

►► SOLID WASTE & LANDFILL

LED BY: GENERAL MANAGER, INFRASTRUCTURE

Our goal & community benefit:

Our goal is to plan, design, manage, operate, and maintain the essential services of the Glenmore landfill as well as deliver efficient, cost-effective waste collection services for over 42,000 homes in the City. Collection and safe disposal of recyclables, compostables, and solid waste is critical in our community. For disposal services, we proudly serve the communities in the Regional District of Central Okanagan and Big White. The current fill plan allows us to extend the life of the Landfill rather than looking at new landfill locations or shipping waste out of the region for disposal – costly alternatives – and provides flexibility for the future.

Our customers:

- Residents and citizens
- Commercial haulers
- Construction companies
- Private developers
- Other City departments
- Other Municipal Governments

Our partners:

We work with the BC Ministry of Environment and Climate Change Strategy, WorksafeBC, the University of British Columbia, the Regional District of Central Okanagan and member Municipalities, utility companies, our collection contractor, and waste reduction officers to provide sustainable services.

What we deliver:

We provide garbage, recycling and yard waste collection services to over 42,000 households in the City.

At the landfill, we offer a variety of disposal options on site including recycling, organic materials, and household/commercial waste in our solid waste disposal facility for residents within the Central Okanagan Regional District. We produce and sell OgoGrow and GlenGrow compost as soil amendments. We also manage landfill gas as landfills are being recognized as a source of valuable energy, providing renewable natural gas for 700 homes through FortisBC.

Landfill operations are 7 days per week, 362 days per year, to allow residents and haulers to access waste management on their preferred schedules.

Our key objectives:

- Protect the environment through delivery of 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 curbside programs by adjusting to demand, continually improving service performance, investing in technology and responding to growth.
- Continue supporting the community to reduce and manage their waste responsibly by working with regional partners and providing community-wide waste management programs.
- Enable Kelowna 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.

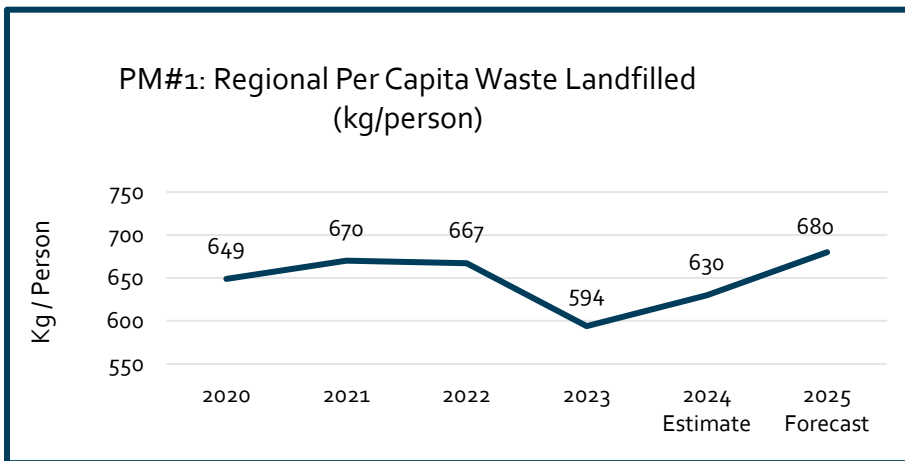
Our guiding plans:

- 2020 Regional District of Central Okanagan Solid Waste Management Plan
- 2023 Glenmore Landfill Design, Operations and Closure Plan
- 10-Year Capital Plan

Measuring performance:

