

A Waste Recycling Plan for The Township of North Glengarry



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1. Introduction

This Waste Recycling Strategy was initiated by The Township of North Glengarry to develop a plan to increase the efficiency and effectiveness of its recycling programs and maximize the amount of blue box material diverted from disposal. Specifically, the purpose of this recycling plan is to reduce the amount of waste disposed in landfills and to increase the amount of recycling material processed to our material recovery facility, R.A.R.E.

The Township of North Glengarry is responsible for managing its residential solid waste by identifying opportunities to reduce the amount of waste and to educate our residents on material that can be diverted from waste to recycling.

The Township of North Glengarry faces a number of waste management challenges, which this Waste Recycling Strategy will help address. In particular, WDO Datacall best practices, necessity for cost reduction or control, efficiencies of diverting non-waste from landfills, and a small, rural population with a limited budget.

This Waste Recycling Strategy was developed with support from WDO, RARE, Township of North Glengarry staff and using the Continuous Investment Fund's *Guidebook for Creating a Municipal Waste Recycling Strategy*.

2. Overview of the Planning Process

This Waste Recycling Strategy was prepared through the efforts of employees and council of the Township of North Glengarry.

In order to complete this strategy, data call summary information from 2009, 2010 and year to date information for 2011 were used. Input from our waste and recycling contractors and from phone calls from residents were also referenced.

The next steps in this process include:

- Using the Township's newly redesigned website, staff will prepare surveys asking for residents' input on how to best improve our services in the following areas:
 - Communication survey
 - FAQ's
 - Changes and updates in pickups
 - What needs are being addressed and which need to be addressed?
 - Are there barriers preventing residents from maximizing their recycling, and how can the township remove those barriers?
 - Education survey
 - Does the Township need to provide more promotion & education?
 - Where should the Township target initiatives to achieve the best results?
 - Waste & Recycling Services survey
 - Do current services meet the resident's needs?
 - What are the gaps between resident's needs and township services?
 - What prevents the resident from recycling and how can the township help?
 - Should the Township provide leaf & garden waste pickup to prevent compostable material going landfill, thereby improving our diversion rate?
 - Include open-ended questions to elicit comments from responders to uncover hidden problems and previously unstated concerns.

3. Study Area

The study area for this Waste Recycling Plan includes the entirety of The Township of North Glengarry, including the towns and villages of Alexandria, Apple Hill, Dalkeith, Dunvegan, Glen Robertson, and Maxville.

This Waste Recycling Plan will address the following sectors:

- Residential Families (Single and Multi)
- Schools

4. Public Consultation Process

Stakeholder groups referenced in this consultation included:

- Contacts initiated by the public, including phone calls, emails, and visits to RARE
- Requests from schools for presentations and educational materials
- The Township of North Glengarry
- CIF (Continuous Improvement Fund)
- WDO (Waste Diversion Ontario)
- RARE (Recycle Alexandria Recycling (Équipe))

The outcome from the public and stakeholders contacts resulted in identifying areas for greater education to residents about recycling, such as what is now recyclable over what residents believe is recyclable. This learning has led to an understanding that many residents are still not aware that recycling does not require presorting and that there is a direct relationship between their garbage and recycling choices and behaviour at the curbside and their costs, specifically garbage taxes.

5. Stated Problem

Management of municipal solid waste, including the diversion of blue box materials, is a key responsibility for all municipal governments in Ontario. The factors that encourage or hinder municipal blue box recycling endeavors can vary greatly and depends on a municipality's size, geographic location and population.

The key drivers that led to the development of this Waste Recycling Strategy include:

- WDO Requirements including Datacall best practices
- Needs of the residents of North Glengarry
- Improving services
- Containing or reducing costs
- Reducing landfill usage
- Cost of new programs
- Ease of implementation of new initiatives

6. Goals and Objectives

This Waste Recycling Strategy has identified a number of goals and objectives for The Township of North Glengarry. These are presented below.

| Waste Recycling Goals and Objectives | |
|---------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Goals | Objectives |
| To maximize diversion of residential/municipal solid waste through the blue box/recycling program | Increase diversion rate from 24% to 28% by diverting the amount of recyclable material from the landfill to the blue box over 3 years. This represents a 16.6% increase. |
| To conduct a visual inspection of blue box set outs to determine participation rates. | Objective is to conduct a visual inspection of blue box set out to determine participation rates. Follow up with informational recycling package to non-participants. |
| To conduct a waste audit to determine the amount of recyclables in resident's solid waste. | Objective is to conduct an analysis of waste in two sectors (town and rural) in 2012 and follow-up 2013. |
| To improve the cost-effectiveness of recycling in our community | To reduce recycling costs per tonne by 10% by improving efficiencies at our MRF (RARE) |

