

Haldimand County

Official Plan Update



Help Shape Haldimand's Future

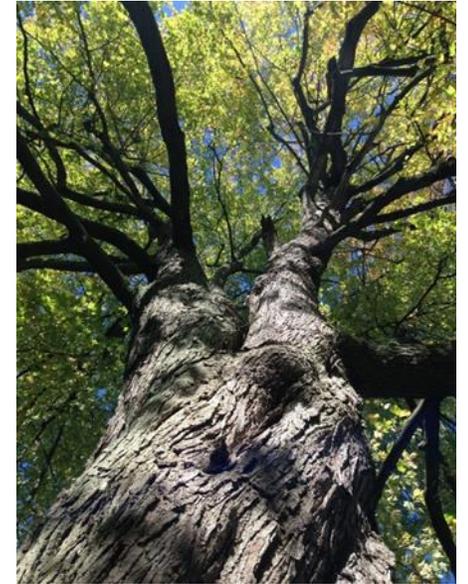
Open House– Natural Heritage System & Hazards

Thursday May 13th, 2021



welcome and **OPENING REMARKS**

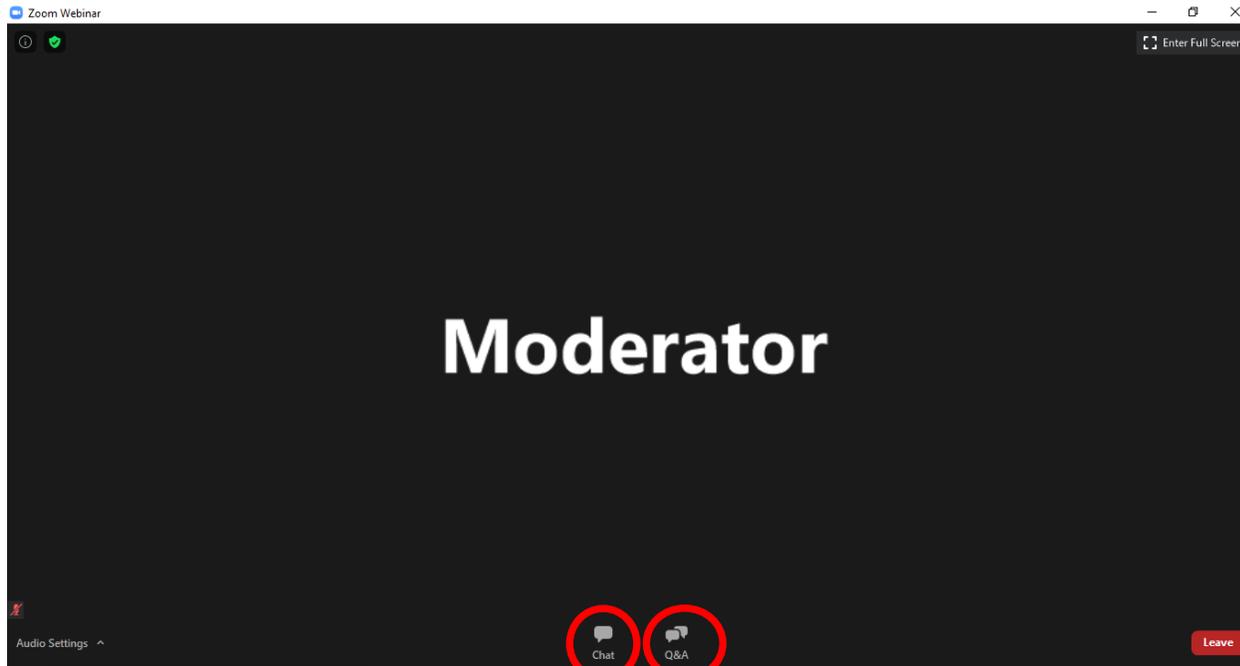
Sharing ideas and insight –
in support of a richly imagined
future.



Zoom Meeting Functions - Attendees

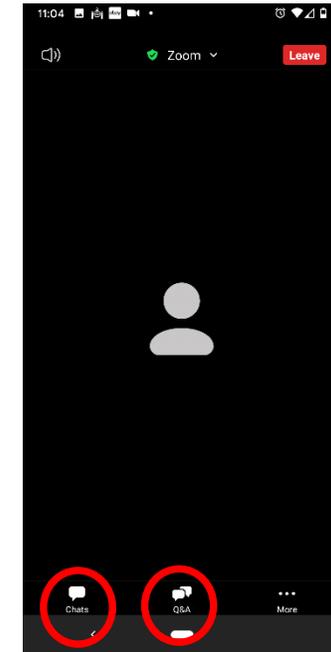
Personal Computer

Smart Phone



Disabled

Write a
Question



Disabled

Write a
Question

If you're having technical problems, please communicate with our hosts using the Q&A icon or email: planning@haldimandcounty.on.ca

INTRODUCTIONS

Haldimand County staff

- ❖ Mike Evers – General Manager, Community and Development Services
- ❖ Shannon VanDalen – Manager, Planning and Development
- ❖ Christina Botas – Administrative Assistant, Planning and Development
- ❖ Alisha Cull – Supervisor, Development Services



Consultants

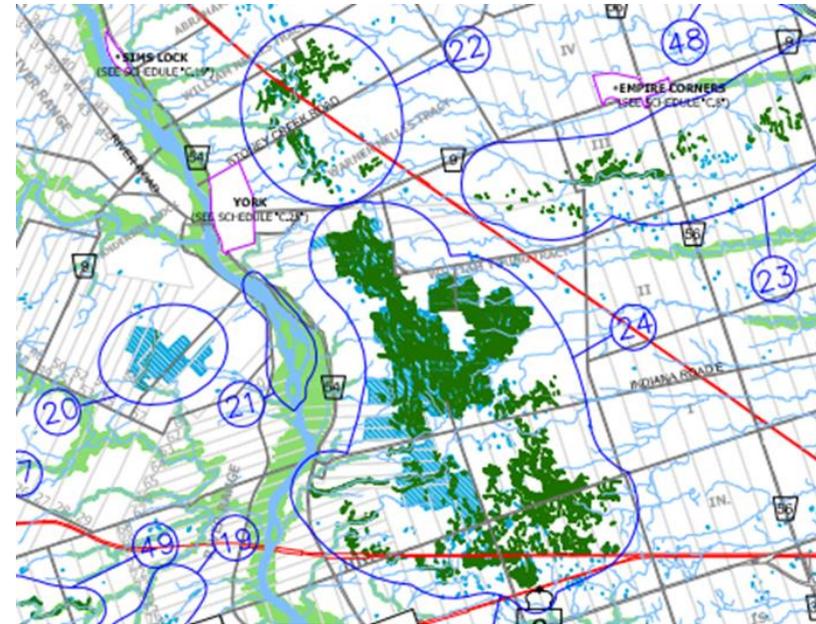
- ❖ Mattheus Reniers – Planning Consultant, Matt Reniers and Associates
- ❖ Katharina Richter – Natural Resource Solutions Inc. (NRSI)
- ❖ Lorelei Jones – Macaulay Shiomi Howson Ltd. (MSI)
- ❖ Laura Hockley – Natural Resource Solutions Inc. (NRSI)

Official Plan Update Overview

- ❖ Started in January 2020
- ❖ Phase 1 – Growth Strategy
Draft Official Plan Amendment approved in principle
by Council – February 2021
Topics: Growth Strategy & Economy
- ❖ Phase 2 – Balance of Official Plan
Underway – completion by end of 2021
Topics: Environment; Community Building; Leisure, Culture & Heritage;
and Health & Social Services

Presentation Outline

- ❖ Natural Heritage System – presentation by Natural Resource Solutions Inc.
- ❖ Hazards Lands – presentation by Matt Reniers





Haldimand County Natural Heritage System Study

Public Meeting



May 13, 2021

Agenda

1. Welcome & Introductions
2. Meeting Goals
3. Background on Natural Heritage System Study Process
4. Haldimand's Natural Heritage System
 - Concepts
 - Mapping
5. Policy Considerations



Study Team

Haldimand County Staff

- Matt Reniers
- Shannon VanDalen
- Mike Evers
- Adam Chamberlin



NRSI Staff (Environment)

- Katharina Richter
- Laura Hockley



MSH Staff (Policy)

- Lorelei Jones



Blackport & Associates (Hydrogeology)

- Bill Blackport

..... with support from:

- Grand River Conservation Authority
- Long Point Region Conservation Authority
- Niagara Peninsula Conservation Authority
- Haldimand Stewardship Council
- Ministry of Natural Resources and Forestry



Long Point Region
Conservation Authority



NIAGARA PENINSULA
CONSERVATION
AUTHORITY

POLL #1: Who are you?