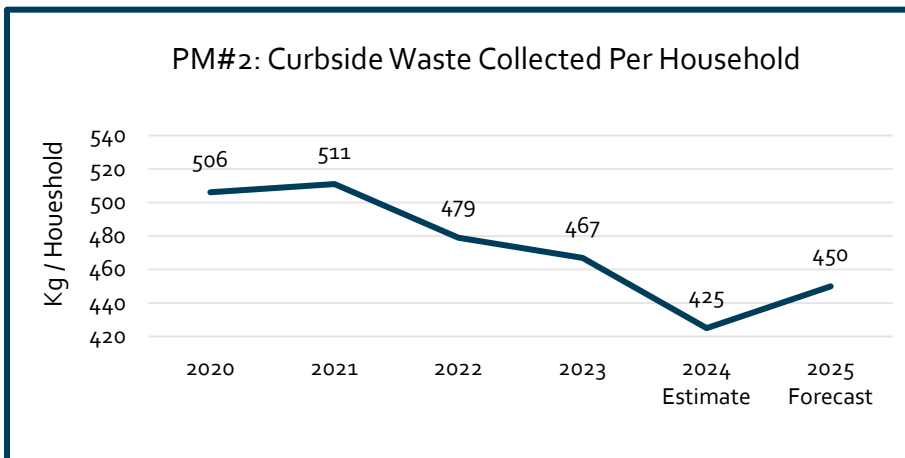
Performance Measure 1

The landfill provides regional waste management services for the entire Central Okanagan. Measure is the tonnage of waste buried divided by the estimated population of the RDCO and Big White (total service area). Waste generation rates around natural disasters are variable and may increase disposal for short terms. Demolition and construction wastes contribute 35 - 42% of the wastes increasing waste disposal variability depending on rate of development. Goal is to minimize disposal of waste.



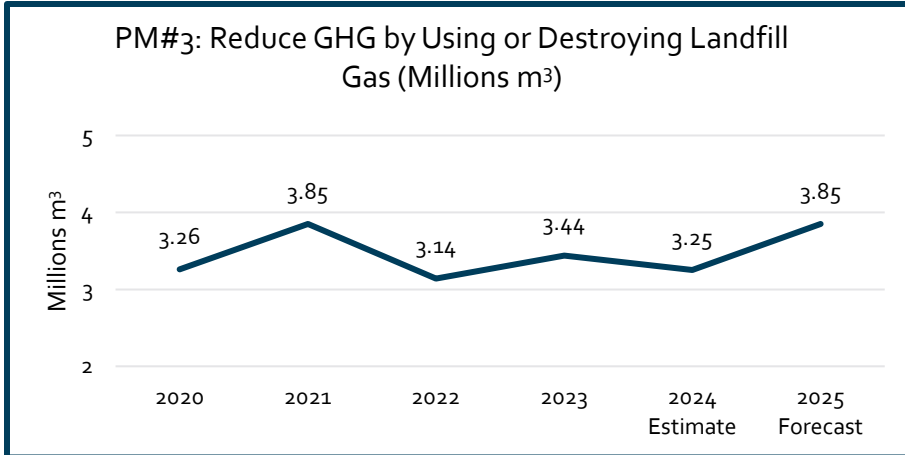
Performance Measure 2

Curbside waste collected in kg /Kelowna household serviced (residential curbside cart program). The City works with the RDCO to implement additional waste reduction and diversion activities.



