KGS GROUP
CONSULTING ENGINEERS

SOLID WASTE MANAGEMENT MASTER PLAN FOR THE RURAL MUNICIPALITY OF ST. CLEMENTS

DRAFT FINAL REPORT

KGS Group 16-0607-001
December 2016

PREPARED BY:

Stan Lozecznik, P.Eng.
Environmental Engineer

REVIEWED BY:

Tony Kuluk, P.Eng.
Solid Waste Management Specialist

APPROVED BY:

Bert Smith, P.Eng., F.E.C.
Principal

Kontzamanis Graumann Smith MacMillan Inc.

KGS GROUP CONSULTING ENGINEERS

3rd Floor
865 Waverley Street
Winnipeg,
Manitoba
R3T 5P4
204.896.1209
fax: 204.896.0754
www.kgsgroup.com

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File No. 16-0607-001

R.M. of St. Clements
1043 Kittson Road
Box 2 Group 35, RR 1
Corner of Colville and Quarry
East Selkirk, MB
R0E 0M0

ATTENTION: Mr. DJ Sigmundson
CAO, R.M. of St. Clements

RE: Solid Waste Management Plan for the RM of St Clements
Draft Final Report

Dear Mr. Sigmundson:

Please find enclosed one (1) digital (PDF) version of our Solid Waste Management Plan for the RM of St Clements – Draft Final Report prepared in 2016, updated with recent RM comments.

This report presents solid waste data from 2015 and 2016 from the RM of St. Clements and other RMs in Manitoba for comparison purposes.

Please review the report and provide any further comments to the undersigned. KGS Group will issue the Final signed report upon receipt of your response.

KGS Group sincerely appreciates the opportunity to have been of service to the RM of St. Clements on this interesting project.

Sincerely,

Stan Lozecznik, Ph.D., P.Eng.
Environmental Engineer

SAL/jr
Enclosure

cc: Tony Kuluk, P.Eng.
Jason Mann, P.Geo.
J. Bert Smith, P.Eng., FEC

EXECUTIVE SUMMARY

Kontzamanis Graumann Smith MacMillan Inc., KGS Group, was retained by the R.M. of St. Clements in January 2016 to provide engineering services to develop a Solid Waste Management Master Plan (SWMP). The SWMP was intended to provide Council with options for developing long term strategies (capital and operating) for solid waste management in the R.M.

Solid waste management services in the RM of St Clements were compared to services in 12 RMs and municipalities in Manitoba, including: East St. Paul, Gimli, Hanover, La Broquerie, Macdonald, Portage La Prairie, Richot, Rockwood, Springfield, St. Andrews, Stanley and Tache. The services compared included the type of collection (manual/automated), volume limits per household, cost per household, cost per tonne, frequency of collection, collection payment method (property tax, fee for service or other), service provider and type of waste managed. The solid waste management costs compared between the RMs, also considered landfills (where applicable), transfer stations (where applicable), and recycling services. Based on 2015 actual expenses for all solid waste services, St. Clements had the fourth highest estimated costs per person ($78.16) of the 12 RMs, which was only exceeded by Springfield ($86.19), Rockwood ($85.28), and Tache ($81.14).

In consultation with the CAO of the RM of St. Clements, the list of RM's was narrowed to the following 7 comparable RM's with populations of 5,000 residents which included East St. Paul, Hanover, Macdonald, Portage La Prairie, Springfield, St. Andrews and Tache. Of the RM's the highest cost for recycling is in Richot ($525/per tonne), followed by the RM of Macdonald ($370/per tonne) and the RM of St. Clements ($363/per tonne). The 2015 Multi-Material Stewardship Manitoba (MMSM) Report indicates that the RM of St Clements has the lowest recycling rate per capita (25 kg/per capita) in comparison to Portage La Prairie (38 kg/per capita), La Broquerie (40 kg/per capita), Springfield (50 kg/per capita), Hanover (60 kg/per capita), Macdonald (68 kg/per capita), and the highest of all, the RM of East St Paul, at 92 kg/per capita. These recycling costs and rates per capita indicate that there is opportunity for the RM of St. Clements to improve recycling compared to other RM's. There are, however, differences that must be considered in such comparisons such as size of the RM and population densities. If the RM plans any future changes for the recycling program, MMSM as the major funding source should be consulted.

The four transfer stations operating in St Clements, which are Dunning Road, Clark Road, Grand Marais and Gull Lake have near identical layouts, with options for disposal or recycling.

While the overall operation of the transfer stations is in line with accepted operational practices, there are improvements that should be undertaken in the short term in order to improve safety and operations, reduce operating costs, and meet regulatory requirements, as follows:

- None of the transfer stations have a power supply. Therefore there are potential issues with visibility, security and safety during dark conditions.
- There does not appear to be any financial management system in place to record transactions, vehicle counts, material types, etc.
- In some transfer stations, discarded propane and gaseous cylinders are stored directly against or under the site offices.

- During the inspections, it was noted that several items were not in compliance with the requirements Producer Responsibility Organizations (PROs) stewardship organizations and best practices for the storage and handling of materials such as oil, batteries and electronic wastes.
- The current system of roll-off containers for the collection of both recycling and garbage is expensive since there is no compaction of the materials.
- The transfer stations do not meet all Workplace Health and Safety regulations, such as proper guardrail height to prevent falls, stairs without slip prevention measures, and improvements are required.
- The transfer stations should convert to front-load collection bins for both recycling and garbage, to increase density (compaction).
- The collection work should be through a public tendering process.

The Libau landfill has issues with its operation, including insufficient record keeping, insufficient daily or interim cover, leachate management, litter control, and surface water runoff management. The 2016 landfill tipping fee was $43.5/tonne, which does not cover costs including depreciation of assets, and all requirements to meet both licensing and regulatory requirements. The RM increased the landfill tipping fee to $71/tonne in 2017 to help offset these costs, constructed leachate ponds and improved the landfill operation. This included minimizing the size of the active working area, using portable fencing to control litter and better soil cover. A new cell will be required at the landfill within an estimated 10-11 years based on the current filing rates, costing approximately $1M, along with infrastructure upgrades in the order of $0.75M.

Options for garbage and recycling service for the RM based on estimated costs, environmental and property tax impacts include:

- Four transfer stations and one Class 1 Landfill with no curbside collection (status quo), but with changes to meet regulatory requirements,
- Collecting garbage and recycling in the entire RM, (a) maintaining all transfer stations operating one day per week, (b) closing 3 transfer stations and keeping Dunning for special waste only and adding special waste collection at Libau Landfill,
- Collecting garbage and recycling in more densely populated areas only, (a) maintaining all transfer stations operating one day per week, (b) closing Clark and Dunning Transfer Stations.

From all these options, it is recommended to introduce an automated cart-based system for recycling and garbage collection for the more densely populated areas. In addition, it is recommended to close the Clarke and Dunning Transfer Stations, and make improvements to either both, or one of the Gull Lake and Grand Marais transfer stations, as well as the drop off area at the Libau Landfill.

Options for the landfill service based on estimated costs, environmental and property tax impacts such as the status quo with improvements to meet regulatory requirements, reduced days open and planned closure were also discussed. Further assessment is recommended for continuing to operate the Libau Landfill after Cell 3 is completed.

System funding options were discussed for the recycling and garbage systems utilizing (1) Full property tax support, (2) uniform user fee, (3) full user pay and (4) hybrid system.

This study has shown that the RM of St Clements Garbage and recycling systems can be improved by implementing the options discussed including, garbage collection and recycling for the more densely populated areas, improvements at the transfer stations to comply with best practices and workplace, safety and health requirements, increase the tipping fees at Libau Landfill from $43.5/tonne to $71/tonne, and further assessment for the continuation of Libau Landfill operation after Cell 3 is completed.

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1.0 INTRODUCTION

Kontzamanis Graumann Smith MacMillan Inc. (KGS Group) was contracted by the RM of St. Clements (RM) in January 2016 to develop a Solid Waste Management Master Plan (SWMMP). The SWMMP is intended to provide Council with options for developing long term strategies (capital and operating) for solid waste management in the Municipality.

The draft of this report was submitted for comments on November 16, 2016, and presents solid waste data from 2015 and 2016 from the RM of St. Clements and other RMs in Manitoba for comparison purposes.

2.0 BACKGROUND

2.1 CURRENT SYSTEM AND THE NEED FOR CHANGE

The RM of St. Clements operates a solid waste manage system consisting of a Class 1 landfill site near Libau and four transfer stations (Dunning Rd., Clark Rd., Gull Lake, and Grand Marais). The Libau Landfill is an active landfill located approximately 8 km east of PTH 59 on road 88 North near the community of Libau, Manitoba. This landfill site has eight (8) approved cells of which only two are developed (Cells 1 and 3). As of November, 2016, Cell 1 is at capacity and Cell 3 is receiving all incoming solid waste with approximately 40% of its capacity utilized. The site handles both commercial and household approved solid waste for disposal, as well as stockpiling of various materials for recycling.

The Libau Landfill requires major capital upgrades and operational improvements to meet the Environmental Act License and regulatory requirements which came into effect on July 1, 2016. The costs of operating the transfer stations have drastically increased in recent years due to hauling costs. Costs will be also increasing to meet the need to comply with required workplace health and safety improvements. Under Waste Management Facilities Regulation 37/2016, the landfill will require certified operators, which will further increase the costs.

2.2 DECISION TO DEVELOP A MASTER PLAN

The RM of St. Clements (RM) selected KGS Group (January 2016) through a Request for Proposal process to develop a Solid Waste Master Plan (SWMP), to review current practices and facilities to determine cost-effective and environmentally sound long-term options for improvement for consideration by Council.

3.0 SCOPE OF WORK

The scope of work for this study included the following tasks:

- Review current practices, operational issues and improvement required at the Libau Landfill and Transfer stations
- Review available information (costs, funding, etc.) from landfills and transfer stations from RMs in Manitoba for comparison.
- Propose options to deal with solid waste and recycling at the RM including costs to meet regulatory requirements.
- Propose options for the landfill facility including meeting new regulatory requirements.
- Investigate system funding options.
- Develop an efficient waste management collection and disposal system that protects the environment, provides a positive experience for the user and a desirable workplace for the operators while minimizing costs and disposal requirements.

4.0 COMPARISION TO SIMILAR COMMUNITIES

4.1 INITIAL COMPARISON WITH 12 COMMUNITIES

4.1.1 Communities Selected for Comparison

An initial examination of solid waste management services in Manitoba for 12 RMs and municipalities were carried out for comparison to the RM of St. Clements including: East St. Paul, Gimli, Hanover, La Broquerie, Macdonald, Portage La Prairie, Ritchot, Rockwood, Springfield, St. Andrews, Stanley, and Taché. Appendix A, Table A-1 summarizes solid waste practices canvassed from each of the 12 RMs for the following waste management items:

- Type of Collection Service
- Manual/cart collection
- Volume limit per person
- Cost per household
- Cost per tonne
- Frequency of collection
- Collection payment method
- Service provider and waste composition

For this report, cart is mainly referred to the household containers for recyclables and garbage, and bins are referred to larger containers for recycling and garbage at the transfer stations and multi-family and commercial properties.

The 12 RMs for comparison were selected from a review of the 2012 Statistical Information from the Municipalities of the Province of Manitoba Report for RMs with populations over 5,000 (http://web22.gov.mb.ca/mao/mfas/pdf/12_stats.pdf).

4.1.2 Compiled Information

KGS Group compiled the available solid waste/recycling information from the RM's webpages and telephone conversations with the Public Works Department for each RM. Not all the requested information was available; therefore "N/A" is listed for some services for the various RMs in Table A-1 in Appendix A, which were incomplete or did not have information available.

Appendix B shows the General Operating Funds for the 12 RMs. This information was used in conjunction with information from the website to calculate the Operational Costs for the Solid Waste and recycling programs for each domain to be compared with the RM of St Clements, as shown in Table 1.

TABLE 1
OPERATIONAL COSTS FOR THE SOLID WASTE AND RECYCLING PROGRAMS OF THE 12 SELECTED RMS AND THE RM OF ST CLEMENTS

Municipality	2015 Budgeted	2015 Actual	2016 Budgeted	2017 Budgeted	Pop. (2015)
East St. Paul					9,563
Garbage Collection	$284,000.00	$272,699.00	$284,000.00	$285,000.00	
Transfer Station Grounds	$127,200.00	$118,355.00	$173,100.00	$175,000.00	
Recycling	$205,000.00	$193,000.00	$284,000.00	$285,000.00	
R&M - Automated Carts	$1,000.00	0	0	0	
Subtotal	$617,200.00	$584,054.00	$741,100.00	$745,000.00	
Total Env. Health Services (See Note 3, as per plan)	$672,200.00	$637,306.00	$837,100.00	$840,000.00	
Gimli					5,961
Total Env. Health Services (as per plan)	$80,611.00	$80,643.00	$83,111.00	-	
Hanover					13,863
Garbage Collection	$446,995.00	$597,585.00	$559,015.00	$581,376.00	
Nuisance Grounds	$200.00	0	0	0	
Capital Projects	0	0	$120,000.00	0	
Utility Maintenance	$160,225.00	$155,428.00	$177,420.00	$181,856.00	
Subtotal	$607,420.00	$753,013.00	$856,435.00	$763,232.00	
Total Env. Health Services (as per plan)	$607,420.00	$753,013.00	$856,435.00	$763,231.00	
La Broquerie					4,906
Garbage Collection	$500.00	$883.42	$1,000.00	$1,000.00	
Other Env. Health Studies	$50,000.00	0	$50,000.00	$50,000.00	
Subtotal	$50,500.00	$883.42	$51,000.00	$51,000.00	
Total Env. Health Services (as per plan)	$65,500.00	$15,883.42	$66,000.00	$66,000.00	
MacDonald					7,342
Nuisance Grounds	$267,154.52	$230,708.14	$265,785.00	$302,417.60	
Total Env. Health Services (as per plan)	$267,154.52	$230,708.14	$265,785.00	$302,417.60	
Portage La Prairie					6,995
Garbage Collection	$200,000.00	$191,011.64	$206,267.00	$206,267.00	
Nuisance Grounds	$125,000.00	$108,872.91	$125,000.00	$125,000.00	
Municipal Wells	$15,000.00	$48,348.56	$23,100.00	$23,100.00	
Other	$1,000.00	$1,950.70	$2,000.00	$2,000.00	
Subtotal	$341,000.00	$350,183.81	$356,367.00	$356,367.00	
Total Env. Health Services (as per plan)	$341,000.00	$350,183.81	$356,367.00	$356,367.00	
Ritchot					7,238
Garbage Collection	$347,055.00	$400,026.86	$484,000.00	$493,680.00	
Disposal Grounds	$12,200.00	$27,338.66	$700.00	$714.00	
Subtotal	$359,255.00	$427,365.52	$484,700.00	$494,394.00	
Total Env. Health Services (as per plan)	$761,555.00	$752,506.71	$890,700.00	$908,514.00	

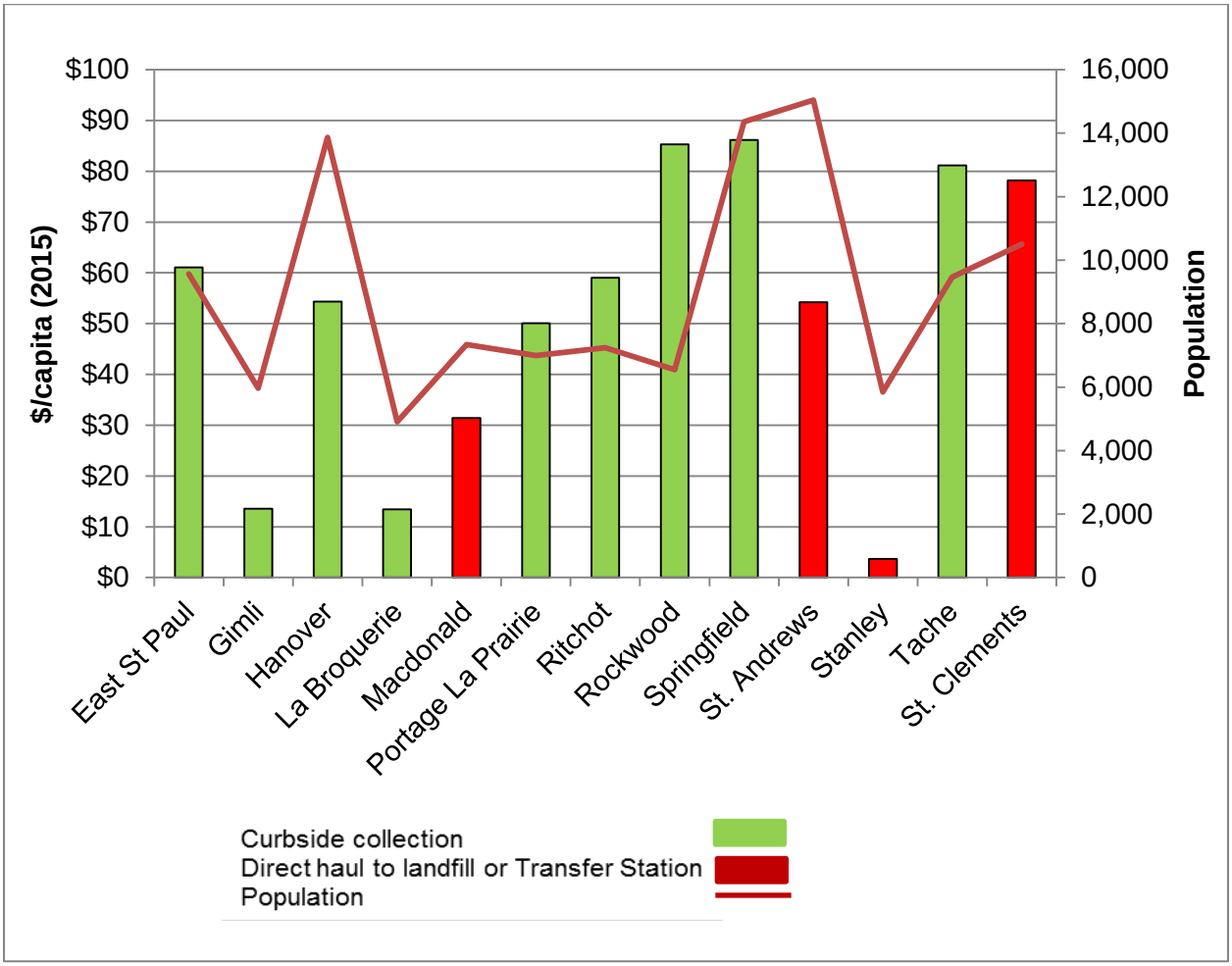
Municipality	2015 Budgeted	2015 Actual	2016 Budgeted	2017 Budgeted	Pop. (2015)
Rockwood					6,551
Garbage Collection	$190,000.00	$189,406.76	$200,000.00	$200,000.00	
Nuisance Grounds	$325,000.00	$363,366.03	$337,000.00	$337,000.00	
Municipal Wells	$2,000.00	$5,919.35	$2,000.00	$2,000.00	
Subtotal	$517,000.00	$558,692.14	$539,000.00	$539,000.00	
Total Env. Health Services (as per plan)	$522,000.00	$564,330.82	$544,000.00	$532,000.00	
Springfield					14,364
Garbage Collection	$1,277,588.65	$1,214,537.74	$1,360,100.00	$1,421,894.00	
Nuisance Grounds					
Subtotal	$1,277,588.65	$1,214,537.74	$1,360,100.00	$1,421,894.00	
Total Env. Health Services (as per plan)	$1,313,038.12	$1,238,042.54	$1,361,151.00	$1,422,962.00	
St. Andrews					15,037
Solid Waste open/closure	$572,476.00	$568,245.00	$591,076.00	$579,342.00	
Recycling	$203,500.00	$246,579.00	$245,500.00	$245,000.00	
Subtotal	$775,976.00	$814,824.00	$836,576.00	$824,342.00	
Total Env. Health Services	$862,764.00	$888,589.00	$937,876.00	$875,642.00	
Stanley					5,850
Total Env. Health Services	$21,500.00	-	$21,550.00	-	
Tache					9,468
Utilities Manager			$48,500.00	-	
Solid Waste Facility & Transfer Station	$534,356.00	$539,211.77	$552,950.00	-	
Recycling	$225,000.00	$224,068.80	$190,100.00	-	
Subtotal	$759,356.00	$763,280.57	$791,550.00	-	
Total Env. Health Services	$764,346.00	$768,280.57	$796,550.00	-	
St. Clements					8,299
Garbage Collection					
Transfer Stations	$371,000.00	$246,070.00	$311,862.00	$325,587.00	
Regional Landfill	$357,233.00	$408,276.00	$1,040,233.00	$1,040,233.00	
Recycling	$185,000.00	$146,246.00	$175,000.00	$131,250.00	
East Selkirk - Utility Wage Allocations	$14,000.00		$14,000.00	$14,000.00	
Environment Grants	$20,505.00	$20,505.00	$12,505.00	$12,505.00	
Subtotal	$947,738.00	$821,097.00	$1,553,600.00	$1,523,575.00	
Total Env. Health Services	$959,238.00	$828,416.00	$1,565,100.00	$1,535,075.00	

Notes:

1. No data available "-"
2. Zero funds allocated - "0"
3. Total Env. Health Services are the environmental impact costs for the RM that can include transfer stations, landfill, curbside pickup (if applicable) and/or environment grants

The Capital costs for the solid waste and recycling programs were not readily available for all RMs. Only three provided their information for this study, as shown in Appendix C. Using the 2015 budget information and 2015 population (See Table 1), the per capita cost for solid waste and recycling programs was estimated as shown in Figure 1.

FIGURE 1
2015 ACTUAL EXPENSES
FOR SOLID WASTE AND RECYCLING PROGRAMS FOR EACH RM



The RMs presented in Figure 1 have different solid waste service levels which would need to be taken into account when expenditures per person for each RM are compared. The service levels based on available information for each RM are summarized as follows:

- **East St. Paul**: One of the highest level services of all the RMs, with automated collection curbside for urban residents and transfer stations for rural residents. The frequency of collection is once per week and the collection payment method is through property taxes.
- **Gimli**: Manual curbside collection is conducted once per week, and the collection payment method is through property taxes.

- **Hanover**: High service level including automated curbside pickup for urban residents and contractors available for rural residents. The frequency of collection is once per week and the collection payment method is mainly funded from Municipal taxes for urban residents. There is a new $5 fee for any non-scaled vehicle using the Steinbach Landfill (residents and non-residents).

- **La Broquerie**: Curbside pickup in urban areas once per week.

- **MacDonald**: No curbside pickup is available, and there is a fee from contractors for the collection service for Oak Bluff, Sanford and La Salle.

- **Portage La Prairie**: Manual curbside pickup (with collection tags) is available for some areas only. The frequency of collection is once per week, recycling is collected once every other week, and the collection payment method is mainly funded by a fee for service included on the utility bill (paid quarterly).

- **Ritchot**: Curbside pickup in urban areas once per week.

- **Rockwood**: Manual curbside pickup in 6 town areas, and there is a fee for the service and special service tax.

- **Springfield**: Manual curbside pickup in urban areas, once per week.

- **St**. **Andrews**: No curbside pickup, but a free pass is available for residents to access the landfill. Tipping fees are applied to commercial haulers.

- **Stanley**: No curbside pickup is available, and there is a fee from contractors.

- **Taché:** Manual curbside pickup for urban areas, once per week per household.

KGS Group also attempted to examine the revenues from these waste programs. However, only the RM of Rockwood provided the required information, as shown in Appendix D.

For the purpose of comparing the solid waste management costs between the selected RMs/localities, KGS Group also examined the landfill availability (if any), landfill class, transfer service, collection service, and recycling service for each of the 12 RMs, as shown in Table 2

TABLE 2
GENERAL INFORMATION FOR LANDFILLS AND TRANSFER STATIONS AT EACH OF THE 12 RMS AND THE RM OF ST CLEMENTS

RM	Landfill (Y/N), #	Class	Transfer Station (Y/N), #	Collection Service (Y/N)	Recycling (Y/N)	Notes
East St. Paul						
	N		Y,1	Y	Y	Collection, recycling, and disposal outsourced to private contractors
Gimli						
	Y, 1	2	N	Y	Y	Landfill currently being upgraded to Class 1, as of June 15, 2016. Recycling contracted to Cornerstone Enterprises, *INC.*
Hanover						
	N	1	N	Y	Y	Disposal to Class 1 City of Steinbach Landfill. Collection provided for urban residents.
La *Broquerie*						
	N	1	N	Y	Y	Disposal to Class 1 City of Steinbach Landfill. Collection provided for urban residents by Rush Sanitation.
Macdonald						
	Y, 2	2	N	Y	Y	Collection *by private contractors*
Portage La *Prairie R.M.*						
	Y	1	N	N	Y	
Ritchot						
	N		Y, 1	Y	Y	
Rockwood						
	Y, 3	3	Y, 2	Y	Y	
Springfield						
	N		Y, 2	Y	Y	Transfer Stations operated by BFI Canada, recycling services contracted to Emterra.
St. Andrews						
	Y, 2	2	N	N	Y	
Stanley						
	Y, 1	1	N	N	N	*Landfill operated in partnership with Town of Morden and City of Winkler*
Tache						
	Y, 1	-	Y, 1	Y	Y	*Waste collection provided by city (private contractors). Recycling collection provided for additional fees.*
St. Clements						
	Y, 1	1	Y,3	N	N	

4.2 SOLID WASTE AND RECYCLING DATA OBTAINED FROM SELECT RURAL MUNICIPLITIES

In consultation with the CAO of St. Clements, the list of RMs for further comparison was narrowed down from twelve to seven for comparable RM's over population of 5,000 residents; East St. Paul, Hanover, Macdonald, Portage La Prairie, Springfield, St. Andrews, and Taché, as shown in Appendix A, Table A-2.

