Agenda – Council – June 20, 2019

Report – Standing Policy Committee on Water and Waste, Riverbank Management and the Environment – June 5, 2019

Item No. 2 Comprehensive Integrated Waste Management Strategy Five-Year Review

STANDING COMMITTEE RECOMMENDATION:

On June 11, 2019, the Executive Policy Committee concurred in the recommendation of the Standing Policy Committee on Water and Waste, Riverbank Management and the Environment and submitted the following to Council:

1. That the Public Service report back to Council annually on the amount of residential waste created (generation) per capita, sent to a landfill (disposal) per capita, and recycled/composted/etc. (diverted) per capita as measures of performance.

2. That the Public Service develop a source separated organics pilot program and report back to Council with recommendations for the pilot project.

3. That the Public Service report back to Council by the third quarter of 2020 with a ten-year financial plan for the Solid Waste Utility, including recommendations for waste diversion programs.

4. That the development of the multi-family waste diversion fee be included with the ten-year financial plan (Recommendation 3).

5. That the 50% waste diversion target, as approved by Council on October 19, 2011, be deferred so that Public Service can recommend a revised waste diversion target after completion of the recommended source separated organics pilot program (Recommendation 2) and ten-year financial plan (Recommendation 3).

6. That the Proper Officers of the City be authorized to do all things necessary to implement the intent of the foregoing.

Report – Standing Policy Committee on Water and Waste, Riverbank Management and the Environment – June 5, 2019

DECISION MAKING HISTORY:

EXECUTIVE POLICY COMMITTEE RECOMMENDATION:

On June 11, 2019, the Executive Policy Committee concurred in the recommendation of the Standing Policy Committee on Water and Waste, Riverbank Management and the Environment and submitted the matter to Council.

STANDING COMMITTEE RECOMMENDATION:

On June 5, 2019, the Standing Policy Committee on Water and Waste, Riverbank Management and the Environment concurred in the recommendation of the Winnipeg Public Service and submitted the matter to the Executive Policy Committee and Council.

COUNCIL DECISION:

On March 21, 2019, Council concurred in the recommendation of the Standing Policy Committee on Water and Waste, Riverbank Management and the Environment and adopted the following:

1. That a further extension of time of up to 90 days be granted for the Winnipeg Public Service to report back on the matter.

On December 13, 2018, Council concurred in the recommendation of the Standing Policy Committee on Water and Waste, Riverbank Management and granted an extension of time of up to 90 for the Winnipeg Public Service to report back on the matter.

On March 22, 2017, Council concurred in the recommendation of the Standing Policy Committee on Water and Waste, Riverbank Management and the Environment and adopted the following:

1. That the Winnipeg Public Service undertake a review of the Comprehensive Integrated Waste Management Strategy (CIWMS) and report back to Council in 2018.

2. That the Proper Officers of the City be authorized to do all things necessary to implement the intent of the foregoing.

ADMINISTRATIVE REPORT

Title: **COMPREHENSIVE INTEGRATED WASTE MANAGEMENT STRATEGY FIVE-YEAR REVIEW**

Critical Path: **Standing Policy Committee on Water and Waste, Riverbank Management and the Environment – Executive Policy Committee – Council**

AUTHORIZATION

Author	Department Head	CFO	CAO
R.S. Park, Acting Manager of Solid Waste Services	M. L. Geer, CPA, CA, Director, Water and Waste Department	N/A	D. McNeil

EXECUTIVE SUMMARY

The Comprehensive Integrated Waste Management Strategy (CIWMS) (also referred to as the Garbage and Recycling Master Plan) was approved by Council in 2011. A vast majority of the 29 recommendations in the 2011 report have been implemented (Appendix A) which has transformed how Winnipeg manages its waste.

The five-year review has confirmed that the original waste diversion rate goal of 50% by 2020 as approved by Council in 2011 is not achievable and was too ambitious. The goal of 50% waste diversion could only be reached if the City were to implement a curbside source separated organics (SSO) program and make other significant investments to its waste management programs. The Public Service recommends that the existing waste diversion goal of 50% by 2020 be deferred and that a new goal not be established until recommendations are brought forward for a city-wide SSO program along with a sustainable funding model.

The Public Service is recommending an organics pilot project to commence in 2020. The pilot will inform future recommendations to Council on a City-wide program. If Council were to approve a SSO program, the earliest it could be implemented would be 2026. The projected date would allow for

- coordination with the introduction of new contracts for single family residential garbage and recycling collection;
- completion of a financial plan and rate structure for SSO and other waste management programming;
- design, implementation and evaluation of a SSO pilot prior to bringing forward recommendations to Council on any city-wide SSO program; and
- public engagement on SSO.

