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AGRICULTURAL EXISTING CONDITIONS AND IMPACT ASSESSMENT

W12A Landfill Expansion Environmental Assessment

3502 Manning Drive

London

Date:

August 2021

Prepared for:

City of London

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Abbreviations

ToR	Terms of Reference
EA	Environment Assessment
EASR	Environmental Assessment Study Report
PPS	Provincial Policy Statement
OMAFRA	Ontario Ministry of Agriculture, Food, and Rural Affairs
CLI	Canada Land Inventory
AAC	City of London Agricultural Advisory Committee
MDS	Minimum Distance Separation
Ha	Hectares
m	Metre
m^3	Cubic Metres
masl	Metres Above Sea Level
MRF	Material Recovery Facility

1.0 Introduction

The City of London is proposing an expansion of the existing W12A Landfill site (the Project) located at 3502 Manning Drive, London. The existing landfill lands are described as part of Lots 18, 19 and 20, Concession 6 in the former Township of Westminster. Generally, these lands are located in a predominately agricultural area of London, south of the City's Urban Growth Boundary.

The environment is considered in broad terms to include the natural, social, cultural, and economic aspects of the environment. This Report presents the existing conditions and impact assessment for the agricultural component of the Environment Assessment (EA) being carried out for the proposed W12A Landfill expansion. This assessment has been conducted in accordance with the requirements set out in the approved Terms of Reference (ToR) for the EA, dated February 2019.

This Report is a supporting document to the Environmental Assessment Study Report (EASR). As discussed in Section 3.0 of this Report, the preferred expansion alternative identified through the EA process is the vertical expansion above the existing landfill footprint.

2.0 Existing Conditions

2.1 Agricultural Characteristics in Site Area and Site-Vicinity Study Area

The following provides an overview of agricultural and non-agricultural uses surrounding the W12A Landfill within the Site Area, Site Study Area and Site-Vicinity Study Area, as defined through the EA process. The boundaries of each of these study areas are described below and illustrated on Figure 1 of this Report:

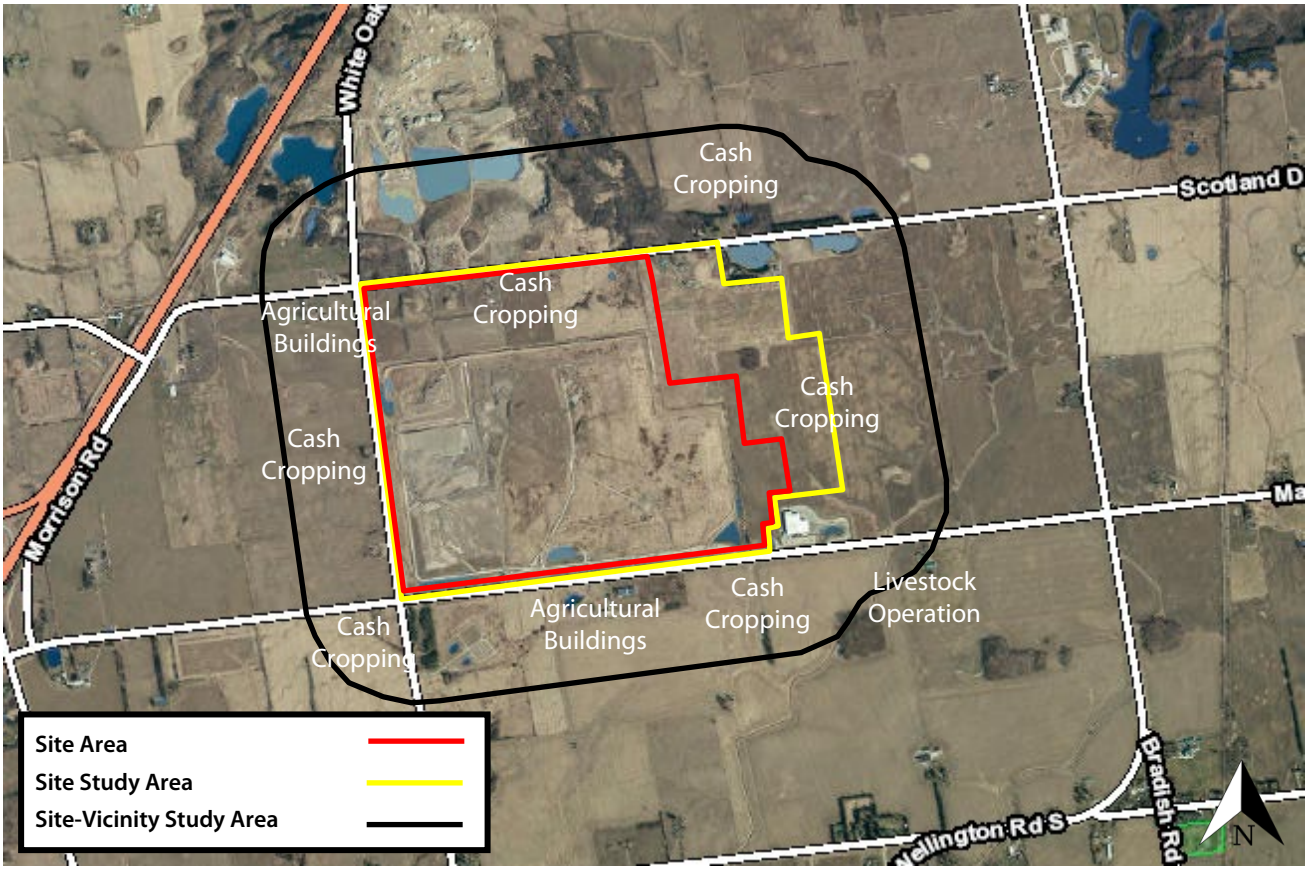
- The Site Area encompasses the existing W12A Landfill site and adjacent lands required for the proposed landfill expansion;

- The Site Study Area represents the limit of property considered in conjunction with the evaluation of EA study alternatives; and

- The Site-Vicinity Study Area includes an area with a radius of 500 m around the Site Study Area.

Figure 1 also illustrates the general agricultural land uses in the vicinity of the existing landfill site.

Figure 1: Location and Context Map



Source: City of London Maps, 2020

Land uses within the Site-Vicinity Study Area are summarized in the following discussion. The characterization of land use activities in the Site-Vicinity Study Area was based primarily on a field survey undertaken by vehicle (i.e., 'windshield survey') on October 8, 2019, an examination of aerial imagery, and discussions with the City of London.

Existing Land Uses (Site-Vicinity Study Area):

North: A portion of the land base between the existing landfill berm and Scotland Drive is actively cultivated for cash crop production (soybeans). The remaining lands are considered fallow with hilly topography observed between the berm and Scotland Drive. These lands do not appear to have been used for agricultural production. Westcliff Pit, operated by AAROC Aggregates, and the Bre-Ex Gravel Pit, operated by Brekelmens

Holdings, are located on the north side of Scotland Drive (gravel pit). Soybean and corn production were also observed on the north side of Scotland Drive. Further, storage for non-agricultural activities was visible at 3405 Scotland Drive, and rural residential dwellings are located at that property, as well as 3465, 3561, 3465 and 3801 Scotland Drive. The property at 3405 Scotland Drive includes a large pond; the property at 3465 Scotland Drive includes a demolished barn.

