

October 2025

# Barrie Joint Land Needs Study

Natural Heritage Constraints Assessment

Prepared for

Hemson Consulting



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ENVIRONMENTAL

## **Project Study Team**

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## Table of Contents

|                                                                  |   |
|------------------------------------------------------------------|---|
| 1. Introduction .....                                            | 1 |
| 2. Background Review .....                                       | 1 |
| 3. Natural Heritage Features and Other Components .....          | 2 |
| 3.1. Mapping of Natural Features and Areas .....                 | 3 |
| 3.2. Preliminary Ecological Buffers .....                        | 4 |
| 3.3. Preliminary Linkage Areas .....                             | 4 |
| 3.4. Conservation Authority Regulations .....                    | 5 |
| 3.5. Lake Simcoe Protection Plan .....                           | 5 |
| 4. Identification of Constraint Levels (High, Medium, Low) ..... | 5 |
| 5. Natural Heritage Constraint Results & Calculations .....      | 6 |
| 6. Potential Community Buffer .....                              | 7 |
| 7. References .....                                              | 9 |

## List of Tables

|                                                                            |   |
|----------------------------------------------------------------------------|---|
| Table 1. Area (hectares) Summaries of Non-Developable Lands by Block ..... | 7 |
|----------------------------------------------------------------------------|---|

## List of Appendices

|                                                                                          |    |
|------------------------------------------------------------------------------------------|----|
| APPENDIX 1   Figures .....                                                               | I  |
| APPENDIX 2   Natural Heritage Components, Criteria Mapping and Constraint Rankings ..... | II |

## 1. Introduction

North-South Environmental Inc. (NSE) was retained by Hemson Consulting to conduct an assessment of natural heritage features and other components to support the evaluation of land requirements for participating municipalities to accommodate growth to 2051. The study area is identified as Blocks 2-6 on **Figure 1** (figures in **Appendix 1**). The study is being conducted on behalf of the County of Simcoe, the City of Barrie, the Township of Springwater, and the Township of Oro-Medonte.

The purpose of this report is to identify, assess and map the natural heritage constraints within the provided study area and adjacent lands; this will be one of the factors considered to help inform the overall Land Needs Study being prepared by Hemson Consulting.

This report includes the constraints mapping (i.e., natural heritage features that pose a constraint to development and represent the “non-developable area”) and the methods used to identify them to assist with the interpretation of the constraint mapping for the study area (**Figures 2a-e, 3a-e, and 4a-e**).

It is imperative to note the following limitations and assumptions built into this report:

- Some natural heritage features cannot be mapped at this time due to a lack of information and unavailable mapping data. The natural features and associated constraints that cannot be mapped and accounted for in the area calculations of “non-developable lands” will need to be identified through an environmental study as part of a subsequent planning process. The environmental study would include fieldwork, ground-truthing and assessment of the natural heritage features and other components within the study area. This may result in additional lands being identified as constraints, “non-developable areas”.
- It is also possible that the environmental study could determine that some of the mapped natural heritage features need to be refined (e.g., shape, size) or that some are absent altogether.
- The area calculations for the constrained areas, non-developable areas, and the unconstrained areas, developable areas, are all based on the study area shown in the attached figures. Should the study area change to any degree, new calculations would be required.

## 2. Background Review

A background review of available data was completed to inform this constraints assessment, including:

- Review of provincial legislation and plans, as well as County and Municipal Official Plans for relevant natural heritage policies and mapping. The review included the following documents:

- Provincial Planning Statement (2024)
- Lake Simcoe Protection Plan (2009)
- County of Simcoe Official Plan (Office Consolidation February 2023)
- Township of Springwater Official Plan (Office Consolidation June 2020)
- Township of Oro-Medonte Official Plan (Office Consolidation March 2023)
- City of Barrie Official Plan (May 2024)
- Review of technical guidance documents including the following:
  - Natural Heritage Reference Manual (OMNR 2010)
  - Significant Wildlife Habitat Technical Guide (OMNR 2000) and
  - Significant Wildlife Habitat Criteria Schedules for Ecoregion 6E (MNRF 2015)
- Background searches for designated significant features (e.g., provincially significant wetlands, significant woodlands, etc.).
- Ministry of Natural Resources (MNR) Geospatial Ontario Mapping
- Nottawasaga Valley Conservation Authority Regulatory Mapping
- Lake Simcoe Region Conservation Authority Regulatory Mapping

### 3. Natural Heritage Features and Other Components

The following natural heritage features and areas as identified in sections 4.1 and 4.2 of the Provincial Planning Statement (PPS) (2024) have been summarized in **Appendix 2**. Features that are present in the study area and have available data layers are shown on **Figures 2a-e & 3a-e**, including:

- Significant wetlands – provincially significant wetlands;
- Significant woodlands;
- Significant wildlife habitat – select and limited data available; mapped data incomplete;
- Surface water features; and
- Preliminary linkage areas.

Certain natural heritage features and areas as identified in section 4.1 of the PPS 2024 have the potential to occur in the study area; however, they have not been mapped due to lack of information / unavailable data layers:

- Significant valleylands;
- Significant wildlife habitat – many types are not / cannot be mapped through desktop assessment;
- Fish habitat; and
- Habitat of endangered species and threatened species.

The following other natural heritage components and constraint considerations as identified in County and Local Municipal Official Plans, Lake Simcoe Protection Plan, and conservation authority

regulatory mapping occur or have the potential to occur in the study area. These are summarized in **Appendix 2** and may or may not be mapped, depending on availability of information / data layers:

- Included in the constraints mapping (**Figures 2a-e & 3a-e**)
  - Evaluated wetlands - other;
  - Unevaluated wetlands;
  - Preliminary ecological buffers;
  - Regulated wetlands and 30 metre setbacks;
  - Regulated floodplain; and
  - Key natural heritage features and key hydrologic features and their related 30 metre vegetation protection zones within Lake Simcoe Protection Plan watershed boundary.
- Not included in the constraints mapping
  - Locally significant wetlands;
  - Cultural thickets, cultural meadows, other woodlands;
  - Corridors; and
  - Public lands.

### 3.1. Mapping of Natural Features and Areas

Provincial geospatial data, including the 2022/2023 LiDAR imagery, was used to map significant wetlands, significant wildlife habitat (where existing mapping was available), evaluated wetlands - other, unevaluated wetlands, surface water features (watercourses and waterbodies) and key natural heritage features and key hydrologic features and their related vegetation protection zones within the Lake Simcoe Protection Plan watershed boundary. Woodland mapping data was created from the provincial 2022/2023 LiDAR imagery for a more accurate woodland boundary identification.

Natural feature definitions and significance criteria were based on existing information where available from the background materials reviewed in section 2 above; however, the Natural Heritage Reference Manual (NHRM) (OMNR 2010) was used as the overarching guidance document.

For the purpose of identifying and mapping significant woodlands, criteria were determined using the NHRM (OMNR 2010) and City of Barrie's Official Plan. The City of Barrie's Official Plan was used as it will direct land use planning decisions for those lands proposed for annexation. The Natural Heritage System in the City's Official Plan contains three levels of protection for woodlands. Based on the definition and / or criteria of the natural feature component, its associated level of protection and the permitted uses, woodlands can be significant at any size. Therefore, all woodlands within the study area have been mapped and constraint rankings applied.

### 3.2. Preliminary Ecological Buffers

A buffer is an area of land that is located adjacent to a natural heritage feature that often borders lands subject to development or site alteration. The purpose of the buffer is to protect the natural heritage feature and its ecological functions by mitigating the impacts of development, change in adjacent land use, or site alteration.

Buffers are typically vegetated, either through plantings or natural regeneration, and the vegetation enhances the functional ability of the buffer to mitigate the impacts to the ecological feature. The extent of the buffer and activities permitted within it should be based on the sensitivity and significance of the natural heritage feature(s) it is designed to protect, as determined by an environmental study.

Preliminary ecological buffers were included in the constraints assessment and corresponding mapping. Buffer criteria included a 30 metre wide area from significant wetlands, significant woodlands, and watercourses. The preliminary ecological buffer is considered ecologically appropriate at this time given the uncertainty of adjacent land uses. The preliminary buffer follows the precautionary approach, as recommended by the NHRM (OMNR 2010) when there is a lack of information about the sensitivity of the feature and potential impacts are unknown. As a preliminary buffer width, it is acknowledged that through more detailed studies a narrower or wider buffer may be determined to be more ecologically appropriate.

### 3.3. Preliminary Linkage Areas

Preliminary linkage areas provide ecological connectivity between natural features and areas. Linkage areas support the movement of wildlife and plants (including genetic material such as seeds) between natural features/areas and contribute to long-term sustainability of natural areas. These areas are identified and subsequently naturalized / enhanced when there is a change in land use from a permeable landscape (e.g., agricultural land use) to an impermeable landscape (e.g., residential, commercial, industrial land use).

The criteria used to identify linkages may vary depending on the scale being considered. Geographic scale is a strong consideration in the identification of linkages. Linkages that are designed to function at the landscape scale may be wider compared to connections at the local or site scale, with corridor widths ranging from 50 meters for general species to up to 500 meters in rural areas for species that require interior forest habitat (OMNR 2010).

The criteria used to identify preliminary linkage areas are as follows:

**Linkage Width:** 50 metres

**Distance between features:** No minimum distance

## Linkage Criteria:

Linkages were identified between the following features:

- Woodlands >4 hectares in size
- Wetlands/waterbodies >0.5 hectares in size

### 3.4. Conservation Authority Regulations

Ontario Regulation (O. Reg.) 41/24 under the Conservation Authorities Act gives the Nottawasaga Valley Conservation Authority (NVCA) and Lake Simcoe Region Conservation Authority (LSRCA) the authority to regulate development, interference with wetlands and alterations to shorelines and watercourses. Generally, the NVCA and LSRCA regulates floodplains, hazard lands, wetlands, and 30 metre wetland and watercourse setbacks.

