TO:	**CHAIR AND MEMBERS WASTE MANAGEMENT WORKING GROUP MEETING ON DECEMBER 18, 2019**
FROM:	**JAY STANFORD, M.A., M.P.A. DIRECTOR - ENVIRONMENT, FLEET & SOLID WASTE**
SUBJECT:	**DECISION REPORT 9: ENVIRONMENTAL ASSESSMENT PROCESS**

RECOMMENDATION

That, on the recommendation of the Director - Environment, Fleet and Solid Waste, the following actions **BE TAKEN**:

a) The Report **BE RECEIVED** for information;

b) The three Alternative Methods for the proposed expansion of the W12A landfill **BE SUPPORTED IN PRINCIPLE** for release to the public for the upcoming Open Houses tentatively scheduled for February 2020; it being noted that the three Alternative Methods are very similar to the ones that have been before the Waste Management Working Group, Civic Works Committee, Council and the community as design concepts; and

c) The Minutes from the December 18, 2019 Waste Management Working Group include this entire report as an appendix to ensure that the alternative methods are before the Civic Works Committee on January 7, 2020.

PREVIOUS REPORTS PERTINENT TO THIS MATTER

Relevant reports that can be found at www.london.ca under City Hall (Meetings) include:

- Proposed Expansion of the W12A Landfill Site: Updated Environmental Assessment Engineering Consulting Costs (October 22, 2019 meeting of the Civic Works Committee (CWC), Item #2.12)
- Proposed Terms of Reference - Environmental Assessment of the Proposed W12A Landfill Expansion (September 25, 2018 meeting of the CWC, Item #3.1)
- Draft Proposed Terms of Reference – Environmental Assessment of the Proposed W12A Landfill Expansion (April 17, 2018 meeting of the CWC, Item #3.3)
- Appointment of Consulting Engineer for Various Technical Studies as part of the Environmental Assessment Process for the Proposed Expansion of the W12A Landfill Site (July 17, 2017 meeting of the CWC, Item #6)
- Update and Next Steps – Resource Recovery Strategy and Residual Waste Disposal Strategy as part of the Environmental Assessment Process (February 7, 2017 meeting of the CWC, Item #10)

Relevant reports that can be found at www.london.ca under City Hall (Meetings – Advisory and other Committee Meetings) include:

- Proposed Amended Terms of Reference (April 18, 2019 meeting of the Waste Management Working Group (WMWG), Item #3.2)
- Proposed Terms of Reference (August 15, 2018 meeting of the WMWG, Item #2.1)
- Draft Proposed Terms of Reference (July 13, 2018 meeting of the WMWG, Item #3.2)
- Preliminary Proposed Draft Terms of Reference (March 8, 2018 meeting of the WMWG, Item #2.1)
- Terms of Reference Outline and Next Steps (January 18, 2018 meeting of the WMWG, Item #9)
- General Framework for the Community Engagement Program for the Resource Recovery and Residual Waste Disposal Strategies as part of the Environmental Assessment Process (January 19, 2017 meeting of the WMWG, Item #7)

COUNCIL'S 2019-2023 STRATEGIC PLAN

Municipal Council has recognized the importance of solid waste management in its 2019-2023 - Strategic Plan for the City of London as follows:

Building a Sustainable City
London has a strong and healthy environment
- Build infrastructure to support future development and protect the environment

Growing our Economy
London is a leader in Ontario for attracting new jobs and investments
- Build infrastructure to support future development and retain existing jobs

Leading in Public Service
Londoners experience exceptional and valued customer service
- Increase community and resident satisfaction of their service experience with the City

BACKGROUND

PURPOSE:

This report provides the Waste Management Working Group (WMWG) with an update on the status of the Environmental Assessment process and seeks the WMWG support for the proposed three Alternative Methods (landfill expansion alternatives). These three Alternative Methods are very similar to the ones that have been before the Waste Management Working Group (WMWG), Civic Works Committee (CWC), Council and the community as design concepts.

CONTEXT:

An Environmental Assessment (EA) under the EA Act is a planning study that assesses environmental effects and advantages and disadvantages of a proposed project. The environment is considered in broad terms to include the natural, social, cultural and economic aspects of the environment.

There are different classes (types) of EAs depending on the type and complexity of the undertaking (project). The most rigorous EA is an Individual EA. An individual EA is less prescribed than the more common class EAs and is used for large-scale projects like landfill sites.