A summary of the services available for each of the selected seven RMs is as follows:

RM of Macdonald

The RM of Macdonald uses private collection services with fee for service with collection contractors available to residents in Oak Bluff, Sanford and La Salle. The service providers are N-49 Brokerage, Blackhawk Enterprises (Oak Bluff) and Macdonald Waste Management Services. The landfill revenue is through per-use tipping fees ($1/bag or $10/truckload) in addition to site access tipping fee cards ($20 prepaid). The RM of Macdonald has two Class II landfills, one at Sanford and one at Starbuck, and no transfer stations. The 2015 cost for solid waste management was **$31.42/person/year**.

RM of East St. Paul

The RM of East St. Paul provides curbside collection for urban residents (once per week), and has one transfer station available for rural residents. All the waste management is outsourced to private contractors by using automated carts. The frequency of collection is once per week per household, and the maximum volume limit per pickup is three regular garbage bags per household. The collection payment method is through property taxes. The 2015 cost for solid waste management was **$61.07/person/year**.

RM of Springfield

The RM of Springfield provides curbside solid waste and recycling pickup in urban areas mainly in Oakbank (approximately 40% of the community or 2,091 of 5,000 homes) in Dugald (approximately 1,708 homes), and five other less-populated urban areas ranging from 10 to 300 homes, totaling approximately 380 homes. Prices change based on density and location. For example, for refuse pickup at Oakbank and Dugald, the latest price available as of 2015 was

$38.04 per home per year. In addition to tipping fees, the recycling pick up cost is $38.04 per home per year, plus $95 per tonne processing fee. The frequency of collection is once per week per household, and the volume limit is a typical waste container (125 L) and a regular waste bag with a capacity of 20 kg.

The RM of Springfield has two transfer stations for rural residents. The collection services are provided by private contractors Emterra (recycling) and Progressive (refuse) using manual collection. System funding is through taxes for curbside pickup or transfer station use. The frequency of collection is once per week per household. The 2015 cost for waste management was **$86.19/person/year**.

RM of Hanover

The RM of Hanover provides weekly curbside pickup for urban residents using automated collection, and private contractors for rural residents, once per week. The urban residents of Hanover pay a yearly fee of $155 for curbside pickup, with a volume limit of 360 L for residents and 240 L for seniors (mobility limited households). The participation rate for recycling is 40% of the residents, and the waste composition provided by the RM is 968 tonnes of garbage (68.8%) and 438 tonnes of recycling (31.2%). All residents pay an additional tipping fee for garbage drop-off at the landfill, which costs $52/per tonne with a contract, and $61/per tonne without a contract. The RM of Hanover has one Class I landfill. The 2015 cost for solid waste management was **$54.32/person/year**.

RM of Portage La Prairie

The RM of Portage La Prairie provides weekly curbside pickup for urban residents through manual collection with tags. The volume limit per household is a waste container of 100 L, a bag of 18 kg (40 lbs), or bulky items of 45 kg or less. The cost of garbage collection is $75 per household per year and recycling collection is $25 per household per year, with additional garbage tags costing $1 each. Tipping fees for additional waste delivery per tonne include: $41 for residents and commercial users within the RM of Portage La Prairie, and $56.50 per tonne for all users outside the Rural Municipality. Recycling is collected once every other week, on a different day than the waste collection day. The 2015 cost for waste management was **$50.06/person/year**.

RM of Taché

The RM of Taché provides weekly manual curbside pickup for urban areas. Collection is charged through local urban districts in Landmark and Lorette. Lorette charges $48 per household, based on 2.3 persons per home. Landmarks charges approximately $37 per home, for pickup only. Recycling is done throughout the entire municipality and is paid through a general levy charge. The RM has one landfill and one transfer station. No information was provided with regards to the volume limit of refuse per household, as well as the costs per household. The cost per tonne at the landfill is $45, while a trailer/pickup truck size load costs $10, and 1 to 5 regular garbage bags cost $5 per bag to dispose. The service providers are Pak-Man Disposals (Landmark) and JR Waste Haulers Ltd. (Lorette). The 2015 cost for solid waste management was **$81.14/person/year**.

RM of St. Andrews

Very little information was available for the solid waste and recycling programs at the RM of St Andrews. This RM has two Class II landfills, with a tipping fee of $40 per 1-tonne truck and $100 per 3-tonne truck. Residents have a free pass to access the landfills, while commercial haulers are required to pay tipping fees. The RM has at least three locations with 45 m^3 (60 cubic yards) bins to collect recyclables. The 2015 cost for solid waste management was **$54.19/person/year**.

4.3 SOLID WASTE AND RECYCLING COMPARISON

As discussed, for the purpose of comparison to St. Clements, KGS Group compiled information from select communities (population size) in southern Manitoba. Comparing efficiencies and costs with comparable sized communities relative to the RM of St. Clements is useful; however, there are several differences that should be noted.

Population density is a factor that could affect the costs considerably, and cost can actually increase dramatically when the population is spread out over a large area. For example, the population density of St. Clements is concentrated in the southern part of the RM, with a scarce population in the middle, and seasonal population near Lake Winnipeg. As a result, logistics become difficult and costs become higher than in RMs with a smaller area and more dense

population in clusters. This is also a factor in the RM of Springfield, with the difference in collection cost of the urban versus rural areas.

From Figure 1, it can be seen that the 2015 cost for the curbside services in Gimli; and La Broquerie lower than most as most of their population is concentrated in one community, and thereby requires less travel for collection. Other municipalities, including St. Clements, have a much lower population density and therefore require additional infrastructure (i.e. more transfer stations – the highest amount being four) because of the population distribution. The RM of St. Clements has a long and narrow shape, with the densest population in the southern area, least dense population in the central area, and seasonal population in the northern area (cottages). Figure 1 shows that for the 2015 actual expenses for the solid waste/recycling program/landfill, St. Clements has the fourth highest costs per person ($78.16), only exceeded by Springfield ($86.19), Rockwood ($85.28), and Tache ($81.14).

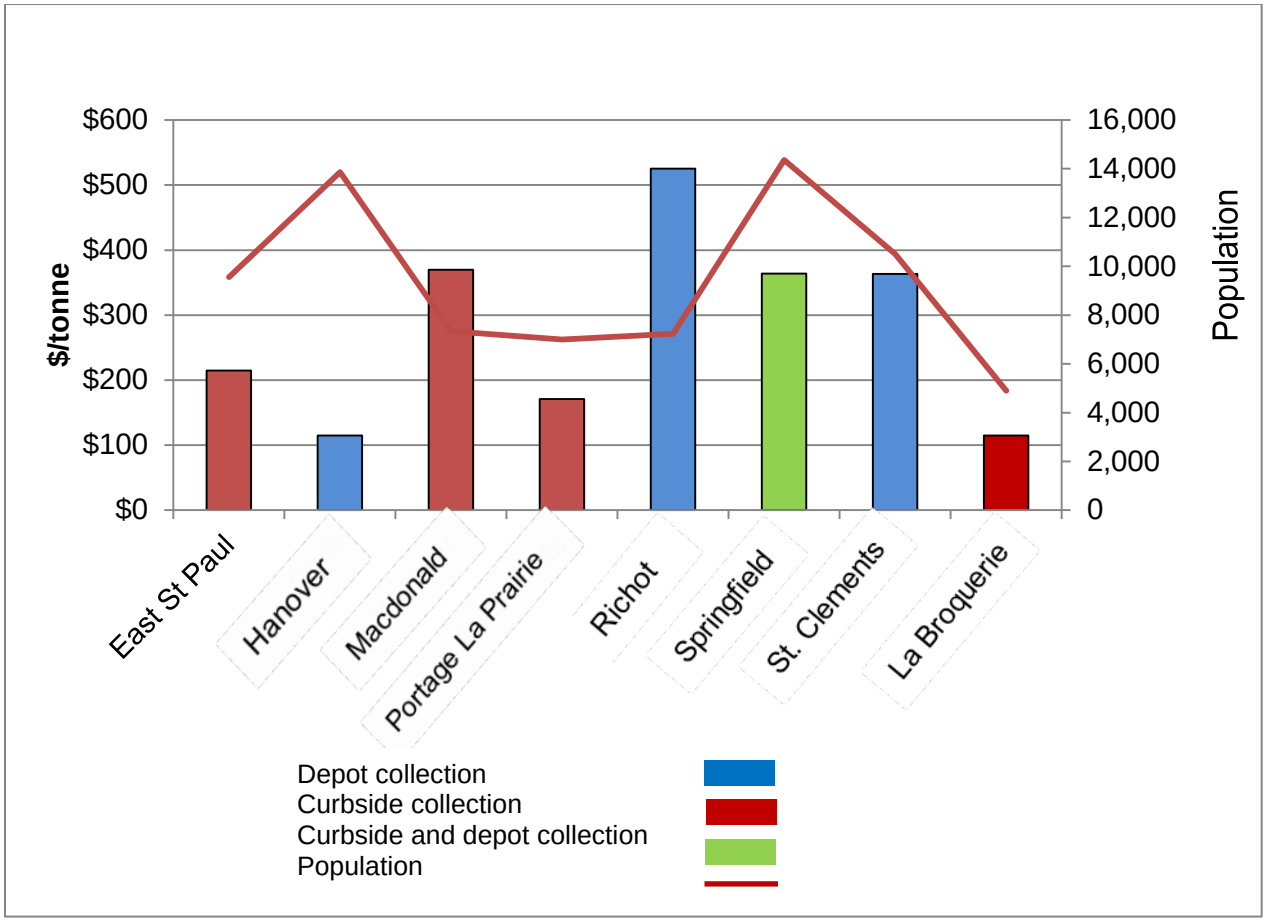
Generally, recycling costs can be expressed as a cost per person or a cost per tonne. A cost per person basis does not reflect the participation rate of system users. For example, communities with a drop off system typically achieve a 50-60% participation rate, and curbside collection would typically have a much higher participation rate. The use of cost per tonne for recycling is more useful for comparison purposes. The recycling costs for the RM of St. Clements and the comparable communities were supplied by MMSM Multi-Material Stewardship Manitoba (Appendix E).

Figure 2 below shows that the highest cost for recycling is in Richot ($525/per tonne), followed by the RM of Macdonald ($370/per tonne), the RM of St. Clements ($363/per tonne – includes WRARS (Waste Reduction and Recycling Support) Levy of approximately $69,000), and Springfield ($360 + / year tonne) relative to the other comparable municipalities. The per capita cost is shown as a bar, and the population is shown as a line.

The 2015 MMSM Annual Report (Appendix F) indicates that the RM of St. Clements has the lowest recycling rate per capita (25 kg/per capita) followed by Portage La Prairie (38 kg/per capita), La Broquerie (40 kg/per capita), Springfield (50 kg/per capita), Hanover (60 kg/per capita), Richot (63 kg/per capita), Macdonald (68 kg/per capita), and the highest of all, the RM of East St Paul, at 92 kg/per capita. This indicates that St. Clements' system is not only one of

the most expensive, but also the least used, with opportunity to increase participation and reduce costs.

FIGURE 2
RECYCLING RATES PER CAPITA
FOR COMPARABLE RMS OVER POPULATION OF 5,000



MMSM funds up to 80% of the net cost of recycling programs in Manitoba. Before any changes are contemplated for the St. Clements recycling program, MMSM should be consulted regarding eligibility for full funding of contemplated changes. It should be noted that MMSM may help with capital cost funding for improving the performance of the recycling program and this should be confirmed during development of capital programs.

5.0 REVIEW CURRENT PRACTICES AND OPERATIONAL ISSUES AT THE TRANSFER STATIONS AND LIBAU LANDFILL

5.1 TRANSFER STATIONS

5.1.1 Practices and Operational Issues

The four transfer stations operating in the RM of St. Clements are set up in near identical layouts with options for disposal or recycling. In the context of this report, the term recycling refers not only to the general idea of "blue box" type recycling which is the separation of household materials such as, but not necessarily limited to:

- Aluminum beverage containers;
- Plastic beverage, food and laundry containers;
- Plastic packaging (material commonly used to hold a retail product for display);
- Steel/tin food containers;
- Glass food and beverage containers;
- Cardboard and boxboard (e.g. Cereal or tissue boxes) packaging; and
- Newspaper and miscellaneous paper products.

A detailed listing of acceptable products is available on www.simplyrecycle.ca.

This also includes the recycling of other products including:

- Used oil, oil containers and oil filters;
- Electronic waste such as TVs, microwaves, small electrics (coffee maker, blender, etc.);
- Miscellaneous metals such as white goods (stoves, dishwashers), bicycles, hot water tanks, etc.;
- Ozone depleting substances mostly consisting of refrigerators and freezers, but also including air conditioning units and Freon containing cylinders;
- Rubber tires from both passenger vehicles and commercial applications; and
- Automotive and commercial batteries.

Earthen bunkers are located at each site where organic, burnable materials including yard waste, tree trimmings, cardboard and processed wood waste (e.g. renovation and construction material, pallets, etc.) are deposited, as shown in Photo 1. These areas are used for storage and burning of these materials. It is assumed that burning has been used primarily as a volume

reduction activity so as to minimize the amount of material that is hauled either to the landfill for disposal or to the Material Recovery Facility for recycling.

PHOTO 1
TYPICAL EARTHEN BUNKER SET UP AT THE TRANSFER STATIONS

Each transfer station has an office trailer mounted on skids or wheels where staff can escape the elements, maintain records, manage money from customers and store small items for housekeeping or general work needs. The trailer is located at the head of the transfer station and is situated so that the operator can interact with the customer(s), take payment, inspect loads, and direct customers to the appropriate area(s) of the site. Each trailer has an attached signage facing the customers, indicating costs, material acceptance, prohibitions and general instructions to the general public, as shown in Photo 2.

PHOTO 2
TYPICAL SITE OFFICE WITH CUSTOMER SIGNAGE

The garbage depot, a 15 to 30 cubic metre (20 to 40 cubic foot) roll-off container, is constructed under elevated platforms where a vehicle drives up and back to an edge protected by a guardrail. It is expected to have the vehicle operator unload the garbage material into the container, as shown in Photo 3. Depending on the number of customers expected at a site, there may be more than one roll-off container below the ramp to accommodate multiple vehicles disposing of garbage at any one time.

The roll-off containers are, for the most part 23 cubic metre (30-cubic-yard) containers, although there are some 20-cubic-yard containers present on some sites used mostly for glass containers. Glass is mostly diverted to Libau Landfill to be used as a road base or future use as granular material for landfill extraction wells. The recycling material (plastic, metals, paper) excluding glass is hauled from the transfer stations by a roll-off truck to the Material Recovery Facility (MRF) in Winnipeg.

PHOTO 3
ELEVATED AREA WITH ROLL-OFF CONTAINER FOR SOLID WASTE DISPOSAL

5.2 EXISTING SITE CONDITIONS AND COMPLIANCE WITH REGULATIONS

The transfer stations also had similar general conditions and environmental compliance issues. The sites were visited both in early spring (late March 2016) and again in late May 2016. During the site visit in March, the spring melt was well underway, and each site was generally free of snow except where snow had been pushed during snow clearing operations in the winter. The sites at this time of year were generally in good condition with very little standing water onsite in the traffic lanes. However, all of the recycling areas at each site were located in areas that were lower than the travelled lanes and were subject to ponding water. In some cases, customers would be expected to cross through these puddles to deposit their items, but visual inspection noted that some customers chose instead to throw the items in the general direction of the pile. The result is not only poor housekeeping of the site, but in the case of electronic and battery

products, the drop-off areas would be considered to be non-compliant with the environmental regulation of each product, as shown in Photo 4.

PHOTO 4
ELECTRONICS STORAGE AT DEPOT

5.3 STEWARDSHIP RECYCLING PROGRAMS

In the case of electronics handling, the requirement by the electronics steward for Manitoba, EPRA (Electronic Products Recycling Association), is that all electronics must be stacked neatly on pallets and kept dry. They must also be sorted by product type and not mixed together. It is evident this practice is not followed at any of these sites.

For the discussion of battery handling, it is assumed that the batteries being handled are primarily of the wet cell variety, typically defined as automotive or commercial batteries for 12V

systems. It was noticed that small batteries, AA, AAA, C, D, 9V, etc. were included in some of these depots, as shown in Photo 5.

PHOTO 5
SMALL BATTERIES

Battery Types AA, AAA, C, D, 9V, etc.

While it is admirable that the RM has collected and diverted these products from entering their landfill, the storage and handling of wet cell batteries in Manitoba requires an Environmental License from the Province prior to the establishment of any collection becoming established. The license would include the requirement to store the batteries in a secured, lockable compound which may be as simple as a fenced area with a locking gate or a room within a building. Requirements would also require batteries to be stored off the ground so they do not get wet, and preferably stored in containers that would prevent the leaching of acid if a battery case was compromised. It was noted that the RM does not have an Environmental License for battery handling or recycling.

The oil centres were also located in low areas of the sites and had visible ponding water. Some locations had oil spillage on or around the containment tanks as well as miscellaneous containers stored adjacent to the oil tanks. There was no secondary containment of the oil storage tanks at any site, and oil spillage appeared to seep into the ground below or adjacent to these tanks. As shown in Photo 6, miscellaneous containers are stored in close proximity to others, potentially containing volatile products, and they should be separated as per environmental and safety requirements established by the Province.

The tire recycling areas at each transfer station are generally neat and compliant with the Tire Stewardship Requirements, although a roll-off container is preferable for storage of tires. Since the collection of these products by the licensed collector is intermittent and unreliable, and could lead to an unmanageable stack of tires, it is advised to work with the steward on proper storage and consistent collection.

PHOTO 6
OIL AND CHEMICAL STORAGE

5.4 HOUSEHOLD RECYCLING

The household recycling at each depot is similar and appears to have evolved over time. Generally, the material is co-mingled, which simply means that no sorting by the customer is required. There is some sorting by customers, whether by the direction of site staff or long established practices, as glass containers are generally placed in the roll-off container that is not protected by the elements. Meanwhile plastics, metals, and some cardboard and paper products are placed in the roll-off under the covered storage. There is not much cardboard recycling that occurs at each site. In conversation with on-site staff, it was noted that cardboard is bulky and, wherever possible, customers are directed to take this material to the organics bunker where it is burned. It seems that the presence of cardboard in the recycling containers is an anomaly, as staff indicated if it is slow (i.e. there aren't many customers on site), they will actively pull cardboard from the recycling roll-off containers and place it in the burning bunkers, as shown in Photo 7.

PHOTO 7
CARDBOARD IN EARTHEN BURNING BUNKER

The roll-off containers are mostly 23 cubic metre (30-cubic-yard) containers; however 15 cubic metre (20-cubic-yard) containers were also present on some sites, with the latter used mostly for glass containers. The heights of the roll-off containers have required the placement of stairs (see Photo 8) to access the containers, which are waist high when clients deposit their material in the bins. The stairs are made of either wood or plastic without treatment to resist slipping, which creates a potential for the public to slip or trip on these stairs while unloading their materials at various seasons (see Photo 8).

PHOTO 8
WOOD STAIRS BETWEEN RECYCLING ROLL-OFF CONTAINERS

One challenge is that these containers are 6 to 8 m long and the platforms are, at most, 1.2 m in length and are not movable by the public. To ensure proper distribution of the products in the bin, the customer is required to throw their recycling upwards of 4 m from where they are standing.

Glass material is afforded its own container at the sites (see Photo 9a and 9b), with the material being hauled to the Libau landfill and used as a road base or future use as granular material for landfill extraction wells. This practice of using glass as a road base substitute is consistent with most municipalities in Manitoba that also have access to a landfill. The ability to sort out this heavy and non-saleable product is a preferred method of recycling and likely lowers costs for both the hauling of recyclables and the processing of the higher value materials by the contracted processor. The contamination of these containers with other recycling products appears low (see Photo 9b); however, there was no mention if a higher value material, such as plastic or aluminum, is removed when the bins are dumped or the material spread at the landfill.

PHOTO 9
GLASS RECYCLING CONTAINERS

a) Metal stairs to glass recycling container

b) Glass recycling container with some visible non-glass material

The recycling is hauled from the transfer stations by a roll-off truck that picks up each container and delivers it to either the landfill (glass materials), or to the Material Recovery Facility (MRF) in Winnipeg (other materials, such as plastic, metals, paper, etc.). Because the recycling material is not compacted, the resultant weight of the bins is quite low relative to the volume of the container, resulting in a high cost for transportation. If a compaction vehicle was used, the cost savings would be substantial. This results in a high cost for transportation for the products collected, which works against the expectation that the municipality provides an efficient recycling program as required by Multi-Material Stewardship Manitoba, the entity responsible for recycling in Manitoba.

The roll-off container system is designed as a single trip system - that is, the operator loads the container on a truck and drives to the point where it is unloaded. There is no ability to collect additional material at any location between where the container is loaded and where it is dumped. A round trip for the operator to load a recycling container, drive to the MRF and return the container to site can take upwards of three hours depending on road conditions and traffic volume. It can be extrapolated that if all four depots were serviced near the same time, whether

in series or parallel time, it could take approximately 11 vehicle and operator hours using the current system. However, the total weight of recycling collected from the four depots is equivalent to a single load of material, if a compaction vehicle was utilized. A compaction vehicle could collect the material from all four sites without needing to unload any material between trips, and require only four and six hours to complete. The cost savings would be substantial.

The organics diversion area is also known as a burn pit. As described previously, the materials dropped in this area include, but are not limited to: cardboard, tree trimmings, leaf and yard waste, construction and renovation waste, straw and hay. At each site, these bunkers are set up away from the other materials as far as practically possible and have an earthen berm placed on three sides to hold the fire in a small area. Customers drop off their material into a pile within these berms, and it is assumed that staff ignites these piles when weather conditions allow and the pile is large enough to justify burning. At the transfer stations, the burning of materials and the associated impacts to both human health (e.g. asthma sufferers) and environmental health (creation of noxious gases from burning) are cause for concern. The material is being burned in an open area at these sites, and there is no control over odour or smoke from the fires.

A few of the issues noted in the organics diversion areas at the transfer stations include:

Burning cardboard – while burning cardboard is generally accepted by many municipalities in Manitoba (RM of St. Clements), Multi-material Stewardship Manitoba (MMSM) instructed all municipalities that all cardboard must be recycled in order to receive funding support for recycling programs. Cardboard is considered a bulky product, hence switching to a compacted collection system would help to improve recycling of it at every transfer station. Since MMSM funds up to 80% of the net cost of recycling for a municipality, this is a significant change of practice for many municipalities in the Province. A secondary issue with burning cardboard is the public's perception of recycling. If a customer has taken the time to sort their recyclable materials with the expectation of placing it in a recycling container, and the staff directs the customer to drop cardboard off to burn instead, there is a negative connotation placed on recycling as a whole, which has been shown to decrease participation in recycling programs. If a product is accepted in a recycling program, it is up to the recycler, in this case the municipality, to show the product is diverted consistently and completely. While it is understood

that cardboard creates volume issues which would further increase the number of trips to the MRF with the current system, switching to a compacted collection system would eliminate this concern.

Leachate ponding – while not the same as leachate percolating through a garbage landfill, the standing water in the diversion areas is still considered leachate by environmental regulations (see Photo 10). There does not appear to be any collection or testing of this liquid, and it appears to either drain offsite, pond or evaporate on its own. Any permit granted by the Province for a transfer station would require a plan to handle this liquid.

Leaf and yard waste diversion – similar to the recycling of cardboard noted above, as residents move into the community from other centres, they are bringing some of the learned expectations with them, including diverting leaf and yard waste. Though no formal program is currently in place, residents were witnessed dropping off yard waste in Kraft paper bags. Although they were directed to the burning pit, they placed the material outside of the burning pit in the hope of it being composted. Providing better information to the residents may help alleviate the concerns over the lack of a diversion program.

PHOTO 10
LEACHATE PONDING IN ORGANICS DIVERSION AREA

5.5 GARBAGE COLLECTION AND TRANSPORTATION

As described earlier, all of the transfer stations utilize roll-off containers for garbage disposal. These containers are located below an elevated unloading zone that customers drive up on and back up to unload. The elevated unloading zones are generally in good condition, with some ongoing maintenance of the road base. The layout of these areas is common with many municipalities and generally allows for simultaneous unloading by two or more customers. Customers back up to a guardrail style barrier located at the edge of the embankment, and unload their materials into the bin(s) below.

