

Chapter 19

Environment—Regulating Waste Diversion through Recycling

1.0 MAIN POINTS

Saskatchewan produced the third highest waste per capita in Canada in 2020. Recycling helps repurpose materials that would otherwise end up in landfills. Waste not diverted from a landfill potentially leads to greater risk of water pollution, soil contamination, greenhouse gas emissions, and negative human health impacts.

The Ministry of Environment regulates eight waste diversion recycling programs designed to divert various types of solid waste (e.g., tires, packaging, used oil) from landfills. The Ministry generally uses a consistent approach to regulate these programs, which includes levying fees on customers, and program operators handling recycling activities and regularly reporting program activities and results to Ministry senior management. Nevertheless, the Ministry does not know whether its eight recycling programs contribute to fulfilling the provincial waste reduction goal set in its *Solid Waste Management Strategy (2020)* to reduce landfill waste per person per year by 30% from the 2014 baseline by 2030.

By August 2023, the Ministry started implementing the five recommendations we made in 2020, but more work remains.

In 2023, the Ministry started updating recycling program regulations to include new reporting requirements (e.g., key definitions, calculations, and material-specific performance targets). It updated the regulations for one of its eight waste diversion recycling programs (i.e., packaging and paper program) and it expects the program operator to submit their new annual plan using the new requirements (e.g., targets) in late September 2023. Once the Ministry approves the plan, it expects the first annual report with the new requirements to be submitted in June 2025.

The Ministry developed a schedule for updating the remaining seven waste diversion recycling programs. If the Ministry follows the schedule, it may only receive the first annual reports using the new calculations and targets for four of the remaining seven recycling programs in 2027 or 2028. Given the long timeframe to implement the new reporting requirements through regulations, we encourage the Ministry to leverage policy to change the key information reporting requirements for program operators in the interim.

Completing the necessary steps to implement the recommendations fully will provide the Ministry with the necessary information to assess incremental progress to its overall waste reduction goals and other key measures (e.g., waste composition, program progress to incremental and overall targets).



2.0 INTRODUCTION

2.1 Background

On average, in 2020, each resident of Saskatchewan generated about 723 kilograms of waste compared to the national average of 687 kilograms per year; Saskatchewan generated the third highest amount of waste per capita in Canada.

Saskatchewan has reduced the number of landfills in the province from 203 in 2020 to 120 in 2022 in an effort to develop regional landfills and enable cost sharing.¹

The Ministry of Environment makes its Environmental Assessment and Stewardship Branch responsible for regulating its waste diversion recycling programs. The Branch employs approximately 16 staff, although four of those positions were vacant at August 2023. In 2022–23 the Branch incurred expenses of \$1.7 million (2021–22: \$1.5 million).²

The time it takes waste to decompose in a landfill varies significantly. **Figure 1** indicates that paper decomposes in about two weeks whereas waste like styrofoam and tinfoil never decompose.

Figure 1—Estimated Decomposition Rates in a Landfill

Item	Estimated Decomposition Time
Paper	2 weeks
Orange peel	6 months
Milk cartons	5 years
Tin can	50 years
Batteries	100 years
Plastic bottle	450 years
Styrofoam	Never
Aluminum foil	Never

Source: www.thebalancesmb.com/how-long-does-it-take-garbage-to-decompose-2878033 (25 September 2023).

Managing landfills can help in diverting waste, conserving resources, and reducing greenhouse gas emissions.³

2.2 Focus of Follow-Up Audit

This chapter describes our first follow-up audit of the Ministry of Environment's actions on the five recommendations we made in 2020.

Our *2020 Report – Volume 2*, Chapter 20, concluded that, for the 12-month period ended August 31, 2020, the Ministry had, other than in the areas reflected in our five recommendations, effective processes to regulate waste diversion through recycling.⁴

¹ *Solid Waste Management Strategy 2021–2022 Annual Report*, p. 10.

² Ministry of Environment, *Annual Report for 2022–23*, p. 11.

³ *Saskatchewan's Climate Resilience Measurement Framework*, p. 3.

⁴ *2020 Report – Volume 2, Chapter 20*, pp. 129–143.

To conduct this audit engagement, we followed the standards for assurance engagements published in the *CPA Canada Handbook—Assurance* (CSAE 3001). To evaluate the Ministry's progress toward meeting our recommendations, we used the relevant criteria from the original audit. Ministry management agreed with the criteria in the original audit.