Despite deferring the diversion rate target, the CIWMS has been very successful. Prior to CIWMS, Winnipeg's residential waste diversion rate was 15.9% (2009), one of the lowest among major municipalities in Canada. Since the implementation of CIWMS, the following has been achieved:

- The residential waste diversion rate has more than doubled to 32.1% (2017).
- Residential waste (garbage, recycling and composting) generation per capita decreased 30.5% from 521kg (2009) to 362kg (2017).
- Residential garbage disposal has declined 44.6% from 446kg per capita (2009) to 247kg per capita (2017).
- Between 2013 and 2017, organics programs have composted an average of 28,800 tonnes per year.
- Between 2013 and 2017, landfill gas (LFG) capture and flaring reduced greenhouse gas (GHG) emissions by 461,000 tonnes of CO_2e – equivalent to the annual emissions of 97,900 passenger vehicles.

While SSO has the largest impact on diverting waste from the landfill, the CIWMS review also proposes a number of short-term (2019 to 2023) and mid/long-term (2024 to 2028) programs that would further improve the waste diversion and waste generation rates. The Public Service intends to implement those programs that can be delivered within existing operating and capital budgets, and defer any significant investment until such time as a ten-year financial plan for the Solid Waste Utility can be tabled with Council, which is expected to occur in early 2020. The financial plan will recommend rates to sustain existing and future programming, including the introduction of a multi-family waste diversion fee.

RECOMMENDATIONS

1. That the Public Service report back to Council annually on the amount of residential waste created (generation) per capita, sent to a landfill (disposal) per capita, and recycled/composted/etc. (diverted) per capita as measures of performance.

2. That the Public Service develop a source separated organics pilot program and report back to Council with recommendations for the pilot project.

3. That the Public Service report back to Council by the third quarter of 2020 with a ten-year financial plan for the Solid Waste Utility, including recommendations for waste diversion programs.

4. That the development of the multi-family waste diversion fee be included with the ten-year financial plan (Recommendation 3).

5. That the 50% waste diversion target, as approved by Council on October 19, 2011, be deferred so that Public Service can recommend a revised waste diversion target after completion of the recommended source separated organics pilot program (Recommendation 2) and ten-year financial plan (Recommendation 3).

6. That the Proper Officers of the City be authorized to do all things necessary to implement the intent of the foregoing.

REASON FOR THE REPORT

On March 22, 2017, Council concurred in the recommendation of the Standing Policy Committee on Water and Waste, Riverbank Management and the Environment and adopted the following:

1) *That the Winnipeg Public Service undertake a review of the Comprehensive Integrated Waste Management Strategy (CIWMS) and report back to Council in 2018.*

On December 13, 2018, Council granted an extension of up to ninety days for the Winnipeg Public Service to report back on the matter.

On March 21, 2019, Council granted an extension of up to ninety days for the Winnipeg Public Service to report back on the matter.

IMPLICATIONS OF THE RECOMMENDATIONS

The Public Service will continue to educate and promote waste diversion through existing budgets and develop a ten-year financial plan to fully fund current and any future programs Council may adopt, including the potential for source separated organics and a fourth 4R Winnipeg Depot.

HISTORY/DISCUSSION

CIWMS (2011) Review

On October 19, 2011, Council approved the Comprehensive Integrated Waste Management Strategy (CIWMS). CIWMS was developed through an extensive public engagement process where more than 2,500 people participated over a six month period.

This five-year review of CIWMS was initiated in 2017 and reviews the first six years of CIWMS while establishing goals and implementation strategies for CIWMS over the next short-term (2019 to 2023) and medium/long-term (2024 to 2028) planning periods.

The Public Service has delivered the majority of recommendations in the 2011 report (Appendix A). The following service enhancements have been implemented:

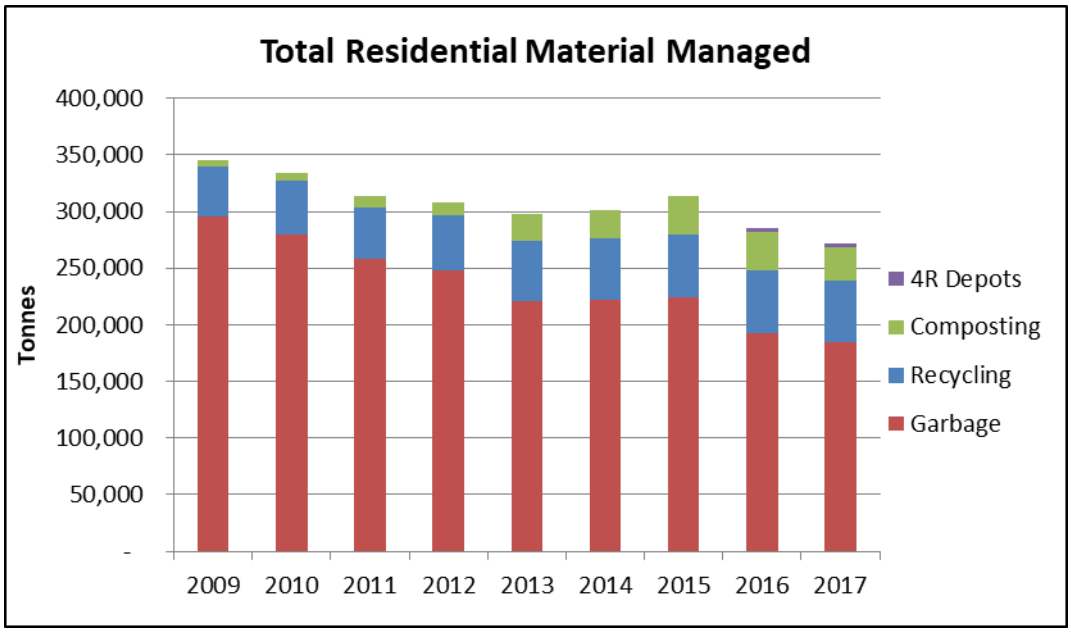
- automated garbage and recycling cart collection system;
- expansion of recycling processing capacity;
- seasonal bi-weekly leaf and yard waste collection;
- construction of a leaf and yard waste composting facility; and
- opening of three 4R Winnipeg Depots.

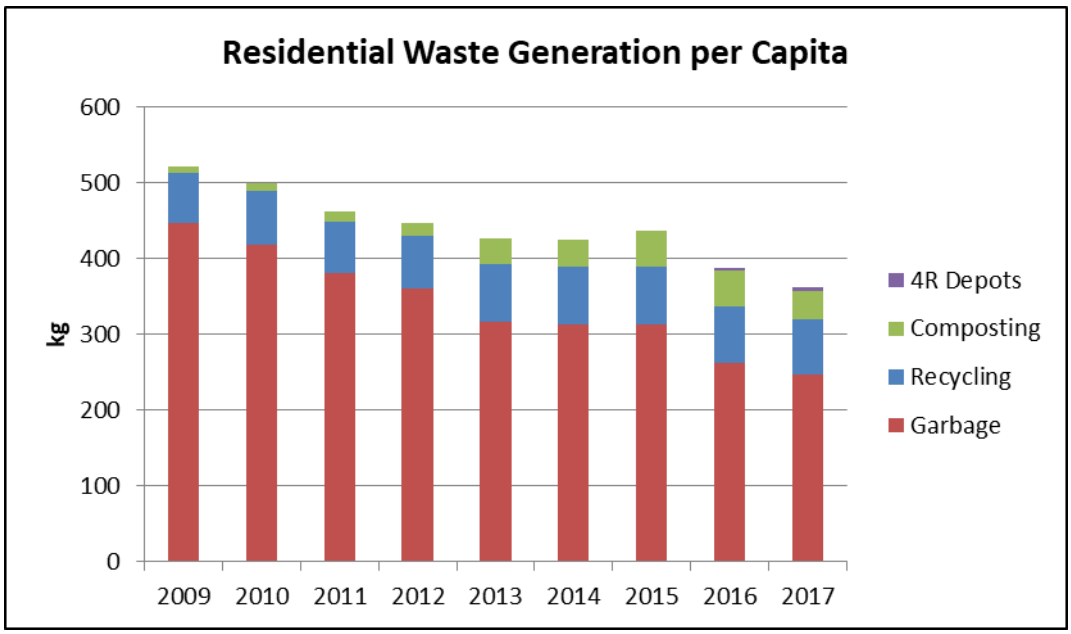
As a result of these programs, Winnipeg has reached a diversion rate of 32.1% in 2017 which is more than double the rate of 15.9% in 2009 from pre-CIWMS. The program effectiveness

during the same time frame is also demonstrated by significant improvements to residential waste generation:

- Residential waste (garbage, recycling and composting) generation per capita decreased 30.5% from 521kg (2009) to 362kg (2017).
- Residential garbage disposal has declined 44.6% from 446kg per capita (2009) to 247kg per capita (2017).
- Between 2013 and 2017, organics programs have composted an average of 28,800 tonnes per year.

The following charts show the effect of CIWMS programs on the overall residential waste stream. Both total tonnes of waste generated and waste generated per capita have decreased significantly since CIWMS was implemented.



