

The word "HALIFAX" in a bold, white, sans-serif font, positioned in the upper right quadrant of the slide. The background consists of large, overlapping geometric shapes in various shades of blue and white, creating a modern, abstract design.

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Halifax Solid Waste Resource Management System Strategy Review – Deferred Items

December 9, 2014

Origin

- 14 January 2014 – Final Report presented to Regional Council
- Approved recommendations 1 through 6
- Deferred items 7 through 9

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Previously Approved and in the Process of Implementation

1. Confirm the objectives of the Community Stakeholders Committee Integrated Resource Management Strategy 1995:

- Maximize reduction, reuse and recycling of waste resources;
- Maximize environmental and fiscal sustainability of the waste program; and
- Foster public stewardship and conservation.

2. Direct staff to initiate development of a business case for the source separated organics program to introduce an Anaerobic Digestion processing capability and other program changes to improve system cost performance and compost quality and return to Regional Council with a revised plan by 30 June 2014.

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3. Initiate By-law amendments to improve organics collection, processing and finished compost product quality for residential source separated organics by:

- removing boxboard as a mandated green bin product (while still permitted as a kitchen scrap material catcher);
- mandating use of kraft paper bags for separate collection of leaf and yard waste;
- banning grass clippings from collection.

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4. Direct staff to site a second household special handling waste depot and introduce annual district mobile household special handling waste events.
5. Initiate By-law amendments to:
 - mandate clear bags (with either one opaque bag or a garbage can) for residential collections;
 - reduce garbage bag limits for multi-unit apartments and condominium buildings with 6 or less units from 5 to 4.
6. Direct staff to increase:
 - curb-side education and monitoring;
 - apartment tenant education and monitoring;
 - ICI load monitoring and inspections at the landfill.

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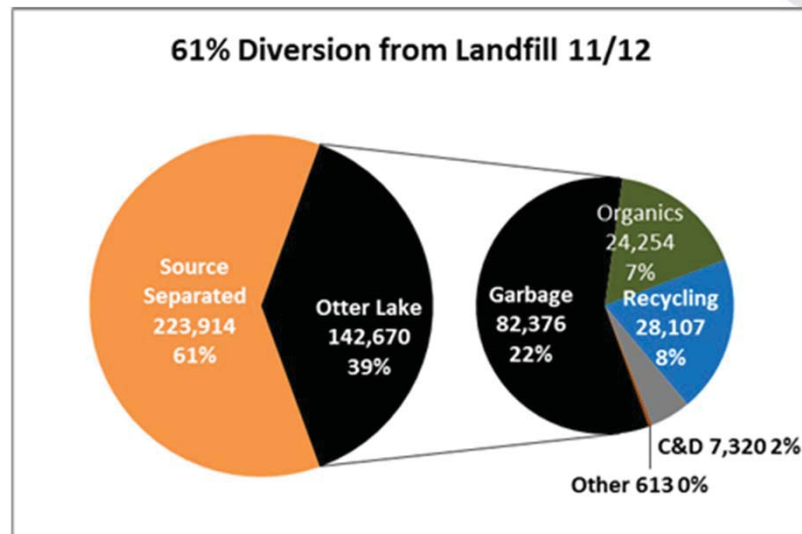
Deferred Items

7. Amend By-law S-600 to allow for the export of ICI residual waste (garbage) outside HRM, and amend Administrative Order number 16 to provide for an increase in fees for disposal of ICI residual waste from \$125 per tonne to the assessed system cost of \$170 per tonne.

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Current System – Residual Waste/Garbage



- 97% of materials delivered to Otter Lake end up at the landfill cell.
- Otter Lake landfill operations currently cost \$170.00/tonne as of construction of Cell 6.
- 1995 Strategy projected a System cost of \$67.00/tonne (FY96). Equates to \$90.00/tonne (FY12)
- Investment Property Owners asked for examination of residential collection of investment properties.
- Waste Industry and commercial stakeholders asked for reconsideration of flow control of residual waste/garbage.

