Agenda Including Addeds
Waste Management Working Group

The 2nd Meeting of the Waste Management Working Group

August 13, 2020, 4:00 PM

Virtual Meeting - during the COVID-19 Emergency

City Hall is open to the public, with reduced capacity and physical distancing requirements.

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Pages

1. Call to Order

1.1 Disclosures of Pecuniary Interest

2. Scheduled Items

3. Consent

4. Items for Discussion

5. Adjournment

Next Meeting: To Be Determined

Waste Management Working Group

Report

The 1st Meeting of the Waste Management Working Group
December 18, 2019
Committee Room #3

Attendance

PRESENT: Councillor E. Peloza (Chair), Councillors S. Lehman, S. Turner and M. van Holst and J. Bunn (Committee Clerk)

ALSO PRESENT: W. Abbott, K. Scherr and J. Stanford

The meeting was called to order at 4:01 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 in November 30, 2020

That it BE NOTED that the Waste Management Working Group elected Councillor E. Peloza and Councillor S. Turner as Chair and Vice Chair, respectively, for the term ending November 30, 2020.

2. Scheduled Items

None.

3. Consent

3.1 1st Report of the Waste Management Working Group

That it BE NOTED that the 1st Report of the Waste Management Working Group, from its meeting held on April 18, 2019, was received.

3.2 Municipal Council Resolution - Waste Management Working Group

That it BE NOTED that the Municipal Council resolution, from its meeting held on November 26, 2019, with respect to the Waste Management Working Group, was received.

3.3 Progress Report #8: Community Engagement Program Update - April 1, 2019 to November 30, 2019

That it BE NOTED that the staff report dated December 18, 2019, from J. Stanford, Director, Environment, Fleet and Solid Waste, with respect to progress report #8 on the Community Engagement Program Update from April 1, 2019 to November 30, 2019, was received.

3.4 Progress Report #9: 60% Waste Diversion Action Plan

That it BE NOTED that the staff report dated December 18, 2019, from J. Stanford, Director, Environment, Fleet and Solid Waste, with respect to progress report #9 on the 60% Waste Diversion Action Plan; it being noted that the ~~attached~~ presentation from J. Stanford, Director, Environment, Fleet and Solid Waste, with respect to this matter, was received.

4. Items for Discussion

4.1 Adjustment to Environmental Assessment Project Manager Role - Verbal Update

That it BE NOTED that a verbal update from J. Stanford, Director, Environment, Fleet and Solid Waste, with respect to an adjustment to the Environmental Assessment Project Manager role, was received.

4.2 Decision Report #9: Environmental Assessment Process

That, on the recommendation of the Director, Environment, Fleet and Solid Waste, the three Alternative Methods for the proposed expansion of the W12A landfill, as explained in the ~~attached~~ staff report dated December 18, 2019, 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, the Civic Works Committee, Municipal Council and the community as design concepts; it being further noted that the ~~attached~~ presentation from J. Stanford, Director, Environment, Fleet and Solid Waste, with respect to this matter, was received.

5. Adjournment

The meeting adjourned at 5:28 PM.

TO:	**CHAIR AND MEMBERS WASTE MANAGEMENT WORKING GROUP MEETING ON AUGUST 13, 2020**
FROM:	**JAY STANFORD, M.A., M.P.A. DIRECTOR - ENVIRONMENT, FLEET & SOLID WASTE**
SUBJECT:	**UPDATE REPORT #13: LEGISLATIVE CHANGES TO ENVIRONMENTAL ASSESSMENTS IN ONTARIO**

RECOMMENDATION

That, on the recommendation of the Director, Environment, Fleet and Solid Waste, this report **BE RECEIVED** for information.

PREVIOUS REPORTS PERTINENT TO THIS MATTER

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

- Background Report #1: Overview of Individual Environmental Assessment (EA) Process (January 19, 2017 meeting of the Waste Management Working Group, Item #3)

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:

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BACKGROUND

PURPOSE:

This report provides the Waste Management Working Group (WMWG) with an update on the legislative changes to the *Environmental Assessment Act (EAA)*.

CONTEXT:

There are two types of Environmental Assessments (EAs) in Ontario, streamlined and comprehensive.

Streamlined EAs are for activities that have predictable environmental effects that can readily be mitigated. This allows for a standardized planning process for groups (or classes) of activities.

The most common type of streamlined EA is the Class EA. There are 10 approved Class EAs, setting out streamlined processes for municipal works, provincial highways, minor transmission facilities, etc. The Municipal Class EA is the most common EA undertaken by the City of London. There is also a streamlined EA process for certain waste management activities such as changing the service area of a landfill or increasing the rate of fill (maximum amount of waste a landfill can accept in a year).

The more rigorous comprehensive (or Individual) EA is less prescribed than the more common streamlined EA and is used for large-scale projects (e.g., landfill sites, large transmission lines, etc.).

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.

DISCUSSION

Summary - Implications for City of London EA for the Proposed Expansion of the W12A Landfill

As summarized below, the changes to the EA process are unlikely to have any significant impact on the EA for the Proposed Expansion of the W12A Landfill given that it is expected that the City's EA will be submitted for approval to the MECP in early 2021. The Regulations required to support the changes are unlikely to be in place prior to this timing. However, if the changes are implemented in a timely fashion, it is possible it may shorten the time required for the approval of the EA.

It is noted that the legislation requires new, large landfills (private or public) to get support from the host municipality and adjacent municipalities that have residential uses within 3.5 kilometers of the landfill. Although Central Elgin is within 3.5 kilometres of the W12A Landfill, support of Central Elgin is not required since this portion of the legislation applies only to new landfills and not landfill expansions.

Overview

On July 8, 2020, Ontario introduced the *COVID-19 Economic Recovery Act, 2020* that included proposed legislative changes to the *Environmental Assessment Act* (EAA), and at the same time, the Ministry of the Environment, Conservation and Parks (MECP) began consultations on a series of amendments to Class Environmental Assessments (EAs) and exemption regulations. The *COVID-19 Economic Recovery Act, 202*0 received Royal Assent on July 21, 2020.

The *COVID-19 Economic Recovery Act, 202*0 can be described as omnibus legislation as it proposes to amend twenty provincial statutes. Its key stated objective is to jumpstart economic growth in Ontario and to lay the groundwork for long-term, sustainable recovery, by simplifying regulatory processes in a number of different statutory contexts — environmental analysis and compliance, business regulations, building and housing, and transportation.

This update report focuses primarily on the EA portion of the *COVID-19 Economic Recovery Act, 202*0 and how it might impact the EA for the proposed Expansion of the W12A Landfill. This report does not focus on how the new legislation will impact other City of London projects such as water, wastewater, stormwater and transportation projects.

The key issues the legislation is proposed to address:

- *Inconsistent Application of the EA Act*
  The EA Act applies mainly on the basis of who is doing the work, rather than the potential impacts of the project being done. This means that many low-impact projects have required environmental assessments (EAs) in the past, simply because of who was doing them (e.g., municipalities).

- *The EA Process is Slow*
  The typical time for an Individual EA for a new landfill or landfill expansion is six years or, for new landfills, much longer. For streamlined EAs, the Part II Order process is not working as a single request can delay a project by over a year.

- *Duplication with Other Approvals*
  As a result of evolving regulatory frameworks, duplication between EAs and other planning and approvals processes has occurred, resulting in the need to review processes to ensure they are as efficient as possible.

- *Lack of Municipal Control in siting New Landfills*
  While municipalities are engaged through the EA process they do not have the ability to stop the siting of a landfill within or close to their community.

Legislative Changes

The key changes are summarized in Table 1 below.

Table 1: Summary of EA Changes

Issue	Proposed Changes	Comments
Inconsistent Application of the EA Act	• MECP will develop a list of "projects" that are subject to EAs. Many minor activities will no longer require an EA.	Should reduce the regulatory burden on the City.
	• Both public and private sector will need approval for the same types of projects.	No comment.
The EA Process is Slow	**Streamlined (Class) EAs** • Replace Class EAs with regulations with consistent and standardized processes (Class EAs will remain in place until these regulations are developed).	In theory this is a good idea but in practice it may be difficult to achieve standardized regulations for some projects.
	• Immediately eliminate the Part II Order process for Class EAs (bump-up requests), except in respect to adverse impacts to aboriginal and treaty rights	It is unclear on what the stakeholders can do if they object to the conclusion of a Class EA.
	• The Minister's authority, on his or her own initiative and in a time-limited manner, can still impose conditions or require a comprehensive (individual) EA for streamlined projects.	No comment.
	Comprehensive (individual) EA • Reduce Terms of Reference process from 2 years to ½ years by using a "Sectoral" Terms of Reference (i.e., a standardized Terms of Reference or work plan)	In theory this is a good idea but in practice it may be difficult to achieve. The MECP proposed Sectoral EAs for waste management projects in the 1990's but were unable to implement them.

Table 1: Summary of EA Changes

Issue	Proposed Changes	Comments
	• Reduce final review/decision of EA by MECP from 2.5 years to 10 months	In theory this is a good idea but in practice it may be difficult to achieve. Current legislation limits review/decision by MECP to 7 months. Due to a variety of circumstances, the current timelines are usually delayed.
	• EAA will be amended to allow for time limits on completing an EA following approval of the ToR	The City should oppose/address this item when/if it comes forward via regulatory change. Setting a time may result in rushed studies or decision making when completing the EA.
	• Expiry dates for comprehensive EAs (build the project within a certain time period after the EA is approved or the approval disappears)	No comment.
Duplication with Other Approval	• Further harmonization between the Federal and Provincial EAs when both are required	Removing duplication is positive.
Lack of Municipal Control in siting New Landfills	• Municipal approval required for new landfills (but not expansion of existing landfills).	There are currently seven large private sector approved or operating landfills in the Province. It is unlikely that another new private landfill will ever be approved in the Province.
Other	• Move to on-line submissions	Should be positive provided that the role of graphics, illustrations, tables, etc. is not diminished or made harder to view through an on-line submission process.

