

City of Hamilton WASTE MANAGEMENT SUB-COMMITTEE AGENDA

Meeting #: 24-002

Date: May 30, 2024

Time: 1:30 p.m.

Location: Room 264, 2nd Floor, City Hall (hybrid) (RM)

71 Main Street West

Carrie McIntosh, Legislative Coordinator (905) 546-2424 ext. 2729

Pages 1. APPROVAL OF AGENDA (Added Items, if applicable, will be noted with *) 2. **DECLARATIONS OF INTEREST** APPROVAL OF MINUTES OF PREVIOUS MEETING 3. 3 3.1 February 12, 2024 **COMMUNICATIONS** 4. 5. **DELEGATION REQUESTS DELEGATIONS** 6. 7. STAFF PRESENTATIONS 7 7.1 Asset Management Plan 26 7.2 2024 Compost Giveaways 29 7.3 Multi-Residential Cart Implementation 33 7.4 Blue Box Transition Update

13.

ADJOURNMENT



WASTE MANAGEMENT SUB-COMMITTEE MINUTES 24-001

Monday, February 12, 2024 1:30 p.m. Room 264, 2nd Floor City Hall, Hamilton

Present: Councillor A. Wilson (Vice Chair)

Councillor M. Tadeson

Kevin Hunt Peter Hargreave Heather Govender Laurie Nielsen

Absent

With Regrets: Councillor M. Francis (Chair)

THE FOLLOWING ITEMS WERE REFERRED TO THE PUBLIC WORKS COMMITTEE FOR CONSIDERATION:

1. Amendments to the Terms of Reference for the Waste Management Sub-Committee (Item 9.1)

(Hargreave/Nielsen)

That the Waste-Management Sub-Committee Terms of Reference, **be amended** as follows:

Statement of Purpose:

(i) To assist the City of Hamilton with the implementation of the *Council approved 2012* Solid Waste Management Master Plan (SWMMP), 2020 SWMMP Action Items, and to discuss / make recommendations on other solid waste management initiatives.

Overall Membership:

(ii) The Waste Management Sub-Committee shall be comprised of up to **seven** (7) members **six** (6); and,

Voting Members:

(iii) Four (4) Three (3) citizen members;

Main Motion As Amended CARRIED

FOR INFORMATION:

(a) APPROVAL OF AGENDA (Item 1)

The Committee Clerk advised that there were no changes to the agenda.

(Govender/Hunt)

That the agenda for the February 12, 2024 meeting of Waste Management Sub-Committee be approved, as presented.

CARRIED

(b) DECLARATIONS OF INTEREST (Item 2)

There were no declarations of interest.

(c) APPROVAL OF MINUTES OF PREVIOUS MEETING (Item 3)

(i) September 29, 2023 (Item 3.1)

(Tadeson/Hunt)

That the Minutes of the September 29, 2023, meeting of the Waste Management Sub-Committee be approved, as presented.

CARRIED

(d) STAFF PRESENTATIONS (Item 7)

(i) Asset Management Plan (Item 7.1)

Angela Storey, Director of Waste Management, addressed the Committee, respecting the Asset Management Plan, with the aid of a PowerPoint presentation.

(ii) 2023 Waste Year in Review (Item 7.2)

Angela Storey, Director of Waste Management, addressed the Committee, respecting the 2023 Waste Year in Review, with the aid of a PowerPoint presentation.

(iii) 2024-2025 Waste Management Guide (Item 7.3)

Ryan Kent, Manager of Waste Policy and Planning, addressed the Committee, respecting the 2024-2025 Waste Management Guide, with the aid of a PowerPoint presentation.

(iv) Green Bin Participation Study (Item 7.4)

Ryan Kent, Manager of Waste Policy and Planning, addressed the Committee, respecting the Green Bin Participation Study, with the aid of a PowerPoint presentation.

(v) Blue Box Transition Update (Item 7.5)

Ryan Kent, Manager of Waste Policy and Planning, addressed the Committee, respecting the Blue Box Transition Update, with the aid of a PowerPoint presentation.

(vi) Promotion and Education Update (Item 7.6)

Ryan Kent, Manager of Waste Policy and Planning, addressed the Committee, respecting the Promotion and Education Update, with the aid of a PowerPoint presentation.