The first phase of the Individual EA process is the development and approval of a Terms of Reference (ToR) by the Minister of the Environment, Conservation and Parks. The ToR becomes the framework or work plan for the preparation and review of the Individual EA. The ToR allows the proponent to produce an EA that is more direct and easier to be reviewed by interested persons.

The second phase of the Individual EA process is completion and approval of an EA. The proponent completes the EA in accordance with the approved ToR.

Addressing the Need for Action on Climate Change

On April 23, 2019, the following was approved by Municipal Council with respect to climate change:

> *Therefore, a climate emergency be declared by the City of London for the purposes of naming, framing, and deepening our commitment to protecting our economy, our eco systems, and our community from climate change.*

Both the Resource Recovery Strategy and Waste Disposal Strategy (including the EA) address various aspects of climate change mitigation and climate change adaptation. These elements are also a requirement that must be addressed as part of EA documentation.

DISCUSSION

Amended ToR Approval

The Amended ToR was approved on July 30, 2019 (Appendix A). The details on this approval were contained in the Proposed Terms of Reference - Environmental Assessment of the Proposed W12A Landfill Expansion report submitted to the September 25, 2018 meeting of the CWC.

The approved Amended ToR contained over 20 commitments including commitments to consult with Indigenous groups, prepare detailed work plans for certain studies and refine the service area, study areas, criteria and alternative methods.

Environmental Assessment

The following outlines work that has been completed on the EA now that the Amended ToR has been approved.

Development of Detailed Technical Study Work Plans

General work plans for all technical studies were included in the Amended ToR. The Ministry of Environment Conservation and Parks (MECP) requested the Amended ToR include a requirement that detailed work plans be prepared for four technical studies and provided to the appropriate Government Review Team (GRT) agency for review and concurrence at the start of the EA. The studies that required a detailed work plan were atmosphere (air quality, dust, noise and odour) biology, geology & hydrogeology (groundwater) and surface water.

These detailed work plans were submitted to the appropriate GRT agencies in September 2019. Comments received from government agencies have been addressed and the work plans were finalized.

Field Component of Technical Studies

Below is a summary of the status of the field work for the various technical studies. It should be noted that field work on many of the technical studies began before final approval of the ToR because of timing constraints. For example, the biology assessment requires a three season (spring, summer and fall) study.

Table 1 – Status of Field Work

Environmental Component (Technical Consulting Firm)		% Complete	Comments
Environmental	Atmosphere (Golder Associates)	n.a.	• No field work required as impacts assessed using standard MECP models.
	Biology (AECOM)	100%	• Various aquatic and terrestrial ecosystem assessments completed. • Key features within the potential expansion area include two watercourses, cultural meadow vegetation providing species at risk and significant wildlife habitat, unevaluated wetland patches and one forested patch.
	Geology & Hydrogeology (Dillon Consulting)	95%	• Field work including additional monitoring wells, collection of soil and water samples and excavation of test pits completed. • Waiting for some test results from water and soil samples collected.
	Surface Water (Dillon Consulting)	100%	• Existing water features in and around the landfill have been documented

Table 1 – Status of Field Work

Environmental Component (Technical Consulting Firm)		% Complete	Comments
			through field surveys and existing documentation.
Social	Agricultural (MHBC Planning Ltd.)	100%	• Existing agricultural conditions in and around the landfill have been documented through road site surveys and review of existing information.
	Archeological Studies (Golder Associates)	100%	• Stage 2 archeological studies completed on potential expansion lands. • First Nation monitors on-site during field work. • Discovered one area that required Stage 3 and Stage 4 investigations. The Stage 3 is complete, the Stage 4 work cannot be completed until the preferred expansion alternative is chosen.
	Cultural (Golder Associates)	100%	• Existing cultural conditions in and around the landfill have been documented through road site surveys and review of existing information.
	Land Use (MHBC Planning Ltd.)	100%	• Existing land use conditions in and around the landfill have been documented through road site surveys and review of existing information.
	Socio-Economic (Golder Associates)	100%	• Existing socio-economic conditions in and around the landfill have been documented through road side surveys and review of existing information.
	Transportation (Golder Associates)	100%	• Turning movements' counts completed at all key intersections.
	Visual (RKLA)	100%	• Road site surveys completed.
Technical	Design and Operations (Golder Associates)	n.a.	• No field work required. Assessment is completed using engineering and financial models/principles.

<u>Service Area Update</u>

The MECP requested the Amended ToR include a requirement that the proposed regional service area for the W12A Landfill be confirmed and further assessed. Municipalities within the proposed regional service have been contacted to confirm if they are still interested in being part of the regional service area. The majority of municipalities have responded and all have indicated they still want to be part of the regional service area. Staff will be following up with the municipalities that have not responded.

