

Frequently Asked Questions (FAQs #10)

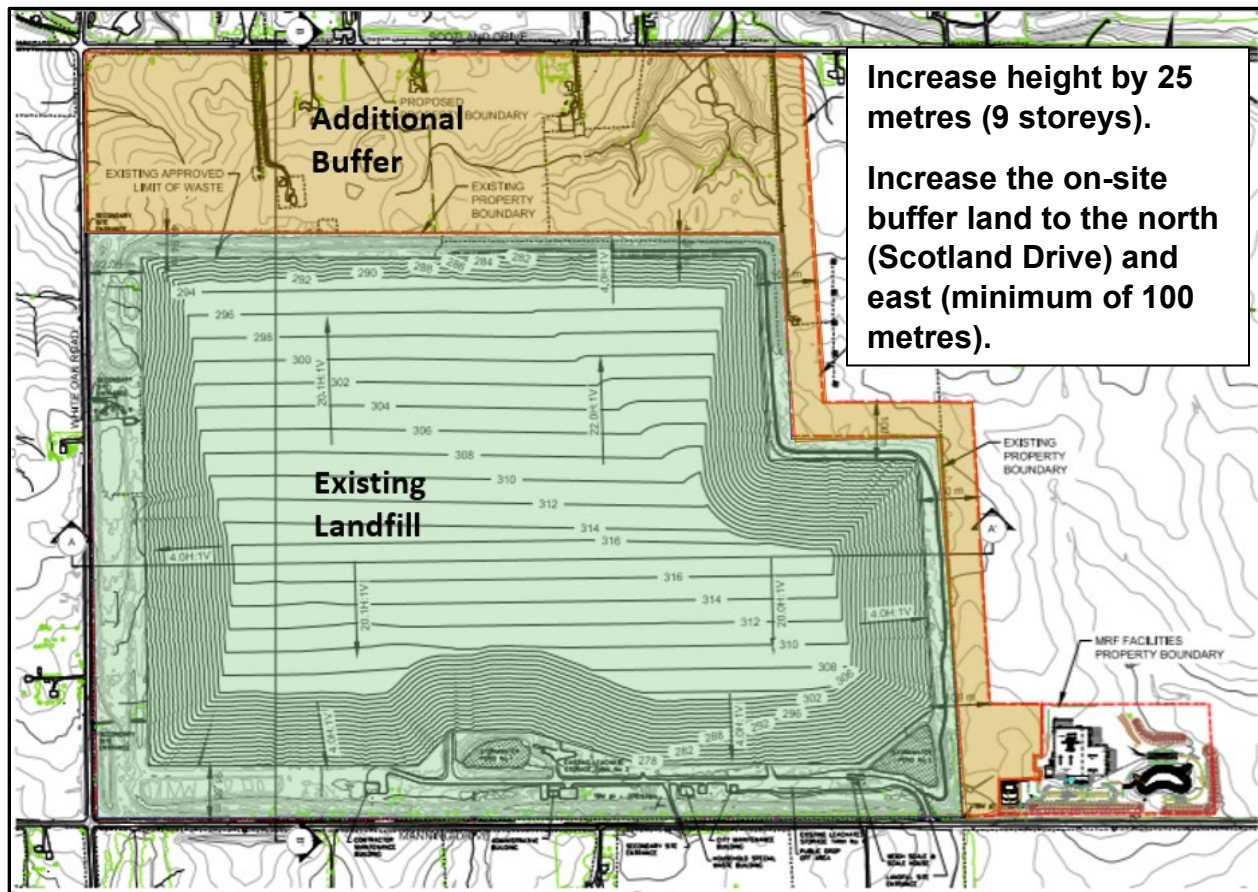
How much waste will the landfill expansion receive?

The design capacity for the proposed landfill expansion over the 25 year planning period is 9.9 million tonnes including 0.5 million tonnes from neighbouring municipalities (about 5%). The space required to hold the estimated waste quantities is approximately 13.8 million cubic metres.

