



NATURAL HERITAGE MEMORANDUM

Cambium Inc.

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To: Susan Jingmiao Shi,
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From: Matthew Wheeler, Senior Ecologist
Cambium Inc.
matthew.wheeler@cambium-inc.com

Date: April 4, 2024

**Re: Desktop Natural Heritage Review of Two Potential Water Storage Facilities in the Village of Lansdowne
Lansdowne, Ontario
Cambium Project Number: 16054-001
J L Richards Project Number: 31681-001**

Introduction

The Village of Lansdowne is carrying out a Municipal Class Environmental Assessment (MCEA) Schedule B project, to select a location for a new water storage facility in Lansdowne, Ontario. Cambium Inc. (Cambium) was retained by J.L. Richards and Associates Limited (JLR) to conduct a desktop review of Natural Heritage features as required by the MCEA process to aid in the selection of a preferred location for the construction of a new above grade reservoir and associated booster pump station. Given the location and scale of the proposed infrastructure, the project location will consider two water storage locations plus 120 meters [m] of adjacent lands to be considered the Sites for the purpose of the Study. Figure 1 provides the location of the Sites within the Village of Lansdowne; the East Site located at 1233 Prince Street and the West Site located at 1 Jessie Street (i.e. Jerry Park).



Description of Natural Heritage Features

The natural heritage features have been reviewed based on existing publicly accessible data sets. However, a field investigation was not completed as a part of the natural heritage review process. The Site is within Ecoregion 6E of Ontario (Crins, Gray, Uhlig, & Wester, 2009). The Site contains or is adjacent to (within 120 m of) the following mapped natural heritage and/or hydrologic features:

- Unnamed watercourse (adjacent lands to East Site)
- Woodlands (adjacent lands to East Site)
- Wastewater treatment ponds (adjacent lands to East Site)
- Wetlands- no mapped wetlands are present on either Site. On the East Site unmapped wetlands may be present on the eastern portion of the Site and on adjacent lands.
- Potential habitat for provincially listed species at risk (SAR) on and adjacent to the Sites from element occurrence data from the Natural Heritage Information Centre (NHIC) and air photo interpretation of potential SAR habitat;
 - Bobolink (Threatened) – The manicured grounds on the West Site and adjacent lands are unlikely to support the habitat requirements of this species. Undeveloped portions of the East Site and adjacent lands may contain grassland habitat suitable for this species life processes.
 - Eastern Meadowlark (Threatened) – The manicured grounds on the West Site and adjacent lands are unlikely to support the habitat requirements of this species. Undeveloped portions of the East Site and adjacent lands may contain grassland habitat suitable for this species life processes.
 - Red-Headed Woodpecker (Endangered) – This species is a habitat generalist and could utilize the East or West Site for foraging.
 - Eastern Wood-pewee (Special Concern) – The West Site and adjacent lands are not likely to provide habitat for this species. No habitat is present on the East Site for this species and woodlands on adjacent lands to the east may provide suitable habitat for this species.
 - Grasshopper Sparrow (Special Concern) – The manicured grounds on the West Site and adjacent lands are unlikely to support the habitat requirements of this species. Undeveloped portions of the East Site and adjacent lands may contain grassland habitat suitable for this species life processes.
 - Wood Thrush (Special Concern) – The West Site and adjacent lands are not likely to provide habitat for this species. No habitat is present on the East Site for this species and woodlands on adjacent lands to the east may provide suitable habitat for this species.



- Barn Swallow (Special Concern)- The West Site is unlikely to contain nesting habitat for this species. The municipal buildings on the East Site may provide nesting habitat for this species. Adjacent lands to both Sites may contain nesting habitat for this species within agricultural buildings.
- No federally listed aquatic SAR are documented to be present in the unnamed watercourse and ponds.

The watercourse adjacent to the East Site is a tributary of LaRue Creek. The watercourse flows east to the wastewater treatment ponds southeast of the Site. The Land Inventory Ontario Aquatic Resource Area data set did not contain records for fish species within this watercourse.

The Site is within the jurisdiction of the Cataraqui Region Conservation Authority (CRCA), and their regulated area encompasses the unnamed watercourse adjacent to the Site. As the East Site is within 30 m of the unnamed watercourse, the Study will consider regulations on the infrastructure as per *Ontario Regulation 41/24* under the *Conservation Authorities Act*, 1990.

