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Municipality of Clanwilliam-Erickson Recycling Service and Process Review

South Mountain Waste Management Group



August 4, 2022

Disclaimer

This written communication (the "Final Report") has been prepared for the Municipality of Clanwilliam – Erickson ("Clanwilliam – Erickson" or "Erickson") and the Government of Manitoba ("GoM") per the terms of our Statement of Work, executed on November 30, 2021, between the Municipality of Clanwilliam-Erickson (on behalf of South Mountain Waste Management Group ("SMWMG")) and Deloitte LLP ("Deloitte" or "we"). All financial and operational information in the Final Report was provided by the users of the SMWMG (The Municipality of Clanwilliam-Erickson, Harrison Park, and Riding Mountain National Park ("RMNP") collectively called the "Municipalities") as part of this review. Deloitte makes no representations about, nor has Deloitte verified or audited the accuracy or correctness of any information provided by the Municipalities and SMWMG. The Municipalities leadership maintains responsibility for verifying the accuracy or correctness of this information.

All analysis and recommendations outlined within the Final Report are based upon interviews with the SMWMG operator and the Municipalities, data collected from both, and other additional information provided as at the date of this report. The Final Report is based on information collected and assessed over the course of this project and serves as a view of the opportunities identified and selected to date based on high-level financial, operational, and regulatory assumptions. Any insights and/or considerations on the opportunities presented are subject to further diligence and alignment with Municipalities' management.

No opinion, counsel, or interpretation is intended in matters that require legal or other appropriate professional advice. It is assumed that such opinion, counsel, or interpretations have been, or will be, obtained from the appropriate professional sources. To the extent that there are legal issues relating to compliance with applicable laws, regulations, and policies, we assume no responsibility.

Note that the content of this report and data analysis here within is limited to the information provided by the relevant parties. Data analysis was limited to, or not conducted, as the data did not exist for certain areas and metrics. This is because some underlying usage, weights and historical data is not collected or is not segregated from other operational or expense items.

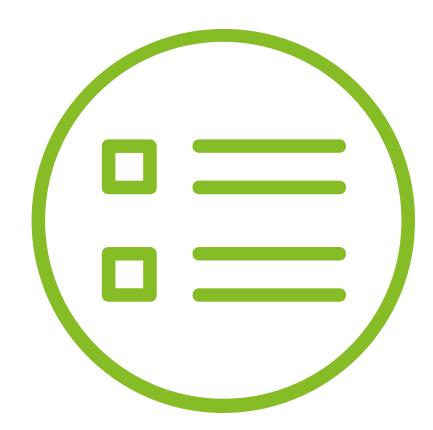
The data and Final Report are provided as of June 20, 2022, and we disclaim any undertaking or obligation to advise any person of any change in any fact or matter affecting this analysis, which may come or be brought to our attention after the date hereof. Without limiting the foregoing, if there is any material change in any fact or matter affecting the analyses after the date hereof, we reserve the right to change, modify or withdraw the analysis.

Table of contents

Executive summary	4
Background	7
Current state of operations	11
Process flows	17
Cost analysis	24
Similar operations	27
Current state findings	31
Alternatives	35
Continue with improvements	37
Outsource services	43
Restructure service delivery	46
In summary	49
Appendix	51



Executive summary



Introduction and approach

We were engaged to provide the Government of Manitoba, a Recycling Service and Process Review of the South Mountain Waste Management Group ("SMWMG") for Clanwilliam - Erickson.

Our objective was to assist the Municipalities in determining ways to ensure that the recycling process is efficient, economical, and environmentally sustainable to mitigate costs and to take a step towards a healthy environment initiative. We understand that the SMWMG is an organization formed from a partnership between Erickson, RMNP, and Harrison Park to help address some of the needs related to recycling services within each community. With the population of each community growing, and the shift in attitudes towards a sustainable environment, the needs of how the communities handle recycling are changing. We have undertaken the following to identify opportunities that will assist the Municipalities in making an informed decision on this important matter:

Current state assessment: We conducted a financial and operational assessment of SMWMG. We:

- reviewed key financial and operational documents;
- conducted interviews with stakeholders;
- reviewed relevant research, articles; and
- discussed results with industry experts.

Jurisdictional scan and operational assessment: We identified several similar operations in Manitoba, Alberta, and New Brunswick, and leveraged a combination of publicly available data and insights to highlight strengths, weaknesses, opportunities and challenges arising from the current operational structures, including:

- Assessing SMWMG against similar operations in terms of collection methods and hours of operations;
- Comparing operational standards to best practices to determine areas for improvement.

Alternatives: We have identified alternative models with opportunities associated with each to improve the financial sustainability and operational efficiencies under these models.

Executive summary

The following alternatives were considered including recommendations that could potentially help to improve the SMWMG recycling process.

	 Implement curbside collection for recycling This will increase convenience and accessibility of recycling to residents of Erickson and Harrison Park and help reduce contamination of recyclables.
	 Introduce waste management policies The Municipalities should introduce waste management policies in the municipalities to help reduce the number of recyclables that end up in the waste stream.
Continue with improvements	 Consider not accepting goods not accepted by Portage An end market is not available in Portage for some recyclables. It should be considered that items not accepted by Portage recycling are not accepted into the system. Continue to communicate with Portage on what will be accepted at the facility.
-	 Create a reuse center Formalize reuse centers from where they stand now and advertise them.
	 Launch sustainability awareness campaign This will help the Municipalities communicate information on the importance of sustainability, implications of contamination, and help to promote sustainable living within the communities.
	Outsource services Participating Municipalities should perform a request for proposals from outsources recycling vendors. The quote will include awareness, curbside pickup (if needed), bailing (if
Outsource service	needed) and transporting the goods to Portage. This outsourced service may increase costs but would also increase the service level of recycling provided to participating Municipalities.
	 Curbside collection by an outside party The Municipalities could seek out a 3rd party waste management company that offers curbside collection service for waste and recycling.
Restructure	 Consider if it is feasible and economical to include recycling as part of the transfer station Erickson is building a transfer station in partnership with a first nation. Consider if Recycling can be included as part of this new project. SMWMG can be dissolved or taken over and moved to the new transfer station.
service delivery	 Independent operations Another option would be to dissolve SMWMG and each municipality and RMNP pursue independent operations that best serves the needs of the municipalities and the national park.

Background



Background

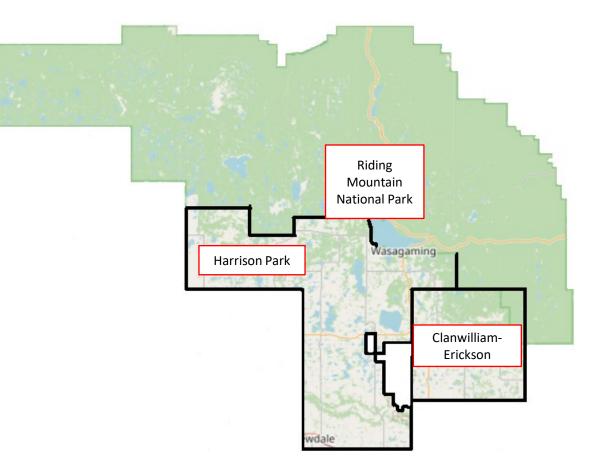
Erickson, Harrison Park and RMNP have been partners in recycling since the late 1990's. The recycling program has not undergone major changes since its inception. This is the opportunity to identify options that would enable improvements to the program.

Each municipality pays a levy to cover the annual operating costs of the SMWMG. Each community is responsible (through different approaches) as to how the recyclables end up at the depot for recycling. Please refer to the map on the right for the relevant locations.

Although seasonality impacts the demand on recycling services, on an annual basis, Erickson and Harrison park are estimated to have a similar amounts of recycling while RMNP' s volume is less. The peak summer months see a good majority of all recycling as during the winter there are less visitors and cabin residents in those areas.