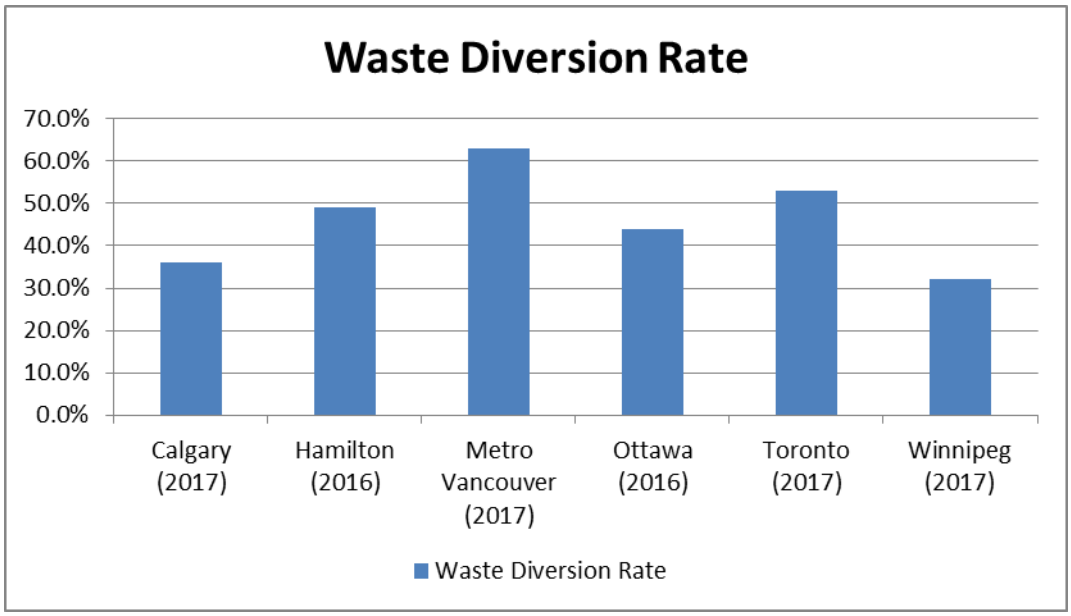


During the same timeframe as CIWMS, significant improvements were made to the Brady Road Resource Management Facility (BRRMF) as a result of receiving an *Environment Act* licence for the site. Achievements include:

- construction of a landfill gas (LFG) capture and flaring system which between 2013 to 2017 reduced greenhouse gas (GHG) emissions by 461,000 tonnes of CO2e – equivalent to the annual emissions of 97,900 passenger vehicles. An expansion to the LFG system was completed in 2018;
- construction of a biosolids composting facility; and
- upgrades to the leachate collection and surface water management systems.

While Winnipeg's waste management system has improved significantly since CIWMS was implemented, the chart below shows that our residential waste diversion rate still lags behind other Canadian municipalities with SSO programs such as Calgary[1], Hamilton, Metro Vancouver, Ottawa, and Toronto. The average waste diversion rate across these cities is 49%.

[1] Calgary's waste diversion rate reflects the partial first year of its SSO program which was implemented midway through 2017.



Funding
The funding for CIWMS was established in 2011 through the creation of the Waste Diversion Fee, applicable to residential properties with 1 to 7 dwelling units, to support new diversion programs, and an access fee of $5 for the 4R Winnipeg Depots. Garbage collection is funded through property taxes.

Council amended the funding structure for CIWMS on March 25, 2015, as part of City Council's approval of the 2015 operating budget. Council directed: "That commencing on the date of the opening of the Brady Road 4R Winnipeg Depot, the 4R Winnipeg Depot access fee of $5 be waived and that the Public Service bring forward to Council an alternative fee structure for 2016". In the 2016 budget, Council approved a change to the residential waste disposal charges at the Brady Road 4R Winnipeg Depot from $61 per tonne in 2015 with no minimum charge to $62 per tonne with a minimum charge of $15 in 2016.

Since Council's adoption of CIWMS, $49 million has been invested in Capital:

- $22.69 million for purchase of carts for automated garbage and recycling collection, and the development of the collection management system;
- $13.10 million for construction of three 4R Winnipeg Depots (with a further investment of $1.05 million in 2018);
- $8.98 million for the construction and expansion of the landfill gas system at the BRRMF (with a further investment of $0.62 million in 2018);
- $3.00 million for the construction of the leaf and yard waste composting facility; and
- $1.48 million for consulting support and studies.

CIWMS Five-Year Review Recommendations (2019 to 2028)
The review and update to the CIWMS builds upon the strategy and goals that were adopted by Council in 2011. Achieving the goal of 50% diversion will only be possible through the implementation of an SSO program and other supporting initiatives. Along with building on the

strategy and goals that were adopted by Council in 2011, collectively, the updated CIWMS recommendations provide the following environmental, social, and economic benefits:

- Improve awareness of and participation in existing programs;
- Provide more opportunities for residents to divert waste;
- Generate jobs and economic activity through diversion programs and partnerships with non-profit organizations;
- Reduce the long-term costs and liabilities associated with landfilling waste; and
- Improve the lifespan of the Brady Road Resource Management Facility (BRRMF), preserving capacity for future generations.