- Engaged citizen/landowner 
- Developer 
- Consultant or NGO 
- Government 
- Other

Answer on Zoom

Meeting Goals

- Inform public on the Natural Heritage System study process
- Inform public on Haldimand's current Natural Heritage System study approach
- Facilitate open discussion and garner feedback



POLL #2:

How familiar are you with
Natural Heritage System studies?

- Very
- Somewhat
- Not at all

Answer on Zoom

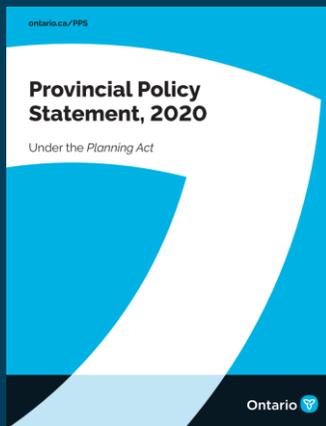


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Aquatic, Terrestrial and Wetland Biologists

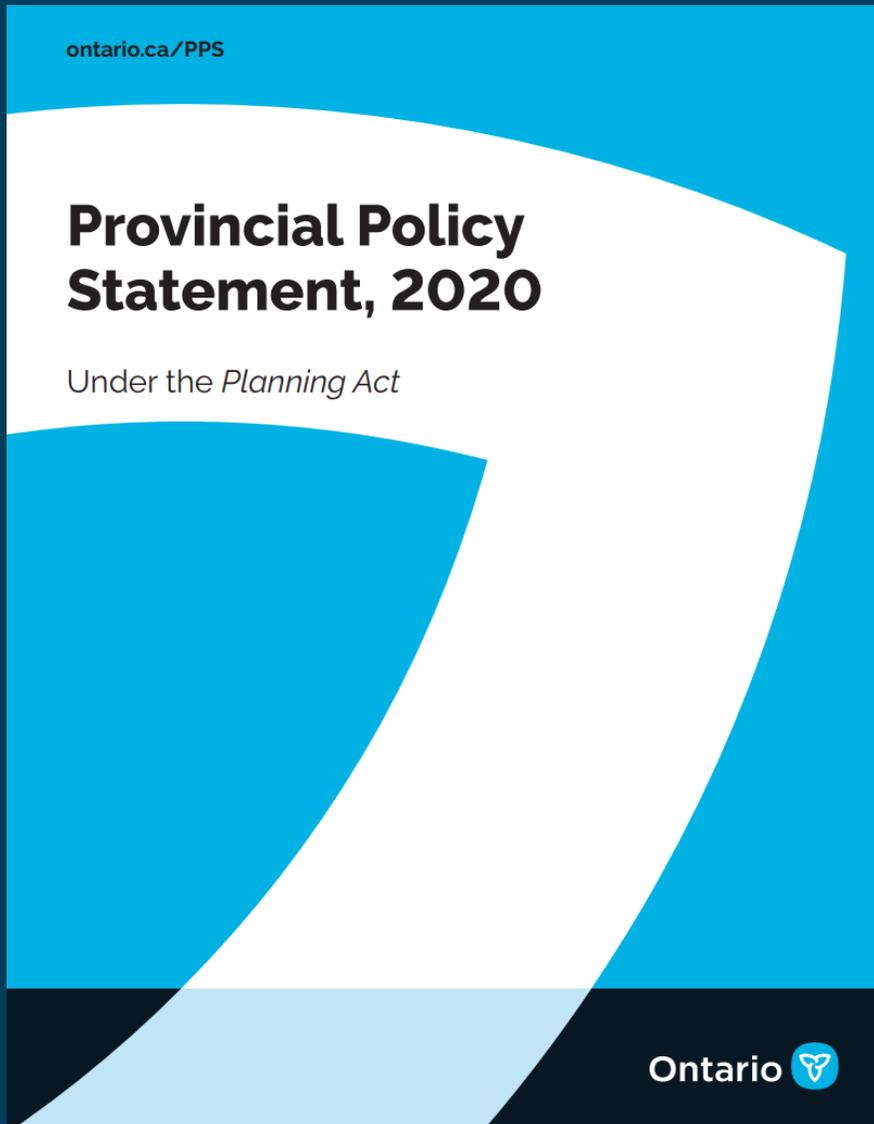


Background – Natural Heritage Systems

- A Natural Heritage System....
 - Guides policies and approaches to dealing with the natural environment
 - Is informed by the Provincial Policy Statement, the Growth Plan for the Greater Golden Horseshoe, and other policies and guidelines



Background – Natural Heritage Systems



- Policy direction on matters of provincial interest related to land use planning and development
- Vision includes wise use and management of natural heritage resources to conserve biodiversity, protect ecological processes, protect public health and safety, and minimize environmental impacts

Background – Natural Heritage Systems

Section 2.1 Natural Heritage:

Natural heritage systems shall be identified in Ecoregions 6E & 7E, recognizing that natural heritage systems will vary in size and form in settlement areas, rural areas, and prime agricultural areas.

Includes stipulations about where development and site alteration is or is not permitted:

- On and adjacent to natural heritage features and areas.
- Not intended to limit the ability of agricultural uses to continue.