Legislative Next Steps

There was limited consultation on the changes to EAA since the amendments were part of the *COVID-19 Economic Recovery Act, 2020.* However putting into practice most of the changes will require implementing regulations. For example, the *Prescribed Deadlines Regulation* will have to be revised in order to implement the changes to the EA review timelines. Changes to regulations or new regulations will also be required for the:

- project list (for comprehensive and streamlined projects);
- new streamlined assessment processes;
- sectoral Terms of Reference; and,
- expiry date exemptions.

The MECP will be consulting with the public, municipalities, stakeholders and Indigenous communities prior to making changes to any regulations.

The Province also plans to update the Ontario-Canada harmonization agreement with the Impact Assessment Agency to strengthen substitution provisions

PREPARED BY:	
MIKE LOSEE, B.SC., DIVISION 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**

c Wesley Abbott, Technical Project Manager

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TO:	**CHAIR AND MEMBERS WASTE MANAGEMENT WORKING GROUP MEETING ON AUGUST 13, 2020**
FROM:	**JAY STANFORD, M.A., M.P.A. DIRECTOR - ENVIRONMENT, FLEET & SOLID WASTE**
SUBJECT:	**PROGRESS REPORT #10: COMMUNITY ENGAGEMENT PROGRAM UPDATE – DECEMBER 1, 2019 to JULY 31, 2020**

RECOMMENDATION

That, on the recommendation of the Director, Environment, Fleet and Solid Waste, this report **BE RECEIVED** for information.

PREVIOUS REPORTS PERTINENT TO THIS MATTER

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

- 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 Civic Works Committee (CWC), Item #10)
- Individual Environmental Assessment Long Term Solid Waste Resource Recovery & Disposal Plans (October 6, 2015 meeting of the CWC, Item #14)

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

- Progress Report #8: Community Engagement Program Update - April 1, 2019 To November 30, 2019 (December 18, 2019 meeting of the Waste Management Working Group (WMWG), Item #3.3)
- Progress Report #6: Community Engagement Program (April 18, 2019 meeting of the WMWG, Item #3.3)
- Progress Report #5: Community Engagement Program (March 8, 2018 meeting of the WMWG, Item #3.2)
- Progress Report #4: Community Engagement Program (January 18, 2018 meeting of the WMWG, Item #7)
- Update Report #4: Community Engagement Program (September 28, 2017 meeting of the WMWG, Item #6)
- Progress Report #1: Community Engagement Program (June 27, 2017 meeting of the WMWG, Item #6)
- 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:

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BACKGROUND

PURPOSE:

This report provides the Waste Management Working Group (WMWG) with an update on Community Engagement Program activities for the Resource Recovery and Residual Waste Disposal Strategies that have taken place between December 1, 2019 and July 31, 2020.

CONTEXT:

In February 2017, Municipal Council directed City staff to undertake a number of actions with respect to the development of a long term Resource Recovery Strategy and a Residual Waste Disposal Strategy for the City of London. These actions included approving the general framework of the Community Engagement Program including:

- Using the following community engagement tools and forums: public notices, project website including use of the *getinvolved.london.ca* website, interested stakeholders contact and distribution list, open houses, meetings/presentations, City of London Advisory Committees, and using a range of information and communications tools; and,

- Contacting individuals and groups within the following broad stakeholder categories: the general public, the Government Review Team (GRT) and Indigenous Communities.

The Community Engagement Program began on March 30, 2017 with the release of the Notice of Commencement.

The WMWG has received community engagement activity updates for the following periods:

1. March 30, 2017 to June 5, 2017 (on June 5, 2017)
2. June 6, 2017 to September 12, 2017 (on September 28, 2017)
3. September 13, 2017 to January 10, 2018 (on January 18, 2018)
4. January 11, 2018 to March 1, 2018 (on March 8, 2018)
5. March 2, 2018 to March 30, 2019 (on April 18, 2019)
6. April 1, 2019 To November 30, 2019 (on December 18, 2019)

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

Overview

A formal Public Consultation Report (i.e., the title assigned by the Ministry of Environment, Conservation and Parks - MECP) for the Environmental Assessment (EA) process is required for both the Terms of Reference (ToR) and for the EA. The Public Consultation Report documents all aspects of the Community Engagement Program including information on advertising, outreach, events and activities as well as comments received.

The Public Consultation Report for the ToR was submitted in 2018. The Public Consultation Report for the EA will be submitted once the EA has been completed. A similar report will be prepared for the Resource Recovery Strategy by City staff.

Summary of Community Engagement Activities

Table 1 provides an updated summary of the community engagement activities that took place from December 1, 2019 to July 31, 2020.

Table 1 – Community Engagement Activities December 1, 2019 to July 31, 2020

Activity	Description
Project Website (*getinvolved.london.ca*)	*Residual Waste Disposal Strategy* • Over 410 visits to the website between December 1, 2019 and July 31, 2020 with over 300 unique visitors. • Total visits since community engagement program started exceeds 3,800 visits with over 2,500 unique visitors. • Opportunity for people to review and comment on the proposed service area and the preferred alternative. *Resource Recovery Strategy* • Over 450 visits to the website between December 1, 2019 and July 31, 2020 with 310 unique visitors. • Total visits since the community engagement program started exceeds 7,100 visits with over 5,100 unique visitors.
Third Series of Open Houses (February 26 & 27)	• Advertised in Londoner and project website. • Notices sent to stakeholders (Nearby residents, government review team, Indigenous Communities, various stakeholder groups, etc.). • 26 visitors. • Many people stayed for over 30 minutes and some over an hour. • 5 completed feedback forms, numerous verbal comments.
Virtual Open House (Project Website)	• The materials presented at the February 26 & 27 open houses were presented along with the opportunity to provide feedback. The feedback closed on May 28, 2020. 1 response was received.
Indigenous Communities[1]	• A second Groundwater Work Plan Workshop was planned to be held in April 2020, but has been delayed due to the COVID situation. • Looking into the possibility of a holding virtual workshop in August 2020.
Community Liaison Committee (CLC)	• No in-person meetings were held during this period. All members of the CLC received a project update by email on February 25, 2020.

Table 1 – Community Engagement Activities December 1, 2019 to July 31, 2020

Activity	Description
Other	• Update provided to the W12A Landfill Public Advisory Committee on February 12, 2020.

Notes

1. First Nation communities are Aamjiwnaang First Nation (AFN), Caldwell First Nation (Caldwell), Chippewas of the Thames First Nation (COTTFN), Chippewas of Kettle and Stony Point (Kettle and Stony Point),), Oneida Nation of the Thames (Oneida), Delaware Nation (Delaware), Munsee-Delaware First Nation (Munsee) and Walpole Island First Nation (WIFN).

Summary of Comments Received at the Open Houses

With respect to the proposed landfill expansion, concerns were expressed about:

- Type of waste from neighbouring municipalities, and why take waste from neighbouring municipalities
- Truck traffic
- Maximizing the capture of landfill gas
- Protection of the Thames River

Concerns/comments heard at the first two series of Open Houses and repeated at the third series of Open Houses included:

- Need to update Community Enhancement and Mitigative Measures Program as soon as possible;
- Need to limit/restrict the number of neighbouring municipalities using the W12A Landfill; Need to limit how long they can use the W12A Landfill .
- The potential for more odours and which alternative design concept was likely to cause the least odours;
- The height of the landfill and what that would look like; and
- How property values in the area would be impacted.

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**

c Wesley Abbott, Technical Project Manager

TO:	**CHAIR AND MEMBERS WASTE MANAGEMENT WORKING GROUP MEETING ON AUGUST 13, 2020**
FROM:	**JAY STANFORD, M.A., M.P.A. DIRECTOR - ENVIRONMENT, FLEET & SOLID WASTE**
SUBJECT:	**PROGRESS REPORT #11: UPDATES: 60% WASTE DIVERSION ACTION PLAN AND RESOURCE RECOVERY STRATEGY**

RECOMMENDATION

That, on the recommendation of the Director, Environment, Fleet and Solid Waste, this report **BE RECEIVED** for information.

PREVIOUS REPORTS PERTINENT TO THIS MATTER

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

- Public Participation Meeting 60% Waste Diversion Action Plan (September 25, 2018 meeting of the Civic Works Committee (CWC), Item #3.2)
- 60% Waste Diversion Action Plan (July 17, 2018 meeting of the CWC, Item #3.1)
- 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:

- Progress Report #9: 60% Waste Diversion Action Plan (December 18, 2019 meeting of the Waste Management Working Group (WMWG), Item #3.4)
- Progress Report #7: 60% Waste Diversion Action Plan (April 18, 2019 meeting of the WMWG, Item #3.4)
- Decision Report #8: 60% Waste Diversion Action Plan (July 13, 2018 meeting of the WMWG, Item #2.1)
- Background Report #3 - Development of 60% Waste Diversion Action Plan (March 8, 2018 meeting of the WMWG, Item #3.3)
- Update Report #8 - Programs, Projects and Provincial Activities that will Inform and/or Influence Strategies (January 18, 2018 meeting of the WMWG, Item #8)
- Update Report #5 - Programs, Projects and Provincial Activities that will Inform and/or Influence Strategies (September 28, 2017 meeting of the WMWG, Item #7)
- Update Report #2 - Programs, Projects and Provincial Activities that will Inform and/or Influence Strategies (June 14, 2017 meeting of the WMWG, Item #8)
- Update Report #1 - Resource Recovery Update (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:

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BACKGROUND

PURPOSE

This report provides the Waste Management Working Group (WMWG) with an update on the 60% Waste Diversion Action Plan and the Resource Recovery Strategy.

CONTEXT

In London, more than one tonne of waste is produced annually per person. This includes waste generated at home as well as waste generated by the industrial, commercial and institutional (IC&I) sectors. About a third of this waste is diverted through numerous waste reduction, reuse, recycling and composting programs. The overall waste diversion rate for London is between 30% and 35%. The residential (household) diversion rate has averaged about 45% over the last five years.

Regarding future waste diversion, Council has set a diversion goal of 60% by the end of 2022. 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."*

This 60% waste diversion goal was included in the Environmental Assessment (EA) submission as part of the List of Commitments made by the City for the EA.