East: Lands east of the proposed landfill expansion are under active cultivation for conventional cash crop production (corn, soybeans, wheat rotation). There is a vacant industrial storage building at the intersection of Scotland Drive and Wellington Road South. In terms of crops, typical cash crops (corn and soybeans) are found along Wellington Road South. A rural residential dwelling at 5751 Wellington Road South shows evidence of a previous farmstead (bank barn foundation and roofless silo). Rural residential dwellings are also located at 5595, 5615 and 5751 Wellington Road South.

South: A livestock operation (beef) is located at 3243 Manning Drive, approximately 400 m southeast of the Material Recovery Facility (MRF), which is situated at 3438 Manning Drive. The house on the property is vacant. Large agricultural parcels were in conventional cash crop production (corn). There is also an agricultural operation located at 3691 Manning Drive, which includes a large driving shed with solar panels, a bank barn, roofless silo and rural residential dwelling surrounded by cash crop production (corn). Livestock was not visible at this location. Additionally, the Islamic Cemetery of London (6100 White Oak Road) is located south of the existing landfill and the Shore Creek Drain traverses the Site-Vicinity Study Area south and east of the MRF.

West: There is a dilapidated barn/storage building located at 4025 Manning Drive. Large agricultural parcels were in cash crop production (soybeans). There is evidence of a farmstead at 5861 White Oak Road (treeline, foundation of buildings). There is also an existing farmstead at 4067 Scotland Drive, which includes a small barn, Quonset hut, ancillary structures and a rural residential dwelling. This property appears to be used for storage rather than active agricultural production. A rural residential dwelling is located at 5435 White Oak Road with evidence of a previous farmstead (stand-alone silo, barn foundation).

In summary, the Site-Vicinity Study Area is largely comprised of conventional agricultural production (e.g., cash crop production, livestock operations). A review of census of agriculture data (2016) confirms that the characterization of the Site-Vicinity Study Area is consistent with regional and provincial agricultural production practices, as nearly half (47%) of recorded farms are oilseed and grain operations. The surrounding context is illustrated on Figure 1.

3.0 Project Description

3.1 General Description

The Project incorporates a vertical expansion over 106.3 ha of the existing landfill footprint, which has a total approved footprint area of 107 ha. In effect, implementation of this Project would result in 13.8 million m^3 of additional airspace for waste and daily cover, with a highest ridge elevation of waste of 318.43 masl (approximately 43 m above ground elevation).

Additionally, the boundary of the existing landfill site is proposed to be expanded to accommodate additional on-site buffering and additional waste management activities. In comparison to existing conditions, the following modifications are proposed within this expanded boundary (Site Area):

- The northern boundary of the landfill property would be extended approximately 310 m to the Scotland Drive corridor for buffering purposes, with the eastern buffer width extended approximately 60 m. At this time, with the exception of a boundary fence, no infrastructure is proposed for these buffer areas. These lands would be seeded and left fallow, unless there is a future need for contingency measures or other infrastructure within these areas; and

- An eastern expansion of the existing landfill adjacent along the Manning Drive frontage to interface with the adjacent MRF property (approximately extension width: 145 m). Lands in this expansion area would accommodate a new small vehicle Waste and Resource Material Drop-off Area. It is anticipated that this new facility would include a new scale and scalehouse, a grade-separated small vehicle drop-off for waste, a grade-separated small vehicle drop-off for recyclable materials, an area for drop-off of brush, tires and large items, and a new Household Special Waste depot.

Collectively, the proposed modifications would increase the landfill boundary from approximately 140.0 ha to approximately 192.4 ha. There are no proposed changes to the designated haul routes or the existing site access arrangement, with site ingress/egress being provided from the existing Manning Road entrances to the landfill property and the MRF property.

4.0 Impact Assessment

4.1 Methodology

The assessment of Project-related impacts on agricultural land and operations within the Site-Vicinity Study Area was predicated on the Province's draft Agricultural Impact Assessment Guidelines (released March 2018).

Considerations applied in the assessment include: the degree of investment and agricultural infrastructure (e.g. tile drainage, fencing); soil capability; and potential impacts on agricultural land, surrounding uses and the wider agricultural system. These considerations were evaluated to assess the potential loss of agricultural lands and production, as well as the potential impact of the landfill expansion on the broader agricultural system.

Predicted impacts on agricultural lands were based on a site visit, which occurred on October 8, 2019, to identify and verify existing conditions, and analysis of the following data sources:

- Relevant provincial land use plans (Provincial Policy Statement, 2020);
- Municipal planning documents and land use maps (1989 Official Plan, The London Plan);
- OMAFRA constructed and agricultural artificial drainage mapping (OMAFRA Agricultural Information Atlas);
- Soil and Canada Land Inventory (CLI) Capability mapping (OMAFRA Agricultural Information Atlas);
- Aerial imagery (historic and recent);
- Agricultural crop statistics (Statistics Canada, 2016 Census of Agriculture); and
- Parcel mapping from City of London.

The EA process also included several consultation events with surrounding landowners and City of London staff. Additionally, City staff consulted with the City's Agricultural Advisory Committee (AAC) throughout this process. The AAC, which is made up of residents with links to the farming community, (1) provides liaison between agricultural and rural communities and the Municipal Council and (2) helps to ensure that the City of London maintains a secure, economically viable agricultural industry. A summary of the AAC consultation is provided in Appendix A to this report

4.1.1 Policy Overview

MHBC completed a land use assessment for the Site Area and Site-Vicinity Study Area in conjunction with the EA process. The findings of this evaluation are detailed in the Land Use Existing Conditions and Impact Assessment: W12A Landfill Expansion Environmental Assessment, dated November 2020 (Land Use Assessment Report).

The following provides an overview of the agricultural policy framework applicable to the Site Area and Site-Vicinity Study Area, as presented in the aforementioned Land Use Assessment Report. Specifically, this overview addresses how, in our opinion, the Project is in keeping with the agricultural policies of the Provincial Policy Statement, the City of London's Official Plan (1989) and the City's new Official Plan (The London Plan).

4.1.1.1 Provincial Policy Statement, 2020

The 2020 Provincial Policy Statement (PPS) came into effect on May 1, 2020 under Section 3 of the *Planning Act*. The PPS provides overall policy direction on matters of provincial interest related to land use planning and development, and sets the policy foundation for regulating the development and use of land. In this respect, Section 3 of the Planning Act requires that all decisions affecting planning matters "shall be consistent with" policy statements issued under the Planning Act.

Policy Context

In the context of the 2020 PPS, in our opinion, the activities associated with the W12A Landfill and the Project would be considered a 'waste management system'. It is also our opinion that a landfill would be classified as a 'major facility' under the terms of the PPS. Section 6.0 of the PPS defines these relevant terms as follows:

> **"Waste management system:** means sites and facilities to accommodate solid waste from one or more municipalities and includes recycling facilities, transfer stations, processing sites and disposal sites.
>
> **Major facilities:** means facilities which may require separation from sensitive land uses, including but not limited to airports, manufacturing uses, transportation infrastructure and corridors, rail facilities, marine facilities, sewage treatment facilities, waste management systems, oil and gas pipelines, industries, energy generation facilities and transmission systems, and resource extraction activities."

Additionally, in the context of the PPS, in our opinion, the Site-Vicinity Study Area would be classified as a prime agricultural area. Prime agricultural areas are defined as follows in Section 6:

> "**Prime agricultural area:** means areas where prime agricultural lands predominate. This includes areas of prime agricultural lands in associated Canada Land Inventory Class 4 through 7 Lands, and additional areas where there is a local concentration of farms which exhibit characteristics of ongoing agriculture. Prime agricultural areas may be identified by the Ontario Ministry of Agriculture and Food using guidelines developed by the Province as amended from time to time. A prime agricultural area may also be identified through an alternative agricultural land evaluation system approved by the Province."