Community	Estimated Population
Clanwilliam-Erickson	1,012
Harrison Park	1,852
RMNP	350,000 (Visitors per year)

https://www12.statcan.gc.ca/census-recensement/2021/dp-pd/prof/index.cfm?Lang=E (accessed April 6, 2022) RMNP Visitor Data provided by – RMNP



Background SMWMG

Collection

The SMWMG drop off facility is in the south of the corner of Main Street and Center Avenue in Erickson. The facility includes drop off areas for residents to sort their recyclable materials.

Separated materials from Harrison Park, and RMNP are also transported to the site where they are stored, sorted and baled by a full time attendant. Due to the limited number of staff and high recycling volumes, recyclables that are dropped off in peak summer seasons (summer seasons are peak due to visitors to RMNP) are sorted over the winter months.

Additional support

In peak summer, the facility hires an additional worker – typically a student. The additional worker helps the full-time staff to collect, and sort recyclables. They also help with other daily operations including facility maintenance.

Transfers

Cardboard is currently transferred from the SMWMG facility to Erickson waste site where it is burned. Glass is also transferred to the landfill for storage. Other recyclables including plastics, and aluminum cans are transported to Portage & District Recycling. Tin cans are transported to RMNP where they are stored and later sold to a third party.

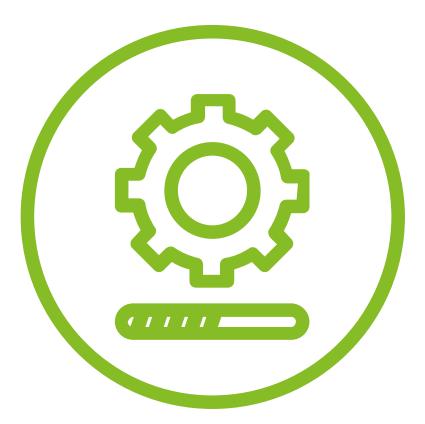


Transfer station

Clanwilliam-Erickson and Rolling River First Nation

In partnership with Rolling River first nation, the municipality of Clanwilliam-Erickson intends to open a transfer station by late summer 2022. Within the transfer station, there are plans to include 50-yard rollaway bins for garbage, a designated area for burning wood and yard waste, a compost pile, and a weighing scale. Participation in the producer responsibility program will allow for collection of electronic waste ("E-waste"), hazardous waste, tires, used oil, farm waste, and paint cans. Scrap metal and standard accepted materials will also be collected. Although no contract has been established, both parties are considering outsourcing the end destination for the waste to a third-party service and landfill. Residents and business owners in municipality of Clanwilliam-Erickson and Rolling River first nation will be the primary users of the transfer station. However, there has been interest expressed in extending usage to other municipalities for an annual usage fee. The introduction of the new transfer station could be an opportunity to outsource waste and recycling management to a third-party landfill operator that is interested in handling all aspects of the solid waste program. Note that parties involved have not made any consideration on whether the new transfer station would accept recycling. As at time of writing the report, the transfer station has not been constructed and the details on how the transfer station could potentially incorporate recycle have not been finalized (see page 46 for recommendation related to the transfer station).

Current state of operations

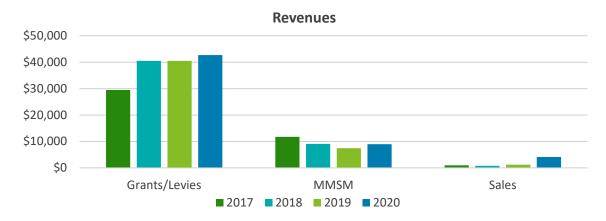


Revenues and expenses

The table and charts below outline the breakdown of revenues and expenses from 2017 to 2020. SMWMG averaged slightly above \$49,000 in revenues in the years 2017 – 2020. We analyzed significant balances, including hauling costs, salaries and benefits, and other relevant expenses which includes administrative expenses, repairs and maintenance, utilities, and professional fees, to understand the current state.

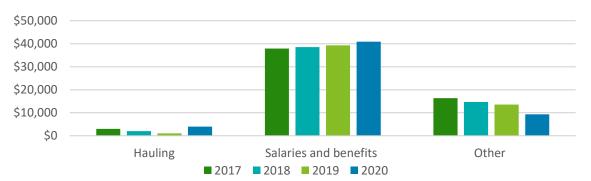
Source: Audited Financial Statements of SMWMG

	2017	2018	2019	2020
Revenues				
Grants/Levies	29,500	40,501	40,500	42,709
Multi-Material Stewardship Manitoba ("MMSM")	11,734	9,091	7,476	8,979
Recycling Sales	998	811	1,185	4,132
Total Revenues	42,232	50,403	49,161	55,820
Expenses				
Hauling	2,974	2,016	1,071	3,969
Salaries and benefits	37,895	38,584	39,297	40,929
Other	16,553	15,182	13,586	9,304
Total Expenses	57,422	55,782	53,954	54,202
Excess (Deficit)	(15,120)	(5,379)	(4,793)	1,618



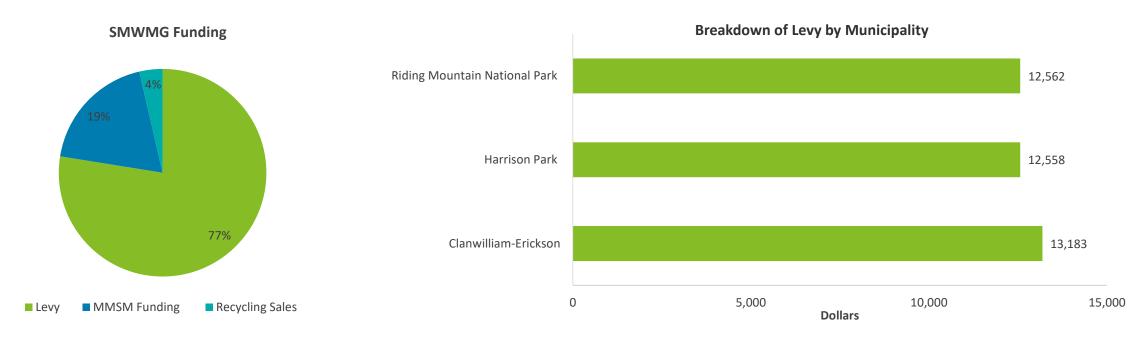
Source: Obtained from audited financial statements provided by Municipality of Clanwilliam-Erickson

Expenses



Levy

Each community pays an annual levy to cover annual operating costs. Based on the 2018 to 2020 audited financial statements, the average contribution made by all communities is 77% of the total annual operating revenues. Of the 77% in total contributions, RMNP contributed 33% of the total levies, Harrison Park contributed 33%, and Erickson contributed 34%.



Share of Average Funding from 2018 to 2020

Source: Obtained from audited financial statements provided by Clanwilliam-Erickson

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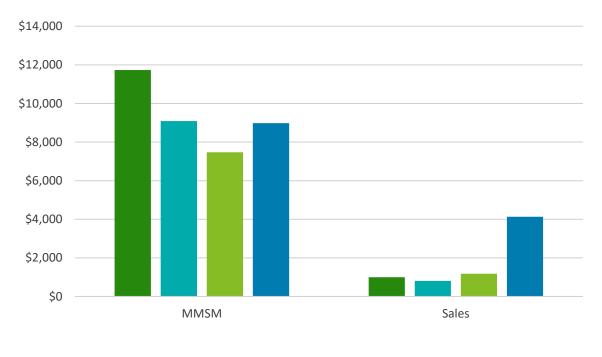
Funding (cont.)

