

# 2020 Integrated Waste Management Report

## ISSUE

The City of Saskatoon (City) takes an integrated approach to waste management that includes waste reduction, reuse, recycling, recovery, and disposal. An integrated waste management system balances the protection of human and environmental health with affordability, convenience, and efficient use of resources. The *2020 Integrated Waste Management Report* provides information on the performance of the City's waste management programs, and tracks progress towards corporate waste diversion and greenhouse gas performance targets.

## BACKGROUND

At its meeting held on June 1, 2020, the Standing Policy Committee on Environment, Utilities and Corporate Services, received the 2019 Integrated Waste Management Report as information.

The *Solid Waste Reduction and Diversion Plan* was received by the Standing Policy Committee on Environment, Utilities and Corporate Service in January 2021. At that meeting, the motion was made:

“That at the next Administrative update to Committee on waste diversion the Administration include additional information on waste to energy technology including:

- a cost/tonne comparison of waste to energy vs. other options such as landfilling, recycling and diversion,
- a high-level summary of the range of technologies being used and in development as the industry evolves and changes,
- an evaluation of the risks and benefits of waste to energy technology as a solution for waste management.”

## CURRENT STATUS

The *2020 Integrated Waste Management Report* outlines waste management services provided by the City; further detail is available in Appendix 1 - 2020 Integrated Waste Management Report and includes:

### Waste Diversion Services

Waste diversion services include recycling depots, curbside and multi-unit recycling, curbside organics, compost depots, public space recycling, and household hazardous waste events. The City diverted 33,000 tonnes of materials from the City's landfill in 2020, contributing to the diversion rate of 26%.

### Waste Disposal Services

The City provides waste disposal services to the community, including landfilling of garbage at the Saskatoon Regional Waste Management Centre, provision of containers and curbside collection of garbage from single-family residential households, and

collection of garbage from many multi-unit residential households and some commercial customers.

In 2020, approximately 174,600 tonnes of material were accepted at the Saskatoon Regional Waste Management Centre. Of this, approximately 93,900 tonnes were garbage and required burial, 80,000 tonnes were clean fill used as landfill cover, and 600 tonnes were diverted for outbound recycling. Approximately 65,800 tonnes (70%) of the material landfilled came from City collection trucks.

### Education, Outreach, and Enforcement

With the emergence of the COVID-19 pandemic in March 2020, original plans for waste-related education and communications were impacted, and either modified or delayed in response. Cancellation of the Spring 2020 campaign and closures of Cosmo's and Loraas' education rooms resulted in increased education efforts in the Fall and Winter 2020 campaigns; and cancellation of events for the Recycling Education Unit resulted in the introduction of YXE Waste Tour. As well, the Waste Wizard underwent an audit in 2020 to ensure all information was up-to-date and accurate, with updates to content and imagery continuing through 2021.

The City's Environmental Protection Officers (EPO) play a critical role in the community by enforcing Bylaw No. 8310, The Waste Bylaw. The EPOs respond to hydraulic spills, complaints about illegal dumping, and waste and recycling issues. In 2020, a total of 371 education and warning notices were delivered and only one ticket was issued, demonstrating a compliance rate of greater than 99% with the education-first approach.

## **DISCUSSION/ANALYSIS**

### Waste Diversion and Greenhouse Gas Emissions Targets

The City has set performance targets relating to waste diversion and greenhouse gas (GHG) emissions. The targets are intertwined as successful waste diversion initiatives correspond directly to reductions in GHG emissions.

The City's waste diversion target is to divert 70% of Saskatoon's waste from the Saskatoon Landfill. The City's 2020 diversion rate of 26% is higher than the 2019 value of 24.3% and is the fourth consecutive year of increase but continues to be below many other Canadian municipalities as well as the City's waste diversion target of 70%. By 2023, implementation of curbside organics, Recovery Park, and Industrial, Commercial, and Institutional (ICI) regulations for recycling and organics are expected to be in place. Once these programs are fully operational, a diversion rate between 41 and 54% is anticipated.

The *Solid Waste Reduction and Diversion Plan* outlines further actions needed to meet the 70% waste diversion target, which may be feasible as early as 2030.

The *Low Emissions Community Plan* includes two waste actions and milestone targets:

- Reducing organics by 90%, plastics by 95%, and paper by 90% to reduce emissions by an estimated 1.3 million tonnes CO<sub>2e</sub> by 2050; and

- Expanding the capture and destruction of landfill gas at the Saskatoon Landfill to reduce emissions by an estimated 1.9 million tonnes CO<sub>2e</sub> by 2026.

Emissions associated with the landfilling of solid waste decreased by 21% between 2014 and 2019. Progress has been made on some actions, including the expansion of landfill gas collection, but others require more work. A more comprehensive update on impacts associated with the City's waste management initiatives will be reported in future versions of the *Integrated Waste Management Report*.

### Waste Diversion Planning Ongoing

To achieve the 70% waste diversion target, the City is actively involved in a number of initiatives supported by the City's *Strategic Plan 2018-2021*, including the initiatives outlined below. Additional information is available in Appendix 1.

- Curbside Organics Program – In March 2019, City Council resolved to fund the Curbside Organics Program and waste collections through a multi-year funding strategy, with the program starting in 2023. The anticipated diversion for this program is 8-12%.
- Recovery Park – In 2019-2020, City Council approved the plan and funding for Recovery Park. The project includes construction of a diversion area accessed before the scales, a four-lane scale and scale house, an after-scales diversion and garbage transfer area, staff and equipment facilities, a new access road to join to Dundonald Avenue, and a storm water retention pond. The design-build portion of the project is currently being procured with the contractors submitting pricing in May 2021. The project is intended to be fully operational in the third quarter of 2023 and the anticipated diversion is 4-12%.
- A regulatory approach for recycling and organics for the Industrial, Commercial, and Institutional sector was approved in early 2020. All businesses and organizations will be required to have a separate container for recycling, and those that generate food or yard waste as part of their operations will be required to have a separate organics waste container. The implementation for recycling will start in 2022-2023 with a phased approach focused on education and assistance with early compliance, before enforcement begins in 2023. Organics will take a similar approach, with a phase in started in mid-2023 and enforcement in place in mid-2024. Once it is fully operational, the anticipated diversion from the Saskatoon Landfill is 5%.
- *Solid Waste Reduction and Diversion Plan* – The *Solid Waste Reduction and Diversion Plan* was received by City Council in January 2021. The plan provides 27 actions for program and policy development to optimize service delivery and when combined with organics, ICI and Recovery Park is estimated to achieve 51-79% waste diversion. This could be achieved as early as 2030 if the recommended timelines are followed.

Trends in Waste

The City monitors trends in waste related to changing recycling markets, Provincial and Federal action on waste reduction and programming, citizen behaviour, and in 2020, changes related to COVID-19; these are further described in Appendix 1.

Appendix 1 provides waste-to-energy developments, including processing cost per tonne and technology status.

**OTHER IMPLICATIONS**

There are no other implications directly resulting from this information report.

**APPENDIX**

1. 2020 Integrated Waste Management Report

Report Approval

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