Further, Section 6 defines prime agricultural land as:

> "**Prime agricultural land:** means specialty crop areas and/or Canada Land Inventory Class 1, 2 and 3 lands, as amended from time to time, in this order of priority for protection."

A review of the Site-Vicinity Study Area's soil capability confirms that surrounding agricultural lands are identified as prime agricultural lands comprised predominantly of Class 2 and 3 soils. Class 5 and unclassified soils are also identified within the southern and northern portions of the Site-Vicinity Study Area, respectively (refer to Soil Mapping provided in Appendix B).

The PPS defines specialty crop areas as follows:

> "**Speciality crop area:** means areas designated using guidelines developed by the province, as amended from time to time. In these areas, specialty crops are the predominantly grown, such as tender fruits (peaches, cherries, and plums), grapes, other fruit crops, vegetable crops, greenhouse crops, and crops from agriculturally developed organic soil, usually resulting from:
>
> a) Soils that have suitability to produce specialty crops, or lands that are subject to special climatic conditions, or a combination of both;
> b) Farmers skilled in the production of specialty crops; and
> c) A long-term investment of capital in areas such as crops, drainage, infrastructure and related facilities and services to produce, store, or process specialty crops."

The Site Area and Site-Vicinity Study Area have not been identified or designated as a specialty crop area by the Province or the City of London and, in our opinion, these lands do not exhibit characteristics of a specialty crop production as defined by the PPS.

Policy Review (Agricultural Polices)

The Project has been evaluated with regard to the policy direction and provisions of the PPS. In our opinion, specific policies contained within Section 2.0 (Wise Use and Management of Resources) are particularly relevant to the evaluation of potential agricultural impacts associated with this Project. These policies form part of Policy 2.3 (Agriculture) and are identified below:

1. Policy 2.3.1 states that prime agricultural areas shall be protected for long-term use for agriculture.

2. Policy 2.3.3 addresses permitted land uses in prime agricultural areas:

   - Policy 2.3.3.1 states that, "In prime agricultural areas, permitted uses and activities are: agricultural uses, agriculture-related uses and on-farm diversified uses";

- Policy 2.3.3.2 prescribes that all types, sizes and intensities of agricultural uses and normal farm practices shall be promoted and protected in prime agricultural areas, in accordance with provincial standards; and

- Policy 2.3.3 states that new land uses shall comply with the Minimum Distance Separation (MDS) formulae developed by the Province.

3. Policy 2.3.5 prescribes that lands can only be excluded from prime agricultural areas to delineate or expand settlement areas in accordance with related policies.

4. Policy 2.3.6 identifies several circumstances where non-agricultural uses may be permitted in prime agricultural areas (e.g., the land does not comprise a speciality crop area).

Respecting Policies 2.3.1, 2.3.3.1, 2.3.3.2, 2.3.5 and 2.3.6, the Project integrates vertical expansion over the existing landfill footprint, as well as a boundary expansion to accommodate additional buffer areas and a Waste and Resource Material Drop-off Area. As detailed in the following Official Plan discussion, the expansion area is located within the defined boundary of the site-specific W12A Landfill policy area. In our opinion, the proposed boundary expansion would be accommodated on lands specifically designated for a waste management system. Accordingly, in the context of the PPS, the Project would not exclude lands from a prime agricultural area or introduce a new non-agricultural use into this area. Further, in our opinion, the components of the Project would not specifically constrain, or compromise, existing agricultural uses and normal farm practices within the prime agricultural area proximate to the Site Area.

With regard to Policy 2.3.3, MDS setbacks are applied to separate uses to reduce incompatibility concerns relating to odour emissions from livestock facilities. Specific direction on the applicability of MDS formulae is provided in the Minimum Distance Separation (MDS) Document, prepared by OMAFRA (Publication 853). Guideline No. 3 of this Publication states that MDS I and II setbacks are not required for landfills. Accordingly, consistent with Policy 2.3.1 of the PPS, the existing landfill area and the proposed buffer area should not constrain existing agricultural operations in proximity of this facility, including those within the Site-Vicinity Study Area.

Additionally, noise, odour and air quality studies were conducted to assess the potential impacts of the proposed landfill expansion on adjacent sensitive land uses. Generally, it is concluded in these associated reports that the identified landfill expansion is expected to meet all Provincial criteria with respect to noise, odour and air quality. A traffic impact study was also completed to evaluate the potential impacts of the Project on the local transportation network. This study did not identify any concerns with the safe and efficient movement of agricultural vehicles within the Site-Vicinity Study Area following completion of the landfill expansion. Further, through consultation, the AAC did not identify any existing or potential concerns with the movement of farm vehicles in the vicinity of the W12A Landfill or along its designated haul routes.

In light of these considerations and our broader evaluation of the Project relative to the PPS documented in the associated Land Use Assessment Report, it is our opinion that the Project satisfies, and is consistent with, the Provincial Policy Statement.

4.1.1.2 City of London Official Plan (1989)

The City of London Official Plan was adopted pursuant to approval of Official Plan Amendment No. 438 by the Minister of Municipal Affairs and Housing, with modifications, on December 17, 2009. Certain policies incorporated into the update were referred to the Ontario Municipal Board; however, these appeals were subsequently resolved.

Policy Context

Figure 2 of this Report illustrates that the Site-Vicinity Study area contains the following land use designations pursuant to Schedule 'A' (Land Use Plan) of the 1989 Official Plan:

- Agriculture;
- Open Space; and
- Environmental Review.

For the purposes of this assessment, the policies of the Agricultural designation are referenced. As discussed, a more detailed evaluation of adjacent land uses is included in the Land Use Assessment Report.

Policy Review (Agriculture Designation)

The preamble to Chapter 9 of the 1989 Official Plan outlines that the Agriculture designation is applied to lands outside of the urban community. As illustrated on Figure 2, this designation comprises the majority of the Site-Vicinity Study Area including the W12A Landfill site.

Section 9.1.1 sets out a series of objectives for the Agriculture designation. In our opinion, the following objectives are particularly relevant to the Project:

"i) Protect, maintain and improve the prime agriculture land base for future generations. Prime agricultural land consists of Classes 1, 2, and 3 soils according to the Canada Land Inventory Capability Classification for Agriculture mapping and specialty croplands.

