

Township of Stone Mills

Waste Recycling Strategy

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1. Introduction

This Waste Recycling Strategy is a comprehensive assessment of the existing recycling program in the Township and a guide for changes and improvements. While many practices will remain unchanged, new initiatives will result in increased levels of service, efficiency, and stewardship in various sectors. Some recommendations are immediate while others will guide the Township's decision making process over the next five years. This strategy will be reviewed and updated regularly.

This project has been delivered with the assistance of Waste Diversion Ontario's Continuous Improvement Fund, a fund financed by Ontario municipalities and stewards of blue box waste in Ontario. Notwithstanding this support, the views expressed are the views of the author, and Waste Diversion Ontario and Stewardship Ontario accept no responsibility for these views.

2. Overview of Planning Process

This Waste Recycling Strategy was initiated by Township staff in 2010. The creative process has been guided by members of staff and Township councillors, with assistance from consultants from AECOM Canada Ltd. Funding for this Strategy has been provided by the Continuous Improvement Fund through Waste Diversion Ontario and through the Township's general tax roll.

Background research and initial evaluations were carried out by staff and consultants. Public consultation and feedback are incorporated in the later phases of the strategy preparation.

3. Study Area

The primary focus of this study will be the Township of Stone Mills and its waste management program. The Township does not provide or receive services from other municipalities nor is it engaged in any partnerships or joint ventures at this time. This study will briefly investigate the possibility of entering into such partnerships with neighbouring municipalities.

Within the municipal boundaries of the Township, the study area can be further divided between the Village of Newburgh and the former rural Township. Residents in Newburgh receive curbside collection and pay an additional levy on their tax assessments. Some issues considered in this report will apply across the township regardless of location, while others will require different solutions in different areas

Within the Township of Stone Mills there are various sectors, each with its own requirements for waste and recycling management. This report will focus on sectors which the Township is somewhat if not entirely responsible for, including single and multi-family residential properties and Township owned facilities. This report will investigate opportunities for assisting local businesses and institutions with their recycling practices though these sectors are required to utilise private contractors.

4. Public Consultation Process

Public consultation and involvement are crucial to the success of any service strategy. This Waste Recycling Strategy is meant to guide the Township's recycling policy over the coming years and will directly affect how

recycling service is offered to the Township's residents. Direct consultation with members of the public at large will insure that critical issues are addressed and new ideas are considered.

For the purpose of this Strategy, most of the public consultation will be targeted towards specific individuals or groups with a high level of involvement with recycling services in the Township, such as contract managers, institutional directors, and local community leaders. This streamlined approach will provide valuable information while maintaining the scope of this exercise.

Input from the general public was sought through a variety of sources, particularly through the Township's website, during the creation of the strategy. Numerous comments were received and were carefully considered by the steering committee. A copy of the response letter to all participants is included in Appendix A for reference.

5. Problem Statement

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 endeavours 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 – Municipalities are required to report information pertaining to their recycling program to Waste Diversion Ontario each year, including qualitative questions regarding the development and implementation of an up to date blue box recycling strategy. In future years, the portion of funding allotted to a given municipality will be increasingly dependent on the implementation of a recycling strategy.
- Increasing Population and Demand – The Township of Stone Mills has seen steady population growth over the past decades and anticipates further growth in the future. A larger population will produce more waste and recyclables and existing practices may not be sufficient for the long term.
- Improved Efficiencies – The Township of Stone Mills has established the various components of their waste management program one by one over many years allowing different services to operate independently of each other or possibly in conflict. This strategy will thoroughly review all of the components and their relation to each other and will lead to improved cost and service efficiencies in all areas. Although the primary focus of this report is blue-box recycling, many other aspects of waste management have significant effects on the blue-box program and will therefore be considered in this strategy.

6. Current Practices and Future Needs

6.1 Community Characteristics

The Township of Stone Mills is a rural township of approximately 7,800 residents north-west of the City of Kingston. Stone Mills is an amalgamation of the former Townships of Camden East and Sheffield and the Village of Newburgh. Newburgh is the largest settlement in Stone Mills and represents about 10% of the population. Other settlement areas include Camden East, Yarker/Colbrook, Enterprise, and Tamworth, though the majority of the population is spread out in rural areas.

6.2 Current Waste Generation and Diversion

As part of its annual reporting program for its three landfill sites the Township of Stone Mills calculates a recycling diversion rate and total waste diversion rate each year. This rate is calculated from an assumed waste generation rate of 354 kilograms of waste per capita per year, which includes all refuse - recyclable or otherwise. This figure is based on CIF Guidelines for Municipal Diversion for a "Rural Depot South" municipality. Based on recent population estimates, the total potential waste generation from all sectors was 2,760 tonnes in 2009.