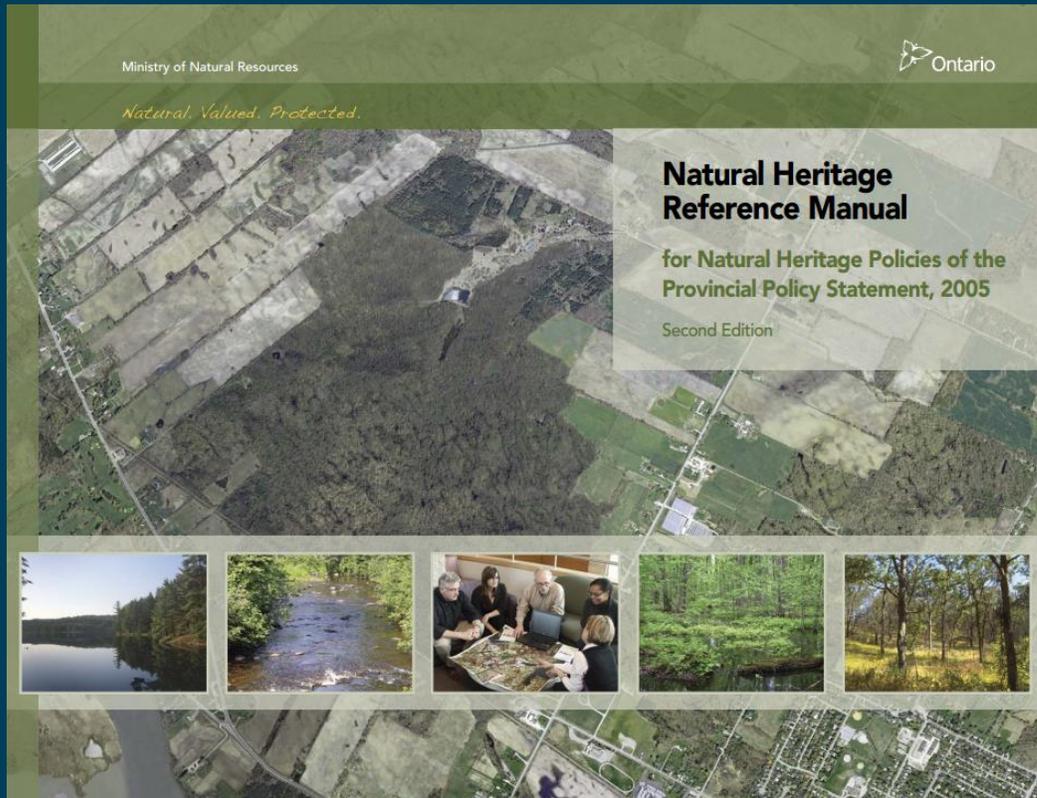
**Haldimand County
in Ecoregion 7E**

Background – Natural Heritage Systems



- A *Natural Heritage System for the Growth Plan* has been mapped by the Province to support comprehensive, integrated, and long-term protection of the region's natural heritage and biodiversity. The mapping excludes settlement areas.
- Policies require municipalities to incorporate the Growth Plan mapping as an overlay in official plans, and apply appropriate policies to maintain, restore, or enhance the diversity and connectivity of the system.

Background – Natural Heritage Systems



Natural Heritage Reference Manual (MNR 2010)

A Natural Heritage System...

- Is an ecologically based delineation of **nature** and natural function
- Is a **connected** system that provides ecological **functions** over a longer period of **time**
- Enables movement of **species**
- Provides **linkages/corridors** across the landscape

Background – Natural Heritage Systems

Natural Heritage Systems, when developed effectively, should aim to:

- Reduce landscape fragmentation
- Increase biodiversity
- Reduce stresses due to climate change
- Improve ecosystem health and healthy communities
- Provide and improve ecosystem services (clean water and air, flood attenuation, photosynthesis, wildlife habitat, etc)

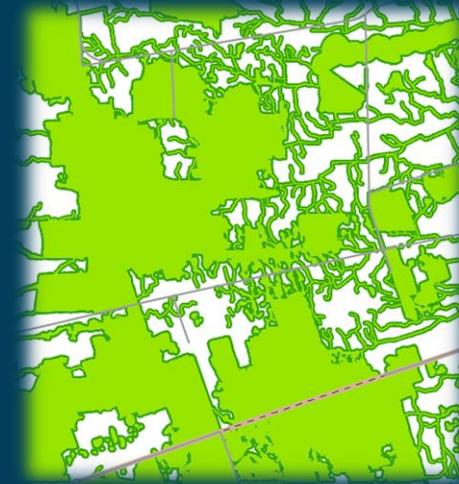


A landscape level approach to Natural Heritage Systems allows for the identification of a community's priorities and gives a proactive approach to identifying and protecting significant features.

Background – Natural Heritage Systems

Approaches to determining a Natural Heritage System:

1. Systems-based (top down)
 - Cores and linkages
2. Features-based (bottom up)
 - Significant features form the basis



Background – Natural Heritage Systems

The current Growth Plan Natural Heritage System uses a **systems based** approach:

- 100ha cores chosen within Haldimand County because of low natural cover that is severely fragmented
- Cores are the building blocks and linkages provide corridors for species movement and landscape connections



Background – Natural Heritage Systems

The County of Middlesex uses a **features** based approach:

- Combination of natural heritage features and areas based on the identification of Vegetation Communities, Vegetation Groups, and Vegetation Patches
- Identification of 15 Criteria
- Features are first identified and then overlaid to create a Natural Heritage System boundary that represents the furthest extent



POLL #3:

Which approach do you prefer?

- Systems based (top down)
- Features based (bottom up)

Answer on Zoom

Haldimand's Natural Heritage System

- Stage 1 – Study initiation
- Stage 2 – Reviewing options, drafting criteria and mapping
- Stage 3 – Preparing policy and finalizing Natural Heritage System



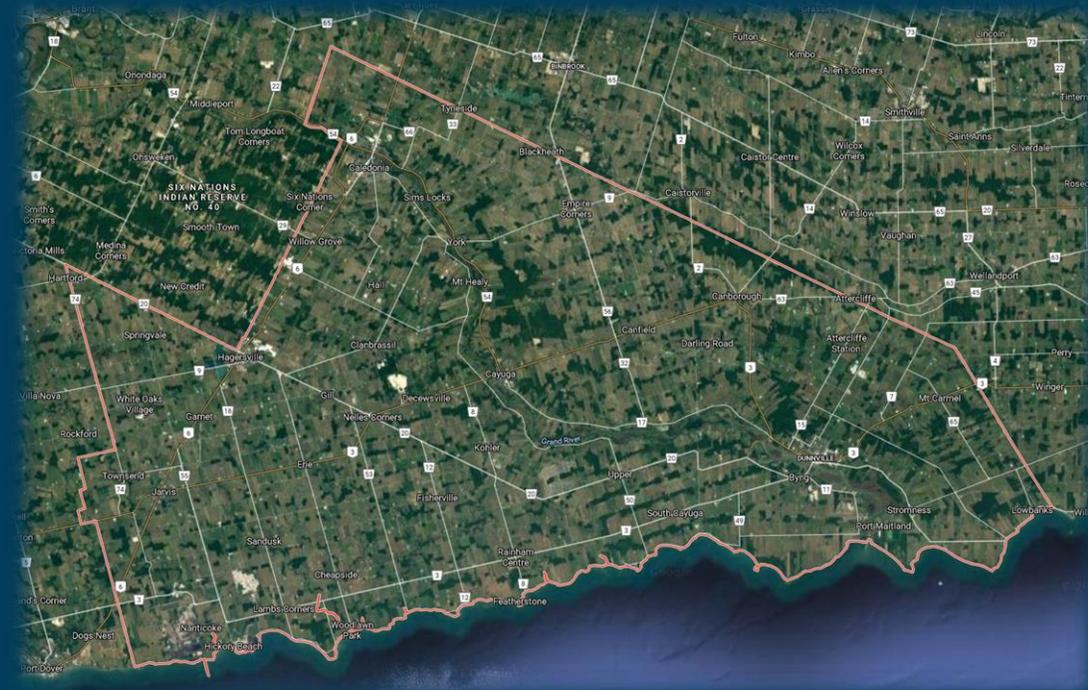
Project History

- TAC Meeting #1: February 19, 2021
- TAC Meeting #2: April 9, 2021
- Public meeting: May 13, 2021
- Field reconnaissance surveys: May / June
- TAC Meeting #3: June 24, 2021
- Indigenous Engagement



Haldimand Context

- Predominantly rural and agricultural lands, with 11 townships, 6 urban areas, and 25 hamlets
- First Nations Lands
 - Six Nations of the Grand River First Nation
 - Mississaugas of the Credit First Nation
- Intensification pressures within small towns
- Unique natural environment features
 - Lake Erie shoreline
 - Grand River
 - Some large contiguous woodland and wetland features
 - Onondaga Escarpment