(vii) Solid Waste Management Master Plan (Item 7.7)

Ryan Kent, Manager of Waste Policy and Planning, addressed the Committee, respecting the Solid Waste Management Master Plan, with the aid of a PowerPoint presentation.

(viii) (Hunt/Nielsen)

That the staff presentations respecting the following matters, be received:

- (1) Asset Management Plan (Item 7.1)
- (2) 2023 Waste Year in Review (Item 7.2)
- (3) 2024-2025 Waste Management Guide (Item 7.3)
- (4) Green Bin Participation Study (Item 7.4)
- (5) Blue Box Transition Update (Item 7.5)
- (6) Promotion and Education Update (Item 7.6)
- (7) Solid Waste Management Master Plan (Item 7.7)

CARRIED

(e) DISCUSSION ITEMS (Item 9)

(i) Waste Management Sub-Committee – Terms of Reference (Item 9.1)

(Hargreave/Nielsen)

That the Waste Management Sub-Committee Terms of Reference attached as Appendix "A", be approved.

(Hargreave/Nielsen)

That the Waste-Management Sub-Committee Terms of Reference, **be amended** as follows:

Waste Management Sub-Committee Minutes 24-001

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Statement of Purpose:

(iv) To assist the City of Hamilton with the implementation of the **Council approved 2012** Solid Waste Management Master Plan (SWMMP), **2020** SWMMP Action Items, and to discuss / make recommendations on other solid waste management initiatives.

Overall Membership:

(v) The Waste Management Sub-Committee shall be comprised of up to **seven** (7) members **six** (6); and,

Voting Members:

(vi) Four (4) Three (3) citizen members;

CARRIED

For further disposition of this matter, refer to Item 1.

(f) ADJOURNMENT (Item 13)

(Hargreave/Nielsen)

That, there being no further business, the Waste Management Sub-Committee be adjourned at 3:16 p.m.

CARRIED

	Respectfully submitted,
	Councillor A. Wilson Vice Chair, Waste Management Sub-Committee
Jessica Versace Legislative Assistant Office of the City Clerk	



Waste Management Asset Management Plan

Item 7.1

Ontario Regulation 588/17 Mandates

Regular updating of Asset Management Plans



PW19053



Information Report PW22037



Asset Management Plan: Non-Core Assets

- All remaining assets
- Current Levels Of Service with cost to maintain

2019

JULY 1, 2022

JULY 1, 2024

JULY 1, 2025





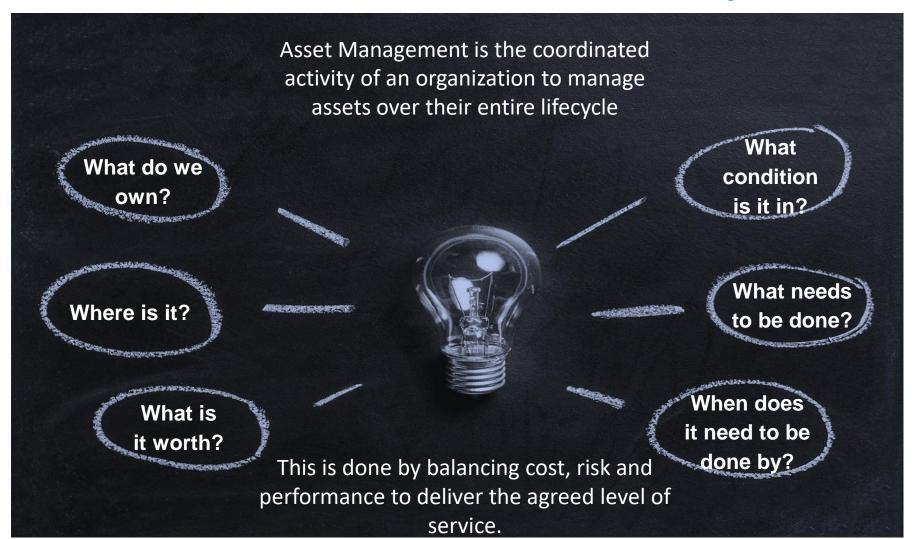
- Transportation
 - (Roads, Engineered Structures),
- Water Works
 - (Water, Wastewater, Stormwater),
- Current Levels Of Service with cost to maintain.