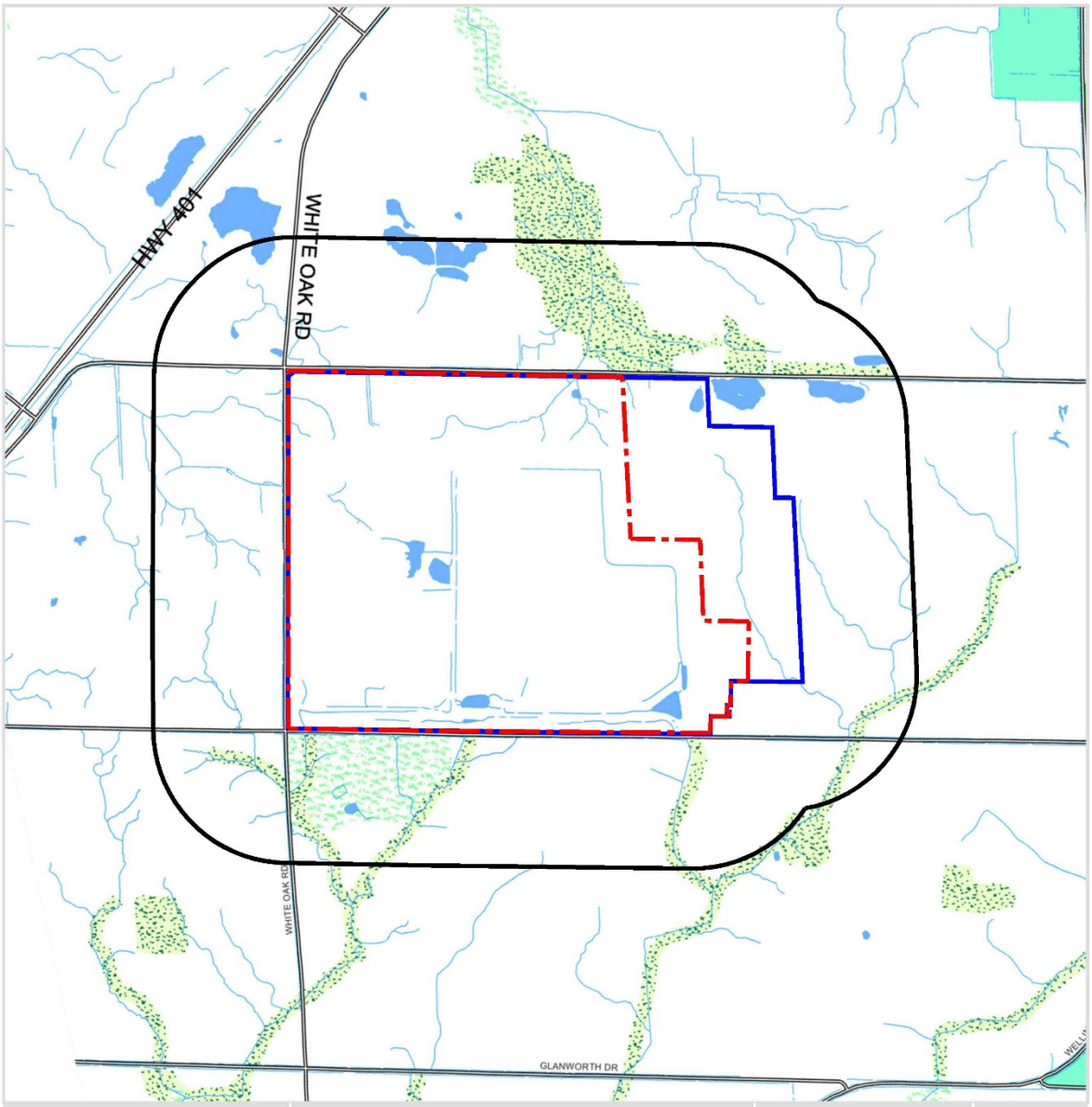


Figure 2
Schedule A - Land Use
Map 11 & 14 - City of London Official Plan, 1989

W12A Landfill
City of London

Legend

Site Area

Site Study Area

Site-Vicinity Study Area

Regional Facility
Community Facility
Open Space
Urban Reserve Community Growth
Urban Reserve Industrial Growth
Rural Settlement
Environmental Review
Agricultural
Urban Growth Boundary

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ii) Promote and support a healthy and productive agricultural industry as a key component of the City's economic base and heritage.

iii) Promote farm practices which encourage the conservation of surface and ground water resources, aquatic habitat, woodlands, wetlands, wildlife habitat and other natural features, where such practices do not impose undue limitations on the farming community.

ix) Mitigate impacts from any new non-agricultural uses on surrounding agricultural operations and lands to the extent feasible."

In accordance with Section 9.2.1 of this Official Plan, the primary permitted use of land in the Agriculture designation is the cultivation of land and the raising of livestock. Further, a full range of farm-related activities are permitted in this designation including general farming, livestock farming, cash crop farming, market gardening, specialty crops, nurseries, forestry, aquaculture and agricultural research. Farm residences are also permitted in this designation, as are home occupations and secondary farm occupations subject to specific provisions set out in the Official Plan.

Notwithstanding the permissions set out for the Agricultural designation, specific policies for landfill sites are provided under Section 9.2.15 'Waste Management and Resource Recovery Area' and Section 17.4 'Operating and Closed Landfill Sites' of this Official Plan.

Section 9.2.15 specifically pertains to the Waste Management Resource Recovery Area which encompasses the W12A Landfill site and the lands generally located within the block bounded by Wellington Road South, Manning Drive, White Oak Road and Scotland Drive. In accordance with Section 9.2.15.1, properties addressed as 3137 and 3405 Scotland Drive and 5529, 5595, 5615, 5751 and 5879 Wellington Road South, which are located within this block, do not form part of this specific policy area.

Section 9.2.15.2 addresses the planned function of the W12A Landfill and the adjacent MRF site:

"The City of London recognizes the importance of the existing W12A landfill and the suitability of the existing location to minimize environmental and social impact while providing the important economic function of waste management. The adjacent site is also a suitable location for landfill expansion and the development of an integrated Resource Recovery Centre for municipally managed waste reduction, waste disposal, waste diversion and waste processing, using principles of sustainability which are socially, environmentally and fiscally responsible."

In accordance with Section 9.2.15.3, a variety of waste management/resource recovery uses may be permitted within this defined area subject to site-specific zoning. Among the permitted uses in this defined area are municipal waste disposal facilities, as well as other waste disposal facilities such as material recovery facilities, yard waste composting facilities, and source separated organic

composting facilities. It is further noted in this Section that waste management and resource recovery uses should be planned to minimize disruption to existing agricultural uses and facilities.

As discussed, the Project integrates a boundary expansion to accommodate additional lands for buffering and a Waste and Resource Material Drop-off Area. This expansion would be contained within the existing boundary of the defined Waste Management Resource Recovery Area. In our opinion, the Project supports the planned function of the Waste Management Resource Recovery Area to accommodate additional waste management facilities planned with consideration for sustainable design principles (as discussed in the Land Use Assessment Report). It is also our opinion that the Project would (1) comply with existing permissions for the Waste Management Resource Recovery Area and (2) align with the identified objectives of the Agricultural designation. In particular, as discussed in relation to the PPS, the Project should not adversely impact on existing agricultural uses and normal farm practices proximate to the Site Area.

Based on the foregoing and our broader evaluation of the proposed landfill expansion relative to the 1989 Official Plan as discussed in the Land Use Assessment Report, in our opinion the Project conforms with the policy direction and development permissions of this Official Plan.

4.1.1.3 City of London Official Plan (The London Plan)

The City of London Council adopted a new City of London Official Plan ('The London Plan') on June 23, 2016 and the Ministry of Municipal Affairs (MMA) issued its approval of the new Official Plan, with modifications, on December 28, 2016. Several parties subsequently appealed policies and schedules of the MMA-approved Official Plan to the Ontario Municipal Board, now the Local Planning Appeal Tribunal.

At this time, certain policies and schedules applicable to the Site Area and Site-Vicinity Study Area remain under appeal and are not currently in effect. Notwithstanding, the following discussion describes how the Project aligns with the policy direction and development provisions of The London Plan as approved by the MMA. Additionally, City staff have advised that The London Plan is considered the determinative analysis for establishing Official Plan policy direction.

Policy Context

Figure 3 of this Report illustrates that the Site Area and Site-Vicinity Study Area contain the following designations pursuant to Map 1 (Place Types) of The London Plan:

- Waste Management Resource Recovery Area;
- Farmland;
- Green Space; and
- Environmental Review.