Multi-Material Stewardship Manitoba

About 19% of SMWMG's total revenues comes from MMSM. MMSM is an industry funded nonprofit that provides support for municipal and residential recycling programs in Manitoba related to packaging and printed paper. They send payments to SMWMG. The reimbursements made are for each metric tonne of eligible material recovered from the residential waste stream. The total payment sent each year is based on estimated total metric tonnes of materials recycled and reported in the previous year. Based on audited financial statements of SMWMG Erickson sends reports to MMSM. There is currently no formal agreement in place between both parties.

Recycling Sales

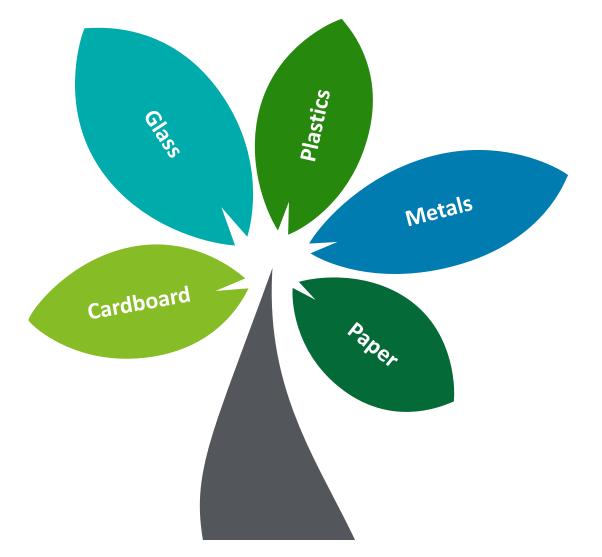
The remaining operating revenues result from the sale of materials accepted at the depot. Materials such as plastics and aluminum cans are sold to Portage & District Recycling (Portage & District Recycling, Portage recycling), printed paper and packaging are sold to MMSM, tires and scrap metal are gathered at the landfill and sold to third party buyers, the proceeds from this sale are received by the municipality of Erickson and are not included in the total sales for the organization. Tin is stockpiled at a storage site in RMNP and sold to a third-party buyer once a year.



MMSM & Sales Revenues

■ 2017 ■ 2018 ■ 2019 **■** 2020

Collected materials



Cardboard & Boxboard

These are collected and transported to the Onanole and Erickson waste sites where they are burned.

Glass

Was once recycled and used in road construction. Since the project ended, it is currently stored at Onanole waste site.

Plastics

#1, 2, 3, 4 & 5 plastics are accepted by SMWMG and are later transported to Portage & District Recycling.

Metals

The depot accepts aluminum and tin cans. Aluminum cans are transported to Portage & District Recycling, tin cans are transported to RMNP where they are stored and later sold to a third-party.

Printed Paper

Printed paper such as newspapers, magazines, and paper packaging are collected and burned at the Onanole and Erickson waste sites.

Collection

Clanwilliam-Erickson

In the municipality of Clanwilliam-Erickson, residents are expected to bring their recyclables to the SMWMG depot which is located within the Town. At the depot, residents are required to sort the recyclables into labelled bins. Additionally, there are two recycling bins located on Main Street which are accessible to residents and businesses. However, these bins usually end up a mix of recycling and garbage as it is a convenient location for community members and is not monitored. Currently, there is garbage and organic waste collection available curb-side to residents. However, this collection service is not extended to recycling.

Harrison Park

There are two recycling bins for public use in the Municipality of Harrison Park. As a result, most residents commute about 2 miles to drop off their waste and recyclables at the 24/7 Onanole waste site. Upon arrival at the site, the residents are expected to sort their recyclables by category into the labeled recycling bins. There are currently twelve blue bins at the waste site. There is a full-time attendant at the site available to answer any questions residents might have about recycling. Most residents are diligent about putting the right items into each bin. In the event of mix ups, the attendant sorts through the items to ensure they are categorized properly.

Riding Mountain National Park

In the last two years, RMNP has received an average of 350,000 to 400,000 visitors in the core operating months of June to September. For waste management, the park has 55 single bagger bear proof bins in the town site of Wasagaming and 30 bear proof bins in the outlying campgrounds and trail head parking lots where visitors and members of the community drop off recyclables. There is also a depot in the park that serves as a collection point where community members, cabin owners, and campers can drop off and sort recyclables into separate bins. RMNP has a disposal agreement with Onanole waste site for \$80,000 a year that grants the park waste disposal and storage privileges.

Collection of Recyclables

The park employs four summer students in July and August to help with recycling and waste management. The students are responsible for gathering the single bagger recyclables and taking them to the RMNP collection point for sorting. The recyclables are sorted in order of accepted materials into the labelled bins located at the RMNP collection point.

Refuse Crew

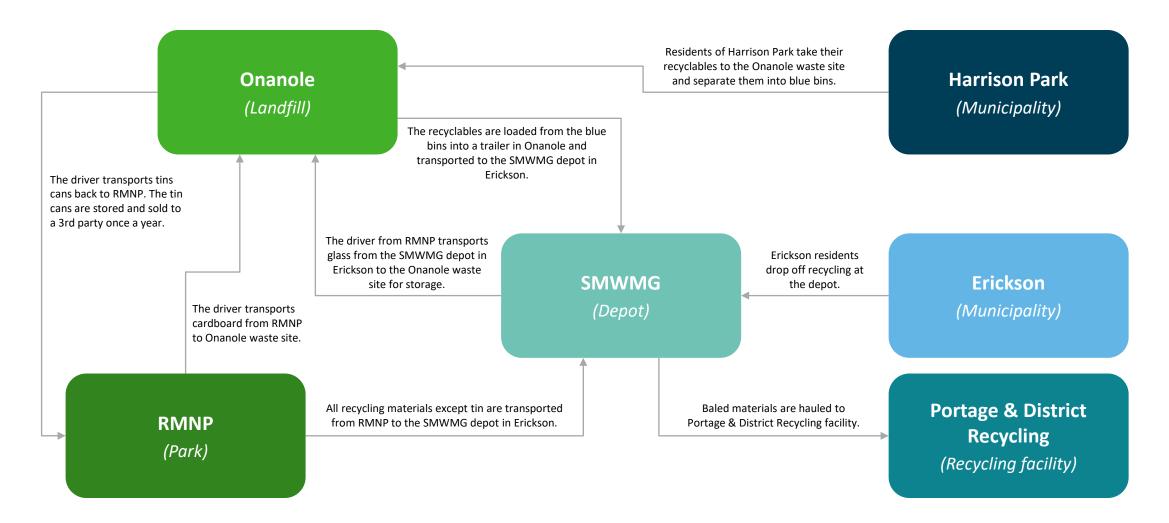
RMNP has two seasonal refuse truck drivers known as the refuse crew. The drivers are responsible for transporting recyclables to the SMWMG depot in Erickson, and to the Onanole landfill. For internal use only, the refuse crew is also responsible for completing a bi-weekly work report. In this report, information related to commute with recyclables are documented. See transportation schedule in the following slide.