In all of the transfer stations, the guardrails and/or posts supporting them at the garbage disposal areas are in poor and very unsafe conditions that need prompt fixing. For example, the height of the rails are below the knee (height requirements are 1.1 m), which could result in a client falling into the roll-off bin (see Photo 11). There have been significant judgments made against municipalities in western Canada for these exact types of injuries.

PHOTO 11
GUARDRAIL IN DISREPAIR

Guardrail is well below OH&S height requirements (under 1.1 m)

At the transfer stations, the bins used for garbage are either a 23 cubic metre (30-cubic-yard) or 30 cubic metre (40-cubic-yard) roll-off container. Depending on the volume of material received at the station, there were one, two, or three bins placed below the deck for customers to deposit their garbage into. All of the bins held loose garbage (see Photo 12) – that is, there was no compaction system in place to increase the density of the material prior to hauling. Staff onsite did note that depending on availability, the loader or backhoe from the RM could come to a transfer station to compress the garbage in the bin if the bin was completely full. This appears to be an intermittent practice that was utilized if the hauling contractor was able to keep up with the demand.

As described above in the recycling section, hauling non-compacted garbage increases the amount of trips to the landfill, which in turn drives up the cost of collection and disposal of garbage. For reference, a 30 cubic metre (40-cubic-yard) roll-off container that contains compacted residential garbage would weigh between seven and nine tonnes, compared with a non-compacted load weighing approximately three tonnes. Transportation costs could be reduced by 50-66% if the garbage were compacted at the transfer stations without a significant increase in costs.

PHOTO 12
NON-COMPACTED SOLID WASTE IN THE ROLL-OFF CONTAINER

5.6 GENERAL OPERATIONAL CONDITIONS

- While the overall operation of the transfer stations is in line with accepted operational practices, there are some improvements that should be undertaken in the short term in order to improve performance, better manage costs, and be in compliance with requirements.

- None of the transfer stations has a power supply. Therefore, issues with lighting and safety during dark days and evenings are anticipated. Although there are signs for security cameras posted onsite, the lack of power (which is known by the public) was noted during our site inspection, and vandalism including the theft of the "dummy" video surveillance equipment was evident. In another site, the windows from the transfer station's office were broken.

- There does not appear to be any financial management system in place to record transactions, vehicle counts, material types, etc. In addition, staff mentioned concern with the security of cash.

- Although the site trailers are kept in good condition, there is a concern with the storage of discarded propane and gaseous cylinders being stored directly against or under the site offices. Proper storage of these containers should be away from the location where employees are working, not directly adjacent to the area. They should not be stored near the used oil recovery area, nor any other material that is combustible. Removal of these containers should be frequent to lessen any potential issue for combustion.

- In Manitoba, there are several regulations, licenses, and stewardship requirements to comply with in the acceptance of products, as well as for operation of a transfer station. For instance, requirements for storage and handling of household hazardous waste, electronic waste, used oil and filters, tires, batteries, and ozone depleting substances (Freon-containing appliances) require permits, licenses and/or approvals from the Province and/or supporting stewardship organizations to ensure compliance with existing regulations for these products. It is apparent from the visual inspections that several items are not in compliance with the associated regulation or stewardship requirements including used oil, batteries and electronic waste.

- The current system of roll-off containers for the collection of both recycling and garbage is expensive given the distances to travel from transfer station to tipping point at the landfill or MRF.

- Existing facilities do not meet all Workplace Health and Safety Regulations, such as proper guardrail heights to prevent falls and stairs without slip prevention measures. Improvements are required for the transfer stations and landfill to be compliant. It is in the best interest of the RM to ensure they are in compliance to avoid the potential for liability in the event of an accident.

5.6.1 Costs

Financial reports and general ledger reports from the RM of St. Clements were used to determine the costs for the transfer stations. In order to look at trends or changes in operation, the actual budgets were used for the years 2010 to 2015. The level of detail within these budgets does not allow for the breakdown between garbage, recycling, and other services at the transfer stations, nor does it include any record of revenue associated for each location. While these records may exist somewhere, it appears that they are not easily located.

There are costs allocated for recycling as a series of line items in the general ledger, but the costs associated with these accounts do not align with the costs presented in the Cost Monitoring Survey required by MMSM each year.

For the purpose of this section, the costs allocated to the Environmental Services – Transfer Station were used to calculate the costs for service at the transfer stations as a whole. Breakdowns of cost per tonne or cost per customer for each transfer station were not done, as it appears much of this data does not exist, at least in a useable form.

The overall cost of operating the transfer stations appears reasonable and is shown on Table 3 below:

TABLE 3
TRANSFER STATIONS OPERATING COSTS

TRANSFER STATIONS	2010	2011	2012	2013	2014	2015
COST/HOUSEHOLD/YEAR	$47.27	$47.08	$43.02	$41.71	$64.68	$50.70

Table 3 costs are derived from taking all transfer station costs and dividing by the total number of dwellings in the RM. This may not accurately reflect the customer base, as some residents do not attend a transfer station and have collection by others. Commercial businesses may use the transfer stations, but are not included in the dwelling count. Some customers from outside the RM may also use the transfer stations, and seasonal residents also use the transfer stations. This however, will serve as basis for comparison to costs for curbside collection.

5.6.2 Improvement Required and Costs Per Transfer Station to Meet Regulatory Requirements

The following section includes the improvements required, followed by a table with items and estimated costs for the transfer stations to meet regulatory requirements.

While the overall operation of the transfer stations is in line with accepted operation, there are some improvements that should be undertaken in the short term in order to improve performance, better manage costs, and be in compliance with requirements.

The RM needs to consult with Green Manitoba, Manitoba Association for Resource Recovery Corp. (MARRC) (oil recovery), Multi-Material Stewardship Manitoba (MMSM) (household recycling), Electronic Products Recycling Association (EPRA) (electronics recycling), Product Care (paint and HHW recycling) and Manitoba Ozone Protection Industry Association (MOPIA) (ODS Recovery) to confirm proper requirements are being met for storage and collection of these products. In addition, there may be cost recovery available for several of these items that are not currently being fully realized by the RM. Also, St. Clements should commence a licensing process for wet cell battery collection and storage and/or engage the provincial steward for this product.

It is recommended that a switch to front-load collection bins be implemented for both recycling and garbage. The increase in density (compaction), ability to collect more than from one transfer station at a time, and ability to include cardboard easily will generate cost savings when compared to the current system of collection. An added benefit is these bins have lower access points for residents, so no platforms are required, which results in greater ease and safety of use for customers. Multi-Material Stewardship Manitoba may help fund for the cost of bins as part of their capital improvement program.

A recommendation related to the information above is that this collection work should be tendered publicly. There are several companies located within or near St. Clements that are capable of doing this work at fair market value.

Existing facilities do not meet all Workplace Health and Safety Regulations, and improvements are required for the transfer stations and landfill to be compliant. It is in the best interest of the RM to ensure they are in compliance to avoid the potential for liability in the event of an accident. It is required that the guardrails be replaced with a railing system that complies with OH&S requirements (e.g. height).

In order to better determine revenue and true costs at the transfer stations, it is recommended that an accounting system be introduced to track customers, revenue, material types, and diversions. A system that can also include the landfill tracking and billing would be a worthwhile investment. Grants from Green Manitoba through the Waste Reduction and Recycling Support (WRARS) Levy may be available to help finance such a system to help make the reporting more accurate, and the cost of the software is around $15,000.

5.7 COSTS PER TRANSFER STATION TO MEET REGULATORY REQUIREMENTS

Table 4 below shows the items (and actions) with estimated costs to comply with regulatory requirements per transfer station:

TABLE 4
TRANSFER STATION REGULATORY COMPLIANCE ESTIMATED COSTS

ITEM	ESTIMATED COSTS
• Drainage Improvement	$5,000
• Improve electronics storage/handling base on EPRA requirements (pallets, wrap, raised bed)	$2,000
• Request environmental license to collect batteries (Procedure and engineering for submission)	$500
• Improve batteries storage/handling	$1,000
• Improve oil storage/handling including secondary containment (MARCC Approved solution)	$1,500
• Public education for glass storage/handling areas (Signage incl. design and fabrication)	$400
• Implement cardboard storage/handling (Bins - Price Contractor)	-
• Upgrade stairs beside roll-off containers with slip-resistant steps (Not required)	-
• Replace guardrails and/or posts supporting these at the garbage disposal areas	$4,000
• More accessible disposal of recycling material to roll-off containers (Not required)	-
• Compactor truck for recycling material (Price Contractor)	-
• Minimize exposure of burning materials and gases to public (Signage incl. design and fabrication)	$150
• Implement power supply at transfer stations*	$20,000
• Implement a financial management system for the transfer stations (Procedure and equipment)	$3,000
TOTAL	**$37,050**

Note: *It is assumed that power is outside of the property. This estimated cost includes two hydro poles, trenching the electrical from the pole to the power location and regular panel for 125 amp 120/240 volt capacity.

5.8 LANDFILL

5.8.1 Practices and Operational Issues

There are issues with the landfill operations at Libau Landfill, including insufficient record keeping, daily or interim cover, leachate, litter, and surface water runoff management. Manitoba Sustainable Development (MSD) has requested the RM to improve specific landfill practices and operational issues related to Environmental Act Licence No. 2274 S2RR in September, 2014. Overall, MSD requested the RM to undertake the following actions:

- Apply daily cover on active waste disposal areas;
- Improve litter control;
- Submit burning records;
- Maintain a record keeping book up to date;
- Submit yearly groundwater analyses from the landfill wells;
- Submit a performance monitoring and contingency plan for the landfill; and
- Submit a plan for leachate management and propose method for final disposal of leachate.

KGS Group was retained in January 2015 to provide engineering services to develop requirements for controlling and managing the leachate at Libau Landfill, to assess aspects of the overall landfill practices, provide management and operations, and to carry out environmental monitoring.

5.8.2 Costs

The 2016 landfill tipping fee was $43.50/tonne (2016), which does not cover costs including depreciation of assets, and all requirements to meet both licensing and the new waste management facilities regulation. The RM increased the landfill tipping to $71/tonne in 2017, help to offset these costs.

Keeping the site open in the long term will require significant expenditures, including a new landfill cell, required in approximately 10 years, costing close to $1 M, along with infrastructure upgrades in the order of $0.75 M.

To fund these costs, tipping fees would have to be drastically increased, or a significant amount of additional waste would have to be received at the current tipping fee. This would amount to well over half the waste generated in the entire region east of the RM of St. Clements.

One alternative to reduce operating costs would be to reduce the operation to three days per week from the current five-day operation. As a result, operating costs would be reduced proportionally.

If the landfill were to be closed, waste would have to be hauled to other landfills for disposal (e.g. to either the Brady Road Landfill or Prairie Green Landfill) at the prevailing tipping fee of $71 per tonne. Also, there would be costs involved in the closure and perpetual care (monitoring and environmental compliance) of the site.

The cost to transport five tonnes of solid waste is approximately $240 ($120 each way), so discounting the landfill tipping fee by $50 a tonne would still not attract these communities.

Section 7.0 provides a more detailed discussion of landfill cost implications.

5.8.3 Improvements Required

Leachate Operational Issues

New leachate ponds were scheduled for construction in 2017 after several years of efforts by the RM to improve leachate management. These included a formal request to Manitoba Sustainable Development (MSD) to pump and haul impacted water from the pond south of Cell 1 to the new wastewater lagoon at the RM of St. Clements. The rationale behind this was to use this pond to dewater Cells 1 and 3, while the RM obtains permission to build new leachate holding ponds. Permission was denied, therefore the RM requested permission to pump and haul leachate to the North End Wastewater Pollution Control Centre (NEWPCC) in Winnipeg. After considerable time, permission was granted, and the RM proceeded with approval from the City.

Because of the delay in obtaining permission to haul to NEWPCC, and continued leachate accumulating in Cell 3, a "temporary leachate sump" was constructed within Cell 3 to control the leachate head. This temporary sump had to be increased to contain spring runoff, and with on-going wet conditions, needed to be enlarged further. After the City approval was granted, 2-3 truckloads of leachate were hauled to the NEWPCC. This was not continued because of cost and complications with arrangements.

The proposed plan was to construct the onsite leachate ponds, upon Environmental Approval (EA), which would provide a proper holding facility for the leachate. On May 24, 2016, KGS Group, on behalf of the RM, submitted a Notice of Alteration for an amendment of the Class 1 Environmental Act Licence No. 2274 S2RR to allow for construction of new leachate ponds. The amendment was approved, the work for the ponds was tendered, and with construction scheduled for completion in September 2017. Leachate from Cell 3 and the existing large pond south of Cell 1 were to be pumped to the leachate ponds. KGS Group (2016) indicated that Cell 1 couldn't be dewatered using the existing leachate collection system due to its low recovery rate, indicating potential clogging, compromising the ability to control the leachate head on the liner. To control the leachate head in Cell 1, a retrofitted leachate collection system (RLCS) needed to be implemented. After the existing large pond south of Cell 1 has been dewatered, an assessment of its physical state will have to be carried out to determine its potential future use as a transitional pond for dewatering Cell 1 using a RLCS.

Waste Disposal and Litter

The waste received at Libau Landfill was being placed at the crest of the existing Cell 1, in order to reach final capacity of Cell 1. Waste was also being placed to the west of Cell 3 (adjoining Cell 1) , on a small working face to help reduce wind-blown litter. The litter within the landfill site on the north side, bordering Brokenhead Ojibway Nation (BON) lands was cleaned up by RM staff during the spring litter cleanup campaign, and disposed of in Cell 3. The RM purchased higher fences (3 m high) in 2016 to better control litter from the current active area.

Cover and Surface Water Runoff

Interim cover with clay and proper grading in Cell 1 was completed to maximize clean water runoff towards the ditches and eliminate ponding issues. Cell 3 had not reached sufficient elevation to provide efficient runoff; therefore, the following actions were taken to minimize runoff infiltration and leachate production:

- A perimeter earth berm was constructed to prevent runoff from the north and east sides of the cell from flowing into the Cell 3 footprint;
- Filling, cover, and grading in Cell 3 has been carried out to improve run off and minimize ponding; and
- Operational practices such as maintaining a small working face, properly grading waste and interim cover, and rerouting clear runoff have been implemented.

6.0 OPTIONS FOR GARBAGE AND RECYCLING SERVICE

6.1 OPTION 1: STATUS QUO

6.1.1 Capital and Operations Estimated Costs to Meet Regulatory Requirements

Capital Costs

The capital requirements to meet both the environmental and safety requirements at the four transfer stations are all very similar:

- Install new guardrails to prevent falls into garbage bins. The requirement from OH&S is a 1.1 m (42") fall protection rail. The 2016 railings were approximately 0.5 m high. The estimated cost per transfer station is approximately $3,000-4,000, depending on the length of railing to be manufactured. This would include removal of existing railing and the design, fabrication, and installation of new railings.

- Install new containers for recycling containment. This would be a requirement from MMSM in order to collect all cardboard at the transfer stations. The bins would have lids to protect the material from the elements, as well as have easier access for customers to use without climbing stairs or railings. The estimated cost per site is $8,000 to $10,000. Alternatively, bins could be provided under a rental basis with a collection contractor. Funding for these containers may be available from MMSM, as this would be considered an improvement in the service with the goal/expectation of capturing more materials. It is recommended to engage MMSM as soon as possible regarding improvements and funding opportunities.

- Improve the areas that hold the used oil, e-waste, tires, batteries, etc., to properly comply with the associated regulations. This would include elevated or covered storage areas to protect the various products from the elements, installation of fenced compounds to comply with provincial requirements, and proper containment systems to prevent material runoff in the ground below. The estimated cost per site would be $3,000 to $5,000, depending if the existing temporary sheds could be accepted for use as a

storage area of these materials. Again, there may be some capital funding support from the various stewardship organizations and St. Clements staff should contact these stewards, as well as Green Manitoba staff, as soon as possible.

- Purchase a user tracking application to better monitor customer loads and materials Financial reporting would allow for better compliance reporting for the WRARS fund. The optimum solution is to tie in the transfer stations with the landfill. The estimated cost for this system is $50,000, or approximately $10,000 per transfer station. This would include hardware and software costs. As there is no power at the transfer stations, a battery powered tablet system would be the only viable solution.

In summary, to comply with regulations, standards, and transfer station operating permits, the total capital cost per site is approximately $30,000 to $50,000.

Operations

On the operating side, if the capital improvements above are completed, operating costs may actually decrease compared with the 2016 operation. The two primary areas of cost savings would be in the hauling of material using a compactable body truck and the increase in financial support from the various stewards for the recycling and/or recovery of the various materials being collected.

As noted in the report, the collection costs could be reduced anywhere between 40-66% from the current collection costs if roll-off containers are removed and front-load bins are installed for both recycling and garbage. The truck can hold a larger volume of material, and it can compact the material more densely than the roll-off containers currently in place.

6.1.2 Environmental Impact

The improper storage of batteries, e-waste, and oil increases the potential of those materials to leach into the ground below. By installing proper containment systems, this risk to the environment can be mitigated greatly.

A reduction in greenhouse gas emissions can be achieved by switching to a compaction vehicle. This will require fewer trips to the MRF or landfill, which will in turn burn less fuel, travel less on roads, and therefore create less greenhouse gas.

6.1.3 Property Tax Impact

The property tax impact of this option will be quite low, as the capital costs for these improvements and requirements would be offset by the decreased cost of collection of the materials from these sites. Again, there may also be opportunities to receive funding or increased funding from stewardship organizations and Green Manitoba that will lower further the capital costs at these facilities.

6.2 OPTION 2: COLLECTING GARBAGE AND RECYCLING IN ENTIRE RM

6.2.1 Maintain all Transfer Stations Operating One (1) day/week

Capital and Operations Costs to Meet Regulatory Requirements

If recycling and garbage were collected at each property in the RM, the preferred way to provide these collection services would be through a cart collection system. The large service providers that we have spoken with for this study have indicated that they no longer wish to provide manual collection services for either material. It is assumed and recommended that this service be contracted to a provider with automated cart collection vehicles.

The capital costs for this service may consist of the bin purchase, which includes assembly and delivery of the bin, bin management, which allows the RM to manage its asset, and a part inventory of these bins, which would include the inventory's maintenance, extra bins for replacement, and new customers. The cost of a bin delivered to-door in the community ranges from $70 to $140 depending on the size of the bin, graphics, RFID tags for bin management, etc. If weekly collection were provided for both services, the recommended size of cart would be 240 L (identical to Winnipeg and other surrounding RMs). The capital cost to provide two bins to each home in the RM plus have a small inventory for future use is $700,000. By engaging MMSM early in this process, it may allow the RM to access their capital grant fund, which could

pay up to 80% of the cost of the recycling bin. This would result in an estimated cost of $430,000 to the RM.

For the operation component of curbside collection, the cost of collection is the largest component of cost. The estimated collection costs outside Winnipeg for tenders issued in 2016 were between $45 and $110 per year for each service. The wide range is a function of housing density, material being collected, and frequency of collection, as well as delivery point of the material. The lower end of the collection cost is a result of denser housing areas where driving distance between stops is short. Because of its weight, solid waste (excluding recyclables) fills the truck faster, resulting in more trips to the dump point than recycling. Bi-weekly collection would increase the number of trips per collection day, but would lessen the number of trips per month compared to weekly collection. Transporting garbage to Libau Landfill would be beneficial to the RM as a whole, as it would help decrease the cost per tonne in operating the landfill. As well, the RM would be expected to charge itself a lower tipping fee than what presumably it would get at the Progressive Waste landfill. The best way to identify this cost would be to request pricing on the two locations as options in a tender.

The cost per year for garbage service, assuming the standard sized 240 L cart and collection, is in the range of $55 to $110 including the amortized cost of supplying a cart to the household.

For recycling, the cost would be similar, but MMSM is responsible to pay up to 80% of the net cost of the recycling program, so the cost to the RM for recycling could be much lower. It is expected that curbside cart collection of recyclables would dramatically increase the capture rate of material as compared with status quo.

One alternative that some RMs in the Province have been using is to have the contractor that is collecting the material also provide the cart for collection. The RM can just pay rent on the container, or lease/purchase it if desired. By not owning the containers, there is no inventory to maintain, and the RM passes on the responsibility to the contractor for any damage to the container that they may have caused. This option works well for communities with a small number of containers, such as St. Clements.

The recommended capital costs for the transfer stations would include fall protection, and stewardship compliance, but would not require the installation of new containers with a different collection system, nor the tracking software for financial compliance. The estimated cost per transfer station would be $20,000 to $40,000 per site.

Operating costs for the transfer stations would decrease substantially if the operation is open four days per month at each site instead of the current system. However, to satisfy public demand, the sites may have to be open on a weekend day instead of a week day and that may increase overtime, etc.

Environmental Impact

By having uniform collection, the biggest impact is the decrease in trips to the transfer stations and landfill by residents and small collectors. This will lessen wear and tear on roadways, as well as decrease greenhouse gasses from the many vehicles that are transporting garbage and recycling to the stations or landfill.

Property Tax Impact

There are two ways to manage the financial impact to residents under this option; have all residents pay the same amount on a utility bill or property tax surcharge, or charge a rate for suburban and rural customers that reflect the actual cost to provide the service to those areas. In the first scenario, the more densely populated areas subsidize the collection costs for the rural customers. That is, it is expected that the more densely populated areas have lower collection costs than the rural areas. In the second scenario, a rate (as determined by the tender process) is charged for each customer class. The upside to this option is that residents will know exactly what it costs to live in each type of area. Politically, however, there may be downsides to this option that outweigh the benefits.

The gross property tax per household would be in the range of $80 to $140 per house per year for garbage and recycling. Conservatively, this would be approximately a 25% increase over the current costs of the RM. However, there has been no estimate completed on the cost to

residents to haul their own garbage and recycling to a transfer station or the landfill, but it could be assumed those costs would come close to the expected cost of curbside collection.

6.2.2 Close 3 Transfer Stations, Keep Dunning Transfer for Special Waste Only and Add Special Waste to Libau Landfill

This option provides curbside collection to all properties in St. Clements, closes Clarke, Gull Lake, and Grand Marais transfer stations, and removes the garbage and recycling component from the Dunning transfer station. It assumes the Libau landfill will continue to operate as both a landfill and special waste drop-off point.

Capital and Operations Costs to Meet Regulatory Requirements

The Capital and Operating costs for residential collection are the same as the previous option. The only Capital requirements at Dunning Transfer Station and the landfill would be upgrading the stewardship drop-offs. The expected cost per site would be $5,000 to $20,000 depending on the number of stewards included (i.e. adding HHW and others). As noted previously, these organizations will help with capital grant funding, as well as provide some support for operational costs.

Environmental Impact

As noted in the previous option, reduced vehicle traffic will have a large environmental impact to the community. In addition, the dedication of two facilities for the recycling of special waste materials, otherwise destined for burial, will help with the management of the landfill, as well as provide a positive message to residents that the RM is being proactive in environmental protection.

Property Tax Impact

By closing three transfer stations, and changing the operation of the fourth to a location that accepts special waste only, the cost savings could be $200,000 per year. It would be expected that the cost of operating a special waste facility at the Libau landfill would not have much of an

impact on cost either way, as most additional costs would be offset by stewardship funding support.

As a result, the estimated cost to taxpayers would be approximately $40 to $100 per year for all services.

6.3 OPTION 3: COLLECTING GARBAGE AND RECYCLING IN MORE DENSELY POPULATED AREAS ONLY

This option provides curbside collection to all properties in the southern part of St. Clements. The remainder of the RM would still have access to transfer stations and the Libau landfill for disposal of garbage and recycling of other materials.

6.3.1 Maintain All Transfer Stations Operating One (1) Day/Week

Capital and Operations Costs to Meet Regulatory Requirements

As noted above, there are a few options for both the container size and collection frequency that impact the costing. To collect in the more densely populated areas of the RM, the estimated yearly costs for collection and cart purchase are in the range of $55 to $70 per dwelling. Again, as noted above, it is recommended to put costing options to the collectors for garbage disposal to the Libau landfill or Progressive Waste's landfill.

The recommended capital costs for the transfer stations would include fall protection and stewardship compliance, but would not require the installation of new containers with a different collection system, nor the tracking software for financial compliance. The estimated cost per transfer station would be $20,000 to $40,000 per site.

Operating costs for the transfer stations would decrease substantially, as the operation would be open four days per month at each site instead of the 8 to 12 days per month in 2016. However, to satisfy public demand, the sites may have to be open on a weekend day instead of a week day and that may increase overtime, etc.

Environmental Impact

By having collection in the southern portion of the RM, the biggest impact is the decrease in trips to the transfer stations and landfill by residents and small collectors. This will lessen wear and tear on roadways in those areas, as well as decrease greenhouse gasses from the vehicles that are transporting garbage and recycling to the stations or landfill.

Property Tax Impact

The gross property tax cost per household would be in the range of $60 to $80 per house per year for garbage and recycling for those properties in the southern area of St. Clements. Conservatively, this would be approximately a 15% increase over the current costs of the RM. However, there has been no estimate completed on the cost to residents to haul their own garbage and recycling to a transfer station or the landfill, but it could be assumed those costs would come close to the expected cost of curbside collection. Anecdotally, the cost to residents has been estimated at $10 to 15 per month for private collection services, so this change would decrease their overall garbage and recycling costs.

