
Review of the Provincial Solid Waste Management Strategy

Discussion Guide for

Public Consultations



Review of the Provincial Solid Waste Management Strategy

Discussion Guide for

Public Consultations

Overview

On January 9, 2019, the Provincial Government announced it was undertaking a complete review of the Provincial Solid Waste Management Strategy. The review is the first comprehensive one done since the strategy was announced in 2002.

On February 19, 2019, the Terms of Reference for the review were released publicly by the Provincial Government. The reporting deadline is December 31, 2019

We Want To Hear From You!

Waste management is an important issue affecting every resident and business in the province and we want to hear from you.

You can have your say by completing the online questionnaire, downloading this Discussion Guide and completing the questionnaire, or by sending a separate written submission.

Discussion Guide

This Discussion Guide provides background information about the current Waste Management Strategy, progress made to date on implementation of the strategy, relevant waste management statistics, the strategy review process, and the topics that are being considered as part of the review. Section 3 is a questionnaire that provides a series of questions on specific topics. Opportunity is also provided throughout the questionnaire for you to comment on any of your answers, on things we might have missed, or anything additional you want to add.

If you have any questions related to the Discussion Guide or require an alternate format, please contact wastestrategyreview@gov.nl.ca

Online Questionnaire

The questionnaire has been made available online at engageNL.ca. It may take you approximately 30-40 minutes to complete this questionnaire depending on the detail in your answers and we thank you in advance for your participation.

Deadline for Submissions

The deadline for submissions is Friday, September 13, 2019.

Written submissions can be sent by:

Mail: **Provincial Solid Waste Management Strategy Review**
Attention: Ann Marie Hann
c/o Department of Municipal Affairs and Environment
4th Floor, West Block, Confederation Building
P.O. Box 8700, St. John's, NL A1B 4J6

Fax: **709.729.0943**

Email: wastestrategyreview@gov.nl.ca

Privacy Statement

The collection of information for the online questionnaire is done under the authority of section 61(c) of the **Access to Information and Protection of Privacy Act, 2015**, for the purpose of collecting public feedback on the review of the Provincial Solid Waste Management Strategy.

Any personal information that may be received will be governed in accordance with the **Access to Information and Protection of Privacy Act, 2015** and will only be used for the purpose of informing the review of the Provincial Solid Waste Management Strategy.

If you have any questions about how this information is being collected, used or disclosed, please contact the Executive Advisor leading this review (see contact details below).

Contact Us

If you have any questions regarding this consultation, please feel free to contact:

Provincial Solid Waste Management Strategy Review Office:

Ms. Ann Marie Hann, Executive Advisor

Email: wastestrategyreview@gov.nl.ca

Review of Provincial Solid Waste Management Strategy

Introduction

On January 9, 2019, the Provincial Government announced it was undertaking a complete review of the Provincial Solid Waste Management Strategy. The review is the first comprehensive one done since the strategy was announced in 2002.

On February 19, 2019 the Terms of Reference for the review were released publicly by the Provincial Government (see Attachment 1).

1. The Strategy

1.1 Goals

In 2002, the Government of Newfoundland and Labrador released the Newfoundland and Labrador Waste Management Strategy (see Attachment 2). The strategy was intended to ensure that waste management within the province provided appropriate levels of protection of the environment and delivered modern waste management services at reasonable cost.

Estimated then at a capital cost of \$200 million, implementation of the strategy was stalled in the early years, while efforts continued to identify sources of funding, garner the support of communities to close local waste sites, and develop new environmental standards.

Government developed an infrastructure funding plan in 2007, which also resulted in the original timelines for implementation being extended. Additionally, due to its geological features, the Robin Hood Bay waste facility in St. John's was authorized by government to operate as an equivalent-to-lined landfill instead of requiring the construction of a new lined landfill to service the eastern region.

1.2 Regional Approach to Waste Management

Under the strategy, it was envisioned that modern waste management practices would be accomplished most effectively through regional waste management authorities with shared services and facilities. The strategy originally called for the creation of 15 waste management regions and all communities in an area being part of a designated region. Provincial planning since has reduced this number to 12 regions, eight on the Island and four in Labrador. Appendix A of Attachment 1

(Terms of Reference) also contains a map of the current waste management regions and a summary description of each.

Each region is to operate independently and be financially self-sufficient. Each is also expected to deliver a comprehensive waste management program, including such services as: (a) residential curbside collection; (b) waste separate/recycling; (c) delivery of materials to transfer stations or a disposal (host) site; and (d) provisions for bulky, construction, demolition and household hazardous wastes.

To date, there are eight regional service boards on the island portion of the province established with legislative authority under the **Regional Service Boards Act, 2012**. Only five are active currently:

- Northern Peninsula Regional Service Board, 2005
- Central Regional Service Board, 2008
- Eastern Regional Service Board, 2011
- Western Regional Service Board, 2013
- Burin Peninsula Regional Service Board, 2013
- Discovery Regional Service Board, 2013 (not active)
- Coast of Bays Regional Service Board, 2015 (not active)
- Baie Verte Peninsula-Green Bay Regional Service Board, 2018 (not active)

Three designated regional waste management facilities in the eastern, central and western regions on the island portion of the province were suggested originally to serve as the final disposal (host) sites for all waste generated on the island. Currently, waste in the western region is collected and delivered to transfer stations and then transported to the central region. Remaining regions (non-host) are expected to develop similar systems to transport waste to their designated host sites, as noted below in Table 1:

Table 1: Waste Disposal Destination by Region

Region	Waste Disposal Destination
Northern Peninsula	Norris Arm Waste Management Facility (WMF)
Central	Norris Arm WMF
Western	Norris Arm WMF
Coast of Bays	Norris Arm WMF
Baie Verte-Green Bay	Norris Arm WMF
Burin Peninsula	Robin Hood Bay WMF
Discovery	Robin Hood Bay WMF
Eastern	Robin Hood Bay WMF

The strategy also envisioned having a number of material recovery facilities (of varying sizes) across the province. Currently, two are operational, at Robin Hood Bay and Norris Arm. The Western Regional Service Board recently decided to handle its own recycling through a third party contractor.

The strategy was not prescriptive for Labrador and the isolated and remote areas of the province. These sites were proposed to be addressed on an individual basis with emphasis on improving waste disposal practices and increasing waste diversion where possible.

1.3 Strategy Performance

Attachments three to six present information on the strategy's progress and status.

1.4 Funding the Strategy

In 2002, the expenditure estimate to implement the strategy was projected at \$200 million, for capital costs only. As Table 2 below notes, just over \$200 million has been spent to date. More work remains to implement the strategy fully, and another \$50 million or more may be needed to finish all of the original work intended across the province (not including a provincial composting program). Table 3 presents information on landfill closures.

Table 2: Waste Management Strategy Capital Expenditures

Region	Population	As of March 31, 2019
Eastern	283,100	\$64,803,434
Burin	20,372	\$2,542,080
Discovery	9,795	\$742,709
Central	72,317	\$72,873,424
Coast of Bays	7,095	\$80,288
Baie Verte/Green Bay	13,245	\$742,741
Western	75,158	\$51,028,130
Northern Peninsula	11,614	\$1,626,665
Labrador	27,020	\$6,892,779
Other Provincial (including closures)		\$1,582,242
Total:	519,716	\$202,914,492

Source: Department of Municipal Affairs and Environment

Table 3: Landfill Closures

Region	Original Landfills (2002)	Landfills Operationally Closed	Landfills Environmentally Closed Since 2007	Environmental Closures Remaining
Eastern	49	46	43	3
Burin*	19	18	12	7
Discovery	10	1	0	10
Central	44	43	39	2
Coast of Bays	10	1	0	9
Baie Verte/Green Bay	24	13	7	11
Western (incl. Wild Cove)	29	22	14	11
Northern Peninsula	15	11	9	4
Southern Labrador	16	2	2	9
Isolated/Remote	20	4	0	0
Total:	236	161	126	66

Source: Department of Municipal Affairs and Environment

1.5 Strategy Partners

Implementation of the Waste Management Strategy involves a number of entities, including regional service boards, municipalities and other local authorities and committees, the provincial government and the Multi-Materials Stewardship Board. Each have important roles to play in ensuring an effective waste management system.

1.6 Conclusions

Continuing to implement all components of the strategy as originally contemplated can be expected to require significant additional funding, both capital investment and for ongoing operations. For rural areas, implementing new waste management systems has been, and continues to be, challenging, due to their small and dispersed populations, limited revenue base and distance from host waste disposal facilities in eastern and central Newfoundland. Aggravating this situation are projections suggesting some of these same areas will experience population declines over the next 20 years.

2.0 Have Your Say!

We want to hear about the issues, but as importantly, we want to know how you think they should be resolved.

Specific discussion topics are presented below. You can comment on anything we might have missed or you want to add at the end.

IMPORTANT: If responding on behalf of an organization, it is important that any feedback submitted reflect the official “collective” view of the organization and not individual personal views.

