



# 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**



# Section 1 - Overview

## Environmental Assessment Process for the Proposed Expansion of the W12A Landfill



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

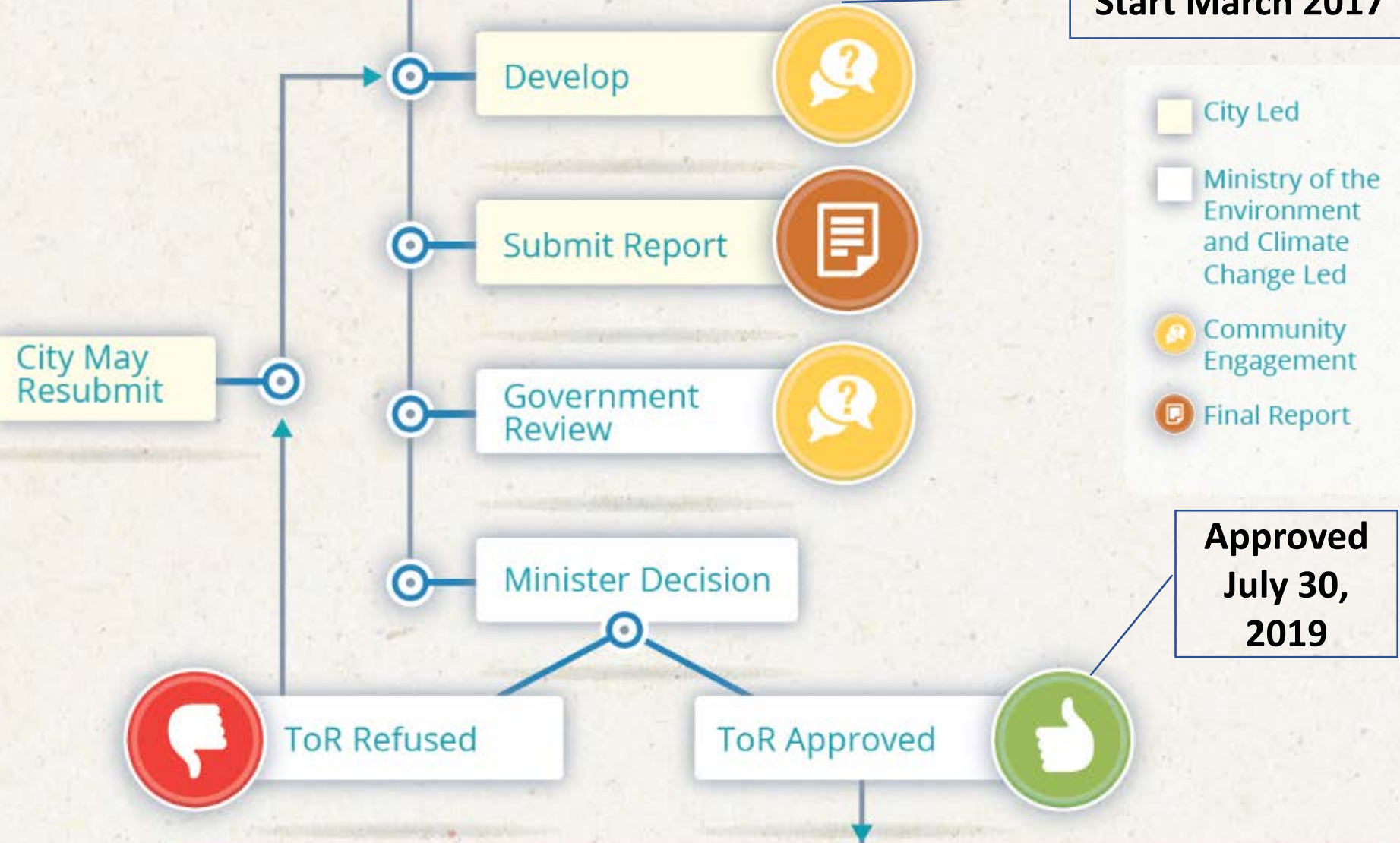
City of London (Material  
Recovery Facility)