6.3.2 Close Clark and Dunning Transfer Stations

This option provides curbside collection to all properties in the southern part of St. Clements. The remainder of the RM would still have access to the Gull Lake and Grand Marais transfer stations, as well as the Libau landfill for disposal of garbage and recycling of other materials.

Capital and Operations Costs to Meet Regulatory Requirements

- The collection options in Section 6.3.1 would be the same for this option, so it will not be discussed further in this section.
- The recommended capital improvement costs for the transfer stations would include fall protection, stewardship compliance, and the installation of new containers with a different collection system. It is also recommended that the tracking software for financial and regulatory compliance be purchased for the transfer stations and landfill.
- The estimated capital cost per transfer station would be $40,000 to $60,000 per site, with some potential funding available from the various stewardship groups.

- The financial savings in yearly operational costs by closing both Clarke and Dunning transfer stations is estimated to be $150,000.

Environmental Impact

By having collection in the southern portion of the RM, the biggest impact is the decrease in trips to the transfer stations and landfill by residents and small collectors. This will lessen wear and tear on roadways in those areas, as well as decrease greenhouse gasses from the vehicles that are transporting garbage and recycling to the stations or landfill.

Property Tax Impact

- The gross property tax cost per household would be in the range of $30 to $50 per house per year for garbage and recycling for those properties in the southern area of St. Clements. Conservatively, this would be a minimal increase over the 2016 costs of the RM.

- There has been no estimate completed on the cost to residents to haul their own garbage and recycling to a transfer station or the landfill, but it could be assumed those costs would exceed the expected cost of curbside collection in the southern portion of the RM. The cost to residents has been estimated at $10-15 per month for private collection services, so this change would decrease their overall garbage and recycling costs.

7.0 OPTIONS FOR LANDFILL SERVICE

7.1 STATUS QUO WITH IMPROVEMENTS

This option would keep the Libau Landfill open in the long term. Costs of the Libau Landfill operation, based on available information from 2010 to 2015, are shown in Table 2. The base case of the operation (not including environmental compliance costs for leachate management, environmental monitoring) for the last three years averages approximately $40 per tonne of garbage. This however, does not include assets, depreciation costs, or operational improvements and capital costs going forward.

To fund the assets, depreciation costs, and operational 2016 improvements, the tipping fees would have to be drastically increased (e.g. up to 83% - see Section 7.2), or a significant amount of additional waste would have to be received at the tipping fee, for example from expanding the service area. This would amount to well over half the waste generated in the entire region east of the RM of St. Clements, for example from expanding the service area.

7.3.1 Capital and Operations Costs to Meet Regulatory Requirements

Capital Improvements

Cell 1 is complete and Cell 3 has approximately 11 years of capacity left, based on current disposal rates. A new cell would be required by 2027 at an estimated cost of $1M. Cells 1 and 3 will have provided capacity for 30 years and 15 years respectively. Cell 1 also received significant amounts of contaminated soil from the decommissioned Domtar Site in Winnipeg, in addition to regular garbage, which would account for part of this capacity.

It is assumed that an increase in diversion rates would be offset by growth and potential increased service area utilizing the site.

Therefore, with a new cell with an estimated cost of $1M and a tonnage capacity of 15 years at 7,000 tonnes per year (current rate of disposal), the cost per tonne to recover the cost on an unadjusted basis is estimated at $9.50/tonne.

Other Capital Improvements

The capital improvements for continuing the operation of existing cells to completion (by 2027) are listed below. The advantage of continuing Cell 3, at least to completion, is the additional topographical relief that will occur to shed runoff and reduce leachate production.

TABLE 6
CAPITAL IMPROVEMENTS – EXISTING CELLS TO 2027

	Estimated Costs
Leachate collection	$210,000
Final Cover	$95,000
Drainage Improvements	$10,000
Litter Fencing	$20,000
Recycling Area/Site improvements	$50,000
Road Improvements	$20,000
TOTAL	**$405,000**

These estimated costs would provide for at least 10 years of continued disposal at 7,000 tonnes per year. The cost per tonne to recover these costs on an unadjusted basis is approximately $5.80/per tonne. The estimated costs of constructing the leachate ponds with monitoring wells (approximately $310,000) have already been included in the 2016 to 2017 budgets.

Operational Improvements

The estimated annual costs for operational improvements to meet licensing/regulatory requirements and other unaccounted costs are as follows:

TABLE 7
OPERATIONAL IMPROVEMENTS – ANNUAL ESTIMATED COSTS

	Estimated Costs
Environmental monitoring and reporting	$20,000/year
1 additional staff	$50,000/year
Equipment/Building Depreciation	$50,000/year
Leachate Treatment	$30,000/year
TOTAL	**$140,000**/year

The estimated cost per tonne to recover these costs on an unadjusted basis for 7,000 tonnes per year is estimated at $20/tonne.

Cost of Continuing Landfill Operation

The total estimated cost of continuing to operate the landfill includes the current base fee and estimated capital and operating costs going forward, which totals $75.30/tonne or $85.3/tonne including the WRARS Levy.

To fund the system, tipping fees would either have to be raised to this amount (with the potential loss of some customers) or additional waste would have to be received, likely from the region east of St. Clements. This would amount to well over half of the waste generated in the entire region east of St Clements.

7.1.1 Environmental Impact

Capturing additional waste will increase the number of trips to Libau Landfill, increasing the wear and tear on the landfill access, with associated increased greenhouse gas emissions from the trucks or cars hauling the garbage.

7.1.2 Property Tax Impact

The property tax impact for continued operations includes the estimated capital ($1,405,000) and increase annual estimated operational costs ($140,000) to meet landfill regulatory requirements.

7.2 REDUCED DAYS OPEN

7.2.1 Capital and Operations Costs to Meet Regulatory Requirements

If the landfill operation was reduced from five days to three days per week, it was assumed that the base operating cost would be reduced proportionally from an estimate of $40/tonne to

$24/tonne, a reduction of $16/tonne. However, the reduced availability results in the loss of some revenue tonnage from those customers requiring five-day availability.

The operational improvements could be reduced with the deletion of additional staff, a saving of approximately $7/tonne.

7.2.2 Environmental Impact

By reducing the operating days, a reduction of greenhouse gas emissions is expected by the reduced traffic to the landfill.

7.2.3 Property Tax Impact

The property tax impact in this option includes estimated capital improvements ($1,405,000) and an increase in annual estimated operational costs of $92,000 to meet regulatory requirements. There may be some loss in revenue due to being open fewer days.

7.3 PLANNED CLOSURE

7.3.1 Capital and Operations Costs to Meet Regulatory Requirements

Cost of Discontinuing Landfill Operation (After completion of Cell 3)

If the landfill operation ceases after the completion of Cell 3, the capital cost requirements would be reduced because a new cell would no longer be required, and the operational cost of leachate treatment for the new cell would be reduced. The ongoing costs after closure of this site would be for annual environmental monitoring and leachate treatment, estimated at approximately $35,000 per year.

Waste would have to be hauled to other landfills (e.g. to either Brady Road Landfill or Prairie Green Landfill) at the disposal rate estimated at $71/tonne.

7.3.2 Environmental Impact

By discontinuing landfill operation, greenhouse gas emissions would be reduced by eliminating waste hauling traffic and the amount of litter and odors would decrease.

7.3.3 Property Tax Impact

With discontinuing the landfill operation in 2027 (after the completion of Cell 3), the property tax impact would include an estimated capital ($405,000) and increase of estimated operational costs ($142,000 per year) to 2027. After the landfill is closed, costs would be incurred for continuing landfill monitoring and leachate management (estimated at $30,000 to $50,000 per year). There would also be the cost for disposing the garbage elsewhere.

8.0 SYSTEM FUNDING OPTIONS

There are several funding options for bin collection plus transfer stations, considered below: full tax support, uniform user fee, full user pay, and hybrid system.

8.1 FULL PROPERTY TAX SUPPORT

With full tax support the system cost is fully funded through property taxes.

Pros

- Easy to implement, as each taxpayer already receives a property tax bill.
- Easy to calculate based on the mill rate.

Cons

- Inequity occurs, as all properties pay for the services regardless if they use them or not.
- It does not account for a large or small volume of users to the system (i.e. someone who puts out garbage or recycling once per month pays the same as a weekly contributor).
- Does not promote waste reduction as there is no visible benefit to throw out less.

8.2 UNIFORM USER FEE

With a uniform user fee, the total cost is divided up by the number of users and a flat fee is allocated to each user.

Pros

- Could be included on the property tax bill for property classes that qualify for the service if the billing period is determined on an annual basis.
- Easy to calculate. The total cost of the system is divided by the total number of properties eligible for the service.

Cons

- It does not account for a large or small volume of users to the system (i.e. someone who puts out garbage or recycling once per month pays the same as a weekly contributor).
- Residents may want options on collection frequency, container size, etc.

8.3 FULL USER PAY

Pros

- Identifies a real cost to the end user for the provision of services.
- Transparent to ratepayers.
- Accounts for large or small users of the system through a fee per use.

Cons

- Difficult to predict usage of the system.
- Need to account for any budgetary shortfalls until the system is operating in a steady state.
- Illegal dumping may increase. As a result, enforcement costs would increase for this service.

8.4 HYBRID SYSTEM

A hybrid system recovers a portion of the cost through property taxes and charges the remainder on a monthly, quarterly or yearly charge to users of the system.

Pros

- Easy to implement one property tax portion, as each taxpayer already receives a property tax bill.
- Allows the system cost to become funded in the first years by receiving a steady revenue stream.
- Easy to calculate taxable portion as the total cost of the system is broken down to a mil rate and multiplied by assessment value for the portion added to taxes.
- Identifies a specific, albeit partially subsidized, cost to the end user for collection service.
- Ability to switch to a full or partial user pay system in the future with reduction in property tax rate.

Cons

- Inequity occurs, as all properties pay for the services regardless if they use them or not.
- It does not account for a large or small volume of users to the system (i.e. someone who puts out garbage or recycling once per month pays the same as a weekly contributor).
- May be difficult to implement politically as taxes are increasing as well as new fees are being applied.

9.0 CONCLUSIONS

1. St. Clement's recyclables diversion rate is low compared to the comparison communities.

2. Cardboard recycling needs to be increased.

3. St. Clement's transfer station costs are high.

4. The landfill tipping fees do not recover all operational costs or the costs for required operational and capital improvements.

5. Some revenue opportunities from tipping fees are potentially being lost due to privately collected waste being hauled to other landfills.

6. Improvements are required at the transfer stations to comply with best practices and workplace, safety and health requirements.

7. Improvements are required at the landfill to comply with licensing and regulatory requirements.

8. A new cell will be required at the landfill within an estimated 10-11 years based on the current rates of filling.

10.0 RECOMMENDATIONS

It should be noted that these recommendations are pending further cost-benefit analysis to be carried out by St. Clements administration and feedback from the consultation community effort.

The recommendations are as follows:

Libau Landfill

That continuing the 2016 landfill operation beyond the projected completion timing for the existing cells (estimated remaining capacity of 10-11 years based on 2015 waste disposal records) be assessed further in consideration of:

- 2016 tipping fees ($71 per tonne effective from May 14 to November 4, 2017)
- 2016 and projected disposal tonnage
- Findings from the leachate ponds construction regarding potentially problematic groundwater conditions in the vicinity of future cell construction
- Impact of increased leachate generation in the new cells on the leachate ponds and leachate treatment / disposal cost.

Solid Waste and Recycling

The recommended option for St. Clements is to introduce automated cart-based recycling and garbage collection to more densely populated areas of the municipality; close the Clarke and Dunning Transfer Stations; and make improvements to either both, or one of the Gull Lake and Grand Marais transfer stations, as well as the drop off area at the Libau Landfill.

Recycling

The provision of a consistent and convenient collection service for recycling will dramatically increase the amount of recyclable material being diverted from the landfill, thereby extending the life of the landfill. It will also reassure residents with the confidence that the RM is a progressive, responsible steward of the environment.

While both weekly and bi-weekly options are viable, weekly service is preferred. A weekly collection using a 240 L container is recommended to provide residents with the most flexible service. If residents find that this collection frequency exceeds their needs, containers do not have to be placed out for collection each week. This information should be part of the public communication program that will be required with the changes. For multi-family and commercial properties, offering either 360L carts or front-load containers is the recommended option. As discussed in the report, it is recommended that the roll-off containers at the two transfer stations be switched to front-load containers. This will allow a collection vehicle that has compaction to service these containers less frequently and more efficiently, which in turn, will decrease costs.

MMSM needs to be brought into the discussion, since it is the primary funding supplier for the recycling program. Pre-approval of program changes are required, and capital funding supplied for carts and/or bins at transfer stations, may be available to purchase such containers.

Solid Waste

Weekly collection of residential solid waste using a cart system is recommended, with the option of a container size of either 240 L or 360 L. The larger cart size will allow for residents to add yard waste during the normal growing season if a separate yard waste collection program is implemented.

Collection contracting should include the options of directing garbage to the Libau landfill, or to an alternate landfill for cost comparison purposes.

As with recycling, it is recommended to change the roll-off garbage containers at the transfer station to front-load containers for regular domestic waste. This will allow for compaction and higher density per trip. This would also be consistent with the recommended bin service for multi-family and commercial establishments in St. Clements. Roll-off containers could be used for bulky waste only.

Organics – Yard and Kitchen waste

The decision, regarding providing collection or processing of organic materials should be deferred. This would be a large increase of total volume disposed, in addition to the other recommended changes. Also, the cost of organics processing, especially kitchen waste, could be double the cost of recycling and garbage disposal.

Once the changes have been successfully implemented for garbage and recycling, the costs and benefits of organics collection and processing should be examined.

System Optimization

It is important to optimize the actual garbage/recycling system, both from a collection and processing/disposal standpoint. Actual cost will be an important factor in arriving at the optimal solution. Therefore, it is recommended that the procurement process (tendering) include the main options for collection, processing and disposal that are feasible for the system including collection and disposal at Libau Landfill or an alternate landfill.

11.0 STATEMENT OF LIMITATION

11.1 THIRD PARTY USE OF REPORT

This report has been prepared for the RM of St. Clements to whom this report has been addressed and any use a third party makes of this report, or any reliance on or decisions made based on it, are the responsibility of such third parties. KGS Group accepts no responsibility for damages, if any, suffered by any third party as a result of decisions made or actions undertaken based on this report.

APPENDIX A

SUMMARY OF SOLID WASTE PRACTICES – 12 RURAL MUNICIPALITIES

Table A-1
Summary of Solid Waste Practices
12 Rural Municipalities

Rural Municipality	East St. Paul	Gimli	Hanover	La Broquerie	Macdonald	Portage La Prairie
Type of Service	Collection curbside for urban residents Transfer station for rural residents	Collection curbside to Arnes Landfill	Curbside pickup for urban residents Contractors available to rural residents	Curbside pickup for urban residents Contractor(s) available to rural residents	Sanford Landfill Starbuck Landfill	Curbside pickup for some areas Portage La Prairie Regional Landfill
Manual/Cart	Automated Cart	Manual	Automated cart	Manual	N/A	Manual (with collection tags)
Volume Limit	Cart: ~ 3 Reg bags	Waste Container: 55 lbs x 3	N/A	Waste Container: 50 lbs; 3' by 3' size per container	Tipping Fee cards: $20-$80 1-3 Bags: $1.00 per bag Car full: $5.00 Truck full: $10.00 Up to $50.00 for Starbuck Up to $200 for Sanford	Waste Container: 55 lbs; 100 L capacity Bag: 66 x 91 cm; 40 lbs Bulky items: 100 lbs
Cost per Household	N/A	N/A	N/A	N/A		Solid waste collection: $75 per year Recycling: $25.00 per year Solid waste collection tag: $1.00 each
Cost per Tonne *(Unless otherwise specified)*	N/A	N/A	Contract: $52.00 Non-contract: $61.00	Contract: $52.00 Non-contract: $61.00		Residents and Collection Rate: $41.00 Non-Residents: $56.50
Frequency of Collection	Once per week per household Tuesday through Friday	Once per week per household Monday through Friday	Once per week per household Tuesday, Wednesday, Friday	Once per week Day of week varies by month (Mon-Fri)	Sanford: Sat, Mon, Wed Starbuck: Sat, Tues	Once per week per household Recycling collected once every other week (Different day than waste collection) Monday-Friday collection
Collection Payment Method	Property Tax	Property Tax	Municipal taxes for urban residents New $5 fee to any non-scaled vehicle who goes to Steinbach Landfill (residents and non-residents) Tipping fees from collection services go directly to contractors (rural)	Municipal taxes for urban residents New $5 fee to any non-scaled vehicle who goes to Steinbach Landfill (residents and non-residents) Tipping fees from collection services go directly to contractors (rural)	Fee for service Contractors available to Oak Bluff, Sanford, La Salle	Fee for service Collection services included on utility bill (paid quarterly)
Service Provider	N/A	Recycling: Cornerstone Enterprises Inc.	Collection by private contractors to Steinbach Landfill	Rush Sanitation	N/A	N/A

Table A-2
Summary of Solid Waste Practices
12 Rural Municipalities

Rural Municipality	Ritchot	Rockwood	Springfield	St. Andrews	Stanley	Tache
Type of Service	Curbside pickup in urban areas	Curbside pickup in 6 town areas 2 Transfer stations, 3 Disposal grounds for others	Curbside pickup in urban areas 2 Transfer stations for others	2 Landfills available (Earl Grey, Clandeboye)	SWAMP Landfill Collection contractor available	Curbside pickup for urban areas Waste management facility, landfill, and transfer station for others
Manual/Cart	N/A	Manual	Manual	N/A	N/A	Manual
Volume Limit	N/A	Waste Bag: 67 x 92 cm x 2 bags Extra bags allowed with surcharge stickers ($2 ea)	Waste Container: 125 L; 50 x 100 cm; 55 lbs Waste Bag: 66 x 90 cm; 44 lbs	N/A	N/A	N/A
Cost per Household	N/A	Household: $186.00 Per year Business: $372 per year	N/A	N/A	N/A	N/A
Cost per Tonne *(Unless otherwise specified)*	N/A	Residents: $2.00 per bag, $15.00 per trailer load Non-Residents: $4.00 per bag, $30 per trailer load Residents: up to $205; Non-Residents: up to $410 Contractors: Small truck $67.50; Large Truck $125	Tags: $2.00 each (1 bag = 1 Tag)	Tipping Fees: 1 Ton Truck: $40.00 3 Ton Truck: $100.00	Residents: $42.75 Non-Residents: $65.00	1-5 Bags: $5.00 Trailer/Pickup: $10.00 Per tonne: $45.00
Frequency of Collection	Once per week per household Mon, Tues, Thurs	N/A	Once per week per household Tues, Thurs, Fri	N/A	N/A	Once per week per household
Collection Payment Method	N/A	Special Service Tax Fee for service	N/A	Fee for Service (Free pass for residents to access landfills) Tipping fees applied to commercial haulers	Fee for service	N/A
Service Provider	N/A	N/A	Recycling: Emterra Refuse: Progressive	N/A	Green Acres Disposal	Pak-Man Disposals (Landmark) JR Waste Haulers Ltd (Lorette)

APPENDIX B

GENERAL OPERATING FUNDS FOR 12 RURAL MUNICIPALITIES

Sources: Rural Municipalities of East St. Paul, Gimli, Hanover, La Broquerie, Macdonald, Portage La Prairie, Richot, Rockwood, Springfield, St. Andrews, Taché, and Stanley

SCHEDULE 'A'

GENERAL OPERATING FUND
BUDGETED REVENUE AND EXPENDITURE

Rural Municipality of East St. Paul
For the Year 2016

REVENUE

	Last Year Budgeted	Last Year Actual	This Year Budgeted	Next Year Budgeted
Total Tax Levy - Page 8	17,500,033	17,499,005	17,646,067	18,534,972
Total Grants in Lieu of Taxes - Page 8	249,038	249,038	276,388	300,000
Sub-total	17,749,071	17,748,043	17,922,455	18,834,972
School Requisitions (deduct) - Page 8	10,434,714	10,434,714	10,840,176	10,850,000
Municipal Taxes and Grants in Lieu of Taxes	7,314,357	7,313,329	7,082,279	7,984,972
Other Revenue - Page 2	4,644,066	2,574,722	4,509,071	2,443,840
Transfers from Accumulated Surplus and Reserves - Page 2	330,292	214,550	525,962	400,292
Total Municipal Revenue	12,288,715	10,102,601	12,117,312	10,829,104

EXPENDITURE

General Government Services	1,591,177	1,485,317	1,605,309	1,616,057
Protective Services	808,321	678,182	724,315	734,000
Transportation Services	1,861,200	1,604,929	1,893,150	1,950,000
Environmental Health Services	672,200	637,306	837,100	840,000
Public Health and Welfare Services	2,500	2,438	2,500	2,500
Environmental Development Services	300,800	255,435	328,436	338,000
Economic Development Services	0	0	0	0
Recreation and Cultural Services	819,000	775,647	888,600	915,000
Fiscal Services	2,962,738	1,072,938	2,579,013	573,007
Transfers - Deficit Recovery - Page 9				
- To Reserves - Page 5	3,270,335	3,270,335	3,258,040	3,858,540
Total Basic Expenditure	12,288,271	9,782,527	12,116,463	10,827,104
Allowance For Tax Assets - Page 8	444	444	849	2,000
Total Municipal Expenditure	12,288,715	9,782,971	12,117,312	10,829,104
Net Operating Surplus (Deficit)	0	319,630	0	0

Departmental Use Only	Adopted by Resolution of Council (Head of Council) _____ 20__ (Chief Administrative Officer)

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EXPENDITURES

	2015 Budget	2015 Actual	2016 Budget
General Government Services	1,533,769	1,409,417	1,615,108
	803,929	737,719	798,564
Protective Services	3,228,595	2,160,740	3,202,075
Transportation Services	573,739	544,476	640,203
Environmental Health Services	80,611	80,643	83,111
Public Health and Welfare Services	156,222	112,558	170,845
Environmental Development Services	212,899	194,821	520,299
Economic Development Services	1,270,210	1,269,620	1,427,123
Recreation and Cultural Services	1,153,432	2,136,313	1,456,489
Fiscal Services			
Transfers - Deferred Surplus -			
- Reserves -	545,674	660,755	560,666
Total Basic Expenditure	9,559,079	9,307,061	10,474,483
Allowance For Tax Assets -	73,451	0	81,001
Total Expenditures	9,632,531	9,307,061	10,555,484

GENERAL OPERATING FUND
BUDGETED REVENUE AND EXPENDITURE

Rural Municipality of Hanover

For the Year 2016

REVENUE

	Last Year Budgeted	Last Year Actual	This Year Budgeted	Next Year Budgeted
Total Tax Levy - Page 8	16,447,683	16,447,683	17,935,756	18,142,750
Total Grants in Lieu of Taxes - Page 8	390,092	390,092	393,744	413,505
Sub-total	16,837,775	16,837,775	18,329,501	18,556,255
School Requisitions (deduct) - Page 8	10,104,064	10,104,064	10,692,433	10,825,000
Municipal Taxes and Grants in Lieu of Taxes	6,733,711	6,733,711	7,637,068	7,731,255
Other Revenue - Page 2	3,871,087	4,610,651	4,097,276	3,903,941
Transfers from Accumulated Surplus & Reserves - Page 2	2,520,757	2,098,948	2,428,088	2,050,500
Total Municipal Revenue	13,125,555	13,443,310	14,162,432	13,685,696

EXPENDITURE

General Government Services	1,538,649	1,566,731	1,667,580	1,703,698
Protective Services	1,072,095	883,728	1,301,065	1,296,358
Transportation Services	2,717,947	2,552,162	4,420,281	4,173,811
Environmental Health Services	607,420	753,013	856,435	763,231
Public Health and Welfare Services	8,610	8,602	8,602	8,602
Environmental Development Services	174,033	175,124	317,650	180,438
Economic Development Services	97,500	88,304	91,500	94,500
Recreation and Cultural Services	666,830	630,205	1,101,041	974,728
Fiscal Services	4,829,947	4,909,712	2,517,532	2,563,090
Transfers - Deficit Recovery - Page 9				
- To Reserves - Page 5	1,409,175	1,967,677	1,870,991	1,922,491
Total Basic Expenditure	13,122,206	13,535,258	14,152,677	13,680,947
Allowance For Tax Assets - Page 8	3,348	(171,420)	9,754	4,750
Total Municipal Expenditure	13,125,554	13,363,838	14,162,431	13,685,696
Net Operating Surplus (Deficit)	2	79,472	0	0

Departmental Use Only	Adopted by Resolution of Council (Head of Council) (Chief Administrative Officer) _____ 20__