3.0 Questionnaire

SECTION A: Participant Profile

A. I am answering the following questions primarily as a:

- a. Private citizen
- b. Business owner/operator
- c. Local Government or Waste Management Authority
- d. Industry association
- e. Other: _____

B. My community is _____

C. My community is located in which of the twelve waste management regions (refer to map and region descriptions included in Attachment 1):

- a. Baie Verte Peninsula–Green Bay
- b. Burin Peninsula
- c. Northern Peninsula
- d. Coast of Bays (South Coast)
- e. Central
- f. Discovery (Bonavista Peninsula)
- g. Eastern
- h. Western
- i. Western Labrador
- j. Central Labrador
- k. Northern Labrador
- l. Southern Labrador
- m. Not sure

D. The community I live in has a population of about:

- a. Less than 500
- b. 500 - 1,500
- c. 1,501 - 5,000
- d. 5,001 - 10,000
- e. 10,001 - 25,000
- f. More than 25,000
- g. Not sure

E. My community is designated as a:

- a. City
- b. Indigenous community government
- c. Local service district
- d. Town
- e. Unincorporated area
- f. Not sure

The following three questions to be answered by private citizens only;**F. I am between the ages of:**

- a. Under 18
- b. 18-34
- c. 35-54
- d. 55-64
- e. 65 and over

G. The number of people living in my place of residence is:

- a. 1-2
- b. 3-4
- c. 5 or more

H. I am:

- a. Self-employed
- b. Employed
 - Full Time
 - Part time
- c. Unemployed
- d. Retired
- e. Student
- f. Other _____

Section B: Waste Management Questions

* If additional space is required, please attach a separate sheet.

Waste Diversion (keeping waste out of landfills)

1. How satisfied are you with current recycling initiatives in your community?

- a. Very satisfied
- b. Moderately satisfied
- c. Neutral
- d. Slightly dissatisfied
- e. Not at all satisfied

2. How supportive are you of making recycling mandatory in order to increase waste diversion?

- a. Very supportive
- b. Moderately supportive
- c. Neutral
- d. Slightly supportive
- e. Not at all supportive

3. Large quantities of packaging and printed paper end up in our landfills every year. Successful industry-led diversion programs exist in other parts of Canada. Should government require industry to set up a packaging and printed paper program in this province?

- a. Yes
- b. No
- c. Unsure

Please explain your answer _____

4. Organic waste (e.g., food scraps, lawn clippings, cardboard) accounts for nearly one third of all waste generated in the province and contributes to the production of greenhouse gases and leachate at landfills. Voluntary composting programs in NL have diverted only 2% of this waste.

A. How important is it that more be done to keep organic waste out of landfills?

- a. Very important
- b. Moderately important
- c. Neutral
- d. Slightly important
- e. Not at all important

B. Should your local government or waste management authority implement waste diversion and composting programs for organic waste, recognizing there may be a cost and need mandatory participation to be successful?

- a. Yes
- b. No
- c. Unsure

Please explain your answer _____

5. Over half of the waste generated in the province comes from non-residential sources, such as industrial, commercial and institutional (ICI) organizations and construction, renovation and demolition (CRD) activities. What more can be done to increase waste diversion from the:

a. ICI sector? _____

b. CRD sector? _____

Regional Waste Management

6. Currently, the provincial waste management system includes 12 regions, four in Labrador and eight on the island (see map in Attachment 1). The majority of waste generated on the island portion of the province is to be transported to one of two landfills, at either Robin Hood Bay (for eastern waste) or Norris Arm (for central/western waste).

A. Do you support transporting waste from your region on the island to the designated landfill?

- a. Yes
- b. No
- c. Unsure

Please explain your answer _____

B. Due to challenges associated with geography and dispersed population, Labrador is not slated to have a designated, centralized waste disposal facility. Do you agree that waste management in Labrador requires a different approach than for the island?

- a. Yes
- b. No
- c. Unsure

Please explain your answer _____

7. What do residential property owners in your community currently pay each year for waste collection and disposal?

- a. Enter value \$ _____
- b. Unsure

8. Achieving the benefits of new programs and services may have some extra cost. What increase in your current annual residential waste management fee would be acceptable to implement additional modern waste management programs and services in your area of the province?

- a. None
- b. Less than \$50
- c. \$50-99
- d. \$100-149
- e. \$150-200
- f. More than \$200
- g. Unsure

9. Fees paid for residential waste collection and disposal vary widely across the province. Do you think all residential property owners in the province should pay the same annual amount for waste collection and disposal?

- a. Yes
- b. No
- c. Unsure

Please explain your answer _____

10. Should communities have the choice to opt in or out of a regional waste management system?

- a. Yes
- b. No
- c. Unsure

Please explain your answer _____

11. The approach to waste management for properties located on unserviced roads in unincorporated areas varies throughout the province. In some areas, waste management service is not provided and property owners manage their own waste. In other areas, this service is provided at a reduced rate for cabin owners who have a primary residence elsewhere, and until recently, property owners in the eastern region were charged the same mandatory fee for service on unserviced roads as those with property on serviced roads.

- A. Do you think Regional Services Boards or Waste Management Authorities should provide waste management services on unserviced roads in unincorporated areas?
 - a. Yes
 - b. No
 - c. Unsure

Please explain your answer _____

- B. Do you think there needs to be a provincial policy governing waste management on unserviced roads in unincorporated areas that brings a consistent approach to all regions?
 - a. Yes
 - b. No
 - c. Unsure

- C. If waste management services are provided on unserviced roads in unincorporated areas, should cabin owners:
 - a. be required to pay the same fee as all residents living in the region regardless whether it is their secondary residence?
 - (i) Yes
 - (ii) No

 - b. be able to opt in or out of the service if it is their secondary residence?
 - (i) Yes
 - (ii) No

 - c. pay a reduced fee for part-time and seasonal occupancy of a secondary residence?
 - (i) Yes
 - (ii) No
 - d. Other
 - e. Unsure

Please explain your answer _____

Modern Standards and Technology

12. Given our geography and dispersed population, is it reasonable to expect rural and remote areas of the province to have the same standards for waste management as urban areas?

- a. Yes
- b. No
- c. Unsure

Please explain your answer _____

13. Is enough being done in this province to encourage innovation in waste management?

- a. Yes
- b. No
- c. Unsure

Please explain your answer _____

Economic and Employment Opportunities

14. How can we achieve more economic benefit from the management of waste in your region and in the province generally?

17. Can you suggest any policy, regulation or legislation changes that your local waste management authority, municipality, regional service board or provincial government can make to improve the delivery of waste management in your area or the province overall?

Waste Management Strategy Direction

18. Given the background information provided for this consultation and your own perspective on the topics covered in this questionnaire:

A. Do you think the overall direction of the 2002 Waste Management Strategy remains appropriate to implement moving forward?

- a. Yes
- b. No
- c. Some of the strategy is relevant, but not all
- d. Unsure

Please explain your answer _____

B. What do you think are the top three things we need to do to meaningfully advance waste management performance in the province?

1. _____

2. _____

3. _____

General Comments

19. Do you have any other comments or suggestions that we should know about and consider?

Thank you very much for your time in responding to our questions.

Attachment 1

Terms of Reference

Review of Provincial Solid Waste Management Strategy

1.0 Introduction

1.1 Review of Strategy Announced

On January 9, 2019, the Provincial Government announced it was undertaking a complete review of the Provincial Solid Waste Management Strategy and its implementation. Conducting this work is timely, given the strategy has not been reviewed since it was first released in 2002, and the importance of continuing to ensure waste management within the province is providing desired outcomes in a strategic, efficient and equitable manner. As stated by Municipal Affairs and Environment Minister Graham Letto in the January 9th news release, "...the goals remain to ensure the protection of the environment and to support the delivery of high quality waste management services at a reasonable cost. Through a review of the system, we will ensure the strategy successfully addresses a broad scope of waste management issues and is both modern and efficient."

This review will be led by Ann Marie Hann, former Clerk of the Executive Council, Government of Newfoundland and Labrador.

1.2 Strategy Highlights

The primary waste management goals of the strategy are:

- Divert 50 per cent of solid waste from landfill;
- Reduction in the number of waste disposal sites by 80 per cent;
- Elimination of open burning and incineration;
- Phase out of unlined landfills; and
- Province-wide implementation by 2025.

The strategy envisioned a regional approach, where waste management regions would be governed by regional boards which held responsibility for the development and implementation of regional waste management plans. This approach permits municipalities, local service districts, and unincorporated areas to pool resources to accomplish shared objectives. Regional waste management boards provide waste management services, which could include collection and disposal, as well as assessing and collecting fees. Within regions, municipalities may perform their own waste management collection services.

The province is divided into twelve waste management regions. Eight regional service boards have been established on the island portion of the province formally by regulation. Three of these regional boards, namely Discovery, Coast of Bays and Baie Verte Peninsula-Green Bay, are currently inactive. Labrador comprises the remaining four regions, in western, central, southern and northern Labrador. No regional service boards have been established. Appendix A depicts the twelve regional zones. Two designated regional waste management facilities in the Eastern and Central regions on the island portion of the province are to serve as the final disposal (host) sites for waste generated on the island. Remaining regions (non-host) on the island are responsible for developing systems to transport waste to the two full service facilities with lined or equivalent to lined landfills for final disposal. In the interim, local landfill sites continue to be closed and consolidated to the extent possible.

