

Minute No. 682

Report – Standing Policy Committee on Water and Waste, Riverbank Management and the Environment – June 28, 2022

**Item No. 1 Comprehensive Integrated Waste Management Strategy (CIWMS)
Annual Report**

COUNCIL DECISION:

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 report be received as information.

Report – Standing Policy Committee on Water and Waste, Riverbank Management and the Environment – June 28, 2022

DECISION MAKING HISTORY:

Moved by Councillor Mayes,

That the recommendation of the Standing Policy Committee on Water and Waste, Riverbank Management and the Environment be adopted.

Carried

EXECUTIVE POLICY COMMITTEE RECOMMENDATION:

On July 13, 2022, 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 28, 2022, 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 June 20, 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 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).

Report – Standing Policy Committee on Water and Waste, Riverbank Management and the Environment – June 28, 2022

DECISION MAKING HISTORY (continued):

COUNCIL DECISION (continued):

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.

ADMINISTRATIVE REPORT

Title: 2021 COMPREHENSIVE INTEGRATED WASTE MANAGEMENT STRATEGY (CIWMS) ANNUAL REPORT

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

AUTHORIZATION

Author	Department Head	CFO	CAO
M. Gordichuk, CCLP, Manager of Solid Waste Services	T. W. Shanks, M. Eng., P. Eng. Director, Water and Waste	N/A	M. Jack

EXECUTIVE SUMMARY

The Annual Report to Council summarizes the activities and financial results for 2021.

2021 was the ninth full year of implementation of the Comprehensive Integrated Waste Management Strategy (CIWMS) since beginning in 2012.

2021 program results include:

- decrease in the residential waste diversion rate to 30.2%
- decrease to per capita residential waste generation of 6.6%
- decrease to per capita residential garbage generation of 5.5%
- increase in the number of visits to 4R Winnipeg Depots by 0.7%
- decrease in the amount of materials managed at 4R Winnipeg Depots by 7.9%

Overall, there was a decrease to the amount of residential waste managed in 2021 compared to 2020, with levels closer to the pre-pandemic average. This includes decreases to residential garbage generation, leaf and yard waste generation, and weight of recycling collected.

RECOMMENDATIONS

That this report be received as information.

REASON FOR THE REPORT

On October 19, 2011, Council approved the Comprehensive Integrated Waste Management Strategy (CIWMS). Recommendation No. 28 of the CIWMS requires: "That the Winnipeg Public Service publish an annual report on the status of the Master Plan."

IMPLICATIONS OF THE RECOMMENDATIONS

There are no implications associated with the recommendation of the report.

HISTORY/DISCUSSION

In 2009, Winnipeggers landfilled an excess of 283,000 tonnes of residential garbage, and recycled and composted approximately 54,000 tonnes of residential material - a diversion rate of about 15 percent, which was one of the lowest in Canada. At the same time, the Public Service was recommending changes to the garbage and recycling collection systems based on feedback from collectors, industry trends and other municipalities in North America.

As a result, in June 2010, Council directed the Public Service to create a waste diversion strategy in consultation with the public, to increase the waste diversion rate, explore options for material collection and provide uniform service for Winnipeg residents. Working with a consultant and through extensive public consultations, a made-for-Winnipeg plan was developed.

OurWinnipeg also identified the need to carry out a comprehensive waste management strategy, to integrate and optimize the service level and efficiency of all facets of the solid waste management system, while minimizing environmental impacts. Winnipeg's Climate Action Plan further supports actions to increase waste diversion efforts and minimize the environmental impacts associated with landfilling waste.