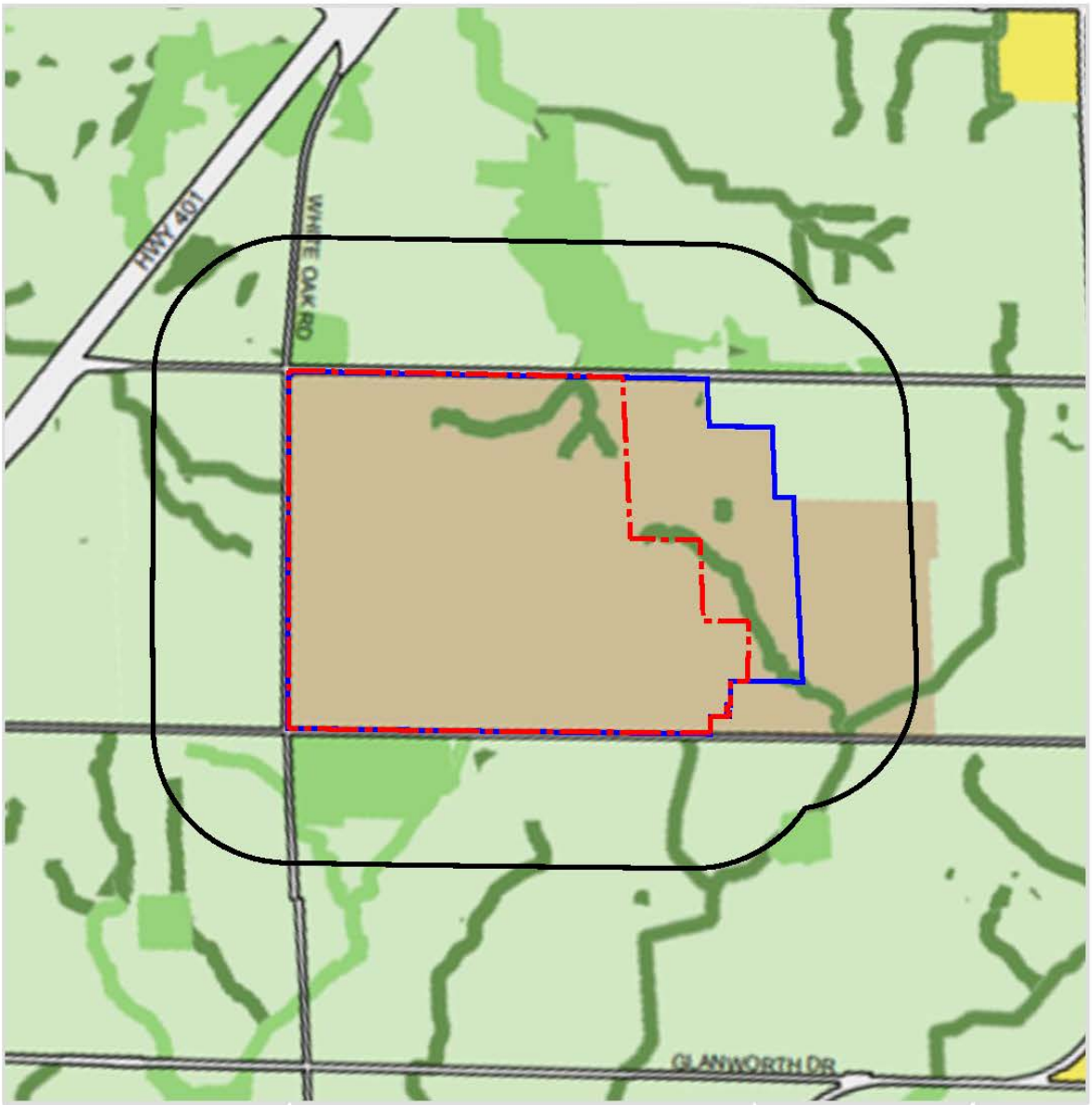

Figure 3
Place Types
Map 1 - The London Plan, 2016

W12A Landfill
City of London

Legend

Site Area

Site Study Area

Site-Vicinity Study Area

PLACE TYPES

Green Space	Heavy Industrial
Environmental Review	Light Industrial
Downtown	Commercial Industrial
Transit Village	Future Community Growth
Rapid Transit Corridor	Future Industrial Growth
Urban Corridor	Farmland
Shopping Area	Rural Neighbourhoods
Main Street	Waste Management Resource Recovery Area
Neighbourhoods	Urban Growth Boundary
Institutional	

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For the purposes of this assessment, the policies of the Waste Management Resource Recovery Area and Farmland place types are referenced. A more detailed evaluation of adjacent land uses is included in the Land Use Assessment Report.

Waste Management Resource Recovery Area Place Type

The existing W12A Landfill site and adjacent lands are designated Waste Management Resource Recovery Area place type. As set out in Policy 1254 of The London Plan, this place type was developed specifically for the W12A Landfill to provide for the continued evolution of the landfill and surrounding area as an integrated waste management centre.

Policy 1254 also states that, "Landfills are important to the city's future growth and development, provide a necessary public benefit and the ability to manage the city's solid waste". It is further prescribed in this Policy that landfills will be (1) designed to maximize utility and minimize negative impacts and (2) maintained in accordance with all relevant federal, provincial and municipal legislation and regulations.

Pursuant to Policy 1256 of this Official Plan, polices pertaining to the Waste Management Resource Recovery Area place type are intended to address several key objectives, including to:

- Apply to lands that are either currently being used as a landfill, are being considered for expansion, or a landfill in the process of remediation;
- Facilitate the transition into productive use as a landfill; and
- Promote best practices in site selection, site design, operation, and remediation.

In accordance with Policy 1258, the following uses are generally permitted on lands designated Waste Management Recourse Recovery Area:

- Landfills;
- Related uses necessary to support waste reduction, re-use, recycling, resource recovery, treatment and waste disposal; and
- Eco-Industrial Parks where industries use materials available from the Waste Management Resource Recovery Area.

In addition to the above-noted uses, it is stated in Policy 1259 that a number of related uses are permitted in this place type through a site-specific Zoning By-law Amendment. These associated uses include a municipal waste disposal facility, community recycling drop-off depot, material recovery facility, and other similar waste uses.

As illustrated in Figure 3, the proposed landfill boundary expansion would be contained with the existing boundary of the Waste Management Resource Recovery Area place type.

Farmland Place Type

Figure 3 identifies that the majority of lands within the Site-Vicinity Study Area surrounding the Waste Management Resource Recovery Area are designated Farmland place type. In accordance with Policy 1179, this place type is the prime agricultural area of London, and consists of prime agricultural land (Canada Land Inventory Classes 1, 2, and 3 soils) and associated Class 4 through 7 soils. This Policy also prescribes that the prime agricultural area, "…will be protected and maintained for the long term as the base to support a healthy, productive, and innovative agricultural industry as a key component of the city's economic base and cultural heritage."

Policy 1181 provides additional direction regarding the intent of the Farmland place type. In our opinion, the following objectives for this place type are of particular relevance to the Project:

"9. Discourage uses which are not supportive of agriculture from locating in the Farmland Place Type. Limited non-agricultural uses may be permitted only where it can be demonstrated that the proposed use is consistent with the Provincial Policy Statement.

10. Minimize the potential for land use conflicts between residential uses and farm operations.

11. Mitigate impacts from any new or expanding non-agricultural uses on surrounding agricultural operations and lands."

As prescribed in Policy 1182, the Farmland place type permits a variety of agricultural and agricultural-related uses, and certain associated residential uses including principal farm residences, secondary farm dwelling units, and residential uses on existing lots of record.