GENERAL OPERATING FUND
BUDGETED REVENUE AND EXPENDITURE

Municipalité La Broquerie Municipality
FOR THE YEAR 2016

REVENUE

	LAST YEAR BUDGETED	LAST YEAR ACTUAL	THIS YEAR BUDGETED	NEXT YEAR BUDGETED
Tax Levy - Page 8	6,711,577.36	6,712,232.03	**7,193,487.91** ✓	
Grants in Lieu of Taxes - Pages 8	214,058.43	214,058.51	**214,041.50** ✓	
Sub-Total	6,925,635.79	6,926,290.54	**7,407,529.41**	
Requisitions - Page 8	3,368,247.00	3,368,247.00	**3,569,284.00** ✓	
Net Municipal Taxes & Grants-In-Lieu of Taxes	3,557,388.79	3,558,043.54	**3,838,245.41**	3,777,976.44
Other Revenue - Page 2	2,061,803.59	1,931,588.90	**1,399,731.41**	1,399,731.41
Transfers From Accumulated Surplus and Reserves - Page 2	1,529,911.15	719,911.15	**606,072.15**	365,000.00
Total Revenue	7,149,103.53	6,209,543.59	**5,844,048.97**	5,542,707.85

EXPENDITURES

	LAST YEAR BUDGETED	LAST YEAR ACTUAL	THIS YEAR BUDGETED	NEXT YEAR BUDGETED
General Government Services	747,700.00	790,427.14	**838,700.00**	838,700.00
Protective Services	390,000.00	287,855.80	**364,000.00**	368,000.00
Transportation Services	1,554,000.00	1,485,058.29	**1,608,600.00**	1,608,600.00
Environmental Health Services	65,500.00	15,883.42	**66,000.00**	66,000.00
Public Health and Welfare Services	13,100.00	62,932.36	**38,100.00**	38,100.00
Environmental Development Services	10,000.00	3,421.51	**8,000.00**	8,000.00
Economic Development Services	62,500.00	43,999.98	**60,000.00**	60,000.00
Recreation and Cultural Services	246,000.00	257,276.73	**235,996.00**	235,996.00
Fiscal Services	3,321,075.38	2,394,250.91	**1,910,153.40**	1,605,153.40
Transfers - Deferred Surplus - Page 9				
- Reserves - Page 5	679,428.44	756,893.56	709,158.45	709,158.45
Total Basic Expenditure	7,089,303.82	6,097,999.70	**5,838,707.85**	5,537,707.85
Allow For Tax Assets - Page 8	59,799.71	58,887.11	**5,341.12**	5,000.00
Total Expenditure	7,149,103.53	6,156,886.81	**5,844,048.97**	5,542,707.85
Net Operating Surplus (Deficit)	0.00	52,656.78	0.00	0.00

Adopted by Resolution by Council

Approved _____
(Head of Council)

_____
(Chairman of Finance)

_____ 20___
Date

Certified _____
(Chief Administrative Officer)

Department Use Only

RURAL MUNICIPALITY OF MACDONALD

GENERAL OPERATING FUND BUDGETED REVENUE AND EXPENDITURE

FOR THE YEAR 2016

REVENUE	Last Year Budgeted	Last Year Actual	This Year Budgeted	Next Year Budgeted
Tax Levy - Page 8	$17,865,842.39	$17,603,433.32	$18,607,951.37	$19,261,957.28
Grants In Lieu of Taxes - Page 8	$0.00	264,626.86	0.00	0.00
Sub-Total	$17,865,842.39	$17,868,060.18	$18,607,951.37	$19,261,957.28
Requisitions (deduct) - Page 8	11,336,700.00	11,336,700.00	11,983,878.00	12,846,500.00
Net Municipal Taxes & GIL	$6,529,142.39	$6,531,360.18	$6,624,073.37	$6,415,457.28
Other Revenue - Page 2	$2,806,477.22	$3,422,964.95	$2,712,453.66	$2,681,247.64
Transfers From Surplus & Reserves	670,292.12	487,538.72	1,054,558.80	989,158.80
Total Revenue	$10,005,911.73	$10,441,863.85	$10,391,085.83	$10,085,863.72

EXPENDITURE				
General Government Services	$1,094,901.04	$1,119,015.26	$1,171,924.02	$1,125,263.53
Protective Services	769,286.58	604,258.33	375,810.60	373,970.00
Transportation Services	2,566,161.42	2,270,434.00	2,735,461.20	2,732,481.25
Environmental Health Services	267,154.52	230,708.14	265,785.00	302,417.60
Public Health & Welfare Services	11,705.82	11,205.82	11,705.82	11,705.82
Environmental Development Serv.	108,912.90	110,179.91	108,670.00	111,447.20
Economic Development Services	1,035,147.86	1,324,251.97	1,162,292.49	1,176,514.23
Recreation & Cultural Services	605,300.62	706,418.06	614,720.00	631,270.00
Fiscal Services	1,763,261.68	2,299,546.16	2,471,729.53	1,977,561.45
Transfers-Deferred Surplus - Pg. 9	0	0	0	0
- Reserves - Page 5	1,703,653.51	1,735,383.71	1,384,938.15	1,604,982.64
Total Basic Expenditure	$9,925,485.95	$10,411,401.36	$10,303,036.81	$10,047,613.72
Allowance For Tax Assets - Pg. 8	80,425.78	30,425.78	88,049.02	38,250.00
Total Expenditure	$10,005,911.73	$10,441,827.14	$10,391,085.83	$10,085,863.72
Net Operating Surplus/Deficit	$0.00	$36.71	$0.00	$0.00

Department Use Only	Adopted by Resolution of Council
	(Head of Council)
	April 29, 2016
	(Chief Administrative Officer)

GENERAL OPERATING FUND

BUDGETED REVENUE AND EXPENDITURE

Rural Municipality of Portage la Prairie

For the Year 2016

REVENUE

	2015 Last Year Budgeted	2015 Last Year Actual	2016 This Year Budgeted	2017 Next Year Budgeted
Tax Levy - Page 8	17,786,162.15	17,786,041.54	18,835,198.92	18,835,198.92
Grants In Lieu of Taxes - Page 8	335,707.42	335,837.66	336,263.22	336,263.22
Sub-total	18,121,869.57	18,121,879.20	19,171,462.14	19,171,462.14
Requisitions (deduct) - Page 8	10,634,640.00	10,634,640.00	11,504,339.00	11,504,339.00
Net Municipal Taxes and Grants in Lieu of Taxes	7,487,229.57	7,487,239.20	7,667,123.14	7,667,123.14
Other Revenue - Page 2	1,687,050.60	2,388,102.56	1,861,738.38	3,586,307.38
Transfers from Accumulated Surplus and Reserves - Page 2	529,272.68	548,468.34	1,724,569.00	1,724,569.00
Total Revenue	9,703,552.85	10,423,810.10	11,253,430.52	11,253,430.52

EXPENDITURE

General Government Services	1,005,658.00	955,983.44	1,049,176.52	1,049,176.52
Protective Services	667,550.00	891,188.49	685,375.50	685,375.50
Transportation Services	3,482,000.00	3,133,439.16	3,667,613.00	3,667,613.00
Environmental Health Services	341,000.00	350,183.81	356,367.00	356,367.00
Public Health and Welfare Services	66,566.20	66,086.20	66,566.00	66,566.00
Environmental Development Services	37,000.00	51,031.52	38,311.00	38,311.00
Economic Development Services	152,090.45	133,510.57	144,190.00	144,190.00
Recreation and Cultural Services	529,255.00	533,281.77	539,790.00	539,790.00
Fiscal Services	2,220,302.27	2,535,258.77	3,283,149.09	3,283,149.09
Transfers - Deferred Surplus - Page 9			-	-
- Reserves - Page 5	1,185,652.31	1,614,019.29	1,395,520.46	1,395,520.46
Total Basic Expenditure	9,687,074.23	10,263,983.02	11,226,058.57	11,226,058.57
Allowance For Tax Assets - Page 8	16,478.62	16,478.62	27,371.95	27,371.95
Total Expenditure	9,703,552.85	10,280,461.64	11,253,430.52	11,253,430.52
Net Operating Surplus (Deficit)	-	143,348.46	0.00	0.00

Departmental Use Only	Adopted by Resolution of Council
	Reeve
	Chief Administrative Officer

GENERAL OPERATING FUND
BUDGETED REVENUE AND EXPENDITURE

Municipalité Ritchot Municipality
For the Year 2016

REVENUE

	LAST YEAR BUDGETED	LAST YEAR ACTUAL	THIS YEAR BUDGETED	NEXT YEAR BUDGETED
Tax Levy - Page 8	$ 9,243,042.51	$ 8,667,755.89	$ 10,369,559.72	$ 8,383,216.90
Grants in Lieu of Taxes - Pages 8	$ 187,689.39	$ 189,093.45	$ 207,533.43	$ 190,000.00
Sub-Total	$ 9,430,731.90	$ 8,856,849.34	$ 10,577,093.15	$ 8,573,216.90
Requisitions - Page 8	$ 5,897,256.00	$ 5,416,208.00	$ 6,567,592.00	$ 5,900,000.00
Net Municipal Taxes & Grants-In-Lieu of Taxes	$ 3,533,475.90	$ 3,440,641.34	$ 4,009,501.15	$ 2,673,216.90
Other Revenue - Page 2	$ 8,605,082.29	$ 6,529,039.31	$ 9,301,136.25	$ 9,434,628.97
Transfers From Accumulated Surplus and Reserves - Page 2	$ -	$ 1,613,872.29	$ -	$ -
Total Revenue	$ 12,138,558.19	$ 11,583,552.94	$ 13,310,637.39	$ 12,107,845.87

EXPENDITURES

	LAST YEAR BUDGETED	LAST YEAR ACTUAL	THIS YEAR BUDGETED	NEXT YEAR BUDGETED
General Government Services	$ 1,082,715.00	$ 967,327.97	$ 1,039,405.00	$ 1,060,193.10
Protective Services	$ 423,330.00	$ 394,020.44	$ 448,875.00	$ 457,852.50
Transportation Services	$ 1,649,250.00	$ 1,448,122.02	$ 1,745,205.00	$ 1,686,677.10
Environmental Health Services	$ 761,555.00	$ 752,506.71	$ 890,700.00	$ 908,514.00
Public Health and Welfare Services	$ 10,800.00	$ 10,727.21	$ 11,100.00	$ 11,016.00
Environmental Development Services	$ 31,800.00	$ 4,431.25	$ 16,800.00	$ 17,136.00
Economic Development Services	$ 359,750.00	$ 536,182.63	$ 260,175.00	$ 265,378.50
Recreation and Cultural Services	$ 271,570.00	$ 296,476.19	$ 381,475.00	$ 389,104.50
Fiscal Services	$ 6,575,446.97	$ 5,377,212.64	$ 748,136.71	$ 6,147,385.44
Transfers - Deferred Surplus - Page 9	$ -	$ -	$ -	$ -
- Reserves - Page 5	$ 965,800.00	$ 1,457,424.48	$ 1,912,800.00	$ 522,000.00
Total Basic Expenditure	$ 12,132,016.97	$ 11,244,431.54	$ 7,454,671.71	$ 11,465,257.14
Allow For Tax Assets - Page 8	$ 6,541.22	$ 6,541.22	$ 5,855,965.68	$ -
Total Expenditure	$ 12,138,558.19	$ 11,250,972.76	$ 13,310,637.39	$ 11,465,257.14
Net Operating Surplus (Deficit)	$ -	$ 332,580.18	$0.00	$ 642,588.73

Adopted by Resolution by Council

Department Use Only

Approved _____
(Head of Council)

_____
(Chairman of Finance)

_____ 2016 **Certified** _____
Date **(Chief Administrative Officer)**

RURAL MUNICIPALITY OF ROCKWOOD

2016

REVENUES

	Last Year Budgeted	Last Year Actual	This Year Budgeted	Next Year Budgeted
Tax Levy - Page 8	9,287,925.00	9,287,976.95	9,650,871.62	
Grants in Lieu of Taxes - Page 8	976,280.00	1,161,773.12	1,110,856.89	
Sub-total	10,264,205.00	10,449,750.07	10,761,728.51	
Requisitions (deduct) - Page 8	6,448,300.00	6,448,300.00	6,819,604.00	
Net Municipal Taxes and Grants in Lieu of Taxe	3,815,905.00	4,001,450.07	3,942,124.51	4,101,000.00
Other Revenue - Page 2	3,786,080.00	3,282,139.11	3,810,824.00	3,547,000.00
Transfer from Accumulated Surplus & Reserves		0	0	
Total Revenue	7,601,985.00	7,283,589.18	7,752,948.51	7,648,000.00

EXPENDITURES

General Government Services	941,000.00	889,318.21	859,300.00	858,000.00
Protective Services	427,000.00	441,433.07	523,500.00	430,000.00
Transportation Services	3,319,000.00	2,904,162.60	3,371,124.00	3,424,000.00
Environmental Health Services	522,000.00	564,330.82	544,000.00	532,000.00
Public Health and Welfare Services	5,000.00	4,241.32	5,000.00	5,000.00
Environmental Development Services	45,000.00	43,743.72	45,000.00	45,000.00
Economic Development Services	27,000.00	25,637.00	28,000.00	28,000.00
Recreation and Cultural Services	483,000.00	491,550.92	514,000.00	484,000.00
Fiscal Services	83,400.00	83,328.97	83,607.21	83,000.00
Transfers - Deferred Surplus - Page 9			0.00	
- Reserves - Page 5	1,749,000.00	1,745,326.27	1,779,000.00	1,759,000.00
Total Basic Expenditure	7,601,400.00	7,193,072.90	7,752,531.21	7,648,000.00
Allowance for Tax Assets	585.00	0.00	417.30	
Total Expenditure	7,601,985.00	7,193,072.90	7,752,948.51	7,648,000.00
Net Operating Surplus (Deficit)	0.00	90,516.28	0.00	0.00

Departmental Use Only

Adopted by Resolution of Council

(Head of Council)

CHIEF ADMINISTRATOR OFFICER

GENERAL OPERATING FUND

BUDGETED REVENUE AND EXPENDITURE

Rural Municipality of Springfield

For the Year 2016

REVENUE

	Last Year Budgeted	Last Year Actual	This Year Budgeted	Next Year Budgeted
Total Tax Levy (Page 8)	28,071,159.64	28,078,552.97	30,170,266.00	30,170,266.00
Total Grants in Lieu of Taxes (Page 8)	1,230,243.82	1,223,705.75	1,334,374.00	1,334,374.00
Sub-total	29,301,403.46	29,302,258.72	31,504,640.00	31,504,640.00
School Requisitions (deduct) (Page 8)	17,627,506.00	17,627,506.00	19,300,758.00	19,300,758.00
Municipal Taxes and Grants in Lieu of Taxes	11,673,897.46	11,674,752.72	12,203,882.00	12,203,882.00
Other Revenue (Page 2)	8,386,240.42	6,767,055.02	8,425,887.00	5,574,430.00
Transfers from Accumulated Surplus (Page 2)	0.00	0.00	324,585.00	0.00
Transfers from Reserves (Page 2)	4,161,641.75	1,647,834.97	7,132,635.00	759,813.00
Total Municipal Revenue	24,221,779.63	20,089,642.71	28,086,989.00	18,538,125.00

EXPENDITURE

General Government Services	1,927,893.55	1,824,195.44	2,210,128.00	2,275,708.00
Protective Services	1,533,636.28	1,505,611.41	1,757,603.00	1,787,116.00
Transportation Services	5,253,799.23	4,564,584.16	5,661,906.00	5,780,113.00
Environmental Health Services	1,313,038.12	1,238,042.54	1,361,151.00	1,422,962.00
Public Health and Welfare Services	88,953.64	80,460.19	108,859.00	110,918.00
Environmental Development Services	457,465.94	415,833.03	472,342.00	487,208.00
Economic Development Services	713,799.00	602,551.79	712,147.00	721,281.00
Recreation and Cultural Services	751,152.03	565,770.77	538,200.00	547,086.00
Fiscal Services	10,218,390.90	3,028,090.20	13,327,320.00	3,879,630.00
Transfers - Deficit Recovery (Page 9)	0.00	0.00	0.00	0.00
- To Reserves (Page 5)	1,962,722.98	2,323,068.73	1,936,043.00	1,524,813.00
Total Basic Expenditure	24,220,851.67	16,148,208.26	28,085,699.00	18,536,835.00
Allowance For Tax Assets (Page 8)	927.96	927.96	1,290.00	1,290.00
Total Municipal Expenditure	24,221,779.63	16,149,136.22	28,086,989.00	18,538,125.00
Net Operating Surplus (Deficit)	0.00	3,940,506.49	0.00	0.00

Departmental Use Only	Adopted by Resolution of Council 16-277
	R J Bodnaruk Reeve Bob Bodnaruk
	May 6 2016 R E Phillips CAO Russell Phillips

GENERAL OPERATING FUND
BUDGETED REVENUE AND EXPENDITURE

RM of St. Andrews

For the Year 2016

REVENUE

	2015 Budgeted	2015 Actual	2016 Budgeted	2017 Budgeted
Tax Levy - Page 8	17,760,580	17,232,816	18,593,932	19,118,355
Grants in Lieu of Taxes - Page 8	430,369	430,369	433,679	442,353
Sub-total	18,190,949	17,663,185	19,027,612	19,560,708
Requisitions (deduct) - Page 8	10,590,855	10,062,450	11,301,203	11,527,227
Net Municipal Taxes and Grants in Lieu of Taxes	7,600,094	7,600,735	7,726,409	8,033,481
Other Revenue - Page 2	7,348,865	2,805,804	5,128,428	6,168,064
Transfers from Accumulated Surplus and Reserves - Page 2	1,491,250	465,602	801,765	1,820,000
Total Revenue	16,440,209	10,872,141	13,656,602	16,021,544

EXPENDITURE

General Government Services	1,263,434	1,215,851	1,291,654	1,304,495
Protective Services	1,064,935	1,024,842	1,082,542	1,093,838
Transportation Services	4,209,239	3,576,312	4,594,000	4,687,621
Environmental Health Services	862,764	888,589	937,876	875,642
Public Health and Welfare Services	30,002	24,754	31,002	35,002
Environmental Development Services	76,200	50,692	75,436	77,936
Economic Development Services	856,400	119,604	148,235	186,735
Recreation and Cultural Services	582,503	481,413	550,575	501,975
Fiscal Services	6,079,550	1,207,888	3,493,498	5,928,400
Transfers - Deferred Surplus - Page 9			0	
- Reserves - Page 5	1,335,183	2,031,248	1,371,784	1,249,901
Total Basic Expenditure	16,360,209	10,621,194	13,576,602	15,941,545
Allowance For Tax Assets - Page 8	80,000	70,738	80,000	80,000
Total Expenditure	16,440,209	10,691,932	13,656,602	16,021,545
Net Operating Surplus (Deficit)	0	180,209	0	0

Departmental Use Only	Adopted by Resolution of Council May 3, 2016 Mayor George Pike Andrew Weremy, CAO

GENERAL OPERATING FUND
BUDGETED REVENUE AND EXPENDITURE

Municipality of Taché

For the Year 2016

REVENUE

	Last Year Budgeted	Last Year Actual	This Year Budgeted	Next Year Budgeted
Tax Levy - Page 8	13,932,577.46	13,932,577.70	14,427,775.85	
Grants in Lieu of Taxes - Page 8	202,130.74	202,130.74	216,855.40	
Sub-total	14,134,708.20	14,134,708.44	14,644,631.26	
Requisitions (deduct) - Page 8	7,909,740.00	7,909,740.00	8,317,514.00	
Net Municipal Taxes and Grants in Lieu of Taxes	6,224,968.20	6,224,968.44	6,327,117.26	
Other Revenue - Page 2	2,071,384.11	2,395,238.29	2,055,537.57	
Transfer from Reserves & Other Funds	2,123,450.00	1,139,390.21	3,622,100.00	
Total Revenue	10,419,802.31	9,759,596.94	12,004,754.83	

EXPENDITURE

General Government Services	1,126,066.00	1,105,325.28	1,121,437.62	
Protective Services	510,500.00	491,766.32	580,925.00	
Transportation Services	2,049,550.00	1,867,888.61	2,140,420.00	
Environmental Health Services	764,356.00	768,280.57	796,550.00	
Public Health and Welfare Services	57,433.42	60,599.98	57,483.42	
Regional Planning & Development	117,500.00	143,941.37	198,900.00	
Resource Conservation & Industrial Development	78,842.44	92,013.60	90,100.00	
Recreation and Cultural Services	487,251.00	440,494.90	421,808.12	
Fiscal Services	3,653,912.35	2,734,267.09	5,112,944.35	
Transfers - Deferred Surplus - Page 9	21,773.64	21,773.64	0.00	
- Reserves - Page 5	1,550,162.61	2,030,790.73	1,472,837.46	
Total Basic Expenditure	10,417,347.46	9,757,142.09	11,993,405.98	
Allowance For Tax Assets - Page 8	2,454.85	2,454.85	11,348.85	
Total Expenditure	10,419,802.31	9,759,596.94	12,004,754.83	
Net Operating Surplus (Deficit)	0.00	0.00	0.00	

Departmental Use Only	Adopted by Resolution of Council Mayor Chief Administrative Officer

GENERAL OPERATING FUND

BUDGETED REVENUE AND EXPENDITURE

Rural Municipality of St. Clements

For the Year 2016

REVENUE

	2015 Budget	2015 Actual	**2016 Budgeted**	2017 Budgeted
Tax Levy - *Page 8*	15,422,789	15,422,789	16,642,731	17,479,047
Grants in Lieu of Taxes - *Page 8*	709,334	709,334	706,198	741,508
Sub-total	16,132,123	16,132,123	17,348,929	18,220,555
Requisitions (deduct) - *Page 8*	9,946,775	9,946,775	10,446,832	10,969,156
Net Municipal Taxes and Grants in Lieu of Taxes	6,185,348	6,185,348	6,902,097	7,251,399
Other Revenue - *Page 2*	4,113,755	4,801,107	3,766,889	3,758,763
Transfers - Accumulated Surplus and Reserves	1,191,558	694,958	2,229,992	2,341,391
Total Revenue	**11,490,661**	**11,681,412**	**12,898,978**	**13,351,552**

EXPENDITURE

General Government Services	1,601,132	1,531,861	1,636,729	1,691,079
Protective Services	1,249,097	2,045,560	944,018	969,225
Transportation Services	3,861,969	3,455,584	4,266,520	4,436,777
Environmental Health Services	959,238	828,416	1,565,100	1,535,075
Public Health and Welfare Services	68,061	63,425	48,061	48,061
Environmental Development Services	76,200	79,439	65,000	68,250
Economic Development Services	62,000	62,934	64,000	64,000
Recreation and Cultural Services	342,162	461,374	286,500	287,958
Fiscal Services	218,761	304,116	1,015,590	1,021,340
Transfers - Deferred Surplus - *Page 9*				
- Reserves - *Page 5*	3,023,814	2,765,063	2,979,150	3,200,061
Total Basic Expenditure	11,462,434	11,597,773	12,870,668	13,321,826
Allowance For Tax Assets - *Page 8*	28,227	28,227	28,310	29,726
Total Expenditure	**11,490,661**	**11,626,000**	**12,898,978**	**13,351,552**
Net Operating Surplus (Deficit)	**0**	**55,412**	**0**	**0**

Departmental Use Only	*Adopted by Resolution of Council*
	_____ *(Head of Council)*
	_____ 2016 _____ *(Chief Administrative Officer)*

2016-04-15, 3:43 PM

RM OF STANLEY
2016 FINANCIAL PLAN

February 25th, 2016
11:00 am
RM of Stanley Council Chambers

Financial Plan Presentation

2016 Proposed Expenditures

Municipal Expenditures	2015 Budget	2016 Budget	% change	$ change
General Government	910,987	920,305	1.02%	9,318
Protective Services	561,618	619,201	10.25%	57,583
Transportation Services	2,996,700	2,974,450	(0.74%)	(22,250)
Environmental Health	21,500	21,550	0.23%	50
Public Health & Welfare	176,198	176,198	0.0%	0
Environmental Development	41,000	144,800	253.17%	103,800
Economic Development	120,305	62,567	(48.0%)	(57,738)
Recreation & Culture	141,776	147,615	4.12%	5,839
Fiscal Services	545,816	574,395	5.24%	28,579
Transfers to Reserves	802,641	886,033	10.39%	83,392
TOTAL	6,318,541	6,527,114		208,573

APPENDIX C

EXAMPLE CAPITAL COSTS FOR FACILITY COMPONENTS

Table C-1
Example Capital Costs for Various Facility Components

Municipality	Total Cost	Ammor. (Yrs)	Year of First Payment	Cost per Year	Source of Funds	Pop. (2015)
Gimli						5,961
Garbage Truck	$225,000	1	2016	$225,000	GF	
Landfill Scale	$60,000	1	2016	$60,000	GF	
Landfill Packer	$250,000	1	2016	$250,000	GF	
Recycling Storage Building	$50,000	1	2016	$50,000	-	
Springfield						14,364
Landfill Closure	$275,000	5	2017	$55,000	OP: $135,000 RES: $140,000	
Hazardous Waste Collection	$75,000	1	2017	$75,000	Other	
Transfer Station Backhoe Lease	$11,300	1	2016	$11,300	GF	
Landfill Closure (2015 Carryover)	$64,747	1	2016	$64,747	RES	
St. Andrews						15,037
Recycling (New Bin)	$12,000	1	2016	$12,000	OP	
Landfill - New Cell for Clandeboye	$1,007,500	4	2016	$7,500 (2016) $500,000 (2018 & 2019)	OP: $907,500 RES: $100,000	
St. Clements						8,299
Transfer Station	$125,000	2	2017	$25,000 (2017) $100,000 (2018)	RES	
Solid Waste Cell	$400,000	1	2019	$400,000	RES	