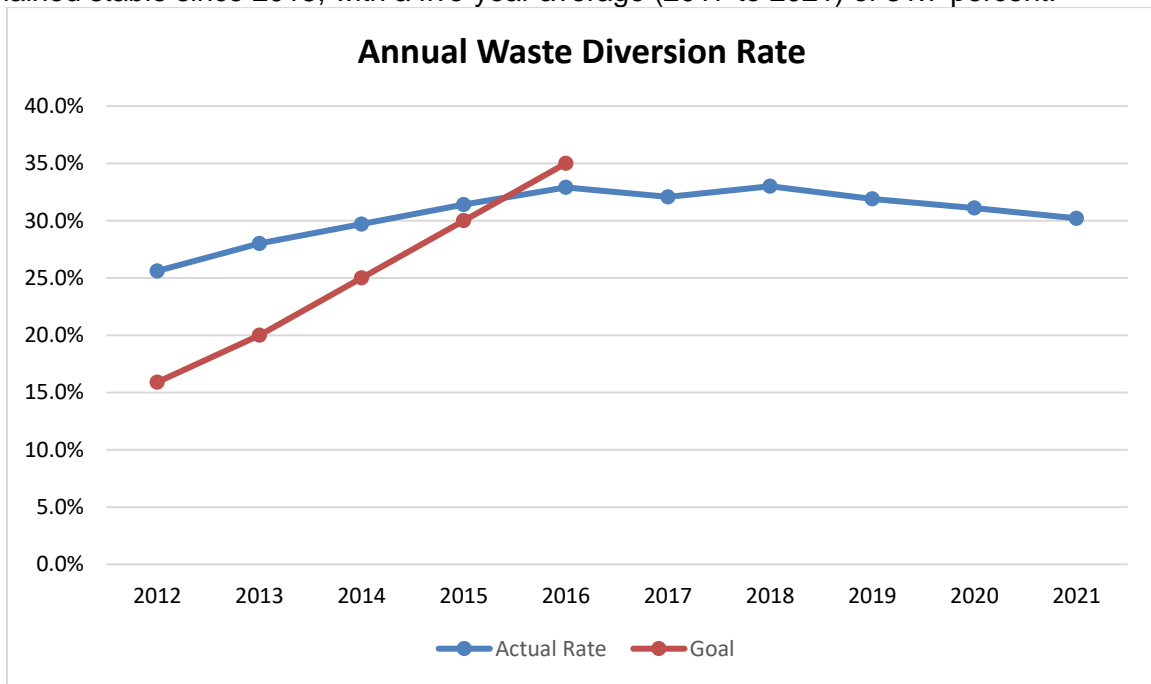
On October 19, 2011, Council approved the Comprehensive Integrated Waste Management Strategy (CIWMS) with the overall strategy of the plan being to increase Winnipeg's diversion rate to 35 percent by 2016 and to greater than 50 percent by 2021 and thereafter. Implementation of the plan began in 2012.

PROGRAM RESULTS – 2021**1. Residential Waste Diversion**

The residential waste diversion rate decreased to 30.2 percent in 2021, from 31.1 percent in 2020, mainly as a result of drought weather conditions.

The residential waste diversion rate is calculated as a percentage of the total diverted residential tonnage divided by the total residential tonnage of material landfilled and diverted. The methodology was updated in 2018 to align with the *Generally Accepted Principles for Calculating Municipal Solid Waste System Flow* manual. This aligns the City's methodology with the other cities that participate in Municipal Benchmarking Network Canada. The methodology reflects minor changes to the calculation of backyard composting, bottle deposit returns (beer bottles and cans), and residuals tonnages.

The following graph highlights waste diversion goals (2012 to 2016) established by CIWMS, as well as the actual rate for the past ten years (2012-2021). It highlights that the City did not reach its initial goal of a 35 percent diversion rate by 2016. Overall, the diversion rate has remained stable since 2015, with a five-year average (2017 to 2021) of 31.7 percent.



A significant increase to the waste diversion rate will not occur without the introduction of a city-wide Residential Food Waste Collection program.

2. Waste Generation

Waste generation is an indicator of system performance and provides additional detail to the waste diversion rate. Due to the continued light weighting of recyclable materials and natural variations in leaf and yard waste (LYW), per capita waste generation is increasingly recognized as a key indicator of system performance by municipalities that participate in the Municipal Benchmarking Initiative Canada (MBNC).

In 2021, the amount of residential waste managed by the City was approximately 284,700 tonnes, compared to 304,400 tonnes in 2020 - a decrease of 6.5 percent. During this time, Winnipeg's population grew from 766,894¹ people to 767,500 people, an increase of 0.1 percent. The decrease in total amount of residential waste managed in 2021 may relate to fewer impacts of the COVID-19 pandemic on residential waste generation compared to 2020, which saw above-average amounts of residential waste generation.