The *Endangered Species Act, 2007* (ESA) protects endangered and threatened species and their habitats from harm or destruction. Habitat for endangered and threatened species is also afforded protection under provincial natural heritage policy; however, it is ultimately the proponent's responsibility to ensure that no harm to these species or their habitats occurs on their property.

Impact Assessment and Recommendations

Unmapped Wetlands

No wetlands are mapped or appear to be present on the West Site or adjacent lands. Therefore, no direct or indirect impacts to wetlands are anticipated.

On the East Site unmapped wetlands may be present on the eastern portion of the Site and on adjacent lands. A field review is recommended to determine if wetlands are present or absent.

Fisheries

Direct fish habitat is not present on the West Site or adjacent lands. As such, no direct impacts to fish or fish habitat are anticipated at the West Site.



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Direct fish habitat is not present on the East Site but may be present within the Tributary of LaRue Mills Creek. No site alteration is proposed within fish habitat. No direct impacts to fish or fish habitat are anticipated at the East Site provided erosion and sediment control measures are installed and maintained during construction. All site alteration and construction at the East Site should maintain a 30 m setback from the watercourse in accordance with *Ontario Regulation 41/24*. If the East Site is the preferred technical alternative, the CRCA should be consulted to determine if a permit is required under the newly enacted *O.Reg. 41/24*.

Species at Risk

It is unlikely that the West Site, as a manicured park, provides critical habitat for species at risk. (SAR). There is a low probability that development of the proposed infrastructure in this location will result in negative impacts to SAR or their habitat.

Portions of the East Site are manicured lawn (mowed) and do not represent habitat for SAR birds. If the infrastructure is proposed to be constructed on the eastern portion of the East Site where it is unmanicured (i.e. not mowed), a breeding bird study is recommended to document the bird species and habitats present on and adjacent to the Site. A breeding bird study can determine if SAR birds are present or absent during survey events. On the northern portion of the East Site appears from aerial imagery to be agricultural fields used for row crops (i.e. corn, soy, etc.). This area of the property has low suitability for SAR birds if it is used for production of row crops. However, if it is being used as hay field it may provide habitat for Eastern Meadowlark and Bobolink.

Migratory Birds

Nesting birds and their nests, eggs, and young are protected under the *Migratory Birds Convention Act, 1994*. Vegetation clearing on the Site should occur outside the breeding bird season, which extends from March 31 to August 31 in the local area (as per Environment and Climate Change Canada Guidelines).

If vegetation clearing or construction is to occur from April 1 to August 31, the vegetation should be investigated by a qualified biologist to confirm if any active nests are present, prior to site alteration. Vegetation clearing can proceed, provided there are no active nests. If active nests are confirmed, the nests should be left undisturbed until young have fledged or the nest is determined to be inactive. Note that some birds nest on the ground and in low-lying vegetation and shrubs; therefore, all habitat types should be inspected prior to ground disturbance if removals are to occur during the breeding season.



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Closing

The West Site is not constrained by natural heritage features as it is primarily a manicured park. Infrastructure construction and operation on the West Site is not anticipated to result in negative impacts to natural heritage features.

The East Site may have natural heritage constraints imposed by a 30 m watercourse setback on adjacent lands, and possibly by unmapped wetlands on the eastern portion of the Site. As well, non-manicured (non-mowed) portions of the property may provide habitat for migratory birds, potentially SAR birds known to inhabit the general area. The northern portion of the East Site appears to be in agricultural row crop which have a low probability of providing habitat for SAR birds. As such, the section of the property used for agricultural row crops may be unconstrained by natural heritage features.

This memo describes the existing conditions on and adjacent to the East and West Sites, assesses potential effects on natural heritage elements, and recommends eliminating or minimizing negative environmental effects during and post-construction. It also specifies agency consultation for a permit. Feel free to contact the undersigned should you have any questions regarding this memo.