Data from the NVCA was used for wetlands, surface water features and regulated areas including floodplains and regulated setbacks. For lands within the LSRCA watershed, only the regulated areas have been mapped (e.g., individual components were not mapped).

### 3.5. Lake Simcoe Protection Plan

The Lake Simcoe Protection Plan (2009) is a comprehensive plan to address environmental threats, reduce pollutants like phosphorus, and restore the ecological health (e.g., fish and other aquatic life) of Lake Simcoe and its watershed. The Lake Simcoe Protection Plan contains policies that protect key natural heritage features (wetlands, significant woodlands and significant valleylands), key hydrologic features (wetlands, permanent and intermittent streams, and lakes other than Lake Simcoe), and requires 30 metre vegetation protection zones.

The Lake Simcoe Protection Plan watershed boundary is identified on **Figures 3a, 3b, and 3e**. Key natural heritage features, key hydrologic features and their related 30 metre vegetation protection zones within the Plan area have been identified on **Figures 2a, 2b, and 2e**.

## 4. Identification of Constraint Levels (High, Medium, Low)

Based on the background and secondary review, the natural heritage features and other components within the study area have been assessed to determine areas of High, Medium and Low Constraint levels. These are summarized in **Appendix 2** and described below. Constraints mapping for the study area is included on **Figures 4a - 4e and Figure 5**.

The definitions, criteria and policies from the PPS 2024 as well as the City of Barrie's Official Plan were used to determine the constraint rankings. The City of Barrie's Official Plan was used as it will direct land use planning decisions for those lands that are proposed for annexation.

Regard was given for the Official Plans for Township of Springwater, the Township of Oro-Medonte and County of Simcoe. These official plans were considered informative, rather than determinative, for this assessment.

### High Constraint

Areas of 'High Constraint' have legislative or policy restrictions that require them to be protected or must generally be retained, with some / limited exceptions. Features that can be mapped are listed below:

- Areas identified as natural heritage features and areas (e.g., significant wetlands, significant woodlands, significant wildlife habitat (where information was available))
- Surface water features (e.g., watercourses, streams)
- NVCA and LSRCA regulated wetlands, watercourses, and setbacks
- Areas identified as key natural heritage features or key hydrologic features and their related 30 metre vegetation protection zones in the Lake Simcoe Protection Plan watershed boundary.

### Medium Constraint

Areas of 'Medium Constraint' may be approved for development, though will generally require a higher threshold of ecological investigations and mitigation assessment. Features that can be mapped are listed below:

- Preliminary ecological buffers
- Preliminary linkage areas

### Low Constraint

Areas of 'Low Constraint' can generally be approved for development following baseline ecological investigations and the application of appropriate mitigation as documented in an environmental study and approved by the reviewing/regulating agency. Features that can be mapped are listed below:

- Floodplains as regulated by the NVCA and LSRCA

## 5. Natural Heritage Constraint Results & Calculations

Based on the natural heritage features and areas and other components that can be mapped, 1349 ha of 2517 ha (53.6%) of the study area is considered non-developable land, which is composed of all three constraint categories:

- High Constraint: 1183 ha (47.0%)

- Medium Constraint: 136 ha (5.4%)
- Low Constraint: 31 ha (1.2%)

The constraint levels are further broken down by Block.

**Table 1. Area (hectares) Summaries of Non-Developable Lands by Block\***

| Block No. | Gross Block Area (ha) | High Constraint (ha) | Medium Constraint (ha) | Low Constraint (ha) | Non-Developable Lands*(ha) |
|-----------|-----------------------|----------------------|------------------------|---------------------|----------------------------|
| 2         | 381.82                | 128.33<br>33.6%      | 20.55<br>5.4%          | 0.37<br>0.1%        | 149.25<br>39.1%            |
| 3         | 192.43                | 4.14<br>2.2%         | 6.03<br>3.1%           | 2.68<br>1.4%        | 12.85<br>6.7%              |
| 4         | 1225.78               | 750.48<br>61.2%      | 56.67<br>4.6%          | 17.81<br>1.5%       | 824.96<br>67.3%            |
| 5         | 183.32                | 81.27<br>44.3%       | 24.56<br>13.4%         | 0.0<br>0%           | 105.83<br>57.7%            |
| 6         | 533.44                | 218.34<br>40.9%      | 27.72<br>5.2%          | 10.33<br>1.9%       | 256.39<br>48.1%            |

\* The area calculations do not include natural heritage features and areas that cannot be mapped due to a lack of information and unavailable mapping data. As a result, these numbers may change.

## 6. Potential Community Buffer

Through previous plenary discussions, a potential community buffer along the northern parts of Blocks 4 and 5 was identified to create separation between the City of Barrie and the Midhurst community. The location, width, and intended use of the community buffer is unknown and is subject to further discussion.

As part of these discussions, the potential for the community buffer to include naturalized areas was questioned. We have provided a summary of natural heritage considerations for the potential transitional zone pertaining to Blocks 4 and 5.

### Block 4

The Provincially Significant Willow Creek/Little Lake Wetlands, as well as other natural heritage features, extend along most of the northern boundary in Block 4. Development is not permitted within Provincially Significant Wetlands in accordance with the PPS 2024 and the County and Local Official Plans. As a result, there would be a natural separation from any development on lands in the southeastern part of Block 4.



The lands north of Patridge Road in Block 4, on both the east and west sides of Highway 400, are currently farmed. Linkage area criteria were not met due to the limited natural heritage features present in this area; therefore, a preliminary linkage was not identified and mapped.

## Block 5

There is an opportunity for a preliminary linkage area from Willow Creek/Little Lake to natural heritage features (e.g., woodlands, potential wildlife habitat) to the west.

A preliminary linkage area was identified along the northern boundary of Block 5 on **Figure 2c**. The final location, shape, and width of the linkage area should be analyzed and determined through a subwatershed study or environmental impact study when more detailed information of the natural heritage features and their ecological functions are known. The linkage area should be naturalized / enhanced as described above in section 3.3.

## 7. References

City of Barrie Official Plan (May 2024)

County of Simcoe Official Plan (Office Consolidation February 2023)

Ontario Endangered Species Act. 2007. Consolidation period, June 5, 2025.

Ontario Ministry of the Environment, Ministry of Natural Resources, Lake Simcoe Region Conservation Authority. 2009. Lake Simcoe Protection Plan 2009.

Ontario Ministry of Municipal Affairs and Housing. 2024. Provincial Planning Statement 2024. 21-22 pp.

Ontario Ministry of Natural Resources (OMNR). 2000. Significant Wildlife Habitat Technical Guide. 151 pp.

Ontario Ministry of Natural Resources (OMNR). 2010. Natural Heritage Reference Manual for Natural Heritage Policies of the Provincial Policy Statement, 2005. Second Edition.

Significant Wildlife Habitat Criteria Schedules for Ecoregion 6E (MNRF 2015)

Township of Oro-Medonte Official Plan (Office Consolidation March 2023)

Township of Springwater Official Plan (Office Consolidation June 2020)

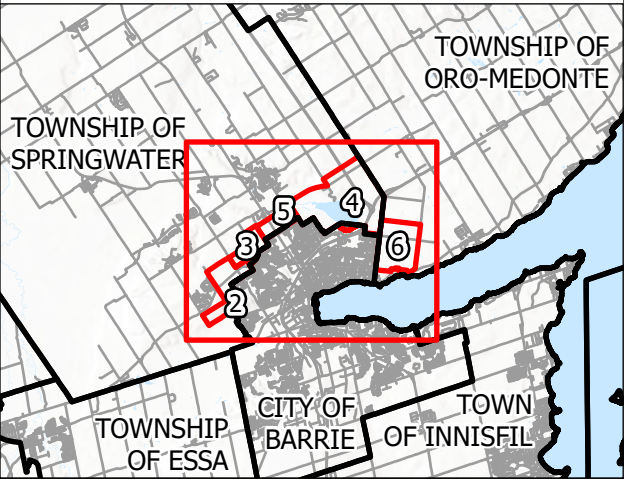
## APPENDIX 1 | Figures





**Figure 1 | Barrie Land Needs Assessment**  
Study Area

- Legend**
- Study Area (Blocks 2 - 6)
  - Adjacent Lands (240 m)



0 500 1,000 1,500 2,000 2,500 Meters

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**Figure 2a | Barrie Land Needs Assessment**

Natural Heritage Constraints  
Block 2

**Legend**

- Study Area - Block 2
- Study Area - Other Blocks
- Adjacent Lands (240 m)
- Significant Woodlands (LiDAR-derived; NSE)

**Wetlands**

- Evaluated Wetland - Significant (OMNRF, Ontario Geohub)
- Evaluated Wetland - Other (OMNRF, Ontario Geohub)
- Unevaluated Wetland (OMNRF, Ontario Geohub)
- Unevaluated Wetland (NVCA)

**Surface Water Features**

- Waterbody (NVCA, Ontario Geohub)
- Watercourses (NVCA, Ontario Geohub)

