base	One-Time	Total	Base	One-Time	Total	Base	One-Time	Total
Expenditures	162,697	174,030	-	174,030	179,505	-	179,505	184,867	-	184,867	190,517	-	190,517
Recoveries	(15,313)	(16,411)	-	(16,411)	(16,598)	-	(16,598)	(16,935)	-	(16,935)	(17,146)	-	(17,146)
Revenue	(139,789)	(150,024)	-	(150,024)	(155,312)	-	(155,312)	(160,336)	-	(160,336)	(165,775)	-	(165,775)
Net	7,596	7,596	-	7,596	7,596	-	7,596	7,596	-	7,596	7,596	-	7,596

Note: Figures may not add up due to rounding.

Capital budget needed to deliver service

For Council Approval

Activity	Investment Name	2023 Request (\$000s)	2024 Request (\$000s)	2025 Request (\$000s)	2026 Request (\$000s)	2027+ Request (\$000s)	Total Request (\$000s)
Annual Investment Program(s)							
		-	-	-	-	-	-
Program(s)							
451799	Waste & Recycling Landfill/Treatment Infrastructure	6,371	5,586	2,213	3,987	-	18,157
452299	Waste & Recycling Facilities & Equipment	9,179	10,876	7,614	8,012	-	35,681
Projects(s)							
		-	-	-	-	-	-
Sub-Total (New Budget Requests)		15,550	16,462	9,827	11,999	-	53,838
Previously Approved Budget Remaining		12,300	24,400	8,000	-	-	44,700
Total Capital Investment		27,850	40,862	17,827	11,999	-	98,538

Explanation of capital budget requests

Program(s)

Activity 451799: Waste & Recycling Landfill/Treatment Infrastructure

Manage waste in accordance with legislation and regulatory compliance to protect public health and the environment. The capital program ensures waste is managed in compliance with regulatory requirements to protect the environment.

Funding From: Municipal Sustainability Initiative (\$11,600 thousand) Capital Reserves (\$6,557 thousand)

Contributing Services: None

Operating Impact: None

Activity 452299: Waste & Recycling Facilities & Equipment

Managing waste management facilities in accordance with legislative and regulatory compliance to protect public health and the environment. The capital program ensures waste management facilities support service delivery, diversion of waste materials and protecting the environment.

Funding From: Municipal Sustainability Initiative (\$26,400 thousand) Capital Reserves (\$9,281 thousand)

Contributing Services: None

Operating Impact: None