

Sustainable Halton

Waste Management Facilities

May 2007



Sustainable Halton

This is a draft final background report for the Sustainable Halton planning process. As the project continues and as we receive public feedback, there may be slight adjustments made to the content of this report.

TABLE OF CONTENTS

EXECUTIVE SUMMARY	1
1.0 INTRODUCTION	5
2.0 OBJECTIVE AND NATURE OF REVIEW	5
3.0 RELEVANT GROWTH PLAN OBJECTIVES AND POLICIES	5
3.1 Growth Plan for the Greater Golden Horseshoe	5
4.0 RELEVANT 2005 PROVINCIAL POLICY STATEMENT POLICIES	5
4.1 Applicable Provincial Policy	6
5.0 RELEVANT REGIONAL OFFICIAL PLAN POLICIES	7
5.1 Applicable Regional Policy	7
6.0 RELEVANT LEGISLATION AND APPROVALS	10
6.1 Other Acts and Approvals	11
7.0 STATUS OF CURRENT WASTE MANAGEMENT SYSTEM IN HALTON REGION	11
8.0 CHOICES	14

EXECUTIVE SUMMARY

Objective

The specific objectives of the Waste Management Report in the Durable Halton study are:

To provide a review of the 2006-2010 Solid Waste Management Strategy and future potential Waste Management infrastructure requirements to 2031 for Halton Region. It will also provide a policy framework to the management of municipal solid waste when developing future areas in Halton.

Context

Status of Current Waste Management System in Halton Region

The Halton Waste Management Site opened in 1992 after a lengthy and costly approvals process. This site was intended to provide the Region with approximately 20 years of landfill disposal capacity based on a number of conditions and assumptions related to waste generation, diversion, processing, and utilization of the site. An important condition of the original EAA approval was a requirement to incorporate an Energy-from-Waste (EFW) component into the Regional waste management system by the year 2000 which would significantly reduce the volume of materials landfilled and therefore support the projected 20 year operational life of the landfill. The Ministry of the Environment approved the Region's request to defer the implementation of an EFW facility until Halton determines that a facility is required. This amendment was largely due to waste diversion achieved to date and a commitment, by way of a Halton Waste Management Strategy, to continually improve waste diversion in the future.

As of the end of 2005, Halton Region has achieved a residential waste diversion rate of 42.6% with the reduction, reuse, recycling and yard waste composting components of the strategy implemented. The landfill is projected to reach capacity in 2023 with these current diversion programs. During 2005, the Region embarked on the implementation of the household organics collection component of the strategy by way of a demonstration GreenCart project involving approximately 5,000 homes. The Strategy was updated and approved by Council on June 21, 2006 with a goal to divert 60% of waste from landfill by 2010. The Strategy is projected to extend the capacity of the landfill until 2030.

The 2006-2010 Solid Waste Management Strategy contains the following initiatives:

- Implement GreenCart Region-wide
- Enhance Promotion and Education of Waste Diversion Programs

- Enhance Multi-residential Diversion
- Enhance Electronics Recycling
- Expand Blue Box materials when viable
- Explore Partnerships with Other Municipalities
- Conduct Waste Composition Studies when required
- Advocate to other Orders of Government and Product Stewardship
- Harmonize and Enhance the Efficiency of Waste Management Service Delivery
- Maximize and Conserve Waste Disposal Capacity at the Halton Waste Management Site
- Enhance recycling for the Industrial/Commercial/Institutional Sectors
- Investigate the implementation of an Energy from Waste facility

The Halton Waste Management Site provides the following services:

- Landfill disposal (8 million cubic metres capacity)
- Container station that diverts yard waste, metal, appliances, tires, wood, drywall, electronics, foam padding, Blue Box material, eye glasses, printer cartridges, cell phones, and corks
- Household hazardous waste depot with paint reuse shed
- Salvation Army Reuse Depot
- Yard waste composting

Waste Collection Services provided in Rural areas

Service	Frequency
Curbside Garbage Collection	Maximum of 6 bags of garbage for weekly collection in all areas except Halton Hills
Blue Box Recycling Collection	Biweekly collection of recyclables set out in two boxes – one for containers, one for fibres
Bulk Garbage Pickup	Rural Burlington only
Metal Items & Appliances	Call-in Service in rural Burlington only