Process flows



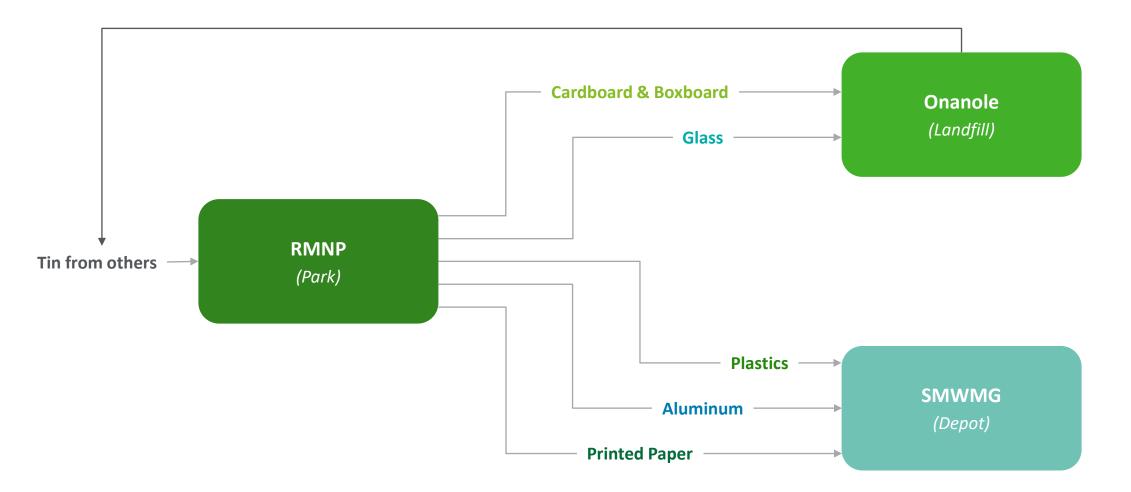
Overview

The following is the breakdown of how recyclables are transferred from each community to the depot in Erickson, and later to Portage & District Recycling facility.



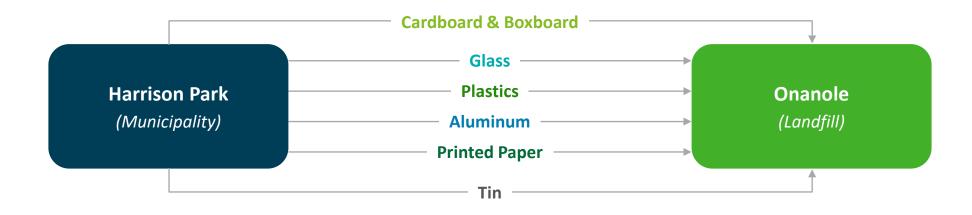
How recyclables are transferred-RMNP

The following is the breakdown of how recyclables are transferred from RMNP to the depot in Erickson and Onanole landfill.



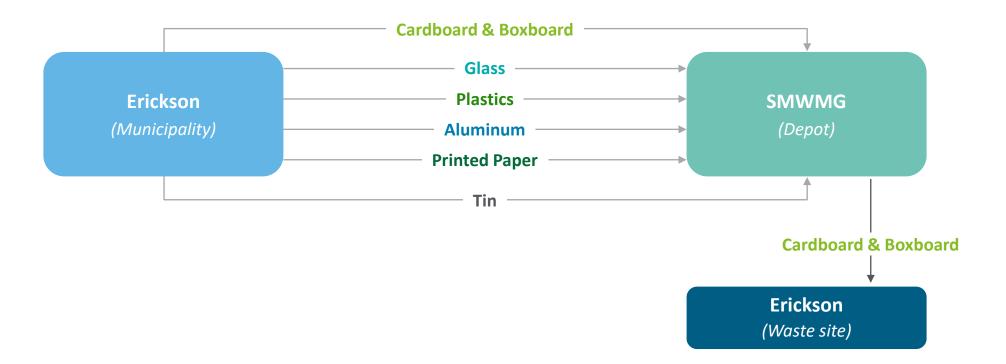
How recyclables are transferred-Harrison Park

The following is the breakdown of how recyclables are transferred from Harrison Park to Onanole landfill.



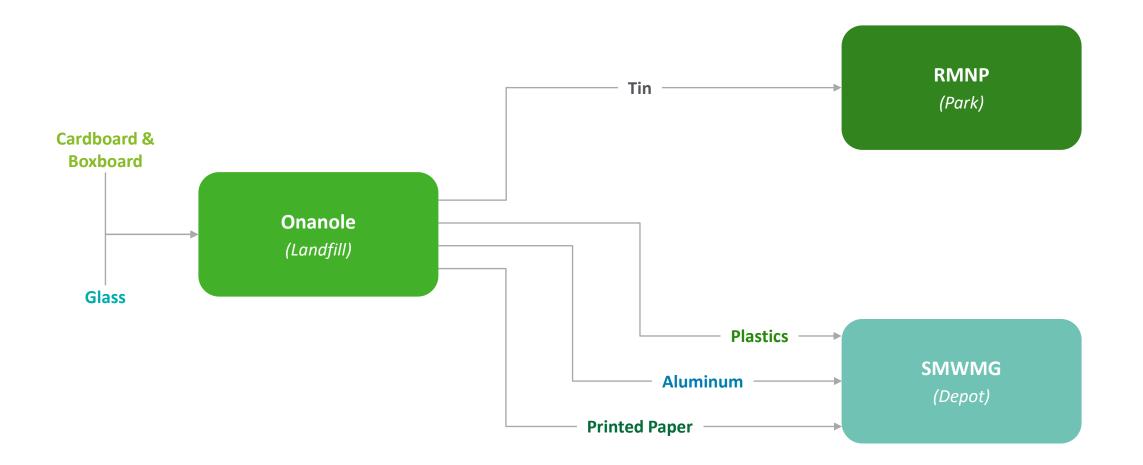
How recyclables are transferred-Erickson

The following is the breakdown of how recyclables are transferred from Erickson to the SMWMG depot.



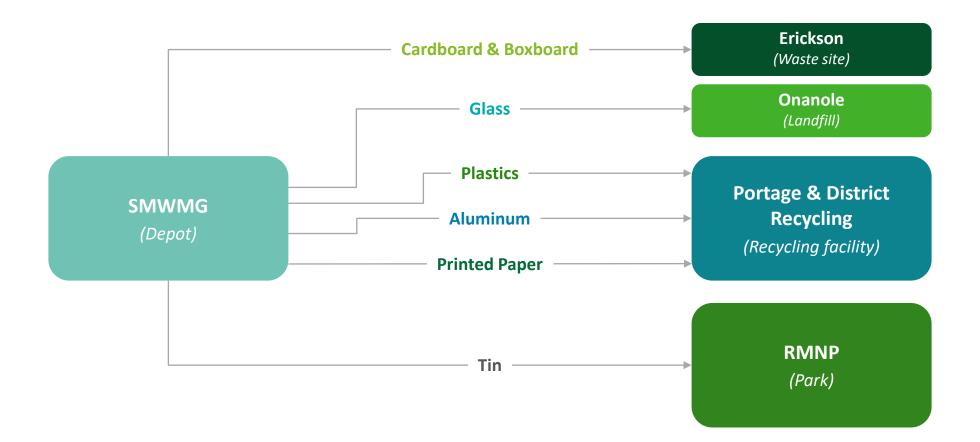
How recyclables are transferred-Onanole

The following is the breakdown of how recyclables are transferred from Onanole to the depot in Erickson, and RMNP.



How recyclables are transferred-SMWMG

The following is the breakdown of how recyclables are transferred from RMNP to the depot in Erickson, and Onanole landfill.



Cost analysis



Baled vs loose recycling



Baled vs Loose Recycling

Currently recyclables are compacted at SMWMG before transporting to Portage Recycling. Similar communities such as Newdale and of Sandy Lake transport their recyclables loose to Portage & District recycling. We assessed the costs, weight and distance to determine if it is more economical to transfer the recycling loose to save operation costs of the balers.

Below is an estimated breakdown of costs to transport loose recycling from communities of Newdale and Sandy Lake to Portage Recycling, vs transporting baled recycling from SMWMG to the same depot. In 2019, it cost an additional \$1,359 to transport 3.51 metric tons more recyclable materials loose than when baled. However, in 2020 the cost to transport loose recyclable materials cost \$1,540 less than transporting them baled despite the volume of loose materials being 2.31 metric tons more. The hauling cost for bailed include the rental of trailers and size. The drastic increase in costs year-over-year for bailed recycling needs to be further analyzed to understand why it increased and to assess if baled is actually beneficial.

