

RURAL MUNICIPALITIES OF COLDWELL AND WEST INTERLAKE

Regional Waste and Recycling Review

July 29, 2022



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1 EXECUTIVE SUMMARY

In February 2022, the Rural Municipalities of Coldwell and West Interlake (the 'RMs') engaged BDO Canada LLP ('BDO') to undertake a review of the Regional Waste and Recycling Program (the 'Program'). The Program broadly consists of a residential waste collection service, as well as the operation of landfill, transfer station, and recycling facilities. The scope of this review endeavoured to evaluate the Program's internal control performance, effectiveness, and opportunities for regionalization. The review was funded under the Province of Manitoba's Municipal Service Delivery Improvement Program ('MSDIP') with the RM controlling the review's scope. Over the course of the review, the RM provided full access to various documentation, data, employees, and contractors.

The Rural Municipalities of Coldwell and West Interlake, located in the Interlake region of Manitoba, Canada, are local representatives of the Government of Manitoba. Each RM is publicly funded and governed by a Council who consists of elected officials.

Prior to 2002, the RMs of Coldwell and West Interlake (formerly called Eriksdale) had operated separate waste disposal grounds for approximately 40 years. However, to meet the Manitoba Waste Disposal Ground Regulation 150/91 regarding disposal of municipal wastes, the RMs have agreed to establish the Coldwell Eriksdale Waste Disposal Ground ('CEWDG'), a jointly owned and operated waste disposal ground. The operations and maintenance of the CEWDG is under the management of a joint committee which consists of Council members of RMs of Coldwell and West Interlake.

The main facility is CEWDG which is mainly funded through the Canada/Manitoba Infrastructure Program. The Government of Manitoba entered into this program in October 2000, bringing over \$180 million in infrastructure opportunities to the Province and leveraging millions more. Since then, the CEWDG has served the RMs of Coldwell and West Interlake in offering waste disposal and recycling services to their local communities.

The review found that the Program was, in the context of the RM's operating environment, generally well controlled, well managed, and was effective in meeting current expectations. However, as demands on the Program increase (with respect to higher expectations from the residents, and/or increased regulatory compliance) the lack of a long-term strategy and the inability of existing policies and procedures to meet potential future demands will become more evident, and as a result the Program's efficiency and cost effectiveness may suffer as a result.

The following findings and recommendations were identified during the review:

#	FINDING	RECOMMENDATION
1	Operational processes for the CEWDG facility are insufficiently documented as to accommodate increased future demand (such as growth in users, increasing regulatory complexity, and cost pressures).	It is recommended that written policies and procedures be developed to provide guidance, consistency, and accountability on how the program operates. Policies are recommended to be reviewed and updated by the administration on an annual basis.
2	CEWDG’s governance and legal structure are consistent with the founding agreement between the RMs of Coldwell and Eriksdale, but they may prove inadequate as demands (such as growth in users, increasing regulatory complexity, and cost pressures) increase.	<p>It is recommended re-evaluating CEWDG’s legal and governance structures to address potential shortcomings in the existing agreement, including:</p> <ul style="list-style-type: none"> • Assumption of the landfill’s environmental liability and retirement obligations; • Meaningful inclusion of varied stakeholder groups (i.e., First Nations, cabin-owners, and adjacent communities) in the Program’s governance and decision making processes; • Formalization of legal authority to enter and manage contracts, as well as clarifying legal title to, operational accountability for, the Program’s tangible assets; • Streamlining Council decision making through tie-breaker mechanisms; and • Accountability for administrative costs, regulatory compliance, and the recommendation of associated municipal levies.
3	There was a deficit of operational data and performance metrics based on weights.	It is recommended that weigh-scales be considered for installation at CEWDG to provide enhanced data on bulk weight that is processed through the facility. This will support the need for improved financial and non-financial reporting to the Committee to assess performance of the CEWDG facility, and thus further enhance decision making.

#	FINDING	RECOMMENDATION
4	Existing waste management facilities and overall program management are guided by waste reduction principles but are neither coordinated by a comprehensive strategic plan nor do they have clearly defined targets.	It is recommended that the RMs of Coldwell and West Interlake develop a Strategic Waste Management Plan that defines their vision, goals and objectives, and performance metrics for the Program.
5	Current initiatives such as Product Stewardship Programs and Pay-as-You-Throw (PAYT) are key programs that require sustained and targeted improvements and communication objectives to reach their objectives over the long term.	It is recommended that a strategic plan be developed and implemented for both the Product Stewardship Programs and the PAYT program. The plan should balance outreach and communication, fee-structure, and enforcement, with any other factors affecting user participation and compliance with the programs and compliment the overall strategic waste management plan.
6	The division of limited resources across multiple facilities, sharing similar operational and strategic roles, reduces the Program's overall effectiveness.	It is recommended that the development of regional strategy incorporate the evaluation of scenarios by which facilities are consolidated and resources realigned accordingly.