City of London  
Landfill Site

2017 photograph

# Terms of Reference Process (ToR)

Start March 2017



# Environmental Assessment Process (EA)



# 1a. ToR Overview

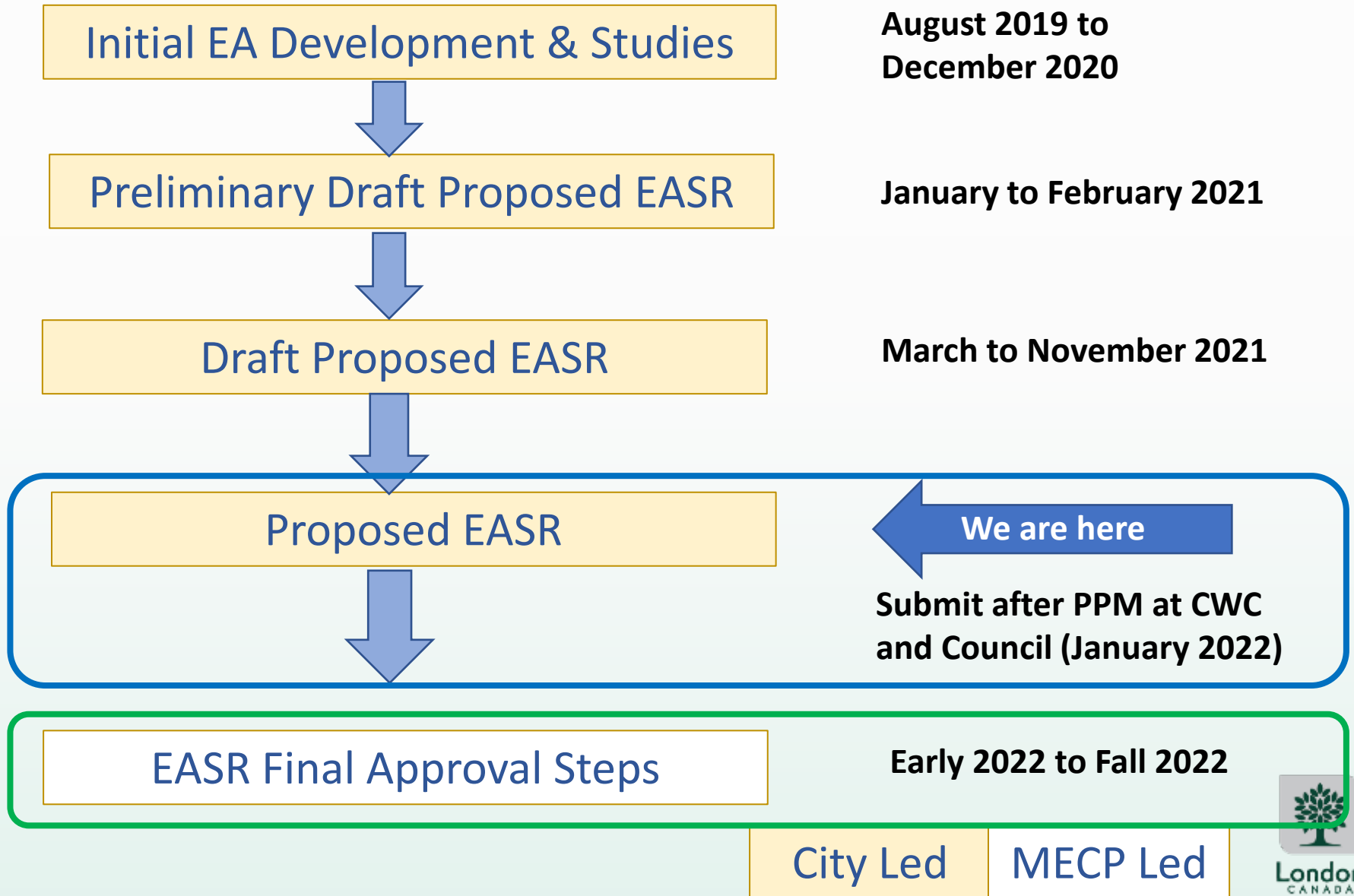
Key Parameters	Description
Planning period	25 years
Waste diversion	60% of residential waste by end of 2022
Service area	Regional for less than 5% of capacity (Council controlled)
Annual tonnage	Reduce from 650,000 to maximum of 500,000 tonnes per year