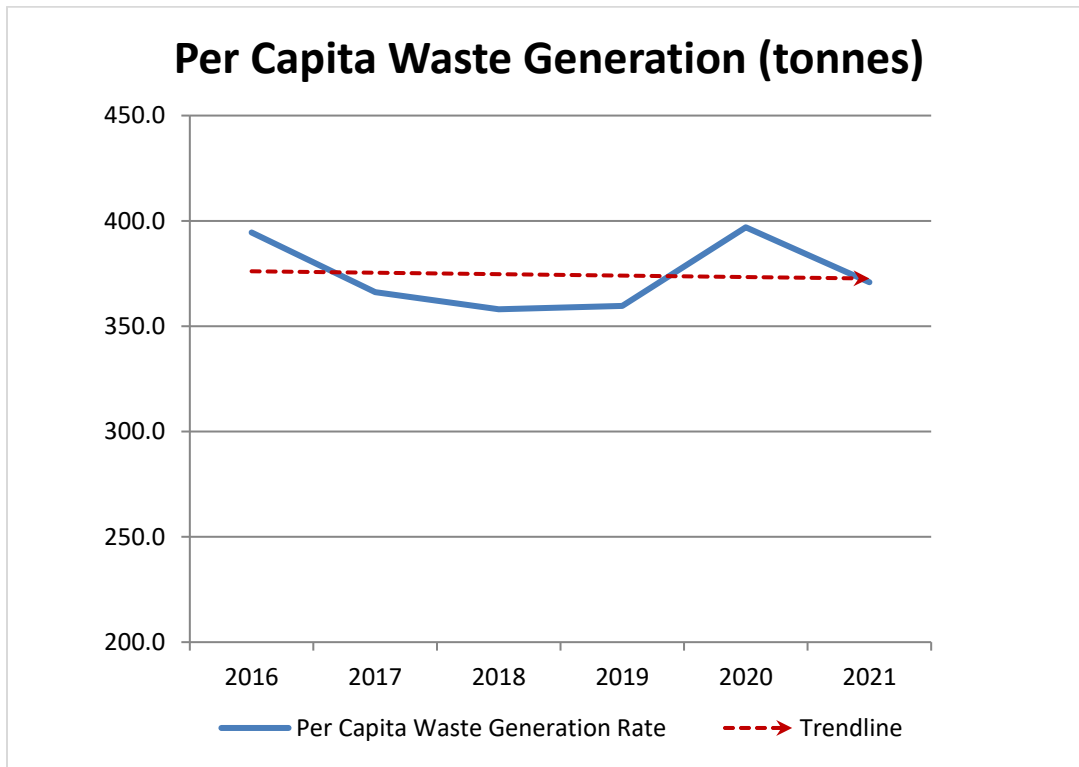
¹ Population reported in CIWMS 2020 Annual Report. Winnipeg's 2020 population was adjusted by Statistics Canada to 767,854 after the publication of CIWMS 2020 Annual Report, which results in a population decline of 354 people. This report is not restating the 2020 population for consistency.

On a per capita basis from 2020 to 2021, the total amount of residential waste managed by the City decreased by 6.6 percent, including collected and self-hauled materials. Per capita garbage generation decreased by 5.5 percent, recycling generation decreased by 1.5 percent, and leaf and yard waste decreased by 19.6 percent. Notably, per capita garbage generation has decreased by approximately 16.5 percent since 2011.

Residential Waste Managed by City of Winnipeg Programs per Capita (kg)

	2011	2020	2021	2021 vs 2011
Population	677,800	766,894	767,500	+13.2%
Garbage	309.4	273.4	258.5	-16.5%
Recycling	67.6 ²	66.5	65.5	-3.1%
Leaf & Yard Waste Composting	13.5	48.4	38.8	+186.50%

The following graph illustrates the per capita waste generation rate over the past five years, which has remained fairly static with a five-year average of 371 kg per household.



3. Recycling Program (Curbside and Recycling Depots)

² This figure was reported as 63.4 in error in the 2020 CIWMS Annual Report. That total only accounts for collected recyclable materials, and does not account for self-haul materials. The figure reported herein is consistent with past CIWMS Annual Reports.

The per capita weight of residential recycling cart-type material managed through all City programs decreased slightly by 1.5 percent in 2021 from 2020. The per capita weight of recyclable material collected at the curb decreased by 0.7 percent, and the per capita weight collected at depots decreased by 28.7 percent. At 50,295 tonnes, the total weight of recyclable materials processed in 2021 was the lowest it has been since 2012.

Since 2015, there has been a trend of decreasing weight of recyclable materials collected because of ongoing changes occurring in the manufacturing and recycling industries. Known as the “evolving tonne”, recyclable materials continue to shift in composition away from heavier and denser material (e.g. glass, metal, and newsprint) to lighter and bulkier material (e.g. plastic, corrugated cardboard). This emphasizes the importance of considering per capita waste generation in conjunction with recycling diversion rates (percentages) when evaluating overall performance of recycling programs.

Year	Tonnes Recyclable Material Processed
2021	50,295
2020	51,011
2019	50,856
2018	52,553
2017	54,177
2016	55,010
2015	55,697
2014	54,465
2013	53,606
2012	48,087

*CIWMS Implemented

The five-year average for tonnes of recyclable material processed is 51,779. The 2021 results are approximately 1,500 tonnes below this average.

