

City of St. John's Waste Management Strategy

Provincial Municipal Administrators – April 21, 2010



ST. JOHN'S

Presentation Overview



- Background Information
- Provincial Waste Management Strategy
- RHB Integrated Waste Management Facility
- Modern Landfill Improvements
- Recycling Facility
- Compost Facility (Future)
- City of St. John's Curbside Recycling Program
- Summary

Background Information

- In 2002, the Province released its Provincial Waste Management Strategy
- In May 2007 the Provincial Government announced \$200 million from the Federal Gas Tax Rebate to implement its 2002 Strategy
- In November 2007 the Provincial Government officially designated Robin Hood Bay (RHB) as the site for the Avalon Peninsula's Regional Integrated Waste Management Facility
- The City of St. John's & the Provincial Government have committed \$56 million for the Re-engineering of RHB into the Regional Integrated Facility
- The City of St. John's will be implementing a curbside recycling program this fall. Other municipalities in the region may also be implementing recycling programs.

Provincial Waste Management Strategy



Provincial Strategy

- Development of modern standards
- Creation of regional authorities/facilities
 - Eastern Waste Management Authority
 - Robin Hood Bay Regional Facility
- All municipalities use RHB by 2010
- 50% waste diversion on Avalon by 2015
- Province-wide modern waste management by 2020

City of St. John's Strategy

- Driven by Provincial Strategy
- Implement a recycling program in 2010
- Implement a composting program in 2011/12
- Goal of 50% diversion by 2015

Robin Hood Bay Regional Waste Management Facility



- Owned & operated by the City of St. John's
- Eastern Waste Management Committee contracts with St. John's to provide waste disposal services to the Region
- Based on 4 stream source separation
 - Garbage, Recyclable Containers, Recyclable Fibres & Organics (future)

Robin Hood Bay Regional Waste Management Facility



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Robin Hood Bay Improvements



RHB Residential Drop-Off Facility

- Maximize Air Space
 - Smaller Working Faces
 - Upgraded Heavy Equipment
 - Increased Compaction
- Improved Daily Cover Application
- Litter Management Program
- Wildlife Management Plan
- Residential Drop-Off & HHW Facility
- Leachate Reduction & Collection
- Methane Recovery & Utilization
- Educational Classroom / Tours

Residential Drop-Off & HHW Facility



HHW Facility at Residential Drop-Off Facility

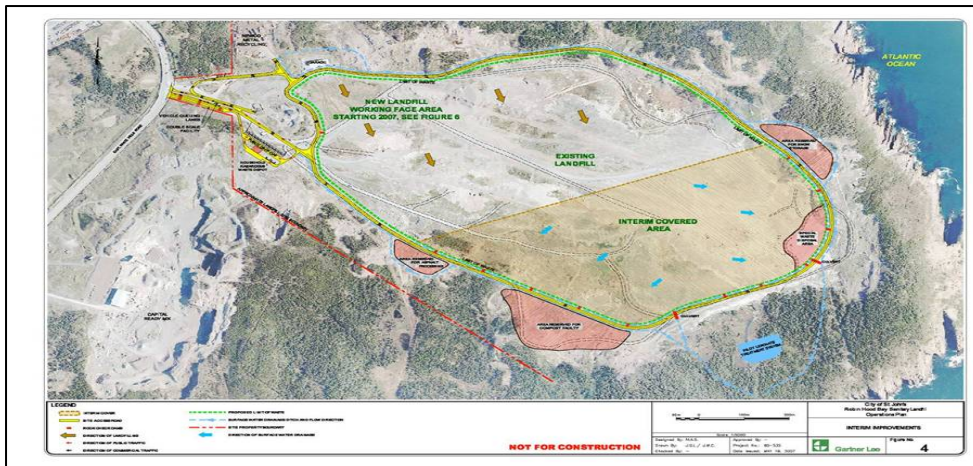
Residential Drop-Off Facility

- 17 dumpsters for various waste
- Tuesday – Saturday; 8:00 – 4:00

HHW Facility

- Located at Residential Drop-Off
- Operated by Newalta Industrial
- Saturdays 8:00 – 4:00 (seasonal)