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…"*

In March 2020, Council passed the following resolution:

> *15. (4.12) Business Cases for Additional Investment - Administratively Prioritized*
> *That the following 2020-2023 Multi-Year Budget business cases for additional investment that the Civic Administration has prioritized BE APPROVED:*
> *i. Business Case 1 – 60% Waste Diversion Action Plan – 2020-2023 Total: Investment $17,600,000; Net Levy $17,600,000*

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

60% Waste Diversion Action Plan

The 60% Waste Diversion Action Plan proposes a set of 21 actions to achieve 60% diversion of residential waste by the end of 2022. As noted previously, the budget for the multi-year implementation was approved March 2, 2020. Shortly after this date, the COVID-19 emergency was declared provincially on March 17, 2020, and locally March 20, 2020. Among many items and actions, this included a reallocation of corporate priorities, work activities, employee disruptions and impacts, financial challenges, community engagement restrictions, hiring freeze, etc.

As a result, the majority of the 60% Waste Diversion Action Plan actions items were placed on hold to ensure that essential services were operated in a safe and wise manner following all rules from the Provincial Government and subsequent direction from public health officials, Council and the City's Senior Leadership Team.

Delays on some of the 60% Waste Diversion actions including the Green Bin will range from 6 months to 12 months. City staff are taking a comprehensive look at current and potential timing challenges and will submit a report to Civic Works Committee in October 2020 with a revised timetable.

As part of essential services and related supporting activities to essential services, the following key waste diversion related initiatives have occurred between January and July 2020:

- The City of London is the Co-chair of the Waste Subcommittee of the Regional Public Works Commissioners of Ontario (RPWCO). Between late March and the end of June 2020, the Waste Subcommittee was connected daily asking questions, sharing advice, and offering solutions for solid waste operations (essential service) during the first 3 months of the pandemic.

- The City of London continues to be a very active member of the Municipal Resource Recovery and Research Collaborative (M3RC) providing direct input into provincial legislation, regulation and policies for waste diversion and waste management. The collaborative partners include:

  AMO Association of Municipalities Ontario | RPWCO Regional Public Works Commissioners of Ontario | MWA Municipal Waste Association Dedicated to Waste Minimization and Diversion Formerly known as AMRC | TORONTO

  Among many items, perhaps the most important one, is the multi-million dollar transition plan and regulation for the Blue Box program to move to full industry financial and operational responsibility. This includes the most recent submission to the province entitled Regulation under *Resource Recovery and Circular Economy Act*, 2016 for Packaging, Paper and Packaging-Like Products (July 29, 2020). A draft regulation from the Province is expected in late summer, early fall 2020.

- As part of the Waste Free Ontario Strategy, the City continues to make contributions directly or indirectly towards the organics management and implementation framework in Ontario being undertaken by the Provincial Government. Further details are expected in late 2020. This includes input on source separated organics, mixed waste processing and composting, material quality and facility siting.

- Working through RPWCO and M3RCs, City staff have been engaged and/or tracking the development of extended producer responsibility programs for a range of materials. The status of the various initiatives, current and future financial benefit is identified on Table 1.

Table 1: Status of Various EPR Initiatives in Ontario

Material	Transition Status	Transition Date	How does the City get Involved?	Is City Receiving any Funding?	Annual Estimated Cost Savings or Expenditures
Used Tires	Complete	January 1, 2019	Accept at EnviroDepots on behalf of Producers	No	Collected at no cost.
Batteries	Complete	July 1, 2020	Accept at EnviroDepots on behalf of Producers	Yes	Expected Funding Revenue after July 1, 2020 = $4,500
Electronics	Draft Regulation	January 1, 2021	Accept at EnviroDepots	Yes	Current Revenue: $85,000
MHSW	Proposed Regulation for Comment	July 1, 2021	Accepted at W12A HSW Building	Yes	Current Funding Revenue = $120,000 Future Funding will increase
Blue Box Materials	Transition process under detailed development	Proposed Transition January 1, 2023 to December 31, 2025	Part of the Core Team participating in regulation and process development	Current = about 50% heading towards 90% to 100% funding	Current Funding Revenue: approximately $3,400,000 Future Funding and/or Payment will likely increase by $3 to $4 million
Blue Box Materials (post transition)	Preliminary discussions	January 1, 2026	Limited activity at this time	n/a	n/a

- London's Hefty® EnergyBag® Pilot Project (for hard-to-recycle plastic items that are currently placed in the garbage) was launched in late October 2019 and proceeded as planned until March 2020. A number of adjustments have been made to address operating through the pandemic including measurement studies and postponing expansion until a clearer picture is available. Several project activities will resume in August including a revised overall project schedule and reporting. Also important to note is that similar to the City of London, a number of the Pilot Project partners had to deal with addressing other corporate priorities due to the pandemic.

Resource Recovery Strategy

Work on this strategy as has also been delayed. An update will be provided to Civic Works Committee in October 2020 as part of the 60% Waste Diversion Action Plan update.

Similar to above, as part of essential services and related supporting activities to essential services, the following key resource recovery initiatives have occurred between January and July 2020:

- Through RPWCO Waste Subcommittee, mixed waste processing updates and initiatives continued to be shared among the 20 members. The most active municipalities are City of Toronto, Region of Durham, Region of Peel and the City of London. Other municipalities such as Region of Niagara and Region of Waterloo continue to track progress of others. A number of private sector companies continue to be active in research and development in Ontario, benchscale or pilot scale facilities, through operational facilities in other jurisdictions such as United States and Europe.

- Research at the London Waste to Resources Innovation Centre including the NSERC Industrial Research Chair Thermochemical Conversion of Biomass and Waste to Bioindustrial Resources administered by Western University, has continued with most field activities curtailed. It is anticipated that field work will resume in August and September 2020. Work ranges from feedstock handling to material quality through to technologies and end market products (e.g., mechanical recycling, chemical recycling, material conversion, alternative low carbon fuel, solid recover fuel, etc.).

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**

c Anne Boyd, Manager, Waste Diversion
Kevin Springer, Manager, Waste Collection

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TO:	**CHAIR AND MEMBERS WASTE MANAGEMENT WORKING GROUP MEETING ON AUGUST 13, 2020**
FROM:	**JAY STANFORD, M.A., M.P.A. DIRECTOR - ENVIRONMENT, FLEET & SOLID WASTE**
SUBJECT:	**DECISION REPORT 10: 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) "Alternative 1 - Vertical Expansion Over Existing Footprint" **BE SUPPORTED IN PRINCIPLE** as the preferred landfill expansion alternative; and

c) The Minutes from the August 13, 2020 Waste Management Working Group meeting include this entire report as an appendix when submitted the Civic Works Committee on September 22, 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)
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- 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)

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

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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 preferred Alternative Method (vertical landfill expansion) to expand the landfill.

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 Amended ToR for the proposed expansion of the W12A Landfill was approved on July 30, 2019.

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

Status of EA

Overview

Completion of the EA study is being undertaken in a series of nine steps which are summarized in Table 1 and described fully in the Amended Terms of Reference. Additional details on Steps 2 to 6 are provided following Table 1.

Table 1: Status of Environmental Assessment

Step listed in Terms of Reference		Description/Explanation	Status
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 and/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.	90% 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.	90% 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.	50% Complete
8	Cumulative Impact Assessment	Consider the cumulative impact of expansion of the W12A Landfill with other facilities or activities in the area.	25% Complete
9	Preparation of the EA Study Report	Prepare the EA Study Report for review by stakeholders.	25% Complete

Step 2: Identify the 'Alternative Methods' of Landfill Expansion

Three Alternative Methods (expansion alternatives) were developed and presented at the December 2019 WMWG meeting. The three expansion alternatives are:

- 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

Step 3: Qualitative or quantitative evaluation of 'Alternative Methods and
Step 4: Compare alternatives and identify the preferred alternative

The three landfill expansion alternatives were compared across a number of environmental, social and technical considerations (Table 2, ✓ means least impact).

Based on this comparison, it was determined that *Alternative 1 – Vertical Expansion Over Existing Footprint* was the preferred alternative.

Table 2: Comparison of Landfill Expansion Alternatives

Category	Component	Sub-component	Landfill Expansion Alternative (✓ means least impact)			Public Ranking Group
			1	2	3	
Environmental	Atmosphere	Air quality (dust, odour and GHG)	✓			More important
		Noise	✓			Less important
	Biology	Aquatic ecosystems	✓			More important
		Terrestrial ecosystems	✓			More important
	Geology and Hydrogeology	Groundwater quality	✓			More important
	Surface Water	Surface water quality	✓			More important
		Surface water quantity	✓			Important
Social	Agriculture	Agriculture	✓			Important
	Archaeology	Archaeology	✓		✓	Less important
	Cultural Heritage	Cultural Heritage Resources	✓	✓	✓	Less important
	Land Use	Current & planned future land uses	✓			Important
	Socio-economic	Local Economy		✓	✓	More important
		Residents and Community	✓			More important
	Transportation	Traffic	✓	✓	✓	Less important
	Visual	Visual			✓	Less important
Tech-nical	Design and Operations	Technical Considerations			✓	Important
		Financial	✓			Important

As shown in the above table, the main advantages of Alternative 1 are:

- Highest degree of groundwater protection
- Best alternative to limit odours
- Fewest changes to existing stormwater management system
- Least potential for air quality, archaeology, agricultural, aquatic ecosystem, community, land use, noise and terrestrial ecosystem impacts
- Lowest cost alternative

The main disadvantages of Alternative #1 are:

- Greatest visual impact
- More complex design (more engineering infrastructure required to store leachate)

All three alternatives were considered to have similar transportation, heritage and cultural potential impacts.

Step 5 - Determine the net effects of the preferred alternative

Detailed impact assessments of future environmental effects associated with the preferred 'alternative' (assuming that conceptual design mitigation measures are in place) are required for some environmental components but not for others.

Summarized on Table 3 are the environmental components that require more detailed impact assessments. In addition, Table 3 also highlights the status and key findings of these detailed assessments.