Proposed Levels Of Service and Financial Strategy Completed

LOS – Levels of Service



Asset Management is...





AWARE

 Asset information in a combinatio n of sources and formats. Awareness of the need for an asset register (inventory).

BASIC

Basic physical asset information is recorded in a spreadsheet format or similar (e.g., location. size, type), but may be based on broad assumption s or not complete.

CORE

- Sufficient information to complete asset valuation (basic attributes, replacement cost, and asset age/life and support prioritization of programs (criticality).
- Asset hierarchy, identification, and attribute systems documented.
- Metadata held as appropriate.

Maturity Assessment

INTERMEDIATE

 A reliable register of physical, financial and risk attributes recorded in an information system with data analysis and reporting functionality. Systematic and documented data collection process in place.

ADVANCED

Information on work history type and cost. condition. performanc e, etc. recorded at asset component level. **Systematic** and fully optimized data collection program with supporting metadata.



What is in the Plan?

Background and Registry

What service are we providing and how long have we provided it?

What do we own?

Who are our customers?
Present/Future
Registry Measures
(Condition, Age, expected life, replacement cost)

Life-Cycle

How do we manage these assets?

Acquisitions,
Operate,
Maintain,
Renew and
Disposals

Demand

Who wants to use our service?
What pressures will we face?

Current Demand and future demand

Climate Change

How will climate change affect how we manage our assets?

What mitigation/ adaptation strategies will we utilize and what demands/risks will we encounter?



What is in the Plan?

Risk Management

How do we manage current and future risks?

Financial,
Environmental,
Human Safety,
Reduction of
Service,
Legal/Reputational,
Cultural/Social
Outcomes

Levels of Service

What are the expectations and how are we delivering on those expectations?

Technical Levels of service

Financial Plan

What is our 'financial' health and how does it look in the future?

Long-term
Financial Plan
3 Key Financial
Indicators
(Renewals,
Operating, Debt)

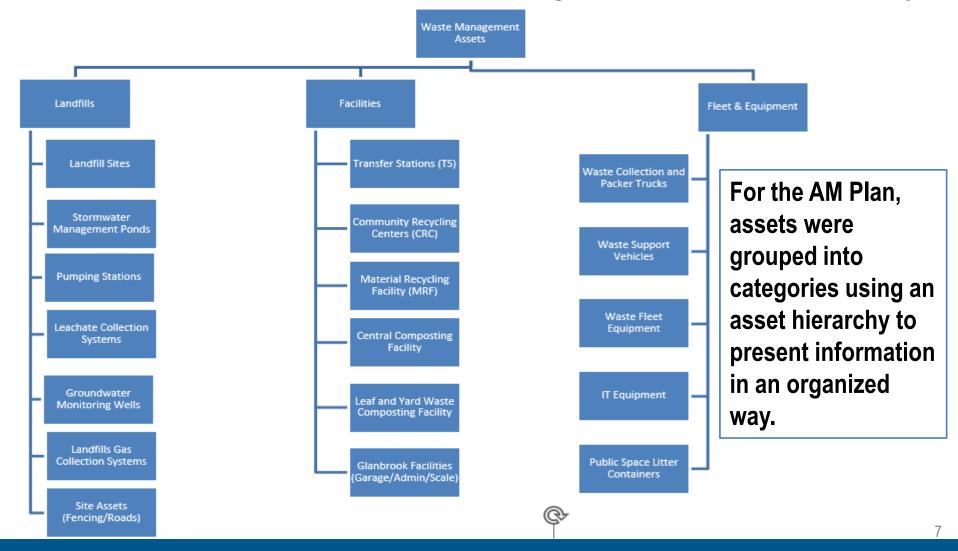
Continuous Improvement

What are our plans to get better?

What do we plan to do Who's doing it? For how much? When will it be done by?