**Buffers and Setbacks**

- Regulated 30 m wetland setback (NVCA)
- Preliminary Ecological Buffer

0 250 500 750 1,000 Meters

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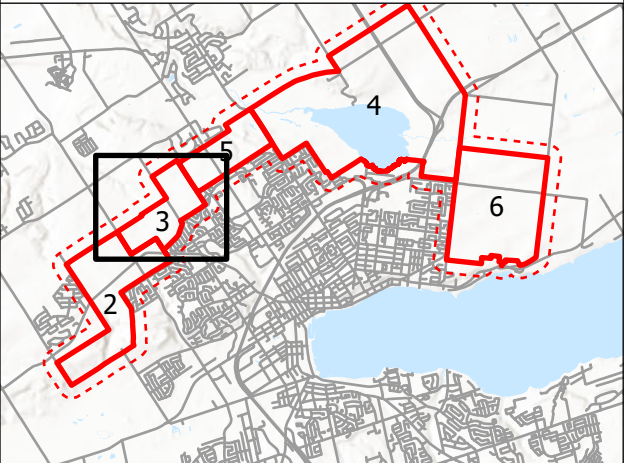
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**Figure 2b | Barrie Land Needs Assessment**  
Natural Heritage Constraints  
Block 3

- Legend**
- Study Area - Block 3
  - Study Area - Other Blocks
  - Adjacent Lands (240 m)
  - Significant Woodlands (LIDAR-derived; NSE)
- Wetlands**
- Evaluated Wetland - Significant (OMNRF, Ontario Geohub)
  - Evaluated Wetland - Other (OMNRF, Ontario Geohub)
  - Unevaluated Wetland (OMNRF, Ontario Geohub)
  - Unevaluated Wetland (NVCA)
- Surface Water Features**
- Watercourses (NVCA, Ontario Geohub)
  - Waterbody (NVCA, Ontario Geohub)
- Buffers and Setbacks**
- Regulated 30 m wetland setback (NVCA)
  - Preliminary Ecological Buffer
  - Preliminary Linkage
  - PreliminaryLinkage



0 250 500 Meters

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**Figure 2c | Barrie Land Needs Assessment**  
Natural Heritage Constraints  
Block 5

**Legend**

Study Area - Block 5

Study Area - Other Blocks

Adjacent Lands (240 m)

Significant Woodlands (LiDAR-derived; NSE)

**Wetlands**

Evaluated Wetland - Significant (OMNRF, Ontario Geohub)

Evaluated Wetland - Other (OMNRF, Ontario Geohub)

Unevaluated Wetland (OMNRF, Ontario Geohub)

Unevaluated Wetland (NVCA)

**Surface Water Features**

Waterbody (NVCA, Ontario Geohub)

Watercourses (NVCA, Ontario Geohub)

**Buffers and Setbacks**

Regulated 30 m wetland setback (NVCA)

Preliminary Ecological Buffer

Preliminary Linkage

0250500

Meters

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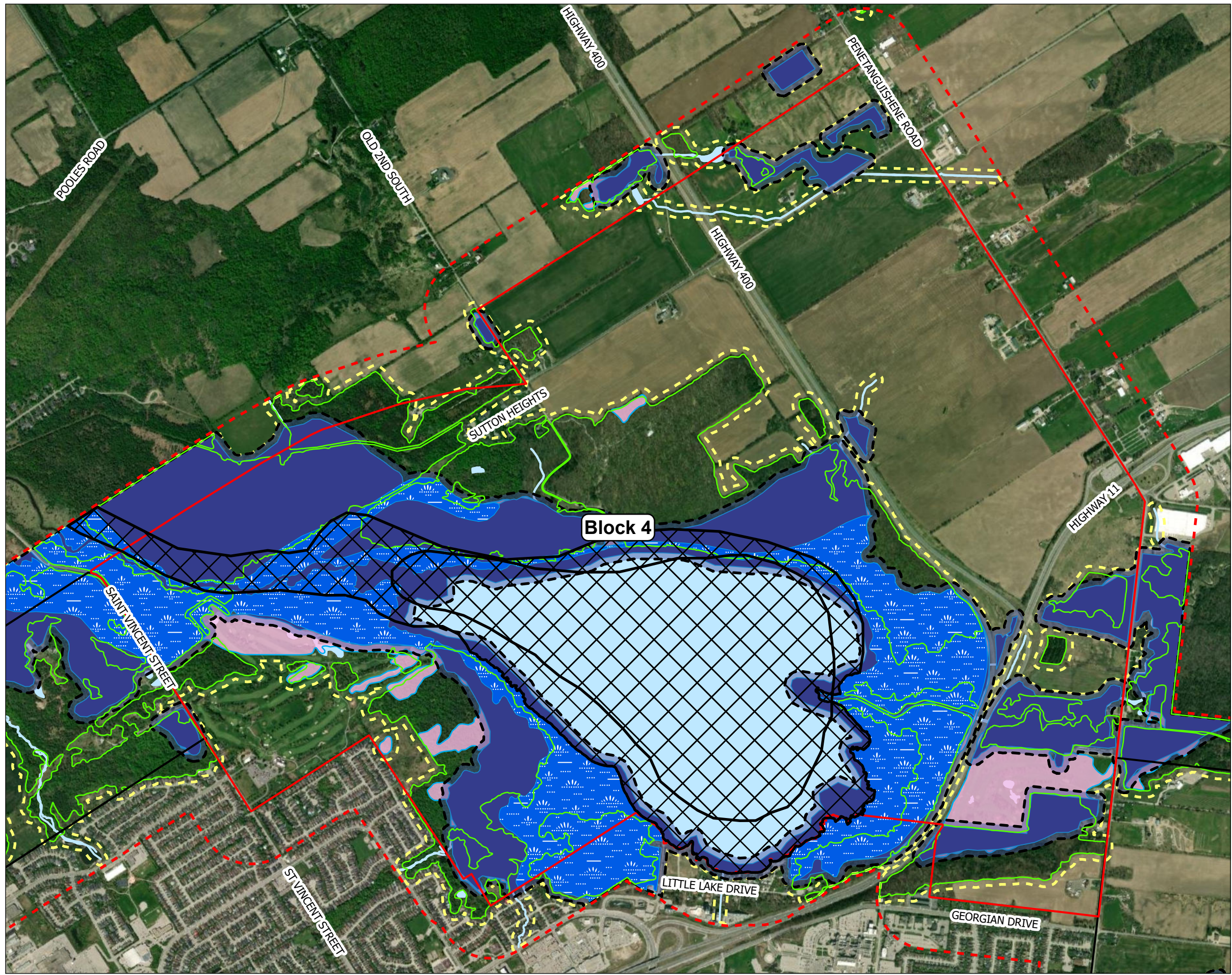
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**Figure 2d | Barrie Land Needs Assessment**  
Natural Heritage Constraints  
Block 4

**Legend**

- Study Area - Block 4
- Study Area - Other Blocks
- Adjacent Lands (240 m)
- Significant Woodlands (LiDAR-derived; NSE)
- Significant Wildlife Habitat (OMNRF, Ontario Geohub)

**Wetlands**

- Evaluated Wetland - Significant (OMNRF, Ontario Geohub)
- Evaluated Wetland - Other (OMNRF, Ontario Geohub)
- Unevaluated Wetland (OMNRF, Ontario Geohub)
- Unevaluated Wetland (NVCA)

**Surface Water Features**

- Waterbody (NVCA, Ontario Geohub)
- Watercourses (NVCA, Ontario Geohub)