Estimates for baled and loose recycling

	2019 2020	
Loose Recycling (MT) (Newdale/Sandy Lake)	15.97	18.00
Distance to Depot (KM)	180.00	180.00
Hauling Cost (\$)	2,428.57	2,428.57
Baled Recycling (MT) (SMWMG)	12.46	15.69
Distance to Depot (KM)	160.00	160.00
Hauling Cost (\$)	1,071.00	3,969.00

Source: Estimates provided by Public Works, Harrison Park

Portage & District Recycling

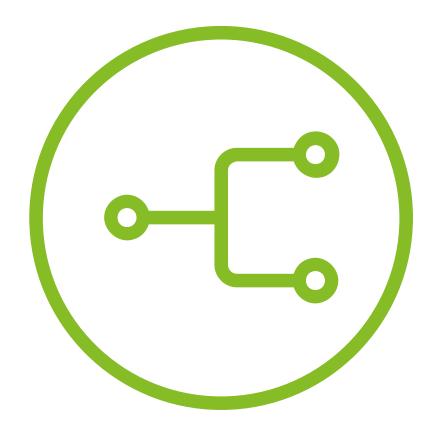
Items such as aluminum cans, and all different types of plastics are sent to Portage & District Recycling. As shown in the table below, each category of accepted materials has a price per metric tonne of recyclables. Over the last three years, SMWMG has seen a decline in total payment from Portage Recycling, though the total amount of recyclables sent remained relatively the same. In conjunction, the category of mixed material also increased over the years. Mixed materials are the contaminated recyclables that are sent to the Portage recycling facility. Portage charges per tonne of contaminated recyclables which in this case led to sales revenue decline. Based on current trends of mixed recyclables sent to Portage facility, SMWMG may continue to see decline in revenues from sale of product.

Quarterly reports provided to SMWMG by Portage & District Recycling

		2018			2019		2	2020	
Materials	Avg Price (\$)	Weight (t)	Total	Avg Price (\$)	Weight (t)	Total	Avg Price (\$)	Weight (t)	Total
Aluminum Cans	711.95	2.29	1,690.06	572.50	2.455	1,423.49	545.00	2.07	1,130.83
Pet#1 Plastic	52.87	5.325	280.93	37.07	4.28	136.84	14.00	3.355	16.80
HDPE #2 Plastic (Natural)	163.17	0.885	144.86	473.33	0.65	90.96	301.50	0.565	198.99
HDPE #2 Plastic (Colored)	74.89	1.27	98.96	79.50	0.34	27.03	177.30	-	-
Plastic # 4, 5, 6 & 7	-	0.175	-	15.00	0.18	2.70	-	-	-
Mixed Material	(110.00)	2.285	(251.35)	(110.00)	4.555	(501.05)	(135.00)	5.04	(674.90)
Total		12.23	1,963.46		12.46	1,179.97		11.03	671.72

Source: Provided by Municipality of Clanwilliam-Erickson

Similar operations



Manitoba

The following pages identify six cases of Recycle collection within Manitoba and three within Canada. These comparisons are for similar sized municipalities including and how they handle collection and their hours of operation. These are provided for context of how other municipalities provide recycling services.

	Case 1	Case 2	Case 3
Collection methods	 Curbside collection for residents, and businesses in urban areas. Rural residents drop off recycling in blue bulk bins at specific locations in the municipality. E-waste which includes any electronic device, and non-automotive drop-offs at the recycling depot. Other Eco-waste products such as oil, and filters used in oil containers are dropped off at the Eco-center. 	 Curbside collection for residents in town. Residents are encouraged to drop off additional recycling at the recycling depot. E-waste drop off at recycling depot. Eco-waste drop off at the eco-waste center. Tire drop-off and storage at landfill. Municipality is partnered with tire stewardship Manitoba as part of their tire recycling program. 	 Curbside collection available for residents. Scrap tires and chemical waste drop off at Sanford landfill. Partnered with multi-material stewardship Manitoba.
Hours of operations	 Curbside collection scheduled in zones. "Zone A" is scheduled for bi-weekly pick ups on Wednesdays. "Zone B" is scheduled for bi-weekly pick ups on alternating Wednesdays from "Zone A". The recycling depot is open on Wednesdays from 1:00 pm – 5:00 pm. The Eco-center is open Tuesdays, Thursdays, Fridays and Saturdays. Hours vary depending on the season. 	 Curbside recycling collection scheduled every Wednesday at 8:00 am. Recycling Depot is open for 24 hours a day, 7 days a week. Landfill is open Tuesdays, Thursdays and Saturdays. Hours Vary depending on the season. The Eco-center is open from 1:30 pm to 4:30 pm on Tuesdays. 	 Curbside recycling collection scheduled every Friday. Sandford landfill open on Monday 12:00 pm – 5:00 pm, Wednesday 12:00 pm to 8:00 pm, and Saturday 9:00 am – 5:00 pm.

Source: Rossburn Municipality - Waste & Recycling

Source: RM of Macdonald - Recycling

Manitoba (cont.)

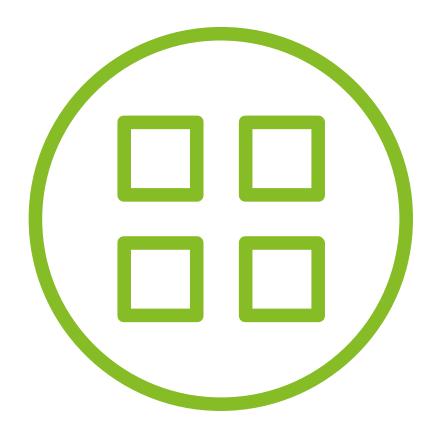
	Case 4	Case 5	Case 6
Collection methods	 Curbside collection services for rural and urban areas. Rural residents are encouraged to drop off recycling at any of the two transfer stations located within the municipality. Eco-waste products such as oil, and filters used in oil containers are dropped off at transfer stations. Partnered with Waste Wise, Manitoba Association for Resource Recovery Corp., Multi Material Stewardship Manitoba, and Tire Stewardship Manitoba. Provides transfer station access cards to residents. A replacement fee of \$20.00 is charged for lost or stolen cards. 	 Residents are encouraged to drop off recycling at several disposal grounds available within the municipality. Municipality uses a tag system. Every household is provided with a permanent tag used to access the disposal grounds. A replacement fee of \$25.00 is charged for lost or stolen tags. E-waste and Eco-waste are accepted at all disposal sites. Partnered with Multi-Material Stewardship Manitoba. 	 Curbside collection available for urban residents. Contracted collection service available to rural residents. Payment for this service is made directly to the contractor instead of the municipality. Rural residents are encouraged to drop off recycling at the disposal grounds. Hazardous waste depot located at the landfill
Hours of operations	 Curbside collection scheduled by order of routes and quadrants. Rural route collection is every Monday. Urban route northwest quadrant every Tuesday, Southwest every Wednesday, Northeast every Thursday, and Southeast every Friday. Transfer station can be accessed by residents using access cards. 	 Coca Cola Falls disposal grounds open Sunday to Saturday. Hours vary depending on the season. St. Georges disposal grounds open Sunday to Saturday. Hours vary depending on the season. Traverse Bay disposal grounds open Sunday to Saturday 9:00 am to 5:00 pm. 	 Curbside recycling collection scheduled for 7:00 am on Tuesday, Wednesday, or Friday depending on the urban area. Disposal grounds are open from Monday to Saturday. Hours vary depending on the season. Hazardous waste depot open from Tuesday to Saturday, 9:00 am – 4:00 pm.