Waste Management Asset Hierarchy





State of Waste Management Assets

Asset Category	Replacement Value(\$M)	Weighted Average Age in Years	Weighted Average Condition
Landfills	\$258.2	42 Years (43% RSL*)	Fair
Data Confidence	Low	Low	Low
Facilities	\$284.6	23 Years (63% RSL*)	Good
Data Confidence	Medium	High	High
Fleet & Equipment	\$17.2	5 (26% RSL*)	Poor
Data Confidence	Medium	High	Low
Total	\$560.0	39 (43% RSL*)	Fair
Data Confidence	Low	Low	Low

*RSL: Refers to the average Remaining Service Life for assets in that category.



Key Findings from the Report

ASSET REGISTRY INFORMATION

- No condition information was available for Landfills or Fleet and Equipment. The Condition was based on assumptions using Age or Subject Matter opinion;
- Facilities condition (CRC/TRF/Glanbrook/CCF/MRF) is based on Facility Condition Index (%FCI); and,
- Investigating implementing an asset registry for all assets has been identified as a Continuous Improvement item that has defined inspection/condition evaluation intervals.



LEVELS OF SERVICE

- ✓ Customer (Survey Respondents):
 - Had differing opinions on a reduction in garbage pickup frequency to consider supporting and /or promoting in the future;
 - Felt it was important to consider new waste management processes (waste to energy, pelletization etc.);
 - On average, would prefer Waste Management to maintain current levels of service and minimize tax rate increases;
 - Felt Waste Management had Good Performance over the last 24 months;
 - Felt waste management provided Good value for money; and,
 - Agreed that waste collection vehicles were operated safely in the community.



LEVELS OF SERVICE – Customer

Figure 9: Net Promoter Score





LEVELS OF SERVICE

✓ Technical

- At this time the Technical Levels of Service (LOS) are largely derived from the existing Public Works Scorecard Reporting;
- Additional Technical LOS developed around the acquisition of additional collection vehicles related to growth;
- Additional Technical LOS developed around Facility Condition Index of Waste Management Facilities; and,
- Additional Technical LOS developed around Fleet Renewal.



✓ Demand Management

- Household Growth is the main driver for Acquisitions;
- Environmental Awareness is a demand driver for waste processing; and,
- Regulatory Change impacts service demand i.e. Expanded Producer Responsibility.

✓ Risk Management

- Critical assets:
 - Leachate Pumping Station Failure of the Pump System can cause embankment failures and/or overflow storage systems; and,
 - Landfill (Open) Loss of ECA permit impacts the ability to accept and manage waste.



✓ Climate Change Mitigation

- Renewal amounts for facilities and vehicles don't currently consider cost for current low carbon transformation targets:
 - Waste Management is a key contributor to the Target that by 2050 95% of organic waste is sent to anaerobic digestion for local energy use;
 - Facility replacement costs should be modified to reflect the cost of net zero buildings for buildings requiring replacement in 2050 or after;
 - Facility projects to retrofit facilities to 50% energy efficiency by 2050 need to be planned; and,
 - Vehicle replacement costs should be modified to reflect green alternatives;
 - No green alternatives for heavy vehicles are currently available, although Waste Management is leading the way with Natural Gas Packer vehicles as an interim measure.



LIFECYCLE MANAGEMENT

✓ Acquisition

Major known Acquisitions (\$14.5M) TS and CRC Improvements; (\$13M) for Stage 3
 Development of the Glanbrook Landfill; (\$1.6M) for additional collection vehicles

✓ Operations & Maintenance

- The largest operations cost is employee-related (\$12.2M), and Contracted costs (\$73.8M)
- The largest maintenance costs are surrounding CCF Equipment Replacement (\$36M), Open and Closed Landfill Maintenance and Capital Program (\$8.4M), (\$2.8M) for TS/CRC Maintenance and Capital Program and (\$3.3M) for MRF Maintenance and Capital Program. These costs are defined in the budgets.

Data Note:

The 2023 Approved Budget and 10-year Capital were used for the preparation of this AM Plan



✓ Renewal

- Backlog amount of \$737K based on known estimated service life and ages:
 - Backlog items include:
 - Vehicle Renewal for vehicles beyond Estimated Service Life; and,
 - Some Site Assets at Landfills (fencing/roads).
- Major Renewal items planned over the next 10 years are \$5M for renewal of the leaf and yard waste composting facility (additional funds may be needed for expansion);
- \$4.1M for waste collection vehicles;
- \$2.4M in renewing public space litter collection containers; and,
- Renewal of the Open Landfill is just beyond the current timeline of this AM Plan but will appear in future years.