To carry out our follow-up audit, we interviewed Ministry staff to discuss key actions management has taken since our 2020 audit to implement the recommendations. We also discussed with management future plans to implement the recommendations. We reviewed new templates, regulations, and information collected by the Ministry from recycling program operators.

3.0 STATUS OF RECOMMENDATIONS

This section sets out each recommendation including the date on which the Standing Committee on Public Accounts agreed to the recommendation, the status of the recommendation at August 31, 2023, and the Ministry of Environment's actions up to that date.

3.1 Definitions and Targets Needed for Reporting Key Program Information

We recommended the Ministry of Environment set written standard definitions for key information (including calculation methods) it requires operators for waste diversion recycling programs to report. (2020 Report – Volume 2, p. 137, Recommendation 1; Public Accounts Committee agreement February 9, 2021)

Status—Partially Implemented

We recommended the Ministry of Environment use material-specific targets to assist in determining whether waste diversion recycling programs contribute to the achievement of the provincial waste reduction goal. (2020 Report – Volume 2, p. 138, Recommendation 3; Public Accounts Committee agreement February 9, 2021)

Status—Partially Implemented

The Ministry of Environment established new rate definitions and calculations for waste collection, diversion, and recycling for one of the eight regulated recycling programs (i.e., packaging and paper). The Ministry also revised *The Household Packaging and Paper Stewardship Program Regulations, 2023*, which became effective in March 2023.

The new regulations for the packaging and paper recycling program include reporting requirements for program operators to set and report annually on both aggregate and material-specific targets (e.g., paper, glass, plastic) for its waste diversion recycling program.



The Ministry participates in the Canadian Council of Ministers of the Environment—Waste and Recovery Committee. Through the work of this Committee, and in consultation with packaging and paper program operators, it created new rate definitions and calculations for:

- Collection rate definition/calculation: the total amount of household packaging and paper products collected and sent to a sorting facility for diversion from landfills expressed as a percentage of household packaging and paper products supplied to the market
- Diversion rate definition/calculation: the quantity of household packaging and paper products diverted from landfills calculated as the sum of household packaging and paper products recycled, and recovered for energy, and expressed as a percentage of household packaging and paper products supplied to the market
- Recycling rate definition/calculation: household packaging and paper products recycled by the program as a percentage of household packaging and paper products in products supplied to the market⁵

We found the new rate definitions and calculations documented in *The Household Packaging and Paper Stewardship Program Regulations, 2023*, align with good practice. However, at August 2023, regulated recycling programs, including packaging and paper, have not set material-specific targets.

Based on the Regulations, packaging and paper program operators are expected to submit an annual plan that sets out operational and reporting information, including the new aggregate and material-specific targets, using the new collection, diversion, and recycling definitions and calculation methods. The Ministry also developed guidelines for program operators to promote understanding of Regulation requirements.

The first reporting period for the packaging and paper program using the new targets, definitions, and calculations will be June 2025.⁶ The Ministry has a schedule for reviewing and updating all eight recycling programs, see **Figure 2**.

Figure 2—Ministry Regulation Review Schedule and Anticipated Completion Dates

Program Operator	Current Regulations	Review Requirements	Next Review Date of the Program	Regulations Review/Update Expected Date	Regulations Effective Date	Annual Report Based on Revised Regulations
Multi-Material Stewardship Western Inc. (MMSW)	<i>The Household Packaging and Paper Stewardship Program Regulations, 2023</i>	5 years	March 2028	2023	March 30, 2023	2025
Saskatchewan Association for Resource Recovery Corporation (SARRC)	<i>The Used Petroleum and Antifreeze Products Stewardship Regulations</i>	5 years	June 2023	2023–24	2024	2026

⁵ *Household Packaging and Paper Stewardship Program Regulations, 2023*. Regulations in effect on March 30, 2023.

⁶ The packaging and paper program reports in a calendar year (January 1–December 31).

