Waste Management Working Group

Report

1st Meeting of the Waste Management Working Group
April 18, 2019
Committee Room #1

Attendance PRESENT: Councillors S. Lehman, E. Peloza, S. Turner and M. van Holst and J. Bunn (Secretary)

ALSO PRESENT: W. Abbott, M. Losee and J. Stanford

The meeting was called to order at 4:00 PM.

1. Call to Order

1.1 Disclosures of Pecuniary Interest

That it BE NOTED that no pecuniary interests were disclosed.

1.2 Election of Chair and Vice-Chair for the Term Ending November 30, 2019

That it BE NOTED that the Waste Management Working Group elected Councillor E. Peloza and Councillor S. Lehman as Chair and Vice Chair, respectively, for the term ending November 30, 2019.

2. Scheduled Items

2.1 Background and Status on Environmental Assessment Process, 60% Waste Diversion Action Plan and Resource Recovery Strategy

That it BE NOTED that the attached presentation from J. Stanford, Director, Environment, Fleet and Solid Waste, with respect to background and status on the Environmental Assessment Process, 60% Waste Diversion Action Plan and Resource Recovery Strategy, was received.

3. Consent

3.1 4th Report of the Waste Management Working Group

That it BE NOTED that the 4th Report of the Waste Management Working Group, from its meeting held on August 15, 2018, was received.

3.2 Update Report #12 – Proposed Amended Terms of Reference - Environmental Assessment of the Proposed W12A Landfill Expansion

That it BE NOTED that the staff report dated April 18, 2019, from J. Stanford, Director, Environment, Fleet and Solid Waste, with respect to update report #12 on the Proposed Amended Terms of Reference for the Environmental Assessment of the Proposed W12A Landfill Expansion, was received.

3.3 Progress Report #6 – Community Engagement Program Update – March 1, 2018 to March 30, 2019

That it BE NOTED that the staff report dated April 18, 2019, from J. Stanford, Director, Environment, Fleet and Solid Waste, with respect to progress report #6 on the Community Engagement Program Update from March 1, 2018 to March 30, 2019, was received.

3.4 Progress Report #7 – 60% Waste Diversion Action Plan

That it BE NOTED that the staff report dated April 18, 2019, from J. Stanford, Director, Environment, Fleet and Solid Waste, with respect to progress report #7 on the 60% Waste Diversion Action Plan, was received.

4. Items for Discussion

None.

5. Deferred Matters/Additional Business

None.

6. Adjournment

The meeting adjourned at 5:20 PM.

Background and Status on:

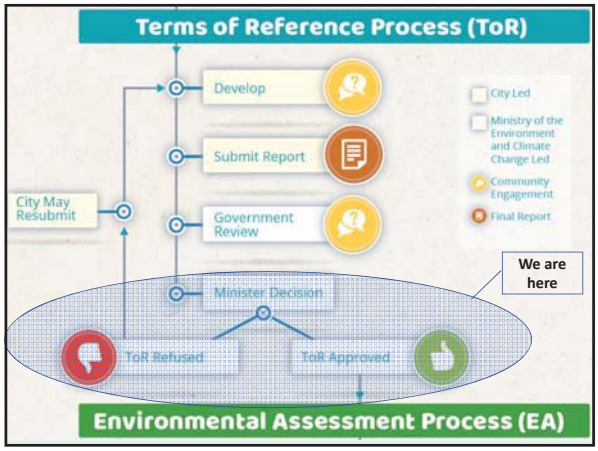
1. Environmental Assessment Process
2. 60% Waste Diversion Action Plan
3. Resource Recovery Strategy

Waste Management Working Group

April 18, 2019

Section 1

Environmental Assessment Process for the Proposed Expansion of the W12A Landfill



ToR - Disposal Method

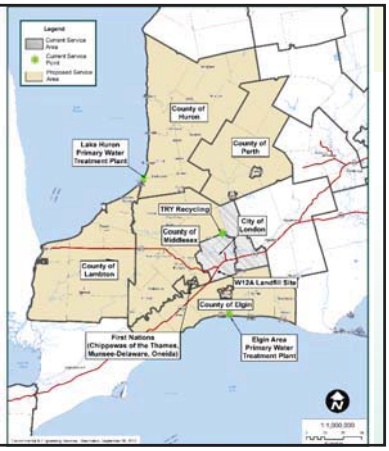
Expansion of the W12A Landfill is the most appropriate disposal option based on previous waste plan studies (2008)

ToR Overview-Planning Period

Plan for additional 25 years
(2025 – 2050)