The implementation strategy in the updated CIWMS primarily focuses on programs for residential waste while developing partnerships to manage non-residential waste. By focusing CIWMS on the residential sector in the near-term, it prioritizes achieving the most feasible programs and their environmental benefits. Diverting waste from the Industrial, Commercial & Institutional (ICI) and Construction, Renovation & Demolition (CRD) sectors is identified in the medium to long-term implementation of CIWMS.

Approximately two-thirds of all waste generated in Manitoba is from non-residential sources. The majority of non-residential waste in Winnipeg is managed by private sector haulers, processors, and landfills outside the City's jurisdiction which the City does not have many mechanisms to affect. The diversion of non-residential waste will require partnerships and coordination with other levels of government, businesses, and other organizations in order to achieve medium to long-term goals.

The full recommendations and implementation strategy from the CIWMS Review are attached in Appendix B. The following is a high-level summary for the most significant activities identified in the CIWMS Review.

Reduction and Reuse

Reduction and reuse sit atop the waste hierarchy and provide significant environmental benefit. Items that can be reduced and reused avoid many of the costs and environmental impacts associated with transporting, processing or disposing of material collected by City programs. Ongoing promotion and education (P&E) will be required to support the implementation of the new initiatives identified in the CIWMS review along with improving the performance of existing programs. Two of the major components of reduction and reuse are backyard/community composting and grasscycling, and food waste reduction.

Development of programs to support backyard/community composting and grasscycling supports the waste hierarchy. These are low-cost activities for managing organic waste, however, they do not have the potential to divert as much material as a SSO program. Food waste[2] reduction will also be an important part of Winnipeg's overall organic waste management strategy. It is estimated that the food wasted in Canada annually amounts to 396kg per capita, with 43% (170kg) of the waste occurring at the consumer level. The rest is lost through the

[2] Food waste is defined as food that is no longer fit for human consumption. Food waste may still be diverted through composting, anaerobic digestion, or conversion to other products such as animal feed.

various stages of production, processing, transportation, and retail.[3] In 2014, the quantifiable value of wasted food in Canada was estimated be $31 billion[4].

Recycling

Completing the Multi-Family (MFD) Diversion Strategy and implementing improvements for the MFD sector is, next to a SSO program, one of the most significant opportunities to improve residential waste diversion. The 2015/2016 waste characterization study estimated that the waste diversion rate for the MFD sector is approximately half of the overall residential diversion rate. By 2027, the number of MFD housing starts is expected to exceed the growth of single family dwelling (SFD) units, in part due to an ageing population that is downsizing their housing.[5] With the number of MFD residents growing, improving waste diversion to this sector will be essential to meeting the goals of CIWMS.

Organics Diversion

A SSO program that collects residential food waste from the curb would be required to meet the original CIWMS waste diversion goal of 50% and the GHG reduction goals identified in Winnipeg's Climate Action Plan. Decomposing organic material is the main source of methane emissions from landfills and Winnipeg is the largest municipality in Canada that has not yet implemented or started to implement a SSO program. The majority of the food waste in Canada is from residential sources and programs for the residential sector will have the greatest potential to divert organic waste. In developing residential programs, consideration will be given to simultaneously developing capacity for the non-residential sector (e.g. restaurants and retail). Community and backyard composting initiatives support waste reduction and education, and would be complementary to a SSO program; however, they are unlikely to divert significant amounts of organic material compared to a SSO program.

A SSO pilot program will be essential for identifying the support and feasibility for the implementation of a full city-wide program. The pilot would be a key component of the public engagement program for organic waste diversion and be used to identify preferences for the range of materials collected; collection method; effectiveness of different container types and liners; cold weather performance; promotion and education material and other supports; changes to garbage habits; and potential system performance. The pilot for SFDs is projected to start in 2020. For MFDs, the timing and implementation details of an SSO program and pilot would be determined through the development of the Multi-Family Diversion Strategy taking place in 2019.

The SSO pilot program for single family homes will be used to evaluate the impact of organic waste collection on garbage generation habits as organic waste represents over 50% of the material set out in garbage carts by weight. The pilot would assess the viability of using a co-collection vehicle – which allows for garbage and organic waste to be collected by the same vehicle, modifying the frequency of garbage collection, or offering a smaller garbage cart size. It is common for Canadian municipalities to change their level of garbage service for residents once a SSO program is in place. Once organic waste has been removed from the garbage stream it is possible to reduce the level of service for garbage collection, generating significant savings to offset the cost of the SSO collection.

[3] http://www3.cec.org/islandora/en/item/11772-characterization-and-management-food-loss-and-waste-in-north-america-en.pdf

[4] http://vcm-international.com/wp-content/uploads/2014/12/Food-Waste-in-Canada-27-Billion-Revisited-Dec-10-2014.pdf

[5] https://winnipeg.ca/cao/pdfs/ConfBoardCanFinalRpt_LTPop-Housg-Ec_Forecast_Wpg.pdf

Concurrent with the pilot, a business case would be developed for a high-rate composting facility required to process the tonnage collected in a city-wide program, including the necessary engineering to develop the Class 3 cost estimate. It is expected that the implementation of a city-wide program would require funding from other levels of government in order to support the capital costs of a composting facility and containers.

