

Recycling Program Development Plan

For

Sault North Waste Management Council

CIF Project #171
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Prepared by



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1. Introduction

The Sault North Waste Management Council (SNWMC) is a non profit volunteer organization that coordinates waste management and diversion issues for 31 unincorporated townships in a 2,400 square km area. Located north of Sault St. Marie, the SNWMC was formed in 2006 and has recently achieved charitable status.

Under the classification of an unincorporated region, the townships in the area do not collect property taxes which can be used to pay for municipal services, such as fire, waste collection and disposal, recycling, and road maintenance. While the province collects land taxes to pay for local services, such as landfill and road maintenance, little of the monies collected filter back to the unincorporated townships. Consequently, members of the community must find alternative sources of funding to support local programs and initiatives such as recycling programs and a waste prevention promotion and education campaigns.

Currently, the area has a unique curbside recycling program which is administered by the Sault North Waste Management Council. There are no other unincorporated communities in Ontario which provide curbside recycling services.

While the SNWMC has operated a recycling program since June 2007, it is completely funded from monies provided to the Council from different provincial and grant programs. The current program provides access to monthly curbside collection to all residential and commercial properties in the area and accepts a limited range of containers (#1 and #2 plastics, and metal beverage containers). The program successfully collected over 29 tonnes of material in 2008. However, given the program's successes, it has reached a critical juncture in its development since it can no longer accommodate an increase in participation or types of materials collected. In addition, the SNWMC cannot continue to operate its programs using unsustainable financial arrangements which rely solely on unstable funding sources.

The biggest challenge facing the Council is a lack of financial resources available to fund the program, as well as limited staff resources to develop any type of plan to improve the program. With the success of the current recycling program, there is a desire to expand the program to collect additional recyclable materials (such as fibres) and accommodate increased growth of the program.

1.2 Project Objective

The project objectives were three fold:

- Identify alternative collection opportunities to accommodate additional recyclable materials and increased program participation rates;
- Identify more sustainable funding alternatives and strategies;
- Identify other waste diversion opportunities that could be employed by the Council.

2. Background Information

2.1 Service Area Description

The area administered by the Sault North Waste Management Council (SNWMC) encompasses 31 unincorporated townships in a 2,400 square km area as shown in the map provided in Appendix A. Located north of Sault St. Marie, the 31 unincorporated townships have a collective population of 10,000 of which 6,000 (60%) has permanent status and 4,000 (40%) has seasonal status. All residences in the area are classified as single family households, with no multi-family dwellings. There are an estimated 4,009 single family households.

According to the most recent tax roll and the LSB Community profiles, the four areas of, Goulais, Heyden, Aweres and Searchmont comprise about 94% of the households and population in the area covered by the SNWMC (see Table 1).

Table 1: Permanent Residents in Select Unincorporated Townships in the SNWMC Area

Township	General Location (Source)	Permanent Residents only			
		Households		Population	
		Number	Percentage	Number	Percentage
Aweres	Heyden (Aweres & Peace Tree LSBs)	270	13.0%	728	12.9%
Dennis (N of Goulais Bay only) Fenwick Havilland Kars Ley Pennefather Tupper Vankoughnet	Goulais (Goulais LSB)	1536	73.9%	4148	73.7%
Deroche Gaudette Hodgins Shields	Searchmont (Searchmont LSB)	135	6.5%	365	6.5%
Total		1,941	93.4%	5,241	93.1%

2.2 Waste Management and Diversion Program Description

Currently, all waste disposal sites in the 31 unincorporated areas are managed by the Ministry of Natural Resources (MNR). Although the MNR has no mandate to provide landfill operations to the area, it has inherited the responsibility after opening several sites in the 1960's and 1970s. Since then, many of these sites opened by the MNR have been closed over the years in order to consolidate operations and eliminate small, insufficiently managed sites. Consequently, there remain only two operating landfill sites in the area:

- The Havilland Waste Disposal Site (WDS) – owned and operated by the MNR, this landfill has an estimated 10-15 years capacity. The Havilland site is the largest waste disposal site in the area and receives most of the area's waste.
- The Montreal River Waste Disposal Site – owned and operated by the MNR, this waste disposal site has an estimated 75-200 years capacity and is operated by North Gate Service Centre.

The Havilland WDS is operated by a private contractor, Goulais Disposal, retained through the MNR. The landfill operator has been operating the Havilland WDS since 1992. The contractor operates the landfill as a full pay-as-you-throw (PAYT) program in which all garbage is paid through tickets which sell for:

- 6 for \$10.00 (\$1.66 per ticket);
- 13 for \$20.00 (\$1.54 per ticket);
- 35 for \$50.00 (\$1.43 per ticket);
- 75 for \$100.00 (\$1.33 per ticket).

The landfill operator is solely responsible for selling the tickets and administering the PAYT program. The payment system varies according to the amount of garbage requiring disposal. Each bag of garbage delivered to the landfill requires one ticket and ½ ton truck load requires 20 tickets. There is no limit on the amount of garbage that can be disposed by a resident or business.

Under the CofA, the contracted operator must record the number of vehicles entering the waste disposal site but is not required to record the number of bags. All bags of garbage are placed in a 40 yd container before being brought to the face of the landfill and emptied. Currently, the MNR is in the process of conducting an inventory of the amount of waste disposed.

The landfill operator has a scrap metal and appliance pile at the landfill and receives all the money collected from the sale of the scrap metal. In addition, the operator has established a used goods area consisting of an old city bus for storing reusable items brought in by residents including books, household goods, bikes and lawnmowers. The attendant on duty charges a minimal fee for the goods which anyone can buy.

All garbage must be self hauled to the landfill for disposal. Neither the unincorporated townships nor the SNWMC provide curbside garbage collection service. Residents are responsible for

transporting their waste to the landfill or hiring a local contractor, G.T. Waste Services, to provide curbside collection service which is charged at \$20 per month and permits up to 3 bags of garbage per week. G.T. Waste collects garbage in area 1 on Mondays, in area 2 on Tuesdays and in area 3 on Wednesdays. The contractor is primarily paid by post-dated cheques but has been known to accept payments taped to the garbage bag. Currently G.T. Waste estimates that it has about 400 garbage customers.

All residents and small businesses in the 2,400 square kilometre of unorganized territory have access to curbside recycling, which is provided to them free of charge. The service is provided through funds acquired by the SNWMC.

The SNWMC has retained G.T. Waste Services to provide the curbside recycling service. Recyclables are collected on a monthly basis. The company has divided the total area into three zones which are collected the first, second and third Fridays of each month.