Kind regards,

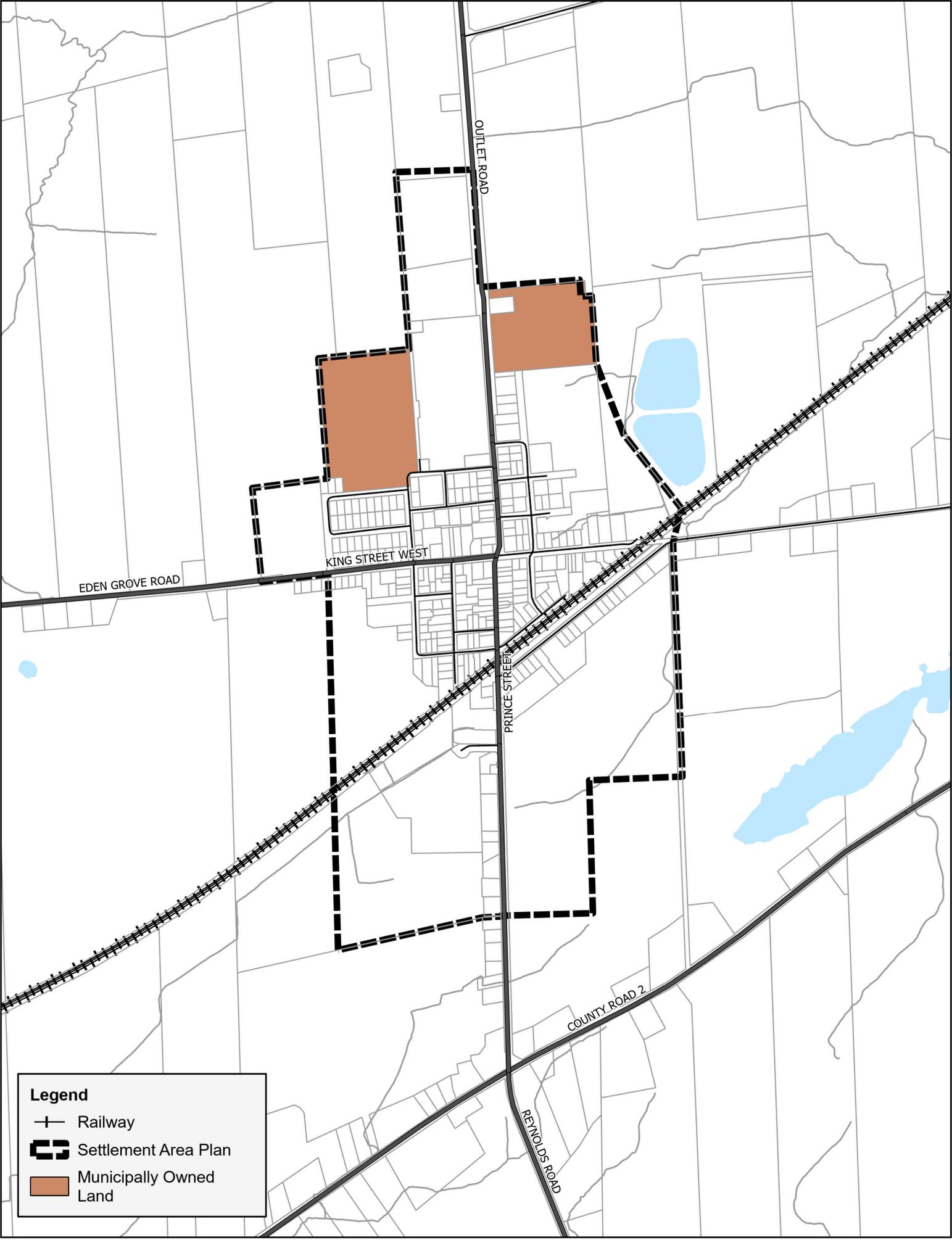
Cambium Inc.

Matthew Wheeler, B.A. Hons.