**Buffers and Setbacks**

- Regulated 30 m wetland setback (NVCA)
- Preliminary Ecological Buffer

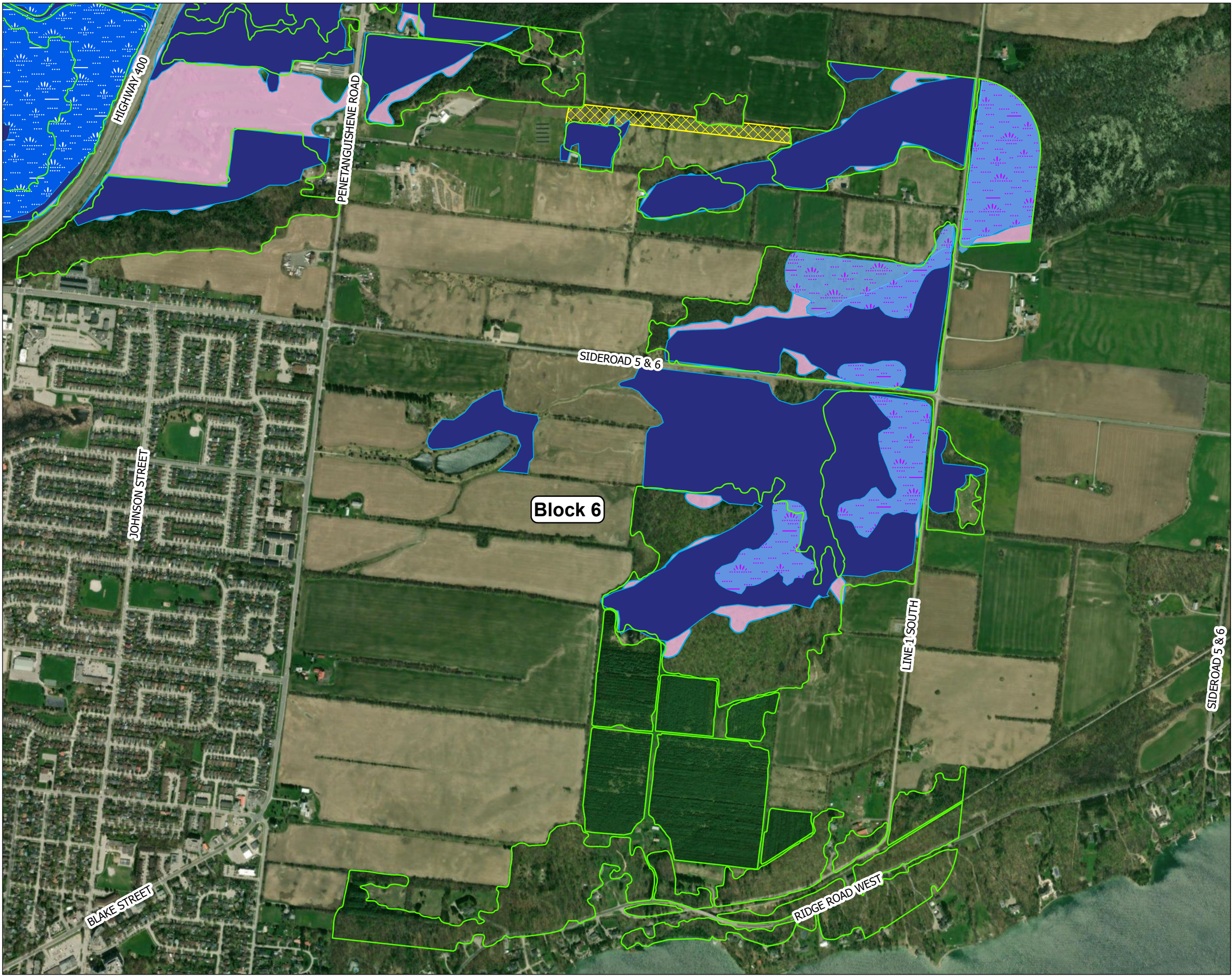
0 250 500 750 1,000 1,300 Meters

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**Figure 2e | Barrie Land Needs Assessment**

Natural Heritage Constraints  
Block 6

**Legend**

Significant Woodlands (LiDAR-derived; NSE)

**Wetlands**

- Evaluated Wetland - Significant (OMNRF, Ontario Geohub)
- Evaluated Wetland - Other (OMNRF, Ontario Geohub)
- Unevaluated Wetland (OMNRF, Ontario Geohub)
- Unevaluated Wetland (NVCA)
- Preliminary Linkage

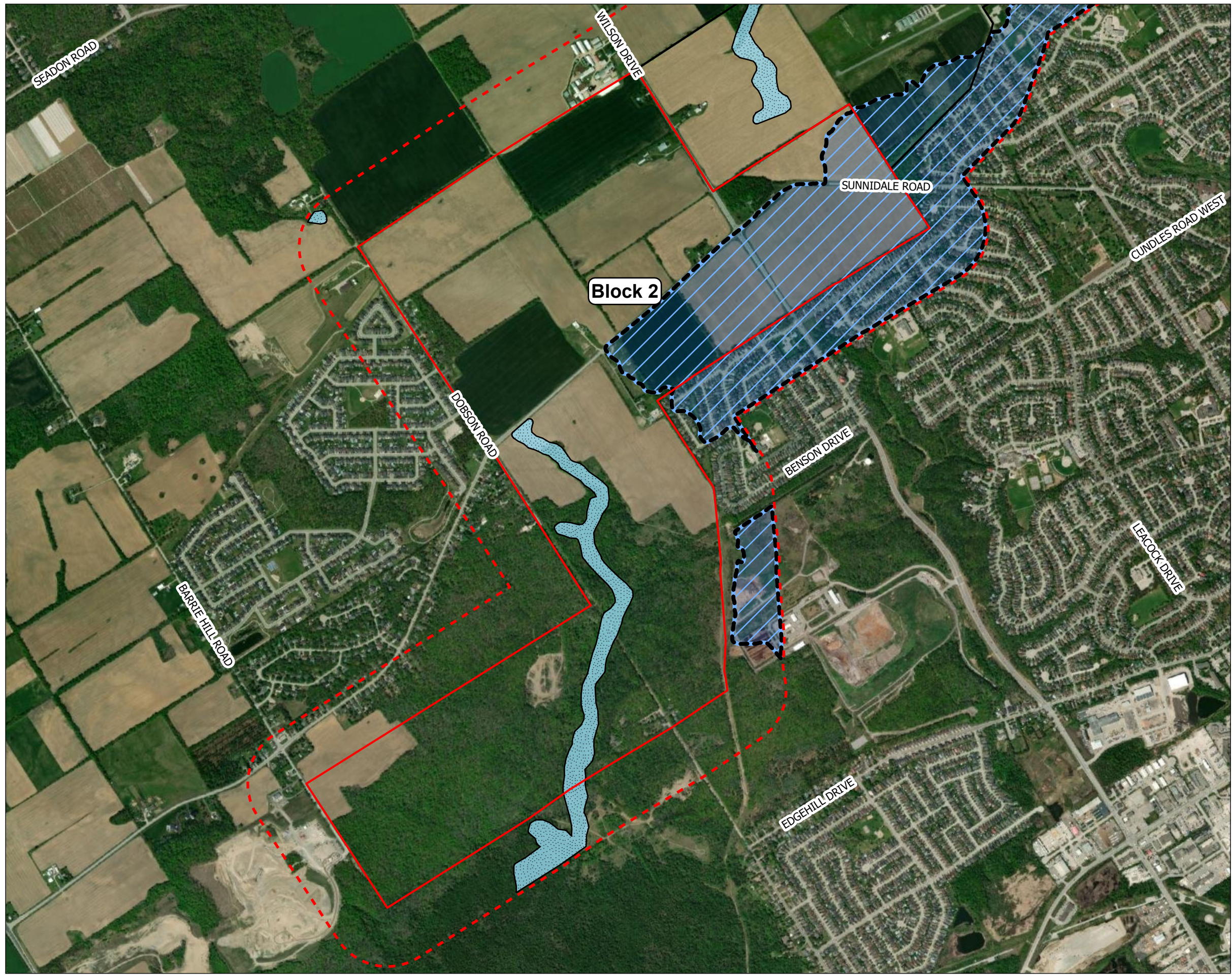
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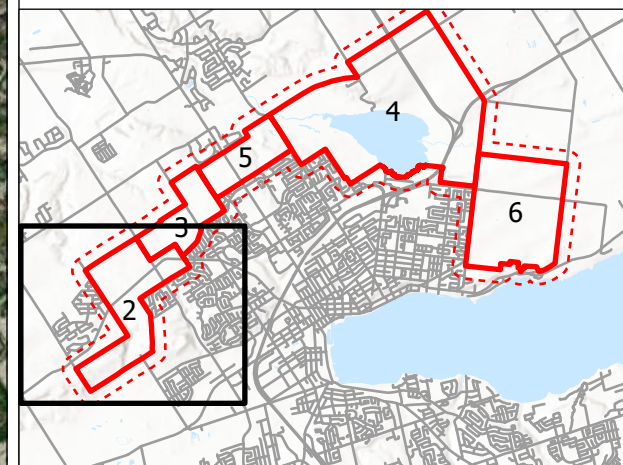
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**Figure 3a | Barrie Land Needs Assessment**  
Other Constraint Considerations  
Block 2

- Legend**
- Study Area - Block 2
  - Study Area - Other Blocks
  - Adjacent Lands (240 m)
  - Regulatory Floodplain (NVCA)
  - Lake Simcoe Protection Act Watershed Boundary



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### Figure 3b | Barrie Land Needs Assessment

#### Other Constraint Considerations Block 3

**Legend**

- Study Area - Block 3
- Study Area - Other Blocks
- Adjacent Lands (240 m)
- Lake Simcoe Protection Act Watershed Boundary
- Regulatory Floodplain (NVCA)

0 250 500 Meters

|                           |                     |   |
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**Figure 3c | Barrie Land Needs Assessment**  
Other Constraint Considerations  
Block 5

**Legend**  

- Study Area - Block 5
- Study Area - Other Blocks
- Adjacent Lands (240 m)
- Regulatory Floodplain (NVCA)

0 250 500 Meters

|                           |                     |        |
|---------------------------|---------------------|--------|
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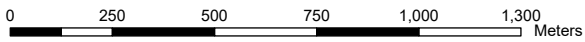
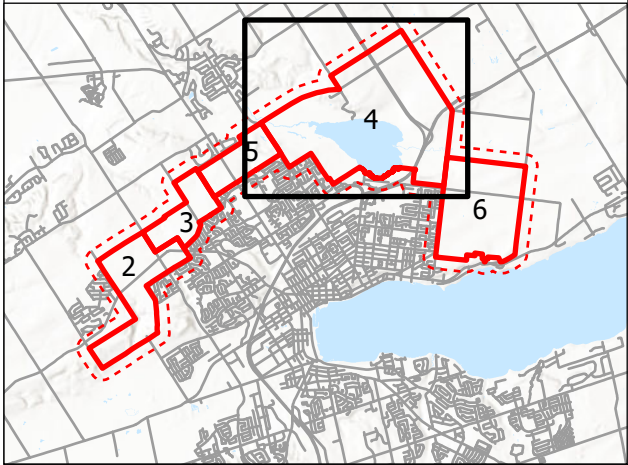
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**Figure 3d | Barrie Land Needs Assessment**  
Other Constraint Considerations  
Block 4

- Legend**
- Study Area - Block 4
  - Study Area - Other Blocks
  - Adjacent Lands (240 m)
  - Regulatory Floodplain (NVCA)