The strategy also called for recycling facilities to be established, two of which are now operational in the host regions of Eastern and Central at Robin Hood Bay and the other at Norris Arm, respectively. Recyclables are intended to be processed at one of these facilities unless a regional authority decides to process recyclables within its own region. The Provincial Waste Management Strategy is not prescriptive for Labrador and the isolated and remote areas of the province. It was recognized that these sites would need to be addressed on an individual basis with emphasis on improving waste disposal practices, increasing waste diversion and eliminating incineration where possible. Infrastructure development has occurred in Labrador West, with planning currently underway in Central, Northern and Southern Labrador. Waste management solutions have also been piloted in several isolated areas, including specialized bins and equipment to enable waste to be transported via the provincial ferry system.

Implementation of the Solid Waste Management Strategy is a partnership initiative between regional service boards, committees and/or municipalities, the provincial government and the Multi-Materials Stewardship Board, each with a specific role. Government's participation involves two

departments, namely the Department of Municipal Affairs and Environment (oversight of province-wide implementation; environmental policy and standards; infrastructure funding) and Service NL (compliance monitoring and enforcement). The Multi-Material Stewardship Board has responsibility for public education, research and waste diversion programs. Local governments or regional boards deliver actual waste management services.

2.0 Performance Status

Funding to advance implementation of the strategy was announced in 2007. Appendix B presents some of the key performance highlights associated with execution of the strategy as of October 2018.

3.0 Issues To Be Examined

The 2002 Provincial Solid Waste Management Strategy is premised on five primary actions intended to support modern waste management in the province. These actions include: (a) increasing waste diversion; (b) establishing regional waste management regions; (c) utilizing modern standards and technology; (d) maximizing economic and employment opportunities; and (e) public education. Based on the strategy's five pillars, the topics to be considered in this review are outlined below. Other issues arising during the review, raised during planned consultations for example, will be addressed also.

A. Waste Diversion

Effectiveness of current waste diversion initiatives and funding programs; Opportunities to implement new waste diversion programs; for example:

- a) targeting additional products for diversion (e.g., organics);
- b) implementing disposal bans, mandatory recycling programs;
- c) increasing waste diversion by the industrial, commercial and institutional sectors and multi-dwelling residential units;
- d) expanding the extended producer responsibility approach to other waste products.

B. Regional Approach to Waste Management

Effectiveness of waste management systems overseen by regional service boards and regional authorities;

Consistency of waste management programs and services across the province (e.g., services, costs, fees, contributions to provincial waste management targets);

Opting in or out of regional services - should choices be permitted;

Financial sustainability of waste management systems regionally and provincially;

Optimal approach(es) to setting fees and fee structures within and across regions and types of property ownership;

Occupational health and safety performance of provincial waste management system.

C. Modern Standards and Technology

Sufficiency of operating practices utilized by regional service boards;

Appropriateness of provincial environmental standards;

Adequacy of compliance and enforcement activities;

Examination of what constitutes “remote and isolated” communities, as pertains to implementation of the waste management strategy;

Review of technologies relevant for rural and remote areas;

Identification of opportunities for new technologies (e.g., high heat incineration; technology to reduce GHGs).

D. Economic and Employment Opportunities

Provincial and regional economic and employment benefits derived from implementing the solid waste management strategy;

Potential for additional economic and employment opportunities.

E. Public Education

Effectiveness of public education programs;

In addition to the above, the following items shall also be included in the review.

F. Governance

Roles and interactions of the major partners in the system (government, regional service boards, municipalities, local committees, Multi-Materials Stewardship Board, Municipal Assessment Agency) to ensure the system on provincial and regional levels operates with maximum effectiveness and efficiency;

Effectiveness of governance structures and human resource capacity to oversee successful implementation of the waste management system at the regional level;

Provincial waste management system's overall planning and accountability frameworks, including data collection and reporting activities by regional service boards and government for performance measurement and compliance monitoring;

Strategy goals and their continued relevance;

Opportunities for greater cooperation across regions.

G. Legislative Review

Identification of potential policy, regulatory and legislative amendments required to support implementation of a modern waste management system in this province.

4.0 Consultations

As part of this review, implementation of a comprehensive stakeholder and public consultation program will be necessary.

An additional requirement will be the completion of relevant jurisdiction reviews and consultations to examine how comparable systems operate, for lessons learned and new opportunities or approaches to be considered for this province.

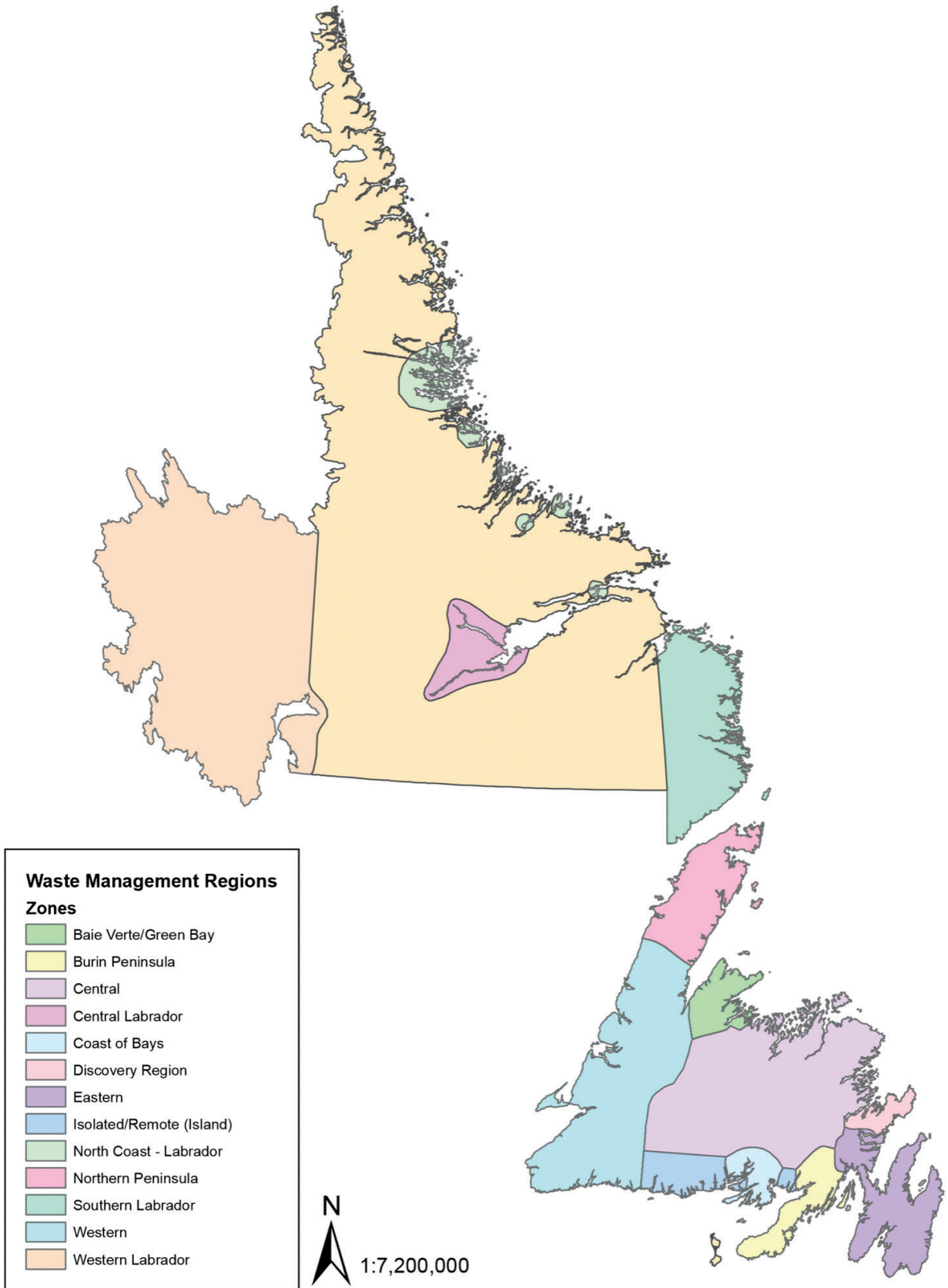
5.0 Timeline And Resources

Ann Marie Hann will lead this review with the expectation to complete the review and submit a final report with recommendations to the Minister of Municipal Affairs and Environment no later than December 31, 2019.

Primary operational support to Ms. Hann will be provided by the Department of Municipal Affairs and Environment. Consideration will be given to providing additional resources as required.

Appendix A

Waste Management Regions – Newfoundland And Labrador



Regions on the Island (Eight):

Northern Peninsula Region

The Northern Peninsula Waste Management Region spans from River of Ponds in the west to Englee in the east and extends to Quirpon in the north.

Western Region

The Western Newfoundland Waste Management Region spans from Bellburns in the north to Ramea in the south and extends east to White Bay.