CONCLUSION

The review found that the Program was, in the context of the RM's operating environment (a small and simple operation), generally well controlled, well managed, and was effective in meeting current expectations. However, as demands on the Program increase (with respect to higher expectations from the residents, and/or increased regulatory compliance) the lack of a long-term strategy and the inability of existing policies and procedures to meet potential future demands will become more evident, and as a result the Program's efficiency and cost effectiveness may suffer as a result.



2 INTRODUCTION

Rising costs to individual municipalities are placing a large burden on available public funds to allocate to waste and recycling. Collaboration on a regional initiative, reviewing potential technologies, analyzing efficiencies and costs involved in collecting, handling, processing waste and recycling items on a larger scale will show where cost savings measures can be taken to reduce overall costs to a larger number of taxpayers.

BACKGROUND

Rural Municipalities of Coldwell and West Interlake

The Rural Municipalities ('RM') of Coldwell and West Interlake are separate municipal governments and communities. The RM of Coldwell is located near Lake Manitoba, (approximately 50km South of the RM of West Interlake) and has a population of approximately 1,300. The RM of West Interlake was formed in 2015 pursuant to the Manitoba Municipal Amalgamations Act, which effectively obligated the amalgamation of the RMs of Eriksdale and Siglunes. The RM of West Interlake is located near Lake Manitoba, (approximately 50km North of the RM of Coldwell) and has a population of approximately 2,200.

Prior to 2002, the RMs of Coldwell and West Interlake (formerly called Eriksdale) had operated separate waste disposal grounds for approximately 40 years. However, to meet the Manitoba Waste Disposal Ground Regulation 150/91 regarding disposal of municipal wastes, the RMs have agreed to establish the Coldwell Eriksdale Waste Disposal Ground ('CEWDG'), a jointly owned and operated waste disposal ground. The operations and maintenance of the CEWDG is under the management of a joint committee which consists of Council members of RMs of Coldwell and West Interlake.

The main facility is CEWDG which is mainly funded by the Canada/Manitoba Infrastructure Program. The Government of Manitoba entered into this program in October 2000, bringing over \$180 million in infrastructure opportunities to the province and leveraging millions more. Since then, the CEWDG has served the RMs of Coldwell and West Interlake in offering waste disposal and recycling services to their local communities.

Regional Waste and Recycling Program (the 'Program')

The primary waste and recycling services, provided to the residents of both Coldwell and West Interlake, are managed by the Coldwell Eriksdale Waste Management Committee (the 'Committee'). The Committee is comprised of two councillors from each community and governs the Coldwell Eriksdale Waste Disposal Grounds which is a Class 2 waste disposal facility, physically located within the boundaries of the RM of West Interlake. The Program was developed with waste reduction principles in mind with day-to-day management and operation of the CEWDG, as well as residential collection services, contracted to a third-party operator. Both RMs have implemented a partial PAYT Program for garbage whereby households pay per bag in excess of a basic allotment.

In addition, the RM of West Interlake independently operates two additional facilities: the Ashern Waste Disposal Grounds, and the Oakview Waste Transfer Site. Both are governed by

the RM of West Interlake Council with day-to-day management and operations performed by municipal employees. Residents utilize these facilities through tipping fees, pre-paid at the Ashern or Eriksdale Municipal offices. Recyclables are deposited free of charge.

OBJECTIVE

The objective of this review was to report on waste and recycling activities, costs, future potential impacts, and expansion opportunities that may exist for the municipalities of Coldwell, West Interlake, and their ratepayers through a regional approach. More specifically, this review was designed to:

- assess whether appropriate internal controls (including governance, financial management, and administrative policies) were in place and adequately supported;
- assess whether the Program was designed and delivered with due regard to the principles of economy, efficiency, and effectiveness; and
- identify opportunities for further regionalization of the Program to reduce the overall costs and their impacts.

SCOPE

The scope of this review included:

- the review of costs associated with the RMs' waste disposal and recycling services; identification of future opportunities to expand, collaborate, and implement cost-saving measures, and
- the provision of recommendations to assist the RM's of Coldwell and West Interlake achieve an efficient, economical, and effective waste disposal and recycling program.