Source: <u>https://www.rmalexander.com/p/waste-disposal-grounds</u> Source: <u>Rural Municipality of Hanover | Services (hanovermb.ca)</u>

Canada

	Case 7	Case 8	Case 9	
Collection methods	 Residents are encouraged to drop off recycling at any one of the three drop off locations in town. 	 Residents are encouraged to drop off recycling any of several community bins in town. 	 Visitors are asked to separate their waste into green "wet" and blue "dry" containers. The 	
	 Community blue bins for paper, glass, plastic and metal available to all residents and business. 	 Curbside collection services available to businesses. Size of bins and pick up schedules are decided by 	containers are bear and racoon proof.Waste collected at the park is processed at	
	• E-waste, automotive, tires, lightbulbs, and all other	the business owner.	Westmore Albert Wet/Dry processing facility in Moncton, New Brunswick.	
	hazardous waste can be dropped off at Boulder Crescent Recycling Depot.	 Yard and garden material collection services available for businesses. 	 "Dry" waste (recyclables) is sorted and shipped to 	
	 Reusable clothing and household items can be 	E-waste and hazardous waste can be dropped off	various markets for recycling.	
	dropped off at Victory Thrift Store.	the transfer station during hours of operations.	E-waste and hazardous materials can be deposited	
•	 Accepted glass bottles can be dropped off at the Canmore Bottle Depot for a refund. 	 Curbside collection available to residents for large items. 	in specially made containers located in different locations throughout the park.	
	 Large Propane tanks are accepted at any certified propane dealer. 	 "Re-Use It" center available to drop off and pick up gently used household items at no cost. 	 Profit from the sale of redeemable is reinvested into the park's recycling program. 	
Hours of operations	 Boulder Crescent Recycling Depot is open seven days per week from 8:00 am to 4:45 pm. 	 Transfer station is open seven days a week from 7:30 am to 3:30 pm. 	 Westmore Albert Wet/Dry processing facility is open Monday to Friday, 8:00 am to 6:00 pm. 	
	Source: Town of Canmore - Beyond Curbside Recycling	Source: Recycling and Garbage Banff, AB - Official Website	Source: Recycling - Kouchibouguac National Park (pc.gc.ca)	
			Westmorland-Albert Solid Waste Corporation First Canada to Charge Up to Recycle! – Call2Recycle® Canada	

Current state themes



Current state findings



Governance and Oversight

The established governance structure in place, appointed members by each entity, has left the operations of SMWMG to operate autonomously with little input from the board. A lack of governance can lead to organizational issues including difficulties in making the appropriate strategic decisions that will enable the SMWMG recycling program to better serve the needs of each municipality and RMNP. Other issues include operational deficiencies that could go unaddressed.

Capacity



Each municipality is faced with capacity constraints due to an increase in the volume of recyclables in the last couple of years. More research is required to determine if this trend is a result of the COVID-19 travel restrictions limiting people to vacation in cabin areas and parks, or if this increase is a trend due to overall population growth and increasing awareness in sustainability and waste management. Note that volume forecasts are not currently being completed to assess what constraints could happen in the future. As a result of the increasing volumes of recycling, the SMWMG depot is currently operating at capacity. There have been discussions by stakeholders around increasing capacity which would mean increasing the number of full-time employees and using comingled recycling bins. However, the costs to increase capacity will have to be considered as funding for the depot is currently limited.

Costs



Currently SMWMG operates on levies from each municipality and RMNP however other than the year 2020, the depot has still operated at a deficit. The depot receives some revenues from the sale of products. SMWMG has also seen a decline in revenues due to the increasing charges from contamination of the recyclable materials sent to Portage & District Recycling. As the recycling volumes increase each year, so does the cost of handling the materials and transporting them to the end market. Based on the current state, it is likely to become increasingly difficult to maintain operations at the depot due to this increase in costs. SMWMG will therefore require increased levies from the Municipalities.



Awareness

A re-occurring theme in interviews with the stakeholders is the lack of communication and awareness campaigns within the program. It is currently assumed that residents understand the importance of recycling and are aware of the initiatives made by the municipalities and RMNP to improve environmental sustainability in all communities involved. However, the charges for contamination of the recyclables has been increasing consistently due to lack of understanding in the community regarding, what is considered contamination. It also indicates that residents are not fully aware of the implications of allowing waste in the recycling stream.

Current state themes Materials currently not considered as accepted at Portage

These items are accepted by the Onanole/Erickson waste site as currently the Municipalities and SMWMG do not transfer these to Portage for recycling. However, the website of Portage & District Recycling claims they are accepted. Further analysis and alignment between Municipality collection efforts and items received by Portage is recommended to be conducted.

Glass

Glass is sent to the Onanole waste site where it is stock pilled. The glass has been stockpiled at the site for years. It was once used in road construction, however since that project ended there have been no discussion of how to reuse or recover the stored glass.

Cardboard

Residents are instructed to recycle items such as cardboard, boxboard, cartons, and paper. However, these items are not transferred to Portage Recycling by the municipalities as they believe they are not accepted by Portage. Instead, all cardboard and paper are sent to either the Onanole or Erickson waste sites where they are gathered and burned.



Other items

There is currently no program in place for hazardous waste such as batteries, electronic waste, chemical waste, automotive, and propane tanks. There are recovery organizations that would receive the goods and pay for them if collected cleanly. These items end up at the Onanole land fill. Other lightly used items like furniture, clothing, sporting equipment also end up at the land fill. This makes the waste site popular to community members and others who are looking to scavenge and reclaim items.

Current state themes



Capacity Issues

Currently SMWMG depot is operated by one full -time employee. There is considerable amount of time required to transition between the items being bailed for recycling, storage of loose materials needing to be bailed, and bailed materials waiting for transfer that is causing an increase in costs of operations. Volumes have been increasing over the years which has increased these issues.



Community recycling methods do not promote a desire to recycle

Currently it is up to each resident to recycle and the convenience of the collections of these materials vary by Municipality. This requires citizens to sort and deliver their recycling to the designated areas within each community. Citizens may find it easier to not recycle in areas where garbage is collected at their homes.



Potential for larger recycling program

Currently, recycling is separate from waste management. Where synergies exist and how waste and recycle management is handled is through hub and spoke processes from start to end for both. Right now, SMWMG acts as an intermediary in the process. There are opportunities to change the methods of collection that could help further promote recycling and decrease waste. These are discussed further in the recommendations section



The services have evolved over time without a refresh

Setting up SMWMG by the Municipalities made sense at the time. The back and forth of materials also evolved over time as glass was needed for roads but is no longer used, burning paper was a way of reducing waste but has an environmental impact, collecting tin had a different market to tap into, etc. As Erickson plans the new transfer station, and further data is gathered on items such as weights, costs to ship loose materials, cost of outsourcing, alternative places to send materials, etc; it is the perfect time to consider the different alternative options outlined that are available to refresh these operations. These are discussed further in the recommendations section

Alternatives

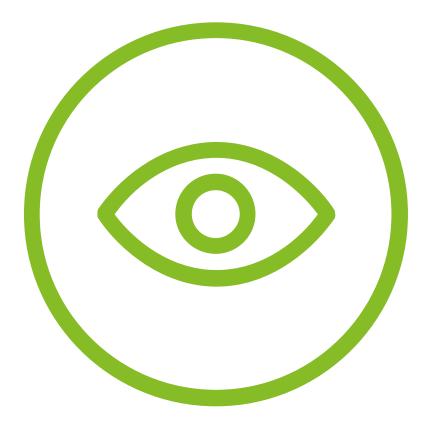


Alternatives

The following alternatives were considered including recommendations that could potentially help to improve the SMWMG recycling process.