Residents are required to place their recyclables in blue box containers or other containers, which are set out at the street for collection on the designated collection day. Where feasible, residents are asked to place their recycling containers at the communal Canada Post mailbox stations or four corners of an intersection. This requirement helps to reduce collection time for the contractor. Currently, the recycling program targets containers only including PETE (#1) and HDPE (#2) plastic and metal containers.

GT Waste has a dedicated side loading packer truck for recycling, which is used as a recycling depot at the landfill during the summer months. The company owner, Greg Long, estimates that he services about 700 households (of which 12 are commercial clients) with majority of recycling clients located in the communities of Goulais, Searchmont and Heyden. He also estimates that 90% of garbage customers are also recycling customers.

Currently, the side packer can collect from a maximum of 250 households before the truck is full and must be unloaded at Green Circle's material recycling facility (MRF) located in Sault Ste. Marie. Green Circle currently charges \$65 per tonne to process the containers. G.T. Waste has reached the maximum number of customers it can provide curbside recycling services to under its current collection system.

The SNWMC was an active promotion and education program and uses some of its funding to provide education classes in schools and provide waste diversion literature to residents. Recently, the SNWMC was given \$12,000 from MNR which enabled it to purchase 1,320 large (87 litres) blue boxes for use by residents. This initiative has had the added benefit of acting as a visual reminder to residents to participate in the program and has been attributed to an increase in participation rates over the past several months.

3. Curbside Collection Service Opportunities

Currently, SNWMC provides monthly curbside recycling services to all residential households and commercial establishments in the area. Recycling service is limited to containers only. The SNWMC is looking for opportunities to expand its recycling services to include fibres and continue to provide a cost effective service. This study focuses on opportunities to streamline collection services and expand the recycling program.

3.1 Streamline Collection Services

As discussed in Section 2.1, over 90% of the population and households are concentrated in three areas identified as Aweres, Goulais and Searchmont. Within these areas, the populations are further concentrated in three unincorporated Townships – Fenwick, Aweres and Vankoughnet which are estimated to contain about 71% of the population.

Communications with Greg Long of GT Waste confirm that most of the households participating in the recycling program are located in these three unincorporated Townships, along with the households in Searchmont, which also participate. According to Greg Long, the homeowners of Batchawana Bay have been slow to recycle; however, the commercial establishments in Batchawana Bay have been very active recyclers.

For this reason, it is proposed that the SNWMC concentrate its efforts, for the time being, on providing recycling services to households in the unincorporated Townships of Fenwick, Vankoughnet, Aweres and Searchmont and continue to provide commercial recycling services to commercial establishments in the four unincorporated Townships and in Batchawana Bay. Any households located along Highway 17 should be permitted to participate on days when the recycling truck is on route to Batchawana Bay to collect from commercial establishments.

This change in service should be supported by locating a recycling depot in a convenient location within the area to enable homeowners to continue to participate in a recycling program. Recycling depot opportunities are further discussed in Section 4.

3.2 Expanding the Recycling Program

The recycling program is restricted to collection of recyclable containers only due to infrastructural limitations, namely the use of a side loading packer truck for collection of the recyclables. The use of the side loader packer truck restricts the streams of recyclable materials that can be collected. Low cost opportunities to expand the recycling streams collected are presented below. These opportunities showcase innovative, low cost solutions adopted by other small rural communities in Ontario.

Town of Mattawa and Township of Papineau-Cameron:

The Town of Mattawa and the Township of Papineau-Cameron are situated on the northern part of the Ottawa River, about 100 km east of North Bay. These small rural communities (combined population 3,000 with 1,200 single family households) provide bi-weekly curbside recycling services to residents using the services of a local entrepreneur, P. Lafreniere Contracting. The company collects a wide range of recyclables using a two stream, containers and fibres, system.

Due to the size of the communities serviced, the contractor could not justify investing in a recycling truck which was further complicated by the need to drive three hours (return) in order to deliver the recyclable materials for processing five times every two weeks. In response, the owner of the company devised a simple, cost effective collection system featuring a custom made recycling trailer which is pulled by a standard pick-up truck. The recycling trailer was designed and built by P. Lafrenier and is essentially a box built on a 24 ft. trailer base. The trailer dimensions are 24 feet long by 10 ft wide and 6 feet 10 inches high with several openings at one side of the trailer and a platform to enable the collection crew to step up and sort the containers and fibres into the designated openings. The trailer features three separate areas for:

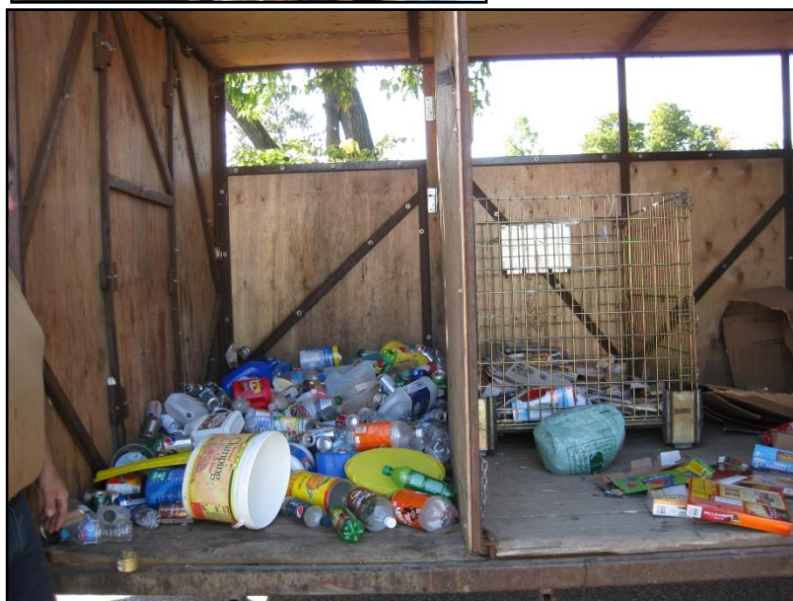
- household mixed paper and newspaper (ONP) in one area;
- cardboard (OCC) and boxboard (OBB) in a second area; and
- containers in a third area.

While one person drives the pick up truck, another person collects and sorts the materials.

The contractor is capable of collecting from 400 homes before the trailer needs to be emptied. In order to expedite removal of the recyclable materials, the back of the trailer opens and the side containing the containers opens. The floor of the trailer is strong enough to enable the contractor to operate a bobcat to remove the fibres from inside the trailer, or alternatively, the contractor moves the materials out of the trailer using a shovel. The trailer also features wire bins which can be used for additional materials and can be easily tipped to remove the contents from the trailer.