APPROACH

To achieve the planned objectives and scope, the review's approach was structured around three core elements:

- 1) Reviewing of policies and associated documentation, as well as financial and operating data;
- 2) Interviewing with internal stakeholders regarding perceptions of the Program's performance; and
- 3) Surveying external stakeholders (tailored toward residents) to capture perceptions of the Program's performance.

3 FINDINGS AND RECOMMENDATIONS

The review found that the Program was, in the context of the RM's operating environment, generally well controlled, managed, and effective in meeting current expectations. The following findings and associated discussion form the basis of the recommendations of this report.

Finding 1: Operational processes for the CEWDG facility are insufficiently documented as to accommodate increased future demand (such as growth in users, increasing regulatory complexity, and cost pressures).

The current Operations and Maintenance Manual for CEWDG guides the landfill's basic operation in accordance with Provincial Waste Management Facilities regulations; as CEWDG is a small facility and serves a small user base, this is a reasonable level of basic control.

However, the review identified an absence of functional policy and procedure with respect to CEWDG's day-to-day operation. In addition, heavy reliance is placed on a primary contractor to operate the CEWDG facility, but there is no contractor management policy in place to govern contractor performance and procurement. While no significant performance issues were raised during over the course of the review, oversight of the contractor was ad-hoc. These policy gaps may introduce challenges when changing the facility's operation or managing contractor performance. Accordingly, policies should be developed to address these gaps.

Interviewees noted the value of developing a regionally applicable sustainable waste management policy that frames and delineates the waste management responsibilities undertaken by both the RMs, as well as major stakeholders (councillors, contractors, employees, residents, and First Nations). This would provide guidance to clarify uncertain accountabilities and harmonize pricing models, such as for the 'PAYT' model. The PAYT policy monetarily incents users to reduce their landfill utilization and is thus an effective tool for reducing waste, controlling waste disposal costs, and increasing participation in recycling programs.

Recommendation #1: It is recommended that written policies and procedures be developed to provide guidance, consistency, and accountability on how the Program operates. Policies are recommended to be reviewed and updated by the administration on an annual basis.



Finding 2: CEWDG's governance and legal structure are consistent with the founding agreement between the RMs of Coldwell and Eriksdale, but they may prove inadequate as demands (such as growth in users, increasing regulatory complexity, and cost pressures) increase.

The CEWDG facility was created by contract in 2002¹ with the founding Waste Management Agreement (the 'Agreement') dated July 10, 2002, between the RMs of Coldwell and Eriksdale. The Agreement generally provides for the sharing of operational costs and contemplates the division of title to assets, but is silent on key areas, including: indemnification to Eriksdale for environmental and other liabilities, introduction of non-municipal users and stakeholders into the Program, delegation of authority to enter into contract and manage those contracts, assessment of special costs associated with the facility's operation, accountability for compliance with federal and provincial regulation, and performance and reporting standards. Currently, the Committee's administrative support is provided by the RM of West Interlake, without attribution of cost back to CEWDG.

The 2002 contract contemplated only two stakeholder groups, being the two respective RMs. However, interviews and survey comments indicate that additional stakeholder groups are seeking representation; specifically: First Nations and cabin-owners. Both have significantly different objectives from other residents but are currently limited, in practice, from existing CEWDG governance. As regionalization progresses and demands on CEWDG intensify, it may be beneficial to evaluate difference governance models whereby different and fluctuating user groups can be formally represented.

In addition, CEWDG is governed by a committee of four councillors, two from each participating community; tie votes are counted as defeats. This voting system effectively requires consensus approval and CEWDG decisions have been delayed, from time to time, as a result. Major investment decisions are independently reviewed by each RM before being evaluated by CEWDG and this process effectively locks-in decision making to the municipal reporting cadence.

This protracts the evaluation process and introduces risk that opportunities and deadlines are missed. Stakeholders have expressed that the decision-making process is often lengthy because decisions have to be approved by council of both RMs in their respective off-cycle meetings. This can be achieved through strengthening the channels of communications, increase the frequency of meetings of the current Committee, or changing the structure of the CEWDGs governance concurrently with any change to legal structure.

The existing legal and governance structures provide reasonable control given CEWDG's current size and low level of complexity. However, competing demands (such as growth in users, increasing regulatory complexity, and cost pressures) may undermine the existing system's effectiveness and require reassessment in the future.