Haldimand Context

County: 126,798 ha

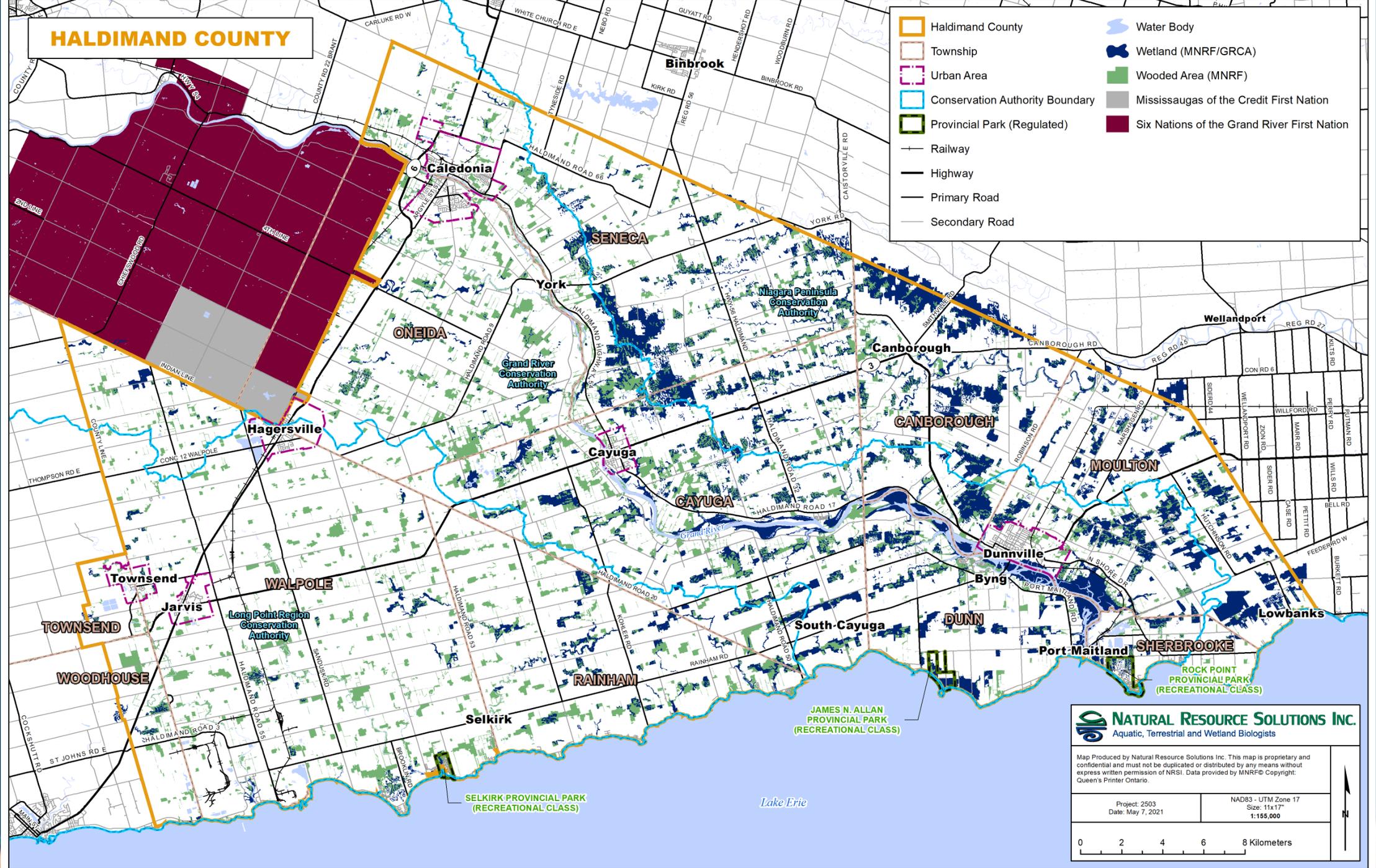
Natural heritage features: 21%

Woodlands >1 hectare: 15%



HALDIMAND COUNTY

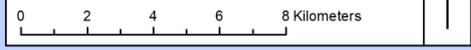
	Haldimand County		Water Body
	Township		Wetland (MNR/GRCA)
	Urban Area		Wooded Area (MNR/GRCA)
	Conservation Authority Boundary		Mississaugas of the Credit First Nation
	Provincial Park (Regulated)		Six Nations of the Grand River First Nation
	Railway		
	Highway		
	Primary Road		
	Secondary Road		



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Haldimand County

Answer in the chat:

What's one word you would use to describe Haldimand County?



Official Plan

- Natural Environment Areas (NEAs)

- Coastal wetlands
- Local and unevaluated wetlands
- Provincially Significant Earth Science ANSIs
- Provincially Significant Life Science ANSIs
- Environmentally Sensitive Areas
- Fish habitat
- Carolinian Canada Sites
- Significant Woodlands
- Significant Valleylands
- Significant natural corridors and linkages
- Significant Wildlife Habitat (SWH)

- Core NEAs

- Provincially Significant Wetlands (PSW)
- Hazard Lands
- Habitat of Endangered and Threatened Species



Official Plan

- Currently the Official Plan mapping (Schedule E) only includes:
 - Provincially Significant Wetlands and Riverine Hazard Lands that are part of the Core Natural Environment Areas
 - Lakeshore Hazard Lands and Natural Environment/Wetland Areas that are part of Natural Environment Areas



Significant Natural Features

We have mapped:

- Wetlands
- Earth & Life Science ANSIs
- Watercourses/waterbodies (fish habitat)
- Significant Valleylands
- Significant Woodlands
- Known significant species habitat
- Environmentally Sensitive Areas and Carolinian Canada Sites

= 27,342 ha (21%) land cover

10,296 ha (8%) wetland cover

18,336 ha (15%) woodland cover

Targets:

- How Much Habitat is Enough? (EC 2013)
 - Wetland: 10%
 - Woodland: 30%
- 30x30 – Protecting 30% of Canada's territory by 2030



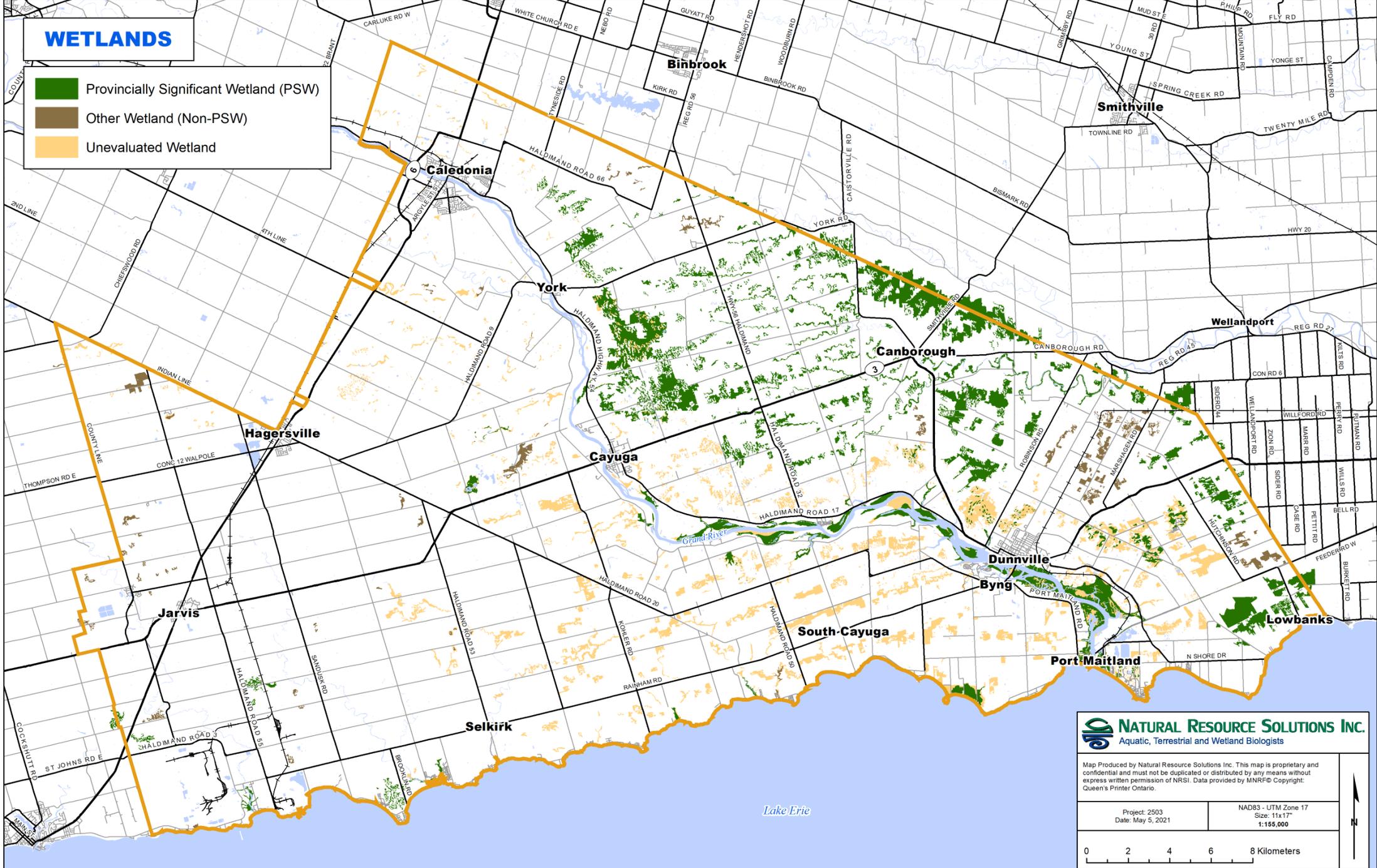
Answer in the chat:

Are there other natural features you think should be included?