For comparison purposes, the existing approved capacity of the W12A Landfill is approximately 10 million tonnes.

What is the preferred landfill expansion alternative?

Three landfill expansion alternatives (vertical expansion, expansion to the north and expansion to the east) were considered. Vertical expansion was selected as the preferred expansion alternative.



Frequently Asked Questions

What changes will be made to the landfill's operation and infrastructure?

There will be only minor changes to some of the daily operations (e.g., hours of operation, equipment being used, etc.). There will be major changes (improvement upgrades) to the landfill's infrastructure as summarized below:

Landfill Gas Collection and Flaring System:

- Gas collection system will go from using only vertical wells to having vertical wells and horizontal gas collection piping which will increase the amount of landfill gas captured and reduce odours,
- The existing flare will be replaced by two flares doubling the amount of landfill gas that can be combusted.

Stormwater Management Ponds:

- Two of the four stormwater management ponds will be enlarged,
- Sediment removal efficiency of all the ponds will be increased to 80% (some ponds currently only have 70% removal efficiency),
- Improvements to outflow structures and other pond infrastructure,
- Upgrades will further protect downstream watersheds.

Groundwater Protection:

- The perimeter leachate collection system in the older part of the existing landfill will be replaced/upgraded and stone drains installed in the waste to improve collection efficiency,
- The thick clay soils underneath the landfill are the primary groundwater protection measure and contaminant transport modelling shows no off-site impacts are anticipated.

Environmental Monitoring

- Improvements, as required, to the existing environmental monitoring programs (litter, landfill gas, surface water & groundwater),
- Additional monitoring of noise and air quality have been incorporated.

Frequently Asked Questions

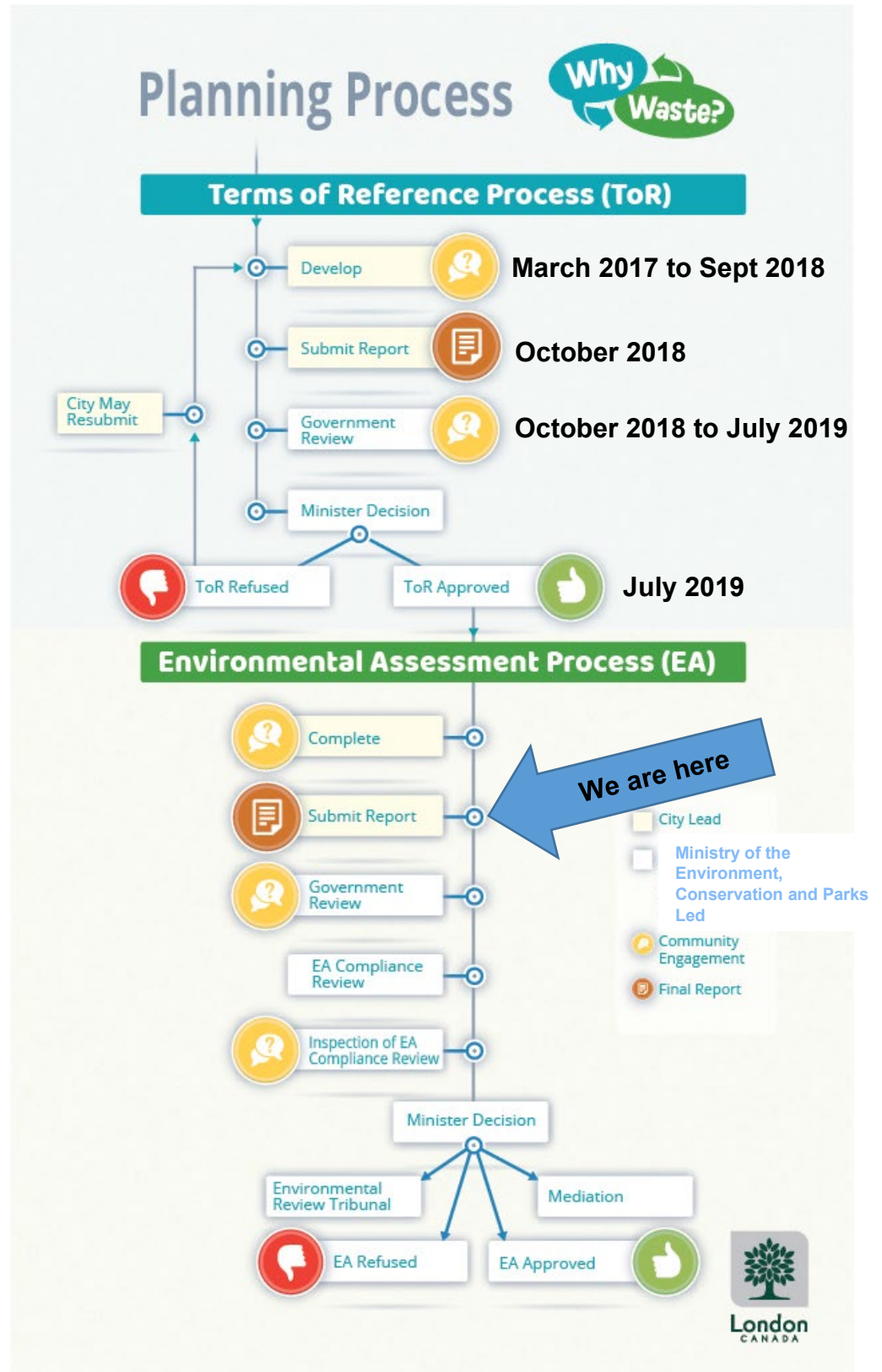
Where are we in the Process?