In 2009, Stone Mills collected 650 tonnes of blue box recycling from its residents both through curbside and depot collection. This equates to a recycling diversion rate of 24%.

Site attendant records and weigh scale records indicate that approximately 1,720 tonnes of garbage was disposed of in 2009. Any waste which does not end up in a landfill is considered 'diverted', giving the Township a total waste diversion rate of 38% in 2009. The difference between the recycling rate and the total waste diversion rate is created by practices such as back yard composting, material reuse, HHW and e-waste diversion, and reduction in personal waste generation.

An informal waste survey was conducted in 2010 to determine how much recyclable material was being disposed of at the waste disposal sites. Approximately 6% of the waste examined during the survey could be classified as recyclable. This equates to about 3% of the total Township waste stream.

6.3 Potential Diversion Rate

According to CIF, the average residential waste diversion rate for municipalities of the size and location of Stone Mills is 25%. The Township's recycling diversion rate was 24% in 2009, slightly below the provincial average, though the Township's rate has been steadily increasing over the past few years. The Township has decided that a 30% recycling diversion rate is a reasonable goal to achieve within 5 years. This goal will be achieved through enforcement of municipal by-laws, inclusion of new recyclable materials into the Township's program, and ongoing public education.

The Province of Ontario has set a total waste diversion goal of 60%, though achieving this rate almost always requires a three-stream collection of waste, recycling, and kitchen organics.

6.4 Existing Programs and Services

6.4.1 Collection

'Curbside' collection of garbage and blue-box materials is provided to residential properties within the Village of Newburgh. The recycling is split into two streams – fibers and co-mingled containers – which are collected on alternating weeks. The collection and subsequent processing is contracted to Waste Management; this agreement expires in 2012. The total cost of this contract in 2009 was \$13,200 for recycling and \$18,200 for garbage. The curbside collection is mostly funded by a special tax levy on properties in Newburgh. Waste Management transfers the garbage to its own disposal facilities and the recyclables to Manco Recycling in Napanee.

All other residents are required to bring their waste and recyclables to one of the three Township operated sites – Camden East, Moscow, and Sheffield. All three of these sites are active landfill and recycling transfer stations. Recycling is sorted by the residents and stored on site. The recyclables are periodically collected by Manco and

processed at their facility in Napanee. The total cost of the Manco contract was approximately \$51,000 in 2009. The Township received no rebates for the recyclables.

6.4.2 Processing

The processing of collected recyclables is included in the collection contracts with Waste Management and Manco. Though the two firms report material tonnages to the Township, there are no tipping fees or rebates.

Manco currently accepts all common blue-box materials excepting #6 Styrofoam and Polycoat cardboard. Manco requires that recyclables be separated into two streams, fibres and co-mingled containers.

6.4.3 Administration

The Township has a staff position dedicated to waste and recycling management. This staffer, in conjunction with the Public Works Manager, looks after the day-to-day operation of the sites, manages the collection contracts, and maintains the program records. This staffer is also responsible for keeping information on the Township's website up-to-date and answering questions pertaining to waste and recycling from the public at large.

6.4.4 Household Hazardous Waste

The Township periodically offers household hazardous waste drop-off events at the Township Works Garage, free of charge to the residents. The cost of these events is funded through the general tax levy and Stewardship Ontario. The collected HHW is hauled away for processing disposal by a private contractor. The total cost for HHW collection was approximately \$44,000 in 2009.

6.4.5 Electronic Waste

Stone Mills Township offers electronic waste depots at each of its three waste sites. The e-waste is stored in secure, weather proof containers and periodically collected and hauled away by a private contractor. The e-waste program is funded through the general tax levy and the Ontario Electronic Stewardship program.

6.4.6 Tires

The Township is a registered collector with the Ontario Tire Stewardship. Residents may bring used tires to any of the three waste sites free of charge. The transfer and processing of the used tires is provided by the Ontario Tire Stewardship at no cost to the Township.

6.4.7 Organics

Clean brush and lumber is accepted at two of the Township landfill sites for either chipping or periodic controlled burning.

The Township subsidizes back-yard composters to its residents. Composters are available for purchase at the municipal office in Centreville for \$46.

The Township does not offer any source separated organics (Green Bin) collection at this time. The City of Kingston recently initiated a Green Bin program, and several other municipalities in the area are investigating such a program as well.