# 1b. EA Overview

## Complete Studies and Finalize EA

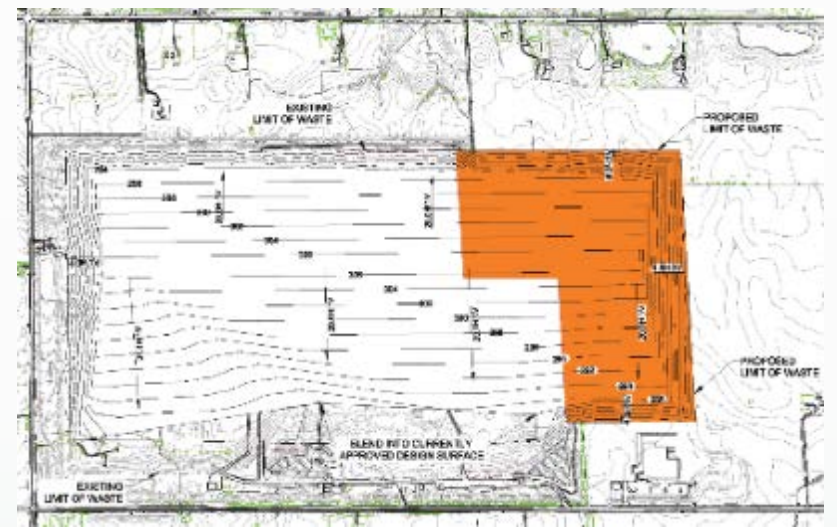




# 1b. EA Overview Landfill Alternatives Considered



Increase height



Increase height and fill 300 metres to the east



Increase height and fill 200 metres to the north





# 1b. EA Overview Technical Studies

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



# 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

The screenshot shows the 'Get Involved London' website. The main heading is 'Residual Waste Disposal Strategy'. Below the heading, there is a navigation menu with 'HOME' and 'ABOUT US'. A large image shows a recycling bin and a trash can. The text below the image reads: 'London is developing a Residual Waste Disposal Strategy that will create a long-term plan to manage residual waste.' Below this, there is a navigation bar with 'THE PROPOSAL', 'THE PROCESS', 'PARTICIPATE!', 'DOCUMENT LIBRARY', and 'SUBSCRIBE'. The 'Background' section is visible, starting with 'In the City of London more than one tonne of waste is produced per person each year...'. A pie chart titled '2016 Residual Waste' shows 'London Waste to Other Landfills' at 33%. On the right side, there is an 'Upcoming' section with dates: '24 May 2017 Open House', '24 May 2017 Open House', '25 May 2017 Open House', and '25 May 2017 Open House'.

The photograph shows an open house event. A woman is talking to a man with a blue backpack. In the background, there is an informational display titled 'What can you do to reduce your waste?'. The display has a blue background and white text. It says: 'Much of what we put in the garbage could be diverted from landfill through existing and future programs. Take a look inside what the average household puts in their garbage.' Below this, there is a bar chart showing: '25% Recyclables', '45% Organics', and '30% Garbage'. The display also has a '1000 litres' label.