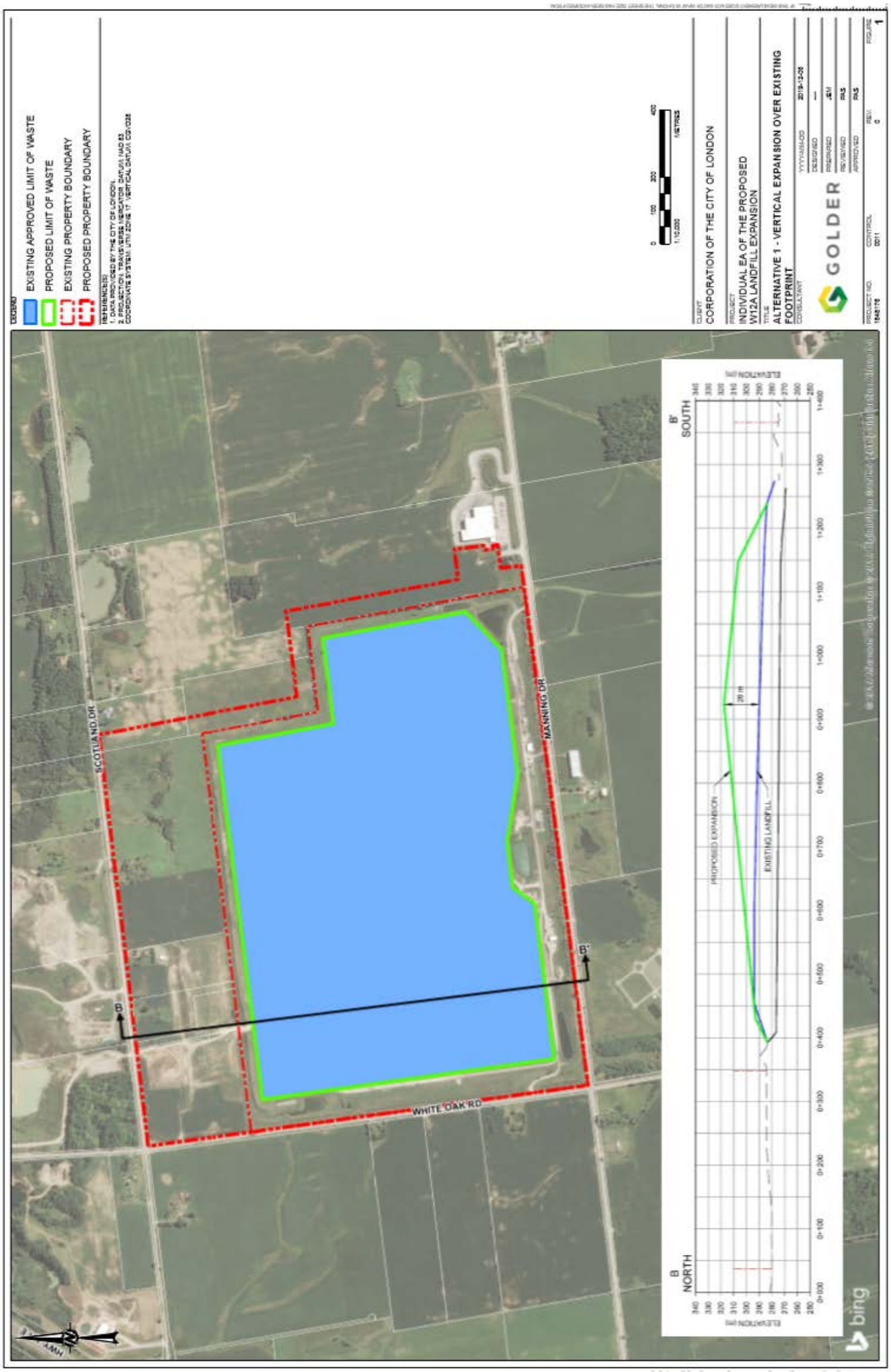
Table 3: Comparison of Landfill Expansion Alternatives

Category	Component	Comments
Environmental	Atmosphere	Detailed impact assessments of noise, odour, health related air quality and noise underway.
	Biology	Mitigation measures being developed to protect Species at Risk and Significant Wildlife habitat located on the landfill footprint and buffer areas.
	Geology and Hydrogeology	Preliminary assessment shows no impact. Preliminary assessment currently being reviewed by First Nations' consultant.
	Surface Water	Assessment has determined the need for stormwater management pond improvements.
Social	Agriculture	No detailed assessment required.
	Archaeology	Mitigation measures required for significant archaeology site located within on-site buffer land.
	Cultural Heritage	No detailed assessment required.
	Land Use	No detailed assessment required.
	Socio-economic	No detailed assessment required.
	Transportation	Assessment underway to determine the need (if any) for roadway upgrades.
	Visual	Mitigation measures being developed to reduce visual impact.
Tech-nical	Design and Operations	Design enhancements included to improve leachate management and landfill gas capture.

Step 6 - Describe the preferred 'Alternative Method' for landfill expansion

A detailed description of the preferred alternative will be included in the EA Study Report. Figure 1 is a plan view of the proposed expansion showing the new property boundary. A brief summary of the key features of the preferred alternative are listed following Figure 1.

Figure 1 - Alternative 1 – Vertical Expansion Over Existing Footprint



Landfill Phasing and Development

- The landfill will be developed in a series of eight cells each lasting 2.5 to 3.5 years plus one cell for the non-decomposable portion of the waste stream (e.g., street sweepings).

- Filling will start on southern portion of landfill to maximum visual screening for nearby properties.

- Changes are proposed to the final cover design.

Leachate Control and Management

- Existing leachate perimeter collection system around the older portion of landfill will be replaced with a new perimeter collection system with finger drains extending into the waste to control leachate mounding.

- Additional leachate storage will be added to prevent off-site pumping of leachate when Greenway Wastewater Treatment Plant or Dingman Pumping Station is in a bypass situation.

Landfill Gas Control and Management

- New larger landfill gas flare will be required within the next 5 to 8 years.

- Current landfill gas control design is based on vertical wells. Landfill expansion design will be based having both vertical wells and horizontal collectors.

Stormwater Management

- Upgrades will be made to all four existing ponds.

- Upgrades include increasing the size of the ponds and modifications to the outlet control structures.

Ancillary Components

- All existing/buildings will be replaced/upgraded and a larger public drop-off area constructed.

- Permanent asphalt road will replace seasonal road on the north and east sides of the landfill.

Costs

- The estimated direct capital cost of the landfill is approximately $63,370,000 (in $2020) (Table 4).

- The estimated capital cost of potential ancillary features whose cost would be funded directly or indirectly by others is approximately $21,200,000 (in $2020) (Table 4).

- Estimated direct landfill capital cost translates to approximately $6 to $7 per tonne of waste disposed of (excluding ancillary features funded by others as well as any financing costs or the cost of additional properties purchased for buffer).

Table 4: Estimated Capital Cost of Landfill Expansion

Description	Estimated Cost
Direct Landfill Capital Costs	
Approvals	1,480,000
Leachate Management	4,820,000
Final Cover	11,830,000
Landfill Gas Management	16,750,000
Earth Works, Roadways, Landscaping	2,250,000
Stormwater Management	1,210,000
Facilities (administration building, scalehouse, maintenance building, small vehicle drop-off, etc.)	8,600,000
Subtotal	*46,940,000*
Engineering at 15% of Subtotal	7,040,000
Contingencies at 20% of Subtotal	9,390,000
Total – Direct Landfill Capital Costs	**$63,370,000**
Ancillary Features (Likely Funded by Other Sources) Capital Costs	
Household Special Waste Depot (a large percentage likely funded through Extended Producer Responsibility, if built)	1,200,000
Renewable Natural Gas Plant (funded through RNG sales, if built)	14,500,000
Subtotal	*15,700,000*
Engineering at 15% of Subtotal	2,360,000
Contingencies at 20% of Subtotal	3,140,000
Total – Ancillary Features Capital Costs	**$21,200,000**
GRAND TOTAL	**$84,570,000**

Next Steps

The remaining tasks and schedule to complete the EA are summarized in Table 5.

Table 5 – Schedule and Remaining Tasks to Complete EA

Task	Timeline	Comments
Complete Detailed Assessments of Preferred Alternative	• August to September 2020	• Determine the net effects of the preferred alternative (Step 5) • Describe preferred alternative (Step 6) • Consideration of Climate Change (Step 7) • Cumulative Impact Assessment (Step 8)
Additional Public (Community) Engagement	• August to September 2020	• Second First Nations Workshop in August • Fourth Open House in October

Table 5 – Schedule and Remaining Tasks to Complete EA

Task	Timeline	Comments
Prepare Preliminary Draft EA Report	• September to October 2020	• Prepare preliminary draft EA report and send to MECP for comments
Prepare Draft EA Report	• November 2020 to January 2021	• Update report based on MECP comments and prepare Draft EA report • Review of Draft by MECP, Government Review Team (GRT), Stakeholder • Council Approval
Formal Submission of EA Documentation	• February 2021	• Publish required notices and submit to MECP
Minister Decision	• March 2021 to September 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.

It is proposed that the fourth Open House planned for early October will have both an in-person and a virtual component as in the past. The in-person Open House is tentatively scheduled October 7 and/or October 8. Appropriate Covid-19 safety measures will be in place for the in-person Open House including, limiting the number of persons inside at one time, social distancing, face masks, hand sanitizer, etc. The format for the in-person component will be approved in advance by the City's Senior Leadership Team (SLT).

Like the three previous Open Houses, all materials will be on the City's website with opportunities to ask questions and provide comments.

Budget

The status of the budget for the proposed expansion of the W12A Landfill is summarized in Tables 6 and 7.