4. Leaf and Yard Waste Collection and Composting

From 2020 to 2021, the total amount of residential compost material that was diverted decreased by 19.6 percent (7,200 tonnes). Per capita, there was a 22 percent decrease for curbside collection and 12.5 percent decrease for self-haul. Leaf and yard waste (LYW) collection and composting numbers fluctuate from year to year due to weather conditions and other factors. In 2021, most Manitoba watersheds received below-normal precipitation between May and October, which likely contributed to less vegetative growth in Winnipeg and less leaf and yard waste overall.

Collection and Self-Haul

Almost 22,000 tonnes of yard waste were collected curbside and over 8,000 tonnes of LYW³ were dropped off at the 4R Winnipeg Depots and the yard waste composting area at the Brady Road Resource Management Facility (BRRMF). An additional 5,400 tonnes of material were delivered from other public sources, including the City’s Retention Pond Weed Harvesting Program.

³ Includes clean lumber

Composting

The amount of LYW composted every year fluctuates due to weather conditions and other factors. While 2020 saw significant increases due in part to a major storm event in late 2019 and potential impacts of the COVID-19 pandemic, 2021 was a drought year, resulting in less vegetative growth and thus lower volumes of LYW. In 2021, close to 30,000 tonnes of LYW waste were composted at the BRRMF, a 19.5 percent decrease from 2020. The finished compost continues to meet the standards established by the *Compost Quality Alliance* and the *Canadian Council of Ministers of the Environment*. Finished compost is either used as top dressing on finished areas of BRRMF and provided to other City departments or sold as surplus goods.

Approximately 10,230 cubic meters of compost was sold in 2021. An additional 1,000 cubic meters of compost was made available for pick-up by Winnipeg residents through a compost giveaway. In 2021, the compost giveaway took place at BRRMF, Kilcona Park, and Summit Landfill during October 1 to 3. This event typically takes place in May during Compost Awareness Week, but the event was delayed due to the COVID-19 pandemic.

Year	LYW Tonnes Composted
2021	29,784
2020	36,993
2019	31,630 ⁴
2018	33,041
2017	28,528
2016	34,123
2015	33,474
2014	29,754
2013	23,223
2012	10,081

*CIWMS Implemented

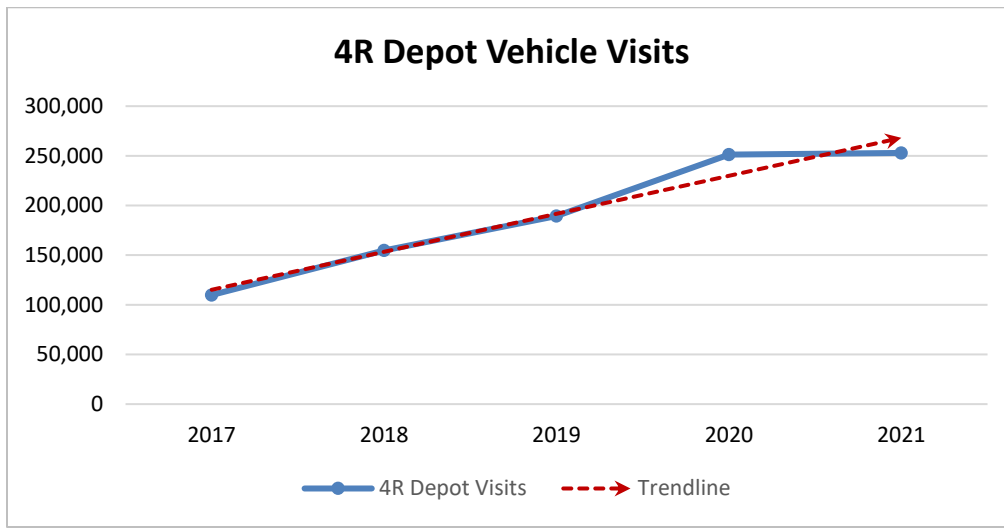
5. 4R Winnipeg Depots

Combined, the Brady, Pacific and Panet 4R Winnipeg Depots managed 14,400 tonnes of material, a 19 percent decrease compared to 2020. Of the tonnes managed in 2021, 6,500 were diverted into recycling or composting programs. The remaining 7,900 tonnes consisted of clean fill⁵ and concrete/ceramic which was used at BRRMF for daily operations.

Approximately 253,000 vehicles visited the depots in 2021, a 0.7 percent increase (1733 visits) from 2020. The chart below highlights a trend of increasing 4R Winnipeg Depot visits between 2017 to 2020, with a leveling-off between 2020 and 2021.