Waste Collection Services provided in Urban Areas

Service	Frequency
Garbage collection	Maximum of 6 bags of garbage for weekly collection
Blue Box Recycling Collection	Biweekly collection of recyclables set out in two boxes – one for containers, one for fibres
Bulk Pickup	Burlington and Oakville: one pickup yearly, Milton: 6 pickups yearly, Halton Hills: 4 pickups per year
Metal Items and Appliances	Call-in Service
Yard Waste	First full week in April until the first full week of December on a biweekly basis
Leaf Vacuum Pickup	Burlington and Oakville operate a leaf vacuum collection

	program in the fall
Christmas Tree pickup	3 weeks in January

Options

With the current programs in Waste Management, the landfill is projected to reach capacity in 2023. With the implementation of the 2006-2010 Solid Waste Management Strategy programs, in particular the GreenCart program, the landfill is projected to reach capacity in 2030. These projections do not include any significant amounts of ICI waste. If a significant amount of waste was to be directed to the Halton Waste Management Site from the ICI sector, these projections would change accordingly. Based on landfill lifespan projections in the Strategy, impacts of the increase in growth under the Durable Halton Plan are cancelled out due to landfill settling and the implementation of an alternative daily cover system that will save landfill space from the current practice.

During the Durable Halton planning period, plans will need to be considered regarding disposal capacity beyond the current landfill. The options include:

- An Energy from Waste facility
- Expand the current landfill to adjacent lands
- Site a new landfill at a different location in the Region
- Export waste to a disposal facility outside of the Region

Public drop-off facilities that provide a Container Station and Household Hazardous Waste Depot will be required in areas that will experience significant population growth. Studies have found that residents are not willing to drive more than 10-15 minutes to drop-off material. Funds are allocated in the 2007 Budget and Business Plan to construct an additional drop-off facility in 2010.

Different levels of service are provided to the urban and rural communities in Halton (see table above). Urban collection services will need to be expanded into areas as they are developed.

1.0 INTRODUCTION

This report is one of a series documenting the context and background of the "Sustainable Halton" exercise. Sustainable Halton is a process that will:

- Ensure Halton Region policies conformity of Growth Plan, Provincial Policy Statement and other relevant legislation;
- Review the current Regional Official Plan;
- Determine Halton Region's goals and objectives for growth; and,
- Determine what policies are needed to reach those goals.

The current Regional Official Plan contains growth plans and population forecasts up to 2021. Sustainable Halton is about responding to Provincial Growth Plan requirements for the time frame from 2021 to 2031. This timeframe will see the addition of 151,000 people to Halton Region.

2.0 OBJECTIVE AND NATURE OF REVIEW

The specific objectives of the Waste Management Report in the Halton study is as follows:

To provide a review of the 2006-2010 Solid Waste Management Strategy and future potential Waste Management infrastructure requirements to 2031 for Halton Region. It will also provide a policy framework to the management of municipal solid waste when developing future areas in Halton.

3.0 RELEVANT GROWTH PLAN OBJECTIVES AND POLICIES

3.1 Growth Plan for the Greater Golden Horseshoe

The Growth Plan for the Greater Golden Horseshoe recommends further analysis on the specific infrastructure (which includes waste management) usage and capacities within each Urban Growth Centre to determine the ability to accommodate growth and the investment required to support intensification.

4.0 RELEVANT 2005 PROVINCIAL POLICY STATEMENT POLICIES

Provincial Policy Statement policies have implications for the development of a Waste Management policy for the Sustainable Halton Plan. The following provides excerpts from the Provincial Policy Statement that would be significant

in considering a policy for the Sustainable Halton Plan. Definitions pertinent to waste management policies have also been extracted.

4.1 Applicable Provincial Policy

"Part V: Policies: Building Strong Communities

Ontario's long-term prosperity, environmental health and social well-being depend on wisely managing change and promoting efficient land use and development patterns. Efficient land use and development patterns support strong, liveable and healthy communities, protect the environment and public health and safety, and facilitate economic growth.

1.1 Managing And Directing Land Use To Achieve Efficient Development And Land Use Patterns

1.1.1 Healthy, liveable and safe communities are sustained by:

- g) ensuring that necessary infrastructure and public service facilities are or will be available to meet current and projected needs.

1.2 COORDINATION

1.2.1 A coordinated, integrated and comprehensive approach should be used when dealing with planning matters within municipalities, or which cross lower, single and/or upper tier municipal boundaries, including

- c) infrastructure, public service facilities and waste management systems

1.6.8 Waste Management

1.6.8.1 Waste management systems need to be provided that are of an appropriate size and type to accommodate present and future requirements, and facilitate, encourage and promote reduction, reuse and recycling objectives.

Waste management systems shall be located and designed in accordance with provincial legislation and standards.

1.7 LONG-TERM ECONOMIC PROSPERITY

1.7.1 Long-term economic prosperity should be supported by:

- e) planning so that major facilities (such as ... waste management systems...) and sensitive land uses are appropriately designed, buffered and/or separated from each other to prevent adverse effects from odour, noise and other contaminants, and minimize risk to public health and safety.