Program Operator	Current Regulations	Review Requirements	Next Review Date of the Program	Regulations Review/Update Expected Date	Regulations Effective Date	Annual Report Based on Revised Regulations
Tire Stewardship Saskatchewan (TSS)	<i>The Scrap Tire Management Regulations, 2017</i>	3 years	October 2023	2023–24	2024	2026
Product Care Association of Canada	<i>The Waste Paint Management Regulations</i>	No Requirement – intend to do along Household Hazardous Waste (Product Care)	2025	2025–26	2026	2027
Electronic Products Recycling Association (EPRA)	<i>The Electronic Equipment Stewardship Regulations</i>	5 years	April 2023	2023–24	2024	2026
CleanFARMS Inc.	<i>The Agricultural Packaging Product Waste Stewardship Regulations</i>	No requirement, but tentatively 2025–26	2025–2026	2026	2026	2028
Product Care Association of Canada (Core)	<i>The Household Hazardous Waste Products Stewardship Regulations^B</i>	5 years	May 2025	2025	2025	2027
Call2Recycle Canada Inc. (Batteries)			December 2024	2025	2025	2027
Saskatchewan Association of Rehabilitations Centres (SARC)	<i>The Environmental Management and Protection (General) Regulations</i>	Not applicable, this is a Government operated program under contract with SARCAN ^A	New four year contract to be signed by end of fiscal 2023–24	N/A	N/A	N/A

Source: Compiled from information provided by the Ministry of Environment.

Note greyed out dates are anticipated. Actual timing is impacted by a number of factors (e.g., scope of regulatory changes).

^A SARCAN Recycling is Saskatchewan's beverage container recycling service.

^B Household hazardous wastes include flammable materials, corrosive materials, explosives (excluding ammunition), toxic materials, certain pesticides, rechargeable and other batteries.

Given the long timeframe and target dates set out in **Figure 2**, we encourage the Ministry to leverage policy or other methods to expedite the changes in program operator reporting (e.g., calculations, material-specific measures and targets), instead of waiting for future changes to each of the program regulations. The Ministry's *Solid Waste Management Strategy (2020)* sets a target to reduce waste generated per person by 30% from the 2014 baseline by 2030. Per **Figure 2**, the Ministry may only receive the first report with improved waste diversion targets for four of the eight recycling programs in 2027 or 2028. This may be too late to require changes from program operators if the programs are not effectively reducing waste, in order to enable the Ministry to achieve its 2030 target.

Establishing material-specific recycling targets for regulated waste diversion programs would allow the Ministry to monitor progress and adjust strategies sooner for identified concerns (i.e., incremental targets not met).



Also, not having well-defined terms or calculation methods for reporting key information increases the risk of program operators reporting inconsistent or inaccurate information.

3.2 A Better Understanding of Landfill Waste Composition Needed

We recommended the Ministry of Environment obtain a more robust understanding of the composition of waste entering Saskatchewan landfills. (2020 Report – Volume 2, p. 137, Recommendation 2; Public Accounts Committee agreement February 9, 2021)

Status—Partially Implemented

The Ministry of Environment started to identify actions needed for a more robust understanding of waste composition entering provincial landfills.

The Ministry has internally identified actions it needs to do in order to close the gaps in understanding waste composition in the province (e.g., researching non-residential waste and options for diversion).

The Ministry told us it is working to find a way to create a model using Statistics Canada's data and the data reported in annual reports to the Ministry from municipalities that operate landfills. Historically, data from Statistics Canada was the only source of information used. Statistics Canada data is compiled every two years and may be four to five years old when the Ministry receives it, which is not timely.

In 2021, the Ministry started sending questionnaires (e.g., waste collected by type) to the municipalities operating landfills. This, along with composition studies conducted by municipalities, provides additional information about waste composition. In May 2023, the Ministry sent out surveys to municipalities asking for more robust information (e.g., waste composition). Municipalities are to report this information by January 2024.

By not understanding the waste type and volume in landfills, the Ministry is unable to determine how much of each type of waste the province diverts from landfills, and to set appropriate targets to further divert waste where needed. Obtaining this information will allow the Ministry to determine whether it requires additional recycling programs or needs to make revisions to existing programs.

3.3 Reasonability Analysis of Program Operator Information Needed

We recommended the Ministry of Environment analyze the reasonability of program information reported by regulated waste diversion recycling programs. (2020 Report – Volume 2, p. 140, Recommendation 4; Public Accounts Committee agreement February 9, 2021)

Status—Partially Implemented

The Ministry of Environment has not assessed the reasonability of information reported by its eight waste diversion recycling programs as it has not started collecting information based on revised definitions and material-specific targets.