WETLANDS

-  Provincially Significant Wetland (PSW)
-  Other Wetland (Non-PSW)
-  Unevaluated Wetland



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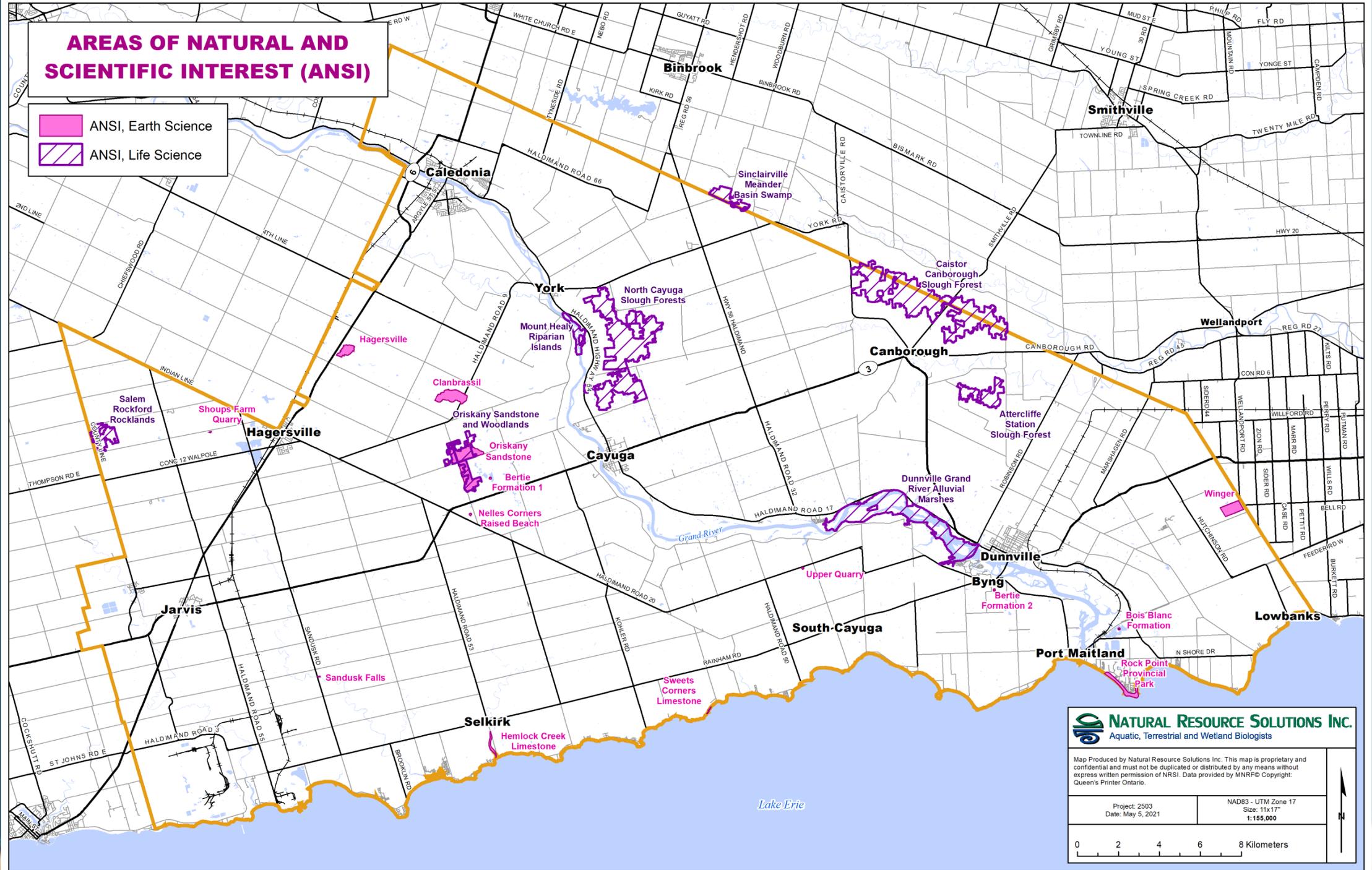
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0 2 4 6 8 Kilometers	



AREAS OF NATURAL AND SCIENTIFIC INTEREST (ANSI)

ANSI, Earth Science
 ANSI, Life Science




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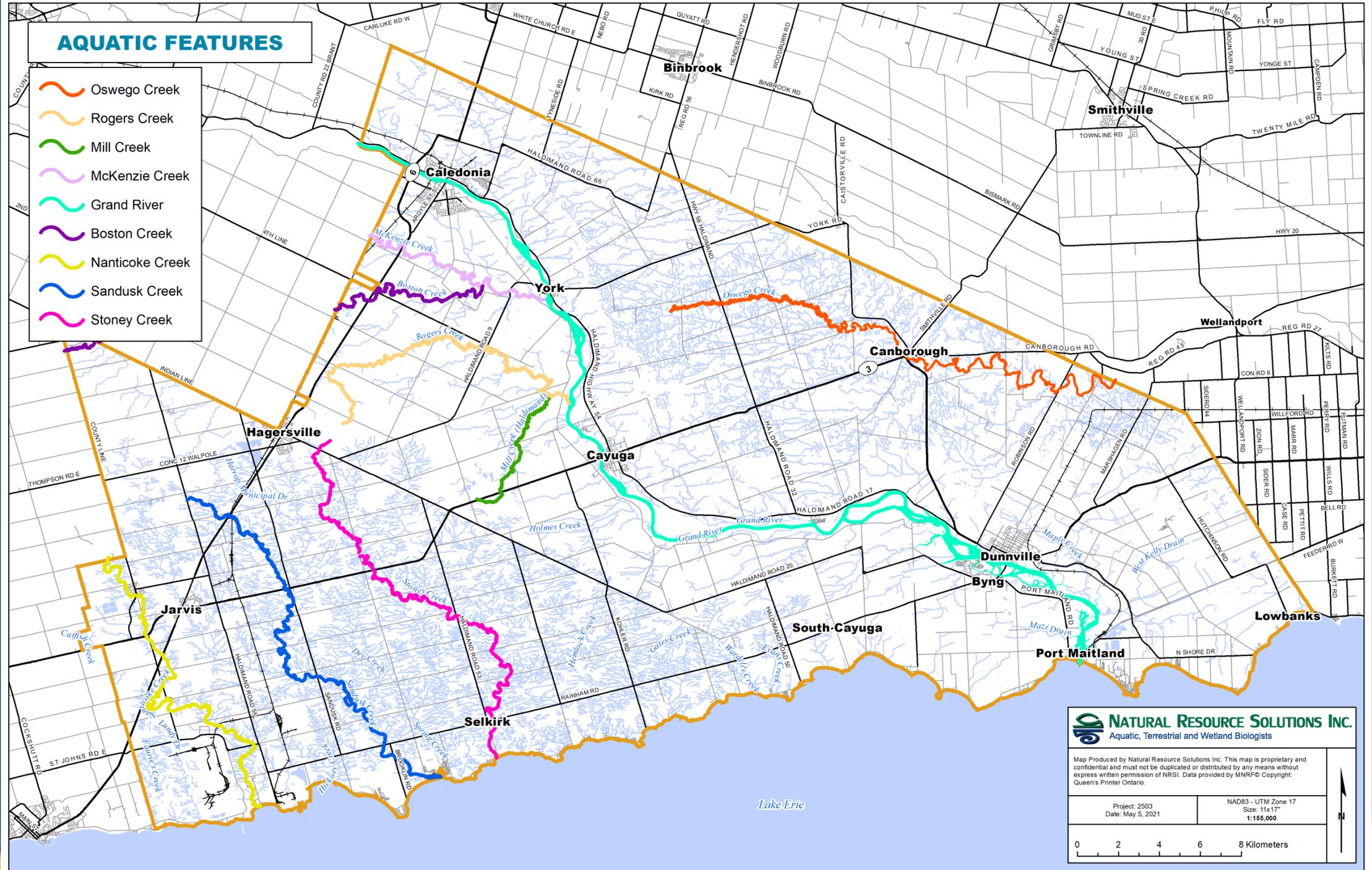
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AQUATIC FEATURES