A similar system could be explored for the Sault North area which could involve collecting the recyclable materials separately using a trailer attached to a pick up truck or might involve attaching the trailer to the packer truck and collecting the garbage and recyclables at the same time.

The photos below show the recycling trailer used in the Town of Mattawa and the Township of Papineau-Cameron.





Photos: Recycling trailer used in Mattawa and Papineau-Cameron

Town of Marathon:

The Town of Marathon is situated almost 300 km east of Thunder Bay provides curbside recycling collection service to about 1,500 single family households, 190 multi-family units and 40-50 commercial and institutional establishments. Marathon offers a two stream curbside recycling program in which mixed fibres are collected separately from mixed containers in transparent bags. Residents receive bi-weekly service and commercial customers receive up to 3 times per week service, depending on their needs. Once collected, the recyclable materials are stored in 18 wheel transport trailers (fibres in one transport trailer and containers in the other) which are transported to the Recool material recycling facility (MRF) in Thunder Bay when full.

The recyclables are collected by a local private contractor using Recool's collection system. Recool has a unique collection and processing system that allows the company to operate in a cost effective manner. In order to reduce collection costs, Recool collects recyclable materials using transparent bags and in two separate streams – fibres and containers. This set out approach enables Recool to use 16 ft and 18 ft cube vans to collect the material. This system enables the cube van to be operated by one person who is responsible for driving and collecting the bags of recyclables.

Both streams can be commingled in the cube van and separated out at the processing facility. It is estimated that the collection crew can cover approximately 500 households before the cube van is full. The containers assume majority of the space in the cube van (about 70%) compared with fibres which take up about 30% of the space.

Once at the processing facility, the bags are sorted into two areas, containers and fibres, and are manually opened by staff prior to being sorted.

Currently Green Circle Environmental is not capable of handling recyclable materials collected in bags; therefore, any future consideration of collecting the recyclable materials in transparent bags

would require that the bags be manually opened and sorted into the two streams prior to being transported to Green Circle for processing. Alternatively, this approach could work if the SNWMC decided to process and market the materials themselves and were willing to sort the materials into five or more different streams or convince the residents to sort the materials into five or more streams before placing the bags at the curb. See Section 4 for further discussion.



Photos: Cube van used in the Town of Marathon to collect recyclables

3.3 Improving Collection Efficiencies

There are several best practices to improve collection efficiencies that are employed by other rural communities with long distances between collection stops, including:

- Collect all material on one side of the road;
- Asking residents to place their recyclable materials at one common collection point.

In fact, the SNWMC and G.T. Waste Services employ a four corners recycling collection best practice by asking residents located along hard to access side roads to place their recycling at a common intersection or four corners. See attached photos. This approach has helped reduce collection time and costs.

Recycling Program Development Plan for the SNWMC



4. Recycling Depot Opportunities

Typically, depot programs achieve much smaller participation and diversion rates compared with curbside collection services; however, there may be an opportunity for SNWMC to use a depot program to enhance its existing recycling services.

The SNWMC could consider an opportunity to augment its curbside recycling program with a depot program that would provide an option to minimally process and market the materials directly.

In general, a recycling depot program can be a very cost effective collection approach and can be quite effective under the right circumstances:

- The depot has an attendant to assist in the sorting of recyclable materials and education of the users;
- The depot is situated in a high traffic location that is frequented by residents;
- The recycling program is supported by policies, such as pay-as-you-throw, that promote waste diversion.

A number of small rural Ontario communities have successfully implemented recycling depot programs in their communities and, in some cases, have taken the program one step further by directly processing and marketing the recyclable materials, as discussed below.

Calvin Township

Calvin Township is a small rural township located in Northern Ontario with less than 700 population and about 300 single family households. The Township does not provide any curbside garbage or recycling services but requires residents to take all garbage and recyclables to its one municipal landfill. All residents have been provided with two blue box storage containers and are encouraged to bring them to the depot when full.

The Township has hired one female landfill attendant who manages the garbage and recycling program during landfill hours in the non-peak season (fall, winter and spring) and with students helping during the peak season (summer). The landfill is open two days a week (Tuesday and Saturday) for about five hours each day. Residents are required to bring their recyclables to the attendant (or students) who separates the materials into the designated compartments in the depot, which ensures minimal contamination. One depot is used for the container stream and the fibre (excluding the cardboard/boxboard) stream. A second depot is designated for cardboard (OCC) and boxboard (OBB) only. During busy times, the attendant will place the loose recyclables into temporary storage bins to facilitate sorting of the recyclables later. The Township uses converted 40 yard bins which it rents for \$125 per month. Alternatively, the bins can be purchased for about \$10,000 to \$20,000 each.

The garbage is placed in an old packer truck, purchased by the Township for \$10,000, which compacts the garbage at a 2 to 1 ratio. This compaction system has increased the landfill's life span by almost double in a cost effective manner.

According to the Town's works manager, the recycling system employed at the landfill works for several reasons:

- It is the only game in town, residents must take their garbage to the landfill so it is just as convenient to bring their recyclables as well;
- The attendant is very approachable and informative and distributes fliers and information sheets to residents about waste reduction and diversion activities;
- The landfill operates as a pay-as-you-throw system enabling residents to bring 120 bags of garbage to the landfill each year (about 2 bags per week) and then requiring the resident to pay \$1.00 per bag;
- The recycling program costs are minimal - \$7,400 annual (\$620 per month) including processing costs.

See the photos below.

Contact:

Ken Brewitt,
Township of Calvin
Phone: 705-744-2700
Email: ken.b@ontera.ca



Photos: Recycling depot and packer truck at Calvin Township waste disposal site.

Township of Strong

The Township of Strong, population 1,300, decided to invest in equipment enabling it to process the recyclables collected through a depot system at its local landfill. After applying for several grants, the Township received funding through the Community component of the Building Canada Fund administered by the Ministry of Agriculture, Food and Rural Affairs and through a Fednor grant from Industry Canada (Federal). All grant money received needed to be dedicated to infrastructure and capital projects.