6.4.8 Promotion and Education

Much of the Township's Promotion and Education (P&E) information is provided through the Township website and the Municipal Services Directory, which is periodically updated.

6.4.9 Funding

The majority of the Township's waste management program is funded through the general tax roll. There is no special line-item levy for waste disposal. Funding for garbage collection is partially funded through a Pay-As-You-Throw program. All garbage must be in Township-issued transparent bags. Bags can be purchased for \$2 each at the municipal offices and at several local businesses.

The Township receives revenue grants from Waste Diversion Ontario which are intended to offset the cost of recycling in a municipality.

6.4.10 Program Funding

The Township's Waste Management program is partially funded by the Pay-As-You-Throw bag program. For every \$2 bag fee, half is allocated to capital reserves and half to operations. The remainder of the operations budget comes from the general tax roll.

In general, Stone Mills has found recycling to be more cost effective than landfilling, though the costs are usually similar in magnitude and fluctuate from year to year. The costs for garbage disposal in the Township have been particularly high in the past years due to ongoing site work, monitoring, and approvals.

6.5 Anticipated Future Needs

The population of Stone Mills is expected to increase steadily over the coming years. It is unlikely that the population will 'explode', though it will likely increase at an above-average rate as Kingston continues to expand westward. With increased population there will be increased garbage and recycling production. The gradual population increase, however, will allow the Township to accommodate the growth.

Landfill capacity within the Township is expected to last at least another 10 years and even longer if recycling practices improve and the diversion rate increases. In the event that any or all of these sites become unavailable, the Township will need to make alternative disposal arrangements, likely with a private contractor such as Waste

Management, which is already responsible for garbage collection in Newburgh. The switch to a private contractor may make garbage management more costly and recycling a more advantageous opportunity.

Increased interest in recycling, both from the general public and from oversight agencies such as WDO, will certainly be a driving force for ongoing assessment and improvements in the Township's management program. As recycling gains prominence in the public sphere, and funding is increasingly allocated based on management practices, recycling will gain a higher priority on the municipal level. This will affect the scope of recycling, the approach to new opportunities and services, and attitudes towards cost vs. benefits.

7. Goals and Objectives

7.1 Diversion Goals

There are two approaches to increase waste diversion – increase the amount of diversion through existing programs, or initiate new programs. The two are not mutually exclusive and the Township should pursue both to reach their goals.

Currently, Stone Mills diverts 24% of its total expected residential waste generation through 'blue box' recycling and a further 14% through other diversion such as composting, hazardous waste recycling, brush burning, and personal waste reduction – simply 'making less garbage'.

WDO Guidelines indicate that the average blue box recycling diversion rate is between 21 and 28% across the province, usually closer to 25% for municipalities of Stone Mills' size and setting. A recycling diversion rate of 30% is feasible, though challenging, for Stone Mills and would make the Township a leader in blue box management. A 6% increase equates to 165 additional tonnes of material or 21 kilograms per person per year.

A further 1 or 2 % total diversion increase may be gained from increased participation in HHW, e-waste, and yard waste programs. Reduction in personal waste generation is difficult to measure and for the municipality to influence as the diversion would occur well before the point where the Township is involved.

7.2 Service Objectives

The Township of Stone Mills provides garbage and recycling services to all its residents and is committed to maintaining this level of service, if not better, in future years. Whether services are provided by the Township itself or through contractors may be adjusted from time to time.

8. Planned Recycling System

8.1 Collection

The Township of Stone Mills will continue to provide curbside collection of both recycling and garbage for the Village of Newburgh. This program will continue to be funded by a special tax levy for Village residents.

The Township will align its collection and sorting guidelines for Newburgh with the remainder of the Township to improve user clarity.

The Township will explore extending curbside collection to the hamlet areas. This process will require public consultation, budget allocation, and tendering of a new collection contract. The existing collection contract with Waste Management should be extended until such a time that the Township can tender an expanded service collection contract.

Recycling collection will continue to be provided at the three Township Waste Disposal Sites free of charge to residents. On-site sorting will be reduced to three streams – fibres, co-mingled containers, and glass – to align with the collection requirements of the processing contractor and to simplify the user's experience.

The Township will extend the existing collection agreement with Manco Recycling until the completion of this Waste Recycling Strategy and the implementation of any relevant new initiatives. The contract will be competitively tendered at this time. The Township will investigate combining the curbside and transfer station collection into a single collection contract which may provide both economic and service benefits to the Township.