The EA process is expected to take approximately four to five years to complete (from the start date of March 2017).

The first phase was to develop the Terms of Reference that is the work plan or framework for completing the EA. This has been completed and was approved by the Minister of the Environment, Conservation & Parks.

The City has completed the Environmental Assessment Study Report (EASR). The Draft EASR was updated to address comments received from stakeholders, First Nations and the public and then will be submitted to the Ontario Ministry of the Environment, Conservation and Parks (MECP) for approval. The steps in completing the EA study are listed on page 4.

The completed EA must be approved by the Minister and Cabinet before the project can proceed.



Frequently Asked Questions

What are the remaining steps in completing the EA study?

Completion of the EA study will be undertaken in a series of nine steps, which are described below. The steps are described fully in the Terms of Reference.

Step listed in Terms of Reference		Description/Explanation
1	Characterize the existing environmental conditions	Complete technical studies (e.g., groundwater, surface water, traffic, air quality, archeology, etc.) on the area. Complete
2	Identify the 'Alternative Methods' of landfill expansion	Develop different vertical (higher) and/or lateral (northern or eastern) expansion alternatives. Complete
3	Qualitative or quantitative evaluation of 'Alternative Methods'	Determine the potential impact of each of the different expansion alternatives on the study areas. Complete
4	Compare the 'Alternative Methods' for landfill expansion and identify the preferred alternative	Select the expansion alternative that has the least overall impact. Complete
5	Determine the net effects of the preferred alternative	Detailed assessments will be completed on the potential impacts from the preferred expansion alternative. Complete
6	Describe the preferred 'Alternative Method' for landfill expansion	Prepare a detailed description of the preferred expansion alternative and confirm how leachate (water that has contacted garbage) will be managed. Complete
7	Consideration of climate change	Look at how climate change (e.g. larger rainfall events) may impact the project and how to reduce the project's contribution to climate change. Complete
8	Cumulative Impact Assessment	Consider the cumulative impact of expansion of the W12A Landfill with other facilities or activities in the area. Complete
9	Preparation of the EA Study Report	Prepare the EA Study Report for review by stakeholders. Complete

A summary of the EA process is shown on pages 6-9. This is a slideshow that was presented to the Civic Works Committee on January 11, 2022.

Frequently Asked Questions

Where can more details about the Environmental Assessment and the landfill expansion be found?

More information can be found the project website (getinvolved.london.ca/WhyWasteDisposal). All key documents and technical studies can be found on the project website.