Through these funds, the Township received 2/3rds funding from outside sources, with municipality providing 1/3rd funding. The total cost of the project was \$350,000 which included:

- A covered building (Cover-all) 65 x 110 ft long which has a paved asphalt floor and contains the baler, a main entrance for a transport truck and storage area for baled recyclables. The back of the building has two side entrances which enable residents to drive through the building, deposit their recyclables into one of three bins (cardboard (OCC)/boxboard (OBB), plastics/cans, and newsprint (ONP)/mixed household paper) and drive out.
- The Cover-all building, costing \$170,000, doesn't require a foundation and has wall fit into a footing and interlock. The building uses a trust system and canvas overtop.
- The baler cost \$110,000 and can be used on a wide range of recyclables including cardboard, aluminum, steel, fibres and plastics. The recyclables are baled into at least six streams cardboard(OCC)/boxboard(OBB), aluminum cans, steel cans, newsprint(ONP)/mixed household paper, HDPE plastic bottles and PETE plastic bottles. The Township retains a company to arrange pick up, transportation and marketing of the baled materials.

The Township has hired attendants that help the people sort the material. By overseeing the sorting of the recyclable materials into designated bins, the Township ensures good quality of streams with minimal contamination. The Township hopes to make money once the markets bounce back. The Township of Strong also intends to sell its services to other townships.

The Township has contributed \$92,000 towards the project which is paid using money raised from garbage fees charged at the landfill (the Township does not provide curbside garbage or recycling services), which goes directly back into the landfill account and get paid out of the account. None of the project has been funded by the Township's taxpayers.

See the photos below.

Contact:

John Newsted, Councillor
Phone: 705 384-7198

This depot system would be considered excessive for SNWMC, which would need to consider a very scaled down version of this depot system.



Photos: Strong Township's covered recycling depot and baler

TRI R Committee (Armour Township, Burks Falls, Ryerson Township)

Recently the three communities (Armour Township, Burks Falls, Ryerson Township) comprising the TRI R Committee wanted to a pass by-law making recycling mandatory but, instead, chose to pass

a by-law encouraging recycling instead. At the same time, the TRI R Committee introduced a pay-as-you-throw (PAYT) program requiring householders to pay for garbage tags once they have used up the 60 tags provided at the beginning of the year.

The PAYT program is attributed to changing the pattern in which people generate garbage and has acted as an incentive to recycle. The TRI R Committee has established a recycling station at the locally shared landfill with individual recycling bins for each material (OCC/OBB, ONP, glass (clear and colour), cans, HDPE plastic jugs/bottles, PETE plastic jugs/bottles). The bins are situated inside a building and the recyclables are sorted so that they can be baled and marketed directly.

When the recycling centre was introduced, the Committee reorganized the entrance of the landfill, requiring that all users pass by the recycling centre first. The Committee has an attendant who greets the residents and asks them about the number of garbage bags and recycling they have with them. If the same resident continues to come to the waste disposal site without recyclables then the attendant will shake the bags to see if there are recyclables in the bags and will then require the resident to sort out the recyclables in the bags.

The Committee also has an attendant placed at the recycling depot to help residents sort out their recyclables. This system has received great support from the landfill users who endorse the Committee's view that "using a landfill is a right and not a privilege".

All the recycling is kept indoors in a building which enables the Committee to keep the recyclables dry and bale the material. The Committee sells the recyclable materials themselves and have been able to make up to \$50,000 gross in past years, which essentially for the wages of the attendants.

While the two smaller Townships do not provide curbside garbage or recycling services, the community of Burks Falls does offer curbside garbage and recycling services. The Town staff collect curbside recyclables using a pick up truck with 45 gallon blue plastic barrels placed in the back of the truck in which to sort the recyclables. The barrels can then be effectively picked up and emptied by Town staff at the recycling depot. The recyclables placed in blue boxes are emptied into the barrels and when full, the collection crew bring the barrels to the landfill and empty them into large – 5ft x 5ft – steel containers made by local contractors. The TRI R committee has a small skid steerer and fork lift to pick up the metal containers and deliver the contents to one of two bailers or a can densifier. From there, staff hand balm the recyclables into the balers which produce cubic meter (3 ft x 3ft x 3ft) blocks of product. The balers are smaller down stroke balers that cost about \$10,000 to \$20,000.

The TRI R Committee has hired an administrator who is responsible for finding markets for the recyclable material. Since the end markets want a full truck load, the material must be stored inside until enough is produced and then the committee hires a truck to take the material to market (including scrap metal). In time, the Committee hopes to buy two bigger balers (one for fibres and other for containers).

See the photos below.

Contact:

Bob MacPhail, Reeve of Amour Twp and Chairperson of TRI R committee

Phone: 705 646-7678







Photos: TRI R Committee Recycling and Processing Centre

SNWMC Opportunities

SNWMC staff have identified two possible sites that could be used as a convenient location for a depot and basic processing facility. The two sites are the former Fenwick and/or Searchmont waste disposal sites. The Fenwick site in particular has the advantage of being located in the community of Goulais and being situated near to the Havilland Waste Disposal Site. Furthermore, there is considered adequate space for a small depot and baling operation at the landfill. The Searchmont site provides more space but is less conveniently located to users.

In addition, SNWMC should explore opportunities to partner with other companies or communities to market the recyclable material. Effort was made to discuss partnering opportunities with Municipal Waste and Recycling Consultants based in Blind River; however, the company has recently been purchased by another business and is in transition. It was

recommended that SNWMC contact the new owner at its earliest convenience.. The new contact is:

Waste Management and Recycling consultants
Wayne St. Michele (owner)
705-356-4118

Finally, the recycling depot could become host to a well functioning reuse centre and over time a limited household hazardous waste depot (accepting limited materials such as paints, used oil, batteries) and a waste electronic depot. This would assume that a stable funding is available from industry stewards.

5. Financing Opportunities

The Sault North Waste Management Council provides monthly curbside recycling services to all residents residing in the area free of charge. Residents are not required to pay for the service. This is a unique situation, since there are no known incorporated or unincorporated jurisdictions in Ontario that provide recycling services to area residents free of charge. All other recycling programs operating in the province are paid for using a variety of approaches including:

- Property taxes, which constitutes funding sources for the majority of Ontario recycling programs;
- Flat fees which are charged to every household regardless of their participation in the program;
- Levies and surcharges which are collected on disposal tipping fees for a designated purpose;
- Differential Tipping Fees which encourage separation of recyclable materials from the garbage stream;
- Individual contracting of recycling services through a private company, with services invoiced directly by the company.