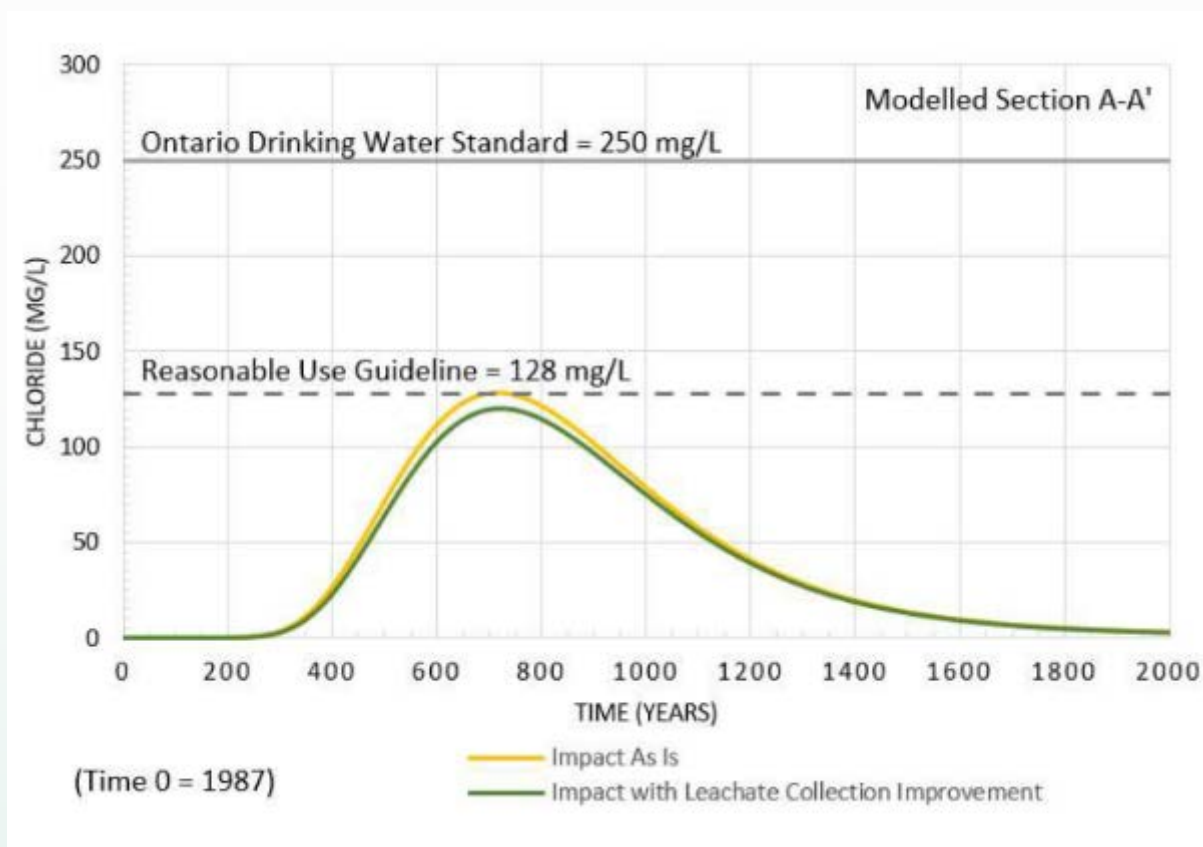




# 1b. EA Overview

## Groundwater Protection Measures

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





# 1b. EA Overview

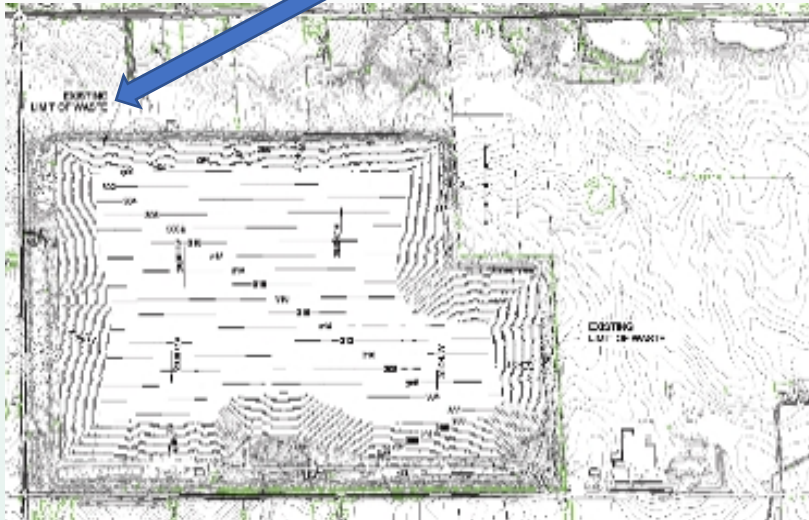
## Atmosphere Measures

- 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



# 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





# 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







# 1b. EA