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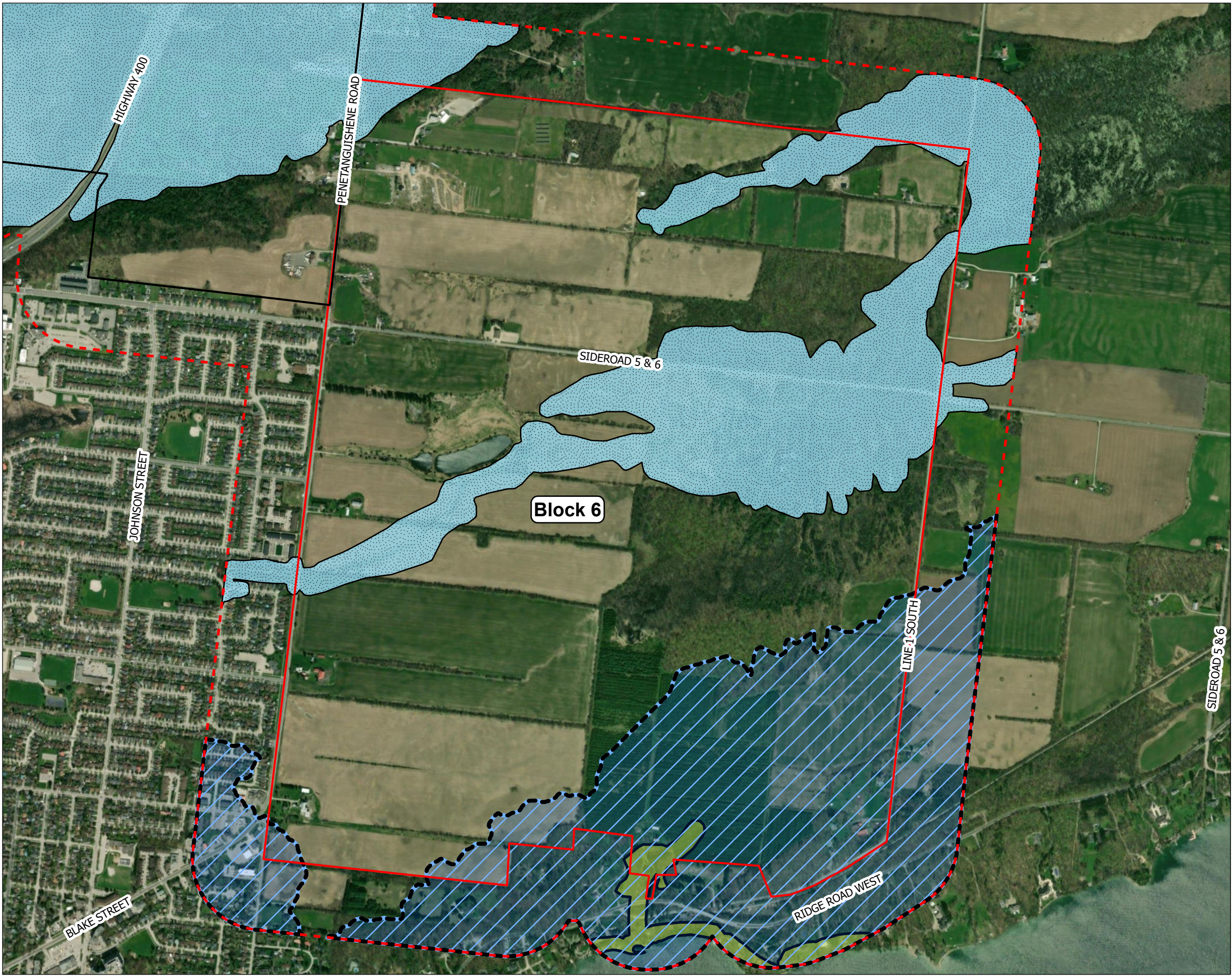
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**Figure 3e | Barrie Land Needs Assessment**

Other Constraint Considerations  
Block 6

**Legend**

- Study Area - Block 6
- Study Area - Other Blocks
- Adjacent Lands (240 m)
- Lake Simcoe Protection Act Watershed Boundary
- Regulatory Floodplain (NVCA)
- LSRCA Regulation Limit

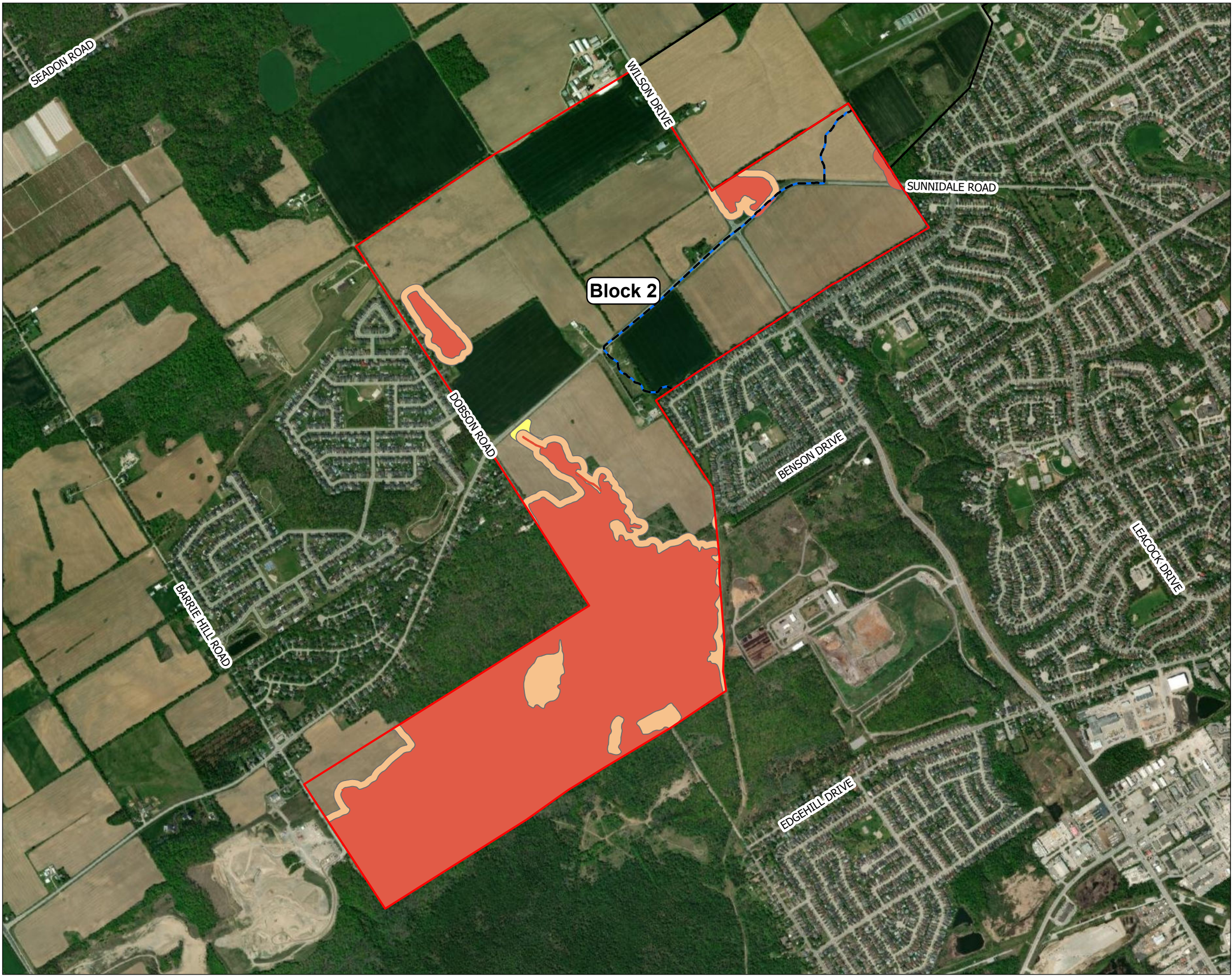
0 250 500 750 Meters

|                           |                     |   |
|---------------------------|---------------------|---|
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|---------------------------|---------------------|---|

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**Figure 4a | Barrie Land Needs Assessment**  
Constraint Rankings & Non-Developable Lands - Block 2

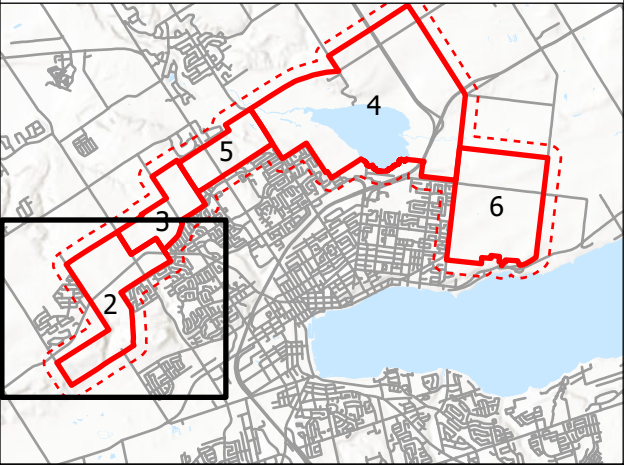
**Legend**

- Study Area - Block 2
- Study Area - Other Blocks
- Lake Simcoe Protection Act Watershed Boundary

**Non-developable Lands**

Natural Heritage Constraint Ranking

- Block 2 - Low Constraint
- Block 2 - Medium Constraint
- Block 2 - High Constraint



0 250 500 750 1,000 Meters

|                           |                     |        |
|---------------------------|---------------------|--------|
| Project Number<br>25-1497 | Date:<br>2025-09-18 | N<br>▲ |
|---------------------------|---------------------|--------|

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**Figure 4b | Barrie Land Needs Assessment**  
Constraint Rankings & Non-Developable Lands - Block 3