5.1 Taxes

Most municipalities throughout Ontario pay for waste management and waste diversion activities through general revenues, which are raised through a combination of residential and business property taxes. Most municipalities finance solid waste management services specifically from the residential property tax portion only, allocating a portion of the taxes to waste management and diversion operations. In order to collect the property taxes, the local jurisdiction must be incorporated. Since the 31 townships under the care of SNWMC are unincorporated, using property taxes as a funding source is not permitted.

However, there may be an opportunity for the five local service boards (LSB) in the area to receive tax money from the provincial government for the purposes of garbage and/or recycling collection.

A local services board (LSB) is a volunteer organization that has the authority under the Northern Services Boards Act to deliver approved powers (services) to residents. These boards are set up in rural areas where there is no municipal structure to deliver services, such as fire protection or garbage collection.

Currently, there are five local service boards operating in the SNWMC service area as well as Batchawana First Nation. These boards include:

- Aweres LSB;
- Batchawana Bay LSB;
- Goulais and District LSB;

- Searchmont LSB;
- Peace Tree LSB.

A LSB can be approved to deliver any of nine powers, or approved services, to residents within the board's geographical area. The services that the five local services boards are approved to provide are listed in the table below.

Local Services Board	Water Supply	Fire Protection	Garbage Collection	Sewage	Street or Area Lighting	Recreation	Roads	Public Library Service	Emergency Telecommunications
Aweres		√						√	√
Peace Tree	√	√	√	√	√	√			
Batchawana Bay		√							
Goulais and District		√						√	
Searchmont		√				√			√

An LSB can be approved to deliver any of nine powers, or approved services, to residents within the board's geographical area including garbage collection which is defined as:

1. GARBAGE COLLECTION

The Board may, by by-law,

- A. *establish and maintain a system for the collection and removal of garbage; or*
 - B. *contract for the collection, removal and disposal of garbage,*
- and for that purpose may regulate the occasions, manner, extent and nature of such service and the persons to whom such service may be supplied, and may charge a fee for the cost of such service.*

This definition also includes recycling collection services and other related services, such as the baling of the material. The key restriction in the definition of garbage collection is that it cannot include the ownership or operation of a landfill.

The Northern Services Board Act stipulates:

LOCAL SERVICE BOARD

Application of rates

(2) *Unless expressly provided otherwise in this Act, the rate or rates to be imposed under the Provincial Land Tax Act, 2006 for the purposes of a Board apply to the assessment in each property class in the Board area. 2008, c. 19, Sched. N, s. 3.*

Payment to Board

24.(1) *The Minister shall pay to the Board annually out of money appropriated therefore by the Legislature such amount as the Minister considers appropriate after taking into account*

the estimates of the Board, the money paid to the Board by the Minister of Finance under section 26, the fees collected by the Board for the supply of services or the use of facilities and such other amounts as by the initiatives of the inhabitants have been raised and granted to the Board. R.S.O. 1990, c. L.28, s. 24 (1); 1998, c. 16, s. 9.

Rates under the Provincial Land Tax Act, 2006

25. (1) *If in any year the inhabitants have approved one or more rates to be levied under the Provincial Land Tax Act, 2006 as provided in section 23, the Board may by by-law passed before December 1 in the year request the Minister of Finance to collect under that Act in the following year the rate or rates in respect of land that is taxable under that Act. 2006, c. 33, Sched. Z.3, s. 22 (3).*

Proposal to alter boundaries or vary powers

31.(1) *Where a Board considers it desirable that the boundaries of the Board area be altered or the powers of the Board be varied, the Board shall put the proposal to a vote of the inhabitants at a meeting called for that purpose, and the notice of such meeting shall outline the proposal.*

Powers of Minister

(4) *Where a majority of the inhabitants present at the meeting vote in favour of a proposal made under subsection (1), the secretary shall forward to the Minister,*

(a) a copy of the proposal as approved at the meeting;

(b) a statement of the results of the vote showing the vote of the inhabitants for and against the proposal; and

(c) where it is proposed that the boundaries of the Board be altered, a statement of the vote of the inhabitants of the area it is proposed be added to or removed from the Board area, and the Minister may make such order as the Minister considers appropriate. R.S.O. 1990, c. L.28, s. 31.

A Local Service Board expert in the Ministry of Northern Development, Mines and Forestry (MNDMF) was contacted to discuss opportunities for the existing local service boards to obtain garbage (and recycling) collection powers in the area. The LSB expert, Richard LeClare, provided the following advice.

Mr. LeClare confirmed that garbage collection services also covers recycling collection services which could also include the baling of the material.

The LSB is authorized to collect fees either directly by invoicing each household or indirectly by requesting that the province collect the fee as part of the tax collection system. In the later case, the LSB could allow the province to use the assessment process and apply a mill rate to cover garbage/recycling collection services. The tax bill would show the land tax amount the education amount and the LSB amount (which includes LSB services, such as garbage/recycling collection, fire services, library services, etc.)

Currently the four LSBs (Aweres LSB, Batchawana Bay LSB, Goulais and District LSB, and Searchmont LSB) charge a flat fee directly to residents. However, the MNDMF is in discussion with the four LSBs to use the taxation approach to collect fees which eliminates the need to administer and bill residents directly and passes on the problems associated with arrears to the province.

Assuming garbage/recycling collection powers would provide a stable source of funding for the recycling collection program (including depot system) in the four LSB areas and would allow SNWMC to build up reserves for future capital and infrastructure costs but they must be identified for a specific purpose there would need to be a separate reserve fund established.

The process involved in gaining the collection powers can be fairly straight forward if proper procedures are followed. Mr. LeClare stressed the need to contact the assigned MNDMF staff member (Denis Rochon) to get started. Mr. Rochon will guide the LSBs through the process making sure that the process goes smoothly and correctly. A simplified description of the process is provided as follows:

During the process, the LSBs must prepare a letter to the Minister of Ministry of Northern Mines, Development and Forestry, informing the Minister of their intention of pursuing garbage collection powers. Mr. Rochon will guide them in developing the letter that goes to the Minister.

The LSBs will need to present their plan to the residents, including the costs, who will need to vote on whether they want it or not at a LSB meeting. Those residents present at the LSB meeting will be asked to vote on the plan and if approved, the MNDMF will present the request to the Minister. Once the minister approves then it must go back to the LSB to be tabled and passed.

According to Mr. LeClare, if the LSBs contact Mr. Rochon from the outset of the process and work with him throughout, then the process to acquire garbage/recycling collection powers can take as little as four months, or the process can take much longer, even years. Currently, Mr. Rochon is working with the four LSBs to formalize recreation powers and if pursued quickly, the process could be expanded to include garbage/recycling collection powers. The LSBs can apply for two powers at once, thus reducing time and resources.