	 Implement curbside collection for recycling This will increase convenience and accessibility of recycling to residents of Erickson and Harrison Park and hopefully help to reduce contamination of recyclables.
	 Introduce waste management policies SMWMG should introduce waste management policies in the municipalities to help reduce the number of recyclables that end up in the waste stream.
Continue with improvements	 Consider not accepting goods not accepted by Portage An end market is not available in Portage for some recyclables. It should be considered that items not accepted by Portage recycling are not accepted into the system. Continue to communicate with Portage on what will be accepted at the facility.
	 Create a reuse center Formalize reuse centers from where they stand now and advertise them.
	 Launch sustainability awareness campaign This will help The Municipalities to communicate information on importance of sustainability, implications of contamination, and help to promote sustainable living within the communities.
Outsource Service	 Outsource service Participating Municipalities should perform a request for proposals from outsources recycling vendors. The quote will include Awareness, curbside pickup (if needed), bailing (if needed) and transporting the goods to Portage. This outsourced service may increase costs but would also increase the service level of recycling provided to participating Municipalities.
	 Curbside collection by an outside party The Municipalities could seek out a 3rd party waste management company that offers curbside collection service for waste and recycling.
Restructure	 Consider if it is feasible and economical to include recycling as part of the transfer station Erickson is building a transfer station in partnership with a first nation. Consider if Recycling can be included as part of this. SMWMG can be dissolved or taken over and moved to the new transfer station.
service delivery	 Independent operations Another option would be to dissolve SMWMG and each municipality and RMNP pursue independent operations that best serves the needs of the municipalities and the national park.

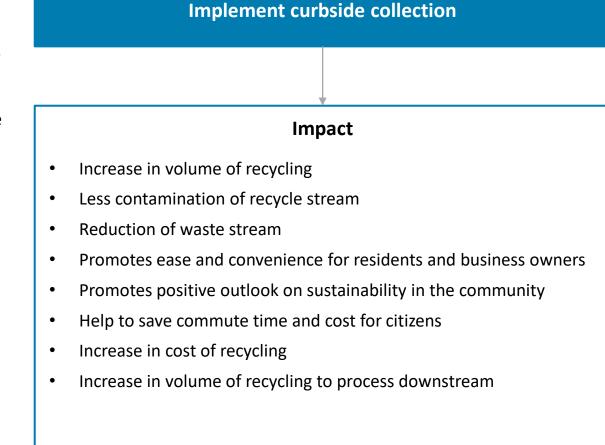
Continue with improvements



Continue with improvements Implement curbside collection

Curbside collection is available in Frickson for waste. Residents are expected to drop off recyclables at the depot. In the municipality of Harrison Park, residents drive about two miles to drop off their waste and recyclables at the central community location, there are also additional bins in the industrial area. RMNP has bins at the main site and at a central location where visitors drop off their recycling. Erickson could assess the potential for the current curbside waste collection service to also collect the recycling. In Harrison Park and RMNP the potential for curb side collection is limited and would perhaps appeal to a small local providers. The collection of the bins could be completed by larger service providers. Both services will increase the costs of the programs and will either need to be absorbed by the citizens or the municipalities. (put in new paragraph) Extending this third-party collection service to residents can help to ensure that they are recycling and practicing sustainable waste management yearround. This will increase convenience and accessibility of recycling to residents of Erickson and Harrison Park and hopefully help to reduce contamination of recyclables.

Each municipality will need to consider the cost, the responsible party to pay the cost and seek out potential service providers through a request for information process to support the needed information for this initiative.



Continue with improvements Introduce waste management policies

Currently there are no policies around waste management at SMWMG. An effective way to reduce the number of recyclables that end up in the waste stream is to implement a tag a bag system where residents are provided with a bag for waste and charged a fee if the weight of the waste bag exceeds a certain amount (currently in place in Erickson – two bag limit and \$2/bag above the limit). Another approach is a pay by volume where residents are charged a fee based on the total volume of waste produced. In both approaches, recycling would be free to residents and businesses.

Such policies can encourage community members to consider the items going into the waste bag and increase the number of items that end up in the recycling stream. There is also the ability to investigate opportunities to streamline and cut costs, such as periodically reviewing the recycling depot used. If alternatives exist, the ability to use a closer recycling facilities, or collection methods that align to the material being bailed, etc, should be explored and written into policy.

One policy that could be reviewed that could increase efficiencies is the use of the Portage & District Recycling facility in Portage la Prairie. The distance between the depot and the facility is approximately 161 kms, or about two hours. SMWMG currently hires a third-party service to transport the recyclables to Portage. It is important for the Municipalities to consider the costs associated with transportation and compare them with the revenues received in return. There are options for other facilities that are 50 to 120 kms away which could significantly reduce costs based on travel and time, Noting that recycling will likely never pay for itself. More beneficial options to explore include dropping at a closer facility, finding waste management companies that are closer to the depot that also provide transportation..

Introduce waste management policies Impact Increase in volume of recycling ٠ Less recycling in the waste stream ٠ Promotes positive outlook on sustainability in the community ٠ Increases volume of materials that make it to the end market ٠ May save hauling costs ٠ May increase frequent of trips could mean less capacity constraints. ٠ Combines contracted third party or transportation ٠

Continue with improvements Consider not accepting goods not accepted by Portage or others

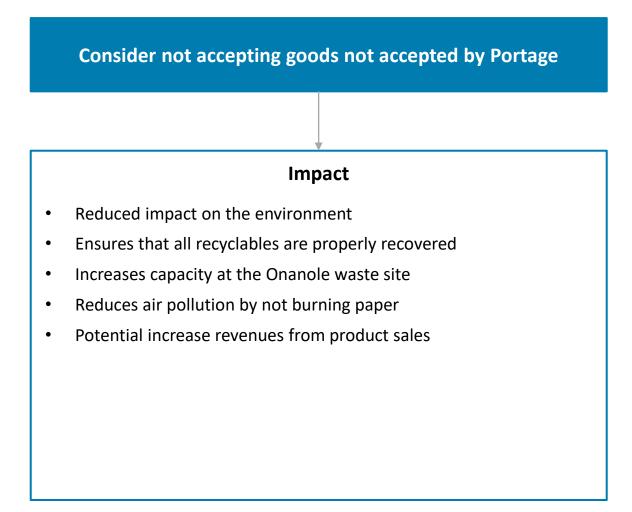


Currently, the group doesn't believe that the Portage & District Recycling, which is the end point in the process, receives glass and cardboard. The entities should continue to communicate with Portage to ensure they have an understanding of what is accepted at the facility.

The glass from both municipalities and RMNP are stockpiled in storage at the Onanole waste site. Although this practice has little environmental impact, large volumes of glass can take up space and significantly reduce the capacity available at the site. Cardboard, Boxboard and Paper are sent to the Onanole and Erickson waste sites where they are later burned.

Consider not collecting glass and cardboard or other materials that Portage will not accept and instead add them to the normal waste collection process.

The Municipalities should seek to identify what Portage & District Recycling is collecting (and what potentially other recycling locations are collecting) and align collection efforts and awareness to only collect items accepted and to direct items not accepted to the land fill.

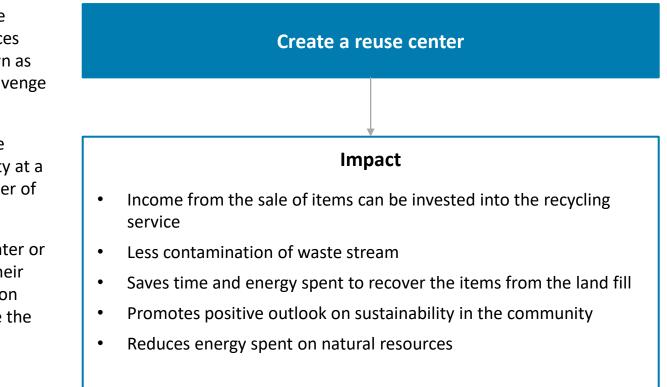


Continue with improvements Create a reuse center

Onanole waste site currently receives a significant amount of reusable goods including items such as furniture, sporting equipment, appliances and other large items that are recoverable. The site is popularly known as one of the best in the area for community members and others to scavenge for reusable items.