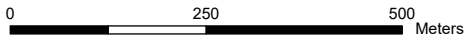
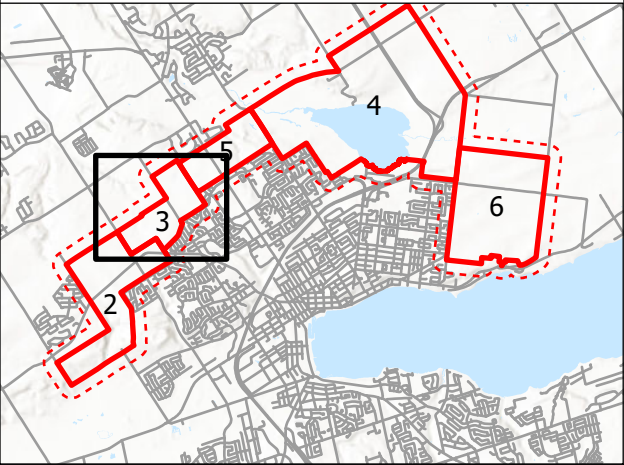
**Legend**

- Study Area - Block 3
- Study Area - Other Blocks
- Lake Simcoe Protection Act Watershed Boundary

**Non-developable Lands**

Natural Heritage Constraint Ranking

- Block 3 - Low Constraint
- Block 3 - Medium Constraint
- Block 3 - High Constraint

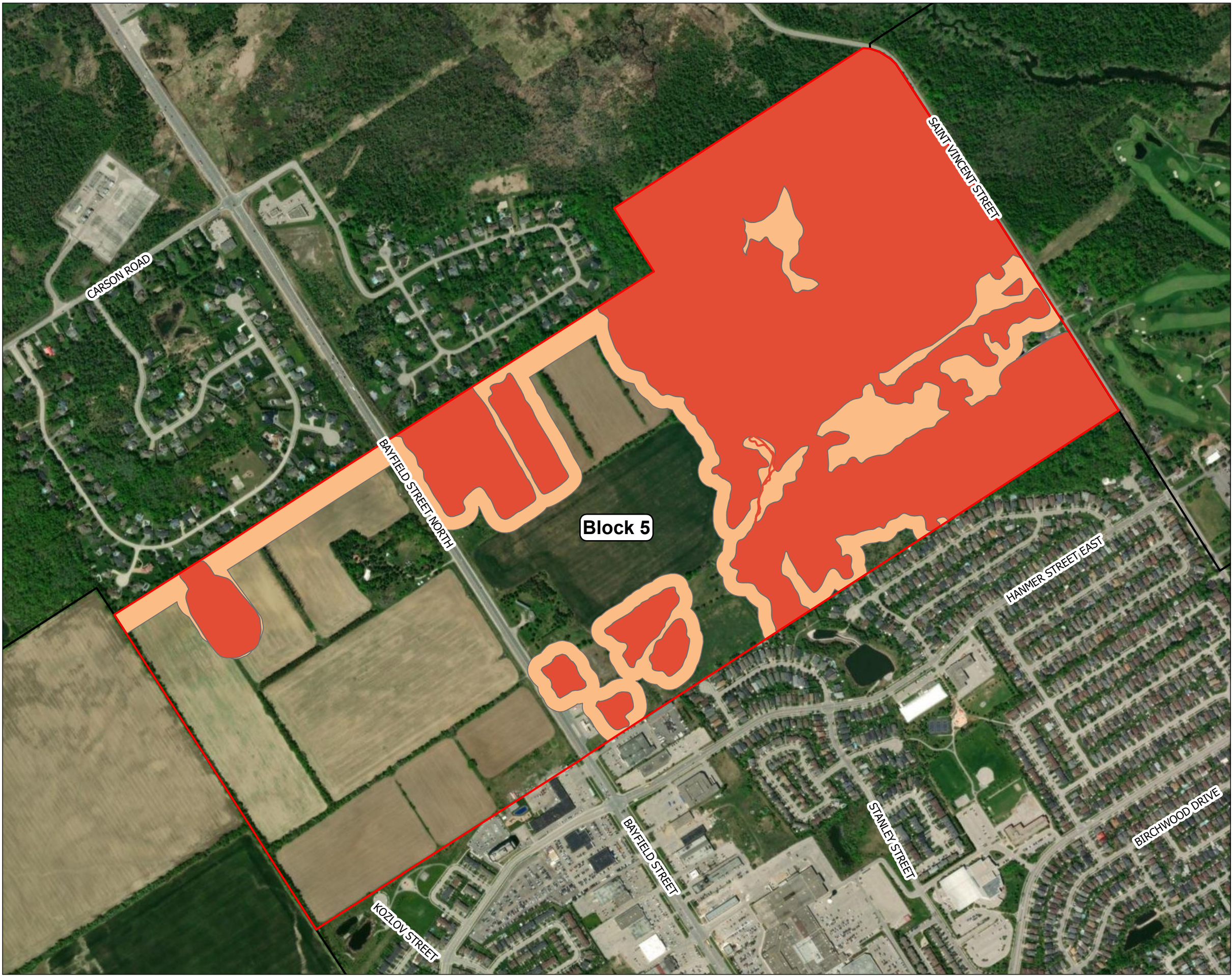


|                           |                     |  |
|---------------------------|---------------------|--|
| Project Number<br>25-1497 | Date:<br>2025-09-18 |  |
|---------------------------|---------------------|--|

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**Figure 4c | Barrie Land Needs Assessment**  
Constraint Rankings & Non-Developable Lands - Block 5

**Legend**

 Study Area - Block 5

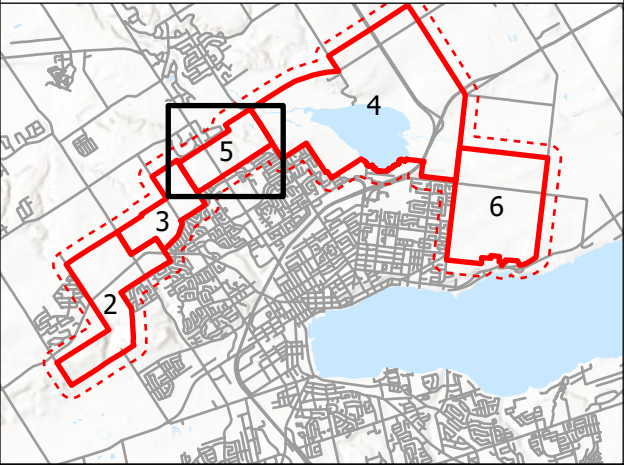
 Study Area - Other Blocks

**Non-developable Lands**

Natural Heritage Constraint Ranking

 Block 5 - Medium Constraint

 Block 5 - High Constraint



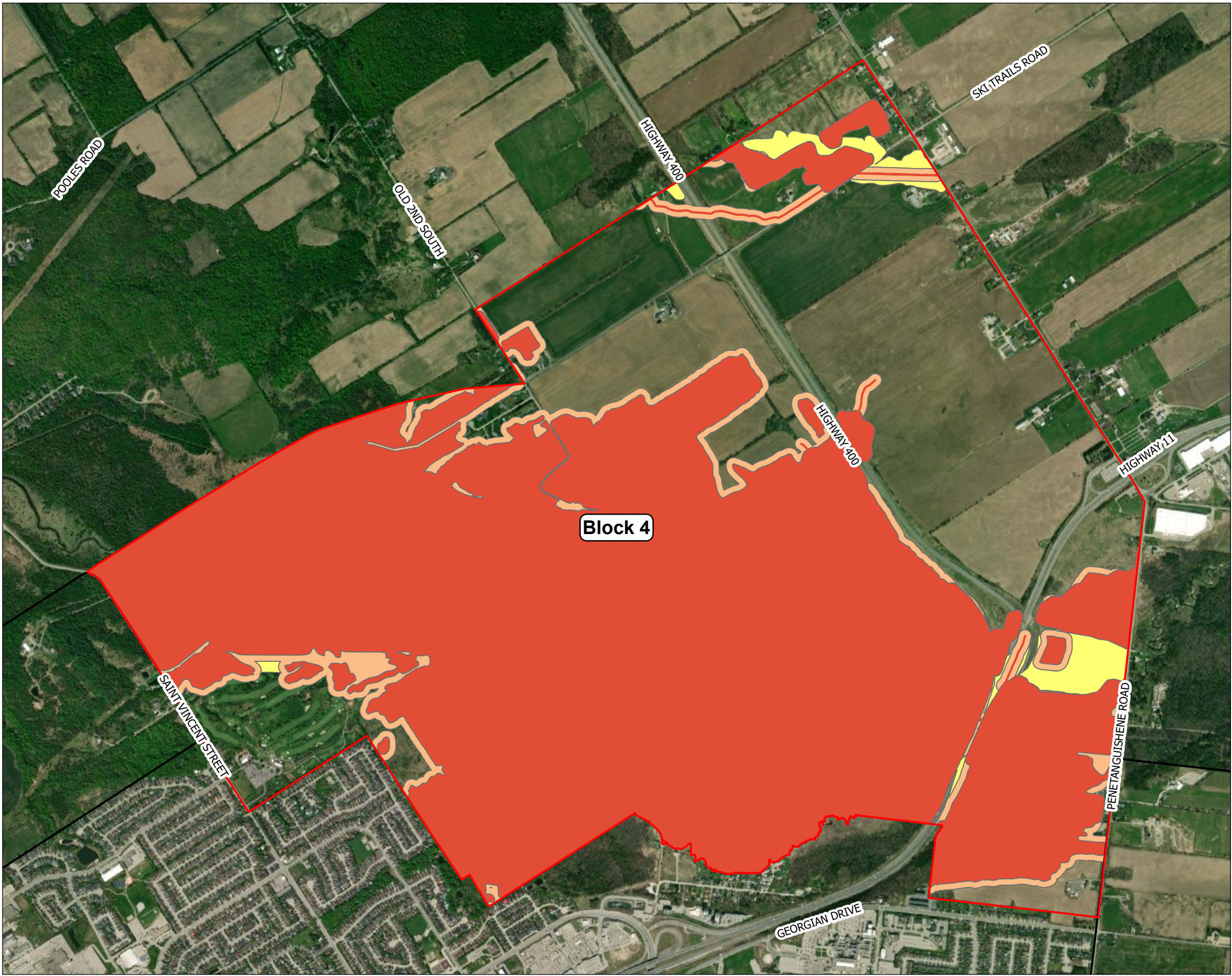
0 250 500 Meters

|                           |                     |                                                                                       |
|---------------------------|---------------------|---------------------------------------------------------------------------------------|
| Project Number<br>25-1497 | Date:<br>2025-09-18 |  |
|---------------------------|---------------------|---------------------------------------------------------------------------------------|