6.0 DEFINITIONS

Infrastructure: means physical structures (facilities and corridors) that form the foundation for development. Infrastructure includes: sewage and water systems, septage treatment systems, waste management systems, electric power generation and transmission, communications/telecommunications, transit and transportation corridors and facilities, oil and gas pipelines and associated facilities.

Waste Management System: means sites and facilities to accommodate solid waste from one or more municipalities and includes landfill sites, recycling facilities, transfer stations, processing sites and hazardous waste depots.

5.0 RELEVANT REGIONAL OFFICIAL PLAN POLICIES

The following goals and objectives have been extracted from the Halton Region Official Plan as it relates to waste management issues. The goals and objectives will have implications for the development of a waste management policy for the Sustainable Halton Plan.

5.1 Applicable Regional Policy

Solid Waste Management

1. The *objectives* of the *Region* are:
 - 1(1) To effect an attitudinal change that will regard waste as a resource in transition waiting to be reclaimed and for which re-use or alternative uses are available and desirable.
 - 1(2) To implement the principle of 3Rs in the management of *solid waste* according to the hierarchy of reduction first, re-use second and recycle third.
 - 1(3) To pursue resource recovery such as composting of organic material and investigate other recovery programs such as energy from waste as a long term option.
 - 1(4) To promote among residents and businesses in *Halton* the concept of a conserver society that is based on the prudent,

efficient and sustainable use of the earth's resources.

- 1(5) To promote the integration of the principle and hierarchy of 3Rs into the decision making of consumers, businesses and governments.
- 1(6) To promote the economic benefits of resource and energy conservation.
- 1(7) To divert, by year 2011, at least 50 per cent of municipal *solid waste* from residential sources away from landfill through 3Rs programs and composting of organic material.
- 1(8) To achieve a minimum planned life of 50 years, from 1992 to 2042, for *Halton's Waste Management Site*.
- 1(9) To provide a system for managing *solid waste* generated within *Halton* in the most cost-effective manner and based on the principle of maximizing the economic potential of *solid waste* and utilizing landfill only as a last resort.
- 1(10) To divert away from *Halton's Waste Management Site* all recyclable material, household organic material and household hazardous material.
- 1(11) To include education, promotion and marketing as part of *Halton's Solid Waste Management Strategy*.
- 1(12) To consider and evaluate any new landfill facilities within *Halton* on the basis of need, public safety, environmental impact, and compatibility with the *goals* and *objectives* of this Plan.

2. It is the *policy* of the *Region* to:

- 2(1) Pursue, in conjunction with appropriate agencies and the Local Municipalities, public education programs on the concepts of: waste as a resource, conserver society, 3Rs hierarchy, and *Halton's Solid Waste Management Strategy*.
- 2(2) Evaluate, as new technologies and procedures arise, alternative systems for managing *solid waste* seeking at all times to employ only those methods considered to be economic, feasible, environmentally safe, and compatible with the *goals* and *objectives* of this Plan.
- 2(3) Develop and update regularly a *Solid Waste Management Strategy* to establish targets for the reduction and diversion from landfill of *solid waste* and to recommend programs and plans, including financial considerations, for achieving such targets in the most cost-effective manner.
- 2(4) Establish and maintain a broad-based *Solid Waste Advisory Committee*, consisting of residents at large and business representatives, to advise Regional Council in developing the

Solid Waste Management Strategy, in pursuing the *objectives* and implementing the *policies* of this Plan, and on matters related to *solid waste* management.

- 2(5) Encourage consumers and businesses, and require all Regional departments and agencies, to the extent possible, to select goods and products that:
 - a) contain a high proportion of recycled and secondary material;
 - b) contain the least amount of packaging;
 - c) contain minimal or no hazardous or toxic substance;
 - d) can be readily re-used or recycled; and
 - e) have the least impact on the environment.
- 2(6) Develop programs to encourage and facilitate the commercial, industrial and institutional sectors in *Halton* to:
 - a) adopt the principle and hierarchy of 3Rs;
 - b) separate their *solid waste* for re-use, recycling and composting; and
 - c) dispose of the remainder at *Halton's* Waste Management Site.
- 2(7) Develop, jointly with the Province, the Local Municipalities and the *development* industry, and adopt guidelines for the design of communities and buildings that will facilitate source separation, collection, storage, and transportation of *solid waste*.
- 2(8) Require Local Official Plans to direct *solid waste* processing and storage facilities to industrial areas.
- 2(9) Support the development of long term viable markets for materials and/or energy recovered from *solid waste*.
- 2(10) Investigate and evaluate resource recovery techniques, including energy from waste facilities, as a long term option for maximizing the economic potential of *solid waste*.
- 2(11) Provide, jointly with the Local Municipalities as required, a cost-effective system for managing *solid waste* generated within *Halton*, consisting of:
 - a) collection from residential sources material that is separated into appropriate categories,
 - b) transportation of material to various processing or storage facilities for recycling and re-use,
 - c) transportation of remaining material to the Halton Waste Management Site,