Baie Verte-Green Bay Region

The Baie Verte-Green Bay Waste Management Region includes all communities on the Baie Verte Peninsula and in Green Bay South, spanning from Westport in the west to Brighton in the east. This region also includes Little Bay Islands.

Coast of Bays Region

The Coast of Bays Waste Management Region includes the Connaigre Peninsula, spanning from the Head of Bay D'Espoir in the north to Harbour Breton in the south. This region also includes the communities of McCallum, Gaultois and Rencontre East.

Burin Peninsula Region

The Burin Peninsula Waste Management Region spans from Grand le Pierre and Monkstown in the north to Point May and Lamaline in the south.

Central Region

The Central Newfoundland Waste Management Region spans from Buchans in the west to Terra Nova National Park in the east and extends north to Twillingate. This region also includes Change Islands and Fogo Island.

Discovery Region

The Discovery Waste Management Region includes the entire Bonavista Peninsula, spanning from Port Blandford in the west to the Town of Bonavista in the east.

Eastern Region

The Eastern Newfoundland Waste Management Region includes the Avalon Peninsula and all communities from Whitbourne to Clarenville. This region also includes all communities from Burgoyne's Cove to Swift Current as well as Random Island.

Regions In Labrador (Four):**Western Labrador Region**

The Western Labrador Waste Management Region includes all communities in the western area of Labrador including the towns of Labrador City and Wabush.

Central Labrador Region

The Central Labrador Waste Management Region includes the communities of Happy Valley – Goose Bay, North West River and Sheshatshui.

Northern Labrador Region

The Northern Labrador Waste Management Region includes the north coast of Labrador, spanning from Rigolet in the south to Nain in the north.

Southern Labrador Region

The Southern Labrador Waste Management Region includes the southeast coast of Labrador, spanning from L'Anse au Clair in the south to Cartwright in the north.

Appendix B

Provincial Waste Management Strategy Progress

Goal	Progress	Outlook	Anticipated Timeframe
Reduce material going to landfill by 50%	Achieved 25% diversion rate	No substantial increase predicted until organics are addressed by 2025	2025
Reduce number of waste disposal sites by 80%	69% of old dumpsites closed	Expected to exceed 80% by 2020	2020
Eliminate open burning of waste at disposal sites, and phase out waste incinerators	80% reduction in the number of sites utilizing incineration or open burning	Expected to be close to 100% by 2020, with the exception of remote sites	2020
Phase out unlined landfills	83% of the province's population now have access to lined/equivalent to lined landfills	Further increases as other regions move to modern waste management practices	2020
Full province-wide modern waste management	83% of the province's population	Further increases as other regions move to modern waste management practices	2025

Attachment 2

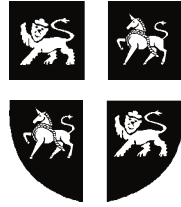
Newfoundland and Labrador Waste Management Strategy, 2002



GOVERNMENT OF
NEWFOUNDLAND
AND LABRADOR



NEWFOUNDLAND AND LABRADOR Waste Management Strategy



GOVERNMENT OF
NEWFOUNDLAND AND LABRADOR

Department of Environment

NEWFOUNDLAND AND LABRADOR
Waste Management Strategy

April 2002

MESSAGE FROM THE MINISTER



For generations, the people of our province have taken the simple solution to dealing with garbage – dump it into a landfill site or burn it. However, our current practices cannot continue. We need to move from simply dumping solid waste into landfill sites to developing long-term solutions which will benefit our environment, our communities, and our people. The process began with the public consultations on waste management conducted during the summer of 2001, and we are now about to embark on the next phase with the implementation of a Provincial Waste Management Strategy.

When the strategy is fully realized throughout Newfoundland and Labrador, the number of landfill sites will be greatly reduced, we will be diverting more of the waste actually going for disposal, and waste management sites will be operated according to up-to-date standards which minimize the impacts on our environment. While these are aggressive goals, I firmly believe they are achievable.

I extend sincere thanks to the members of the Waste Management Advisory Committee, Derm Flynn, Catherine Barrett, Jessie Bird and Priscilla Boutcher, for their commitment, hard work and dedication in conducting public consultations. I also want to recognize my colleague, former Environment Minister Ralph Wiseman, whose leadership and guidance pioneered the development of this strategy.

Government is committed to addressing the waste management issues in our province. This strategy provides the framework to meet the challenge, and together, we will achieve modern waste management in Newfoundland and Labrador.

Kevin Aylward
MINISTER

EXECUTIVE SUMMARY

Each year, Newfoundlanders and Labradorians generate more than 400,000 tonnes of waste materials at a rate of approximately two kilograms per person per day. To date, the approach for handling this waste has been to simply send it to disposal to one of the 240 landfill sites throughout the province. However, long-term solutions are needed to address the challenge of effectively handling solid waste if we are to ensure the health and well-being of our communities and the protection of our environment.

Both Government and people of Newfoundland and Labrador must take responsibility for the management of our waste and to improve our waste practices. The planning and delivery of waste management is the direct responsibility of municipalities and communities, while the provincial government must provide the framework for waste management by setting policies, regulations and standards. Government recognizes it is now time to provide a new framework through the development of a provincial waste management strategy.

After conducting public consultations with the people of our province, we have developed a comprehensive, modern Provincial Waste Management Strategy. The strategy will enable us to divert 50 percent of the materials currently going to disposal by 2010, to reduce the number of waste disposal sites by 80 percent, to eliminate open burning at disposal sites by 2005 and phase out the use of incinerators by 2008, to phase out use of unlined landfill sites by 2010 and to implement full province-wide modern waste management by 2010.

The Provincial Waste Management Strategy is premised on five primary actions which will enable our province to have modern waste management. Those actions are: increasing waste diversion, establishing waste management regions, developing modern standards and technology, maximizing the economic and employment opportunities, and public education.

Government recognizes that the strategy must be implemented in a manner which successfully balances community and environmental health with economic capability. We are committed to continuing to work with communities to achieve our goals and to ensure that Newfoundland and Labrador has modern and effective waste management practices.

TABLE OF CONTENTS

INTRODUCTION	1
ACTION ITEM 1: INCREASE WASTE DIVERSION	5
What is waste?	5
What is waste diversion?	6
Achieving waste diversion	6
The Strategy	7
ACTION ITEM 2: A REGIONAL APPROACH TO WASTE MANAGEMENT	9
What is regional waste management?	9
Regional waste management systems	9
Regional waste management authorities	10
Isolated areas	11
The cost of regional waste management	12
The Strategy	13
ACTION ITEM 3: MODERN STANDARDS AND TECHNOLOGY	14
Research opportunities	16
The Strategy	16
ACTION ITEM 4: MAXIMIZE ECONOMIC AND EMPLOYMENT OPPORTUNITIES	17
The Strategy	18
ACTION ITEM 5: PUBLIC EDUCATION	19
The Strategy	19
CONCLUSION	20
APPENDIX I: Waste Management Regions (maps)	

Newfoundland and Labrador Waste Management Strategy

INTRODUCTION

The handling of garbage – solid waste – has become an increasing concern in today's society. Effective solid waste management is a challenge for communities and governments throughout Canada, including Newfoundland and Labrador.

Each year in this province, it is estimated that Newfoundlanders and Labradorians generate more than 400,000 tonnes of waste materials a year at a rate of approximately two kilograms per person per day. This waste is sent to approximately 240 disposal sites which serve an estimated 654 communities. Many of these sites are at the end of their useful life, and there are approximately 50 aging teepee incinerators in use throughout the province.

Communities are seeing nuisance problems from poorly or improperly maintained landfill sites and concerns have been expressed that the many, unsightly dumps are not in keeping with the expectations of the province's growing tourism industry. Many of the landfill sites experience problems with uncontrolled burning at the sites, smoke, vermin, odours and excessive wind borne litter.

Waste management is the responsibility of everyone – individuals, communities, businesses, industries, and government. The planning and delivery of waste management is the direct responsibility of municipalities and communities, while the provincial government must provide the framework for waste management by setting policies, regulations and standards. Government recognizes it is now time to provide a new framework through the development of a provincial waste management strategy.

OUR ACTIONS TO DATE

Over the past several years, Government has taken steps to respond to the challenge of waste management. These actions provide the foundation for the provincial waste management strategy:

- In 1994, Government instituted a ban on disposal of untreated sewage sludge and oil contaminated soil in landfills in the eastern region, later expanding this ban to other areas of the province.
- In 1996, Government established the Multi-Materials Stewardship Board to develop, implement, and manage a variety of waste diversion programs in Newfoundland and Labrador in accordance with Government priorities.