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**Figure 4d | Barrie Land Needs Assessment**  
Constraint Rankings & Non-Developable Lands - Block 4

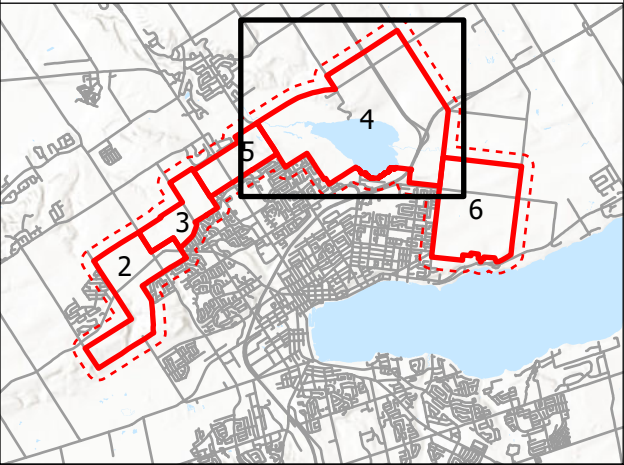
**Legend**

Study Area - Block 4 (red outline)  
Study Area - Other Blocks (black outline)

**Non-developable Lands**

Natural Heritage Constraint Ranking

- Block 4 - Low Constraint (yellow)
- Block 4 - Medium Constraint (orange)
- Block 4 - High Constraint (red)

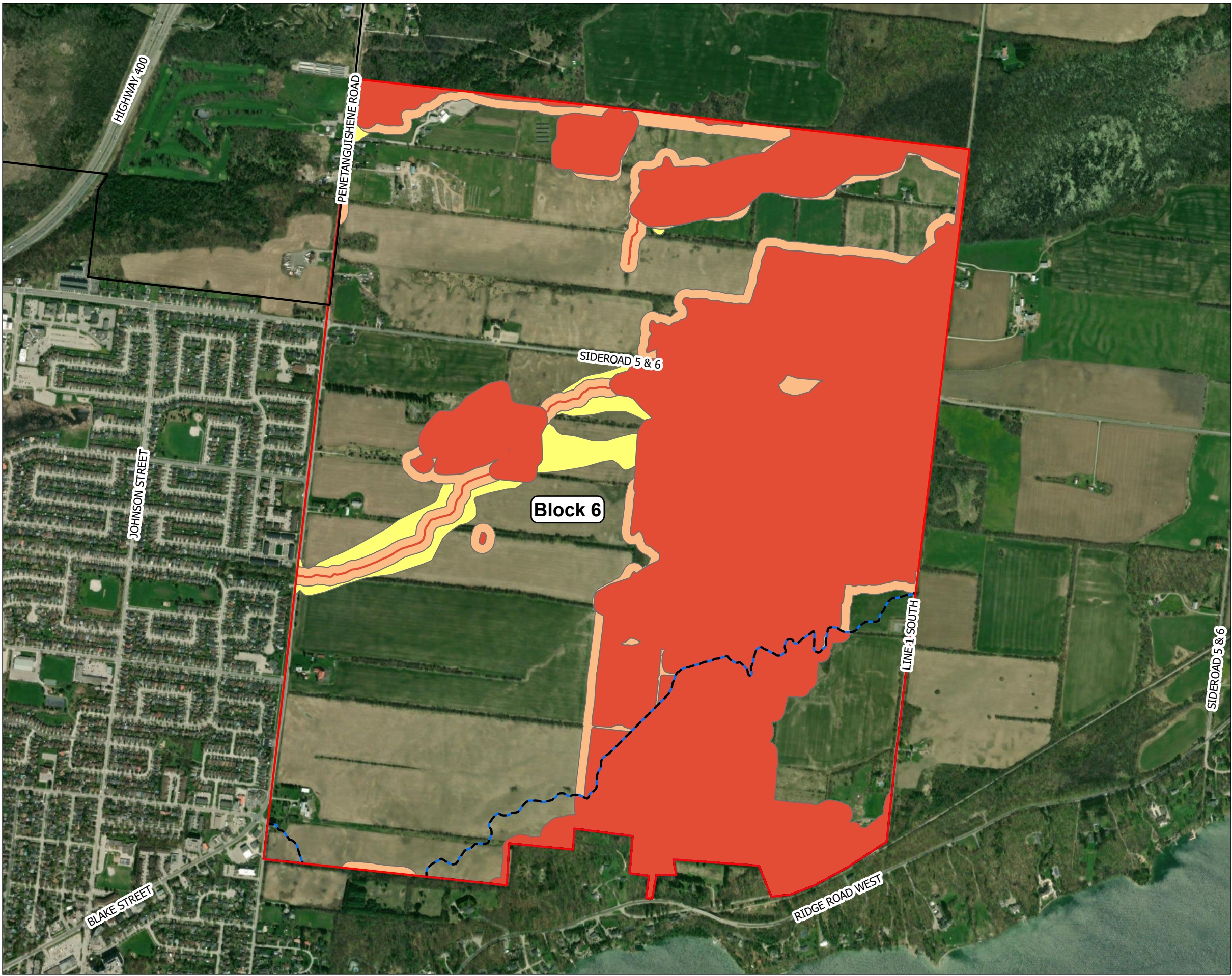


0 250 500 750 1,000 1,300 Meters

|                           |                     |        |
|---------------------------|---------------------|--------|
| Project Number<br>25-1497 | Date:<br>2025-09-18 | N<br>▲ |
|---------------------------|---------------------|--------|

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**Figure 4e | Barrie Land Needs Assessment**  
Constraint Rankings & Non-Developable Lands - Block 6

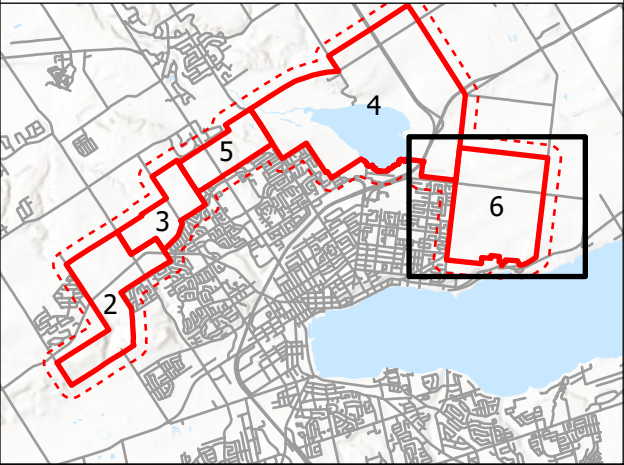
**Legend**

- Study Area - Block 6
- Study Area - Other Blocks
- Lake Simcoe Protection Act Watershed Boundary

**Non-developable Lands**

Natural Heritage Constraint Ranking

- Block 6 - Low Constraint
- Block 6 - Medium Constraint
- Block 6 - High Constraint