⁴ Restated from 2019 CIWMS Report

⁵ Clean fill typically consists of clay or soil. These are materials that are not originally intended for disposal and therefore not considered diverted material.



While overall tonnages handled at 4R Winnipeg Depots decreased, the slight increase in the number of visits suggest the facilities are continuing to be popular and are now familiar to residents. This can be attributed to continued focus on customer service and efficiency, as well as sustained promotion and advertising. In 2021, this included additional targeted advertising for fall and spring clean-ups; specific electronics promotion during Black Friday, Cyber Monday, and the Christmas season; as well as the regular communications methods used in years past.

Tonnes of Material Managed at 4R Winnipeg Depots

Material	2020	2021
Batteries	79	85
Bicycles	14	15
Ceramics and Concrete	3,371	2,925
Clean Fill	5,379	4,974
Electronics	713	666
HHW	826	680
Oil	124	140
Mattresses	316	408

Material	2020	2021
Glass	79	40
Lumber	91	12
LYW	4,184	3,278
Appliances	190	212
Recyclable Material	305	247
Scrap Metal	726	709
Tires	277	310
Total	16,677	14,704

Notable changes include the 87 percent decrease of lumber, 22 percent decrease in the amount of LYW, and 29 percent increase in mattress recycling.

6. Residential Curbside Garbage Collection and Disposal

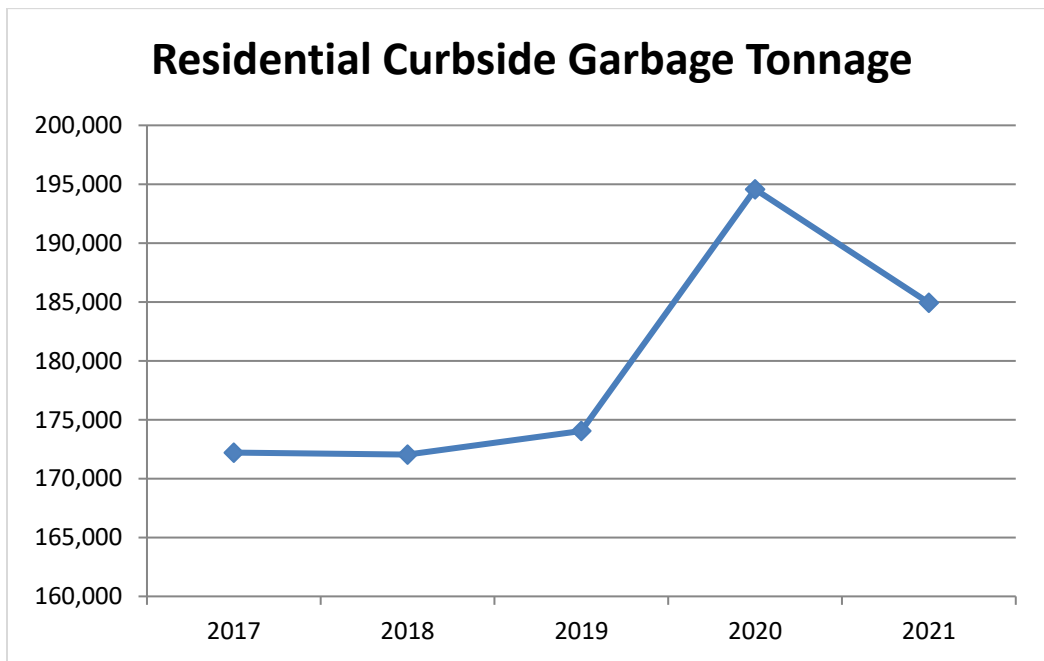
The weight of residential garbage collected⁶ at the curb and landfilled decreased by approximately 5 percent or 9,640 tonnes.

The chart below highlights a decrease in garbage collected and disposed in 2021 compared to 2020. However, with a five-year average of 179,560, 2021 tonnages are still above normal. This highlights the sustained impact COVID-19 has had on residential garbage generation.

⁶ Includes a small amount of waste from municipal facilities and small commercial generators

Year	Residential Curbside Garbage Tonnage
2021	184,930
2020	194,570
2019	174,050
2018	172,041
2017	172,209
2016	174,280
2015	177,845
2014	176,011
2013	173,897
2012	201,741

*CIWMS Implemented



Requests to 311 for Large Item Pickups decreased by approximately 17 percent in 2021 compared to 2020. Reports of Abandoned Waste increased by 59 percent in 2021 compared to 2020, and the number of residents using the Extra Garbage Pickup service increased by 33 percent.