Policy Review

The Project integrates a proposed vertical expansion to the existing landfill footprint, as well as an expansion to the existing landfill boundary for additional buffering and a Waste and Resource Material Drop-off Area. As discussed, the Site Area would be encompassed with the existing boundary of the defined Waste Management Resource Recovery Area.

Given the intended use of the proposed expansion area, it is our opinion that the Project would comply with the policy objectives and existing permissions of the Waste Management Resource Recovery Area place type. In this respect, the Project was selected as the preferred alternative for the EA, in part to maximize utility and minimize negative impacts associated with the landfill expansion. Further, activities associated with the expanded landfill would be maintained in accordance with applicable legislation and regulations.

Additionally, it is our opinion that the Project would align with the function and objectives of the Farmland designation. In particular, as discussed in relation to the PPS, the components of the

Project should not conflict with, or compromise, existing agricultural operations and normal farm practices proximate to the Site Area.

In light of these considerations, and our broader evaluation of the proposal relative to The London Plan as discussed in the Land Use Assessment Report, it is our opinion that the Project conforms with the planning direction and development permissions of this Official Plan.

4.2 Agricultural Lands and Operations

Section 2.1 of this Report provides an overview of agricultural and non-agricultural uses within the Site-Vicinity Study Area. Based on the findings of this review, agricultural uses within this defined area is characterized by conventional agricultural production that is in keeping with regional and provincial trends (e.g., cash crop production, livestock operations).

4.2.1 Assessment of Effects on Agricultural Lands and Operations

4.2.1.1 Degree of Investment/Infrastructure

The Project incorporates a vertical expansion over 106.3 ha of the existing landfill footprint with no expansion of the landfill area. The boundary of the existing landfill site is also proposed to be expanded to accommodate additional on-site buffering and a Waste and Resource Material Drop-off Area. Given the intent to implement vertical landfill expansion and the nature of the activities planned for the Site Area, with the exception of additional perimeter fencing, in the short-term the Project is not anticipated to require a substantial increase in the existing level of investment and infrastructure servicing agricultural lands in the Site-Vicinity Study Area. Additionally, no substantive long-term capital investments are anticipated to service the lands intended for buffering purposes or for the Waste and Resource Material Drop-off Area.

4.2.1.2 Soil Capability (CLI Rating)

As discussed, the Project does not propose an expansion to the existing landfill footprint. Given that no additional lands are required for the landfill component of the Project, the proposed expansion to the landfill boundary is not expected to have an adverse impact on the soil capability within either the Site Area or the Site-Vicinity Study Area. Additionally, in our opinion, the activities planned for the expanded landfill (i.e., buffering, Waste and Resource Material Drop-off Area) should not adversely impact on the capability of Class 2 and 3 soils located within these delineated areas.

4.2.1.3 Potential Impacts on Agricultural Land within Site-Vicinity Study Area

Overview

Section 3.1 of the Report identifies that the landfill boundary would increase from approximately 140.0 ha to approximately 192.4 ha, with no expansion planned for the landfill footprint. As discussed in this Section:

- The expansion area would be predominantly used for buffering purposes, with limited infrastructure planned for the affected lands (i.e., boundary fencing); and

- A portion of the expansion area fronting Manning Road would be used for a new Waste and Resource Material Drop-off Area.

In light of the intended use of the lands contained within the proposed landfill boundary, the potential interim and permanent impacts of the Project on the agricultural land base are expected to be minor.

In effect, the expansion area associated with the Project would take a limited amount of agricultural land (52.4 ha) out of active production on a permanent basis to accommodate the aforementioned project components. However, active production on these lands takes the form of typical cash cropping seen throughout the region (including prime agricultural areas within the City of London and the County of Middlesex). As a result, it is not expected that this expansion proposal would have a noticeable impact on the agricultural productivity of this region, the contiguity of farmland in the Site-Vicinity Study Area or future farming opportunities in proximity to the landfill site. Also, as lands within the buffer area would be primarily left fallow, in our opinion this component of the Project will not adversely impact on the rural character of the Site-Vicinity Study Area and should not generate any compatibility impacts with adjacent lands uses. Further, as discussed in Section 4.1.1 of this Report, this boundary expansion would occur on lands designated for waste management purposes pursuant to the City's 1989 Official Plan and The London Plan. No designated farmland would therefore be removed from the agricultural land base to implement this Project.

Sensitive Uses

The Land Use Assessment Report referenced in this Report evaluates the Project relative to applicable components of the Land Use Compatibility (D-Series) Guidelines administered by the Ministry of Environment, Conservation and Parks (Ministry). Based on our review of the published D-Series Guidelines, in our opinion, Guideline D-4 (Land Use On or Near Landfills and Dumps) relates most directly to the proposed landfill expansion project. This Guideline identifies restrictions and controls on land use in the vicinity of landfills and dumps, in order to protect the health, safety, convenience and welfare of residents near such facilities.

Pursuant to Section 5.1.1 of this Guideline, the following are considered sensitive land uses for operating landfills:

> "Any existing or committed land use which includes:
>
> a. a permanent structure used in animal husbandry; or
> b. agricultural land used for pasturing livestock; or
> c. a permanent structure where:
> i. a person sleeps, or
> ii. a person is present on a full time basis;
> but not including food or motor vehicle service facilities adjacent to a highway, utility operations, scrap yards, heavy industrial uses, gravel pits, quarries, mining or forestry activities; or
> d. cemeteries"

As an outcome of our land use evaluation, the following sensitive uses were identified within the Site-Vicinity Study Area in proximity to the existing W12A Landfill, including several related to agricultural operations:

> **North:** Seven residential dwellings; aggregate extraction operation;
> **West:** Agricultural land;
> **East:** City of London MRF; agricultural land; and
> **South:** Islamic Cemetery of London; agricultural land; farm and associated dwelling; cattle farm.

The Project would expand the Site Area approximately 52.4 ha; however, the existing landfill footprint would be retained. The expanded area, which is partially under active cultivation, would be predominately used for buffering purposes.

As identified in the Land Use Assessment Report, several studies have been completed to assess potential impacts of the Project on existing land uses within the Site-Vicinity Study Area, including identified sensitive land uses. Of particular relevance to this assessment are the noise, odour, air and traffic-related assessments completed, as discussed previously in this Report. Generally, it is concluded in these associated reports that the identified landfill expansion is expected to meet all Provincial criteria with respect to noise, odour and air quality. Mitigation and monitoring programs are also recommended in these reports to minimize potential nuisance impacts associated with landfill operations following Project implementation. In particular, as identified in studies completed for the EA, elevated dust levels can pose a potential impact to nearby crops. Mitigation measures will be implemented to minimize the amount of airborne dust such as enforcing on-site speed limits and applying site fugitive dust best management practices, as necessary and appropriate (e.g., watering or applying dust suppressant to on-site road surfaces).

Additionally, as outlined in Section 3.1 of this Report, the proposed landfill expansion does not result in the limits of waste being extended towards any of the sensitive land uses identified

above. A residential dwelling is currently located to the north of the existing landfill on lands addressed as 3801 Scotland Drive. This residence is situated within the Site Area. In conjunction with the landfill expansion process, this dwelling will be removed to facilitate additional on-site buffering.

One livestock operation was also identified within the Site-Vicinity Study Area. As identified in Section 4.1.1.1 of this Report, MDS calculations do not apply to landfills pursuant to OMAFRA Publication 853. Considering the Project consists of a proposed vertical landfill expansion, that supporting transportation, noise, and dust mitigation measures are implemented, and that MDS does not apply, the project is not expected to have any impact on the livestock operation's ability to operate or expand in the future.