Newfoundland and Labrador Waste Management Strategy

- In 1997, the deposit refund program for beverage containers, the first province-wide waste diversion program, was initiated. To date, this program has been successful in diverting approximately 60 per cent of the beverage containers from landfills, has led to the establishment of 37 Green Depots and has created more than 200 full and part time jobs.
- In 1997, Government established the Newfoundland and Labrador Waste Management Trust Fund. The Trust Fund provides financial assistance to aid in the development and implementation of waste management initiatives in the province. It is governed by provincial waste management regulations and administered by the Multi-Materials Stewardship Board under direction of the Minister of Environment. The principal source of funds for the Trust Fund is surplus revenues from the province's beverage container deposit refund system.
- In April 1999 and October 2000, proposals to the Trust Fund for a variety of waste management initiatives resulted in funding for education and information projects, cleanups, school recycling programs, pilot projects on waste diversion and for municipalities to investigate the practicality of regional waste management systems.

GOVERNMENT'S COMMITMENT

In the March 13, 2001 Speech from the Throne, Government articulated its intention to develop a long-term provincial strategy to address waste management and to seek the views of individuals, communities and other interested parties on that strategy. For the public consultation component, the Minister of Environment appointed an independent four-person Waste Management Advisory Committee in May 2001.

Public Consultations

Chaired by Derm Flynn, then president of the Newfoundland and Labrador Federation of Municipalities, the committee conducted public consultations throughout the province during the summer of 2001. The committee prepared a final report, *A Call to Action On Environmental Protection*, which provided an overview of the information received during the public consultations and outlined recommendations for Government on how to proceed with modern waste management. It was presented to Government in October 2001.

Newfoundland and Labrador Waste Management Strategy

The Waste Management Advisory Committee report stated that “there was a general recognition that our present ways of handling waste must change, for the health of our environment and communities.” It reported there is strong public support for developing and implementing a provincial waste management strategy. In particular, the committee identified several themes which emerged from the consultations and were used to design a provincial strategy:

- increase the amount and types of materials recycled;
- combine community resources to make waste management affordable;
- Government's commitment to modern waste management must not waver; and
- provide public information on the importance of modern waste management.

OUR GOALS

The provincial waste management strategy will enable Government to achieve the following goals:

- divert 50 percent of the materials currently going to disposal by 2010;
- reduce the number of waste disposal sites by 80 percent;
- eliminate open burning at disposal sites by 2005 and phase out the use of incinerators by 2008;
- phase out use of unlined landfill sites by 2010; and
- full province-wide modern waste management by 2010.

These goals will be achieved through five primary actions which embody the provincial waste management strategy:

1. Increase Waste Diversion
2. Establish Waste Management Regions
3. Develop Modern Standards and Technology
4. Maximize Economic and Employment Opportunities associated with waste management
5. Public Education

THE ROLE OF MULTI-MATERIALS STEWARDSHIP BOARD

The Multi-Materials Stewardship Board (MMSB) has been a key component in Government's waste management initiatives, and it will play an integral role in implementing and achieving modern waste management. Specifically, MMSB will:

- continue to develop, manage and administer waste diversion programs and negotiate stewardship agreements;
- act as the selling agent for recycled materials, in addition to beverage containers, as needed for the programs they administer directly
- continue to develop and manage provincial public information and awareness programs on waste management; and
- through the Newfoundland and Labrador Waste Management Trust Fund, continue to fund waste management information and education programs and pilot demonstration projects.

Newfoundland and Labrador Waste Management Strategy

ACTION ITEM 1: INCREASE WASTE DIVERSION

WHAT IS WASTE?

Waste materials are generated from three main sources: residential, institutional, commercial and industrial, and construction and demolition.

Residential Waste: solid waste material generated, diverted or disposed from residential dwellings, primarily private homes. It is estimated that 34 percent of the solid waste in the province is generated from this source.

Institutional, commercial and industrial (ICI) waste: waste material generated, diverted or disposed of from institutional, commercial and industrial establishments such as manufacturing, transportation, retail, wholesale and warehousing, commercial (e.g., restaurants and banks) and non-commercial (e.g., health and education) services. This type of waste accounts for approximately 60 percent of the solid waste in the province.

Construction and demolition (C&D) waste: solid waste material from residential and commercial construction, renovation, demolition and land-clearing, as well as road and bridge construction waste (concrete and asphalt). Approximately six percent of the solid waste in the province comes from this source.

Most of the waste generated in Newfoundland and Labrador is classified as paper and organic. The remainder is classified as plastic, glass, and inorganic. The table below outlines the percentage of each type of waste generated in the province.

MATERIAL TYPE	PER CENT OF TOTAL WASTE
Paper	37
Organic	30
Metal	9
Plastic	8
Glass	6
Inorganic	4
Other	6

WHAT IS WASTE DIVERSION?

While waste cannot, in practical terms, be completely eliminated, the amount of waste going for disposal can and must be reduced. Many jurisdictions across Canada have adopted the proven approach of waste diversion as a method for reducing the amount of material going for disposal. Successful waste diversion removes volumes of specific types of material from the waste stream and is based on the widely accepted hierarchy of waste management: reduce, reuse, recycle, recovery, and disposal.

Reduce: decrease the amount of waste created in the first place; it can be achieved through reduction in use of once-through, disposable and limited use products, production of more durable goods, and elimination of excess packaging.

Reuse: reuse materials and products rather than discard them can displace the need for new production; for example, beverage containers, rechargeable batteries, and reusable laser-printer cartridges.

Recycle: reprocess or recycle waste materials into another usable form displaces the need for new material in production of consumer goods; for example, recycling newsprint, bond paper and cardboard can displace some of the original fibre used to make new paper products.

Recovery: gain some useful benefit (materials or energy) from waste; for example, most organic material can be broken down through decomposition to form a rich soil-like material, compost, which can be used to enrich soil or as a cover material on disturbed land.

Disposal: final placement of waste material with no economic or environmental benefits achieved.

ACHIEVING WASTE DIVERSION

Many of the materials currently treated as waste in Newfoundland and Labrador are valued elsewhere as resources and raw materials for new businesses and employment. In Nova Scotia, for example, materials such as paper, newspaper, glass, plastics, tins, and cardboard are separated at source (whether household, business, or institution), collected and either used by a business in the province or marketed outside the province. To achieve a 50 percent reduction in the amount of materials going to disposal, province-wide waste diversion programs based on the waste management hierarchy

Newfoundland and Labrador Waste Management Strategy

will be established. These programs will apply to materials from all waste sources: residential, industrial, commercial, institutional, and construction and demolition. Initially, these programs will be directed toward materials comprising a large volume of the waste generated in the province and which have an identified market or use such as paper, corrugated cardboard, newsprint and bond paper; organic material, used tires, and used oil. However, as market research continues, programs for other materials will be considered. Research will also investigate the reduction of waste entering the province in the form of packaging and transportation containers.

Government recognizes that it is important to lead by example. All departments, and institutions, Crown corporations, and agencies receiving a significant portion of their funding from the provincial government will be required to provide a waste management plan indicating procedures, programs and resources that are or will be in place to meet the waste management strategy and province-wide waste diversion policies.

THE STRATEGY

- **Disposal Bans**
In the short term, Government will implement disposal bans on tires, oil, corrugated cardboard, newsprint, bond paper, and organic material. For the long-term, Government will research the possibility of disposal bans for other materials, including household hazardous waste products.
- **Diversions Programs**
Within the next 12 months, Government, in conjunction with MMSB, will implement a program for recovery of used oil. MMSB will continue to research waste diversion programs for other materials, such as paint products.
- **Enhance Green Depots**
The system of Green Depots throughout the province provides the foundation for enhancing and expanding household waste diversion, primarily through recycling. MMSB will continue to work with the Recycling Depot Operators Association of Newfoundland and Labrador and with the Green Depots to enhance their capabilities and participation in waste diversion programs.
- **Research New Waste Diversion Programs**
MMSB will continue to be the lead agency for research and work to identify markets for waste materials and provide this information to Government and Regional Waste Management Authorities. MMSB will also continue discussions

Newfoundland and Labrador Waste Management Strategy

with other provinces, primarily the other Atlantic provinces, on inter-provincial cooperation and waste diversion programs, including associated economic opportunities.

- **Departmental Plans**
Within the next 24 months, provincial government departments and institutions, Crown corporations, and agencies will develop waste management plans in accordance with the provincial strategy.

Newfoundland and Labrador Waste Management Strategy

ACTION ITEM 2: A REGIONAL APPROACH TO WASTE MANAGEMENT

WHAT IS REGIONAL WASTE MANAGEMENT?

A regional waste management system is a formal partnership among incorporated communities, Local Service Districts and unincorporated areas to provide integrated waste management services. Establishing regional waste management systems enables communities to pool resources and to accomplish together what is difficult to do individually. This approach also helps to dramatically reduce the number of waste disposal sites.

Typically, a waste management system includes the collection, diversion (reuse, recycling, recovery/composting), and disposal of the municipal waste for the communities in the region. However, each region does not necessarily have a disposal facility. The use of transfer stations, facilities for the temporary delivery and storage of waste before it is transported to a final disposal site, is common in many Canadian provinces.

In Newfoundland and Labrador, as indicated during the public consultations, communities are recognizing that modern waste management is best achieved through regional cooperation. Many communities have voluntarily combined interests to conduct preliminary feasibility studies on a regional approach to waste management, with funding from the Newfoundland and Labrador Waste Management Trust Fund. These initiatives provide a foundation for the regional component of the provincial waste management strategy.