¹ Waste Management Agreement, 10 July 2002) between the RMs of Coldwell and Eriksdale (subsequently amalgamated into the RM of West Interlake)

Recommendation #2: It is recommended re-evaluating CEWDG's legal and governance structures (such as a Corporation or a Community Development Corporation) to address potential shortcomings in the existing agreement between the RMs, including:

- Assumption of the landfill's environmental liability and retirement obligations;
- Meaningful inclusion of varied stakeholder groups (i.e., First Nations, cabin-owners, and adjacent communities) in the Program's governance and decision making processes;
- Formalization of legal authority to enter and manage contracts, as well as clarifying legal title to, operational accountability for, the Program's tangible assets;
- Streamlining Council decision making through tie-breaker mechanisms; and
- Accountability for administrative costs, regulatory compliance, and the recommendation of associated municipal levies.

Finding 3: There was a deficit of operational data and performance metrics based on weights.

Monthly reporting provided to the Committee is basic and includes: financial statements, bank reconciliations, cheque logs, administrative reports, and contractor reports. The use of key performance indicators ('KPIs') is limited.

The CEWDG facility does not have a weigh-scale and, as a result, cannot report bulk weight related measures; recycling is weighed using a pallet-scale. Reporting is also provided under various stewardship programs. Waste is generally tracked, by load, and recorded manually to ensure tipping fees are collected and the Pay-As-You-Throw Program is followed. The Waste Reduction and Recycling Support ('WRARS') levy of \$10/tonne, payable to the Province under the WRARS Program, is estimated based on the number of loads dumped.

In addition, the Committee receives periodic reporting related to Provincial inspections. Inspection activities are conducted by the Environmental Compliance and Enforcement Branch, of the Manitoba Ministry of Environment, Climate, and Parks, to ensure regulatory compliance, and to respond to environmental incidents and complaints. Recommendations from the annual inspections and periodic visits are shared with the Committee Administrator who shares them with the Committee.

The existing load-denominated metrics provide reasonable visibility to the financial affairs of a small facility. However, the absence of weight-denominated metrics will become an increasingly significant limitation to operational reporting as the facility becomes more heavily utilized and the landfill approaches capacity. Weight data provides accuracy and precision in the determination of diversion rates and other key performance indicators, and thus facilitates stronger local management, regional coordination, and overall Program control.

Recommendation #3: It is recommended that weigh-scales be considered for installation at CEWDG to provide enhanced data on bulk weight that is processed through the facility. This will support the need for improved financial and non-financial reporting to the Committee to assess performance of the CEWDG facility, and thus further enhance decision making.

Finding 4: Existing waste management facilities and overall program management are guided by waste reduction principles but are neither coordinated by a comprehensive strategic plan nor do they have clearly defined targets.

A strategic waste management plan is a document that outlines the activities and methods of waste management, from waste generation to final disposal, and acts as a framework for how the program's goals will be achieved. Strategic plans are common tools for affecting municipal governance objectives. While the RMs have developed the regional waste and recycling program around waste reduction principles, neither have a written strategic waste management plan that outlines the specific goals and objectives.

According to the current Manitoba Waste Diversion and Recycling Framework, the Province is working to support circular strategies to create new economic opportunities and a more sustainable and resilient economy. Circular economy consists of maximizing value and eliminating waste by improving the design of materials, products, and business models. Avoiding and reducing waste to landfill, as well as reusing material, minimizing waste disposed and overall waste generation rates.

Absent a formal strategic waste management plan, the RMs alignment to the Framework is undocumented. However, in writing a strategic waste management plan, the RM has an opportunity to ensure fulsome integration of circular economy principles and thus allow the Program to evolve concurrently with other municipal and provincial developments. Integrating the circular economy into the RMs' program will allow the program to move in the same direction as other municipalities and the provincial plan.

Local goals and targets should be developed with extensive input from local government and the public. Local goals should be aligned to Provincial targets.

Examples of goals include:

- Support circular economy approaches;
- Minimize environmental impacts of solid waste management to air, water, and land, and;
- Increase awareness of waste prevention.

Measuring against defined goals and targets will allow continuous improvement towards those targets. Ultimately, having a clear strategic vision and realistic goals will allow the RMs to accurately evaluate the program's performance and identify actionable strategies for future improvement. It is also considered best practice to incorporate public participation and transparent communication into the evaluation and design of strategies.

The absence of a strategic plan may make it challenging to develop effective long term decision-making process and assess the effectiveness, efficiency, and economy of the program.