This Waste Recycling Strategy has also identified a broader community goal to which it can contribute. These broader community goal is presented below.

| Community Goals and Objectives | |
|--------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Goals | Objectives |
| To enhance service/value for our taxpayers | <ul style="list-style-type: none"> • Promote waste diversion benefits • Conduct surveys to identify gaps between waste and recycling services and public perception of those services and then to develop a strategy to address those gaps. • Identify residents' needs that are not currently being met and to develop a plan to meet those needs. |

7. Current Solid Waste Trends, Practices and System and Future Needs

Community Characteristics

In 2006, the last year for which census information is available, The Township of North Glengarry had a population of 10,635. The municipality is home to 4,553 total households or dwellings. Of these, 3,727 are single-family households and 528 are multi-family households. There are also an additional 298 seasonal dwellings, which are generally occupied during the summer months.

Current Waste Generation and Diversion

In 2010, the Township of North Glengarry generated approximately 3,730 tonnes of residential solid waste per year. Of this, 910 tonnes, or 24 percent, was diverted through the blue box program. Currently, the most common material recycled is newspaper, while the least is glass.

The table below summarizes the current waste generation and blue box diversion rates.

| Residential Solid Waste Generated and Diverted through Blue Box | | |
|------------------------------------------------------------------------|---------------|-------------------------------|
| Residential Waste Stream/Blue Box Material | Tonnes | Percent of Total Waste |
| Total waste generated | 910.5 | - |
| Papers (ONP, OMG, OCC, OBB and fine papers) | 727.7 | 80.0% |
| Metals (aluminum, steel, mixed metal) | 58.6 | 6.4% |
| Plastics (containers, film, tubs and lids) | 95.0 | 10.4% |
| Glass | 29.2 | 3.2% |
| Total Blue Box material currently diverted | 910.5 | 100.0% |

As the table below indicates, The Township of North Glengarry's current diversion rate is above average for its WDO municipal grouping.

| Average Blue Box Diversion Rate (year) | |
|-----------------------------------------------|--------|
| North Glengarry | 24.00% |
| Municipal Grouping: Rural Collection - South | 21.37% |

Potential Waste Diversion

To calculate The Township of North Glengarry's current waste composition, staff used the actual 2010 rates of the blue box material tipped at RARE and the certified weight of that material after it was sorted and sold. To estimate potential waste diversion, staff used the information offered in the CIF Waste Recycling Strategy Guidebook.

The Township of North Glengarry is classified in the Rural Collection - South category. The Guidebook presented a range of 0-34% diversion for this the category. The Guidebook goes on to recommend 28% diversion rate for the Rural Collection - South category.

Using that guideline, a total of approximately 1,056 tonnes of blue box recyclable materials are available for diversion, of which approximately 145 tonnes are still currently in the waste stream. Estimates of blue box material available for diversion are listed in the table below.

| Current and Potential Diversion | | | |
|---------------------------------------------|------------------------------------------------------|-----------------------------------------|-----------------------------------------|
| Material | Total Available in Waste Stream (tonnes/year) | Currently Recycled (tonnes/year) | Potential Increase (tonnes/year) |
| Papers (ONP, OMG, OCC, OBB and fine papers) | 845 | 727.7 | 117.3 |
| Metals (aluminum, steel, mixed metal) | 67 | 58.6 | 8.4 |
| Plastics (containers, film, tubs and lids) | 110 | 95.0 | 15.0 |
| Glass | 34 | 29.2 | 4.8 |
| <i>Total</i> | 1,056 | 910.5 | 145.5 |

Diverting the blue box material remaining in The Township of North Glengarry’s waste stream could raise its waste diversion rate to 28%.

Additionally, as all RARE's profits are returned to The Township of North Glengarry, improving the diversion rate will provide additional revenue to the township and reduce the cost per tonne for processing Township generated blue box material.

Existing Programs and Services

Currently, The Township of North Glengarry has the following policies and programs in place to manage residential solid waste:

- Weekly 2 bag limit on waste
- Unlimited weekly recycling pick up at curbside
- Annual hazardous waste day depot
- Annual electronic waste depot
- Free tire drop off at Alexandria landfill, with 4 tire daily limit
- Starting in 2012, distribution of free recycling calendar including recycling information for blue box material, hazardous waste (MHSW), electronic waste (WEE) and collection scheduling
- Providing 2 free blue bins to new residents
- Providing blue boxes for sale at ½-cost to the township
- Provide composters for sale at township cost

Collection services of regular waste are provided weekly at curbside to the residents using contracted services with deposit at the Lafèche Environmental Landfill in Moose Creek. While recycling services are provided by the same contractor, also on a weekly basis at curbside and tipped at the township-owned RARE facility. Disposal and recycling services are paid for primarily through the tax base.