- Maximum supported by MECP staff
- The London Plan in effect until 2035
- Waste disposal security for at least 6 terms of Municipal Council
- Consistent with *Waste-Free Ontario Act*

ToR Overview - Regional Service Area



ToR Overview - Diversion

ToR Overview - Limit on Annual Tonnage

- Current limit = 650,000 tonne/year
- **Proposed limit = 500,000 tonne/year**

Consideration	Average (Tonnes)	Peak (Tonnes)
Existing Service Area	370,000	380,000
Expanded Service Area	24,000	40,000
Contingency	-	80,000
Total	**-**	**500,000**

Proposed Amended ToR

- City submitted Proposed ToR on October 12, 2018
- MECP 30 day review period for stakeholders
- Submitted Proposed Amended ToR Feb 7, 2019
- **Expecting decision…soon**

February 2019

Volume I

Proposed Amended Terms of Reference

Environmental Assessment of the Proposed W12A Landfill Expansion, City of London

Environmental Assessment Process (EA)

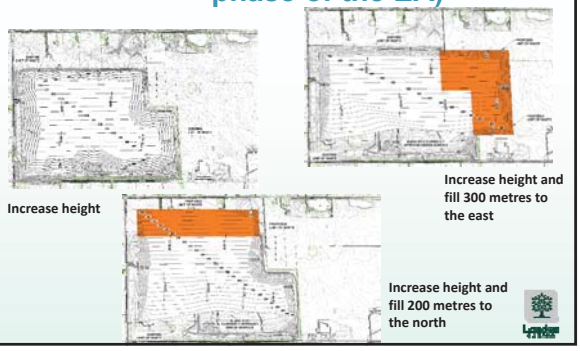
Phase 2:

EA Technical Studies & EA Report

Proposed Studies

Category	Environmental Component	Environmental Sub-components
Environmental	Atmosphere	• Air quality (including dust, odour and greenhouse gases) • Noise
	Biology	• Aquatic ecosystems • Terrestrial ecosystems
	Geology & Hydrogeology	• Groundwater quality
	Surface Water	• Surface water quality • Surface water quantity
Social	Agriculture	• Agriculture
	Archaeology	• Archaeology
	Culture	• Cultural heritage landscapes • Cultural heritage resources (including built heritage)
	Land Use	• Current and planned future land uses
	Socio-economic	• Local economy • Residents and community
	Visual	• Visual
Technical	Design and Operations	• Technical Considerations • Financial Considerations
	Transportation	• Traffic

Potential Landfill Configurations (to be determined during this phase of the EA)



Increase height

Increase height and fill 300 metres to the east

Increase height and fill 200 metres to the north

Proposed Community Engagement

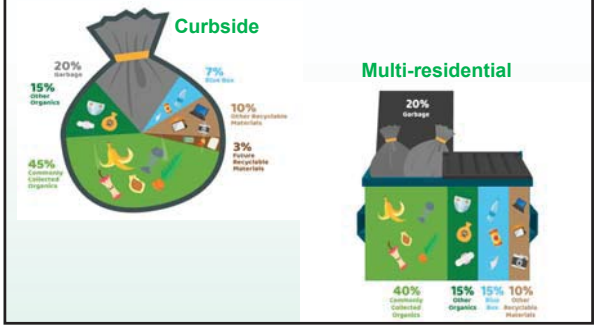
- Two Open Houses
- Project Website
- Direct Mailings (e.g., residents with 2 km of Landfill, project mailing list, etc.)
- Community requests for meetings
- Waste Management CLC, W12A Landfill PLC, First Nations & GRT
- Traditional & Social Media
- PPM at CWC

Proposed Schedule

Time Frame	Task
Spring 2018 to Fall 2019	Ongoing Field Studies/Assessments
Summer 2019	Open House #3 - EA Overview
Fall 2019	Open House #4 – Preferred Expansion Alternative
Spring 2018 to Fall 2019	Other ongoing public engagement (e.g., First Nations, GRT, PLC, etc.)
Winter 2019/2020	Preparation of EA Reports
Spring 2020	Submit EA Reports to MECP

Section 2

60% Waste Diversion Action Plan



Council Direction(s)

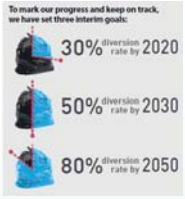
On October 30, 2017 City Council passed the following resolution:

"The W12A Landfill expansion be sized assuming the residential waste diversion rate is 60% by 2022 noting this does not prevent increasing London's residential waste diversion rate above 60% between 2022 and 2050."