Overview

## Other Design Features

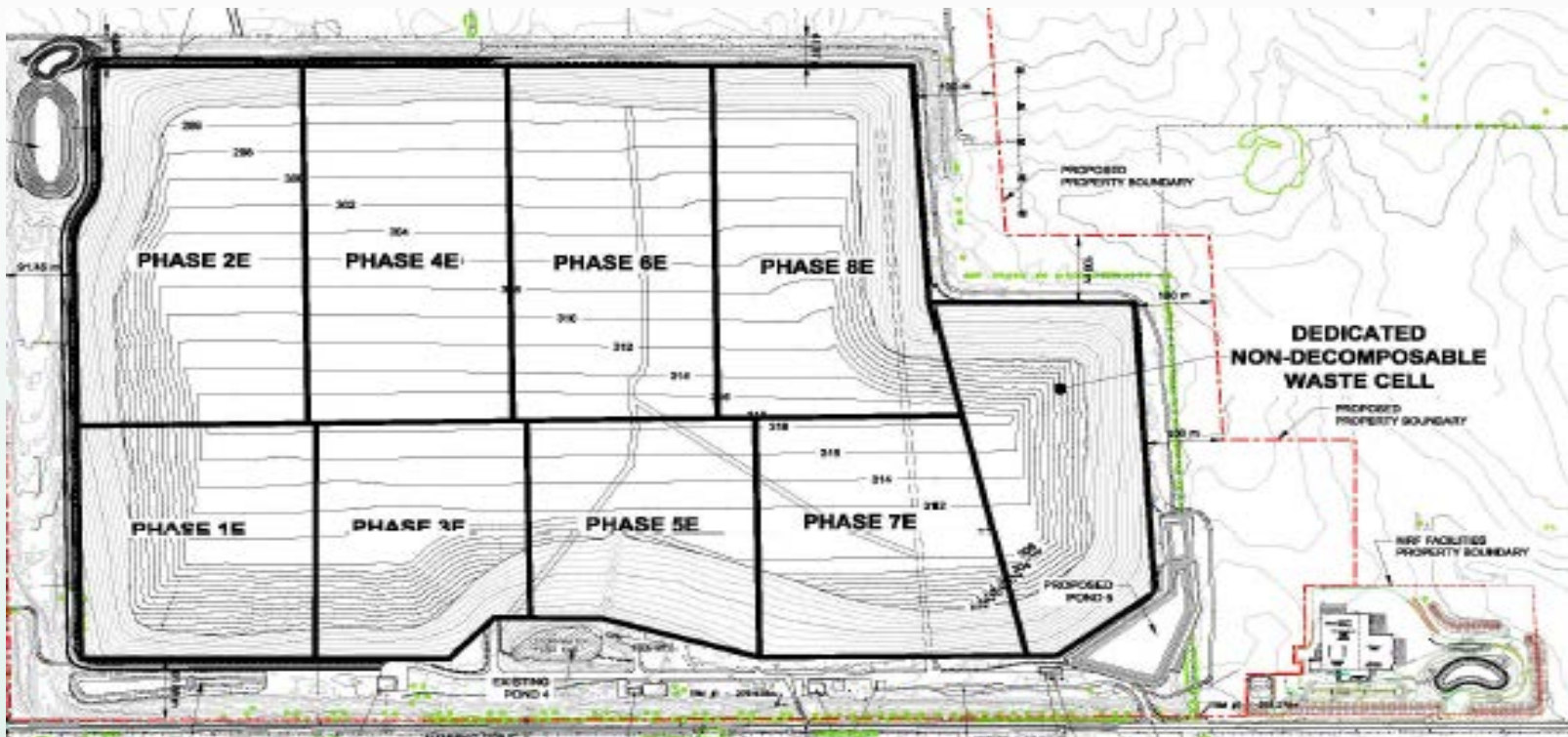
- Additional on-site leachate storage (addresses First Nation concern)
- Stormwater management pond upgrades
- Upgrade, expand or new on-site buildings (including additional health and safety features)
- Expand and improve (e.g., experience, safety) public drop-off area for waste diversion
- Preliminary 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