The Township of North Glengarry provides recycling processing services to many municipalities in its geographic area including: The Township of South Glengarry, The Township of North Stormont, The Township of Russell, The Village of Casselman, and recently, Joint Hawkesbury Recycling. The Township of North Glengarry provides support to those recycling programs by delivering statistics and other information as needed to support their internal accounting needs and external reporting through the Datacall process.

Upcoming important collection-related milestones that may affect how collection services are administered is the expiration of our current collection contract in November 2012.

In 2010, the total net annual recycling costs for The Township of North Glengarry was \$419,032. This amounts to \$460.74 per tonne, or \$39.40 per capita. As the table below shows, net annual recycling costs for The Township of North Glengarry are above average for its WDO municipal grouping.

| Net Recycling Cost (per tonne per year) | |
|------------------------------------------------|----------|
| The Township of North Glengarry | \$460.74 |
| Municipal Grouping: Rural Collection - South | \$419.64 |

However, this WDO standard for calculating costs does not allow for benefits derived from municipally owned material recovery facilities such as RARE. In 2010, RARE realized a profit which benefited the Township and was taken into the general township accounts as a surplus.

Had that profit had been applied against collection and processing costs, the overall costs would have dropped by almost half, giving The Township of North Glengarry one of the lowest cost per tonne ratios in the province of Ontario.

Anticipated Future Waste Management Needs

Solid waste generated rates in The Township of North Glengarry are expected to slightly increase over the next 3 year planning period. The Table below depicts the expected growth rates for solid waste generation and blue box material recovery (based on projected population growth rates).

| Anticipated Future Solid Waste Generation Rates and Available Blue Box Material | | | |
|----------------------------------------------------------------------------------------|---------------------|-------------|-------------|
| | Current Year | 2016 | 2021 |
| Population | 10,635 | 11,100 | 11,700 |
| Total Waste (tonnes) | 3,730 | 3,900 | 4,100 |
| Blue Box Material Available (tonnes) | 1,056 | 1,100 | 1160 |

8. Planned Recycling System

Priority Initiatives

Initiative: Promotion and Outreach

Overview: Develop and implement a public education and promotion program

- We have started this initiative with the creation and development of a recycling calendar which will be distributed in local ad bags at the end of December 2011 for the 2012 calendar year.

Implementation: December 2011

Initiative: Promotion and Outreach

Overview: With the imminent completion of the RARE facility upgrade, the Township will relaunch the public perception of the facility with an open house in April 2012.

Staff has started work on this initiative by changing our event planning for 2012. The Township will have all its major events on the same day at the RARE facility. Those events are: Hazardous Waste Day, Electronic Waste Day and the Community Clean-up which are now scheduled to be held on Saturday, April 28, 2012.

Creating one major event in early spring 2012 will allow the Township to focus all its waste advertising budget on one big community event. Staff expects to have press coverage which will present the opportunity to sell the recycling message to residents of North Glengarry. Staff will be handing out instructional flyers regarding recycling FAQ's and how-to's.

Implementation: April 2012

Initiative: Optimization of Processing Operations

Overview: The RARE upgrade will provide The Township of North Glengarry with significant savings in processing costs and improved profitability.

During the first few months of 2012, the RARE facility will optimize the opportunity to improve its time-in-process by developing and then refining new procedures and policies for processing blue box material.

The Township of North Glengarry will maximize profitability of its RARE facility through improved sorting methods which will create new and more profitable product lines, which were not an option with the previous processing methods.

Implementation: start January 2012

Initiative: Optimization of Collection Operations

Overview: The purpose of optimizing collection operations is to collect more recyclables using fewer financial, capital and human resources. This requires critically assessing both collection and processing operations (as the two are closely linked) and making changes that reduce costs while at the same time increases capture of blue box material.

Staff will survey stakeholders to assess needs and options regarding outsourcing or insourcing collection as our current contract expires in November 2012.

The Township of North Glengarry will use the tendering tool available through WDO workbooks to determine whether a multi-municipal planning approach is viable.

Staff will audit waste to assess the Township's potential blue box volumes and develop an education plan and strategy to maximize those volumes.

Implementation: start 2012 and ongoing.