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Current System – Flow Control

2002 By-Law S-602 banned commercial waste materials generated in HRM from being shipped outside HRM

- 2014 – landfill cost = \$170.00/tonne vs. tip fee of \$125.00/tonne

Permitting commercial garbage to be sent outside HRM could reduce waste delivered to Otter Lake by 50%

- Potential to double cell life from 40 to 80 months
- Improve fiscal performance
- All landfill capital is funded from reserves and is not debt funded
- Reduce potential environmental impact (reduced volume:nature of ICI waste)

Increase in fees for disposal of Commercial residual waste from \$125 per tonne to the assessed Otter Lake cost of \$170.00 per tonne.

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Impact of Diversion Measures and Flow Control on Waste Delivered to Otter Lake

Clear Bag & Removed Flow Control - Effect on Waste Characterization							
Otter Lake Waste Management Facility							
	Acceptable	Unacceptable					
Otter Lake	Garbage	Organics	Recyclable Paper and Cardboard	Recyclable Containers	C&D Material	Other	Otter Lake Total
1st Year Forecast	69,700	17,800	15,000	7,300	5,800	600	116,200
2nd Year Forecast	61,000	12,500	12,000	6,400	5,000	600	97,500
3rd Year Forecast	54,200	8,300	9,700	5,800	4,500	600	83,100
4th Year Forecast	48,800	5,000	8,000	5,500	4,200	600	72,100
5th Year Forecast	44,600	2,500	6,800	5,300	4,000	600	63,800

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Deferred Items cont'd

8. Direct staff to initiate consultation with MIRROR NS and the Community Monitoring Committee on options for changes in the operating model (front end processor facility, waste stabilization facility, residual disposal facility) at Otter Lake landfill site A, returning to Council with a transition plan for landfill operations at the site based on diversion outcomes resulting from the changes outlined in this report.

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Deferred Items cont'd

9. Extend operations at Otter Lake beyond 2024 and direct staff to increase the vertical height of existing and future cells by 15 meters and establish an Integrated Solid Waste Management Campus at the site to support new facilities and alternative technologies as they become viable.

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Otter Lake – Budget Implications

- Vertically expanded cells 1-5 represents \$68-\$85M capital cost savings versus development of new cells.
- Based on current reserve funding and past budgets, the immediate funding outcome of vertical expansion would be approximately \$19.0M savings for FY2014/15.
- An additional \$6.0M savings can be generated by avoiding the reserve contribution for Cell 8 in 15/16.

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Scenario 2A

SCENARIO 2A with FEP/WSF 2014/15 - 2024/25

Increase - Tip Fee Charge (\$170/t)	(-\$25,000,000)
Savings from No Flow Control	(-\$21,000,000)
Savings from Stacking	(-\$56,000,000)
Adjustments to Compost Program	(-\$24,000,000)
Total	(-\$101,000,000)
Increase - HHW Depots	\$8,000,000
New Recycling Facility	\$10,000,000
Secondary Compost Curing Site	\$4,000,000
Increase Organics Capacity	\$5,000,000
Multiple Stream Collection Carts (Blue/Green)	\$25,000,000
Total	\$52,000,000
Net Cost Position	(-\$49,000,000)

- FEP and WSF continue operations
- Cell height increases by 15 metres
- Flow control is eliminated
- Commercial Garbage tip fees increase to \$170/tonne
- HSW program expanded
- Composting operations upgraded to enable AD (regulatory compliance and meet capacity needs)
- Secondary compost curing site - 2015
- New Recycling Facility - 2016
- Procurement of recycling carts and replacement organics carts - 2017

Note: Tip Fee savings not included

Impact = \$25M available between what is currently in Q123 reserve and what is in 15/16 budget.

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Solid Waste System Evolution

- Organics Model requires updating to address regulatory compliance and capacity issues – ongoing with intent to present revised system model in 2015/16.
- Recycling facility and business case analysis for evolving recycling program – ongoing with intent to present recommendations by end of 2015.
- Residential collection contracts went to RFP late summer – early fall for renewal 1 July 2015.

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Summary of Conclusions and System Outcomes

- We believe the conclusions and summary outcomes as detailed in the Solid Waste Resources Strategy Review – Final Report remain substantially the same with the proposed amendments.

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