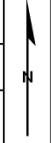
-  Oswego Creek
-  Rogers Creek
-  Mill Creek
-  McKenzie Creek
-  Grand River
-  Boston Creek
-  Nanticoke Creek
-  Sandusk Creek
-  Stoney Creek



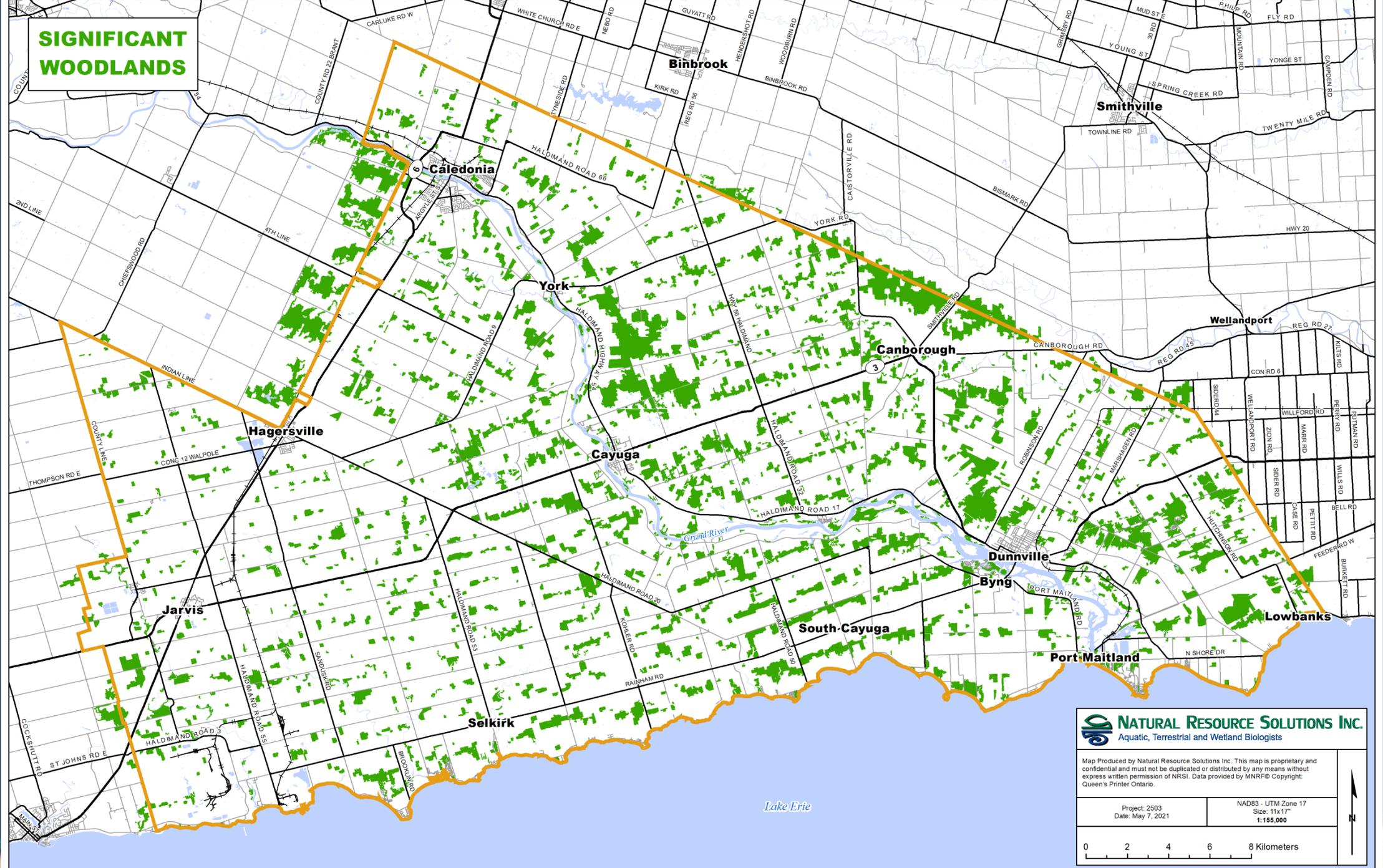
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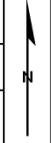
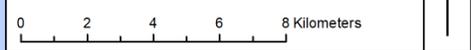
**SIGNIFICANT
WOODLANDS**