Notes:

"-" = No Data
OP = Operating Funds
RES = Reserved Funds
GF = General Funds

APPENDIX D

EXAMPLE SOLID WASTE PROGRAM REVENUES

Source: RM of Rockwood

Table D-1
Example Solid Waste Program Revenues

RM	Category	2015 Budgeted	2015 Actual	2016 Budgeted	2017 Budgeted
Rockwood					
	Landfill Tipping Fees - Balmoral	$13,000.00	$10,683.00	$13,000.00	$13,000.00
	Landfill Tipping Fees - Teulon	$125,000.00	$128,440.78	$125,000.00	$125,000.00
	Landfill Tipping Fees - Winfield	$45,000.00	$44,834.50	$45,000.00	$45,000.00
	Landfill Tipping Fees - Komarno	$4,000.00	$3,762.00	$4,000.00	$4,000.00
	Teulon-Rockwood Waste Disposal Grounds (Transfer)	$5,000.00	$0.00	$5,000.00	$5,000.00

APPENDIX E

RECYCLING COSTS FOR THE RM OF ST CLEMENTS AND 7 COMPARABLE RURAL MUNICIPALITIES / MUNICIPALITIES

Source: RM of St. Clements

Table E-1
Recycling Costs for the RM of St. Clements and 7 Comparable Rural Municipalities/Municipalities

		Quantity (TO)			Single Households	Population	Dwelling
	Oblig. Year	2013	2014	2015	2015	2015	2015
Municipality	**Material Name**	TO	TO	TO			
Hanover, R.M.	Aluminum Food and Beverage Containers	19.368	19.908	19.868	3,635	14,026	4,033
	Boxboard	136.769	139.955	139.747	17%		
	Corrugated Cardboard	104.061	106.072	105.844	13%		
	Glass	90.923	93.030	92.846	11%	6.6	
	HDPE Coloured Bottles (#2)	5.707	6.906	1.673	0%		
	HDPE Natural Bottles (#2)	5.028			0%		
	Household Plastics (#3, #4, #5, #7)	11.404	11.603	11.584	1%		
	Mixed HDPE (#2 - Natural and Coloured)	9.988	14.124	19.335	2%		
	Newsprint and Flyers	351.950	358.084	352.167	42%	25	
	PET Plastic Bottles (#1)	30.238	30.677	30.594	4%		
	Polycoat (Aseptic, Gabletop)	15.540	15.826	15.763	2%		
	Residential Plastic Film & Carry Out Bags				0%		
	Residue				0%		
	Steel Food and Beverage Containers	51.506	52.401	52.322	6%		
	Result	**832.482**	**848.586**	**841.743**		**60.0**	
Total cost per tonne based on Annual Cost Monitoring Survey		**$244**	**$110**	**$115**			
La Broquerie, R.M.	Aluminum Food and Beverage Containers	6.218	5.861	6.148	1,360	5,198	1,597
	Boxboard	28.693	27.050	25.141	12%		
	Corrugated Cardboard	28.286	26.671	25.083	12%		
	Glass	32.435	30.581	22.167	11%	4.3	
	HDPE Coloured Bottles (#2)	4.495	3.210	1.356	1%		
	HDPE Natural Bottles (#2)			0.314	0%		
	Household Plastics (#3, #4, #5, #7)	1.980	1.865	5.543	3%		
	Mixed HDPE (#2 - Natural and Coloured)		1.029	2.478	1%		
	Newsprint and Flyers	96.571	91.051	92.699	45%	18	
	PET Plastic Bottles (#1)	10.674	10.064	10.291	5%		
	Polycoat (Aseptic, Gabletop)	4.335	4.090	4.125	2%		
	Residential Plastic Film & Carry Out Bags				0%		
	Residue				0%		
	Steel Food and Beverage Containers	12.615	11.893	12.322	6%		
	Result	**226.302**	**213.365**	**207.667**		**40.0**	
Total cost per tonne based on Annual Cost Monitoring Survey		**$235**	**$223**	**$195**			
Macdonald, R.M.	Aluminum Food and Beverage Containers	3.180	4.670	4.278	1,920	6,280	2,105
	Boxboard	18.230	23.872	21.382	5%		
	Corrugated Cardboard	31.640	46.278	38.483	9%		
	Glass	36.220	45.319	42.760	10%	6.8	
	HDPE Coloured Bottles (#2)	0.940	1.528		0%		
	HDPE Natural Bottles (#2)		1.511		0%		
	Household Plastics (#3, #4, #5, #7)	15.770	19.782	21.382	5%		
	Mixed HDPE (#2 - Natural and Coloured)	8.810	9.372	12.827	3%		
	Newsprint and Flyers	235.640	205.518	235.181	55%	37	
	PET Plastic Bottles (#1)	4.000	8.416	8.552	2%		
	Polycoat (Aseptic, Gabletop)	6.920	7.456	8.552	2%		
	Residential Plastic Film & Carry Out Bags				0%		
	Residue		9.156	8.552	2%		
	Steel Food and Beverage Containers	24.235	22.987	25.657	6%		
	Result	**385.585**	**405.865**	**427.606**		**68.1**	
Total cost per tonne based on Annual Cost Monitoring Survey		**$288**	**$362**	**$370**			
Portage la Prairie, City	Aluminum Food and Beverage Containers	27.443	25.636	26.730	3,880	12,996	5,649
	Boxboard	94.631	88.407	92.175	10%		
	Corrugated Cardboard	59.614	55.697	58.070	6%		
	Glass	132.482	123.771	129.045	14%	9.9	
	HDPE Coloured Bottles (#2)		4.649		0%		
	HDPE Natural Bottles (#2)	16.016	20.281	12.188	1%		

Portage la Prairie, City	Household Plastics (#3, #4, #5, #7)	28.388	20.017	27.653	3%		
Continued	Mixed HDPE (#2 - Natural and Coloured)	17.104	12.519	20.075	2%		
	Newsprint and Flyers	411.641	384.572	400.960	43%	31	
	PET Plastic Bottles (#1)	40.689	38.016	39.634	4%		
	Polycoat (Aseptic, Gabletop)	25.548	23.871	24.887	3%		
	Residential Plastic Film & Carry Out Bags				0%		
	Residue	26.497	24.753	25.811	3%		
	Steel Food and Beverage Containers	66.244	61.884	64.522	7%		
	Result	**946.297**	**884.073**	**921.750**		**70.9**	
Total cost per tonne based on Annual Cost Monitoring Survey		**$240**	**$164**	**$171**			
Ritchot, R.M.	Aluminum Food and Beverage Containers	2.720	2.840	10.379	1,755	5,478	1,909
	Boxboard	16.090	16.600	17.301	5%		
	Corrugated Cardboard	23.150	26.810	17.301	5%		
	Glass	30.840	32.410	34.600	10%	6.3	
	HDPE Coloured Bottles (#2)	0.960	0.920		0%		
	HDPE Natural Bottles (#2)		4.400		0%		
	Household Plastics (#3, #4, #5, #7)	8.840	12.860	13.840	4%		
	Mixed HDPE (#2 - Natural and Coloured)	7.600	2.040	10.379	3%		
	Newsprint and Flyers	206.410	224.770	207.600	60%	38	
	PET Plastic Bottles (#1)	3.140	3.020	10.379	3%		
	Polycoat (Aseptic, Gabletop)	6.790	5.410	6.918	2%		
	Residential Plastic Film & Carry Out Bags				0%		
	Residue	3.220	2.820	3.460	1%		
	Steel Food and Beverage Containers	22.380	22.080	13.840	4%		
	Result	**332.140**	**356.980**	**345.997**		**63.2**	
Total cost per tonne based on Annual Cost Monitoring Survey		**$302**	**$328**	**$525**			
Total cost per tonne based on Annual Cost Monitoring Survey		**$123**	**$202**	**$214**			
Springfield, R.M.	Aluminum Food and Beverage Containers	18.573	18.642	25.819	4,665	14,069	5,201
	Boxboard	33.599	33.713	33.819	5%		
	Corrugated Cardboard	68.082	68.393	67.808	10%		
	Glass	38.639	42.485	63.181	9%	4.5	
	HDPE Coloured Bottles (#2)				0%		
	HDPE Natural Bottles (#2)				0%		
	Household Plastics (#3, #4, #5, #7)	2.610	2.700	23.340	3%		
	Mixed HDPE (#2 - Natural and Coloured)	30.660	30.949	33.391	5%		
	Newsprint and Flyers	360.764	361.868	370.815	53%	26	
	PET Plastic Bottles (#1)	26.931	27.179	27.106	4%		
	Polycoat (Aseptic, Gabletop)	8.385	8.337	12.747	2%		
	Residential Plastic Film & Carry Out Bags				0%		
	Residue	29.174	28.951	10.220	1%		
	Steel Food and Beverage Containers	32.839	32.673	33.712	5%		
	Result	**650.256**	**655.890**	**701.958**		**49.9**	
Total cost per tonne based on Annual Cost Monitoring Survey		**$389**	**$371**	**$364**			
St. Clements, R.M.	Aluminum Food and Beverage Containers	3.127	3.648	6.311	3,370	10,505	5,191
	Boxboard	1.930	2.882	10.521	4%		
	Corrugated Cardboard	0.457	0.680	10.521	4%		
	Glass	97.174	133.045	64.029	24%	6.1	
	HDPE Coloured Bottles (#2)	0.148	0.904		0%		
	HDPE Natural Bottles (#2)	0.780	0.150		0%		
	Household Plastics (#3, #4, #5, #7)	14.076	14.790	8.416	3%		
	Mixed HDPE (#2 - Natural and Coloured)	2.410	1.816	12.241	5%		
	Newsprint and Flyers	39.871	54.346	128.814	49%	12	
	PET Plastic Bottles (#1)	5.170	6.143	6.311	2%		
	Polycoat (Aseptic, Gabletop)			4.209	2%		
	Residential Plastic Film & Carry Out Bags		0.770		0%		
	Residue	0.750		2.344	1%		
	Steel Food and Beverage Containers	5.170	7.617	8.416	3%		
	Result	**171.063**	**226.791**	**262.133**		**25.0**	
Total cost per tonne based on Annual Cost Monitoring Survey		**$648**	**$682**	**$627**			

Stanley, R.M.	Aluminum Food and Beverage Containers		0.101	0.519	1,200	8,356	2,018
	Boxboard		0.167	0.865	5%		
	Corrugated Cardboard		0.167	0.865	5%		
	Glass		0.334	1.733	10%	0.2	
	HDPE Coloured Bottles (#2)				0%		
	HDPE Natural Bottles (#2)				0%		
	Household Plastics (#3, #4, #5, #7)		0.134	0.692	4%		
	Mixed HDPE (#2 - Natural and Coloured)		0.101	0.519	3%		
	Newsprint and Flyers		2.006	10.397	60%	1	
	PET Plastic Bottles (#1)		0.101	0.519	3%		
	Polycoat (Aseptic, Gabletop)		0.067	0.346	2%		
	Residential Plastic Film & Carry Out Bags				0%		
	Residue		0.034	0.173	1%		
	Steel Food and Beverage Containers		0.134	0.692	4%		
	Result		**3.346**	**17.320**		**2.1**	
Total cost per tonne based on Annual Cost Monitoring Survey		**n/a**	**$677**	**$481**			
Total cost per tonne based on Annual Cost Monitoring Survey		**$447**	**$441**	**$349**		77,521	
		Quantity (TO)			Single Households	Population	Dwelling
	Oblig. Year	2013	2014	2015	2015	2015	2015
Municipality	**Material Name**	TO	TO	TO			
East St. Paul, R.M.	Aluminum Food and Beverage Containers	26.099	24.168	23.476	3,035	9,046	3,114
	Boxboard		29.993	42.376	5%		
	Corrugated Cardboard	139.196	101.028	85.833	10%		
	Glass	52.197	56.647	58.694	7%	6.5	
	HDPE Coloured Bottles (#2)		9.114		0%		
	HDPE Natural Bottles (#2)				0%		
	Household Plastics (#3, #4, #5, #7)	52.197	17.460	3.330	0%		
	Mixed HDPE (#2 - Natural and Coloured)		18.109	38.464	5%		
	Newsprint and Flyers	539.395	478.975	456.232	55%	50	
	PET Plastic Bottles (#1)		23.807	33.635	4%		
	Polycoat (Aseptic, Gabletop)		7.660	10.823	1%		
	Residential Plastic Film & Carry Out Bags				0%		
	Residue	43.499	39.277	37.713	5%		
	Steel Food and Beverage Containers	17.401	34.731	41.961	5%		
	Result	**869.984**	**840.969**	**832.537**		**92.0**	
Total cost per tonne based on Annual Cost Monitoring Survey		**$201**	**$222**	**$215**			

Note: Information obtained from the RM of St. Clements

APPENDIX F

2015 MMSM (MULTI-MATERIAL STEWARDSHIP MANITOBA) ANNUAL REPORT

2015

ANNUAL REPORT

MMSM

Multi-Material
Stewardship Manitoba

INDUSTRY FUNDING RECYCLING

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MULTI-MATERIAL STEWARDSHIP MANITOBA INC.

Founded in 2010, Multi-Material Stewardship Manitoba Inc. (MMSM) is the not-for-profit, industry-funded organization that develops, implements and operates the province'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 on the materials to MMSM, which are used to reimburse municipalities for 80% of the net cost of the residential recycling system.

Bringing together the businesses helping to finance recycling services, the consumers that diligently recycle their used items, and municipal partners that collect and process recyclables, MMSM is helping to ensure that as much recyclable waste as possible is captured efficiently and does not end up in landfill.

MMSM continues to work towards its goal of promoting the reduction, reuse and recycling of the materials managed in its program.

Governed by a board of directors of eight industry and two unrelated independent directors, the board provides valuable input and governance to the organization, and consists of representatives from the following sectors:

- Grocers
- Consumer products
- Alcohol and non-alcohol beverages
- Retailers
- Printed paper
- Newspapers
- Restaurants

Industry directors are not compensated by MMSM; the costs associated with their participation on the board are covered by their organizations. The two independent directors are compensated for their time by MMSM.

Message from the Chair of the Board

Neil Antymis

2015 was another great year for printed paper and packaging recycling in Manitoba. The most recent data available, shows that the recovery rate increased by two percentage points to 65%.

Multi-Material Stewardship Manitoba completed its sixth year of operations in 2015. MMSM funds up to 80% of blue box and blue bin recycling throughout Manitoba. But we do much more than simply provide funding to municipalities and I would like to take this opportunity to highlight some of the priorities and accomplishments of MMSM in 2015.

The MMSM Board met in May of 2015 to look at strategic priorities for MMSM over the next three to five years. Three key strategic priorities were adopted. First is a commitment to work with municipalities and other stakeholders to continue to increase the recovery rate of the materials in our program. Second is to work closely with municipalities to provide support and analysis to ensure costs are managed effectively for tax payers and the stewards that fund up to 80% of recycling costs in Manitoba. Third is to continuously improve Board and corporate governance to ensure long term sustainability, integrity and quality of the Multi-Material Stewardship Manitoba program.

MMSM's current program plan, first approved by the Manitoba Government in 2009, expires in 2016. In 2015, MMSM started the groundwork for the process that will take place in 2016. An important part of this process is to gather input from Manitobans, government, municipalities, stewards and other interested stakeholders about the next MMSM program plan.

Fairly allocating the millions of dollars they pay to fund the municipal blue box recycling program is extremely important to stewards. The MMSM Board agreed that the funding formula methodology used since the launch of the program in 2010 needs to be reviewed. MMSM committed to work with other similar programs in Saskatchewan, British Columbia and Ontario, together with Canadian Stewardship Services Alliance our contract service provider, to undertake a comprehensive review of the funding formula. A new methodology and funding formula is expected to be implemented for 2017.

Manitobans can be proud of our collective accomplishments since 2010. Together, we have significantly increased blue box recycling, reduced the number of "single-use" plastic bags and are helping to create a better environment for Manitobans. I look forward to working with the MMSM Board, management, municipalities, government and Manitobans to take printed paper and packaging recycling to the next level.

Neil Antymis
Chair

Message from the Executive Director

Karen Melnychuk

In celebrating MMSM's sixth year of operations, we look back and reflect on the strides we have made over the past 12 months. In this Annual Report, we will highlight the success we have had in the areas of increased recovery, cost containment, promotion and education, technical support and waste reduction initiatives. MMSM developed new programs of which we are extremely proud and created partnerships with new municipalities and organizations.

The Manitoba civic landscape changed in 2015 as 107 municipalities amalgamated into 47 new municipalities. MMSM worked directly with local governments to ensure a smooth transition and merger of recycling data. Pre-amalgamation, MMSM funded 186 municipalities. Post-amalgamation, MMSM now funds 142 municipalities, providing residential recycling services to 94% of Manitobans.

MMSM surveyed its municipal stakeholders as part of our commitment to continuous improvement. Results from the research support the many efforts undertaken by MMSM over the past years and provided insight into where more work is needed. This insight will help MMSM develop communications and programming to address the specific needs of the municipalities we support through funding.

In an effort to assist local governments and consumers on what can go into the blue box, MMSM initiated work on a province wide standardized list of acceptable blue box materials. The standardized list will be implemented in early 2016.

Some things were just meant to be. In 2015, MMSM collaborated with Winnipeg Harvest and launched the Bag it Forward – Plastic Bag Recycling Program. MMSM provided 350 plastic-bag collection bins to Winnipeg Harvest and its partners, and it has arranged for bags that are not suitable for reuse to be properly recycled, diverting them from landfills. This program helps food banks across the province in delivering their services and educates consumers about the alternatives they have when disposing of plastic bags.

Six years have gone very quickly and we have made some great progress. MMSM's successes are the direct result of the support, commitment and enthusiasm of the consumers in this province. Together, we are putting MMSM in a position to thrive as a leader and change-maker in the industry. I would like to thank our Board of Directors for their leadership, and our staff for their energy, hard work and commitment to the organization. With all Manitobans working together to reduce their waste and recycling, the future is very promising.

Sincerely,
Karen Melnychuk
Executive Director, MMSM

MUNICIPAL SERVICES

Working together with Manitoba municipalities

MMSM's Municipal Services Program was introduced April 1, 2010. The overall objectives of the Municipal Services Program are to:

- Promote the reduction, reuse and recycling of designated packaging and printed paper in Manitoba
- Provide stable, long term funding for municipal recycling programs
- Ensure that the cost of handling designated materials is reflected in the steward fees
- Provide research and development to help reduce the uncertainty inherent to recycling markets

The Municipal Services Program allows participating municipalities and local governments, including First Nations, to design their recycling program to meet the specific needs of their community. Recycling programs can be delivered by municipal employees or contracted to private suppliers. Each municipality is responsible for establishing, promoting and maintaining their own recycling services.

On average, Manitobans recycled

73 kg

per person in 2015.

The Municipal Services Program provides municipal participants with:

- Funding for recycling programs through municipal recycling services payments
- Tools and assistance for promoting local recycling programs
- Opportunities for information sharing
- Other programs designed to complement recycling and waste reduction activities
- Technical assistance for improving local recycling programs

MMSM's Municipal Services Program is an incentive-driven program, which requires that municipalities share the cost of providing recycling services to their communities. Municipal recycling services payments are paid for each metric tonne of eligible material recovered from the residential waste stream. The payment rate is set each year to offset up to 80% of the cost of an efficient and effective collection and processing recycling program. Materials recovered are transported to recycling facilities where they are sorted and sold to end users.

Individual municipal recycling program costs will vary depending on services offered and program efficiencies. Costs above the established payment level are the sole responsibility of the municipality. Payment rates are based on a three year rolling average of the net costs of participating municipalities within specific population categories.

2015 MMSM Population Category	Payment Rate/tonne
0 – 1,000	$350.40
1,001 – 5,000	$260.40
5,001 – 15,000	$196.70
City of Brandon	$196.30
City of Winnipeg	$113.20

MMSM allocated $12,220,646 in funding to municipalities for the period January 1, 2015 to December 31, 2015.

The following table illustrates the total tonnes recycled by participating municipalities within described regions.

Region	Population in Participating Municipalities	Total kg Recycled	Average kg Recycled/Capita
Central West	23,501	1,208,779	51.4
East	85,412	5,386,906	63.1
Interlake	63,560	4,019,448	63.2
North	33,312	2,138,826	64.2
North West	31,726	1,590,602	50.1
South Central	89,754	5,222,708	58.2
South West	90,011	6,277,746	69.7
Winnipeg and Area	722,666	56,609,854	78.3
Subtotal	**1,139,942**	**82,454,870**	**72.3**
Post-Secondary Education Institutes		745,484	
Total	**1,139,942**	**83,200,354**	**73.0**

Table Notes

1. Recovery numbers reported by MMSM include only those materials which are recycled through registered local recycling programs in participating municipalities and are also reported by municipalities. Manitoba has several charity-based organizations and individuals that collect recyclable materials for sale directly to brokers. MMSM has reason to be aware that some beverage containers are taken to Saskatchewan for a deposit refund even though no deposit has been paid on these containers.
2. Materials recovered from Post-Secondary Education Institutions (PSEIs) are based on the 2014/2015 school year and/or calendar year. PSEIs are required to submit an annual report to MMSM to receive funding.
3. Population numbers have been used from the 2011 Census.