Recommendation #4: It is recommended that the RMs of Coldwell and West Interlake develop a Strategic Waste Management Plan that defines their vision, goals and objectives, and performance metrics for the Program.

Finding 5: Current initiatives such as Product Stewardship Programs and Pay-as-You-Throw are key programs that require sustained and targeted improvements, and communication objectives to reach their objectives over the long term.

Product Stewardship Programs

The RMs of Colwell and West Interlake are beneficiaries of various product stewardship programs (Appendix I: Table 2), including the Multi-Material Stewardship Manitoba ('MMSM') Program. MMSM is a not-for-profit, industry-funded organization that funds and provides support for Manitoba's residential recycling programs for packaging and printed paper. MMSM works on behalf of the manufacturers, retailers and other organizations that supply packaging and printed paper to Manitobans.

These businesses pay fees to MMSM, which are then used to reimburse municipalities for up to 80% of eligible costs of the residential recycling system. Payments to the municipalities are based on the sum of eligible administration, operating, promotion, education, and capital costs, less revenue for designated materials. Their main goal is to promote the reduction, reuse and recycling of the materials managed in the program.²

To be effective, Stewardship Programs require users to divert and separately collect the designated materials. As indicated by data in Appendix I: Table 1 from 2017 through 2021, user participation in the MMSM program significantly varied year-to-year. This variability underlines the importance of constant outreach and communication, as well as the adoption of innovations that ease the user experience. As indicated by survey results, there is an opportunity to improve communication regarding all aspects of the Program.



Pay-As-You-Throw (PAYT) Program

The RMs of Coldwell and West Interlake have implemented a partial PAYT program for garbage that requires households to pay based on the number of bags. Under this program, two bags of waste are allowed with any additional bag subject to an extra-fee depending on the site used.

² <https://stewardshipmanitoba.org/>

During stakeholder interviews, the PAYT was highlighted as an effective incentive that promotes waste reduction, increases recycling, and overall environmental benefits. However, 40% of survey respondents indicated they were indifferent as to the PAYT program's significance. The significant level of indifference amongst residents may be amplified by inconsistencies in the regional PAYT pricing model. Whereas the CEWDG site charges \$3.00 per extra bag of waste, the Ashern and Oakview sites charges \$1.00 per extra bag.

Compaction, or 'bag-stuffing', can become an operational challenge associated with PAYT program. As users pay by the bag, rather than weight, they are incented to load them to their maximum capacity which increases the chance of tearing. Similarly, the incremental cost of another bag for a small amount of waste may not appear economical and thus increase incent users to litter. That is why such policies can cause an increase in littering, illegal dumping, and recycling contamination. This may be mitigated through combining the PAYT Program with stricter enforcement and clarification of recycling and dumping regulations.

A key aspect of solid waste management is continuously communicating with and educating stakeholders. Both RMs of Coldwell and West Interlake publish guidance on 'acceptable items' on their websites, Facebook pages and as printed copies. However, no additional initiatives were noted in relation to raising awareness and educating communities on waste diversion initiatives. Examples of strategies but not limited to:

- Posting frequently asked questions about recycling practices and the program on their website and other social media platforms.
- Collaborate with provincial programs and share guides and marketing materials such as how to divert and handle food waste, yard waste, farm waste and other types of recyclables.
- Creating a Facebook page for the regional program to inform, keep the public updated, inform about schedules, and other additional information.
- Organizing recycling seminars, community activities including "Neighborhood Clean-up Day" and exchanging not used items regionally.
- Developing clear and targeted communication campaigns to ensure easy access to information on what can be recycled
- Partnering with stewardship programs to leverage the available tools and events to promote recycling

The RM of Coldwell and West Interlake could increase its awareness campaigns by involving schools, organizations, and institutions to promote waste reduction initiatives. Literature reviews were conducted during the review and it was noted that schools play an essential role in environmental education and sustainability and these help to transform schools and society as a whole. Partnering with schools to provide incentives to train teachers about the importance of environment sustainability and overall sustainable development.

Additionally, incentives should be provided to schools and colleges to promote and introduce sustainable projects. Municipalities of similar size and nature have introduced 'mini-grant' programs for recycling, these programs provide grants of up to \$150.00 to local youth groups and organizations who wish support to implement recycling programs/activities in schools, churches, clubs, and neighborhoods.