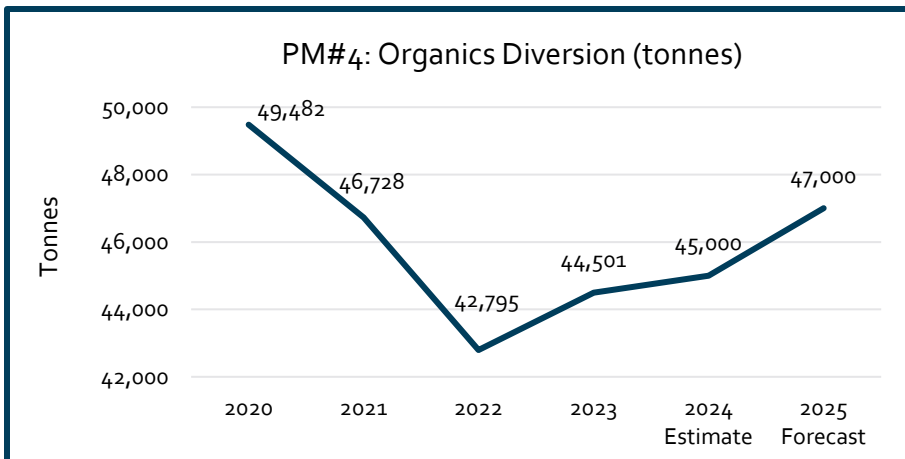
Performance Measure 3

Volume of landfill gas managed by landfill flare or converted to Renewable Natural Gas by Fortis (Millions m³). Wildfires damaged the landfill gas collection system in 2023 resulting in decreased recovery while damage is repaired through 2024. Total volumes of landfill gas collected should increase over time as the system continues to grow with the landfill.



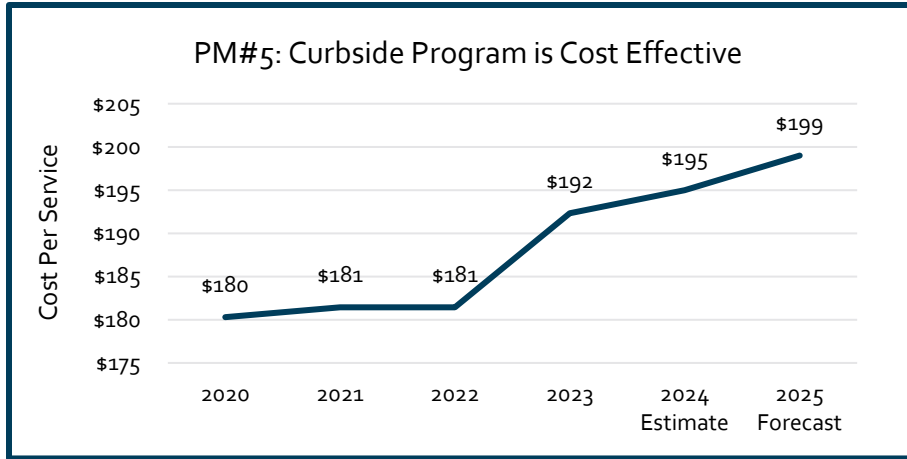
Performance Measure 4

Tonnage of organic material including yard waste, branches, clean wood, logs and stumps managed at the landfill (tonnes). The landfill diverts approximately 30% of the wastes received at the site, and this waste diversion saves landfill airspace, provides waste based raw materials, and compost that provides nutrients to the region.



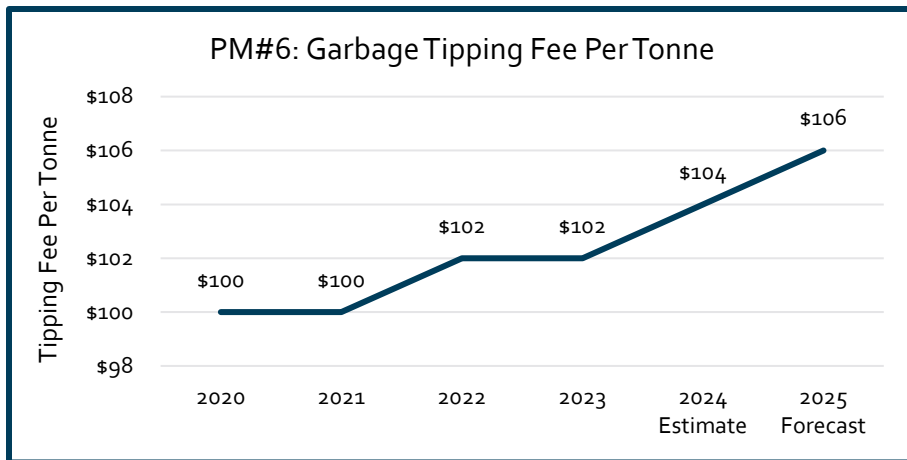
Performance Measure 5

Cost per property serviced for residential garbage, yard waste and recycling collection and management. Rate adjustments are primarily due to increased hauling costs and cart replacement costs.