<u>Development of Alternative Methods</u>

'Alternative Methods' are the different ways that the proposed expansion of the W12A Landfill could be implemented to gain an additional 25 years of disposal capacity. The two key factors that were considered in designing the Alternative Methods (expansion alternatives) were:

- the requirements in the Landfill Standards Regulation (O. Reg. 232/98); and
- the existing leachate collection system including the leachate mound in the older section of the landfill.

Accordingly, three Alternative Methods for expansion of the W12A Landfill were developed. These alternatives are referred to as:

- Alternative 1 – Vertical Expansion Over Existing Footprint
- Alternative 2 – Horizontal Expansion to the North and Vertical Expansion Over Part of the Existing Footprint
- Alternative 3 – Horizontal Expansion to the East and Vertical Expansion Over Part of the Existing Footprint

The expansion alternatives are shown in Figures 1, 2 and 3 and land requirements are summarized in Table 2.

Figure 1 - Alternative 1 – Vertical Expansion Over Existing Footprint

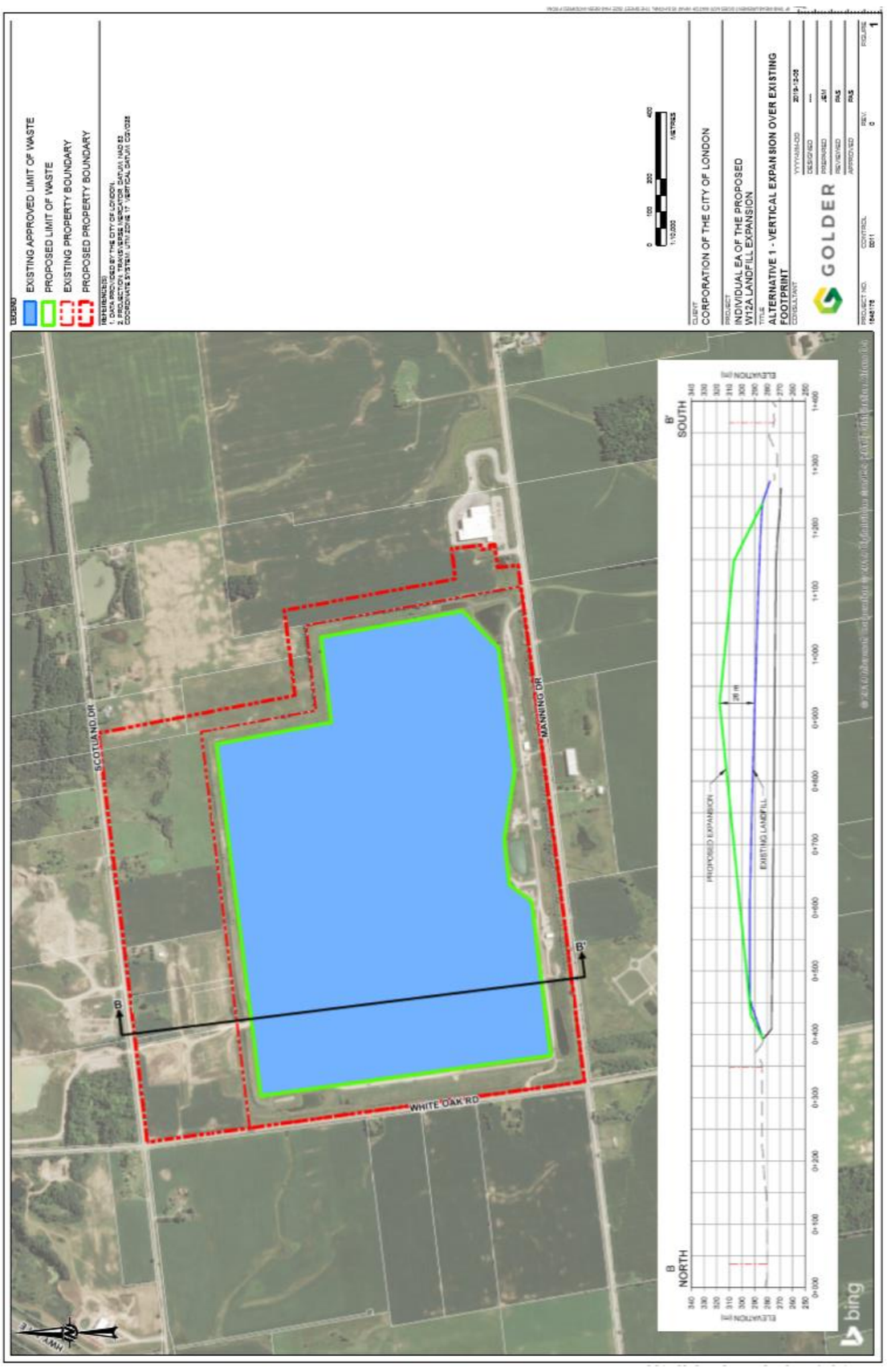

Figure 2 - Alternative 2 – Horizontal Expansion to the North and Vertical Expansion Over Part of the Existing Footprint

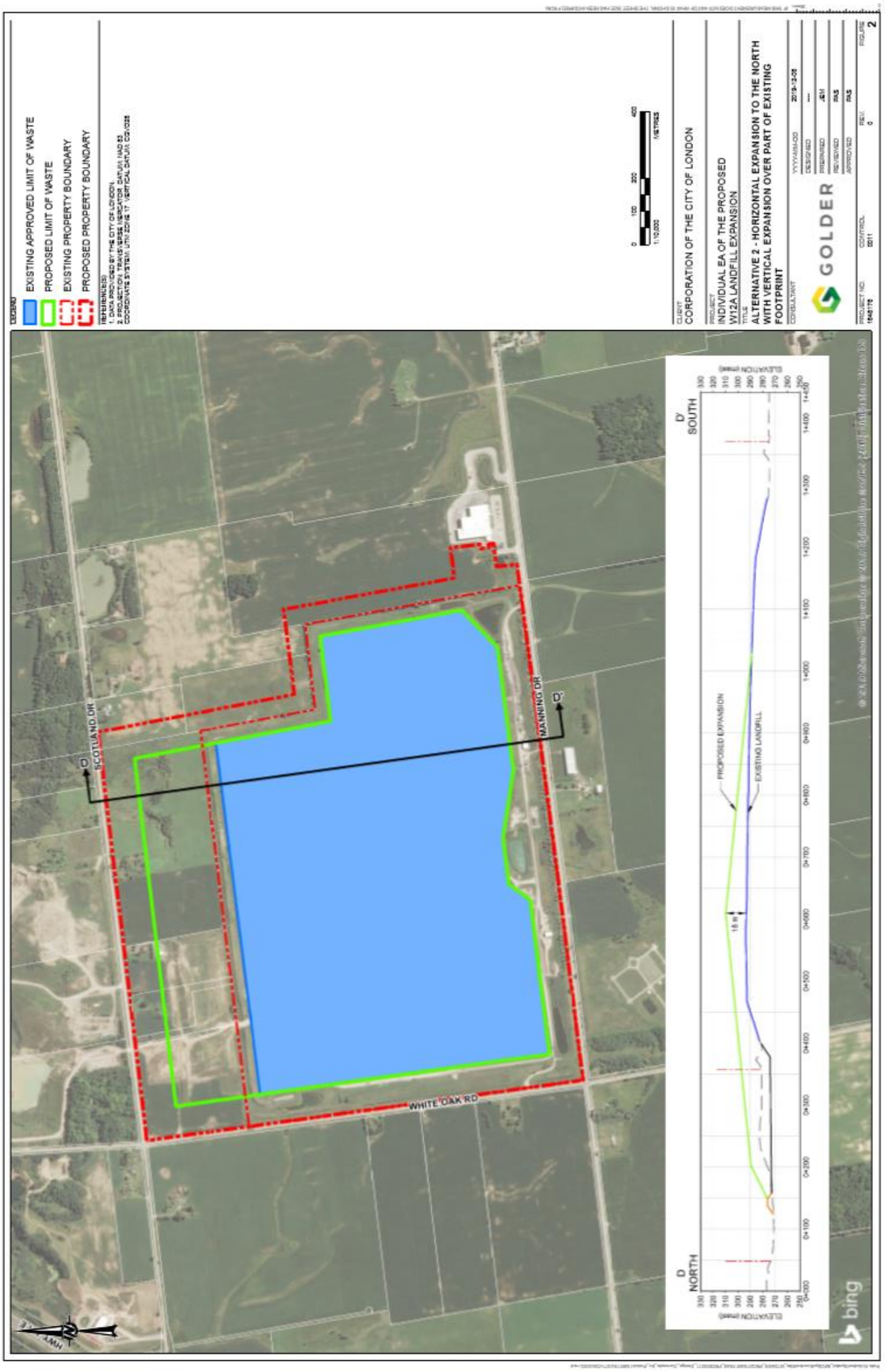

Figure 3 - Alternative 3 – Horizontal Expansion to the East and Vertical Expansion Over Part of the Existing Footprint