As part of the business case development process for a city-wide SSO program, the availability of funding from other levels of government would be thoroughly explored. Potential funding sources include the Canada Infrastructure Bank, the Federation of Canadian Municipalities, and Manitoba Waste Reduction and Pollution Prevention Fund.

Recent examples of organics management facilities that have received support from the federal government include:

- Surrey, BC – Biofuel processing facility, $16.9 million
- Sudbury, ON – Biosolids management facility, $11 million
- Saint-Hyacinthe, QC – Biomethanization plant, $11.4 million
- Montreal, QC – Biomethanization plant, $16.2 million

The implementation of a city-wide SSO program should align with the next integrated solid waste collection contract for automated carts in order to optimize the delivery of services and minimize the cost of a new collection program (e.g. co-collection). The current integrated solid waste collection contract (RFP No. 302-2016) is in effect from October 1, 2017 to January 31, 2025 with two mutually agreed upon one-year extensions. Given the terms of the collection contract, the time required to design and implement a SSO pilot program, and to design, procure, construct and commission a composting facility, the introduction of a city-wide SSO program for the SFD sector could take place no sooner than 2026. In order to plan for and procure the necessary material and services for a 2020 start, work on the SSO pilot program would need to begin in 2019. It is anticipated that the implementation of SSO to the MFD sector would begin by 2031.

SSO Program Projected Timeline (subject to future Council approval)

- 2019-2020 Planning and procurement for SSO Pilot;
- 2020-2021 SSO Pilot;
  Business case development for a composting facility;
- 2022 Report to Council on the implications of a city-wide SSO program;
- 2022-2023 Application for Environment Act licensing for a composting facility;
- 2022-2026 Procurement, design, construction, and commissioning of composting facility;
- 2024-2026 Procurement and delivery of carts, containers, and P&E material;
- 2026 Start of SSO program for SFD;
- 2031 Potential start of SSO for MFD.

Resource Recovery

Resource recovery focuses on non-curbside collection programs such as depots or the BRRMF. Initiatives for the 4R Winnipeg Depots include identifying ways for small commercial customers to use the facilities, developing partnerships to expand the range of material collected and diverted (e.g. textiles and mattresses), and assessing the performance of the existing three

depots in order to develop a business case on the need to construct a fourth depot. Data gathering and a business case development will take place in 2021/2022 to explore the need for a fourth 4R Winnipeg Depot.

Current initiatives are underway to divert biosolids from disposal through land application, composting, and a soil fabrication pilot taking place at Summit Landfill. The pilot project at Summit Landfill is testing the viability of fabricating soil from biosolids, wood waste from City tree-pruning and diseased tree programs, and street sweepings.

Other Supporting Initiatives
These activities include data-gathering exercises, partnerships, development of performance metrics, and garbage disincentives. The CIWMS Review recommends exploring garbage disincentives as a means of improving waste diversion and reducing costs. Disincentives can take the form of pay-as-you throw mechanisms, reduced collection frequency, or restrictions on materials accepted in the garbage stream.

Public Engagement
Various public engagement activities are needed in order to support the implementation of CIWMS. These activities will be used to increase public knowledge of existing programs and their benefits, and to consult with residents on potential changes to waste management programs. The most significant opportunities for engagement will involve the Multi-family Waste Diversion Strategy, SSO Pilot Program, and Food Waste Reduction Strategy. Separate public engagement plans will be developed during the planning stages for each strategy or program. Specific engagement techniques will be selected for each public engagement plan that addresses the unique objectives of each strategy or program. Public engagement would also need to be supported by data gathering activities in order to better understand the potential impact of proposed programs.

Opportunities for Engagement	
Multi-family	• Improving existing recycling programs • Investigate opportunities for organic waste diversion
SSO Pilot program	• Understand support and participation for a potential program, including range of materials collected • Study effectiveness of different container types, liners, promotion and education material, and other supports • Study impacts and changes to garbage generation habits
Food waste reduction	• Work with other levels of government, non-profit organizations, and businesses involved in food production, distribution and aid (e.g. food banks) to develop a food waste reduction strategy
Data Collection Activities	
• Baseline data collection on attitudes and actions related to existing and potential garbage, recycling and composting programs • Waste composition studies to understand the effect of programs on waste generation habits • Users and usage of community recycling depots and 4R Winnipeg Depots.	