What other approvals are required?

If the EA for the proposed expansion of the W12A Landfill is approved by the Minister of the Environment, Conservation and Parks, there are still other regulatory approvals that will be required before the landfill can be expanded. These approvals are:

- **Environmental Protection Act** (design features and operations related to waste management, air and noise)
- **Ontario Water Resources Act** (stormwater management features)
- **Ontario Planning Act** (zoning amendment)
- **Conservation Authorities** (permits for construction may be required)

Questions? Comments?

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Why Waste?

Environmental Assessment Study Report

Expansion of the W12A Landfill

Presentation Outline

1. Overview of EA Process
2. Summary of Recent Comments
3. Other Updates

Civic Works Committee
January 11, 2022



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Why Waste?

Section 1 - Overview

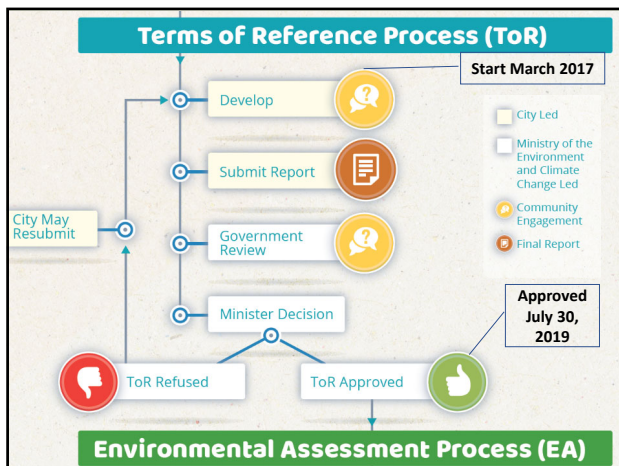
Environmental Assessment Process for the Proposed Expansion of the W12A Landfill



Two Phases:
1a. Develop ToR
1b. EA Technical Studies & Report

2017 photograph

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Why Waste?

1a. ToR Overview

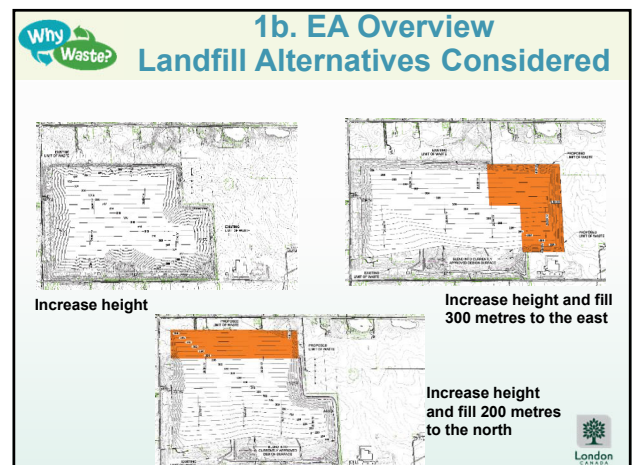
Key Parameters	Description
Planning period	25 years
Waste diversion	60% of residential waste by end of 2022
Service area	Regional for less than 5% of capacity (Council controlled)
Annual tonnage	Reduce from 650,000 to maximum of 500,000 tonnes per year



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Why Waste?

1b. EA Overview Technical Studies

Category	Proposed Environmental Components	
	Environmental Component	Environmental Sub-components
Environmental	Atmosphere	<ul style="list-style-type: none"> Air quality (including dust, odour and greenhouse gases) Noise
	Biology	<ul style="list-style-type: none"> Aquatic ecosystems Terrestrial ecosystems
	Geology & Hydrogeology	<ul style="list-style-type: none"> Groundwater quality
	Surface Water	<ul style="list-style-type: none"> Surface water quality Surface water quantity
Social	Agriculture	<ul style="list-style-type: none"> Agriculture
	Archaeology	<ul style="list-style-type: none"> Archaeology
	Culture	<ul style="list-style-type: none"> Cultural heritage landscapes Cultural heritage resources (including built heritage)
	Land Use	<ul style="list-style-type: none"> Current and planned future land uses
	Socio-economic	<ul style="list-style-type: none"> Local economy Residents and community
Technical	Visual	<ul style="list-style-type: none"> Visual
	Design and Operations	<ul style="list-style-type: none"> Technical Considerations Financial Considerations
	Transportation	<ul style="list-style-type: none"> Traffic

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Why Waste?