Table 6: Budget for Proposed W12A Landfill Expansion (SW6051)

Item	Budget	Comment
EA for Long Term Residual Waste Disposal (Landfill Expansion)	$2,398,000	All costs associated with the EA approval of the expansion of the W12A Landfill.
Resource Recovery (RR) Initiatives & Strategy	$410,000	Preliminary planning for development of resource recovery area east of W12A Landfill.
Total	$2,808,000	

Table 7: Status of EA and Resource Recovery (RR) Budget

Item	Budget[a]	Comment
EA - Spent to date	$1,104,000	Cost to develop and obtain approval of ToR and undertake the technical studies.
EA - Committed (consulting)	$416,000	Primarily consulting fees for remaining EA technical studies and preparation of the EA documentation.
EA - Expected Future Assignments (future costs)	$776,000	Primarily consulting fees, additional technical work, project management, community engagement.
EA - Contingency Available	$102,000	Funds available to cover future additional costs.
Total – EA	$2,398,000	
RR – Spent to Date	$0	In 2018 and 2019, approximately $35,000 from the operating budget was assigned to research at Western University through the Industrial Research Chair and the London Waste to Resources Innovation Centre.
RR - Expected Future Assignments (future costs)	$410,000	Funds to cover upcoming work on resource recovery pilot projects.
Total – RR	$410,000	

Notes: a) Rounded to the nearest $1,000 as of July 29, 2020.

Regarding Expected Future Assignments, two known assignments at this time include:

- Golders will be required to complete additional work on technical assessments for noise, groundwater modelling and landfill design beyond their original scope of work to address stakeholder input. This work is estimated at $33,000 to $37,000.

- Ron Koudys Landscape Architects Inc. has had to complete additional work beyond their original scope on modelling views from individual residents to address homeowner concerns and modelling additional remedial measures. This work is estimated at $12,000 to $15,000**.**

Community Enhancement and Mitigative Measures Program

The Community Enhancement and Mitigative Measures Program (CEMMP) is part of the City's overall efforts to reduce and address the negative effects of the W12A Landfill on neighbouring properties. The program consists of a:

- Property Value Protection Plan;
- "Right of First Refusal" Program;
- Community Mitigative Measures Fund;
- No charge waste disposal for area residents; and,
- Public Liaison Committee.

Updating the CEMMP is not part of the EA but can be considered a parallel or complimentary process in addressing issues associated with the expansion of the landfill. It is proposed to bring forward concepts, ideas and potential revisions to the CEMMP to the September 22, 2020 Civic Works Committee and subsequently seek feedback on the potential revisions from stakeholders. This feedback could include:

- discussions with the W12A Landfill PLC;
- information on the potential revisions included in the fourth set of Open Houses for the environmental assessment for the proposed expansion of the W12A Landfill;
- Information on the City website and GetInvolved Website; and
- Direct mailings to residents in the vicinity of the W12A Landfill.

PREPARED BY:	
MIKE LOSEE, B.SC., **DIVISION 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**

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c Wesley Abbott, Technical Project Manager

TO:	**CHAIR AND MEMBERS WASTE MANAGEMENT WORKING GROUP MEETING ON AUGUST 13, 2020**
FROM:	**JAY STANFORD, M.A., M.P.A. DIRECTOR - ENVIRONMENT, FLEET & SOLID WASTE**
SUBJECT:	**DECISION REPORT 10: ENVIRONMENTAL ASSESSMENT PROCESS - REVISED**

RECOMMENDATION

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

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

b) "Alternative 1 - Vertical Expansion Over Existing Footprint" **BE SUPPORTED IN PRINCIPLE** as the preferred landfill expansion alternative; and

c) The Minutes from the August 13, 2020 Waste Management Working Group meeting include this entire report as an appendix when submitted the Civic Works Committee on September 22, 2020.

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DISCUSSION

Status of EA

Overview

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Step 2: Identify the 'Alternative Methods' of Landfill Expansion

Three Alternative Methods (expansion alternatives) were developed and presented at the December 2019 WMWG meeting. The three expansion alternatives are:

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The three landfill expansion alternatives were compared across a number of environmental, social and technical considerations (Table 2, ✓ means least impact).

Based on this comparison, it was determined that *Alternative 1 – Vertical Expansion Over Existing Footprint* was the preferred alternative.

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	Visual	Visual			✓	Less important
Tech-nical	Design and Operations	Technical Considerations			✓	Important
		Financial	✓			Important

As shown in the above table, the main advantages of Alternative 1 are:

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- Fewest changes to existing stormwater management system
- Least potential for air quality, archaeology, agricultural, aquatic ecosystem, community, land use, noise and terrestrial ecosystem impacts
- Lowest capital cost alternative. All three alternatives have similar operating and maintenance costs except for leachate management costs which will be lower for Alternative #1.

The main disadvantages of Alternative #1 are:

- Greatest visual impact
- More complex design (more engineering infrastructure required to store leachate)

All three alternatives were considered to have similar transportation, heritage and cultural potential impacts.

Step 5 - Determine the net effects of the preferred alternative

Detailed impact assessments of future environmental effects associated with the preferred 'alternative' (assuming that conceptual design mitigation measures are in place) are required for some environmental components but not for others.

Summarized on Table 3 are the environmental components that require more detailed impact assessments. In addition, Table 3 also highlights the status and key findings of these detailed assessments.

Table 3: Comparison of Landfill Expansion Alternatives

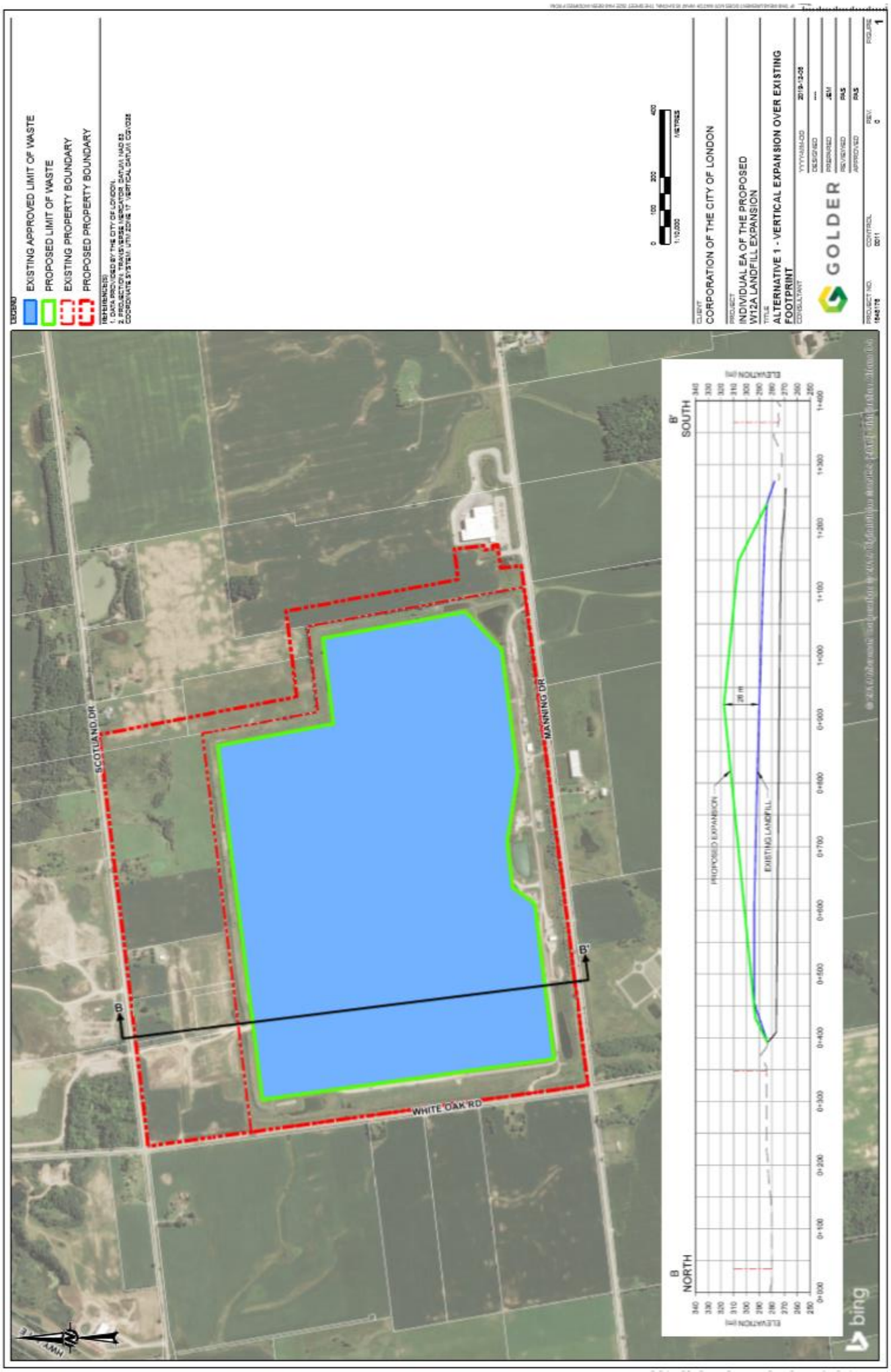
Category	Component	Comments
Environmental	Atmosphere	Detailed impact assessments of noise, odour, health related air quality and noise underway.
	Biology	Mitigation measures being developed to protect Species at Risk and Significant Wildlife habitat located on the landfill footprint and buffer areas.
	Geology and Hydrogeology	Preliminary assessment shows no impact. Preliminary assessment currently being reviewed by First Nations' consultant.
	Surface Water	Assessment has determined the need for stormwater management pond improvements.
Social	Agriculture	No detailed assessment required.
	Archaeology	Mitigation measures required for significant archaeology site located within on-site buffer land.
	Cultural Heritage	No detailed assessment required.
	Land Use	No detailed assessment required.
	Socio-economic	No detailed assessment required.
	Transportation	Assessment underway to determine the need (if any) for roadway upgrades.
	Visual	Mitigation measures being developed to reduce visual impact.
Tech-nical	Design and Operations	Design enhancements included to improve leachate management and landfill gas capture.

Step 6 - Describe the preferred 'Alternative Method' for landfill expansion

A detailed description of the preferred alternative will be included in the EA Study Report. Figure 1 is a plan view of the proposed expansion showing the new property boundary.

A brief summary of the key features of the preferred alternative are listed following Figure 1.

Figure 1 - Alternative 1 – Vertical Expansion Over Existing Footprint



Landfill Phasing and Development

- The landfill will be developed in a series of eight cells each lasting 2.5 to 3.5 years plus one cell for the non-decomposable portion of the waste stream (e.g., street sweepings).

