Niagara Region Waste Management Strategic Plan Update

Public Works Committee Meeting September 10, 2024

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Purpose

- A follow-up to the June 24th WMPSC/PWC workshop to:
 - Update on work completed to date
 - Explain how the 'future thinking' comments received by interested parties and Council were incorporated
 - Provide the long list of options currently under consideration (WMPSC-C 7-2024 Appendix 2)
 - Share information in advance of future engagement activities
 - How additional feedback is will be reflected into the next steps





Agenda

- Mission, vision and goals for the Waste Management Strategic Plan
- Update on the development of goals, options and their categories
- Evaluation of options
- Phase Two engagement





Mission

We provide fiscally responsible waste management and resource recovery services to meet the needs of the community and promote environmental sustainability.

Vision

Leading the way in sustainable and innovative waste management services, to support a thriving community for generations to come.





Goals

Optimize waste management resources and infrastructure

Increase beneficial recovery of material from waste

Increase beneficial reuse of materials

Increase participation in waste management programs

Strive to be a zero-waste community

Reduce the carbon footprint of Niagara Region's waste management system





Generation of Options

The initial long list of options was developed based on:

- Current State of Waste Management: Including existing policies, programs and contracts
- Regulatory Framework: Current requirements and anticipated changes
- Input from Interested Parties: Engagement, including the public, members of Council, Region staff, LAM's
- Jurisdictional Scan: Other jurisdictions and industry best practices





Options to Achieve Waste Management Goals

Seven categories of focus











Waste Collection and Operations





Processing and Disposal Infrastructure







Preliminary Evaluation of Options

The evaluation of options:

- Categorized long list of options
- Screening questions applied to determine if options should be carried forward or evaluated further
- Triple Bottom Line analysis used to identify additional options that should be carried forward or deferred
- Identified a short list of options to be refined and further evaluated





Short List of Options

- Short list of options to be refined and evaluated further
- Plan has a long-term outlook (20-25 years); not all options will be implemented in the short-term
- First iteration of the Plan will focus on the implementation of options over the first 5 years
- Shortlisted options will be reviewed for service levels and operating/ capital planning requirements
- Some options may be deferred based on cost and timing.





Phase Two Engagement – Next Steps

Phase 2

- Sept Oct 2024: Public and local municipal consultation on recommendations
 - Online public survey
 - Two online public open houses
 - Comment period for LAMs to provide feedback

Phase 3

- Q4 2024/Q1 2025: Draft WMSP
- Q1/Q2 2025: Consultation on draft WMSP and finalization





Thank you!

Questions?

• For more information, please visit

Niagara Region's Waste Management Strategic Plan

(niagararegion.ca/future-of-waste)





Attachment

Options by Category





Waste Reduction and Reuse

- Repair programs and initiatives such as repair cafés, where you can learn to repair your own items to increase their lifespan
- Reuse programs like the Broken Spoke bicycle program, and others such as a lendery, where you can borrow different items for free and return them when you're finished using them, free markets, curbside give-away days
- Food waste reduction initiatives
- Initiatives to divert more waste in apartment and condo buildings
- Initiatives to reduce single use plastic
- Grants and funding for community-led waste reduction programs
- Rewards and recognition programs





Community Engagement and Education

- Prioritize digital communication
- An education centre, potentially at a waste management facility
- Dashboard on Niagara Region's website showing our progress on waste management goals
- Building partnerships with local community organizations to help promote sustainable waste management





Policies and By-Laws

- Options for User Fee and Cost Recovery (full or partial)
- Enhanced enforcement program (i.e. green bin participation)
- Modification to existing waste collection guidelines for new developments
- Review and revise Service Level Agreements with LAMs
- Provincial Advocacy campaigns, particularly around EPR (post-transition), landfill ban of organics, and ICI diversion targets





Waste Collection and Operations

- Collect additional materials at the curb such as textiles
- Improve collection infrastructure in apartments and condo buildings
- Provide more guidance for developers and property managers for higher-density developments and multiresidential buildings
- Consider new options for curbside collection such as carts and/or clear bags
- Collaborate with Local Area Municipalities to increase waste diversion in parks, public spaces and downtown areas





Drop-off Depots

- Automated technologies to improve the efficiency of operations at drop-off depots
- Expand reuse centres within drop-off depots by expanding the materials accepted and/or available at more sites
- Offer more services at drop-off depots, such as compost pickup and green bin pickup
- Add new drop-off depot locations
- Drop-off depots that are open only for residents and businesses
- Review service levels at drop-off depots, such as opening hours





Waste Processing and Disposal

- Construct new facilities to capture more material such as a mixed waste processing facility
- Shift Organics processing from composting to anaerobic digestion
- Develop a leaf and yard waste processing facility
- Undertake landfill mining at existing regional landfills to remove future liabilities
- Review waste management infrastructure for potential adjustments in response to climate change (adaptation)





Innovation

- Scale-house software review to improve data collection
- Dispose of residual waste using alternative technology, including thermal treatment and/or mechanical biological treatment
- Smart-collection technologies such as radio frequency identification tags, GPS, and smart bins to track things like missed collections and contamination rates at a household level
- Opportunities to integrate with the Region's wastewater strategy, such as co-digestion
- Al advancement and Innovation Labs partnering with academic institutions