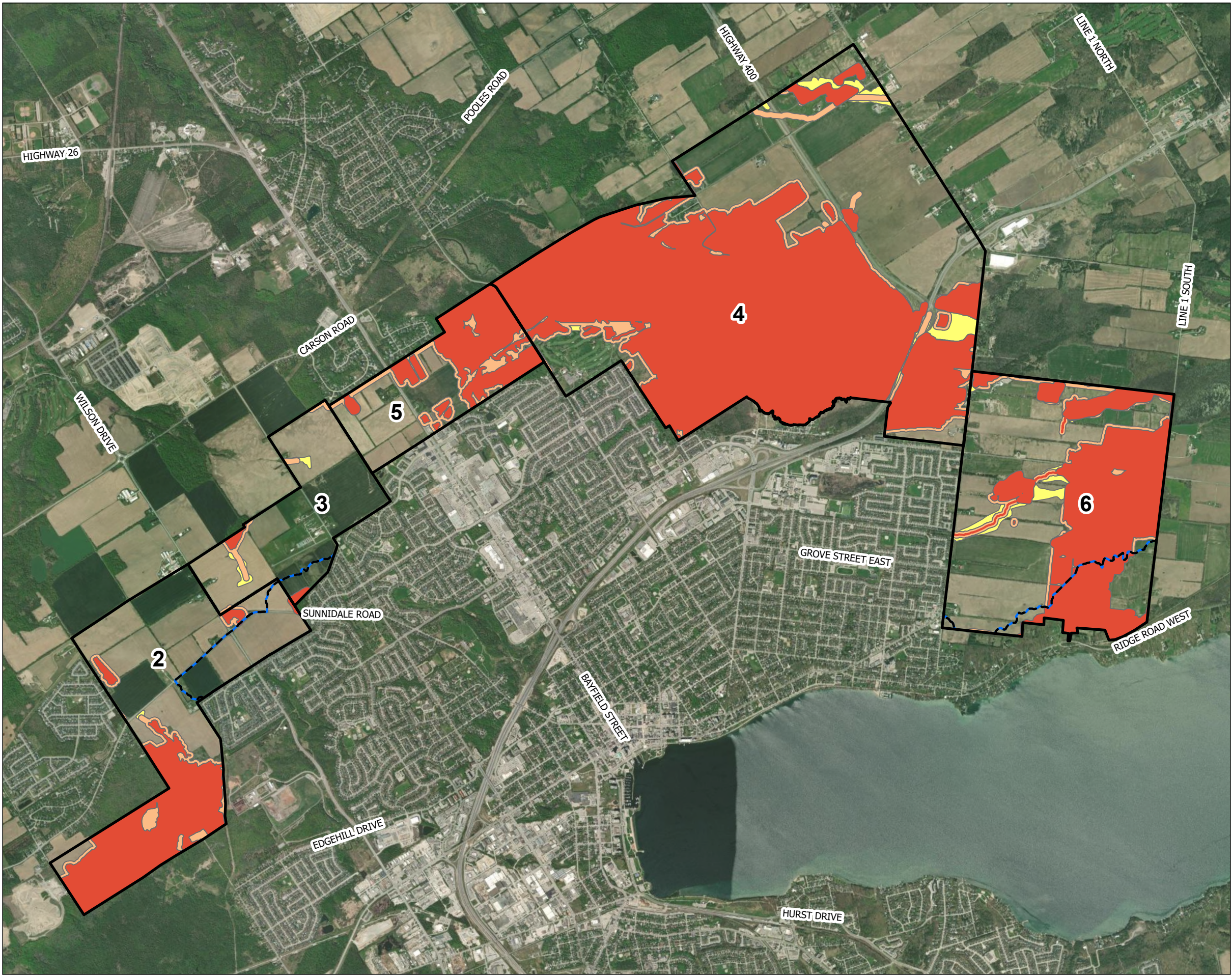
0 250 500 750 Meters

|                           |                     |   |
|---------------------------|---------------------|---|
| Project Number<br>25-1497 | Date:<br>2025-09-18 | N |
|---------------------------|---------------------|---|

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Imagery: ESRI







## Barrie Land Needs Assessment

### Constraint Rankings & Non-Developable Lands

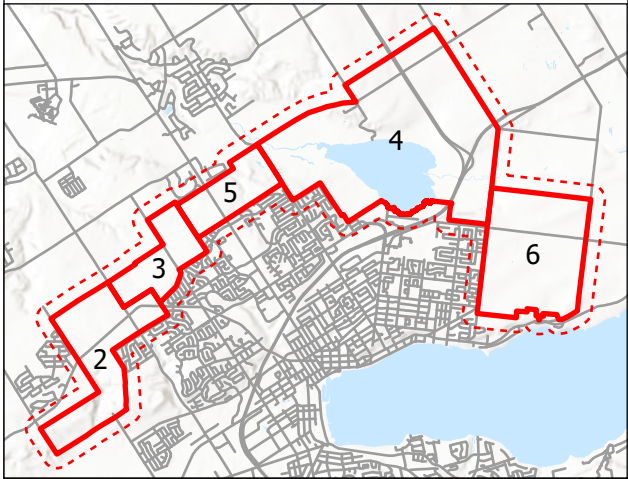
#### Legend

- Study Area - Blocks 2- 6
- Lake Simcoe Protection Act Watershed Boundary

#### Non-developable Lands

Natural Heritage Constraint Ranking

- Low Constraint
- Medium Constraint
- High Constraint



0 500 1,000 1,500 2,000 2,500 Meters

Project Number  
25-1497

Date:  
2025-10-22



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## **APPENDIX 2 |** Natural Heritage Components, Criteria Mapping and Constraint Rankings



Appendix 2. Natural Heritage Components, Criteria Mapping, and Constraint Rankings

| Natural Features and Other Constraints                                                                                                             | Simcoe County <sup>1</sup><br>Natural Heritage component<br>(Yes/-)<br>Mapped/Not mapped | Springwater <sup>2</sup><br>Natural Heritage component<br>(Yes/-)<br>Mapped/Not mapped | Oro-Medonte <sup>3</sup><br>Natural Heritage component<br>(Yes/-)<br>Mapped/Not mapped | Barrie <sup>4</sup><br>Natural Heritage component<br>(Yes/-)<br>Mapped/Not mapped | Data Source      | Mapped in Report<br>Yes/No | Constraint Ranking<br>High/Medium/Low |
|----------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|------------------|----------------------------|---------------------------------------|
| Natural Heritage Features and Areas (Provincial Planning Statement 2024)                                                                           |                                                                                          |                                                                                        |                                                                                        |                                                                                   |                  |                            |                                       |
| Significant wetlands                                                                                                                               | Yes<br>Mapped                                                                            | Yes<br>Mapped                                                                          | Yes<br>Mapped                                                                          | Yes<br>Mapped                                                                     | LIO; NVCA        | Yes                        | High                                  |
| Significant woodlands                                                                                                                              | Yes<br>Mapped                                                                            | Yes<br>Mapped                                                                          | Yes<br>Mapped                                                                          | Yes<br>Mapped                                                                     | Barrie OP; NHRM  | Yes                        | High                                  |
| Significant valleylands                                                                                                                            | Yes<br>Not mapped                                                                        | Yes<br>Not mapped                                                                      | Yes<br>Not mapped                                                                      | Yes<br>Not mapped                                                                 | -                | No                         | High                                  |
| Significant wildlife habitat                                                                                                                       | Yes<br>Not mapped                                                                        | Yes<br>Mapped (incomplete)                                                             | Yes<br>Not mapped                                                                      | Yes<br>Not mapped                                                                 | LIO              | Yes - incomplete           | High                                  |
| Fish habitat                                                                                                                                       | Yes<br>Not mapped                                                                        | Yes<br>Not mapped                                                                      | Yes<br>Not mapped                                                                      | Yes<br>Not mapped                                                                 | -                | No                         | Medium                                |
| Habitat of endangered species and threatened species                                                                                               | Yes<br>Not mapped                                                                        | Yes<br>Not mapped                                                                      | Yes<br>Not mapped                                                                      | Yes<br>Not mapped                                                                 | -                | No                         | Medium                                |
| Other Components                                                                                                                                   |                                                                                          |                                                                                        |                                                                                        |                                                                                   |                  |                            |                                       |
| Evaluated wetlands - other                                                                                                                         | -                                                                                        | Yes<br>Mapped                                                                          | Yes<br>Mapped                                                                          | Yes<br>Mapped                                                                     | LIO; NVCA        | Yes                        | High                                  |
| Unevaluated wetlands                                                                                                                               | -                                                                                        | Yes<br>Mapped                                                                          | Yes<br>Mapped                                                                          | Yes<br>Mapped                                                                     | LIO; NVCA        | Yes                        | High                                  |
| Locally significant wetlands                                                                                                                       | Yes<br>Not mapped                                                                        | Yes<br>Not mapped                                                                      | Yes<br>Not mapped                                                                      | -                                                                                 | -                | No                         | Medium                                |
| Surface water features                                                                                                                             | -                                                                                        | Yes<br>Mapped                                                                          | Yes<br>Mapped                                                                          | Yes<br>Mapped                                                                     | OHN; OMNRF; NVCA | Yes                        | High                                  |
| Cultural thickets, cultural meadows, other woodlands                                                                                               | -                                                                                        | -                                                                                      | -                                                                                      | Yes<br>Mapped                                                                     | -                | No                         | Medium                                |
| Preliminary ecological buffers                                                                                                                     | -                                                                                        | Yes<br>Not mapped                                                                      | Yes<br>Not mapped                                                                      | Yes<br>Not mapped                                                                 | Barrie OP; NHRM  | Yes                        | Medium                                |
| Preliminary linkage areas                                                                                                                          | Yes<br>Not mapped                                                                        | Yes<br>Not mapped                                                                      | Yes<br>Not mapped                                                                      | Yes<br>Mapped                                                                     | NHRM             | Yes                        | Medium                                |
| Corridors                                                                                                                                          | -                                                                                        | -                                                                                      | Yes<br>Mapped                                                                          | -                                                                                 | -                | No                         | Low                                   |
| Public lands                                                                                                                                       | Yes<br>Not mapped                                                                        | -                                                                                      | Yes<br>Not mapped                                                                      | -                                                                                 | -                | No                         | Low                                   |
| Regulated setbacks and wetlands                                                                                                                    | -                                                                                        | -                                                                                      | -                                                                                      | -                                                                                 | NVCA             | Yes                        | High                                  |
| Regulated floodplain                                                                                                                               | -                                                                                        | -                                                                                      | -                                                                                      | -                                                                                 | NVCA; LSRCA      | Yes                        | Low                                   |
| Key natural heritage features, key hydrologic features, and 30 m vegetation protection zones in the Lake Simcoe Protection Plan watershed boundary | -                                                                                        | -                                                                                      | -                                                                                      | -                                                                                 | LIO              | Yes                        | High                                  |

<sup>1</sup> County of Simcoe Official Plan (Office Consolidation February 2023)  
<sup>2</sup> Township of Springwater Official Plan (Office Consolidation June 2020)  
<sup>3</sup> Township of Oro-Medonte Official Plan (Office Consolidation March 2023)  
<sup>4</sup> City of Barrie Official Plan (May 2024)