8.2 Processing

The Township will remain in their agreement with Manco for processing of recyclables until the completion of this Waste Recycling Strategy and the implementation of any relevant new initiatives. The contract will be competitively tendered at this time. The Township will investigate combining collection and processing contracts into a single contract which may provide both economic and service benefits to the Township.

The Township will continue to receive Manco's processing services at 'no cost' for the duration of the agreement as this arrangement provides financial stability and protects the Township from market downturns.

8.3 Administration

Waste Management in the Township of Stone Mills will continue to be overseen by the Public Works Manager. The Township will continue to designate a specific staff member to administer the day-to-day operations of all waste management programs in the Township and field all public inquiries relating to waste management and recycling.

8.4 Promotion and Education

The Township will continue to provide service guides and informational handouts to residents free of charge. These materials, as well as the Township website, will be reviewed on a bi-annual basis to ensure correctness and clarity.

The Township will provide informational material at all three waste disposal sites as well as clear signage to assist residents with their recycling. The Township will reduce on-site sorting to only three streams – fibres, co-mingled containers, and glass – to simplify the user's experience and encourage participation.

The Township will develop a recycling education package aimed at school-aged children for distribution to all Township schools. This package will be developed with assistance from school-board officials and includes curriculum material, posters, and blue and grey boxes for the classroom.

The Township will pursue a promotion & education campaign relating to the implementation of this Waste Recycling Strategy. This campaign will outline the Township's goals for its recycling program and the upcoming changes for residents.

8.5 Diversion Initiatives

In order to encourage recycling, the Township will increase their enforcement of their Waste Management By-law which prohibits disposal of recyclable materials in the landfills. The Township will continue to mandate the use of clear-plastic bags and require that site attendants or collectors reject any garbage bags which contain recyclable material.

To further encourage recycling, Stone Mills will explore increasing the price of Township-issued clear bags. The use of such bags will continue to be mandatory whether waste is collected curbside or delivered to a transfer station.

9. Monitoring & Reporting

This Waste Recycling Strategy will be submitted for adoption by Township Council and will be submitted to the Continuous Improvement Fund.

This status of the proposed initiatives and the state of recycling in the Township will be reviewed on an annual basis. The Township will prepare a brief report which will include

- Recycling statistics from the previous year, including blue box diversion rate
- Comparison to the previous year and identification of any trends over several years
- Status of all proposed initiatives
- Identification of any new opportunities

This report will be prepared in conjunction with the annual reports for the three waste disposal sites.

The entire Waste Recycling Strategy will be reviewed and updated every five years. This review will consider changes to the Township population and service demands, local and regional opportunities, effectiveness of initiatives, and the status of recycling across the province. This review will be a substantial undertaking and will be budgeted for in 2016.

10. Conclusion

This Waste Recycling Strategy will be presented for adoption to Stone Mills Council and submitted for review to the Continuous Improvement Fund. Upon its acceptance by Council, Township staff will begin the process of implementing the recommended initiatives, some of which may require many months or years to achieve. Of immediate importance is the promotion of this strategy and ongoing public education on the importance of recycling and services offered by the Township.

This strategy is intended to be a guiding document for ongoing improvement and should be considered flexible and adaptable to the changing needs and ambitions of the Township.

Appendix A

Public Consultation Response
Letter



Stone Mills Township Waste Recycling Strategy

We would like to take this opportunity to thank participants for their comments on the Stone Mills Township Waste Recycling Strategy. Your comments were carefully reviewed by the project steering committee which has prepared a final Strategy for presentation to Council in March.

The four most common comments were:

- dissatisfaction with clear plastic garbage bags,
- opposition to increased pay-as-you-throw fees,
- in favour of curbside collection,
- requests for the collection of more recyclable materials.

The steering committee has not proposed any immediate changes to garbage bag rules, pay-as-you-throw, or collection practices, however, these options are recommended for further consideration if diversion targets are not met.

The Stone Mills Waste Recycling Strategy has been funded by Waste Diversion Ontario as part of their mandate to optimize the Blue Box program. A recycling strategy does not address all of the waste management issues that have been raised. For example, a green-bin program falls outside of the scope of this study.

Stone Mills Council has recognized this limitation and intends to strike a new committee to consider a broader range of issues related to waste management and diversion. Any changes will require careful deliberation, planning, and budgeting, and final decisions rest with Township Council. Your input will be a useful starting point for the committee.

Thank you again for your continued interest in the Township's recycling and waste management program.