REGIONAL WASTE MANAGEMENT SYSTEMS

To determine the number of waste management regions and the number and location of final waste disposal sites for Newfoundland and Labrador, several factors were considered: the distribution of our population; geographic distances and transportation infrastructure; capital and operating costs of waste management facilities; information on waste generation; and the experiences of the other Atlantic provinces.

To reduce the number of waste disposal sites in the province by 80 percent, 15 waste management regions will be established (see Appendix A for detailed maps). All communities in an area whether an incorporated municipality, a Local Service District, or an unincorporated community, will be part of a waste management region.

Newfoundland and Labrador Waste Management Strategy

Each regional waste management system will have both waste diversion and waste handling facilities, services and operations. These systems will provide communities in the identified regions with waste separation and collection; central composting; recyclables collection centres; specific disposal sites for construction and demolition debris and metals; and household hazardous waste management and disposal facilities.

With a focus on waste diversion, not every region will require a final waste disposal site. Residual waste will go to one of several provincial final waste disposal facilities. The regional waste management systems will transport residual waste from the region via a transfer station for disposal to the nearest final waste disposal facility. Transfer stations will be enclosed facilities with controlled access and may include other waste management activities such as recyclables sorting and storage. Residual waste may be delivered directly to the final waste disposal facility from within the host region.

The basis for operations in any given region, with or without a disposal facility, will be:

- require source separation to meet provincial waste diversion programs and the requirements of the regional authority;
- collection from individual households (i.e., curbside collection);
- delivery of materials to the regional sorting, composting or disposal facility as appropriate;
- processing and transportation of recyclables to major shipping points or markets;
- provision of practical diversion/disposal means for bulky materials and C&D materials; and
- provision of a scheduled opportunity, at least once a year, to dispose of household hazardous waste.

A Technical Advisory Committee will be established to assist communities with waste management planning. Each region will also have a coordinator to actively promote waste diversion through ongoing research into additional diversion opportunities, monitoring waste management operations, and developing and delivering public information and education programs in the region.

REGIONAL WASTE MANAGEMENT AUTHORITIES

Regional waste management systems will be designed, financed and operated by Regional Waste Management Authorities (RWMA). A RWMA will be established as a legal, incorporated entity operated by a board of directors with representation from the municipalities, Local Service Districts and unincorporated communities in the waste management region.

Newfoundland and Labrador Waste Management Strategy

A Regional Waste Management Authority will be able to:

- provide a solid waste management service, including the collection and disposal of solid waste;
- construct, acquire, establish, control, manage, and operate solid waste collection, recycling and disposal facilities;
- finance its undertakings;
- assess, charge and collect fees for services; and
- engage and pay personnel

Each RWMA will prepare for Government's approval a business plan, an operations plan and environmental assessments for the regional waste management system. Plans must include an assessment of environmental risk, an environmental management system that outlines policies and practices that will be used; a closure plan; and a regional communication and education program. Facilities must be designed to be able to meet the needs of the region for a minimum of 50 years.

ISOLATED AREAS

Given the geographic make-up of Newfoundland and Labrador, Government recognizes it is impossible for all communities to participate in a regional approach to waste management. For isolated areas, community disposal sites will remain in operation, however, emphasis will be on improving existing disposal sites and enhancing opportunities for diversion. Isolated communities will be expected to contribute to the goal of 50 percent reduction of waste sent to disposal.

As indicated during the public consultations, geographically isolated communities have a strong interest in improving waste management practices and in participating in province-wide diversion programs. Government recognizes that alternative approaches must be developed for these communities and is committed to working with isolated areas to:

- provide information and education on modern waste management;
- assist with recyclables storage and transportation assistance (financial and/or physical);
- investigate the possibility of an annual collection of white goods, scrap vehicles and other metals in isolated areas through a public/private partnership; and
- assist with development of economic and effective community composting in isolated communities.

Newfoundland and Labrador Waste Management Strategy

The waste disposal alternatives for isolated communities will be determined on a community by community basis, in order to address immediate, local environmental conditions and considerations. While the goal is to eliminate incineration as a means of disposal, Government recognizes that incineration may remain in use in isolated communities, as a last resort following waste diversion.

THE COST OF REGIONAL WASTE MANAGEMENT

Each year in Newfoundland and Labrador, approximately \$21 million is spent on waste collection and disposal. However, the investment in waste management has not kept pace with the increasing amounts and types of waste. Implementing modern waste management initially requires significant financial investment to build the necessary infrastructure. In addition, there will be significant costs to close obsolete disposal sites and equipment.

The cost of modern waste management was discussed during the public consultations. Individuals and communities recognize that implementing a modern waste management strategy will increase waste management costs. However, it is also recognized that not changing waste management practices will have even greater costs – financial and environmental.

The total capital cost of the provincial waste management strategy, phased-in over a number of years, is estimated to be \$150-\$200 million. The capital costs for new waste management infrastructure may be financed through a combination of public-private partnerships, private sector ownership and operation, and municipal, provincial, and federal cost-sharing. Operating costs will be offset through taxes, tipping fees and revenues from waste diversion.

Each region will operate financially on a stand-alone basis, with operations funded from the households, businesses, and institutions in the region through taxes, tipping fees and revenues from regional and/or provincial waste diversion programs. Waste Management Authorities may set differential tipping fees to encourage waste diversion, with higher fees for unsorted waste and low fees for recyclables that can be marketed or are part of a province-wide diversion program.

Newfoundland and Labrador Waste Management Strategy

THE STRATEGY

- **Establish Regional Waste Management Systems and Final Waste Disposal Sites**

Government will immediately begin to prioritize the establishment of the 15 Regional Waste Management Systems and the final waste disposal sites. Initial focus will be those regions facing crisis situations.

- **Regional Coordinators**

As the Regional Waste Management Systems are established, regional coordinators will be hired and trained. MMSB will fund a waste management coordinator position in each waste management region for up to two years.

- **Isolated Areas**

Government will work with isolated areas to develop programs and alternatives to meet the provincial waste management goals. MMSB will also research waste disposal alternatives for isolated communities.

- **Financing Options**

Government will investigate funding options for modern waste management, including public-private partnerships, private sector ownership and operation, and cost-shared federal-provincial-municipal agreements.

ACTION ITEM 3: MODERN STANDARDS AND TECHNOLOGY

Even with maximum waste diversion, there will always be a need for waste disposal. However, the goal of modern waste management is to reduce the number of waste disposal sites, and to ensure that those sites are operated in a manner that minimizes the environmental impacts.

Government will provide the standards and regulations to govern the design, construction and operation of waste management systems and facilities. Incineration and unlined landfill sites will not be acceptable means of disposal, except in those isolated areas where no alternatives exist. The new standards and regulations will be based on the experiences of the Atlantic provinces in combination with research and technological advancements in waste disposal. All new waste disposal sites must operate according to those standards and regulations by 2010.

Government will finalize the standards, guidelines, and regulations within the next six to 12 months. For planning purposes the minimum requirements for new facilities are outlined below.

Landfill Sites and Transfer Stations:

- an approved site development and operation plan, including an environmental management system and a closure plan;
- a properly designed and constructed impermeable liner system with a leachate collection system, and an approved leachate management (disposal or treatment) system;
- trained supervisory personnel on site during operating hours;
- an approved plan to prevent the disposal of hazardous waste;
- daily cover of waste;
- no burning; and
- adequate insurance and performance bond (if applicable).

Composting Facility (In-vessel Format):

- operations are within enclosed buildings;
- composting facility must be supported and operated according to an approved operations plan including an environmental management plan and closure plan;
- receiving, tipping and composting areas will be within an enclosed structure, on impermeable pads and have odour control systems;
- curing areas may be enclosed or open but in all cases, underlain by an impermeable pad; and
- all areas will have leachate management, surface water management, and groundwater management systems.

Newfoundland and Labrador Waste Management Strategy

Composting Facility (Open Windrow/Static Piles Format):

- operation typically includes leaf, yard waste and brush;
- composting facility must be supported and operated according to an approved operations plan including an environmental management plan and closure plan;
- the facility will be located will be a minimum distance from any water course or water body, fresh or salt water;
- receiving, tipping, composting and curing areas will be underlain by an impermeable surface;
- all parts and areas of the composting operation will have leachate, groundwater and surface water management systems; and
- measures must be implemented to minimize or prevent odours becoming a nuisance issue.

Construction and Demolition/Bulky Items Diversion/Disposal Site:

- an approved site development and operation plan, including an environmental management system and a closure plan;
- trained supervisory personnel on site during operating hours;
- a properly designed and constructed internal drainage system;
- an approved monitoring plan;
- adequate storage area for recyclable materials;
- an approved plan to prevent the disposal of hazardous waste; and
- adequate insurance and performance bond (if applicable).