MUNICIPAL PARTNERS

Municipality		Region	Population	2014 Total kg Reported	2014 Total kg/ capita	2015 Total kg Reported	2015 Total kg/ capita	Percent Change
Alexander, R.M.		East	2,983	180,370	60.5	197,060	66.1	9%
Altona, Town		South Central	4,088	333,080	81.5	332,290	81.3	0%
Arborg, Town		Interlake	1,152	65,402	56.8	56,386	48.9	-14%
Argyle, R.M.		South Central	1,071	12,950	12.1	10,640	9.9	-18%
Armstrong, R.M.		Interlake	1,835	169,587	92.4	257,784	140.5	52%
Beausejour, Town		East	3,126	386,340	123.6	378,370	121.0	-2%
Bifrost-Riverton, Municipality	*	Interlake	3,514	224,757	64.0	193,774	55.1	-14%
Boissevain-Morton, Municipality	*	South West	2,270	206,388	90.9	203,496	89.6	-1%
Brandon, City		South West	46,061	3,890,550	84.5	3,894,010	84.5	0%
Brenda-Waskada Municipality	*	South West	652	9,772	15.0	15,272	23.4	56%
Brokenhead, R.M.		East	4,635	294,809	63.6	260,369	56.2	-12%
Carberry, Town		South West	1,669	132,300	79.3	168,320	100.9	27%
Carman, Town		South Central	3,027	352,574	116.5	363,630	120.1	3%
Cartier, R.M.		Winnipeg	3,153	113,973	36.1	147,996	46.9	30%
Cartwright-Roblin Municipality	*	South Central	1,240	22,595	18.2	23,983	19.3	6%
Clanwilliam-Erickson, Municipality	*	Central West	901	13,268	14.7	10,128	11.2	-24%
Coldwell, R.M.		Interlake	1,351	100,286	74.2	111,000	82.2	11%
Cornwallis, R.M.		South West	4,378	151,909	34.7	181,917	41.6	20%
Dauphin, City		North West	8,251	391,945	47.5	434,700	52.7	11%
Dauphin, R.M.		North West	2,200	274,281	124.7	231,534	105.2	-16%
De Salaberry, R.M.		East	3,450	157,712	45.7	150,243	43.5	-5%
Deloraine-Winchester, R.M.	*	South West	1,485	81,254	54.7	86,926	58.5	7%
Duck Mountain Provincial Park		North West	100	903	9.0	3,208	32.1	255%
Dufferin, R.M.		South Central	2,394	15,649	6.5	16,140	6.7	3%
Dunnottar, Village		Interlake	696	52,420	75.3	60,440	86.8	15%
East St. Paul, R.M.		Winnipeg	9,046	840,970	93.0	832,540	92.0	-1%
Ellice-Archie, R.M.	*	Central West	971	6,096	6.3	8,504	8.8	39%
Elton, R.M.		South West	1,257	49,920	39.7	54,340	43.2	9%
Emerson-Franklin, Municipality	*	East	2,439	115,251	47.3	109,624	44.9	-5%
Ethelbert, Municipality	*	North West	629	49,763	79.1	42,569	67.7	-14%
Falcon Lake/Westhawk (WPP)		East	277	90,880	328.1	97,400	351.6	7%
Fisher, R.M.		Interlake	1,704	89,818	52.7	157,320	92.3	75%
Flin Flon, City		North	5,363	374,413	69.8	405,848	75.7	8%
Gilbert Plains Municipality	*	North West	1,623	58,067	35.8	59,769	36.8	3%
Gillam, Town		North	1,281	43,763	34.2	73,998	57.8	69%
Gimli, R.M.		Interlake	5,845	444,070	76.0	424,163	72.6	-4%
Glenboro-South Cypress, Municipality	*	South West	1,483	99,660	67.2	96,620	65.2	-3%
Glenella-Lansdowne, Municipality	*	Central West	1,245	10,373	8.3	9,899	8.0	-5%
Grahamdale, R.M.		Interlake	1,354	5,063	3.7	4,084	3.0	-19%
Grandview Municipality	*	North West	1,508	72,846	48.3	87,407	58.0	20%

Municipality		Region	Population	2014 Total kg Reported	2014 Total kg/ capita	2015 Total kg Reported	2015 Total kg/ capita	Percent Change
Grassland, Municipality	*	South West	1,480	49,051	33.1	47,939	32.4	-2%
Grey, R.M.	*	South Central	2,615	159,274	60.9	161,685	61.8	2%
Hamiota Municipality	*	Central West	1,288	100,456	78.0	102,610	79.7	2%
Hanover, R.M.		East	14,026	848,581	60.5	841,744	60.0	-1%
Harrison Park, Municipality	*	Central West	1,799	43,687	24.3	42,555	23.7	-3%
Headingley, R.M.		Winnipeg	3,215	227,350	70.7	222,640	69.3	-2%
Hecla Grindstone Provincial Park		Interlake	124	51,510	415.4	47,876	386.1	-7%
Kelsey, R.M.		North	2,272	162,615	71.6	152,605	67.2	-6%
Killarney – Turtle Mountain		South West	3,233	282,150	87.3	289,478	89.5	3%
La Broquerie, R.M.		East	5,198	213,364	41.0	207,670	40.0	-3%
Lac du Bonnet, R.M.		East	2,930	175,968	60.1	167,503	57.2	-5%
Lac du Bonnet, Town		East	1,328	65,707	49.5	64,487	48.6	-2%
Lakeshore, R.M.	*	North West	1,401	57,136	40.8	62,274	44.4	9%
Leaf Rapids, Town		North	453	10,839	23.9	4,004	8.8	-63%
Lorne, Municipality	*	South Central	3,006	170,701	56.8	171,407	57.0	0%
Louise, Municipality	*	South Central	1,932	144,210	74.6	173,770	89.9	20%
MacDonald, R.M.		Winnipeg	6,280	405,861	64.6	427,598	68.1	5%
Matheson Island		North	110	0	0.0	2,660	24.2	0%
MB Conservation – Grand Beach		East	60	26,599	443.3	32,760	546.0	23%
MB Conservation – Paint Lake		North	275	25,996	94.5	27,630	100.5	6%
McCreary, Municipality	*	Central West	948	89,764	94.7	89,930	94.9	0%
Melita, Town		South West	1,069	65,439	61.2	53,241	49.8	-19%
Minitonas-Bowsman, Municipality	*	North West	1,816	52,535	28.9	56,534	31.1	8%
Minnedosa, Town		Central West	2,587	235,850	91.2	232,660	89.9	-1%
Montcalm, R.M.		South Central	1,309	60,658	46.3	57,717	44.1	-5%
Morden, City		South Central	7,812	703,590	90.1	688,892	88.2	-2%
Morris, R.M.		South Central	2,999	139,514	46.5	132,703	44.2	-5%
Morris, Town		South Central	1,797	84,922	47.3	80,776	45.0	-5%
Mossey River, R.M.	*	North West	1,186	46,150	38.9	48,500	40.9	5%
Mountain, R.M.		North West	1,104	14,524	13.2	20,178	18.3	39%
Neepawa, Town		Central West	3,629	289,810	79.9	324,110	89.3	12%
Niverville, Town		East	4,300	430,553	100.1	390,069	90.7	-9%
Norfolk Treherne, Municipality	*	South Central	1,741	76,311	43.8	91,606	52.6	20%
North Cypress-Langford, Municipality	*	South West	2,627	132,780	50.5	87,090	33.2	-34%
North Norfolk, Municipality	*	South Central	3,762	173,876	46.2	172,119	45.8	-1%
Oakland-Wawanesa, Municipality	*	South West	1,618	63,460	39.2	60,500	37.4	-5%
Oakview, R.M.	*	Central West	1,513	28,972	19.1	34,034	22.5	17%
Opaskwayak Cree Nation		North	3,118	169,685	54.4	159,240	51.1	-6%
Peguis First Nation		Interlake	2,609	52,516	20.1	54,711	21.0	4%

Municipality		Region	Population	2014 Total kg Reported	2014 Total kg/ capita	2015 Total kg Reported	2015 Total kg/ capita	Percent Change
Pembina, Municipality	*	South West	2,369	161,040	68.0	154,230	65.1	-4%
Pinawa, L.G.D.		East	1,444	139,644	96.7	127,748	88.5	-9%
Pine Dock, Town		North	100	0	0.0	1,430	14.3	0%
Piney, R.M.		East	1,720	103,216	60.0	108,810	63.3	5%
Pipestone, R.M.		South West	1,447	96,423	66.6	85,012	58.8	-12%
Portage la Prairie, City		South Central	12,996	884,073	68.0	921,750	70.9	4%
Portage La Prairie, R.M.		South Central	6,525	234,307	35.9	251,105	38.5	7%
Powerview – Pine Falls, Town		East	1,314	52,037	39.6	46,414	35.3	-11%
Prairie Lakes, R.M.	*	South West	1,423	10,235	7.2	9,952	7.0	-3%
Prairie View Municipality	*	Central West	2,167	60,833	28.1	85,809	39.6	41%
Reynolds, R.M.		East	1,285	98,628	76.8	120,006	93.4	22%
Rhineland, Municipality	*	South Central	5,772	182,604	31.6	190,391	33.0	4%
Riding Mountain National Park		Central West	300	4,191	14.0	4,934	16.4	18%
Ritchot, R.M.		Winnipeg	5,478	356,980	65.2	346,000	63.2	-3%
Riverdale, Municipality	*	South West	2,019	54,910	27.2	96,280	47.7	75%
Roblin, Municipality	*	North West	3,284	186,024	56.6	128,409	39.1	-31%
Rockwood, R.M.		Interlake	7,964	229,826	28.9	216,087	27.1	-6%
Roland, R.M.		South Central	1,058	34,045	32.2	35,320	33.4	4%
Rosedale, R.M.		Central West	1,627	41,270	25.4	40,280	24.8	-2%
Rossburn Municipality	*	South West	1,046	76,529	73.2	99,590	95.2	30%
Rosser, R.M.		Winnipeg	1,352	51,861	38.4	44,230	32.7	-15%
Russell Binscarth, Municipality	*	Central West	2,553	129,181	50.6	117,601	46.1	-9%
Selkirk, City		Interlake	9,834	971,080	98.7	1,018,209	103.5	5%
Sifton, R.M.	*	South West	1,172	29,669	25.3	30,259	25.8	2%
Snow Lake, Town		North	723	13,346	18.5	11,318	15.7	-15%
Souris-Glenwood, Municipality	*	South West	2,439	248,210	101.8	185,135	75.9	-25%
Springfield, R.M.		Winnipeg	14,069	655,890	46.6	701,960	49.9	7%
St. Andrews, R.M.		Interlake	11,875	627,650	52.9	676,170	56.9	8%
St. Clements, R.M.		East	10,505	226,791	21.6	262,130	25.0	16%
St. François-Xavier, R.M.		Winnipeg	1,240	68,740	55.4	66,190	53.4	-4%
St. Laurent, R.M.		Interlake	1,305	59,143	45.3	64,695	49.6	9%
St. Pierre-Jolys, Village		East	1,099	48,527	44.2	46,158	42.0	-5%
Stanley, R.M.		South Central	8,356	3,345	0.4	17,330	2.1	418%
Ste. Anne, R.M.		East	4,686	84,183	18.0	104,823	22.4	25%
Ste. Anne, Town		East	1,626	140,220	86.2	139,992	86.1	0%
Ste. Rose, Municipality	*	North West	1,794	90,906	50.7	96,726	53.9	6%
Steinbach, City		East	13,524	1,212,576	89.7	1,260,592	93.2	4%
Stonewall, Town		Interlake	4,536	355,010	78.3	379,790	83.7	7%
Stuartburn, R.M.		East	1,535	56,114	36.6	63,680	41.5	13%

Municipality		Region	Population	2014 Total kg Reported	2014 Total kg/ capita	2015 Total kg Reported	2015 Total kg/ capita	Percent Change
Swan Lake First Nation		North	725	0	0.0	4,110	5.7	0%
Swan River, Town		North West	3,907	306,783	78.5	256,794	65.7	-16%
Swan Valley West, Municipality	*	North West	2,923	78,485	26.9	62,000	21.2	-21%
Tache, R.M.		Winnipeg	10,284	630,110	61.3	647,790	63.0	3%
Teulon, Town		Interlake	1,124	95,090	84.6	100,820	89.7	6%
The Pas, Town		North	5,513	374,721	68.0	351,655	63.8	-6%
Thompson, City		North	12,829	990,702	77.2	944,038	73.6	-5%
Thompson, R.M.		South Central	1,397	39,320	28.1	36,550	26.2	-7%
Two Borders, Municipality	*	South West	1,310	8,133	6.2	6,041	4.6	-26%
Victoria Beach, R.M.		East	374	80,990	216.6	83,298	222.7	3%
Victoria, R.M.		South Central	1,119	71,249	63.7	68,893	61.6	-3%
Virden, Town		South West	3,114	269,715	86.6	232,308	74.6	-14%
Wabowden-Setting Lake		North	550	1,503	2.7	290	0.5	-81%
Wallace-Woodworth, R.M.	*	South West	2,857	214,863	75.2	116,714	40.9	-46%
West Interlake, R.M.	*	Interlake	2,206	66,858	30.3	74,719	33.9	12%
West St. Paul, R.M.		Winnipeg	4,932	388,620	78.8	399,710	81.0	3%
WestLake-Gladstone, Municipality	*	South Central	3,068	98,643	32.2	102,910	33.5	4%
Whitehead, R.M.		South West	1,533	17,184	11.2	23,076	15.1	34%
Whitemouth, R.M.		East	1,548	103,520	66.9	125,958	81.4	22%
Winkler, City		South Central	10,670	882,930	82.7	1,121,103	105.1	27%
Winnipeg Beach, Town		Interlake	1,011	60,020	59.4	50,820	50.3	-15%
Winnipeg, City		Winnipeg	663,617	54,828,801	82.6	52,773,201	79.5	-4%
Woodlands, R.M.		Interlake	3,521	52,080	14.8	70,600	20.1	36%
Yellowhead, R.M.	*	Central West	1,973	138,581	70.2	105,725	53.6	-24%

*2015 Amalgamated Municipalities

CONTINUOUS IMPROVEMENT PROGRAM

MMSM is committed to working with municipalities and community groups on waste management opportunities, identifying their requirements and providing appropriate solutions to increase their effectiveness and efficiency. Additionally, MMSM staff provided technical assistance on recycling to government and non-government agencies across Manitoba. MMSM provides support for participating recycling programs by identifying best practices and opportunities to improve recycling programs. MMSM provides municipalities with information on end-buyers of recycled material.

MMSM worked directly with the following communities, associations and groups:

- Aboriginal Affairs and Northern Development Canada (AANDC)
- Assiniboine Community College – Parkland Campus
- R.M. of Alexander
- Town of Altona
- Town of Beausejour
- Municipality of Boissevain-Morton
- Black River First Nation
- City of Brandon
- Brandon Environmental Committee
- Brokenhead First Nation
- Cartwright-Roblin Municipality
- Town of Churchill
- Municipality of Clanwilliam-Erickson
- Community of Cormorant
- Cross Lake First Nation
- R.M. of Dauphin
- Town of Dauphin
- Town of East Selkirk
- R.M. of Ellice-Archie
- Municipality of Ethelbert
- Fisher River First Nation
- Town of Flin Flon
- Gilbert Plains Municipality
- Town of Gillam
- Grandview Municipality
- Municipality of Harrison Park
- Killarney-Turtle Mountain
- Lac Brochet First Nation
- R.M. of Lac du Bonnet
- Town of Lac du Bonnet
- Long Plain First Nation
- Municipality of Louise
- Louise Integrated Waste Management
- Town of Lynn Lake
- Manitoba Aboriginal & Northern Affairs (MANA)
- MB Conservation-Paint Lake
- Municipality of McCreary
- City of Morden
- Town of Melita
- Town of Neepawa
- Municipality of Norfolk Treherne
- Norway House Cree Nation
- R.M. of Ochre River
- Town of Onanole
- Peguis First Nation
- L.G.D. of Pinawa
- R.M. of Pipestone
- City of Portage La Prairie
- Powerview- Pine Falls
- Municipality of Prairie View
- Pukatawagan (Mathias Colomb) First Nation
- Municipality of Rhineland
- Municipality of Riverdale
- R.M. of Rockwood
- Rockwood Environmental Action Community Taskforce (REACT)
- Municipality of Roblin
- Roseau River First Nation
- Municipality of Russell-Binscarth
- Community of Sherridon
- R.M. of Sifton
- R.M. of Silver Creek
- Town of Snow Lake
- R.M. of St. Clements
- Town of St. Malo
- Municipality of Ste. Rose
- St. Theresa Point First Nation
- City of Steinbach
- Town of Stonewall
- Swan Lake First Nation
- Town of Swan River
- Municipality of Swan Valley West
- Take Pride Winnipeg!
- The Forks
- The Town of The Pas
- The Pas/OCN and Area Regional Solid Waste and Recycling Facility (RSWARF)
- Thompson Recycling Centre
- City of Thompson
- R.M. of Two Borders
- Town of Winnipeg Beach
- R.M. of Victoria Beach
- Town of Virden
- Wabowden-Setting Lake
- Wasagamack First Nation
- Waywayseecappo First Nation
- Winnipeg Harvest
- City of Winnipeg
- City of Winkler
- Village of Winnipegosis
- R.M. of Yellowhead

COMMUNICATIONS

PROMOTION & EDUCATION

Developing and implementing key promotional and educational campaigns is one of MMSM's annual strategic goals. Research has shown that Manitobans already recycle, but they need help learning exactly what they can and can't recycle. In 2015, recycling awareness was increased through advertising, contests, community sponsorships and public relations activities, helping MMSM reach the provinces current 65% residential recovery rate.

MMSM launched year two of the "Relationship Campaign", focusing on the relationship between the blue box and the recyclable item. Images of the recyclable item falling in love with the blue box were witty and effective in delivering the message to the intended audiences. The campaign concentrated on educating the public on what is recyclable along with helpful tips to making recycling easier in the home.

MMSM invested in an extensive advertising campaign with great reach in Winnipeg and in rural communities where recycling infrastructure exists. Media for the campaign included print, radio, out-of-home, online and television, appealing to target audiences.

Outdoor billboard advertising

DIGITAL MEDIA, PUBLIC RELATIONS AND CONTESTS

MMSM continued to enhance its online presence with specific activities designed to engage and educate the public. Advertisements on Facebook and Twitter, along with regular attention-grabbing posts, helped MMSM increase Twitter followers by 40% and Facebook likes by 25%.

Making Simplyrecycle.ca more user friendly was a priority in 2015. The website is now mobile friendly and has a new redesigned navigation making it easier for consumers to find the information they are looking for. The "what can I recycle" page was changed to have a more visual format and includes new locations, descriptions of material types and graphics to match. Finally, a video section was added displaying MMSM commercials and a variety of other promotional programs. Since the changes were implemented, pageviews on the website increased by 12% and the number of users increased by a staggering 51%.

To launch year two of the "Relationship Campaign", MMSM created the Love Line's Contest. Airing on Energy 106 FM the two weeks leading up to Valentine's Day, on-air personalities spread the word directing listeners to tweet MMSM and Energy 106 with their best pick-up line for a chance to win a gift card to a spa. To supplement the social media contest, the Energy 106 Street Team participated in the contest by visiting a different recycling themed location every day where they waited with a prize package. The first person to find them and give them a cheesy pick-up line won the prize.

MMSM worked closely with many municipal communications teams to help educate and promote any changes they made to their programs. Assistance was given on external communications within their communities and advice was provided to help improve municipal websites.

Love Lines Contest

2015 MARKET RESEARCH

MMSM concluded an awareness and ad recall study during the month of September. A phone and online survey was conducted by eNRG Research Group to hundreds of Manitoba homes where recycling infrastructure exists. This information was used to measure campaign performance and also used to develop new strategies to educate and inform consumers.

GENERAL RECYCLING HABITS

- Awareness of residential recycling programs was high, as nearly 9 out of 10 residents were aware they had access to one in their community.
- Nearly all respondents indicated that they participated in a recycling program, (Winnipeg 97%, Brandon, 86% and Morden/Winkler, 85%).
- The major barriers to recycling household items are *Too hard to clean* (34%) and *Don't know what to recycle* (30%).
- Approximately 7 out of 10 respondents stated they would recycle more if given clearer guidelines, while a little over half of individuals (53%) would recycle more if given information about why their individual recycling makes a differences to the environment.

Filming MMSM's 2015 television commercials

Top: MMSM's home page takeover on CBC.ca
Bottom: Interior transit card advertising

MMSM AWARENESS

- Winnipeg residents displayed similar levels of awareness for both the organizational name (MMSM) and the consumer-facing brand Simply Recycle.
- Of the people who had heard of either brand, approximately two-thirds recalled seeing advertising sponsored by MMSM or SimplyRecycle.ca.

PLASTIC BAGS

- Plastic bag usage was nearly identical to last year. Approximately 7 in 10 households said they re-use "single-use" plastic bags. The top two responses were: *Use to collect garbage* along with *Re-use at home.*
- Notable year-over-year increases for Winnipeg include *Store/save/keep them* (up 20 points) and *Recycle back to the store* (up 6 points).

SCHOOL PROGRAMS AND SPONSORSHIPS

Brandon Waste Reduction Week

- For the fourth consecutive year, MMSM was the title sponsor of the annual Brandon Waste Reduction School Challenge put on by The City of Brandon's Environmental Committee.
- The challenge ran from October 13 to October 29, with participation from 19 classrooms in eight different Brandon School Division schools. Over the course of the challenge, students were engaged in waste reduction activities and visual learning in the classroom.

MMSM staff presenting awards at the 2015 Manitoba School Science Symposium

Manitoba School Science Symposium (MSSS)

- The MSSS is an annual provincial science fair with over 550 students from grade 4 to grade 12 participating.
- MMSM was a bronze sponsor and the exclusive sponsor of the Best Physical Science Award for the third year in a row. Staff attended the event and presented the awards on stage to the winners.

Target Zero Eco Tours

- For the fourth consecutive year, MMSM sponsored the Target Zero Eco Kids Tour at The Forks.
- In 2015, 425 students and Forks visitors took part and had the opportunity to learn about recycling, composting, energy reduction and rainwater collection.

Students participating in the Target Zero Eco Tours at The Forks

- MMSM expanded the Target Zero Eco Kids Tour program in the summer by making tours available to the public on Tuesday and Sunday mornings free of charge. The feedback provided was excellent from those participating.

Take Pride Winnipeg's! Team Up to Clean Up

- Team Up to Clean Up is an annual event held at the MTS Centre with over 1,200 students in attendance. Students were provided with information on various activities that they can participate in to keep Winnipeg clean and beautiful. After the event, they go into their own communities and pick up litter, recycle, plant trees and paint over graffiti.
- MMSM sponsored the event. Staff set up an educational booth, gave away promotional items and talked to students about recycling and the Bag Up Manitoba Plastic Bag Round Up Challenge. Staff also spoke to the kids during the rally and played a recycling video.

We Day Manitoba

- We Day is an annual event that encourages students to think and act both locally and globally.
- MMSM was the bronze sponsor of We Day Manitoba, receiving recognition throughout the event and the opportunity to place a promotional item in the student's gift bags.
- On November 16, more than 16,000 educators, business leaders and young people were able to attend an inspiring day the MTS Centre thanks in part, to MMSM's contribution to the event. The event was also broadcast to all of the schools across the province and aired on both CTV and MTV at a later date.

We Day Manitoba 2015

POST-SECONDARY EDUCATION INSTITUTES

MMSM provides funding and support to several Post-Secondary Education Institutes (PSEI) throughout the province. The funding is used to assist institutions with their recycling programs. Funding can be used to conduct waste audits, offset labour costs, promote the facility's recycling program and purchase recycling bins. Materials recovered for the 2014/2015 school year total approximately 745 metric tonnes.

2014/2015 Year	kg
University of Manitoba (2 campuses)	363,960
University of Winnipeg	91,300
Red River College (2 campuses)	106,350
College Universitaire de Saint Boniface	21,632
Assiniboine Community College	119,780
Brandon University	40,300
University College of the North	2,162
Total	**745,484**

University of Manitoba

MINI BIN PROGRAM

MMSM partnered with the Canadian Beverage Container Recycling Association (CBCRA) on the Mini Bin Program. A pilot of the program was launched in 2013/2014 with a goal of increasing the number of beverage containers recycled in the residential stream. The Mini Bin is a space saving recycling container that was provided free of charge to multi-family homes in Manitoba. The pilot involved 20,000 Mini Bins and educational pieces being delivered to apartments, condos and townhouses across Manitoba.

A year after the launch, results showed recovery rates had increased. In response to that, an additional 40,000 co-branded bins were distributed into the program in 2015. Participants of the program said that the Mini Bins make recycling more convenient, and that they are more likely to recycle when the bins are in the home.

FIRST NATIONS AND REMOTE COMMUNITIES

MMSM continues to strengthen its relationships with First Nations and northern remote communities in Manitoba. Throughout the year, MMSM staff provided technical assistance on waste management issues, helping communities increase the effectiveness and efficiency of their recycling programs.

WINTER ROAD PILOT PROJECT

MMSM worked in partnership with several other Producer Responsibility Organization's (PRO) on the Winter Road Pilot Project. This pilot project, addressed the significant environmental concerns faced by St. Theresa Point First Nation with the accumulation of waste items such as printed paper and packaging, tires, used oil, derelict vehicles, batteries and electronics. In an effort to properly remove and recycle these materials, the various PRO groups involved, collaborated on synchronizing the shipping of various recyclable materials out of St. Theresa Point.

By working together, they were able to coordinate the removal of these materials with the inbound and outbound transporters. In addition, each group shipped supplies such as pallets and tote bags, which will help address future difficulties in storage and collection of recycling.

The team was recognized for its work on this project by being nominated provincially for the Manitoba Service Excellence Award.

Producer Responsibility Organizations involved in the Winter Road Pilot Project were:

- Multi-Material Stewardship Manitoba (MMSM)
- Canadian Battery Association (CBA)
- Product Care Association (PCA)
- Switch the Stat, HRAI
- Electronic Products Recycling Association (EPRA)
- Manitoba Association for Resource Recovery Corp. (MARRC)
- Tire Stewardship MB (TSM)

In addition, the Manitoba Solid Waste Action Team won the Federal Deputy Minister's Recognition Award for Collaboration & Partnerships. This award was created to recognize and reward exceptional performance of teams of employees who have demonstrated high standards of excellence, professionalism and dedication to achieving Aboriginal Affairs and Northern Development Canada's goals and objectives.

The Winter Road Project Team

The Solid Waste Action Team

Sherridon, winners of the 2015 Northern Community Clean-up

A Sherridon community member using new recycling carts

NORTHERN COMMUNITY CLEAN-UP

For the fifth consecutive year, MMSM collaborated with CBCRA to implement the Northern Community Clean-up Program.

In 2015, there were 14 participating communities and 1,200 kg of recyclable material collected. Local volunteers worked together to pick up garbage and recycling on the streets of their neighborhoods. The recyclable material was then weighed and transported to the closest Material Recovery Facility (MRF) to be processed.

Each community received a Community Clean-up Kit, which included a recycling bin, bright yellow t-shirts for volunteers, gloves, black garbage bags, clear recycling bags, a scale and large cubic yard totes for transporting the recyclable material to the authorized processor. Information kits were also provided and included a recyclable materials handout, safety checklist and a report form that was completed and returned.

The community of Sherridon, was the winner of the 2015 Northern Community Clean-up. As the winning community, every household received a small recycling bin, large recycling carts for the 20 community storage sheds and communications pieces including a magnet with recycling information.

A celebratory barbeque was held on September 15, 2015 with over 100 community members, Community Council, clean-up volunteers and students in attendance. They were joined by representatives from MMSM and CBCRA to celebrate the accomplishment. In addition to the grand prize, participation prizes were given to each participating community to raffle off to their volunteers.

The Northern Community Clean-up was a great success! The implementation of this program has strengthened relationships with participating communities and continued to increase the knowledge and awareness of recycling.

The Pas getting ready for their clean-up

Clean-up participants hard at work

PLASTIC BAG REDUCTION PROGRAM

MMSM and the plastic bag stewards have taken a multi-pronged 3R approach to achieving the target set forth in the Plastic Bag Guideline. Waste audit results over the past several years have shown that close to 63% of Manitobans are reusing the plastic bags already in their home.