The Shore Creek Drain is identified within the Site-Vicinity Study Area, and portions of the drain also traverse the Site Study Area. As part of the Project, lands within the expansion area would be seeded and kept fallow, and as such, no impacts are expected to agricultural drainage in the Site-Vicinity Study Area. The expansion lands are also not expected to impact any access points to individual parcels. A crossing of the Shore Creek Drain is located within the Site-Vicinity Study Area; however, the buffer lands will not limit use of the crossing or access to the adjacent fields.

Summary

Given these considerations, provided the recommended impact mitigation is implemented, in our opinion the impacts of this Project on existing agricultural activities and other sensitive uses in the Site-Vicinity Study Area would be localized and limited in scope. Additionally, based on the applicable planning framework for the Site Area and the adjacent agricultural area, in our opinion, the Project would not constrain agricultural activities in the vicinity of this landfill facility on an interim or permanent basis. In light of these considerations, in our opinion, this Project should not result in any significant interim or permanent impacts to local agricultural assets, agricultural supply chains, farm access or agricultural drainage infrastructure.

4.2.1.4 Potential Impacts on the Agricultural System

As discussed, the expansion area associated with the Project would take a limited amount of agricultural land out of active production to accommodate additional on-site buffering and a proposed Waste and Resource Material Drop-off Area. These lands are currently within City of London ownership and are encompassed with the Waste Management Resource Recovery Area permissions of the1989 Official Plan and The London Plan. Moreover, with the exception of boundary fencing, no additional investment or infrastructure is planned for those lands intended for buffering purposes.

With respect to the site-specific impacts of this project, the removal of agricultural land from production for buffering purposes is not expected to result in a noticeable economic loss based on regional cropping practices. Additionally, there should be no substantive impacts to agricultural infrastructure (drainage, agricultural-related uses) in the area. The expansion area is

also designated for waste management purposes, and therefore the Project would not remove designated farmland from production and should not contribute to the further fragmentation of agricultural operations.

The potential cumulative impacts of the Project on the agricultural system were also evaluated in conjunction with this assessment, and with consideration for the findings of EA studies and public consultation. As discussed, the Site-Vicinity Study Area is largely comprised of conventional agricultural production (e.g., cash crop production, livestock operations). With consideration for the findings of studies and public consultation completed in conjunction with the EA process, in our opinion, the establishment of non-agricultural operations within this area, including the W12A Landfill, have not resulted in substantive impacts to the viability of the local agricultural land base. Given the scale and characteristics of this Project as outlined above, it is also our opinion that the proposed landfill expansion would not generate any significant incremental impacts to farm operations in the Site-Vicinity Study Area or the regional agricultural system. Moreover, as outlined in the Land Use Assessment Report, the existing planning framework limits the potential that agricultural activities in the Site-Vicinity Study Area will be impacted by new non-agricultural uses in the foreseeable future. In light of these considerations, in our opinion, the Project should not result in, or contribute to, significant cumulative impacts to the local or regional agricultural systems.

Given these considerations, in our opinion the proposed expansion to the landfill boundary should not compromise, or constrain, agricultural operations within the Site-Vicinity Study Area. It is also our opinion that this project should not result in any substantive project-related or cumulative impacts within this defined area or the wider agricultural system.

4.3 Conclusion

Based on the foregoing, it is our opinion that the Project (1) is not expected to have any significant interim or permanent impacts on existing agricultural land and/or operations within the Site-Vicinity Study Area and (2) should not adversely impact on the wider agricultural system.

5.0 Mitigation and Monitoring

As an outcome of the agricultural impact assessment summarized in this Report, in our opinion the Project should have minimal land use impacts on agricultural land and/or operations in the Site-Vicinity Study Area. Notwithstanding, it is also our opinion that mitigation and monitoring programs associated with the expanded landfill operations recommended in conjunction with this Environmental Assessment should be implemented to minimize any potential impacts on local agricultural activities and the larger agricultural system.

6.0 Other Approvals

Based on our evaluation, implementation of the Project should not require any additional approvals related specifically to the agricultural sector.

7.0 Conclusion

The City of London is proposing an expansion of the existing W12A Landfill site (the Project) located at 3502 Manning Drive, London. Generally, this property is located in a predominately agricultural area of London, south of the City's Urban Growth Boundary.

The proposed landfill expansion incorporates a vertical expansion over 106.3 ha of the existing landfill footprint. Additionally, the facility boundary is proposed to be extended to accommodate (1) additional on-site buffering north and east of the existing landfill facility and (2) a new small vehicle Waste and Resource Material Drop-off Area. Collectively, these site modifications would increase the landfill boundary from approximately 140.0 ha to approximately 192.4 ha.

This Report addresses the existing conditions and impact assessment for the agricultural component of the EA being carried out for the proposed landfill expansion. Generally, the study area (Site-Vicinity Study Area) defined for this EA is largely comprised of conventional agricultural production consistent with regional and provincial agricultural production practices (e.g., oilseed/grain operations).

The assessment of impacts on agricultural land and operations within the Site-Vicinity Study Area was predicated on the Province's draft Agricultural Impact Assessment Guidelines. Considerations applied in the assessment include: the degree of investment and agricultural infrastructure (e.g., tile drainage, fencing); soil capability; and potential site-specific and cumulative impacts on agricultural land, surrounding uses and the wider agricultural system. These considerations were evaluated to assess the potential loss of agricultural lands and production, as well as the proposed landfill expansion's impact on the broader agricultural system.

In effect, the expansion area associated with the Project would take a limited amount of agricultural land (52.4 ha) out of active production to accommodate additional on-site buffering and a Waste and Resource Material Drop-off Area. These lands are currently within City of London ownership and are encompassed within the Waste Management Resource Recovery Area permissions of the City's 1989 Official Plan and The London Plan. Moreover, with the exception of

boundary fencing, no additional investment or infrastructure is planned for those lands intended for buffering purposes.

In light of the intended use of the lands contained within the proposed expansion area, the potential impacts of the Project on local agricultural land and operations are expected to be minor. Further, in our opinion the proposed expansion to the landfill boundary should not compromise, or constrain, agricultural operations within the Site-Vicinity Study Area.

Based on the foregoing, in our opinion the Project (1) is expected to have minimal interim or permanent impacts on existing agricultural land and operations within the Site-Vicinity Study Area and (2) should not adversely impact on the wider agricultural system.

Respectfully submitted,

MHBC
Planning, Urban Design & Landscape Architecture

Scott Allen, MA, RPP
Partner

8.0 References

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Appendix A

Summary of AAC Consultation

Consultation with the Agricultural Advisory Committee

The City of London Agricultural Advisory Committee (AAC) is made up of residents with links to the agriculture community and provides input on agricultural and rural issues on planning matters to Municipal Council, provides liaison between agricultural and rural communities and the Municipal Council and helps to ensure that the City of London maintains a secure, economically viable agricultural industry. A summary of the consultation with the AAC is provided in Table A-1.