Such a unique waste stream provides an opportunity to set up a reuse depot where those items can be donated and resold to the community at a low cost. Donating these items will help to recover a significant number of items that would otherwise go to the landfill.

The municipalities should consider the ability to formalize a reuse center or solution to prevent items that can be reused, recycled from making their way to the landfill. Steps to introduce would include logistics of location and storage of the items, items that are accepted and how to manage the reuse program.



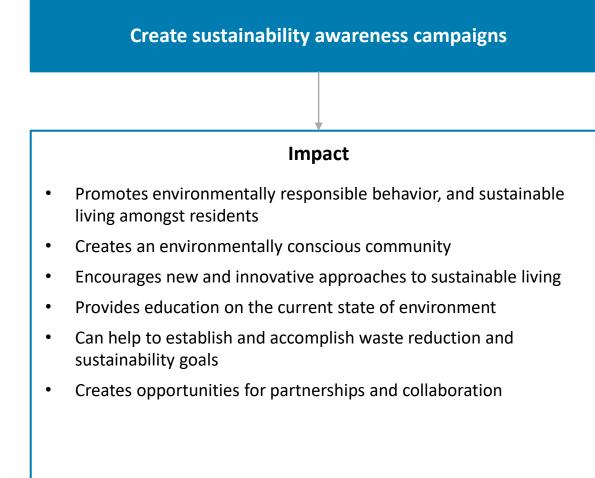


Continue with improvements Create sustainability awareness campaigns

A theme between the municipalities and RNMP is that there is no formal campaign in place to provide information to visitors, residents, and community members about recycling and waste management.

Environmental campaigns can help to communicate the effects and damage of human activity on the environment. Launching an environmental campaign in these communities will help to communicate information on the reasons and importance of recycling, accepted materials, and updates on new environmental initiatives in the province.

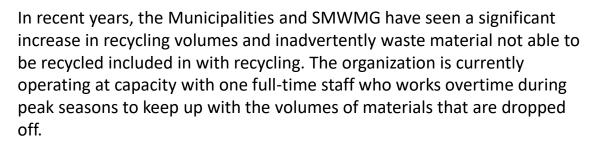
SMWMG and/or the municipalities should identify the items that are to be collected and look for provincial, federal and non-profit resources available to spread awareness of the recycling efforts in the community.



Outsource services



Outsource services End to end



Outsourcing the services of the SMWMG to a third party could be the solution to managing increasing recycling volumes. There are third party recycling operators that can handle all aspects of the recycling management for each of these communities. They would handle all aspects of recycling from citizen outreach and training, supply of containers, curbside/ bin collection, possible baling, and participation in the extended producer responsibility program through collection of batteries, tires, etc. In addition, they can find the appropriate end markets for accepted materials.

This could be investigated through a request for information process to gain an understanding form the vendors as to their interest in providing the services and the possible costs.



Outsourcing

- Ensure that all recyclables are properly recovered
- Increase in range of services offered and materials accepted
- Increased flexibility in the program for seasonal volume
- Promotes sustainability and sustainable living
- Increase convenience and ease of recycling for residents and businesses
- Ability/option to outsource entire operations

Outsource services Curbside collection by an outside party



Within this area of Manitoba there are third party providers that can assist with the collection of recycling material. This can include curbside collection (year-round or seasonal), centralized and decentralized large/community recycle bin collection and transportation of recycling to SMWMG.

For Erickson a large third-party provider is willing to implement curb side collection in which this third party will provide the curbside bins and awareness materials for the program startup and deliver the curbside collection. For Harrison Park and RMNP this or a different third party would collect community bins only. This third party would either take the collection to the current SMWMG.

An RFI should be investigated to identify cost and logistics for this option.

Curbside collection by an outside party

- Increased use of recycling by community members
- Dedicated resources to collect recycle bins no longer requiring public works staff
- Ability to continue to use SMWMG facility

Restructure service delivery



Restructure Consider if it is feasible and economical to include recycling as part of the transfer station



Under the current partnership structure, each community contributes almost equal amounts in levies with Erickson contributing one percent more on average, based on the data obtained 2018 to 2020 audited financial statements.

It is important to consider that Erickson is currently forming a partnership with Rolling River First Nation to open a waste transfer station.

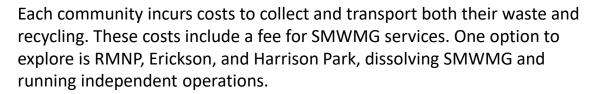
This transfer station could be designed to include the baling done by SMWMG if the power supply is available. Under the new structure, Erickson could become the sole operator of the program after transported to the site. Harrison Park and RMNP would be required to pay a fee that would grant access to the baling services provided by the Erickson transfer station and transportation to the end market.

This recommendation requires further information and analysis. Data over collection cost and weight for recycling will need to be captured and analyzed to further support the decision. Costs to bale versus loose hauling would need to be analyzed. Distance to the transfer station from the current collection sites, distance and costs to transport to Portage or other downstream facilities would also be factored into the decision.

Consider if it is feasible and economical to include recycling as part of the transfer station

- Helps to simplify the partnership and reduce obligations of all parties involved
- Savings on audit costs as annual levies would no longer be required
- Potentially help to improve cost of operations for each party
- Less commitment meaning an easier process for each party to pursue other alternatives in the future
- Potential increase in operational efficiencies due to increase in capacity in form of space and employees at the new transfer station

Restructure Independent operations



Each community currently has the infrastructure to manage their own waste and haul it if necessary. The levies previously contributed to the organization could be reallocated independently to hauling the materials directly to a recycling facility. In a loose form This could eliminate the additional costs to move certain materials from one community to another and simplify the entire waste management process. A detailed analysis would have to be conducted to assess the cost versus benefit of each community running independently.

Harrison Park and RMNP will need to investigate their recycle volumes and the cost to transfer lose to recycling facility and compare to current expenses to support SMWMG. Erickson should explore the cost and options associated with the new transfer station. All communities should include outsourcing to third parties either together or separately as part of this analysis.

Independent operations

- Potential cost savings
- Simplifies the recycling management process.
- Provides each community autonomy over waste management and end markets for the recyclables collected.
- Loss of economies of scale

In summary



In summary

SMWMG is a beneficial program for all parties involved. However, significant changes can be made to ensure that the program is cost effective and operating efficiently.

As highlighted in the assessment above, a simpler process must be put in place to get the recycling from the residents to the end market. Other key changes include increasing awareness about recycling in the communities, creating policies around waste management, and searching for alternative options to help reduce transportation costs.

Waste and recycling infrastructure and programs are especially challenging in rural areas such as where ' the municipalities and RMNP are located. Implementing some of the opportunities presented is a way for SMWMG and stakeholders to stay ahead of the curve in matters regarding recycling and waste management.

Another key consideration would be for the stakeholders to consider the future of this program and how it aligns with the future needs of these communities. As Erickson plans the new transfer station, and further data is gathered on items such as weights, costs to ship loose materials, cost of outsourcing, alternative places to send materials, etc; it is the perfect time to consider the different alternative options outlined that are available to refresh these operations.



Appendix



Recommendation

To complete our assessment, we conducted interviews, meetings and obtained information from the following individuals:

ParticipantsRiding Mountain National ParkKevin Bachewich – Townsite managerClarence Popowich – Parks crew managerClanwilliam-EricksonKaitlyn Pinette – Assistant chief administrative officerIain Edye – Chief administrative officerHarrison ParkCody Cameron – Foreman – Parks Canada



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