Anticipated Milestones
- Launch Multi-family Waste Diversion Strategy engagement - Fall 2019

- Report back to Council with a recommended SSO pilot program - 2019
- Launch Food Waste Reduction Strategy - 2021
- Launch SSO Pilot Program - 2020
- Launch full SSO program – 2026

CIWMS Targets
The CIWMS review identified that 50% residential waste diversion is achievable by 2030, but only with the implementation of a SSO program and other significant investments in the City's waste management programs. The Public Service recommends that the existing waste diversion goal of 50% by 2020 be deferred and that new goals not be established until recommendations are brought forward to Council for a city-wide SSO program along with sustainable funding model for the initiatives identified in CIWMS.

Per capita waste metrics were identified in the CIWMS review as additional key performance measures which should be reported on annually. These measures more accurately reflect the performance of the City's waste management programs, including reduction and reuse activities. In future CIWMS Annual Reports, residential waste generation per capita, residential waste disposal per capita, and the residential waste diversion rate will be used in tandem with each other to report on the performance of the City's waste management programs.

Greenhouse Gas Emissions
CIWMS will contribute to the Greenhouse Gas reduction targets as established in the Winnipeg Climate Action Plan which was adopted by Council on September 20, 2018.

Financial Planning
The Public Service will be undertaking a ten-year financial plan for the Solid Waste Utility in 2019 and report back to Council in 2020. The ten-year financial plan will develop a multi-family waste diversion fee, identify significant financial risks (e.g. recycling commodity markets), assess current rates, and look at sustainable funding models for the Utility. The different utility models of comparable Canadian jurisdictions will be studied to determine the most suitable model for Winnipeg. Winnipeg's existing funding model as compared to other jurisdictions is noted below:

Municipality	Garbage	Recycling	Composting
Winnipeg	Property tax	Utility fee (Waste Diversion Fee)	
Regina	Property tax	Utility fee	N/A
Saskatoon	Property tax	Utility fee	Utility fee[6]
Calgary	Utility fee	Utility fee	Utility fee
Vancouver	Utility fee	Stewardship-funded	Utility fee
Toronto	Variable utility fee for garbage cart provides for all services		
Hamilton	Property tax	Property tax	Property tax
Ottawa	Utility fee	Property tax	Property tax
Edmonton	Single utility charge for all services		

[6] Subscription-based seasonal leaf and yard waste, and vegetative food scraps.

FINANCIAL IMPACT

Financial Impact Statement

Date: April 24, 2019

Project Name:

Comprehensive Integrated Waste Management Strategy Five-Year Review

COMMENTS:

This report be received as information. The Public Service will report back to Council in 2020 with a ten-year financial plan for the Solid Waste Utility, including recommendations for waste diversion programs.

"Original signed by L. Szkwarek, CPA, CGA"
Lucy Szkwarek, CPA, CGA
Manager Finance and Administration

CONSULTATION

This Report has been prepared in consultation with:

Office of Sustainability
Office of Public Engagement

OURWINNIPEG POLICY ALIGNMENT

This report is in accordance with the OurWinnipeg policies through

OurWinnipeg Reference: 02-2 Environment Directions, Set long range goals for solid waste diversion

SUBMITTED BY

Department: Water and Waste
Division: Solid Waste Services
Prepared by: J. Lee, RPP
Date: April 24, 2019
File No.: G-222

ATTACHMENTS:

APPENDIX A: 2011 CIWMS Recommendations and Status
APPENDIX B: CIWMS 5-Year Review Executive Summary

APPENDIX A
2011 CIWMS Recommendations and Status

	RECOMMENDATION	STATUS
Garbage Collection System		
1.	That all single family residential premises served with manual and AutoBin collection be served with the automated garbage cart system consisting of one 240-litre cart collection per cycle, consistent with the existing automated garbage cart collection system in the northwest area of the city	Completed
2.	That replacement garbage carts for lost carts be provided to residents at cost	Completed
3.	That bulky waste service be provided at a charge of $5.00 per item, up to a maximum of 10 items per collection	Completed
4.	That surplus waste be collected consistent with the bulky waste charge ($5.00 per pickup of up to 3 standard size garbage bags)	Completed
5.	That the abandoned waste collection service continue	Completed
6.	That collection system changes be initiated in 2012	Completed
Diversion (including Recycling)		
7.	That all single family residential premises be served with the automated recycling cart system, consistent of one 240-litre cart collection per cycle	Completed
8.	That replacement recycling carts for lost carts be provided to residents at cost	Completed
9.	That additional or larger recycling carts be provided to residents at cost, with no limit on collection volume, where quantities justify	Completed
10.	That near term and longer term recycling processing capacity be secured to accommodate the growth in recycling	Completed
11.	That, subject to Recommendation No. 1, a leaf and yard waste collection program using approved compostable bags and/or hard-wall containers (e.g., old garbage cans) be implemented for 7 months per year on a bi-weekly collection basis and the existing Leaf-It Depots be closed in 2013	Completed