- Filling will start on southern portion of landfill to maximum visual screening for nearby properties.

- Changes are proposed to the final cover design.

Leachate Control and Management

- Existing leachate perimeter collection system around the older portion of landfill will be replaced with a new perimeter collection system with finger drains extending into the waste to control leachate mounding.

- Additional leachate storage will be added to prevent off-site pumping of leachate when Greenway Wastewater Treatment Plant or Dingman Pumping Station is in a bypass situation.

Groundwater Protection Measures

- Additional groundwater protection measures needed to prevent exceeding groundwater quality guideline for non-health related parameter (chlorides) in several hundred years. A number of additional protection measures are currently being examined.

Landfill Gas Control and Management

- New larger landfill gas flare will be required within the next 5 to 8 years.

- Current landfill gas control design is based on vertical wells. Landfill expansion design will be based having both vertical wells and horizontal collectors.

Stormwater Management

- Upgrades will be made to all four existing ponds.

- Upgrades include increasing the size of the ponds and modifications to the outlet control structures.

Ancillary Components

- All existing/buildings will be replaced/upgraded and a larger public drop-off area constructed.

- Permanent asphalt road will replace seasonal road on the north and east sides of the landfill.

Preliminary Estimated Landfill and Ancillary Estimated Costs

- Preliminary estimated capital costs have been prepared based on available engineering and scientific technical data. The preliminary estimates will be reviewed with the completion of detailed EA studies and with *Environmental Protection Act* and *Ontario Water Resources Act* technical studies. The additional groundwater protection measures currently has the widest cost range due to the level of complexity at this stage (Table 4).

- The preliminary estimated direct capital cost of the landfill is between $53,300,000 to $88,400,000 (in $2020) (Table 4).

- The preliminary estimated capital cost of potential ancillary features whose cost would be funded directly or indirectly by others is between $17,000,000 and $25,400,000 (in $2020) (Table 4).

- The preliminary estimated direct landfill capital cost translates to approximately $5.5 to $9 per tonne of waste disposed of (excluding ancillary features funded by others as well as any financing costs or the cost of additional properties purchased for buffer).

Table 4: Preliminary Estimated Capital Cost of Landfill Expansion

	Preliminary Estimated Cost		
List of Capital Items	**Low**	**Medium**	**High**
Direct Landfill Capital Costs			
Approvals	1,200,000	1,500,000	1,800,000
Leachate Management	3,800,000	4,800,000	5,800,000
Groundwater Protection Measures	2,000,000	5,000,000	9,000,000
Final Cover	9,400,000	11,800,000	14,200,000
Landfill Gas Management	13,400,000	16,800,000	20,200,000
Earth Works, Roadways, Landscaping	1,800,000	2,300,000	2,800,000
Stormwater Management	1,000,000	1,200,000	1,400,000
Facilities (administration building, scalehouse, maintenance building, small vehicle drop-off, etc.)	6,900,000	8,600,000	10,300,000
Subtotal	*39,500,000*	*52,000,000*	*65,500,000*
Engineering at 15% of Subtotal	5,900,000	7,800,000	9,800,000
Contingencies at 20% of Subtotal	7,900,000	10,400,000	13,100,000
Total – Direct Landfill Capital Costs	**$53,300,000**	**$70,200,000**	**$88,400,000**
Ancillary Features (Likely Funded by Other Sources) Capital Costs			
Household Special Waste Depot (a large percentage likely funded through Extended Producer Responsibility, if built)	1,000,000	1,200,000	1,400,000
Renewable Natural Gas Plant (funded through RNG sales, if built)	11,600,000	14,500,000	17,400,000
Subtotal	*12,600,000*	*15,700,000*	*18,800,000*
Engineering at 15% of Subtotal	1,900,000	2,355,000	2,800,000
Contingencies at 20% of Subtotal	2,500,000	3,140,000	3,800,000
Total – Ancillary Features Capital Costs	**$17,000,000**	**$21,195,000**	**$25,400,000**
GRAND TOTAL	**$70,300,000**	**$91,395,000**	**$113,800,000**

Next Steps

The remaining tasks and schedule to complete the EA are summarized in Table 5.

Table 5 – Schedule and Remaining Tasks to Complete EA

Task	Timeline	Comments
Complete Detailed Assessments of Preferred Alternative	• August to September 2020	• Determine the net effects of the preferred alternative (Step 5) • Describe preferred alternative (Step 6) • Consideration of Climate Change (Step 7) • Cumulative Impact Assessment (Step 8)
Additional Public (Community) Engagement	• August to September 2020	• Second First Nations Workshop in August • Fourth Open House in October
Prepare Preliminary Draft EA Report	• September to October 2020	• Prepare preliminary draft EA report and send to MECP for comments
Prepare Draft EA Report	• November 2020 to January 2021	• Update report based on MECP comments and prepare Draft EA report • Review of Draft by MECP, Government Review Team (GRT), Stakeholder • Council Approval
Formal Submission of EA Documentation	• February 2021	• Publish required notices and submit to MECP
Minister Decision	• March 2021 to September 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.

It is proposed that the fourth Open House planned for early October will have both an in-person and a virtual component as in the past. The in-person Open House is tentatively scheduled October 7 and/or October 8. Appropriate Covid-19 safety measures will be in place for the in-person Open House including, limiting the number of persons inside at one time, social distancing, face masks, hand sanitizer, etc. The format for the in-person component will be approved in advance by the City's Senior Leadership Team (SLT).

Like the three previous Open Houses, all materials will be on the City's website with opportunities to ask questions and provide comments.

Budget

The status of the budget for the proposed expansion of the W12A Landfill is summarized in Tables 6 and 7.

Table 6: Budget for Proposed W12A Landfill Expansion (SW6051)

Item	Budget	Comment
EA for Long Term Residual Waste Disposal (Landfill Expansion)	$2,398,000	All costs associated with the EA approval of the expansion of the W12A Landfill.
Resource Recovery (RR) Initiatives & Strategy	$410,000	Preliminary planning for development of resource recovery area east of W12A Landfill.
Total	$2,808,000	

Table 7: Status of EA and Resource Recovery (RR) Budget

Item	Budget[a]	Comment
EA - Spent to date	$1,104,000	Cost to develop and obtain approval of ToR and undertake the technical studies.
EA - Committed (consulting)	$416,000	Primarily consulting fees for remaining EA technical studies and preparation of the EA documentation.
EA - Expected Future Assignments (future costs)	$776,000	Primarily consulting fees, additional technical work, project management, community engagement.
EA - Contingency Available	$102,000	Funds available to cover future additional costs.
Total – EA	$2,398,000	
RR – Spent to Date	$0	In 2018 and 2019, approximately $35,000 from the operating budget was assigned to research at Western University through the Industrial Research Chair and the London Waste to Resources Innovation Centre.
RR - Expected Future Assignments (future costs)	$410,000	Funds to cover upcoming work on resource recovery pilot projects.
Total – RR	$410,000	

Notes: a) Rounded to the nearest $1,000 as of July 29, 2020.

Regarding Expected Future Assignments, two known assignments at this time include:

- Golders will be required to complete additional work on technical assessments for noise, groundwater modelling and landfill design beyond their original scope of work to address stakeholder input. This work is estimated at $33,000 to $37,000.

- Ron Koudys Landscape Architects Inc. has had to complete additional work beyond their original scope on modelling views from individual residents to address homeowner concerns and modelling additional remedial measures. This work is estimated at $12,000 to $15,000**.**

Community Enhancement and Mitigative Measures Program

The Community Enhancement and Mitigative Measures Program (CEMMP) is part of the City's overall efforts to reduce and address the negative effects of the W12A Landfill on neighbouring properties. The program consists of a:

- Property Value Protection Plan;
- "Right of First Refusal" Program;
- Community Mitigative Measures Fund;
- No charge waste disposal for area residents; and,
- Public Liaison Committee.

Updating the CEMMP is not part of the EA but can be considered a parallel or complimentary process in addressing issues associated with the expansion of the landfill. It is proposed to bring forward concepts, ideas and potential revisions to the CEMMP to the September 22, 2020 Civic Works Committee and subsequently seek feedback on the potential revisions from stakeholders. This feedback could include:

- discussions with the W12A Landfill PLC;
- information on the potential revisions included in the fourth set of Open Houses for the environmental assessment for the proposed expansion of the W12A Landfill;
- Information on the City website and GetInvolved Website; and
- Direct mailings to residents in the vicinity of the W12A Landfill.

PREPARED BY:	
MIKE LOSEE, B.SC., **DIVISION 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**

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c Wesley Abbott, Technical Project Manager