# 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





# 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
<b>Total</b>		>200	



## 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%





## 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



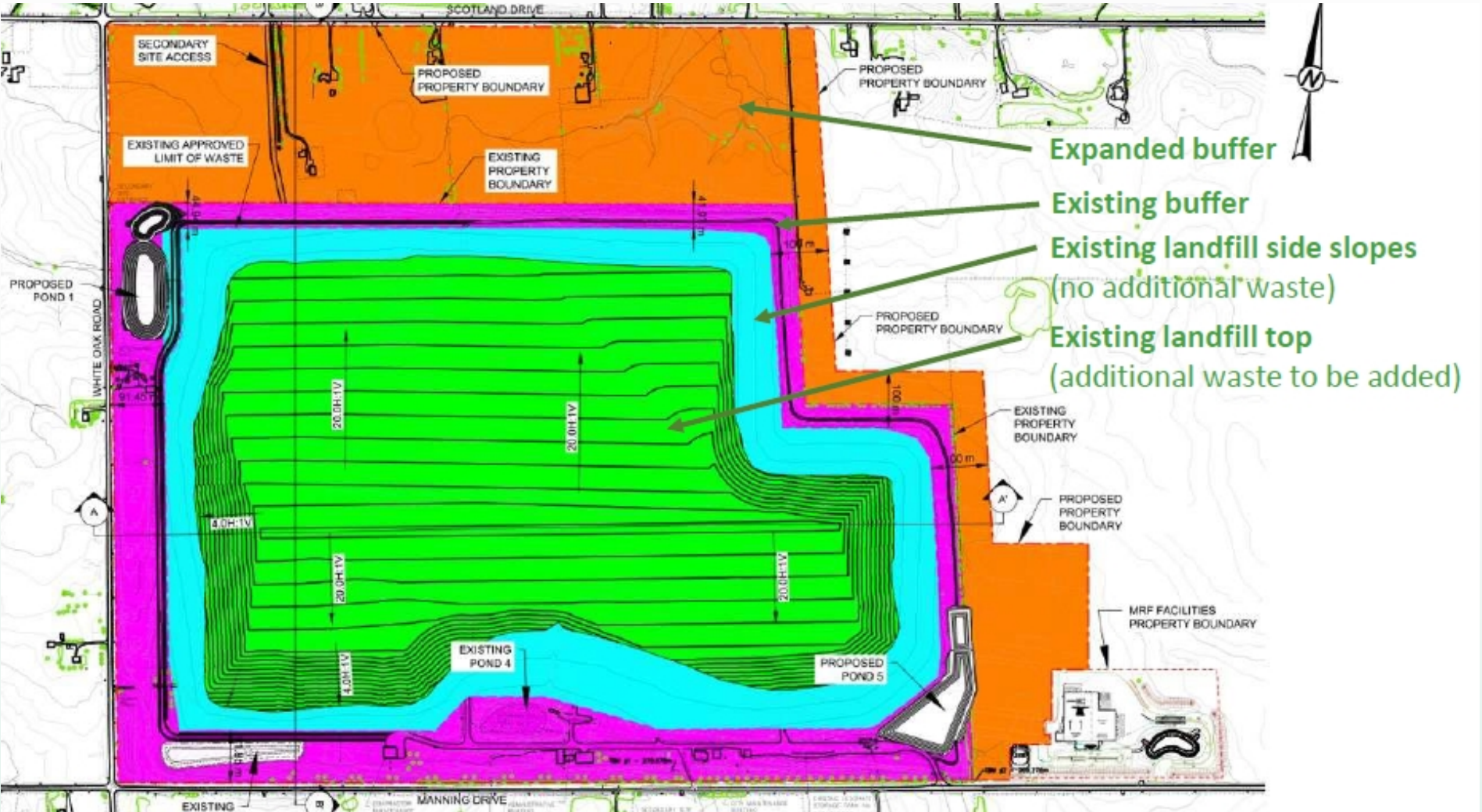
## 2. Summary of Recent Comments (General Public)

- 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



# 2. Summary of Recent Comments Layout/Size of Proposed Expansion

*No Changes*





# 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)





# 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



# Other Updates

## Upcoming Reports to CWC (Q1)

Timeframe	Item
March 2022	<ul style="list-style-type: none"><li>• Review, proposed revisions, rationale and recommendations for CEMMP</li></ul>
March/April 2022	<ul style="list-style-type: none"><li>• Proposed policies for operating the expanded W12A Landfill</li></ul>
March/April 2022	<ul style="list-style-type: none"><li>• Next steps on Green Bin implementation</li><li>• Next steps on other waste diversion policies, actions and activities (many related to the Climate Emergency Action Plan)</li></ul>





# 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:

- 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.

November 2021

Volume I

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