In October 2018, Council passed the following resolution:

"…the 60% Waste Diversion Action Plan (Action Plan) containing programs and initiatives to be phased in between 2019 and 2022 to achieve 60% waste diversion … BE APPROVED…"

Provincial Direction(s)



Many Targets ("must")

- 70% reduction/recovery of food and organic waste from single family homes by 2025
- 50% reduction/recovery of food and organic waste generated at the multi-residential building by 2025

How much waste and resources in London?

Between 425,000 and 450,000 tonnes per year

- 21 actions
- split into 6 categories
- Operating $6.5 million
- Capital $15 million

Status

Action	Brief Status - Timing
Blue Box (Blue Cart) Programs	
1. Increase capture of recyclables	• Provincial initiative
New (or Expanded) Recycling Programs & Initiatives	
2. Bulky Plastics	• Continuing pilot • Currently no stable long term market for expansion
3. Carpets	• Provincial initiative
4. Ceramics	• Ceramics drop-off at EnviroDepots starting Fall 2019; Ban Fall 2020
5. Clothing/Textiles	• Begin developing awareness strategy Fall 2019

Status (continued)

Action	Brief Status - Timing
New (or Expanded) Recycling Programs & Initiatives (cont.)	
6. Small Metal	• Semi-annual collection Fall 2021 (coincide with other collection changes)
7. Furniture	• Wooden furniture drop-off at W12A EnviroDepot starting Fall 2019; semi-annual collection 2021
8. Mattresses	• Provincial initiative
Curbside Organics Management Program	
9. Curbside Green Bin	• Staff working on implementation/ operational details
10. Implement bi-weekly garbage	

Status (continued)

Action	Brief Status - Timing
Multi-residential Organics Management Program	
11. Mixed Waste Processing Pilot	• Fall 2020 (depends on facility availability)
Other Organics Management Programs	
12. Food Waste Avoidance	• Development underway, 2020 roll-out
13. Home Composting	• Subsidize composters, event sales beginning 2020
14. Community Composting	• Provide financial support Winter/ Spring 2020

Status (continued)

Action	Brief Status - Timing
Waste Reduction/Reuse	
15. New Coordinator Position	• Summer 2020
16. Financial Support	• Support for community initiatives beginning Fall 2020
17. Reduce Container Limit	• Further examination Fall 2019 (after operational details for Green Bin are finalized)
18. Clear Bags	
19. User Pay	
20. Resident Incentives	
21. Additional Feedback	• Additional reporting (including waste reduction) Summer 2019

Green Bin Implementation Decisions

- Materials to collect
- Size(s) available
- Choices for residents
- Delivery
- Monitoring
- Replacement

Green Bin Implementation Decisions

- Single or co-collection vehicles
- Level of automation

Green Bin Implementation Decisions

What goes in the green bin?

Food Products
(all consumable foods, raw or cooked)

- Butter, margarine, grease, lard (solid)
- Cake, cookies and candy
- Coffee grounds, filters and tea bags
- Dairy products, eggs and shells
- Fruits and vegetables (raw or cooked)
- Herbs, spices and sauces
- Meat, fish and shellfish (including bones)
- Nuts and shells
- Pasta, bread, cereals, rice and grains

Paper Products

- Boxboard and cardboard (food-soiled)
- Facial tissue, napkins, paper towels
- Flour and sugar bags
- Kraft paper (e.g. meat wrap)
- Microwavable popcorn bags
- Muffin paper
- Newspaper (food-soiled)
- Paper cups and paper plates (food-soiled)
- Polycoat containers (e.g. paper ice cream container)
- Shredded paper (small amounts)

Personal Hygiene Products

- Diapers
- Hair
- Incontinence products
- Nail clippings
- Sanitary products
- Toothpicks

Animal Waste

- Bird seed
- Cat litter
- Feathers/fur
- Pet bedding
- Pet food
- Pet waste

Other Acceptable Items Include:

- Houseplants including soil and flowers
- Sawdust from wood (not pressure treated, melamine, composite wood or particle board)
- Wooden craft sticks (uncoated)
- Wooden stir sticks

Still don't know where it goes?
Try the Bindicator – York Region's online, easy-to-use waste directory
york.ca/bindicator

Green Bin Implementation Decisions

Choices: Aerobic Composting or Anaerobic Digestion (Biogas)

Section 3

Resource Recovery Strategy

Resource Recovery Strategy

Achievable with Tomorrow's Technologies?