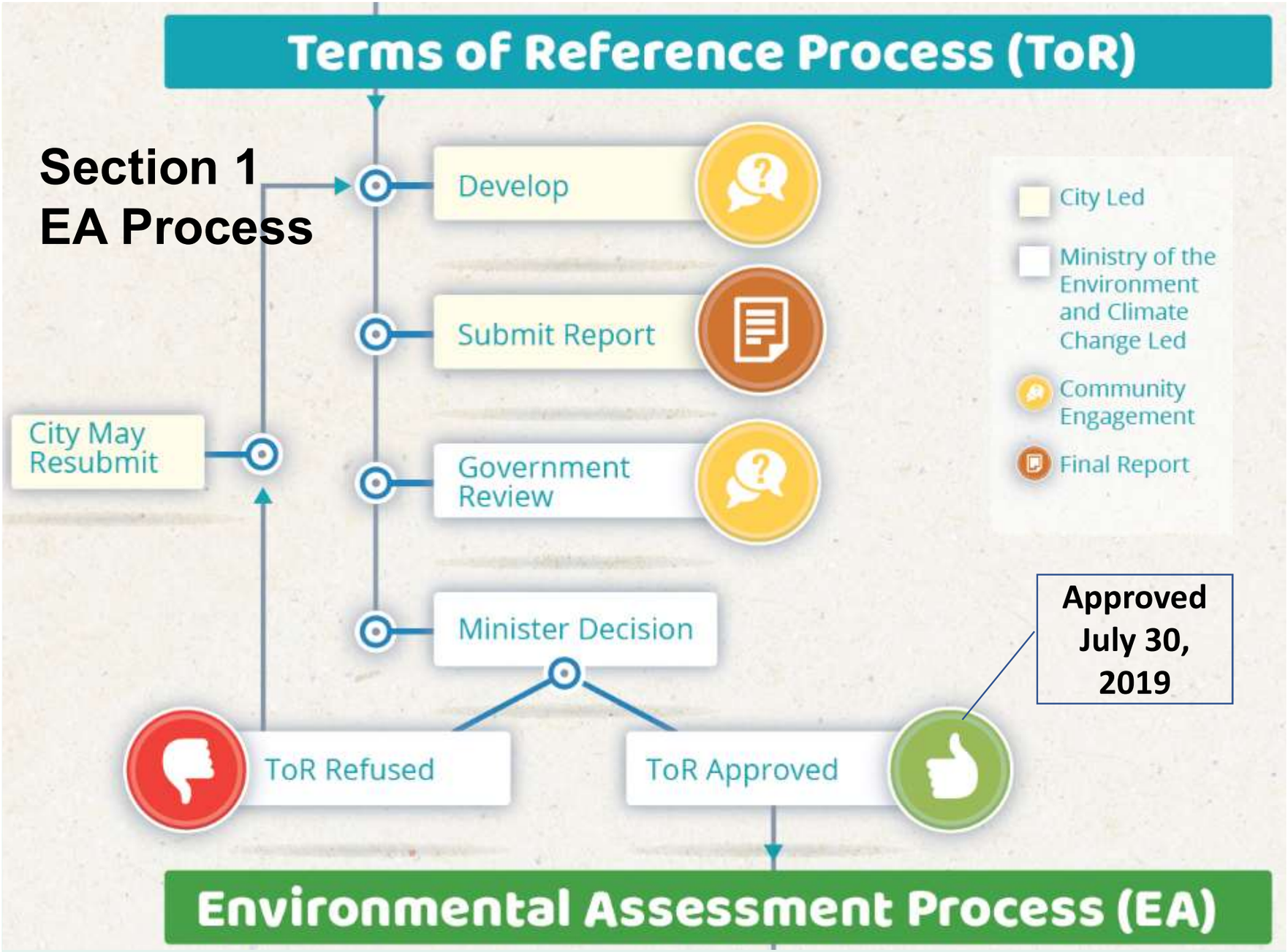
Background and Status on:

Environmental Assessment Process

Waste Management Working Group

August 13, 2020

Section 1
EA Process



Phase 2:

EA Technical Studies & EA Report

Complete Studies & Finalize EA

Steps	Status
1. Characterize the existing environmental conditions	Complete
Work Plans online for review and comment **Indigenous community review**	
2. Identify the alternatives for landfill expansion (and incorporate conceptual design mitigation measures)	Complete
3. Evaluation of alternatives	Complete
4. Comparison of the alternatives for landfill expansion for each component of the environment and then identify the overall preferred alternative for landfill expansion	Complete
Open House #3 – February 26 & 27, 2020	
5. Refine the mitigation measures and determine the net effects on the environment of the preferred alternative for landfill expansion	90% complete
6. Describe the preferred alternative for landfill expansion	90% complete
7. Consideration of climate change	50% complete
8. Cumulative impact assessment	25% complete
Open House #4 – Fall 2020 **Indigenous community review**	
9. Preparation of the EA Study Report	25% complete
Various opportunities will be available to comment on the EA Study Report through the City and the Ministry of Environment, Conservation and Parks (MECP)	

We are here

Website
getinvolved.london.ca

Meetings
W12A Landfill PLC, Waste Management CLC, Waste Management Working Group

Meet with residents
(if requested)

Step 4: Compare Alterna-tives

All work complete

Environmental Component	Environmental Sub-component	Preferred (Overall Result) Alternative 1	Alternative 2	Alternative 3	Public Ranking Group
Atmosphere	Air quality (including dust, odour and LFG)	✓			More Important
	Noise	✓			Less Important
Geology and Hydrogeology	Gound water quality	✓			More Important
Surface Water	Surface water quality	✓			More Important
	Surface water quantity	✓			Important
Biology	Aquatic ecosystems	✓			More Important
	Terrestrial ecosystems	✓			More Important
Land Use Agriculture	Current and planned future land uses	✓			Important
	Agriculture	✓			Important
Archaeology	Archaeology	✓		✓	Less Important
Cultural Heritage	Cultural heritage resources (including built heritage)	✓	✓	✓	Less Important
Socio-economic	Local economic		✓	✓	Important
	Residents and community	✓			More Important
Visual	Visual			✓	Less Important
Transportation	Traffic	✓	✓	✓	Less Important
Design and Operations	Technical considerations			✓	Important
	Financial considerations	✓			Important

Step 4: Compare Alternatives

Alternative #1 Advantages:

- Highest degree of groundwater protection
- Best alternative to limit odours
- Fewest changes to stormwater management system
- Least potential for air quality, archaeology, agricultural, aquatic ecosystem, community, land use, noise and terrestrial ecosystem impacts
- Lowest cost alternative

Alternative #1 Disadvantages:

- Greatest visual impact
- More complex design

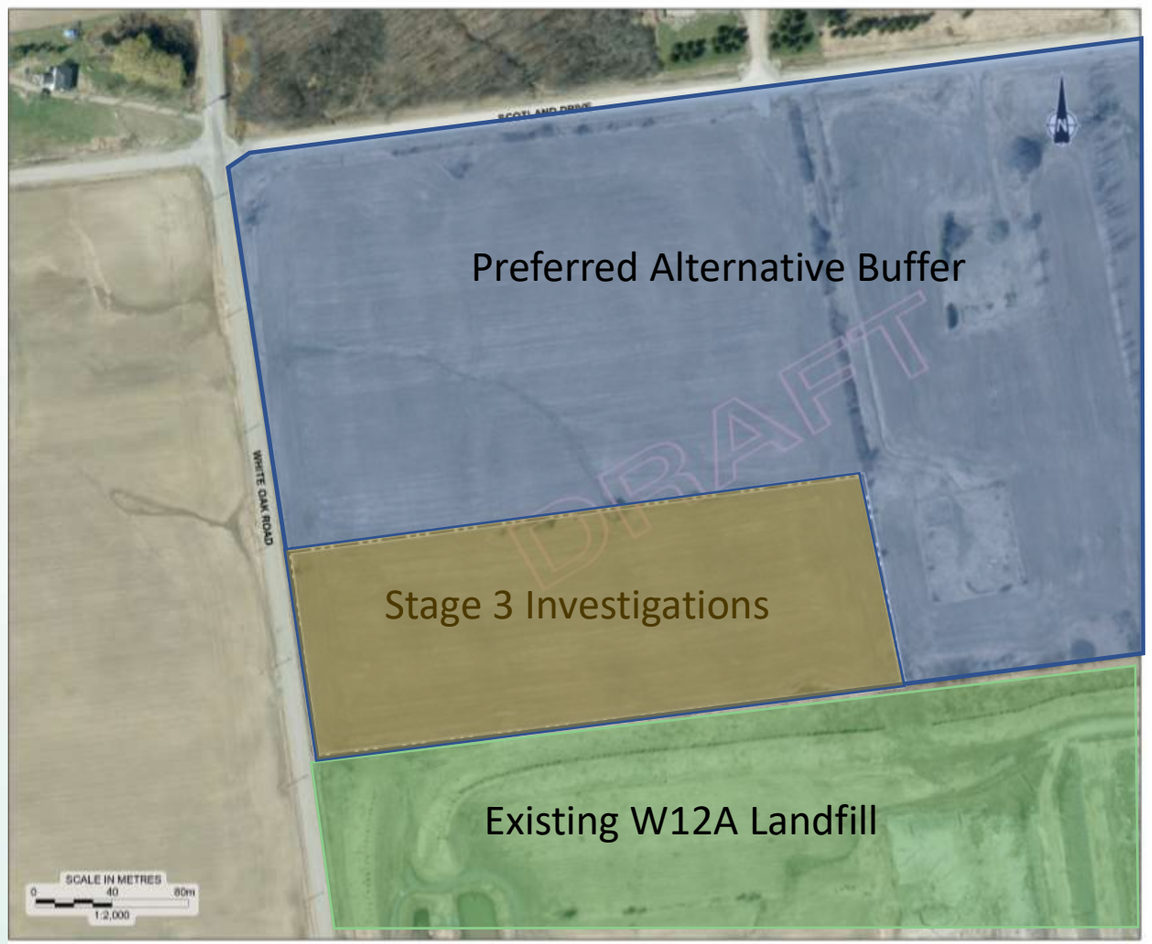
Step 5: Detailed Assessments

	Component	Comments
Environmental	Atmosphere	Detailed impact assessments of noise, odour, health related air quality and noise underway.
	Biology	Mitigation measures being developed to protect Species at Risk and Significant Wildlife habitat located on the landfill footprint and buffer areas.
	Geology and Hydrogeology	Preliminary assessment shows no impact. Preliminary assessment currently being reviewed by First Nations' consultant.
	Surface Water	Assessment has determined the need for stormwater management pond improvements.
Social	Agriculture	No detailed assessment required.
	Archaeology	Mitigation measures required for significant archaeology site located within on-site buffer land.
	Cultural Heritage	No detailed assessment required.
	Land Use	No detailed assessment required.
	Socio-economic	No detailed assessment required.
	Transportation	Assessment underway to determine the need (if any) for roadway upgrades.
	Visual	Mitigation measures being developed to reduce visual impact.
Tech-nical	Design and Operations	Design enhancements included to improve leachate management and landfill gas capture.