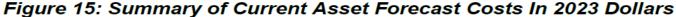


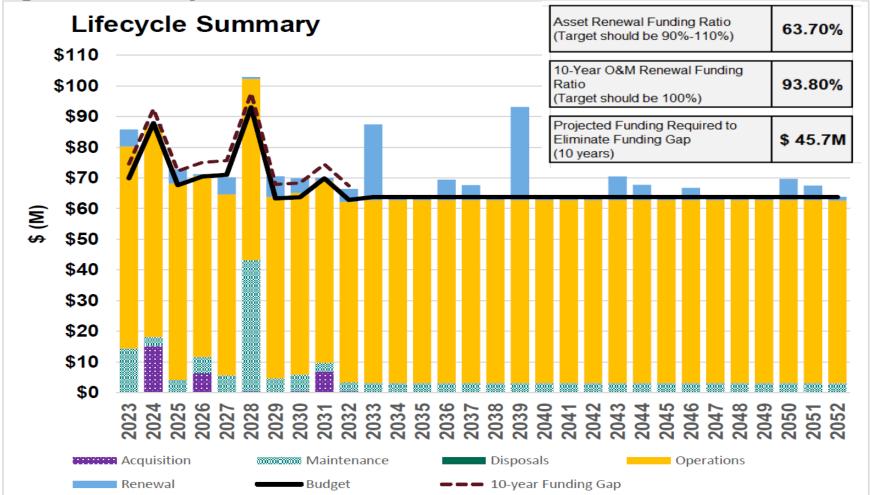
FINANCIAL MANAGEMENT

- Current Funding Gap: \$4.6M annually with Low-Medium confidence
- Asset Renewal Funding Ratio (ARFR): 63.7%
 - This is the Ratio of Renewal Needs estimated by Estimated Service Life and the funding available to renew assets.
 - Renewal needs spike in 2033 and 2039 relating to Transfer Stations
- 10-Year Operating, Maintenance & Renewal Ratio: 93.8%
 - Measure of Renewal, Operating and Maintenance Costs as a percentage of available budget. Assumptions did not escalate the operating budget and capital budgets. In most cases, assuming that **Needs = Budget**, this assumption will develop further as AM Plans improve and needs are likely underestimated.



30 Year Projection







Next Steps

- Presented to GIC for approval with other Asset Management Plans (Hamilton Police Service and Parking) on December 6th, 2023 - PW23073
- After approval of the AM Plan from Council, Corporate Asset Management will begin to work with staff on the identified Continuous Improvement items.
- Asset Management is a Journey, and each iteration will improve Plans will be updated Regularly
- Better Understand Asset Lifecycle Needs (i.e. the right treatment at the right time, not just doing what we can because of budget availability etc.)
- Update Asset Management Plans for Future Level of Service by July 1, 2025
- Working with Waste Management to Align Future LOS to Solid Waste Management Master Plan





2024 Compost Giveaways

Item 7.2

2024 Compost Giveaways

Every year the City of Hamilton hosts several Community Compost Giveaways in the Spring and Fall in appreciation of residents participating in the City's Leaf and Yard Waste Program

In the Spring of 2024 Compost Giveaways were held in three locations over the course of three weeks

The events were held in Turner Park, Joe Sam's Leisure Park and Bayfront Park, On April 27, April 30, May 4 and May 11 and were well attended



2024 Compost Giveaways

Event Date	Quantity (tonnes)	Car Count	United Way Donations
Joe Sam's Park – April 27, 2024	89.88	450	\$389.70
Turner Park - April 27, 2024	616.9	1900	\$1745.75
Bayfront Park – April 30-May 1, 2024	69.72	550	\$437.75
Turner Park - May 4, 2024	44.47	2400	\$1572.45
Turner Park - May 11, 2024	322.76	2900	\$1780.15
Total	1143.73	8200	\$5925.80