Performance Measure 6

Garbage tipping fee (\$ per tonne). Rates are reviewed and set based on a 25 year Financial Model to ensure that the landfill site is sustainably funded for future Capital work and closure.



2025 Activities by priority:

Crime & Safety

- Public and staff safety is a paramount concern of all waste management sites

Affordable Housing

- Efficient and cost-effective waste management allows for lower costs to residents as well as lower site preparation and building costs

Homelessness

- Continue to mitigate public unsightliness by providing waste and debris disposal in support of Community Safety

Agriculture

- Compost operations continue to provide cost effective soil amendments and organic matter back to agriculture to offset chemical fertilizers

Climate & Environment

- Provide continued environmental stewardship and minimize GHG emissions
- Managing water, air, and land-based pollution with proactive and sound waste management techniques

Our People

- Continue to promote staff development and opportunities to learn
- Working as One Team by assisting other City departments

Digital Transformation

- Refine "Oscar", the online chatbot assistant
- Implementation of online appointment system for receiving selected wastes to streamline processes

Active Financial Management

- Review of rates and costs ensure that waste management is sustainably funded for possible rate adjustment in 2026

Base Business

- Complete Area 3 Liner installation, and begin to utilize this area.
- Continue ancillary work around new Aerated Static Pile composting facility
- Complete final design and begin construction of the Surface Water Bypass to ensure minimize stormwater at the landfill site.
- Expand operations to manage additional waste and recoverable materials from Infill Housing activities

2024 Key accomplishments:

- Worked with Water, Roads, Parks and the Cemetery on a Civic Operations staff rotation to provide cross training and learning opportunities.
- Completed the first phase of construction for the Aerated Static Pile compost system for Glengrow operations
- Area 3 landfill liner construction and Sliver Fill projects in 2024 and planned filling expansions in 2025.
- Completed site landfill gas repairs and remedial earthworks to mitigate the damage from the 2023 McDougall Creek wildfires.
- Implemented majority of recommendations from 2023 Design, Operations and Closure Plans and ancillary reports.

Continuous improvements:

- Design and RFP underway for end-of-life flare replacement
- Studies for leachate pre-treatment and potential facility construction in 2026
- Working with FortisBC to expand and better integrate their renewable natural gas system into landfill operations
- Planning for next phases of the Aerated Static Pile compost system
- Improvements to site by expanding waste recovery operations, preparation of structural fill for capital projects, and composting operations.

Operating budget needed to achieve results (\$ thousands):

	Revised 2024	Annualized Budget	Maintaining Service	Enhancing Service	Preliminary 2025
Revenue budget:					
Property tax	(200)	—	—	—	(200)
Fees and charges	24,818	—	1,791	—	26,609
Grant	—	—	—	—	—
Other revenue	1,601	(43)	3	—	1,561
Transfers from reserve	22,362	(22,354)	5,392	5,450	10,850
Total revenue budget	48,581	(22,397)	7,185	5,450	38,819
Expenditure budget:					
Salaries and wages	3,403	—	147	101	3,650
Material and other	6,603	(303)	239	100	6,576
Contract services	6,317	—	90	—	6,407
Debt service	—	—	—	—	—
Transfers to reserve	9,285	(6)	1,309	(201)	10,452
Capital Expenditure	22,203	(22,203)	5,400	5,450	10,850
Enabling allocation	770	114	—	—	884
Total Expenditure budget	48,581	(22,397)	7,185	5,450	38,819

Note: Totals may not add due to rounding

2025 Operating Requests (\$thousands)

Priority 1

Description	2025	2026	2027	2028	2029
Landfill Operations Maintenance	140	—	—	—	—
Operating and Maintenance Impacts from Capital Requests	101	101	101	101	101
Operating Requests Priority 1 Total	241	101	101	101	101