- d) operation and maintenance of the Halton Waste Management Site, as shown on Map 1, for the receipt, processing, storage and disposal of *solid waste* from all sources within *Halton*,
 - e) operation and maintenance of depots, as required, for the receipt and transfer of *solid waste* including household hazardous material, and
 - f) operation and maintenance of *solid waste* processing and storage facilities, as required, including composting of organic material.
- 2(12) Enact Bylaws, as permitted by legislation, to control and direct the collection, transportation, processing, storage and disposal of *solid waste* generated from non-residential sources within *Halton*.
- 2(13) Consider and evaluate new landfill facilities in *Halton* only in areas outside the Niagara Escarpment Plan Area and after studies have been completed based on the *goals, objectives* and *policies* of this Plan and in compliance with the provisions of The Environmental Assessment Act and other Provincial legislation.
- 2(14) Require an amendment to this Plan for the establishment and operation of any new landfill facilities in *Halton*.
- 2(15) View the use of land for landfill during the operational life of the site as an interim use, until such time as the land is rehabilitated in accordance with the long term end uses suggested by Local Official Plans and this Plan, and in accordance with the requirements of the Ontario Ministry of the Environment.
- 2(16) Manage closed landfill sites owned by the *Region* and rehabilitate them to appropriate uses in consultation with the Local Municipalities.

6.0 RELEVANT LEGISLATION AND APPROVALS

In Ontario, landfilling sites and other waste management activities are subject to Part V of the *Environmental Protection Act* and the regulations made under the Act. The basic legislative framework is defined in Part V and the regulatory requirements for the design and operation of waste disposal sites are included in Regulation 347. For new or expanding landfill sites, these regulatory requirements are superceded by Regulation 232/98.

Section 27 of the Act requires that a Certificate of Approval be obtained from the Ministry of the Environment for the establishment, operation, alteration or

enlargement of a landfill site. The Certificate of Approval refines the landfill standards for a particular site.

Part V of the Act also specifies when a mandatory or discretionary hearing may be held for waste proposals. Under Section 30 of the Act, a hearing is mandatory for the disposal of hazardous waste, hauled liquid waste, or waste considered to be the equivalent of the domestic waste of 1500 persons or more. For all other proposals, the hearing is discretionary as determined by the Director under Section 32 of the Act. A decision would be made by the Director after considering the nature of a proposal and factors such as the views of the affected public and municipal officials.

6.1 Other Acts and Approvals

Landfill sites may also be subject to approval under the *Environmental Assessment Act (EAA)* and the *Ontario Water Resources Act*. Large landfill sites subject to a mandatory hearing under Section 30 of the *Environmental Protection Act*, may require approval under the EAA. Under the EAA, a broader view of the environment is considered and issues beyond the effects on the natural environment must be addressed. For a municipally owned landfill site, Regulation 334 pursuant to the EAA identifies when a proposal is subject to EAA approval. Once a landfill is subject to EAA approval, the decision to hold a public hearing and give approval for the undertaking rests with the Minister. Any relevant EAA requirements need to be met before submitting an application for a Certificate of Approval.

The EAA process for the Halton Waste Management Site was a 10 year a long, complicated and expensive process at a cost of \$8 million. The EAA process for the approval of waste management infrastructure has proven to be very lengthy and costly, often not resulting in an outcome. Simcoe County recently obtained final draft approval in October 2006 for a landfill that began a site search in 1979. The EAA is currently under review by the Ministry of the Environment and proposed amendments are expected in 2007.

Any landfill site discharging to surface water must meet provincial water quality objectives established by the Ministry of the Environment and require approval under the Ontario Water Resources Act.

7.0 STATUS OF CURRENT WASTE MANAGEMENT SYSTEM IN HALTON REGION

The Halton Waste Management Site opened in 1992 after a lengthy and costly approvals process. This site was intended to provide the Region with approximately 20 years of landfill disposal capacity based on a number of conditions and assumptions related to waste generation, diversion, processing,

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Service	Frequency
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Metal Items & Appliances	Call-in Service Rural Burlington only

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8.0 CHOICES

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