Research has also suggested that there is significant difference between awareness, attitude, and practice when it comes to education and age. Age and education are correlated to environmental attitude, knowledge, and practice when it comes to environmental sustainability issues. Stakeholders from the RM can facilitate by undertaking outreach activities, sending representatives to local schools, or inviting school children to facility tours or open days.

Additionally, the RM could increase its awareness and education initiatives in the community for all ages by organizing seminars, workshops, community re-use items exchange programs and meet ups where households can exchange items that are not being used by them.

Recommendation #5: It is recommended that a strategic plan be developed and implemented for both the Product Stewardship Programs and the PAYT program. The plan should balance outreach and communication, fee-structure, and enforcement, with any other factors affecting user participation and compliance with the programs and compliment the overall strategic waste management plan.

Finding 6: The division of limited resources across multiple facilities, sharing similar operational and strategic roles, reduces the Program's overall effectiveness.

Three facilities (CEWDG, Ashern, and Oakview), under the joint governance of two local governments, collectively service the waste and recycling needs of less than 5,000 residents. As described in the preceding findings of this report, the Program will face various challenges as demands (such as growth in users, increasing regulatory complexity, and cost pressures) increase. In addition, operational inconsistencies undermine the overall Program's effectiveness. For example, there is a weigh-scale at Ashern, but not at CEWDG, despite CEWDG being the more formal regional hub.

Another example is the PAYT pricing discrepancy between the facilities. These findings collectively suggest that greater efficiency and effectiveness may be achieved through the consolidation of services under a regionalized strategic focus. While further analysis would be required, CEWDG was envisaged as a shared regional resource, and thus is well suited to become the central hub.

Recommendation #6: It is recommended that the development of regional strategy incorporate the evaluation of scenarios by which facilities are consolidated and resources realigned accordingly.

4 CONCLUSION

The review found that the Program was, in the context of the RM's operating environment (a small and simple operation), generally well controlled, well managed, and was effective in meeting current expectations. However, as demands on the Program increase (with respect to higher expectations from the residents, and/or increased regulatory compliance) the lack of a long-term strategy and the inability of existing policies and procedures to meet potential future demands will become more evident, and as a result the Program's efficiency and cost effectiveness may suffer as a result.

APPENDIX I - MMSM WEIGHTS REPORTED AND OVERVIEW OF PRODUCT STEWARDSHIP PROGRAM PARTICIPATION

Table 1: Weights reported under MMSM program for both RMs from 2016 - 2021

	COLDWELL				
	2017	2018	2019	2020	2021
Kg reported	70,791	93,151	71,067	65,155	64,991
Kg per capita	56.5	74.3	56.7	52.0	51.90

	WEST INTERLAKE				
	2017	2018	2019	2020	2021
Kg reported	72,117	101,710	91,882	94,030	61,674
Kg per capita	33.4	47.0	42.5	43.5	28.52

Table 2: Product Stewardship Programs

PROGRAM	OVERVIEW	ACCEPTED MATERIALS
CleanFarm	CleanFarm is a national not-for-profit organization that delivers industry-funded, end-of-life stewardship programs in the agricultural sector across Canada.	Pesticide & Fertilizer Containers
Manitoba Association for Resource Recovery Corporation	MARRC was established in 1997 and initially just covered used oil, oil filters and containers but in 2011, MARRC was also approved to operate the Used Antifreeze Stewardship Program.	Automotive antifreeze, automotive antifreeze containers, used oil, used oil filters, and used oil containers
Call2Recycle Battery Collection Program	Call2Recycle, operated by the non-profit organization Call2Recycle Canada, Inc., promotes environmental sustainability by providing free battery and cellphone recycling in North America.	Dry-cell single use and rechargeable batteries including batteries sold stand-alone and batteries from e-scooters; e-bikes, e-boards, as well as batteries in e-toys, power tools, construction tools, flashlights, spotlights etc.

PROGRAM	OVERVIEW	ACCEPTED MATERIALS
Electrical and Electronic Waste (Electronic Products Recycling Association)	The EOLE Stewardship Program is a Canadian free recycling program for electrical and electronic waste.	Desktop computers, mice, keyboards, cables, monitors, computer notebooks, notebooks, laptops, and tablets, desktop printers and scanners, televisions, personal portable audio/video systems, vehicle audio/video systems, cell phones (collected separately by Recycle My Cell) and non-cellular telephones and microwave oven
Tires (Tire Stewardship Manitoba)	TSM has operated a free tire recycling program in Manitoba since 2007.	All tires and tubes for passenger/light trucks, medium trucks, large agricultural and small and large off-road tires
Paint, CFL lights, etc. (Household Hazardous Waste - Product Care Association)	The Manitoba HHW Program is a free Canadian recycling program for household hazardous waste. The program has been in place in Manitoba since May 1, 2012.	Paint, flammable liquids/gasoline, corrosives, toxics, physically hazardous materials, pesticides, fluorescent lighting tubes and compact fluorescent lights ("fluorescent lights"). Includes product containers