1b. EA Overview Community Engagement

- Two Open Houses
- Project Website
- Direct Mailings (e.g., residents within 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

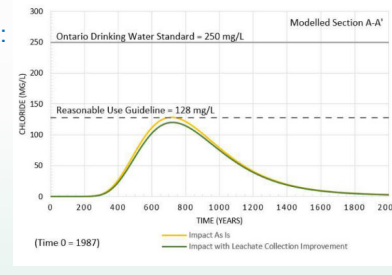


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Why Waste?

1b. EA Overview Groundwater Protection Measures

- Incorporate additional leachate collection measures into the landfill design such as:
- French (finger) drains
- granular-lined interceptors
- horizontal collectors



Ontario Drinking Water Standard = 250 mg/L
Reasonable Use Guideline = 128 mg/L
(Time 0 = 1987)

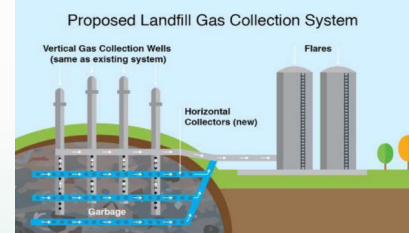
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Why Waste?

1b. EA Overview Atmosphere Measures

- Enhanced gas collection system with horizontal collection
- Review and update the odour management plan and complaints response protocol
- Prepare a fugitive dust management plan and complaints response protocol



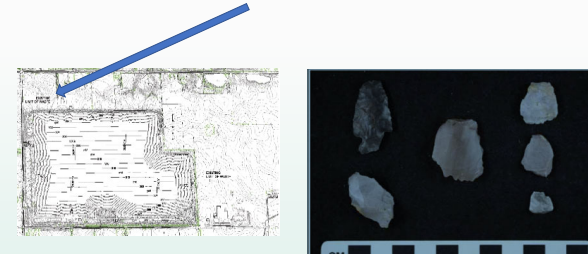
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Why Waste?

1b. EA Overview Archaeology Measures

- No construction or other activities will take place within 10 metres of site with cultural heritage value or interest (First Nations) located in the northern buffer area



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Why Waste?

1b. EA Overview Climate Change Measures

Climate change adaptation - potential for more rain. Include the possibility of increased leachate generation in:

- the design of the proposed replacement perimeter leachate collection system
- the design of the replacement for the main leachate pump station on the W12A Landfill site



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1b. EA Overview Other Design Features

- Additional on-site leachate storage (addresses First Nation concern)
- Stormwater management pond upgrades
- Upgrade, expand or new on-site buildings (including additional health and safety features)
- Expand and improve (e.g., experience, safety) public drop-off area for waste diversion
- Preliminary capital cost estimate range for landfill is \$55 million to \$90 million (\$5.5 to \$9 per tonne); \$79 million has been allocated in Budget

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1b. EA Overview Key Operating Features

- Sequencing of garbage to maximize screening
- Waste placed in sequential phases 1E to 8E
- Southern phases (waste) placed strategically to provide screening for northern filling activities

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Section 2 Summary of Recent Comments

Stakeholder		Comments	
		#	Main Subject(s)
Government	MECP (EA)	~ 60	EA Process/Air/Noise/GW/etc.
	MHSTCI	5	Archaeology/Built Heritage
	OMAFRA	15	Agricultural
	UTRCA	1	Fill approval requirements
	KCCA	7	SWM ponds
	City (internal divisions)	~ 40	Surface Water, Biology, Land use, Agricultural, Cultural
Other	COTTFN	~ 70	GHG, lack of LFG use, lack of Green Bin, climate change
	General Public (6 persons/ organizations)	17	Nuisance impacts, CEMMP
Total		>200	