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Lake Erie

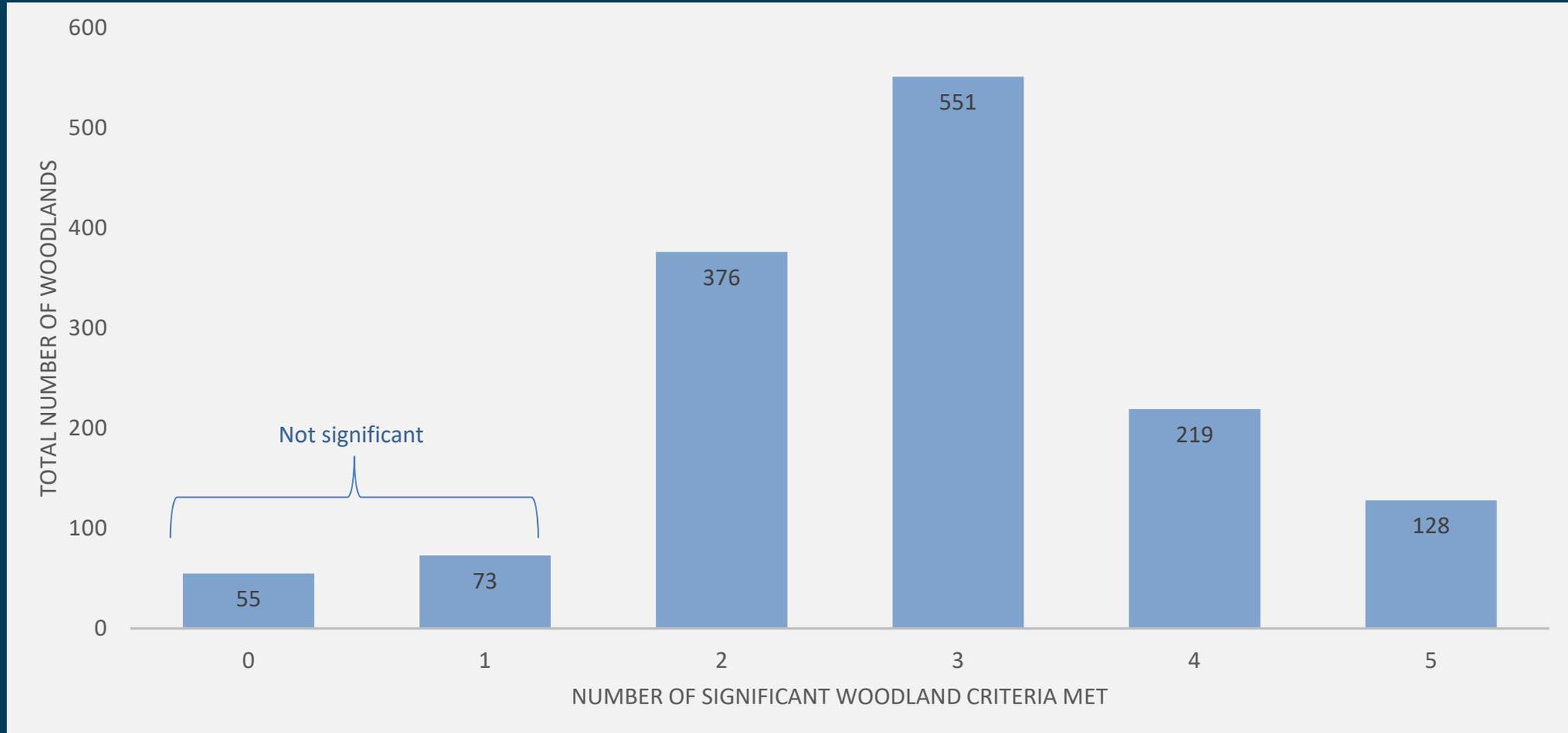
Significant Woodlands

- Significant Woodland criteria:
 - **Minimum Size:** differs by planning unit, i.e., township
 - **Connectivity:** within 50m of a Natural Environment Area
 - **Proximity to Water:** within 30m of any hydrological feature
 - **Significant Species and Significant Wildlife Habitat:** contains habitat of threatened, endangered, or rare species, or Significant Wildlife Habitat
 - **Woodland Diversity:** contains several vegetation community types/compositions
 - **Presence of Interior Habitat:** minimum 0.5ha of interior forest habitat

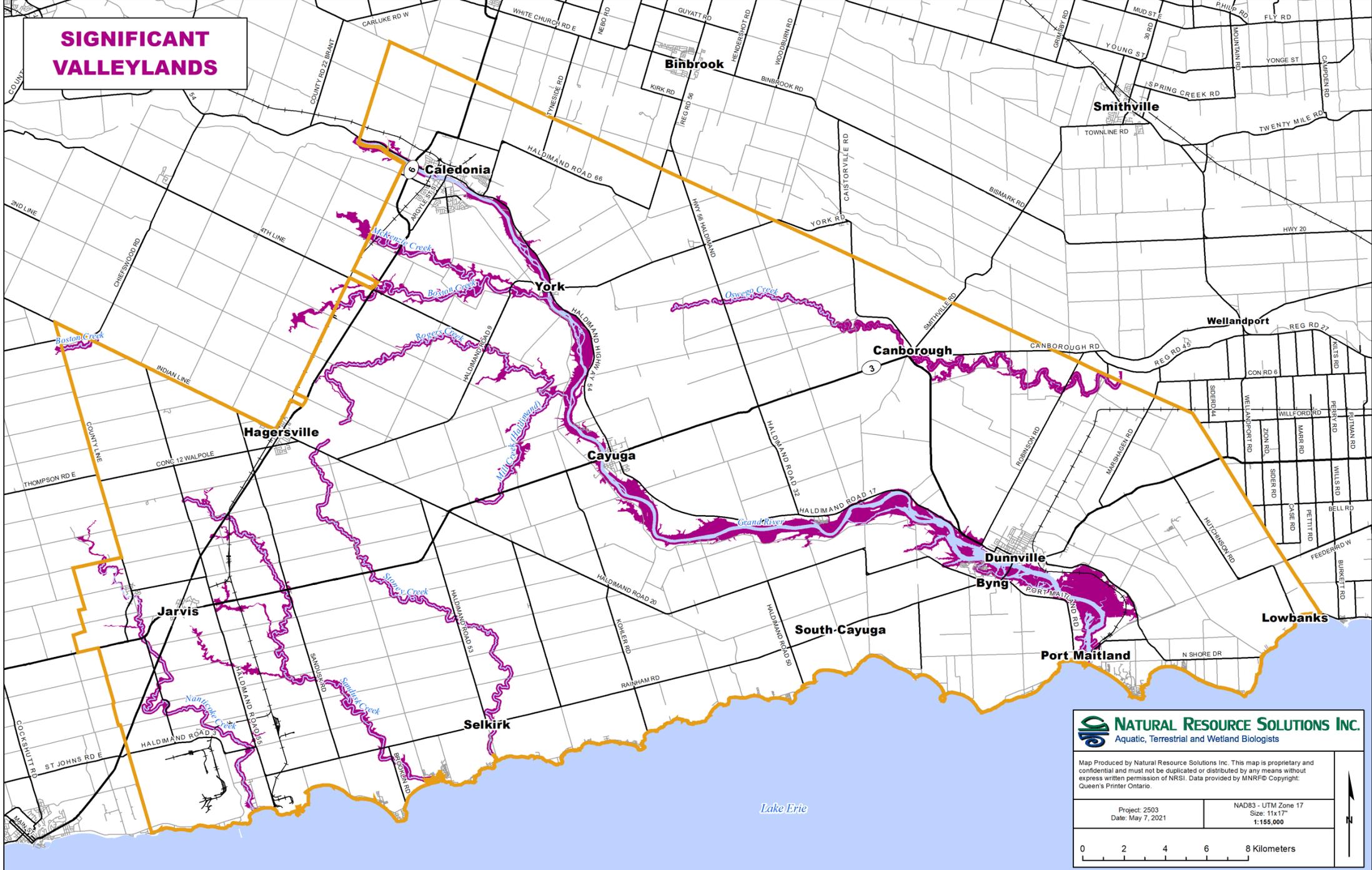


Significant Woodlands

Number of Woodlands ≥ 1 ha That Meet Significance Criteria



SIGNIFICANT VALLEYLANDS



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Project: 2503 Date: May 7, 2021	NAD83 - UTM Zone 17 Size: 11x17" 1:155,000
0 2 4 6 8 Kilometers	

Significant Valleylands

- Mapped as combination of 200m wide corridor and CA mapped Floodplains (whichever is wider)
 - Policy will address finer scale mapping requirements to accurately map through more detailed studies
 - Within urban areas: only natural heritage features surrounding the waterbody