Requests to 311	2021	2020	2019
Abandoned Waste reports	556	349	527
Large Item pickup ⁷	12,133	14,587	13,037
Extra Garbage pickup	324	306	230

⁷ Includes pickups of bulky waste and appliances with ozone depleting substances

7. Curbside Collection Performance

Collection deficiencies decreased for garbage, recycling and LYW collection in 2021 compared to 2020, for an overall decrease of 6 percent.

Collection	Approximate No. of Locations Collected Weekly	311 Reports of Missed Collection		
		2021	2020	2019
Garbage carts	208,850	6,433	6,782	6,592
Recycling carts	208,850	4,244	4,632	4,668
Yard waste (April to November)	104,425	1,672	1,775	1,531
Total		12,349	13,189	12,791

Note: The total number of reports of missed collection may not be a true indication of contractor performance and penalties. For example, upon investigation by either the City or the contractor, a number of complaints registered as missed collection show:

- There was a valid reason why collection was not done.
- The call should have been recorded as a different type of service request.

8. Residential Food Waste Collection Pilot Project (Source Separated Organics)

The residential food waste collection pilot project continued in its second and final year, providing weekly curbside cart collection to approximately 4,000 households across five pilot areas. In 2021, public engagement activities included: online surveys, stakeholder engagement webinars, information mail-outs, and ongoing customer service via the project email, phone conversations, and 311. Other key data gathering activities included: a second scientific waste audit in July 2021, cart inspections in September 2021, and ongoing tracking of collection truck tonnage and tipping data. Phase 3 of the project will commence in the summer of 2022. It will include a third waste audit, a second round of cart inspections, an online pilot participant survey, and a second City-wide scientific survey. Information obtained from this project will be used to inform Council's decision towards a city-wide program.

Using external funding obtained from Manitoba Conservation and Climate, additional activities were undertaken to enhance the pilot project. This included contracting a consultant to undertake an Organic Waste Processing Facility Report, which will include preliminary cost estimates for two potential organic waste processing facilities. Secondly, the funding was used to launch a food waste reduction campaign in April 2021, in partnership with the Winnipeg Food Council and Love Food Hate Waste Canada. In June 2021, a three-year partnership agreement was signed with Love Food Hate Waste Canada to continue to support Winnipeg residents in reducing their food waste using a variety of communications methods.

9. Landfill Gas Capture/Green House Gas Reduction

In its eighth full year of operation, the landfill gas (LFG) system at the BRRMF captured and flared 10.7 million cubic metres of gas, which resulted in a GHG reduction equivalent of 81,353 tonnes of carbon dioxide. This amount is equivalent to avoiding the annual carbon dioxide emissions of 17,693 passenger cars⁸ - a 3.5 percent decrease in carbon dioxide equivalent avoided compared to 2020 (84,324 tonnes). Notably, the volume and make up of landfill gas varies each year depending on the type of solid waste disposed and other factors.

⁸ Based on USA Environmental Protection Agency Greenhouse Gas Equivalencies Calculator

10. Public Engagement

The Community Liaison Committee for the Brady Road Resource Management Facility was established in 2014 as part of the requirements of the new Environment Act Licence. Two Committee meetings were held in 2021: on June 9 and December 6. Committee members received updates and provided comment on:

- Residential Food Waste Collection Pilot Project
- Landfill Gas to Energy Beneficial Use Feasibility Study
- landscaping activities on finished areas of the landfill
- noise and odour considerations
- seagull management
- ways to reduce the impact of landfill activities (e.g., construction, operations) on the local environment

The Waste Diversion Advisory Committee did not meet in 2021.

11. Biosolids Soil Fabrication

The 2018-2020 Biosolids Soil Fabrication Pilot Project examined the viability of utilizing biosolids and other residuals generated from City operations, primarily wood waste and street sweepings, to fabricate topsoil to complete the cap system at Summit Landfill. Solid Waste Services submitted an Environment Act licence proposal for an ongoing biosolids soil fabrication program in 2020. The pilot project has been given a second year of extension while the application is under review. In 2021, over 34,495 tonnes of biosolids were beneficially used to make soil as part of this initiative. This project, combined with the City’s Biosolids Land Application program, helped ensure 100 percent of the biosolids produced by the City were diverted from landfill in 2021.

12. Financial Results

City Council’s adoption of the CIWMS included the introduction of the annual Waste Diversion Fee. Effective January 1, 2021, this fee was charged at an annual rate of \$66.00 (increased from \$65.00) per dwelling unit to residential properties (properties with seven or fewer dwellings as defined by the Solid Waste By-law). These monies are used to fund waste diversion programs.