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2. Summary of Recent Government Comments

Type of Change/Adjustment	Approximate Percentage
No change to minor change/adjustment	70%
Additional details/clarification	26%
Change to technical assessments	3%
Minor changes to expansion	1%

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2. Summary of Recent Comments (COTTFN)

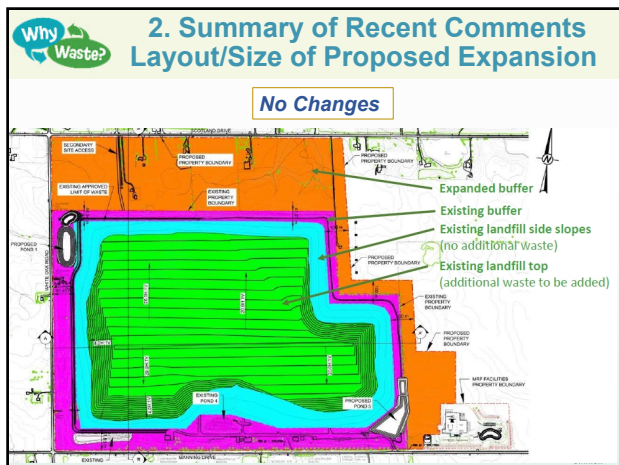
- Accessibility and accommodation expectations
- Planning policies and goals in relation to population growth
- Concerns related to air quality, climate change, GHG and management of landfill gas (LFG)
- Concern that LFG was not being turned into an energy source such as renewable natural gas
- Concern that the City had not yet implemented a Green Bin program
- Concern about surface water impacts on the Thames River from the Greenway WWTP
- Socio-cultural sensitivities
- Geotechnical slope stability
- Changes in land use and future cultural heritage and archaeological assessment

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2. Summary of Recent Comments (General Public)

- Concerns over nuisance impacts, e.g.:
 - odours
 - visual
 - particulate matter (dust)
 - blowing garbage
- Other concerns over nuisance impacts, e.g.:
 - Social impacts
 - Land use designation of the surrounding lands
- Status of City owned properties
- Eligibility for first right of refusal program

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Why Waste? Section 3: Other Updates

W12A Landfill Community Enhancement and Mitigative Measures Program (CEMMP)

Additional (recent) comments include:

- Request for screening measures
- Nuisance impacts (e.g., wind, turkey vultures, etc.)
- Right of First Refusal program qualifications
- Need for commitment to enhance management of City properties near landfill
- Funding added to continue neighborhood benefit programs approved via CEMMP (e.g., point of source water treatment program)

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Why Waste? Other Updates

COTTFN Consultation Commitments

- Meet twice per year to discuss W12A Landfill
- Further engagement on long-term Resource Recovery Plan
- Further engagement on renewable natural gas (RNG) development at landfill
- Use City's Climate Change Lens Process relative to RNG, transportation of waste and landfill

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Why Waste? Other Updates

Upcoming Reports to CWC (Q1)

Timeframe	Item
March 2022	• Review, proposed revisions, rationale and recommendations for CEMMP
March/April 2022	• Proposed policies for operating the expanded W12A Landfill
March/April 2022	• Next steps on Green Bin implementation • Next steps on other waste diversion policies, actions and activities (many related to the Climate Emergency Action Plan)

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Why Waste? Recommendation

That, on the recommendation of the Deputy City Manager, Environment & Infrastructure, the following actions be taken with respect to the Environmental Assessment Study Report for the Environmental Assessment of the Proposed W12A Landfill Expansion:

November 2021

Volume I

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

a) the Environmental Assessment Study Report **BE APPROVED**; and,

b) Civic Administration **BE AUTHORIZED** to submit the Environmental Assessment Study Report to the Ministry of Environment, Conservation and Parks for approval by the Minister of the Environment, Conservation and Parks.

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