Residential Component PLUS other Sources	Diversion Rate Recovery Rate
Existing + Upcoming Diversion	45 - 60%
Mixed Waste Processing (MWP) and/or Mechanical/Biological Treatment (MBT) • material and energy recovery • anaerobic digestion Waste conversion technologies • gasification, pyrolysis, other	15% to 30%
Total	**75% to 90%**

Request for Information

SUMMARY

8 Mechanical-Biological Treatment (MBT)
5 Mixed Waste Processing (MWP) & Gasification
3 MWP & Anaerobic Digestion (AD)
2 MWP & Pyrolysis
1 MWP & Biorefinery
1 MWP & range of technologies

20 vendors (75%) in the "MWP category"

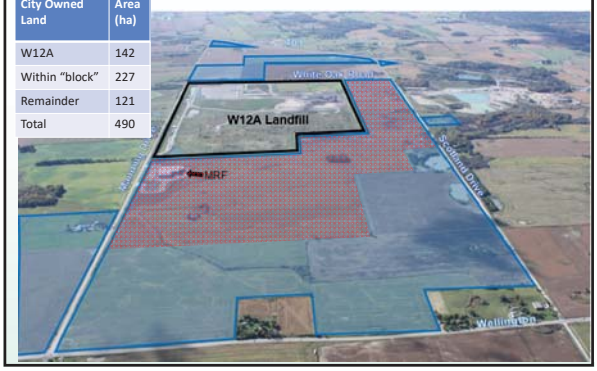
1 Receive, no processing & Waste Reactor
1 Receive, no processing & Hydrogen Reduction
1 Multi-bags & facility separated
3 Other Info

26 total responses + 5 to 7 "missing"

Waste Management Resource Recovery Area

31

City Owned Land	Area (ha)
W12A	142
Within "block"	227
Remainder	121
Total	490



PERMITTED USES

The London Plan (2016 - 2035

1258_ The Waste Management Resource Recovery Area Place Type may permit the following, in conformity with the policies of this Plan:

1. Landfills.
2. Related uses necessary to the function, operation and education of all aspects of waste reduction, re-use, recycling, management, resource recovery, treatment and waste disposal.
3. Eco-Industrial Parks where industries are involved in the processing, fabricating, or manufacturing of products using materials available from the Waste Management Resource Recovery Area, including alternative energy sources.

Otter Lake Facility
Halifax, Nova Scotia – 3 facilities at 1 location

Target: 65 – 70% Diversion

Edmonton, Alberta – 14 facilities at 1 location

Target: 85 – 90% Diversion

***Ämmässuo (Ekomo) eco-industrial park,* near Helsinki, Finland**

Kahlenberg Waste Treatment Association

London Waste to Resources INNOVATION CENTRE

1. **Research & Investigation** (including Industrial Research Chair in Thermochemical Conversion of Biomass and Waste to Bioindustrial Resources)
2. **Training, Testing & Auditing**
3. **Resource & Waste Management Knowledge Exchange (MoU – Part A)**
4. **Technology Demonstrations (MoU – Part B)**
5. **Outreach & Engagement**

Institute for Chemicals and Fuels from Alternative Resources
Western University

icfar

Western

Department of Chemical and Biochemical Engineering (Faculty of Engineering)

- 25,000 square feet of laboratory
- Small and large scale pilot plants
- Advanced analytical facilities
- Prototypes

Resource & Waste Management Knowledge Exchange (MoU - 1)
Technology Demonstrations (MoU - 2)

Institute for Chemical and Fuels from Alternative Resources (ICFAR)/Western University	Feedstocks, waste conversion, Products (biochars, bio-oils, fuel)
Canadian Plastics Industry Association	Feedstocks, products, resource recovery, conversion tech.
Try Recycling	Pre-processing, mixed waste, organic mixes
Bio-Techfar (focus biomass)	Pyrolysis (demonstration)
Tucker Engineering (inactive)	Pyrolysis (demonstration)
RediCan Biofuels (inactive)	Gasification (full scale)
Green Shields Energy (expired; new submission)	Gas-phase Chemical (Hydrogen) Reduction

Industrial Research Chair in Thermochemical Conversion of Biomass and Waste to Bioindustrial Resources

- NSERC funded, 5 years, June 30, 2023
- Current value = +$3 million

A&L Laboratories	Grain Farmers of Ontario
Canadian Plastics Industry Association	Ontario Federation of Agriculture
CHAR Technologies	Ontario Greenhouse Vegetable Growers
City of London	Titan Clean Energy Projects
Domtar Inc.	Try Recycling

Questions/Comments