Multi-Residential Garbage Cart Implementation

Item 7.3

Multi-Residential Cart Implementation

In Hamilton, multi-residential buildings are buildings with six or more units and are serviced in the following ways:

Loading Spaces

Front-end bins require large loading spaces

Access Routes

Vehicles need to enter and exit in a forward motion

Curbside Collection

Used when front-end isn't practical



Multi-Residential Cart Implementation

- Servicing requirements have caused operational issues
- Staff have identified an option to fill the gap in servicing small multi-residential buildings i.e. buildings with 6 to 30 units
- Some municipalities have implemented carts for garbage collection from these types of buildings
- As part of the consultation on the 2021 "Waste Requirements for the Design of New Developments and Collection" the development industry provided support for this option
- Staff is designing an implementation plan for garbage carts at multi-residential buildings





WASTE MANAGEMENT DIVISION

Multi-Residential Cart Implementation

- Implementation plan will include:
 - Determining scope of work i.e. number of buildings and number of carts required for each building
 - Identify capital costs for purchasing carts and collection equipment
 - Engage with different stakeholders including developers through Development Industry Liaison Group and / or West End Home Builder's Association
 - Determining implementation timeline
- Waste Management Sub-Committee will be presented with the implementation plan prior to work commencing





Blue Box Transition Update

Item 7.4

Blue Box Transition Update

- April 10, 2024, Council approved the recommendation to continue collecting blue box material from non-eligible sources (City facilities, businesses, etc.) that are currently serviced during the transition period – April 1, 2025 to December 31, 2025
- Next key decision is whether to continue to provide blue box collection at Community Recycling Centres during the transition period
- Staff are currently analyzing the compensation and operation agreement provided by Circular Materials Ontario to provide a recommendation to Council





Promotion and Education Update

Item 7.5

Waste Management Open House

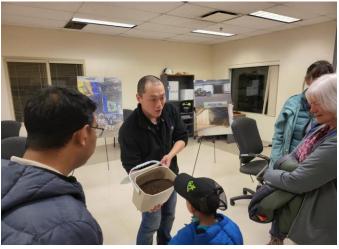
- On Saturday, April 20th, Waste Management Staff hosted an open house at the Resource Recovery Centre for residents
- All tour times were full as 130 residents showed up to visit the Central Composting Facility, Material Recycling Facility and to see waste collection vehicles up close





Waste Management Open House









Student Move Out Education

- In the summer of 2023, staff educated students on properly managing waste when moving into student housing
- This campaign continued in the spring of 2024 educating students for when they move out of student houses
- Spring campaign included: post cards (approximately 5,000) mailed to homes in areas where student houses are, on campus posters and booths, social media, transit shelter ads and increased by-law presence





Student Move Out Education

Results of Education include:

- Staff have received positive feedback on the campaign at the Westdale Community meeting and the McMaster President's Advisory Committee on Community Relations
- Staff observed noticeably less waste on the curb
- Only four properties were found to be out of compliance with by-law during move out period in the McMaster area



Remember:

- ✓ One bag garbage limit
- ✓ Use trash tags for extra garbage
- ✓ Schedule bulk garbage collection 905-546-CITY (2489)





Litter Education

Starting in May, staff commenced with a campaign on litter education including:

- Social media posts
- Radio spots
- Revised litter education page on City website









City Wide Litter Management Enhancement

Item 7.6

Litter Management Enhancement

- Service enhancements approved through the 2024 Tax Supported Budget
 - Parks & Trails litter collection
 - Community engagement and outreach
 - Business Improvement Areas Roadway sweeping
 - Downtown Cleanliness Sidewalk litter cleaning, roadway and cycle lane sweeping, weed, graffiti and waste removal
- Currently experiencing challenges meeting new service levels due to cyber incident



Litter Management Enhancement

Service	Past Service	Enhancement	Current Status	Next Step
Parks & Trails Manual Litter Collection	-	4 Summer Students to collect litter	Not yet meeting service level as full complement for Parks students are not yet available	Continue to recruit summer students
Engagement & Outreach	-	\$50,000 added to the budget	Campaigns created/released	Monitor
BIA Roadway Sweeping	1 time per week	2 times per week	Not meeting new service level due to hiring delays	Hire staff
Downtown Cleanliness	Various Service levels	 7 days per week sidewalk litter cleaning Roadway and cycle lane sweeping 	Meeting service level but challenging due to hiring delays. Students hired for litter management	Hire remaining staff & purchase equipment