Step 5: Detailed Assessments
Archeological

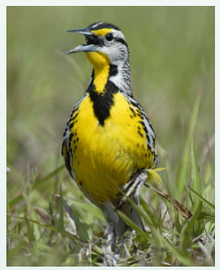
Archeological Site Protection Measures

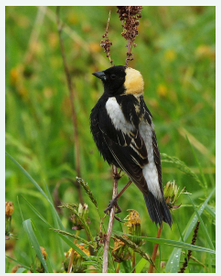
- Significant archaeology site located within on-site buffer land
- First Nations site
- Area to remain undisturbed



Habitat Protection Measures

- Timing Restriction on Vegetation Clearing (No clearing April to August)
- Compensation for loss of Species at Risk Habitat (Bobolink & Eastern Meadowlark)
- Habitat Enhancement for loss of Significant Wildlife Habitat (Monarch)





Groundwater Protection Measures

- Contaminant transport modelling indicates groundwater quality guideline for non-health related parameter (chlorides) exceeded in several hundred years
- 500 years old portion, 900 years newer portion
- A number of additional protection measures are currently being examined
  - Leachate mound control measures
  - Contaminant Attenuation Zone
  - Purge Wells

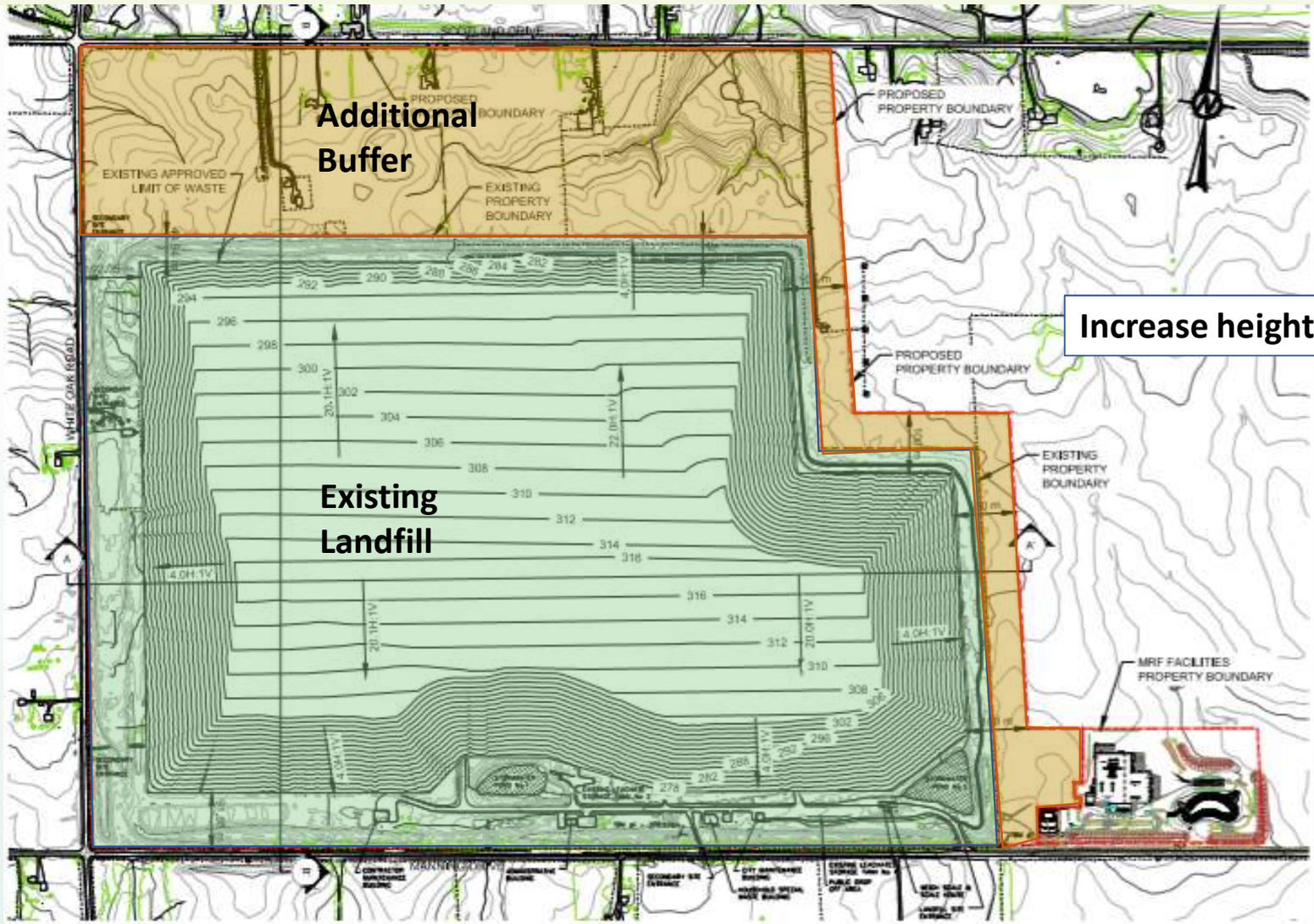
Step 5: Detailed Assessments
Odour

Odour Protection Measures

- $13 to $20 million in gas collection system infrastructure
- Meet provincial standards except two locations (see figure)

- Both locations owned by City and homes were demolished in previous years
- May have to place building restrictions on property

Step 6
Describe Preferred Alternative



Step 6
Describe Preferred Alternative

- Placement of garbage to maximize screening
- Additional groundwater protection measures
- Additional leachate storage (addresses First Nation concern)
- Gas collection system improvements
- Stormwater management pond upgrades
- Replace/upgrade buildings
- Enhanced public drop-off area

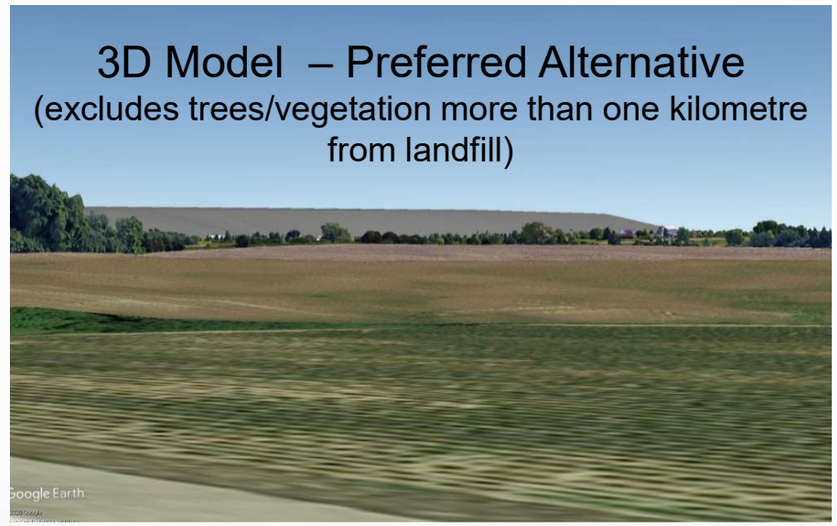
- **Preliminary Cost Estimate for Landfill is $53 million to $88 million ($5.5 to $9 per tonne)**

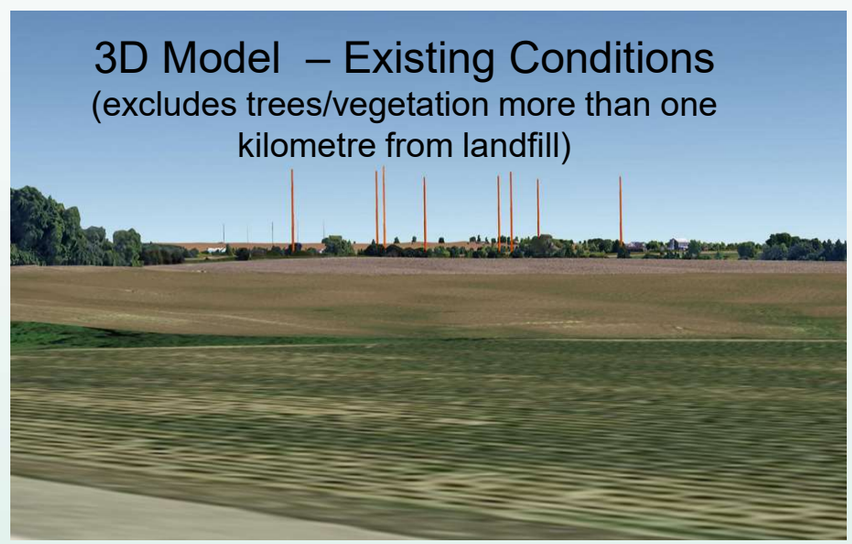
Step 6
Describe Preferred Alternative

	Existing View	"Highest Elevation" View (Vertical Expansion)
Wellington Rd. and Manning Dr.		
Wellington Rd. South of Glanworth Dr.		
401 North of Manning Dr.		

Step 6
Describe Preferred Alternative

View from 4248 Glanworth Drive





Schedule

Time Frame	Task
Aug. 2020 to Oct. 2020	• Complete detailed assessments • Additional consultation • Prepare preliminary Draft EA Report
Nov. 2020 to Jan. 2021	• Prepare Draft EA Report • Consultation on Draft EA Report
Feb. 2021	• Formal Submission of EA Documentation
March 2021 to Sept. 2021	• MECP Approval process (often takes longer than prescribe in Timelines Regulation)

Community Engagement

- Open Houses (October)
- First Nation workshop (August)
- Project Website
- Direct Mailings (e.g., residents within 2 km of Landfill, project mailing list, etc.)
- Community requests for meetings
- Traditional & Social Media
- PPM at CWC
- MECP Process

Future Consulting Assignments

Future consulting assignments include:

- Groundwater modelling/landfill design ($33,000 to $37,000)
- Additional visual modelling ($12,000 to $15,000)

More than $700,000 remaining for other future technical assignments

Community Enhancement and Mitigative Measures Program

- Community Enhancement and Mitigative Measures Program (CEMMP) was approved in 2009
- Most recent update was 2014
- Will be reviewed and updated (if required)
- Update will include:
  - Review of what other landfills currently provide
  - Seek stakeholder feedback

Recommendation

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

b) “Alternative 1 - Vertical Expansion Over Existing Footprint” **BE SUPPORTED IN PRINCIPLE** as the preferred landfill expansion alternative; and

c) The Minutes from the August 13, 2020 Waste Management Working Group meeting include this entire report as an appendix when submitted the Civic Works Committee on September 22, 2020.