APPENDIX II - SAMPLE KEY PERFORMANCE INDICATORS

KPI DIVERSION	
DIVERSION AMOUNT	Amount of material diverted, either in tonnes or kilograms. This can be measured over the total program, per building or per unit.
DIVERSION RATE	Total material diverted as a portion of total material generated as per the below formula: $\left(\frac{\text{Weight of diverted waste only}}{\text{Weight of all waste}} \right) \times 100$
PROGRAM COST	
TOTAL COST	Total amount required to pay for an aspect of waste management programming. This can be for total program costs, recycling, or garbage only, or split collection out from landfilling or processing material.
TOTAL REVENUES	Total amount received for selling material as commodities, and the sale of Blue Boxes.
PROMOTION & EDUCATION (P&E) BUDGET	Total amount of dollars budgeted for P&E on a per-unit or per-building basis
COMMUNITY INVOLVEMENT	
PROGRAM AWARENESS	A measure of the general public's awareness of the components of their local diversion program.
CORRECT USE	A measure of individual performance in properly sorting materials for collection. This can be done on a per-unit basis or a per-building basis.

APPENDIX III - SURVEY

OVERVIEW

A survey was conducted to gain an understanding of the Program and to gain an insight on how individuals and households respond to the services offered by the Program. In total, 104 survey requests were sent of which 94 were completed. The survey methodology employed included a set objective of gaining an insight of the Program and to obtain residents thoughts on the current offerings of the Program, community satisfaction and areas that required improvement. The survey methodology involved deployment of a questionnaire, collection of responses and an analysis of responses received. These responses additionally, aided in recommendations and areas that could be improved to improve the efficiency and the effectiveness of the program to best serve the local communities. Overall, the residents were satisfied with the garbage and recycling collection service offered by the RM. However, multiple areas were noted where the RMs could enhance the efficiency of the Program and these have been reflected in the recommendations.

SURVEY QUESTIONS AND ANALYSIS

Question: What is the appropriate pick-up frequency?

Choice	Percentage	Count	
Weekly	54.55%	54	
Bi-weekly	33.33%	33	
Seasonal	6.06%	6	
Other	6.06%	6	
Total	100%	99	

The survey requested the community to provide their preferences on the frequency of the pick-ups wherein 54% of respondents were in favor of a weekly pick-up service with almost 33% in favor of the existing frequency. This observation supports the need for the development of a strategic waste management plan wherein service expectations are aligned to operational capability over the long term.

In evaluating the appropriate pickup frequency, a detailed cost/ benefit analysis would be required. That analysis may include the engagement of contractors to evaluate different operating models such as the use of non-custom vehicles, and route optimization. To limit additional cost associated with waste hauling, options include the installation of community and technological tools like Pello sensors, or Nordsense smart sensors.

Survey Questions and Analysis

Question: Waste reduction efforts prevent waste in the first place. Waste reduction means using processes, practices, materials, or products that avoid or minimize the creation of waste or environmental disturbance and reduce risk to human health and the environment. How important is household and community waste reduction to you and those in your household?

Choice	Percentage	Count	
Very important	73.08%	76	
Somewhat important	25.00%	26	
Not at all important	1.92%	2	
Total	100%	104	

The survey requested that individuals and households provide their thoughts on waste reductions efforts and the importance they give to household and community waste reduction. It was noted from the responses that 73% of the residents were in favor and considered waste reduction as very important while almost 27% of the respondents were indifferent between somewhat important and not important for waste reduction. The responses suggest there's value in increasing awareness and education about waste reduction, diversion and its benefits to individuals, households, and the environment. This observation supports the recommendation to improve communications regarding key program areas.

Question: What materials do you recycle curbside?