Dog Waste in Public Spaces

Item 7.7

Dog Waste in Public Spaces

- Directed through the Cleanliness and Security in the Downtown Core Task Force to investigate potential pilot
- Pilot includes a pet waste container(s) in the International Village BIA
- Goal is to reduce pet waste left on sidewalks and in public spaces







Consent Items

Item 8.1

Work not Started - X Work in Progress - Work Completed - V

Item	Description	Status	Notes
1	Policies on inter- municipal partnerships	~	Establish a policy that clearly defines ability of staff to engage in partnerships with other municipalities.
2	Support community reduce and reuse programs	~	Policy created to provide greater support to programs run by community and non-profit groups that prioritize reuse and waste reduction.
3	Increased curbside enforcement	✓	Project resulted in a combination of proactive and reactive enforcement strategies (i.e. on demand and complaint driven); Adjustment in staff structure; change in data reporting and creation of priority levels.
4	Update single-family waste audit methodology	~	Update methodology to provide more accurate and useable data. Audit completed in fall of 2022 with new methodology.



Item	Description	Status	Notes
5	Development options for Material Recycling Facility (MRF)	<u>~~</u>	Determine most effective use of property post blue box transition. Review ongoing on Corporate facility requirements.
6	Waste performance metrics and related policies	سر	Metrics for waste diversion and single-family and multi- residential capture rate of organics presented to WMSC on June 23, 2023. Landfill life and annual consumption being drafted. Metrics to be confirmed through SWMMP process.
7	Construction and demolition (C&D) waste program	<u></u>	Municipal scan complete, feasibility study/pilot for C&D to be completed.
8	Existing program improvements	<u>~~</u>	Focus on improving business recognition, waste diversion at special events & school education. School education and diversion at events complete. Business recognition Q2, 2024
9	Trash tag program	<u>~~</u>	Reviewing current program to identify efficiencies and opportunities. Waste audits currently happening.



Item	Description	Status	Notes
10	Preparation for next waste collection contract (2028)	<u>~~</u>	Investigate efficiencies and innovations for waste collection that could be included in next waste collection contract i.e. automated collection. Garbage cart feasibility study has commenced.
11	Green procurement	×	Waste staff to contribute to development of internal policies supporting green procurement. Federal regulation to act as a guide.



Item	Description	Status	Notes
1	Multi-Residential data gathering	✓	Waste audit and pilot concluded in 2021, resident survey completed. Follow-up audit conducted in 2022 and results finalized. Recommendations for program improvements presented at June 23 rd WMSC. Program implementation in 2024
2	Waste design requirements	~	Revised policy approved by Council in November 2021
3	Single-use plastic (SUP) strategy	<u>~~</u>	Strategy approved by Council, implementation began in 2021 to complete action items. Bottle fill stations installed, coffee cup pilot at arenas complete. Staff maintaining knowledge or, and commenting on, federal regulation updates.
4	Route optimization software	<u>~~</u>	Phases 1, 2 & 3 complete resulting in GIS based routes and route management system. Draft report completed, rollout to commence in Q2, 2024.



Item	Description	Status	Notes
5	Blue box transition	سر	Transition scheduled for April 1, 2025; transition tool and roadmap developed. Decision on servicing non-eligible properties made. Report to come on convenience depots.
6	Central Composting Facility capacity (CCF)	<u>~~</u>	Staff exploring options for the future of the organics management. Report on options for processing organics complete, evaluation of options to be completed by end of 2024.
7	Transfer Station/Community Recycling Centre Capacity	مسرا	Feasibility of new or expanded facility as current facilities will soon surpass capacity. Staff studying potential locations and determining cost of available land.
8	Glanbrook Landfill Development	<u>~~</u>	Expansion into stage 4 of the Landfill and improvements to the compost pad. Construction of Cells C, D & E is in progress.