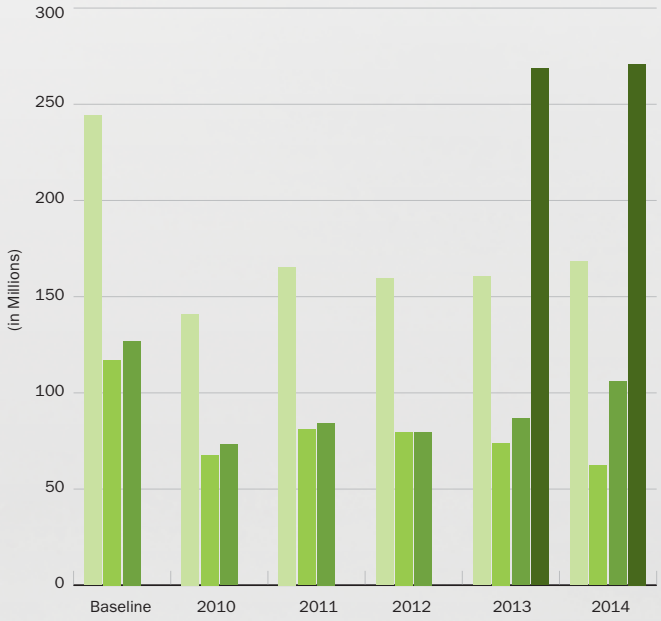
63%
of Manitobans are reusing the plastic bags already in their home.

The following are examples of this approach and how it has been effective:

PLASTIC BAG REDUCTION

Stewards have reduced the number of "single-use" plastic bags supplied into the market through:

- Enhancement of opportunities to acquire reusable bags in retail stores
- Focused in-store messaging about the benefits of reusable bags
- Continued and increased promotion of plastic bag best practices to further reduce the number of bags provided at retail
- The use of a fee for plastic bags, where retailers choose to do so, as an incentive for consumers to choose reusable bags



PLASTIC BAG REUSE

Plastic bags are commonly purchased and used to dispose of kitchen, bath, or animal wastes. Consumers are encouraged to reuse bags in their home or workplace rather than purchasing new plastic bags to dispose of wastes. Additionally, consumers are encouraged to reuse plastic bags for other domestic uses rather than disposing of them after a "single-use."

Table Notes:

1. When population growth is considered, plastic bag usage has been reduced by 38%
2. If the plastic bag reduction plan had not been implemented, bag usage would have grown to approximately 271,000,000.
3. On average, 63% of plastic bags are reused prior to disposal.
4. Approximately 23% of bags are actually "single-use".

PLASTIC BAG RECYCLING

Plastic bag collection programs have been developed which include the collection of empty plastic bags at retail store locations. The intent of the collection programs is to increase the number of drop-off locations to ensure that Manitobans have reasonably convenient access to plastic bag drop-off locations. The Bag it Forward partnership with Winnipeg Harvest has provided additional collection locations.

MMSM has also collaborated with Take Pride Winnipeg! to offer a school-based program throughout the province. The program links education with direct recycling efforts, thereby creating impacts much greater than only the environmental benefits of recycling plastic bags. A significant component of the program involves the education of school children on the benefits of reducing the use of, reusing, and recycling plastic bags.

Retailer advertising

Outdoor billboard

Bag it Forward collection bin

PUBLIC RELATIONS AND ADVERTISING

MMSM's plastic bag reduction plan and programs have dramatically shifted the trend in plastic bag usage and disposal over the last six years.

In 2015, MMSM worked diligently to develop new opportunities to educate and engage citizens. Two media campaigns ran, one in the spring and one in the fall, with plastic bag specific advertisements which encouraged consumers to find a responsible way to dispose of their plastic bags or to skip the bag altogether. Using a mix of traditional media including print, outdoor, radio and television, MMSM promoted the many options consumers have available to them. In addition, MMSM partnered with Retail Media, advertising directly in grocery stores on the checkout stands and on the divider bars.

MMSM has continued its partnership with Welcome Wagon as part of the organization's continued educational efforts. In 2015, 4,000 reusable bags and brochures were delivered to Manitoba homes. In addition, MMSM distributed over 2,000 reusable bags to various organizations and events throughout the year.

Manitobans worked hard in 2015 to reduce their use of plastic bags and find alternative methods to recycle the plastic bags already in their homes. Manitobans are getting the message. The results from the consumer research study in October showed a six-point increase in the number of respondents recycling plastic bags back to a store.

Print advertisement

BAG IT FORWARD – PLASTIC BAG RECYCLING PROGRAM

A made in Manitoba program, Bag it Forward – Plastic Bag Recycling Program, was launched on April 23, 2015. Every year, Winnipeg Harvest goes through approximately one million plastic bags to distribute food to the more than 60,000 Manitobans they help monthly. In response to this need MMSM created Bag it Forward to give Manitobans more options to reuse and recycle the plastic bags already in their homes, as well as help an important cause.

Bag it Forward, encourages consumers throughout Manitoba to drop off gently used plastic bags at their local food bank so they can be reused to create emergency food kits. MMSM and Winnipeg Harvest have received a tremendous amount of support from the public on this program. From April 23 to December 31 over 27,000 plastic bags were dropped off at Winnipeg Harvest's main location in Winnipeg. This does not include their partner agencies that have been using the plastic bags they receive in-house to create new emergency kits.

MMSM provided 350 plastic bag collection bins to Winnipeg Harvest and its partners, and arranged for bags that are not suitable for reuse to be properly recycled, diverting them from landfills.

Manitoba Conservation and Water Stewardship Minister Gord Mackintosh, MMSM Executive Director Karen Melnychuk and Winnipeg Harvest Executive Director David Northcott at the Bag it Forward launch event

One of the 2015 Bag up Manitoba winners

MMSM BAG UP MANITOBA – PLASTIC BAG ROUNDUP CHALLENGE

The 2015 Bag up Manitoba Plastic Bag Challenge ended with over 1.45 million plastic bags being collected and recycled during the month of October. In total, 160 schools collected 1,466,438 million plastic bags. The bags were baled and shipped to Trex to be recycled into composite decking material and other products.

The students at Ecole George V School were one of this year's winners and collected over 33,000 bags. Teulon Elementary School was a rural winner who collected 81,370 bags, breaking the record for the most plastic bags ever collected by one school in the Bag Up Manitoba Challenge.

Every school who participated in the program received a garden box made out of recycled plastic bags and wood fibers. Fourteen lucky schools also won a school bench made out of the same material. Half the benches were awarded to the top collecting schools while the remaining benches were awarded via a random draw. This encourages smaller schools to participate and emphasizes the message of waste reduction.

MATERIAL RECOVERY RATES – 2014

Stewards report on their sales from the previous year. This data, combined with the municipal recycling reports for the same period are used in the fee setting process for the upcoming year (2015 sales data will be used for 2017 fee setting). Based on the best available data for the most current full year reporting from stewards and municipalities, the table below illustrates the recovery rates for the material covered in the MMSM program for 2014. The 2015 recovery rates will be available and made public during the consultation process with stewards and other stakeholders in fall 2016.

		CY 2014 (Jan 1 – Dec 31, 2014)		
Category	**Material**	**Quantity Generated [1] (tonnes)**	**Quantity Recovered [2] (tonnes)**	**Recovery Rate (%)**
PRINTED PAPER				
	Newsprint	26,676	26,142	98.0%
	Magazines and Catalogues	5,474	4,924	90.0%
	Telephone Books	1,005	978	97.3%
	Other Printed Paper	9,070	6,460	71.2%
Printed Paper Total		**42,225**	**38,504**	**91.2%**
PACKAGING				
Paper Based Packaging	Old Corrugated Containers	11,116	9,587	86.2%
	Polycoat & Laminates	5,998	1,137	19.0%
	Old Boxboard	13,628	6,050	44.4%
Paper Packaging Total		**30,742**	**16,774**	**54.6%**
Plastic Packaging	PET Bottles	5,922	3,724	62.9%
	HDPE Bottles	3,885	2,516	64.8%
	Plastic Film	4,848	305	6.3%
	Other Plastics	14,024	2,609	18.6%
Plastics Total		**28,679**	**9,154**	**31.9%**
Steel Packaging	Steel Food & Beverage Cans	4,042	3,080	76.2%
	Steel Aerosols	321	126	39.2%
	Other Steel Containers	325	16	5.0%
Steel Total		**4,689**	**3,222**	**68.7%**
Aluminum Packaging	Aluminum Food & Beverage Cans	2,193	1,505	68.6%
	Other Aluminum Packaging	840	93	11.1%
Aluminum Total		**3,033**	**1,598**	**52.7%**
Glass	Glass	15,742	11,888	75.5%
Glass Total		**15,742**	**11,888**	**75.5%**
Packaging Total		**82,885**	**42,637**	**51.4%**
TOTALS		**125,110**	**81,141**	**64.9%**

Notes

1. Generation tonnages are based on household waste generation in Manitoba, and are comprised of waste audits conducted in Portage La Prairie, Tache, Brandon and Winnipeg for 2012, 2013 and 2014.
2. Recovered tonnes are based on datasets that consist of both actual reported data from Municipal Online Reporting System (MORS) and waste studies that represent samples of field data for selected locations in discrete periods of time.

MMSM STEWARDS

The businesses that supply packaging and printed paper into the residential marketplace, also known as stewards, are obligated under Regulation 195/2008 of the Waste Reduction and Prevention (WRAP) Act to do a number of things:

- Provide a waste reduction and prevention program to manage the designated wastes within a province-wide convenient collection system;
- Cover 80% of the funding of collecting, processing, and transferring the material to market;
- Establish promotion and education programs to raise awareness of recycling services available to Manitoba residents.

MMSM's program for the recycling of packaging and printed paper includes the following designated product packaging: plastic, glass, paper, metal and printed paper.

In 2015 there were:

- 809 registered stewards
- 613 steward reports received
- 274 voluntary steward agreements

The table below illustrates the change in material fees and total reported weights for 2015 and 2014.

Packaging and Printed Paper Reported by Stewards in 2015

Material Description	2015 Fee	Total Tonnes 2015	2014 Fee	2014 Fee after Surplus	Total Tonnes 2014
Newsprint	5.66	22,354	2.40	1.96	24,099
Other Printed Materials	14.11	6,350	7.02	5.65	5,848
Corrugated and Boxboard Packaging	12.97	23,226	11.43	10.12	23,937
Other Paper Packaging	39.09	4,259	27.60	25.22	4,059
PET Bottles	14.46	6,029	19.82	17.13	6,153
HDPE Bottles and Jugs	17.09	2,678	18.69	15.93	3,595
Other Plastic Packaging	34.77	12,159	34.08	30.93	13,531
Steel and Other Metal Packaging	13.66	4,124	9.55	7.57	4,386
Aluminum Cans – Food and Beverage	(7.13)	2,222	(0.83)	(2.63)	2,500
Foil and Other Aluminum Packaging	10.14	356	13.67	9.99	337
Glass Packaging	6.65	13,389	6.57	5.91	13,357
TOTAL		**97,147**			**101,801**

The steward reported data is the most current data available at the time of fee setting. The data may change if new stewards are identified or adjustments are made by reporting stewards.

STEWARD COMPLIANCE

The MMSM Program is funded entirely by stewards that pay fees based on the volume of packaging and printed paper they supply to residents.

Stewards are responsible under the Regulation to assume responsibility and declare that the designated packaging and printed paper material they supply for consumption in Manitoba complies with the legal requirements of the WRAP Act. If a steward of the designated material does not comply with the regulation, they are prohibited from supplying the designated material for consumption in Manitoba.

MMSM is dedicated to ensuring a level playing field for stewards. To that end, MMSM works to expand the number of stewards participating in the program, bringing non-compliant businesses into compliance.

MMSM has developed a set of rules to make participation in the program fair for all stewards, and ensure that the program is always striving to achieve the best results in terms of both diverting and recycling waste. These rules include:

- Designation of Stewards
- Definition of designated materials
- Fees for obligated packaging and printed materials
- Reporting and payment requirements of stewards
- Penalties for late reporting and late payment
- Dispute resolution process for stewards
- Allowance for a company to pay fees on behalf of an otherwise obligated steward

A copy of the MMSM rules can be found on our website.

Reporting and paying fees:

Stewards measure and report annually to MMSM the total quantity of designated packaging and printed paper supplied for use in the province. MMSM reviews the data reporting requirements annually in accordance with the rules.

Stewards that are in good standing with MMSM will be deemed to be in compliance with the WRAP Act. The MMSM compliance process starts with the identification of stewards that are not in compliance followed by initiation of actions necessary to ensure compliance.

MMSM actively ensures that all stewards remain in compliance with the Regulation, and actively seeks out non-compliant businesses and brings them into the program. MMSM also has the authority to audit steward data. Stewards must maintain records for a period of at least five years in support of all data submitted to MMSM.

MMSM has implemented a non-compliance notification process, including written notification when fees are due. If stewards and products are identified that have not registered or reported under the PPP Program, a notification is sent. If the steward's registration and data submission process is not complete at the end of 120 days, MMSM may request the Manitoba Government to take enforcement action as stipulated under the WRAP Act.

FINANCIAL STATEMENTS

December 31, 2015

INDEPENDENT AUDITORS' REPORT

To the Members of
Multi-Material Stewardship Manitoba Inc.

We have audited the accompanying financial statements of **Multi-Material Stewardship Manitoba Inc.**, which comprise the balance sheet as at December 31, 2015, and the statements of operations, changes in net assets and cash flows for the year then ended, and a summary of significant accounting policies and other explanatory information.

Management's responsibility for the financial statements

Management is responsible for the preparation and fair presentation of these financial statements in accordance with Canadian generally accepted accounting standards for not-for-profit organizations, and for such internal control as management determines is necessary to enable the preparation of financial statements that are free from material misstatement, whether due to fraud or error.

Auditors' responsibility

Our responsibility is to express an opinion on these financial statements based on our audit. We conducted our audit in accordance with Canadian generally accepted auditing standards. Those standards require that we comply with ethical requirements and plan and perform the audit to obtain reasonable assurance about whether the financial statements are free from material misstatement.

An audit involves performing procedures to obtain audit evidence about the amounts and disclosures in the financial statements. The procedures selected depend on the auditors' judgment, including the assessment of the risks of material misstatement of the financial statements, whether due to fraud or error. In making those risk assessments, the auditors consider internal control relevant to the entity's preparation and fair presentation of the financial statements in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the entity's internal control. An audit also includes evaluating the appropriateness of accounting policies used and the reasonableness of accounting estimates made by management, as well as evaluating the overall presentation of the financial statements.

We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our audit opinion.

Opinion

In our opinion, the financial statements present fairly, in all material respects, the financial position of **Multi-Material Stewardship Manitoba Inc.** as at December 31, 2015, and the results of its operations and its cash flows for the year then ended in accordance with Canadian generally accepted accounting standards for not-forprofit organizations.

Ernst & Young LLP

Winnipeg, Canada
April 21, 2016

Chartered Professional Accountants

Multi-Material Stewardship Manitoba Inc.

Incorporated under the laws of Manitoba

BALANCE SHEET

As at December 31

	2015 $	2014 $ *[restated – note 6]*
Assets		
Current		
Cash and cash equivalents	7,201,276	6,470,882
Accounts receivable	**1,169,746**	1,327,220
Prepaid expenses and deposits	**15,247**	14,230
Total current assets	**8,386,269**	7,812,332
Capital assets, net *[note 3]*	**3,879**	6,312
	8,390,148	7,818,644
Liabilities and net assets		
Current		
Accounts payable and accrued liabilities	**3,423,243**	2,713,882
Total current liabilities	**3,423,243**	2,713,882
Commitments *[note 4]*		
Net assets		
Unrestricted	**4,966,905**	5,104,762
	8,390,148	7,818,644

See accompanying notes

On behalf of the Board: Director Director

Multi-Material Stewardship Manitoba Inc.

STATEMENT OF OPERATIONS

Year ended December 31

	2015 $	2014 $ *[restated – note 6]*
Revenue		
Steward fees	**14,768,177**	11,522,069
Other revenue	**158,580**	11,093
	14,926,757	11,533,162
Expenses		
Municipal programs		
Municipal support payments	**12,220,646**	10,003,683
Program delivery/stewards services	**1,361,795**	1,278,906
School funding	**123,175**	218,368
Promotion and education	**370,802**	381,071
Continuous improvement process	**114,437**	173,759
Administrative and corporate	**406,987**	252,800
Government fees	**91,613**	45,427
	2,468,809	2,350,331
Enhanced programs		
Beverage recovery	**203,045**	20,597
Plastic bags	**172,114**	127,910
	375,159	148,507
	15,064,614	12,502,521
Excess of expenses over revenue for the year	**(137,857)**	(969,359)

See accompanying notes

Multi-Material Stewardship Manitoba Inc.

STATEMENT OF CHANGES IN NET ASSETS

Year ended December 31

	2015 $	2014 $ *[restated – note 6]*
Net assets, beginning of year, as previously reported	**4,841,919**	5,905,562
Restatement *[note 6]*	**262,843**	168,559
Net assets, beginning of year, as restated	**5,104,762**	6,074,121
Excess of expenses over revenue for the year	**(137,857)**	(969,359)
Net assets, end of year	**4,966,905**	5,104,762

STATEMENT OF CASH FLOWS

Year ended December 31

	2015 $	2014 $ *[restated – note 6]*
Operating activities		
Excess of expenses over revenue for the year	**(137,857)**	(969,359)
Add item not involving cash		
Amortization of capital assets	**2,433**	2,433
	(135,424)	(966,926)
Changes in non-cash working capital balances related to operations		
Accounts receivable	**157,474**	75,155
Prepaid expenses and deposits	**(1,017)**	(151)
Accounts payable and accrued liabilities	**709,361**	13,563
Cash provided by (used in) operating activities	**730,394**	(878,359)
Net increase (decrease) in cash during the year	**730,394**	(878,359)
Cash and cash equivalents, beginning of year	**6,470,882**	7,349,241
Cash and cash equivalents, end of year	**7,201,276**	6,470,882

See accompanying notes

Multi-Material Stewardship Manitoba Inc.

NOTES TO FINANCIAL STATEMENTS

December 31, 2015

1. Business organization and operations

Multi-Material Stewardship Manitoba Inc. ["MMSM"] is a not-for-profit industry-funded corporation, established in accordance with the Packaging and Printed Paper Stewardship Regulation [Man. Reg. 195/2008] pursuant to The Waste Reduction and Prevention Act ["WRAP Act"]. MMSM was formally incorporated as a non-share capital corporation in December 2006 under The Corporations Act of Manitoba for the purpose of developing, implementing and operating waste diversion programs for designated packaging and printed paper in the Province of Manitoba. The stewardship program commenced operations on April 1, 2010 and is exempt from income taxes under Section 149 of the *Income Tax Act* (Canada).

2. Significant accounting policies

These financial statements were prepared in accordance with Part III of the CPA Canada Handbook – *Accounting Standards for Not-For-Profit Organizations* which sets out generally accepted accounting principles for not-for-profit organizations in Canada and includes the significant accounting polices described below.

[a] Revenue recognition

Steward fees are calculated based on the quantity of designated packaging and printed paper each steward supplies into Manitoba. Stewards register with MMSM and report the tonnage of all product supplied in Manitoba as required under the WRAP Act. Steward fees are recorded as revenue based on the prior year's tonnage reported by stewards.

[b] Cash and cash equivalents

Cash and cash equivalents consist of cash on deposit and short-term investments, with a short-term to maturity of three months or less from the date of purchase unless they are held for investment rather than liquidity purposes in which case they are classified as investments.

[c] Recycling support payment to municipalities

Recycling support payments to municipalities are paid to registered Manitoba municipalities based on the tonnage of eligible materials delivered to an approved recycling facility as reported by the municipalities to MMSM. The current year's expense is recorded based on prior year's eligible tonnage.

[d] Capital assets and amortization

Capital assets are recorded at original cost.

Amortization of furniture and equipment is recorded on a straight-line basis of 20% over the assets' useful lives.

[e] Allocation of expenses

The costs of personnel and other expenses directly related to functions are allocated to each function. General support and other costs are not allocated.

[f] Financial instruments

Financial instruments including accounts receivable and accounts payable and accrued liabilities are initially recorded at their fair value and are subsequently measured at amortized cost, net of provisions for impairment.

[g] Use of estimates

The preparation of the financial statements requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities at the date of the financial statements and the reported amounts of revenue and expenses during the reporting period. Actual results could differ from those estimates.

Stewards are obligated under the Waste Reduction and Prevention Act to register and pay fees to MMSM. MMSM will never have a complete and full knowledge about the activities of obligated stewards. The amount of revenue recognized is based on the prior year's tonnage reported by stewards. If stewards do not register or if registered stewards do not report complete and accurate tonnages, the amount of revenue may increase or decrease subsequent to year end when new stewards are identified or reported tonnages are revised.

The amount of revenue recognized in the financial statements represents management's best estimate of prior year's tonnage reported by stewards.

3. Capital assets

Capital assets consist of the following:

	2015			2014
	Cost $	**Accumulated amortization $**	**Net book value $**	**Net book value $**
Furniture and equipment	**12,164**	**(8,285)**	**3,879**	6,312

4. Commitments

[a] Effective January 1, 2014, a management services agreement is in place with Canadian Stewardship Services Alliance Inc. ["CSSA"] to provide administrative and support services for all of MMSM's administrative, technical and reporting activities under the program plan to recycle and divert printed paper and packaging in the Province of Manitoba. The fee for 2015 is $1,169,875. The fee paid to CSSA is based on allocation of CSSA's costs and MMSM's direct costs paid by CSSA. The agreement is in place for a term of 5 years.

[b] MMSM has entered into an operating lease for its premises for a total commitment of $220,499. Future minimum annual lease payments until August 31, 2018 are as follows:

	$
2016	82,687
2017	82,687
2018	55,125
	220,499

5. Financial instruments – risks and uncertainties

MMSM is exposed to the following financial risk through transactions in financial instruments.

Credit risk

Financial instruments potentially exposed to credit risk include accounts receivable. Management considers its exposure to credit risk over accounts receivable to be limited as accounts receivable are not significantly concentrated and are monitored regularly for collections. The carrying amount of accounts receivable represents the maximum credit risk exposure.

6. Restatement

The amount of revenue recognized in the financial statements in a given year is based on prior year tonnages reported by stewards in accordance with the Waste Reduction and Prevention Act [the "Act"]. During the year, it was determined that MMSM had not estimated and recorded steward fee revenue for registered stewards who had failed to report tonnages in prior years as required for stewards under the Act. MMSM has the ability to estimate tonnages and steward fees for any non-reporting stewards under the reporting guidelines of the Act. As a result, a prior period adjustment has been recorded to correct this error, and the prior year financial statements have been restated accordingly. The following summarizes the effect of this prior period adjustment:

	As previously reported $	Adjustment $	As restated $
Balance Sheet as at December 31, 2014			
Accounts receivable	**1,064,377**	**262,843**	**1,327,220**
Net assets, end of year	**4,841,919**	**262,843**	**5,104,762**
Statement of Operations, year ended December 31, 2014			
Steward fees revenue	**11,427,785**	**94,284**	**11,522,069**
Excess of expenses over revenue	**(1,063,643)**	**94,284**	**(969,359)**
Statement of changes in net assets, year ended December 31, 2014			
Net assets, beginning of year	**5,905,562**	**168,559**	**6,074,121**
Excess of expenses over revenue	**(1,063,643)**	**94,284**	**(969,359)**
Net assets, end of year	**4,841,919**	**262,843**	**5,104,762**

Board of Directors 2015

Neil Antymis	Chair	Canadian Beverage Association
Lanny McInnes	Vice Chair	Retail Council of Canada (RCC)
Tracy Graham	Treasurer	Manitoba Liquor and Lotteries
Bob Cox	Member	Newspaper Group
Ian Tott	Member	Dairy Group
Rachel Kagan	Member	Food & Consumer Products of Canada (FCPC)
Dwayne Marling	Member	Restaurants Canada
Trevor Carlson	Member	Canadian Federation of Independent Grocers (CFIG)
Sandy Hopkins	Independent Member	Independent Director
Francis St.Hilaire	Independent Member	Independent Director
Karen Melnychuk	Executive Director	MMSM

MMSM Board Committees

Executive Committee

Neil Antymis, Chair

Lanny McInnes, Vice Chair

Tracy Graham, Treasurer

Audit Committee

Tracy Graham, Chair

Neil Antymis

Lanny McInnes

Francis St.Hilaire

Governance Committee

Rachel Kagan, Chair

Neil Antymis

Sandy Hopkins

Communications Committee

Dwayne Marling, Chair

Ian Tott

Bob Cox

Municipal/Industry Program Committee

Neil Antymis

Lanny McInnes

Plastic Bag Committee

Lanny McInnes, Chair

Dwayne Marling

Trevor Carlson

MMSM Staff

Karen Melnychuk, Executive Director

Martin Racicot, Director Field Services

Sarah Wallace, Marketing and Communications Specialist

Lauren Gluck, Municipal Reporting Coordinator and Office Administrator

MMSM

Multi-Material Stewardship Manitoba

INDUSTRY FUNDING RECYCLING

Suite 200 – 283 Bannatyne Avenue, Winnipeg, Manitoba R3B 3B2
Phone: 204.953.2010 • Email: info@stewardshipmanitoba.org

www.stewardshipmanitoba.org

www.simplyrecycle.ca