	RECOMMENDATION	STATUS
12.	That a source separated organics (kitchen organics) trial be conducted for residential households in 2014, subject to approval of capital budgets, and based on the results, recommendations be brought forward regarding a full-scale program with an implementation by 2017	Outstanding
13.	That, based on results of the source separated organics trial program and subject to capital budget approval, a full scale source separated organics program be implemented	Outstanding
14.	That all organics collected through the above programs be composted at composting facilities to be developed at Brady Road Landfill site, subject to capital budget approval	Leaf and Yard Waste composting facility complete
15.	That, subject to the approval of capital budgets, beginning in 2013, up to 4 Community Resource Recovery Centres (CRRCs) be developed in strategic locations, with initial sites at Brady Road Landfill and in the north area of the city (location to be determined), and that an access fee of $5.00 be applied for all material except those covered under other programs, such as household hazardous waste, electronic waste or recycling	Three 4R Winnipeg Depots completed and determination on a fourth location is ongoing. Access fee of $5 was modified by Council
16.	That non-profit organizations and product stewards be considered for partnership at CRRCs to divert material rather than disposing of it.	Completed
17.	That discussions with the multifamily residential sector be ongoing for future program improvements including, but not limited to, improved recycling and possible future source separated organics	Ongoing
Brady Road Landfill/Brady Road Resource Management Facility		
18.	That the focus of Brady Road Landfill area be changed from waste burial to resource recovery, and therefore be renamed as Brady Road Resource Management Facility	Completed
Implementation Requirements and Ongoing		
19.	That staffing for 2012 to carry out the foregoing programs per Table 6 – Proposed Staff Plan be approved in advance of approval of the 2012 Operating Budget	Completed

	RECOMMENDATION	STATUS
20.	That the program costs be funded through a combination of property tax support and a user fee collected on the water bill, with property taxes supporting the diversion programs and the user fee funding the balance of garbage collection costs	Completed
21.	That a user fee charge of $4.17 per single-family dwelling unit per month, as defined by the Solid Waste By-law No. 1340/76 of seven or less dwellings per property, billed quarterly ($12.50/3 months) on the water bill, be approved, to be implemented no earlier than October 1, 2012, and that a waste diversion reserve fund be established where all surplus monies collected through this user fee be dedicated to waste diversion programs	Completed
22.	That a first charge on the 2012 Capital Budget be authorized in an amount of $16.6 million in accordance with Subsection 288(2) of The City of Winnipeg Charter to allow timely contract award for the development and purchase of automated recycling and garbage carts for delivery in 2012 as recommended in No. 1 and No. 7 above and that the related financing requirements be referred to the 2012 Capital Budget Process, broken down as follows: A. $9.35 million for recycling carts in the Solid Waste Utility's 2012 Provision for Implementation of the Waste Management Strategy capital project and B. $7.25 million for a new 2012 capital project – Provision for Implementation of the Waste Management Strategy – Automated Garbage Carts in the General Revenue Fund	Completed
23.	That a first charge on the 2012 Capital Budget be authorized in an amount of $400,000 in accordance with Subsection 288 (2) of The City of Winnipeg Charter to allow for timely contract award for the development and implementation of the billing system changes as recommended in No. 20 for the Solid Waste Utility's 2012 Provision for Implementation of the Waste Management Strategy capital project and that the related financing requirements be referred to the 2012 Capital Budget process	Completed

	RECOMMENDATION	STATUS
24.	That authority be delegated to the Chief Administrative Officer, in order to shorten the time-period for approval of contracts critical for 2012 implementation such as, garbage collection services estimated at $7,300,000, recycling collection services estimated at $4,700,000 and yard waste collection services estimated at $2,500,000 per year to allow time for the successful bidder(s) to order equipment	Completed
25.	That a communication plan, as well as a promotion and education and enforcement plan, be developed to support these recommendations as well as existing programs	Complete
26.	That the Solid Waste By-law No. 1340/76 be updated with recommendations from the master plan and be approved by City Council no later than September 2012	Completed
27.	That small commercial establishments eligible for garbage collection service under the Solid Waste By-law No. 1340/76, be charged the same user fee as single-family dwelling units and therefore be eligible for the same waste diversion services	Completed
28.	That the Winnipeg Public Service publish an annual report on the status of the Master Plan	Completed
29.	That discussions with industrial, commercial and institutional sectors, and construction and demolition sectors be ongoing for future program improvements	Ongoing
30.	That a Waste and Diversion Advisory Committee of knowledgeable volunteer citizens (similar to the Active Transportation Advisory Committee) be created to work with the Public Service to provide advice and recommendations for the completion, implementation, and continual improvement of the Garbage and Recycling Master Plan	Ongoing

APPENDIX B
CIWMS 5-Year Review Executive Summary