2025 Capital Requests (\$thousands)

Priority 1

Description	2025	2026	2027	2028	2029
Programs					
* Solid Waste Equipment	1,150	1,050	450	450	450
Solid Waste Infrastructure & Facilities	4,250	4,200	4,150	1,885	1,860
Projects					
Composting System Expansion	700	3,000	3,700	500	1,300
Surface Water Bypass	4,750	—	350	4,750	—
Capital Request Priority 1 Total	10,850	8,250	8,650	7,585	3,610

* denotes capital request has operating & maintenance impacts included in the request

2025 Capital Request Details

Service Area:	Solid Waste & Landfill	Priority 1	Maintain
			ONE-TIME
Title:	Solid Waste Equipment		PRELIMINARY

Justification:

Budget is requested for this annual program for solid waste equipment. Annual items for consideration may include, but are not limited to, replacing end of life equipment, purchasing new equipment to meet future demands and advances in technology and the purchase of automated collection curbside carts. Included in this request is the addition of a new loader and Equipment Operator IV to respond to increased waste production and diversion activities at the landfill. This new loader and staff will primarily work with material handling for managing increased drywall recycling, scrap metal sorting and concrete/asphalt storage and sales.

Expected Completion:	December, 2034
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Strategic Direction:	Other
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	Asset Cost	Reserve	Borrow	Fed/Prov	Dev/Com	Utility	Taxation
2025	1,150,000	(1,150,000)	—	—	—	—	—

Operating Impacts:

	Cost	Reserve	Borrow	Grant	Other	Revenue	Utility	Taxation
2025	100,900	(100,900)	—	—	—	—	—	—
2026	100,900	(100,900)	—	—	—	—	—	—
2027	100,900	(100,900)	—	—	—	—	—	—

Service Area:	Solid Waste & Landfill	Priority 1	Maintain
			ONE-TIME
Title:	Solid Waste Infrastructure & Facilities		PRELIMINARY

Justification:

Budget is requested for this annual program for solid waste infrastructure and facilities. Annual items for consideration may include, but are not limited to, site works and investigations, progressive closure and landfill gas and leachate recirculation laterals.

Expected Completion:	December, 2034
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Strategic Direction:	Other
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	Asset Cost	Reserve	Borrow	Fed/Prov	Dev/Com	Utility	Taxation
2025	4,250,000	(4,250,000)	—	—	—	—	—

2025 Capital Request Details

Service Area: Solid Waste & Landfill	Priority 1	Enhance
		ONE-TIME
Title: Composting System Expansion		PRELIMINARY

Justification:

Budget is requested for construction of the second Primary Area Static Pile composting system. The project includes all design, servicing, handling area and completion of the neighbouring inorganics area.

Expected Completion:	December, 2027						
Strategic Direction:	Other						
	Asset Cost	Reserve	Borrow	Fed/Prov	Dev/Com	Utility	Taxation
2025	700,000	(700,000)	—	—	—	—	—

Service Area: Solid Waste & Landfill	Priority 1	Enhance
		ONE-TIME
Title: Surface Water Bypass		PRELIMINARY

Justification:

Budget is requested for a multi-phase stormwater bypass system, which is currently designed and awaiting Ministerial approvals for new water licenses. Phase one of this project includes a 2.6-km piped bypass from the Glenmore Landfill to Brandt's Creek. This project is included in the Design, Operation, and Closure Plan for the Glenmore Landfill. As an additional project component, the piped bypass provides an opportunity to address historical flood challenges in the Robert Lake Basin. Phase two is a continuation of the work from Phase one, and involves landfill capital improvements to capture stormwater within an ever-changing facility. This includes collecting subsurface flow from McKinley seepage and local groundwater conditions. Schedule is contingent on provincial permitting and the acquisition of a statutory right of way.

Expected Completion:	December, 2028						
Strategic Direction:	Other						
	Asset Cost	Reserve	Borrow	Fed/Prov	Dev/Com	Utility	Taxation
2025	4,750,000	(4,750,000)	—	—	—	—	—