Site Closure

- an assessment of rodent populations and the development of an appropriate control program;
- cleanup of all litter and wind blown debris;
- blocking of all vehicle and road access to the site;
- removal, for recycling, all metals and residual bulk waste;
- grading and compacting of site in preparation for final capping;
- construction of drainage ditches as required;
- all refuse to be covered with a minimum of one metre of fill of low permeability and graded to prevent ponding or seepage and to encourage surface drainage; and
- a plan is to be provided to monitor leachate migration and mitigate any negative effects.

Newfoundland and Labrador Waste Management Strategy

RESEARCH OPPORTUNITIES

For the most part, solutions to the province's waste management problems can be readily identified based on modern environmental and engineering approaches and on the experience in other jurisdictions. There are, however, solutions required for problems resulting from Newfoundland and Labrador's geology and geography and low population densities. For example, much of the land mass has limited overburden suited for use as cover material for landfills. There is a pressing need for new technologies to meet the needs of such areas.

The treatment of leachate from either new regional landfills or from existing sites that are closed during the regionalization process is also an area that requires research to develop optimal solutions for this province. In addition, waste diversion, such as recycling and composting, in areas of low population require applied research to yield economically viable solutions.

Both Memorial University of Newfoundland and the environmental industry have a role to play in developing solutions suited to our needs. Such solutions may also be applicable in other areas with similar constraints and therefore export opportunities may result.

Government will encourage and support research into appropriate solutions for the province's waste management problems.

THE STRATEGY

- **Finalize Waste Disposal Standards and Regulations**
Government will finalize waste management standards and regulations within the next six to 12 months. Government will also conduct periodic reviews of the standards and regulations as necessary.
- **Research New Disposal Technologies**
Government will encourage and support the research, development and use of new disposal technologies.
- **Develop Standards for Closing Landfill Sites**
Government develop standards for the closure and clean-up of existing landfill sites within the next 12 to 18 months.

Newfoundland and Labrador Waste Management Strategy

ACTION ITEM 4: MAXIMIZE ECONOMIC AND EMPLOYMENT OPPORTUNITIES

In recent years, waste management initiatives have been a source of economic growth in all provinces, creating thousands of jobs nationally. Modern waste management creates direct employment and stimulates the development of new businesses. Economic opportunities associated with waste management include materials collection and transportation, processing and marketing recyclable materials, the design and operation of waste management facilities, and the production of new products from reclaimed materials.

In Newfoundland and Labrador, it is estimated 120 people are currently employed in local government waste management. There are 42 waste management businesses operating in the province, employing 345 full and part-time employees. In addition, the beverage container deposit refund program directly supports the operation of 37 Green Depots, 26 satellite depots, five mobile units and more than 200 full and part time jobs. The provincial waste management strategy will create more employment opportunities and encourage economic development.

A goal of the waste management strategy is to dramatically reduce the number of disposal sites and to build and operate modern waste management facilities. The need for new facilities will create employment and economic opportunities throughout the province. In addition, there will be new business and employment opportunities associated with the wide range of services needed to support waste management operations, including hazardous waste disposal, environmental monitoring and testing, and development and delivery of public information programs.

Government will work to maximize the economic and employment benefits of waste management. The provincial waste management strategy will create direct long-term employment in each of the 15 regional waste management systems. Approximately 20 to 30 people will be employed in each region with the majority of jobs involved in the operation of regional waste management facilities. When fully implemented, the waste management strategy will have created approximately 450 direct jobs throughout Newfoundland and Labrador.

In addition to direct operation jobs, the waste management strategy will create economic and business opportunities in the areas of training, operational support, and research and development. There is also considerable opportunity for the private sector to become involved in the development and implementation of the strategy either directly or through public private partnering. Government will work in partnership with business,

Newfoundland and Labrador Waste Management Strategy

industry associations, post-secondary institutions, and the federal government to initiate and support directed research and development into value added products from diverted materials through funding, and pilot and/or demonstration projects.

THE STRATEGY

- **Maximize Economic and Employment Benefits**
Government will work to maximize economic and employment benefits with a focus on stimulating regional benefits. In addition, Government will develop requirements to ensure that waste management incorporates a Newfoundland and Labrador content.

Newfoundland and Labrador Waste Management Strategy

ACTION ITEM 5: PUBLIC EDUCATION

Achieving modern, provincial waste management will require a significant change in attitude among Newfoundlanders and Labradorians with regard to the handling of waste. The response to the recent public consultations indicate the people of the province recognize that current waste management practices must change. However, it was also emphasized that a strong and ongoing information and education program is required to achieve the necessary changes in attitude and behaviour toward waste management.

Government recognizes individuals, community and municipal leaders, business, and institutions must be provided with information to understand the concept, goals and actions of modern waste management. MMSB will develop and manage a province-wide public education campaign, expanding on its current programs and activities. Regional Waste Management Authorities will also be required to develop and implement public information plans.

As the strategy is implemented, all stewardship agreements negotiated under the strategy must include an educational component. In addition, Government agencies will incorporate waste management information into publications and field investigations as appropriate.

THE STRATEGY

- **Develop Public Education Campaign**
MMSB will develop a provincial public education campaign. In addition, MMSB in conjunction with the regional coordinators will develop regional public education campaigns.

CONCLUSION

The current approach to waste management in Newfoundland and Labrador, disposing of unsorted waste into a landfill site, must change. Modern, provincial waste management is necessary and Government is committed to implementing the strategy.

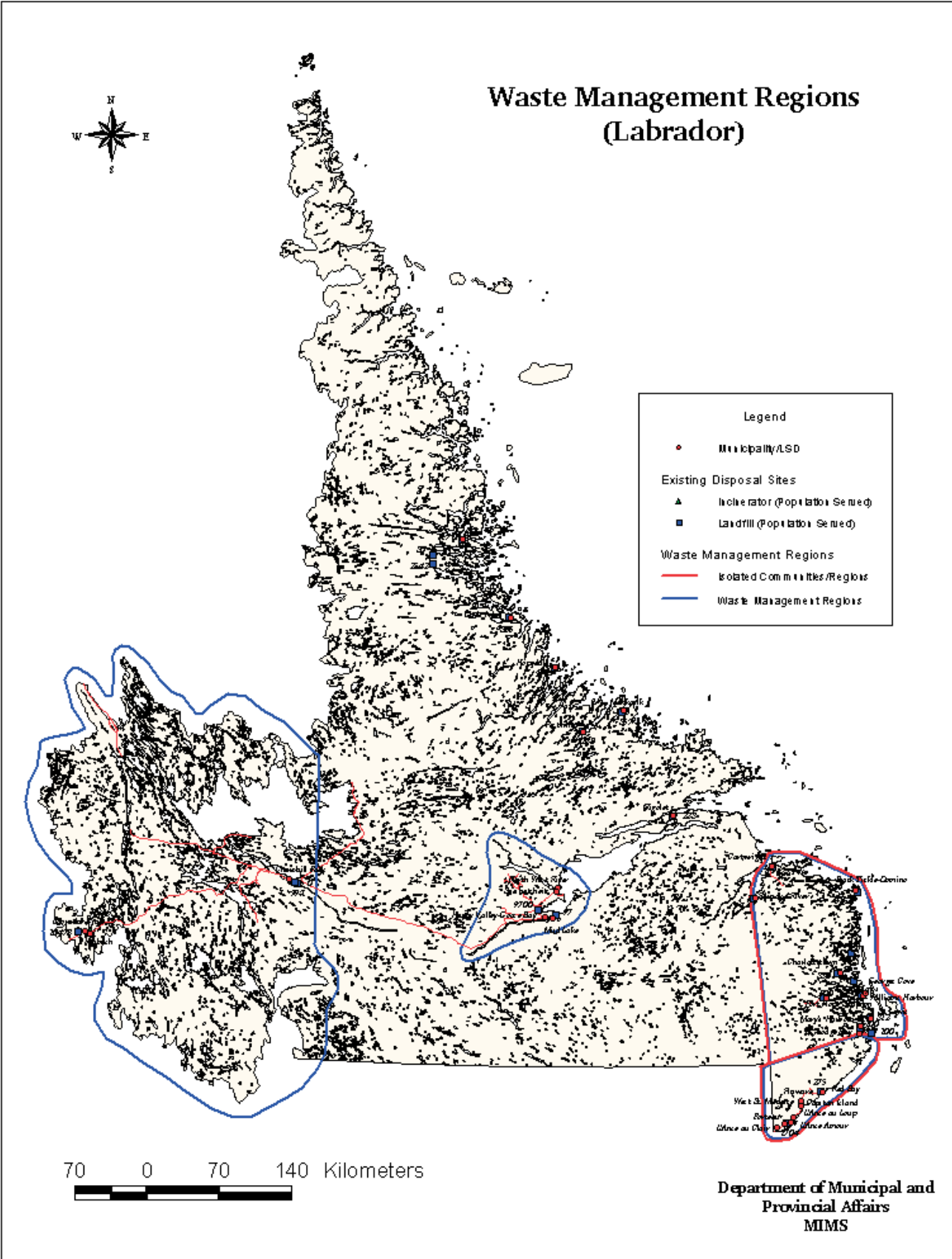
Our goals for waste management are aggressive, yet achievable. As the provincial waste management strategy is implemented, we will divert 50 percent of the materials going to disposal, the number of waste disposal sites will be reduced, and open burning, incineration, and the use of unlined landfill sites will be phased out.