Table A-1
Summary of Consultation with City of London Agricultural Advisory Committee

Event/Date	Comments
AAC Meeting on Sept 20, 2017 Presentation on the EA (Complete details including presentation and the minutes from the meeting can be found in the Terms of Reference Volume III Appendix G2)	ACC passed the following resolution "That Municipal Council BE ADVISED that the Agricultural Advisory Committee (AAC) supports the residual waste strategy related to the proposed expansion of the W12A Landfill which includes: • an extension of the waste disposal capacity to the year 2050 (25 years beyond existing capacity); • placing limits on annual tonnage that can be landfilled; • considering allowing neighbouring municipalities to use new/expanded facilities; and, • committing to increasing residential waste diversion from 45% to 60%;
AAC Meeting on January 17, 2018 Presentation providing an update on the EA (Complete details including presentation and the minutes from the meeting can be found in the Terms of Reference Volume III Appendix G2)	ACC passed the following resolution "That it BE NOTED that the Agriculture Advisory Committee received the attached presentation from W. Abbott, Project Manager, Solid Waste Management, with respect to an update on the Residual Waste Disposal Strategy."
Information Package sent to AAC members on December 8, 2020	One member of the AAC provided comments and had two questions.

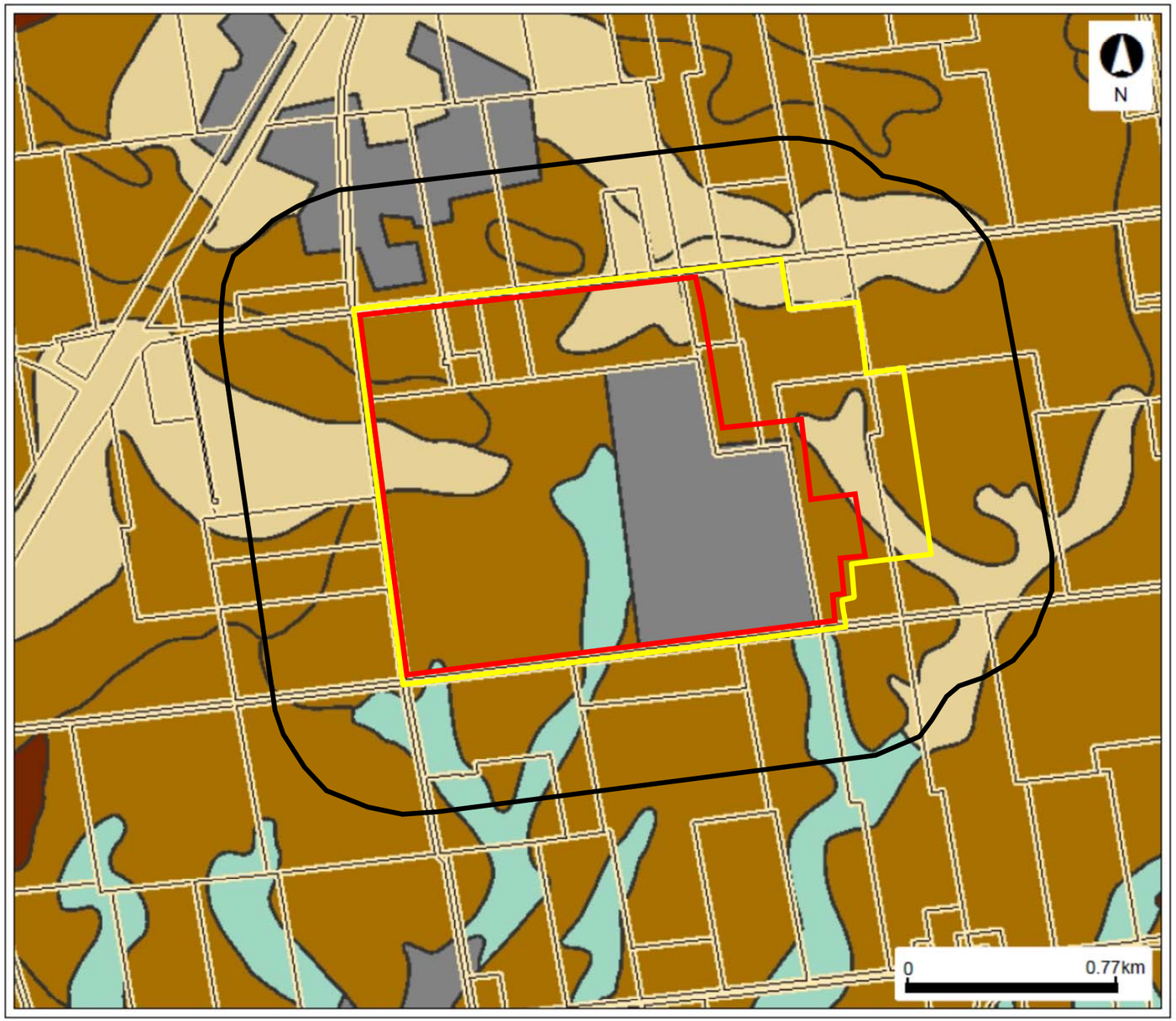
Event/Date	Comments
Information package provided an update on the EA and requested feedback. (Complete details can be found in the Environmental Assessment Study Report Volume V)	**Key Comments** "*As a member of the Agricultural Advisory Committee, thank you for the opportunity to review the Frequently Asked Questions and Overview of the Proposed W12A Landfill Expansion. In particular, I appreciated that these documents were very accessible - easy to read and understand.* *In terms of impact on agriculture, the option selected - to go up rather than out - appears to have the least impact on any adjacent agricultural lands*." **Questions** 1. *"The maps provided indicate that the landfill boundary would be expanded to the north and east as a buffer and a small area of agricultural land would be included within this buffer. Can you clarify whether these agricultural lands (if currently in agricultural use) would continue as such when acquired by the City or whether there are other future planned land uses (such as SAR habitat offsets and/or archaeological site protection)?"* <u>Response</u> In general, the additional buffer lands that are currently in active agricultural production will be seeded and left fallow with the following exceptions: • Fencing along the new landfill boundary • Berms constructed along the new landfill boundary that runs long White Oak Road and Scotland Drive • Land between the existing landfill and Material Recovery (Recycling) Facility that will accommodate a new small vehicle Waste and Resource Material Drop-off Area. It is anticipated that this new facility would include a new scale and scalehouse, a grade-separated small vehicle drop-off for waste, a grade-separated small vehicle drop-off for recyclable materials, an area for drop-off of brush, tires and large items, and a new Household Special Waste depot. The additional buffer lands total approximately 52 hectares. Approximately 50% of this land is currently in

Event/Date	Comments
	active agricultural production. The above-mentioned infrastructure will use approximately 10 hectares of the land in active agricultural production. There is the possibility that some of the additional land within these areas may be needed in the future for contingency measures or other infrastructure. The end use for these lands when the landfill closes has not been determined at this time. 2. *"In addition, I am curious as a member of the LACH whether there are any listed heritage structures located on the lands proposed to be acquired by the City on Scotland Drive. If so, would the City's future plans maintain these structures (or not) and if so, for what purpose?"* <u>Response</u> The Heritage Impact Assessment report concluded that "*No further cultural heritage studies or monitoring is recommended. All built heritage resources …will not be directly or indirectly impacted by future construction or operation of the Proposed Expansion*".
Notice sent to AAC members on April 23, 2021 that the Draft EASR was available for review and comment. (Complete details can be found in the Environmental Assessment Study Report Volume V)	No comments received.

APPENDIX B

SOIL MAPPING

CLI Soil Mapping - W12A



Legend

- Assessment Parcel

Soil Capability for Agriculture

- Unclassified
- Class 1
- Class 2
- Class 3
- Class 4
- Class 5
- Class 6
- Class 7
- Organic Soil
- Water

This map should not be relied on as a precise indicator of routes or locations, nor as a guide to navigation. The Ontario Ministry of Agriculture, Food and Rural Affairs (OMAFRA) shall not be liable in any way for the use or any information on this map. of, or reliance upon, this map.

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