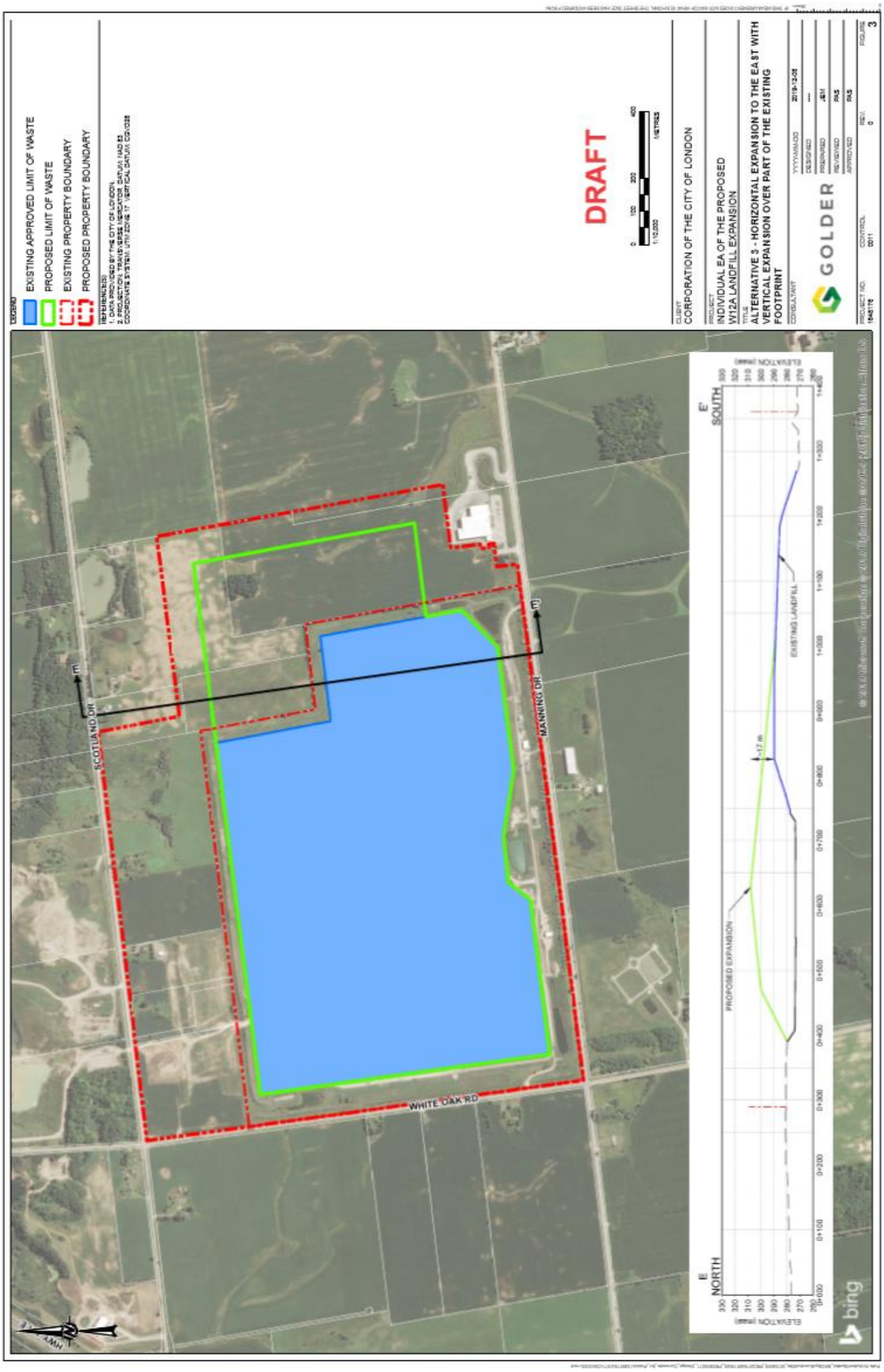

Table 2 – Preliminary Summary of W12A Landfill Expansion Alternative Methods

Design Concept	Existing Landfill	Alternative 1: Vertical Expansion	Alternative 2: Vertical and Northern Expansion	Alternative 3: Vertical and Eastern Expansion
Total Footprint Area (ha)	107	107	134	136
Average Height of Peak above Ground (m)	9	35	26.5	26
Volume of Excavation (m^3)	0	0	2,040,000	850,000

Next Steps

The remaining tasks and schedule to complete the EA are summarized in Table 3.