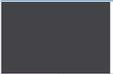
Choice	Percentage	Count	
Cardboard	78.79%	78	
Aluminum, tin, steel cans	88.89%	88	
Plastic bottles	93.94%	93	
Newspaper, mixed paper, and paperboard	71.72%	71	
Glass bottles and jars	84.85%	84	
Cartons	72.73%	72	
Others	10.10%	10	
Total	100%	99	

The survey indicated that most of the items recycled curbside, included aluminum, tin, steel cans category. Next, were plastics and glass bottles, and lastly cardboard and cartons. Additional research was performed, and it was noted that single stream recycling leads to contamination. The biggest contamination comes from broken glass. The abrasive nature not only is hard on equipment but also if the particles get embedded into fiber, the value is diminished.

In addition, when bottles, cans and containers come in contact with paper, the residual liquid that had been left in those containers then gets absorbed by paper products sharing the bin. This additionally puts pressure on sorting processes and the quality and amount of material reclaimed is also at risk of diminishing. Dual stream recycling would overcome the impact of such contamination; however, it would require a cost benefit analysis. Community, Council, and the Board must collaboratively decide the nature, extent, and impact of implementing a dual stream recycling strategy.

As there are multiple considerations in assessing any systemic changes to the recycling program, this observation supports the recommendation to develop a comprehensive strategic waste management plan.

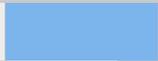
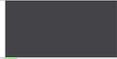
Question: When your household is unsure whether an item is recyclable, what do you do?

Choice	Percentage	Count	
Place the item in the trash	39.39%	39	
Consult the RM's website for instructions	35.35%	35	
Place the item in the recycling bin	18.18%	18	
Other	7.07%	7	
Total	100%	99	

The survey indicated that when individuals and households are unsure if an item is recyclable, 40% of place the item in the trash as garbage, 35% of the households mentioned that they consulted the RM's website for instructions, almost 25% of the respondents did however mention that they chose other options including asking the on-site attendee for clarification.

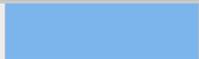
Additionally, residents were also asked about their understanding of the recycling by law and best recycling practices for which almost 27% responded that there only had limited understanding of the recycling law and best recycling practices while almost 40% of the residents rated their understanding to be neutral. This observation supports the recommendation to improve communications regarding key Program areas.

Question: On average how many full black/orange garbage bags (waste) does you household place on the curb for each round of collection?

Choice	Percentage	Count	
1 or fewer	49.49%	49	
2	36.36%	36	
3	4.04%	4	
4 or more	10.10%	10	
Total	100%	99	

To gain an understanding and to evaluate the effectiveness of the PAYT Program, the survey asked respondents how many garbage bags they place on the curb at each round of collection. It was noted that 50% of the respondents selected one or fewer as their option while 36% of the respondents chose two bags, 14% of the respondents noted to place three bags or more for each round of collection. From the responses it noted that households were complying with the PAYT program and were aware of the additional charges for each additional bag that was disposed.

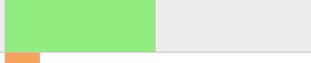
Question: If you had to estimate, how much of your waste is food waste (compost)?

Choice	Percentage	Count	
Less than 10%	62.63%	62	
Between 10% and 25%	30.30%	30	
Between 25% and 50%	6.06%	6	
Over 50%	1.01%	1	
Total	100%	99	

To gain an understanding of food waste, the survey asked respondents of an estimate of how much waste they generate comprises of food waste (compost), it was noted that almost 62% of the respondents mentioned that less than 10% of their waste is food waste while almost 38% respondents estimated their food waste to be more 10% and 50%. This may provide an opportunity for the RMs to raise additional awareness regarding food composting, these can include ideas like backyard composting, installation of shared composting bins like 'hotbins' that help in composting food waste at a faster rate.

It was noted that the RMs do not have a composting program; this observation supports the recommendation to develop a strategic waste management plan wherein composting may be properly evaluated.

Question: How do you currently receive information on the waste disposal and recycling program? Please select all that apply:

Choice	Percentage	Count	
Local news board/Newspaper	20.62%	20	
The RM's website	41.24%	40	
The RM's social media	48.45%	47	
Personal mail	11.34%	11	
Word of mouth	32.99%	32	
Watch what my neighbors do	8.25%	8	
Others	15.46%	15	
Total	100%	97	

The survey noted that almost 48% of the residents received information on the waste disposal and recycling program through the RM's social media and RM's website while other resources included local newspapers, personnel mail, and word of mouth. The website included hours of operations for each facility, items that can be recycled and its categorization of items that can be disposed and recycled. Additionally, when asked how easily accessible the information was available related to the Program, it was noted that 50% of the respondents mentioned that the information available was neutral while 28% mentioned that the information was only accessible to a small extent.