The total revenue collected in 2021 was \$13.8 million, comparable to \$13.4 million in 2020.

Operating costs for garbage and recycling collection and processing are stable and any changes are a result of contractual price adjustments. LYW collection costs decreased by 21.2 percent, likely as a result of dry weather.

Operating Cost Highlights

Contract Costs (in Millions)	2021	2020	2019
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Garbage Cart Collection ⁹	\$11.2M	\$10.7M	\$10.9M
Recycling Cart Collection ¹⁰	\$12.3M	\$11.8M	\$12.1M
Recyclable Material Processing	\$7.5M	\$7.5M	\$8.3M
Leaf and Yard Waste Collection	\$2.6M	\$3.3M	\$2.9M
Leaf and Yard Waste Composting	\$0.6M	\$0.4M	\$0.8M

Processing and Marketing of Recyclable Material

2021 was the second full year of operations for the new materials recovery facility (MRF).

A variety of factors including technological, contractual, and operational improvements have provided the current MRF with the ability to adapt to extreme changes brought on since 2018; when China drastically changed their import policies, introducing unprecedented quality standards that re-characterized the global recycling markets. The results from the MRF have significantly enhanced processing and marketing performance. With continued transitions in global recycling markets for paper and plastics, enhanced by the pandemic, revenues increased to \$9.735 million in 2021 compared to \$3.758 million in 2020 - a 259 percent increase.

Carts

The department spent approximately \$716,000 for the purchase of garbage and recycling carts for new housing developments and for the replacement of damaged carts. This amount increased in 2021 due to a rise in the number of damaged carts, which was compounded by higher costs of carts due to supply chain issues and other factors.

Waste Diversion Reserve Fund

As of December 31, 2021, the balance in the Waste Diversion Reserve was \$10.882 million. The balance of the Waste Diversion Reserve will be used towards funding waste diversion initiatives. There was a transfer to the reserve in 2021 of \$6,500,000 as there was a surplus in Recycling and Waste Diversion due to higher commodity pricing.

CAPITAL COSTS

Residential Food Waste Collection Pilot Project (Source Separated Organics)

A request for proposal (RFP) (607-2019) was awarded in February 2020 to assist with the implementation a two-year residential food waste collection and public engagement pilot project. Food waste collection continued throughout 2021. Other project activities included public engagement and various forms data collection to measure participation and satisfaction with the project. The two-year pilot project is ongoing and within budget. The Public Service will report to Council on the findings of the study in Q1 2023.

Landfill Gas Expansion Project

Work on the landfill gas (LFG) and leachate collection system expansion continued with support obtained through the Canada Low Carbon Economy Fund. RFP 194-2020 (Landfill Gas

⁹ Excludes multi-family properties that use garbage bins

¹⁰ Includes multi-family properties that use recycling carts

Collection Expansion) was awarded in May 2020 to expand the LFG well field and the conversion to dual-purpose wells for landfill gas and leachate collection. Substantial completion of construction works was achieved in 2021. This will improve the LFG collection efficiency of the system to be as high as 75 percent.

Multi-Family Diversion Strategy

RFP 503-2015 was awarded in May 2016 and was put on hold in 2017 as per Council direction to allow for the completion of CIWMS. This project was re-launched in September 2021 to complete a waste diversion strategy and prepare design guidelines for multi-family and mixed-use properties. This project is ongoing and is currently within budget. The Public Service will report back to Council on the findings of the strategy in Q4 of 2022.

BRRMF Cell Design and Construction

Construction of disposal Cell 33 was completed in 2021 for a cost of \$1.9 million. This included the installation of a leachate collection system and associated infrastructure.

BRRMF Site Improvements

Improvements are required at the site of the BRRMF under the site's Environment Act Licence. In 2021, substantial vegetation management and landscaping activities were put on hold due to the drought weather conditions, with some minor vegetation plantings carried out on the perimeter of the site. New radiation detection equipment was purchased and installed at the commercial and residential scales for a cost of \$300,000.

13. 2022 Implementation Plan

Residential Food Waste Collection Pilot Project (Source Separated Organics)

The pilot project will continue until Q4 of 2022. It provides weekly food waste collection service to approximately 4,000 households along five waste collection routes, waste audits, and public engagement activities. Collection will end on October 1, 2022. Evaluations and cost estimates for two organics processing facilities will be developed. Information obtained from this project will be used to inform Council's decision towards a city-wide program and the business case for its implementation.

Landfill Gas Beneficial Use - Alternative Energy Project

As per March 24, 2022, Council direction, the Public Service will commence negotiations with Integrated Gas Recovery Services Inc. to become a raw resource landfill gas supplier on a 20-year term, and will continue to consult with other stakeholders to analyze options for beneficial use of BRRMF landfill gas.