In 2022, the Ministry began compiling data from the program operators' annual reports from the last five years to obtain a better understanding of the trends within individual recycling programs. Program operators' annual report content has not changed since the original audit in 2020. Better information will be available for assessment once the program operators use the new definitions and material-specific targets, see **Section 3.1**.

The Ministry is still assessing how it may cost-effectively verify waste-related information provided by recycling program operators. Program operators provide audited financial statements to the Ministry, consistent with its requirements. However, the Ministry has not set verification requirements (e.g., periodic audit reports required) for the non-financial information program operators report (e.g., types and amount of materials collected and recycled).

In summer 2023, the Ministry started gathering information on quality assurance programs of regulated recycling program operators (e.g., processes to track and verify non-financial program information). It plans to use this information to assist in analyzing reasonableness of program operator information it receives.

Not analyzing the reasonableness of program information received increases the risk the Ministry uses unreliable or incorrect information when overseeing regulated waste diversion recycling programs.

Self-reported information from recycling program operators may not always be reliable and accurate. Independent verification of information provides the Ministry with assurance about the reliability of information it uses to monitor whether its programs effectively divert waste from landfills.

3.4 Better Reporting on Regulated Waste Diversion Needed

We recommended the Ministry of Environment periodically report to senior management on the rate of waste diversion through regulated recycling programs. (2020 Report – Volume 2, p. 142, Recommendation 5; Public Accounts Committee agreement February 9, 2021)

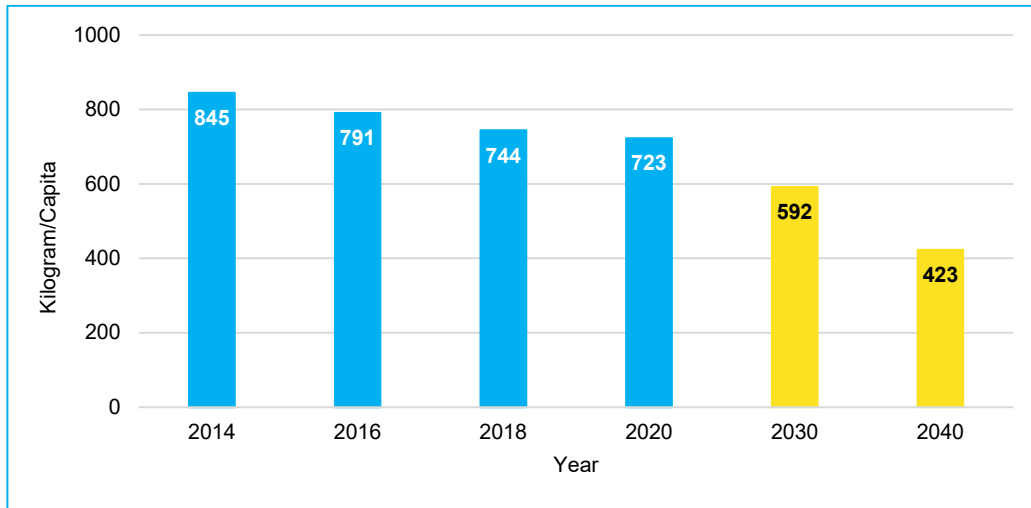
Status—Partially Implemented

The Ministry of Environment began, in 2022, reporting quarterly to senior management about its progress toward its *Solid Waste Management Strategy (2020)*, but used outdated information on waste disposal. The Ministry has not collected the necessary data to report on waste diversion rates.

The reporting to senior management in December 2022 included waste disposal per capita data based on Statistics Canada data from 2018. We found the 2020 information available in May 2023 (see **Figure 3**). The 2020 data shows the waste generated per capita in Saskatchewan (and ending up in a landfill) is declining. The 2030 and 2040 columns in the figure are the Ministry's targets in its *Solid Waste Management Strategy (2020)*.



Figure 3—Amount of Saskatchewan Waste Generated per Capita (kilogram/capita)



Source: 2014, 2016, and 2018 data taken from *Saskatchewan’s Solid Waste Management Strategy 2021–22 Annual Report*, p. 9. 2020 data adapted from information provided by the Ministry of Environment.

The Ministry is in the initial process of reviewing and revising its eight recycling programs, see **Section 3.1**. Until this work is complete the Ministry is unable to collect the necessary data to report on waste diversion rates.

Without regular reporting of waste diversion through recycling programs, such as using consistent definitions and material-specific targets, senior management does not have adequate information to assess the effectiveness of regulated recycling programs consistently.