The opportunity is available for consideration; ultimately, however, the decision to pursue the opportunity is up to the local LSBs. The SNWMC should further assess this opportunity and if it seems beneficial, begin to champion the process and garner support among residents to have the LSBs pursue the garbage/recycling powers.

When asked about forming an area LSB, Mr. LeClare stated that although area boards are mentioned in the Northern Development Act; in fact, area boards do not exist and the legislation is dormant and will eventually be eliminated.

Contacts:

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Wawa and Chapleau

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4.2 Flat Fees

Several municipalities within Ontario finance their waste management system (fully or partially) through a fee for service charged directly to households. This household fee usually takes the form of a uniform monthly or annual charge and can be charged by the municipality through a number of billing mechanisms (part of the water bill, a separate line on the tax bill, etc), or a separate utility can handle billing as well as service provision. All households are charged the same fee, regardless of property value or amount of garbage or recyclables generated. While this practice is very popular in Western Canada, it has only begun to be used by Ontario municipalities as a means of funding waste management operations.

Should the four LSBs acquire garbage/recycling collection powers, they can choose to bill residents on a flat fee basis for recycling services.

4.3 Levies

Landfill levies are typically used to encourage diversion by raising the price of disposal. They are also effective at raising substantial amounts of money to help fund waste diversion programs. Disposal levies are in place in a number of jurisdictions:

- In California, a smaller solid waste disposal levy of \$1.34/ton funds the operations of the California Integrated Waste Management Board, which monitors progress to the State's 50% goal, and levies fines for non-compliance.
- The Greater Vancouver Regional District (GVRD) has placed a \$2.20 levy on each tonne of waste delivered to the Cache Creek landfill which is used to fund its waste diversion programs.
- The province of Quebec has implemented a \$10/tonne landfill tax.
- The UK Landfill Tax is \$35/tonne, and the Irish landfill tax is about \$21/tonne. In both cases the money collected is used for environmental programs, including the construction of diversion processing infrastructure.

This option could be explored with the Ministry of Natural Resources to enable the SNWMC to charge a levy on each ticket sold to residents and businesses for garbage disposed at the Havilland and Montreal River Waste Disposal Sites. The levy would be placed in a fund dedicated for waste diversion purposes that could be used to fund the recycling program. Arrangements would need

to be made with the landfill operator to ensure that he is compensated for collecting and directing the levy back to SNWMC.

Achieving full cooperation from the waste disposal site operator is very important to the success of this initiative.

4.4 Differential Tipping Fees:

Differential tipping fees refer to charging different tipping fees for different qualities of waste. Some communities will charge more for loads of garbage arriving at transfer stations and/or waste disposal sites containing a certain percentage of divertible materials, such as blue box recyclables, wood waste, and clean construction materials. In these cases, the fee may be doubled to act as an incentive to participate in available waste diversion programs. Some municipalities use the additional charges to support particular programs. Users of the waste disposal sites need access to alternative waste diversion programs, preferably at the landfill site.

This initiative would require support of the Ministry of Natural Resources as well as full cooperation from the waste disposal site operator is very important to the success of this initiative. Enforcement may require development of supporting legislation, which may be difficult to achieve.

Simcoe County, Ontario

In 2001, Simcoe County introduced differential tipping fees at its landfill sites to encourage source separation and diversion of targeted materials. The differential tipping fee program uses a three tier approach to encourage source separation of divertible materials. The tipping fee for separated materials is \$55/tonne and \$115/tonne for waste loads not containing the targeted materials. Loads containing targeted materials are called mixed waste loads and are penalized with a doubling of the regular tipping fee to \$230/tonne.

Simcoe County Differential Tipping Fees

Material Description	Tonnage Rate \$/tonne	Volume Rate \$/unit
General waste (without divertible materials)	\$115/tonne	\$18/m3
Mixed waste loads (loads containing divertible materials)	\$230/tonne	\$36/m3
Wood and brush	\$55/tonne	\$9/m3
Scrap metal	\$55/tonne	\$9/m3
Asphalt shingles and/or drywall	\$55/tonne	\$9/m3
Rubble (asphalt, concrete blocks, bricks)	\$55/tonne	\$9/m3
Yard Waste	\$35/tonne	\$9/m3

Kootenay Boundary, British Columbia

Kootenay Boundary in BC charges \$650/tonne for mixed loads of construction waste containing banned recyclable materials, compared to \$65/tonne for mixed refuse and \$130/tonne for mixed construction and demolition loads. This is in an effort to force increased source separation, rather than as a funding mechanism. However, Kootenay Boundary does not have any competing landfills in the area, and it is surrounded by mountain passes, therefore generators do not have any other realistic disposal options.

4.5 Individual Contracting of Recycling Services

The SNWMC could work with G.T. Waste and begin charging for recycling collection services using two approaches:

- combining the garbage and recycling services as one service and one combined bill; and/or
- offering recycling services as a separate service and bill.

G.T. Waste has an invoicing and payment system in place for garbage customers, which could be explored as a basis for billing customers for recycling services.

It will be important for the cost of recycling service to remain cheaper than the cost of garbage collection service. This may mean hiking the garbage fees to ensure that the recycling fees remain lower.

4.6 Other Opportunities

User Pay

Currently, all garbage delivered to the Havilland WDS requires payment per bag or load delivered, commonly referred to as a full pay-as-you-throw (PAYT) program. The PAYT system employed at the landfill is based on a decreasing rate structure in which the more tickets purchased in a block the cheaper the individual ticket price. In order to promote waste diversion, SMWMC should encourage a uniform payment system which charges the same amount per bag of garbage regardless of the amount delivered. Furthermore, since the Havilland and Montreal River Waste Disposal Sites are the only “game in town” the rates could be increased to \$2.00 per bag without concern over a loss of revenue to the landfill operator.

This approach would also open up other possibilities to encourage waste diversion such as:

- Establishing a user pay approach for recycling collection services but ensuring that the cost of collection remains cheaper than the cost for garbage disposal. For example, residents could be required to purchase stickers that must be affixed to their recycling containers set out for collection. The sticker could be charged at \$1.00 per sticker or half of the garbage

sticker cost. To reduce misuse of the stickers, residents could be asked to put their name on the sticker before affixing to the recycling bin in order to minimize theft.

- Residents using the recycling depot could be given a free garbage sticker for every load of recyclables brought to the depot. This would act as an incentive to bring recyclables to the depot and reward residents for participating in the program.