Multi-Family Diversion Strategy

The multi-family diversion strategy will continue in 2022, with public engagement and stakeholder engagement activities planned for Q2. Completion of the strategy, implementation plan and design guidelines for the multi-family sector will be completed and reported to Council in Q4 of 2022.

Biosolids Soil Fabrication Pilot Project

Year five of the Biosolids Soil Fabrication Pilot Project will take place in 2022. An Environment Act licence was submitted to Manitoba Conservation and Climate in 2020 for the implementation of a full-scale program. The licence is under review; therefore, a second extension to the pilot project has been granted by the regulator. The continuation of the pilot project will include the all-season fabrication of soil to supplement City topsoil requirements. The soil fabrication process uses city residuals, such as biosolids, street sweepings from winter road operations (sand and grit) and woodchips, to fabricate top soil. This is then spread and seeded with native prairie species at Summit Landfill. Operations include ongoing environmental monitoring.

Landfill Gas Expansion Project

In 2022, the landfill gas and leachate collection system expansion will be completed with the finalization of as-built record drawings. This project improves the LFG collection efficiency of the system to as high as 75 percent.

BRRMF Cell Design and Construction

Disposal Cell 34 will be designed in 2022, complete with a leachate collection system and associated infrastructure. It will be constructed in 2023 at an estimated cost of \$2.4 million.

North Access Road

A tender for construction of a north access road at BRRMF will be completed.

Food Waste Reduction Project

Year two of a food waste reduction project will be carried out in partnership with the Winnipeg Food Council and Love Food Hate Waste Canada. It will include advisements and promotions to educate residents on ways to decrease food waste and reduce the amount of food that goes to landfill.

Operational System Improvements

Improvements to billing systems and data tracking will be made through a replacement of Wasteworks billing software used at BRRMF, and upgrades to the collections management software system.

Communication Strategy

The City will continue to use a multi-pronged approach to communicate its solid waste programs and services, as well as its waste reduction/diversion efforts. Examples of different communication activities include:

- Providing new dwellings with a reusable bag which contains an information package on new collection services, and two sample paper yard waste bags.
- Continued public education through social and traditional media (newspaper, radio ads, community newsletters).

FINANCIAL IMPACT

Financial Impact Statement

Date: May 11, 2022

Project Name:

**2021 COMPREHENSIVE INTEGRATED WASTE MANAGEMENT
STRATEGY (CIWMS) ANNUAL REPORT**

COMMENTS:

2021 financials are reported for information. Known and estimated future year costs have been incorporated in budget submissions.

D. Capp, CPA for

Lucy Szkwarek, CPA, CGA
Manager of Finance and Administration

CONSULTATION

This Report has been prepared in consultation with:

N/A

OURWINNIPEG POLICY ALIGNMENT

This report is in accordance with the OurWinnipeg policies through:

OurWinnipeg Reference: Section 02-2 Environment – “set long range goals for solid waste diversion”

WINNIPEG CLIMATE ACTION PLAN ALIGNMENT

This report is in accordance with Winnipeg’s Climate Action Plan through Strategic Opportunity #6 Waste Reduction and Diversion, and supports the following key directions:

- 6.1 Reduce Consumption and Increase Waste Diversion from Residential, Commercial and Industry (Primary Responsibility: Water and Waste Department).
- 6.2 Advance Winnipeg’s Circular Economy to Support Waste Reduction (Primary Responsibility: Water and Waste Department)
- 6.3 Utilize Biosolids In Agriculture and Landscaping Industries (Primary Responsibility: Water and Waste Department)
- 6.4 Support Integrated Resource Recovery Opportunities (Primary Responsibility: Water and Waste Department)

WINNIPEG POVERTY REDUCTION STRATEGY ALIGNMENT

One of the guiding principles of the Poverty Reduction Strategy is to promote and maintain the welfare of all residents. The effective management of solid waste services, which looks to increase waste diversion and subsequently reduce landfilled waste and harmful emissions, supports the efforts to clean up the environment and to protect the welfare of Winnipeg residents.

Waste management services are provided to all Winnipeggers, in an equitable, inclusive and accessible manner, which reflects Goal 6 of the Winnipeg Poverty Reduction Strategy - All City Services are Equitable, Inclusive and Accessible.

SUBMITTED BY

Department: Water and Waste
Division: Solid Waste Services
Prepared by: Richard Bolton, MNRM; Melissa Bunkowsky, CPA, CGA
Date: May 27, 2022
File No.: G-101