Leachate Reduction & Collection

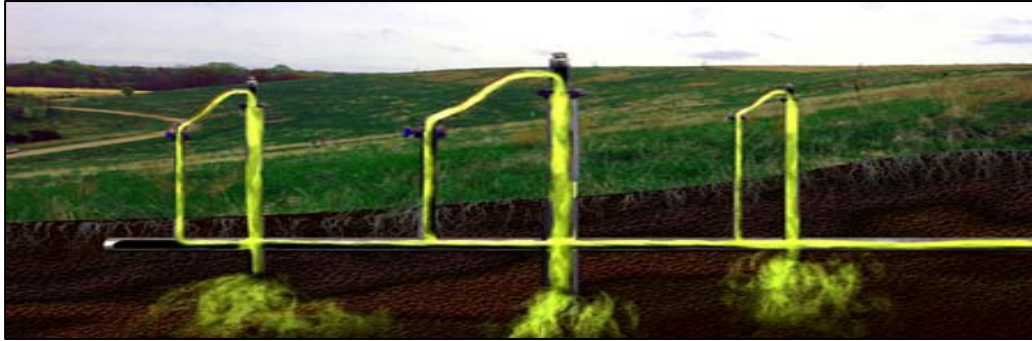


- Caused by liquid percolating through decomposing waste
- Leachate is being reduced by:
 - Storm water management systems
 - Installation of an impermeable liner over half the site
- Leachate will be collected through an engineered system and sent for treatment.



RHB Liner Installation

Methane Collection & Utilization



- Produced from waste decomposing under anaerobic conditions in a landfill
- Unless captured vents passively to the atmosphere
- Ongoing Pilot Study
 - Includes 23 extraction wells & flare system
 - Determine quality & reliable yield of CH₄ produced
 - Estimated reduction in GHG emissions of 50,000t
 - Determine feasibility of CH₄ utilization (i.e.: electricity)
- Significant environmental improvement
 - RHB estimated to produce 130,000t of GHG emissions (1.2% of total in NL)
 - CH₄ is 25x more harmful a GHG than CO₂ from flare



RHB Flare

Recycling Facility



RHB Materials Recovery Facility

Dual Stream System

- Based on source separation
- Separate processing lines for:
 - fibres (paper, cardboard, etc)
 - containers (plastic, metal, aluminum, etc)
- Produces clean, good quality product required for marketing

Schedule

- Opening Fall 2010

What Can Be Recycled

Fibre Stream

Newsprint & Paper

- Newspapers, flyers
- Printer, computer, copier
- Books (hard covers removed)
- Envelopes & writing paper
- Glossy paper, magazines, catalogues

Unwaxed Corrugated Cardboard

Boxboard

- cereal boxes, tissue boxes, etc

Other

- Egg cartons, paper towel rolls
- Paper bags

Containers Stream

Aluminum Containers

- Pop & beer cans
- Pie plates & trays

Plastic Containers

- PET#1: Soda, water, liquor, etc
- HDPE #2: Detergent, liquid soap, etc
- #3, #5-#7: Tubs & Lids (butter, ice cream)

Metal Containers

- Tin cans: Soup, tuna, etc

Note

- Does not include glass (OHS/Markets)
- Provincial deposit return programs still exist.

Compost Facility (Future)



*Compost from St. John's
Waste Diversion Pilot Program*

Process

- To be determined
- Must be enclosed due to gull management issues
- May start with lower technology system (enclosed windrow)
- Construct higher tech facility as quantities increase

Schedule

- Design Spring 2010
- Construction 2010 - 11
- Operational 2011 - 12 (tentative)

City of St. John's Recycling Program



Week 1: Garbage & Recyclables



Week 2: Garbage

Collection

- Garbage weekly
- Recycling biweekly
 - Dual compartment trucks

Action by Residents

- Place recyclables with garbage every 2nd week
- Keep containers separate from fibres

Leaving it Behind

- Recyclables containing garbage
- Commingled recyclables
- Use of stickers & 311 to advise residents
 - Sample stickers

Other Municipalities

- May have different programs
- Materials collected must be consistent with Recycling Facility

St. John's Communications Strategy

Public awareness is key

- To generate awareness that curbside program is coming
- To change behaviour and motivate participation

Media

- Extensive use of local media to advertise and inform

Starter Kits to Households (the "Enabler")

- Everything you need to get started
- Introductory letter from Mayor encouraging participation
- Blue Bags (you have them for 1st day & know what kind to buy in the future)
- Collection Schedule
- Reference Guide to "What's In / What's Out of the Program"

Summary

- In November 2007 Robin Hood Bay was designated as the site for the Avalon Peninsula's Regional Waste Management Facility
- The City & Province have committed \$56 million to re-engineer RHB into a modern and environmentally sound integrated waste management facility
- The RHB Facility is owned and operated by the City of St. John's.
- The Eastern Waste Management Committee contracts with the City of St. John's to provide waste disposal services to the Region.
- The Recycling Facility is based on a 4 stream source separation system
 - Garbage, Recyclable Containers, Recyclable Fibres & Organics (future)
- The Recycling Facility will be operational in 2010 and the Composting Facility in 2011/12
- City of St. John's will begin it's curbside recycling program in 2010; the organics curbside collection will be added to the program in 2011/12.
- Other municipalities may also begin waste diversion / recycling programs.

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