Future Initiatives

Initiative: Training of Key Program Staff

Overview: The interim general manager of RARE has attended Ontario Recycler Workshops held by CIF, and will continue to take courses as they become available. There are other front line staff that have yet to attend courses, or have not taken all courses that are recommended. Staff will be designated to attend Ontario Recycler Workshops specific to their skill sets and per the scheduled availability per CIF.

Implementation: start 2012 and ongoing.

Initiative: Improving Diversion Rate

Overview: The Township will create permanent Electronic Waste depot at both the Alexandria landfill and at RARE. Residents are dropping electronic waste at the landfill and are calling RARE weekly to find a place to deposit their electronic waste.

Implementation: 2012

Contingencies

Even the best planning can be delayed by a variety of foreseen and unforeseen circumstances. Predicting and including contingencies can help to ensure that these risks are managed for minimum delay. The table below identifies contingencies for possible planning delays.

| Waste Recycling strategy Contingencies | |
|----------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Risk | Contingency |
| Lack of Staff | Create waste audit using CIF & WDO standards for audits. Apply for funding where available to help hire specialized staff to conduct waste audit. |
| Budget/funding | Set aside a small portion of the budget for research and development of new initiatives. Allocate funds for promotion and education. Review current collection policies; i.e., are user fees a possibility vs. single fee on the tax base. |
| Public opposition to planned recycling initiatives | Improve public communications Engage the community and other stakeholders to discuss initiatives. |
| Council and CAO | Ensure that appropriate research is conducted, providing cost/benefit ratio for new promotion and education initiatives. Keep council and CAO informed of initiatives and findings. |

9. Monitoring and Reporting

The monitoring and reporting of The Township of North Glengarry's recycling program is considered a Blue Box program fundamental best practice and will be a key component of this Waste Recycling Strategy. Once implementation of the strategy begins, the performance of the Waste Recycling System will be monitored and measured against the baseline established for the current system. Once the results are measured, they will be reported to Council and the public.

The approach for monitoring The Township of North Glengarry's waste recycling program is outlined in the table below.

| Recycling System Monitoring | | |
|------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------|
| Monitoring Topic | Monitoring Tool | Frequency |
| Total waste generated | All waste is weighed by certified weight scale | Daily |
| Total blue box recyclables generated | All blue box material is weighed by certified weight scale | Daily |
| Sales of commodities from blue box material processed at township owned MRF (RARE) | All material is weighed by certified weigh scale, either locally or at the end buyer | As shipped |
| Diversion Rates | Calculation: Total waste & recycling as per weigh scale tickets/ recycling sorted and sold (net of residue from recycling) | Annually |
| Customer Satisfaction Survey | Create internet surveys on our website | Initially in 2012, then as needed for research, minimally one per year |
| Opportunities for improvement; ideas for new initiatives | Track calls, email and walk-ins. | Ongoing |
| Education Activities | Continue to present recycling FAQ's both in schools and tours at the RARE facility | Regularly during the school year. |
| Review Waste Recycling Plan | To monitor results and adjust plan as needed | Every 6 months. |

10. Conclusion

The Township of North Glengarry has an above average waste diversion percentage for its classification, Rural Collection - South. Using WDO calculations, it is also somewhat above average in its collection and processing cost per tonne; however, that calculation does not take into consideration the revenues generated by its material recovery facility (MRF), R.A.R.E.

Several Township policies, such as bag limits and weekly collection, are among WDO and CIF's best practices but there is room for improvement. WDO guidelines recommends that North Glengarry targets a 16.6% increase in its blue box volume. This would bring the Township's diversion rate from 24% to 28% of all generated waste. This plan has outlined several initiatives designed to meet the stated goal in three years.

As stated in this plan, The Township of North Glengarry, in addition to increasing diversion has set additional goals which include: improving promotion and outreach to residents, optimizing both processing and collection operations and continuing to provide training to key program staff.

This plan has outlined initiatives to meet those goals, which include:

- creating a new recycling calendar which will be distributed to residents through the Ad Bag drop.
- coordinating all recycling events onto one major community event, including Household Hazardous Waste Day, Electronic Collection Waste Day, Community Clean-up and an open house at the upgraded RARE facility.
- Open permanent electronic waste depots at the Alexandria Landfill and at RARE.
- optimizing processing operations at RARE to improve time-in-process, cost efficiencies and developing new product lines that were not previously possible.
- optimizing collection operations by tendering the expiring contract according to WDO guidelines.
- ensuring ongoing training of key program staff.

The Township of North Glengarry, through this document, affirms its commitment to increase diversion rates and improve its processing costs through the execution of the goals detailed in this document and confirms that it will maintain monitoring systems that will ensure the successful implementation of these initiatives