Concerns about illegal dumping associated with PAYT are often overestimated. This has been proven by different Ontario municipalities that have implemented PAYT systems. Some form of enforcement is necessary though at the beginning of a program change to show that illegal dumping will not be tolerated. In the case of SNWMC, enforcement could be in the form of volunteers collecting bags of garbage, which could be delivered back to the garbage back to the household and/or accompanied by a letter of complaint. Other communities will publish the homeowner's name in the local newspaper. Enforcement and education are key to dealing with any illegal dumping issues.

Additional Funding Sources:

A number of funding opportunities may benefit SNWMC including:

WDO's Continuous Improvement Fund

WDO's Continuous Improvement Fund (CIF) is a fund that provides grants and loans to municipalities to execute projects that will increase the efficiency of municipal Blue Box recycling and help boost system effectiveness. The CIF has \$24 million funding available in 2010. The CIF started up in January 2008 and has a three year mandate to direct funding support to projects that will:

- identify and implement best practices,
- examine and test emerging technologies,
- employ innovative solutions to increase blue box materials marketed and
- promote gains in cost-effectiveness that can be implemented province-wide.

Municipalities are encouraged to apply to CIF, for financial support in setting up the recycling program, such as up front capital expenditures. Any potential CIF support for projects will be at 50% support. The CIF does not support on-going program operations.

The CIF has recently released a Request for Expressions of Interest (REOI) document that identifies priority projects for funding. The priority areas are listed below. Further information is available at http://www.wdo.ca/cif/pdf/procurement/reoi_priority_project_funding_feb2010.pdf.

TD Friends of the Environment Foundation

<http://www.fef.td.com/index.jsp>

The TD Friends of the Environment Foundation (TD FEF) is a national organization with a grassroots focus that funds local projects dedicated to preserving the environment. It works with Canadians who are committed to protecting the environment in their community. Since 1990, the TD Friends of the Environment Foundation has provided more than \$49 million to support over 18,000 grassroots environmental projects in communities across Canada.

The purpose of the TD Friends of the Environment Foundation is to support worthwhile community based environmental initiatives that make a positive difference to the Canadian Environment.

Ontario Ministry of the Environment

COMMUNITY GO GREEN FUND

<http://www.ene.gov.on.ca/en/air/climatechange/cggf.php>

Community Go Green Fund is a four-year, \$6.6-million program which came into being under Ontario's Climate Change Action Plan, announced in 2007. The Community Go Green Fund has committed \$4.65 million to community projects throughout Ontario.

Groups qualified to receive funding from the Community Go Green Fund include charitable or environmental organizations, community groups such as youth or a cultural association, educational institutions and First Nations communities. Municipalities are also eligible under certain circumstances.

To be considered for funding, projects must reduce greenhouse gas emissions and use all three of the following mechanisms:

- Provide outreach and education, and
- Promote long-term behavioural change, and
- Advocate actions that create results that can be measured

The Canada-Ontario Municipal Rural Infrastructure Fund (COMRIF)

<http://comrif.ca/eic/site/comrif-fimrco.nsf/eng/home>

The Canada-Ontario Municipal Rural Infrastructure Fund (COMRIF) is a partnership between the Government of Canada, the Government of Ontario, the Association of Municipalities of Ontario and Ontario municipalities. It works to improve and renew public infrastructure across the

province. COMRIF's goal is to help residents in Ontario's small urban centres and rural municipalities:

- enhance and renew Ontario's aging public infrastructure;
- improve the quality of the environment;
- protect the health and safety of citizens;
- support long-term economic growth; and
- build strong, sustainable communities by giving municipalities the tools they need.

COMRIF's overall aim is to support "green" projects that meet Canada's and Ontario's environmental objectives, while improving the health and safety of Ontario residents, including supporting waste diversion programs.

The governments of Canada and Ontario have each contributed up to \$298 million to COMRIF. With municipal investments, this program is expected to stimulate up to \$900 million in infrastructure investments over five years to help meet local priorities.

Community Adjustment Fund

Industry Canada

<http://www.ic.gc.ca/eic/site/713.nsf/eng/home>

The Government of Canada's Community Adjustment Fund (CAF) is a two-year \$1-billion economic stimulus measure announced as part of Canada's Economic Action Plan. The purpose of this initiative is to help minimize the impacts of the global economic downturn by creating employment opportunities and assist communities to adjust and restructure their economy.

Preference is given to projects that can start quickly, generate immediate employment, build on partnership arrangements already in place, and provide a legacy of longer-term ecological and/or economic benefits. To date, communities have received funding for waste diversion projects including the Municipality of Red Lake which received \$650,000 in funding to construct a recycling waste transfer station, a hazardous waste collection depot, and a landfill sorting/waste transfer and composting area.

5. Summary

5.1 Future Considerations

The two key objectives of this project were to help identify alternative collection opportunities to accommodate additional recyclable materials, identify more sustainable funding alternatives and strategies and identify other measures to stimulate further waste diversion.

The body of this report identifies a number of different opportunities to provide recycling services in a cost effective manner and expand the existing program to include fibres. Some of the opportunities include:

- Reducing the service area to the four unincorporated townships of Fenwick, Aweres, Vankoughnet and Searchmont, which will capture an estimated 75% - 80% of the population and continuing to provide commercial recycling service to all four unincorporated townships as well as the Batchawana Bay Township. Householders who place recyclable materials along Hwy 17 on route to Batchawana Bay should also receive collection.
- Establishing a recycling depot (which is attended by staff and/or volunteers) at a convenient location, such as the former Fenwick and/or Searchmont waste disposal sites. The Fenwick site may prove more favourable since it has the advantage of being located in the community of Goulais and being situated near to the Havilland Waste Disposal Site. This site could be used for basic processing of the recyclable materials and direct marketing, thus avoiding paying to have the recyclable materials processed by someone else. The recyclables would need to be sorted and baled into their marketable components, which may require a multi-stream separation process (depending on the market) such as: cardboard(OCC)/boxboard(OBB), aluminum cans, steel cans, newsprint(ONP)/mixed household paper, HDPE plastic bottles/jugs and PETE plastic bottles/jugs.
- Consider constructing a simple recycling trailer such as the one used in Mattawa which would allow multiple sort of materials at the curb into those streams needed for direct marketing. A cube van could work if residents are willing to sort the recyclables into the necessary streams and place each stream in a transparent bag. If direct marketing of the recyclables is not feasible then other alternatives could be considered such as a co-collection vehicle which could pick up garbage and one stream of recyclables (e.g. containers) one week and garbage and the other stream of recyclables (e.g. fibres) the next week. Consideration would need to be given to the additional cost of providing weekly collection, the point at which one side of the co-collection vehicle fills up (cubes out) and ability to maximize both sides before needing to be emptied, convenience of access to different end locations (distance that needs to be traveled between the waste disposal site and the material processing facility) and accessibility to residents located on narrow lanes or with tight turning spaces.