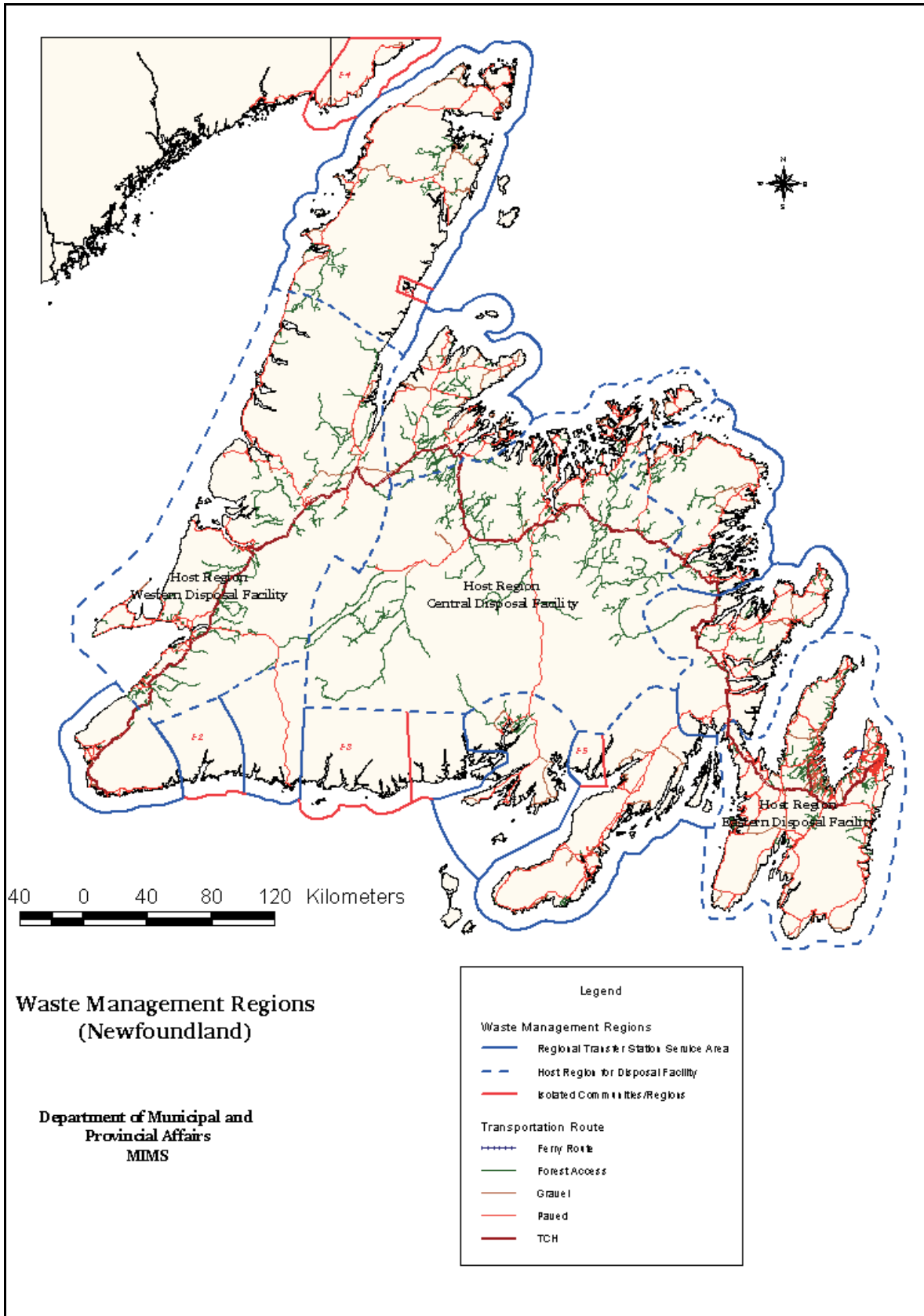
Government is committed to achieving these goals. It will be accomplished through increasing waste diversion, establishing waste management regions, developing modern standards and technology, maximizing the economic and employment opportunities, and public education.

All Newfoundlanders and Labradorians have a role to play in waste management. While Government is responsible for implementing a provincial waste management strategy and for setting the standards, guidelines and policies for waste management, it is the people who will ultimately implement modern waste management by changing attitudes and behaviours towards the handling of solid waste.

APPENDIX I

(See Next Page)





Attachment 3

Summary of Waste Management Strategy Measurements

GOAL	Indicator	Measured against	Baseline 2002	Reported March 31 2017	Reported March 31 2018	Reported on March 31 2019
50 per cent Diversion of Solid Waste	Access to Materials Recovery Facilities					
	a Number of Communities	591	0	263	263	367
	b Number of Regions	8	0	2	2	3
	c Percentage of Population	100%	0	68%	68%	83%
	d Metric tonnes of solid waste diverted per year	473,000	33,000	131,008*	n/a**	131,008*
	e Percentage of solid waste diverted	100%	7%	25.16*	n/a**	25.16*
Reduce number of Waste Disposal Sites by 80 per cent	Total Waste Disposal Sites (WDS) both landfill and/or incineration					
	a Number of Waste Disposal Sites operationally closed	236	0	161	161	170
	b Percentage of Waste Disposal Sites operationally closed	100%	0	68%	68%	72%
	c Number of Waste Disposal Sites environmentally closed	192	0	123	128	128
	d Percentage of Waste Disposal Sites environmentally closed	100%	0	64%	67%	67%

GOAL	Indicator		Measured against	Baseline 2002	Reported March 31 2017	Reported March 31 2018	Reported on March 31 2019
Eliminate open burning/ incineration	Waste Disposal Sites (WDS) with both open burning and/or incineration						
	a	Number of WDS that have eliminated open burning and/or incineration	176	0	147	147	149
Phase out of unlined landfills	UNLINED landfills closed						
	a	Number of UNLINED landfills operationally closed	214	0	146	146	154
	b	Percentage of UNLINED landfills operationally closed	100%	0%	68%	68%	72%
	c	Number of UNLINED landfills environmentally closed	182	0	113	118	118
	d	Percentage of UNLINED landfills environmentally closed	100%	0%	62%	65%	65%
	Access to LINED landfills						
	a	Number of communities	591	0	263	263	367
	b	Number of Regions	8	0	2	2	3
	c	Percent of Population	100%	0	68%	68%	83%

*Waste diversion data for March 31st represents the prior calendar year. .

**Data for the 2018 year is currently being compiled by the MMSB.

Source: Department of Municipal Affairs and Environment

Attachment 4

Solid Waste Diversion

2016 Provincial Waste Population of Newfoundland and Labrador: 519,716			
Performance Metric	MT/year	%total	kg/person/day
Total Waste Disposed through Municipal Systems	389,690	74.84%	2.05
Total Waste Diverted	131,008	25.16%	0.69
Total Waste Generated	520,698	100.00%	2.74

NOTES:

1. Paper fibre and metal recycling comprise the majority of diverted waste in all years.
2. Waste generation and diversion data for all years does not include fisheries, aquaculture, agricultural and forestry waste.
3. Increases in waste generation is consistent with trends in all Canadian provinces.

Source: MMSB

Attachment 5

2016 Provincial Waste Profile Population of Newfoundland and Labrador: 519,716						
		Waste		Diversion	Total Waste	Per-capita Waste Generation
Region	Pop'n	Residential	Other		KG	kg/person/day
Eastern	275,836	92,088,147	132,535,449	74,740,895	299,364,491	2.97
Central	73,551	18,875,249	25,656,988	17,888,660	62,420,896	2.33
Western (WC&BSG)	48,257	15,117,300	21,264,848	9,956,837	46,338,985	2.63
Labrador West	9,126	6,484,751	3,534,748	4,300,552	14,320,051	4.30
Burin	19,942	8,882,678	5,294,740	4,095,880	18,273,298	2.51
Remaining NL	93,004	27,109,896	32,777,644	19,058,404	78,945,945	2.33
Total	519,716	168,558,021	221,064,416	130,041,229	519,663,667	2.74
		389,622,438		130,041,229	519,663,667	
		74.98%		25.02%	100.00%	

Source: MMSB

Attachment 6

Newfoundland and Labrador Roadside Litter Audit, 2016

Community	Large	Small	Cigarette
Total Audited Litter	5,105	3,169	22,671
Average Audited Pieces per Site	23.20	14.40	103.05
Total Pieces of Litter	13 M	8.5 M	61 M
Total Litter	83 M		

Highway	Large	Small	Cigarette
Total Audited Litter	348	187	710
Average Audited Pieces per Site	31.64	17	64.55
Total Pieces of Litter	2 M	1 M	5M
Total Litter	8 M		

Total	Large	Small	Cigarette
All Sites	16 M	10 M	66 M
Total Litter	92 M		

Source: MMSB

Review of the Provincial Solid Waste Management Strategy

Discussion Guide for

Public Consultations