Table 3 – Schedule and Remaining Tasks to Complete EA

Task	Timeline	Comments
Selection of Preferred Alternative	• December 2019 to February, 2020	• Complete studies and compare alternatives • Open house in February to present results • 2nd First Nations Workshop
Detailed Assessment of Preferred Alternative	• March to May, 2020	• Detailed assessment of landfill and management of leachate • Consideration of Climate Change • Open house in May to present results
Prepare Preliminary Draft EA Report	• June to August 2020	• Prepare preliminary draft EA report and send to MECP for comments
Prepare Draft EA Report	• September to December 2020	• Update report based on comments and prepare Draft EA report • Review of Draft by MECP, GRT, Stakeholder • Council Approval
Formal Submission of EA Documentation	• January 2021	• Publish required notices and submit to MECP
Minister Decision	• February 2021 to July 2021	• The MECP process requires the Minister to make a decision on whether to approve or reject an EA within 30 weeks of submission. This includes the MECP public and agency review period. • A decision by the Minister after 30 weeks is still valid.

PREPARED BY:
MIKE LOSEE, B.SC., **DIVISON MANAGER** **SOLID WASTE MANAGEMENT**

PREPARED AND RECOMMENDED BY:	CONCURRED BY:
JAY STANFORD, M.A., M.P.A. **DIRECTOR, ENVIRONMENT, FLEET & SOLID WASTE**	**KELLY SCHERR, P.ENG., MBA, FEC** **MANAGING DIRECTOR, ENVIRONMENTAL & ENGINEERING SERVICES & CITY ENGINEER**

Appendix A – Amended Terms of Reference Approval

c Wesley Abbott, Technical Project Manager

Appendix A
Amended Terms of Reference Approval

TERMS OF REFERENCE - NOTICE OF APPROVAL

ENVIRONMENTAL ASSESSMENT ACT

SUBSECTION 6(4)

APPROVAL OF TERMS OF REFERENCE

FOR

THE PREPARATION OF AN ENVIRONMENTAL ASSESSMENT

RE: Proponent: City of London

Terms of Reference: W12A Landfill Expansion Environmental Assessment

EA File No.: 18016

As provided for by subsection 6(4) of the Environmental Assessment Act, terms of reference, as submitted for approval to the Ministry of the Environment, Conservation and Parks on October 12, 2018 and revised through the submission of an amended terms of reference dated February 7, 2019 is hereby approved.

Pursuant to subsection 6.1(1) of the Environmental Assessment Act, any environmental assessment for the above-noted undertaking, submitted to the Ministry of the Environment, Conservation and Parks pursuant to subsection 6.2(1) of the Environmental Assessment Act, must be prepared in accordance with the amended terms of reference as hereby approved.

Reasons:

I am satisfied that an environmental assessment prepared in accordance with the amended terms of reference will be consistent with the purpose of the Environmental Assessment Act and the public interest for the following reasons:

1. The terms of reference provides that the environmental assessment will include an identification and evaluation of a reasonable range of alternative methods and that these alternative methods will be assessed during the environmental assessment process.

2. The terms of reference requires the proponent to implement a comprehensive consultation plan during the preparation of the environmental assessment. In addition, the Environmental Assessment Act requires consultation and documentation of the consultation during the preparation of the environmental assessment. As well, there will be additional opportunities for public and government agency consultation when the environmental assessment is submitted to the ministry.

3. The terms of reference provides that the environmental assessment will be prepared using a comprehensive public, Indigenous community and government agency consultation process that is open and transparent and in particular will include consultation on the selection and evaluation of alternative methods during the environmental assessment.

4. The terms of reference requires that the proponent meet the intent of the Environmental Assessment Act by providing for the identification of issues and concerns, and the preferred means of addressing them with due regard to adoption of environmental management, protection and mitigation measures.

5. There are no outstanding issues that have not been incorporated into the terms of reference or that cannot be addressed during the preparation of the environmental assessment.

Dated the 30 day of July, 2019 at TORONTO.

Minister of the Environment, Conservation and Parks
777 Bay Street, 5th Floor
Toronto, Ontario
M7A 2J3