Providing a secure and stable source of funding will be important to the future success of the program. There does not appear to be one simple solution to the funding problem but rather, the SNWMC may need to consider implementing a number of different approaches to achieve sustainable funding and promote waste diversion. Some considerations include:

- Working with the four LSBs (Aweres LSB, Batchawana Bay LSB, Goulais and District LSB, and Searchmont LSB) to gain garbage/recycling collection powers, which will enable them to charge residents within their boundaries for garbage and/or recycling collection services. The process involved in gaining the collection powers can be fairly straight forward if proper procedures are followed. Before beginning the process, it is important that the LSBs first contact the assigned Ministry of Mines, Development and Forestry (MNDMF) staff member (Denis Rochon) to get started. Mr. Rochon will guide the LSBs through the process making sure that the process goes smoothly and correctly.
- Establishing dedicated levies on each bag of garbage that would be used to help fund the recycling program. This option could be explored with the Ministry of Natural Resources to enable the SNWMC to charge a levy on each garbage sticker sold to residents and businesses for garbage disposed at the Havilland and Montreal River Waste Disposal Sites. The levy would be placed in a fund dedicated for waste diversion purposes that could be used to fund the recycling program. Arrangements would need to be made with the landfill operator to ensure that he is compensated for collecting and directing the levy back to SNWMC. Achieving full cooperation from the waste disposal site operator is very important to the success of this initiative.
- The SNWMC could work with G.T. Waste and begin charging for recycling collection services using a monthly or bi-monthly billing system or alternatively, requiring residents to purchase stickers that must be affixed to their recycling containers set out for collection. The sticker could be charged at \$1.00 per ticket or half of the garbage sticker cost. It will be important for the cost of recycling service to remain cheaper than the cost of garbage collection service. This may mean hiking the garbage fees to ensure that the recycling fees remain lower.
- Establishing uniform pay-as-you-throw (PAYT) garbage rates for garbage requiring disposal. Currently, the PAYT system employed at the landfill is based on a decreasing rate structure in which the more tickets purchased in a block the cheaper the individual ticket price. The SNWMC should consider working with the waste disposal site operator to increase the price of the garbage to \$2.00 per bag, regardless of the number of bags requiring disposal. Access to recycling services for all users of the waste disposal sites will be necessary to the success of this approach. Concerns about illegal dumping are often unfounded; however, some form of enforcement is often necessary at the beginning of a program change to show that illegal dumping will not be tolerated.
- If a depot system is established, the SNWMC should consider giving residents using the recycling depot a free garbage sticker for every load of recyclables brought to the depot. This would act as an incentive to bring recyclables to the depot and compensate residents for driving to the depot.

The success of many of these initiatives will involve securing the cooperation and support of the waste disposal site operators, in particular the Havilland WDS operator. Depending on the timing and conditions of the current contract, it may make sense to issue a new WDS operating tender which would build in the flexibility to implement different financing and waste diversion initiatives. Alternatively, the SNWMC could consider assuming responsibility for the landfill operations and using the fees to help fund its waste diversion programs.

6.2 Next Steps

The Sault North Waste Management Council area provides monthly curbside recycling services to area residents and commercial establishments free of charge. Furthermore, SNWMC offers this and other waste diversion services without having access to a secure and stable funding base. This is a unique situation, since there are no known incorporated or unincorporated jurisdictions in Ontario that provide recycling services to area residents free of charge. This situation is not sustainable over the long run.

In the future, the SNWMC will need to focus on improving the efficiency of their recycling program and securing access to stable funding. To help it achieve these priorities it is recommended that the SNWMC:

- Reduce its curbside recycling program service area by focussing on the four unincorporated townships of Fenwick, Aweres, Vankoughnet and Searchmont, with additional commercial recycling service provided to Batchawana Bay;
- Work with the four local service boards (Aweres LSB, Batchawana Bay LSB, Goulais and District LSB, and Searchmont LSB) to gain garbage/recycling collection powers. These LSBs also correspond with the key populated areas which have been recommended to receive curbside recycling services; and
- Work with the MNR to increase SNWMC's presence and influence at the Havilland waste disposal site.

Over time, additional activities can be further explored including expanding the recycling program to accept fibres by modifying the existing collection system, offering a pay-as-you-go system or billing system to outlying areas and/or offering a recycling depot system.

The SNWMC's accomplishments to date speak to the dedication and innovative thinking of its members. Carrying forward this momentum will require continued dedication and energy, which has shown to be bountiful in this organization.

APPENDIX A:

SNWMC area
Population Profile

Population in the SNWMC Area

Township	General Location (Source)	Permanent Residents only			
		Households		Population	
		Number	Percentage	Number	Percentage
Aweres	Heyden (Aweres & Peace Tree LSBs)	270	13.0%	728	12.9%
Ryan Herrick Tilley Fisher	Batchawana Bay (Batchawana LSB)	111	5.3%	299	5.3%
Dennis (N of Goulais Bay Fenwick Havilland Kars Ley Pennefather Tupper Vankoughnet	Goulais (Goulais LSB)	1536	73.9%	4148	73.7%
Deroche Gaudette Hodgins Shields	Searchmont (Searchmont LSB)	135	6.5%	365	6.5%
Goulais Bay Reserve	Goulais (Batchawana First Nation)	28	1.3%	75	1.3%
Obadjiwan Reserve	Batchawana First Nation	6	0.3%	17	0.3%
Dennis (S of Goulais Bay)	Dennis (Tax Roll)	34	1.6%	92	1.6%
Duncan Jarvis Anderson	South of Searchmont (Tax Roll)	2	0.1%	5	0.1%
Marne Laverendrye	North of Searchmont (Tax Roll)	2	0.1%	5	0.1%
Rix Peever Slater Smilsky	Montreal River (Tax Roll)	8	0.4%	22	0.4%
Kincaid Nicolet Palmer Archibald	Montreal River/ Batchawana Bay (Tax Roll)	3	0.1%	8	0.1%
Total		2080	100.3%	5632	100.0%

Conversion between population and households is based on 2.7 people/household

Recycling Program Development Plan for the SNWMC