Project Manager / Senior Ecologist

Enclosures: *Figure 1*
 Figure 2a
 Figure 2b

MBW



Legend

-  Railway
-  Settlement Area Plan
-  Municipally Owned Land



LANSDOWNE WATER STORAGE
J.L. RICHARDS AND ASSOCIATES LIMITED
 Lansdowne, Ontario

LEGEND

- Contours (5m Interval)
- Site (approximate)
- 120m Adjacent Lands

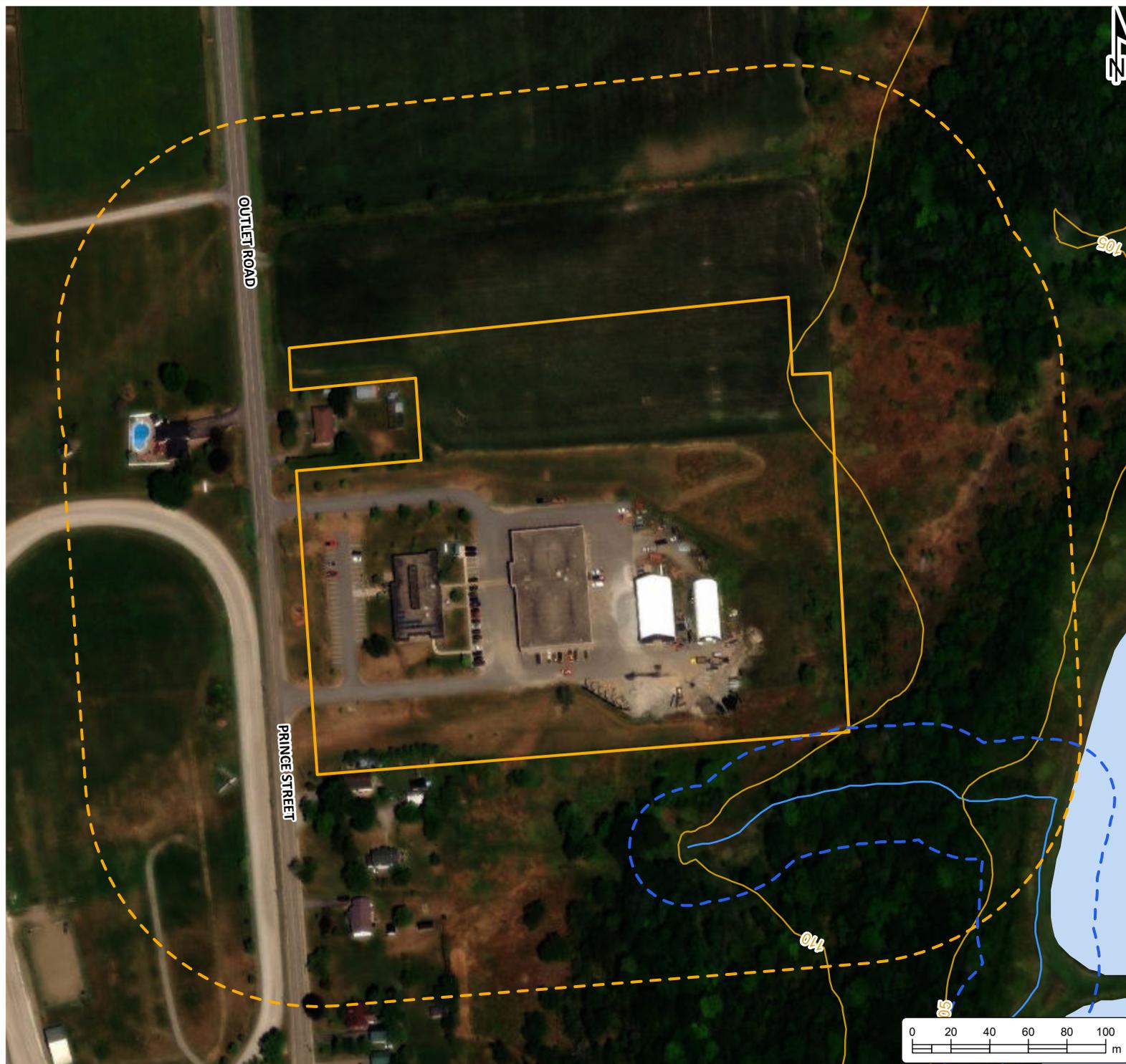
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PRELIMINARY NATURAL HERITAGE CONSTRAINTS

Project No.: 16054-001	Date: April 2024
Scale: 1:3,250	Rev.: MW
Created by: DBB	Checked by: MW
Figure: 2	Projection: NAD 1983 UTM Zone 18N



LANSDOWNE WATER STORAGE
J.L. RICHARDS AND ASSOCIATES LIMITED
 Lansdowne, Ontario

LEGEND

-  Contours (5m Interval)
-  Watercourse, Permanent
-  30m Watercourse Setback
-  Water Area
-  Site (approximate)
-  120m Adjacent Lands

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PRELIMINARY NATURAL HERITAGE CONSTRAINTS

Project No.: 16054-001	Date: April 2024
Scale: 1:2,788	Rev.: MW
Created by: DBB	Checked by: MW
Figure: 2	Projection: NAD 1983 UTM Zone 18N