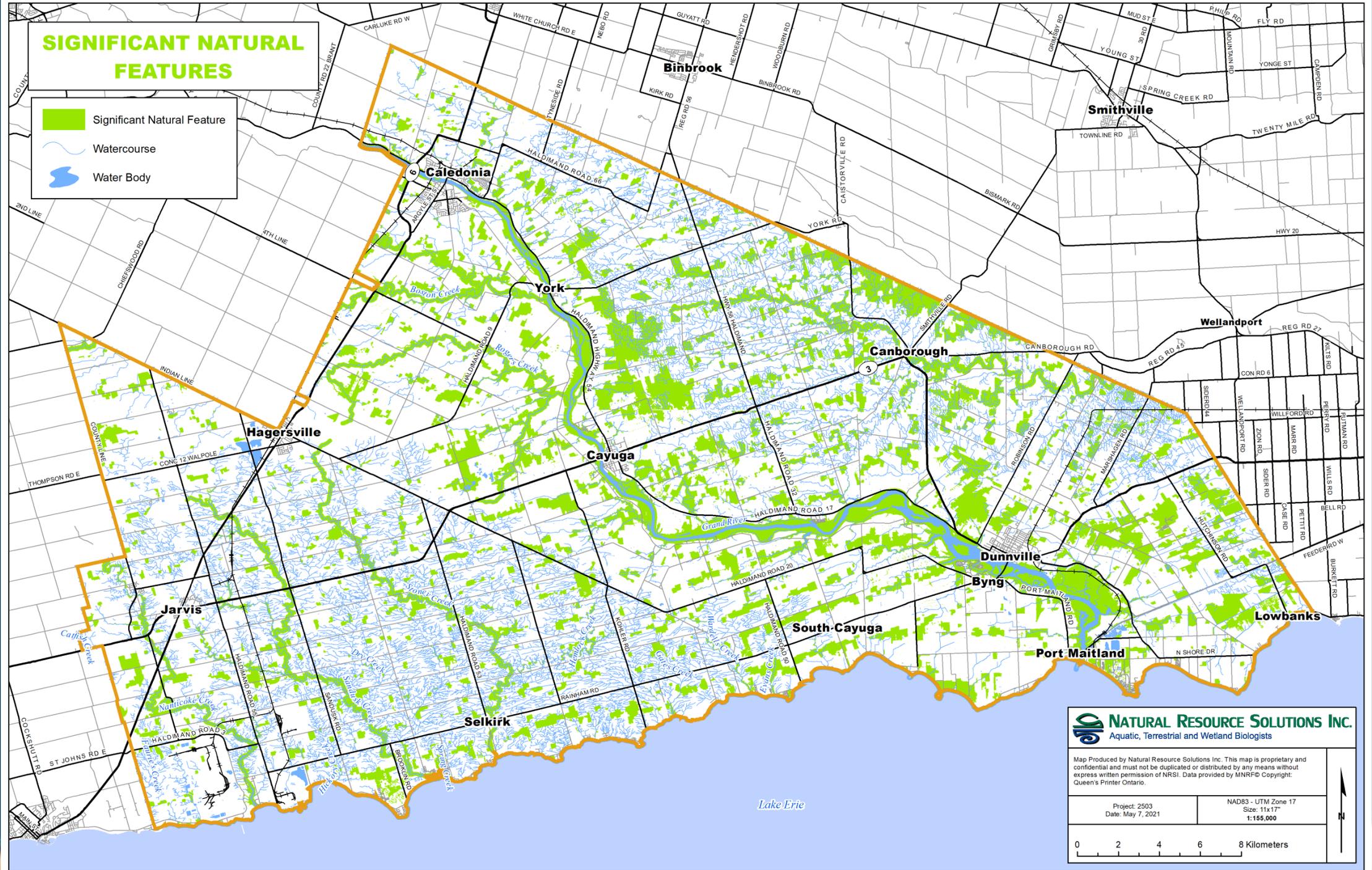
Additional Features

- Woodlands ≥ 2 ha within 5km of Lake Erie
- Shoreline areas (e.g. map 250m from Lake Erie, but define in policy)
 - Natural shoreline areas
 - Natural habitats and landforms (e.g. beach, dunes, bluffs, cliffs, near-shore littoral zone)
- Successional habitat (e.g. >10 ha)
- Enhancement lands



SIGNIFICANT NATURAL FEATURES

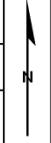
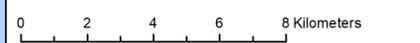
-  Significant Natural Feature
-  Watercourse
-  Water Body



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Lake Erie

Corridors & Linkages

- Official Plan currently promotes linking Natural Environment Areas, but has no mapping or specific policies regarding widths
- Corridors and linkages will be identified based on core areas and wildlife use areas
- Width will depend on features that are being linked, but generally minimum of 100m wide
- Consideration for species reported from the County and their life cycles
- Potential areas for restoration and enhancement



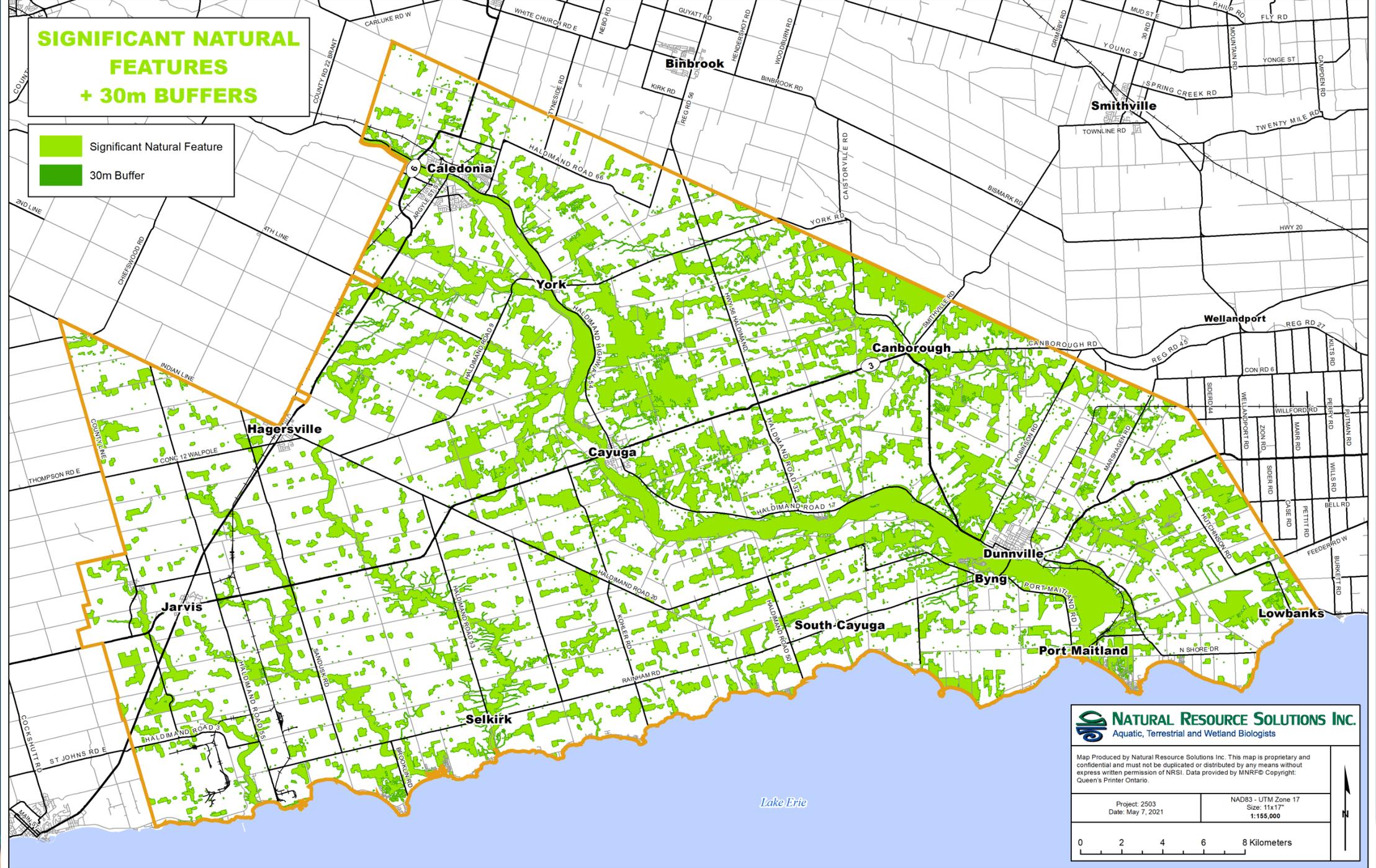
Buffers

- Official Plan currently only specifies buffers for fish habitat
- Natural Heritage System studies in other jurisdictions have been reviewed
- 30m buffers are generally recommended for all Significant Natural Features
- Settlement areas: different considerations



SIGNIFICANT NATURAL FEATURES + 30m BUFFERS

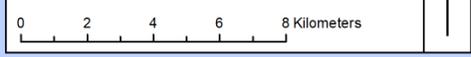
- Significant Natural Feature
- 30m Buffer



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Lake Erie

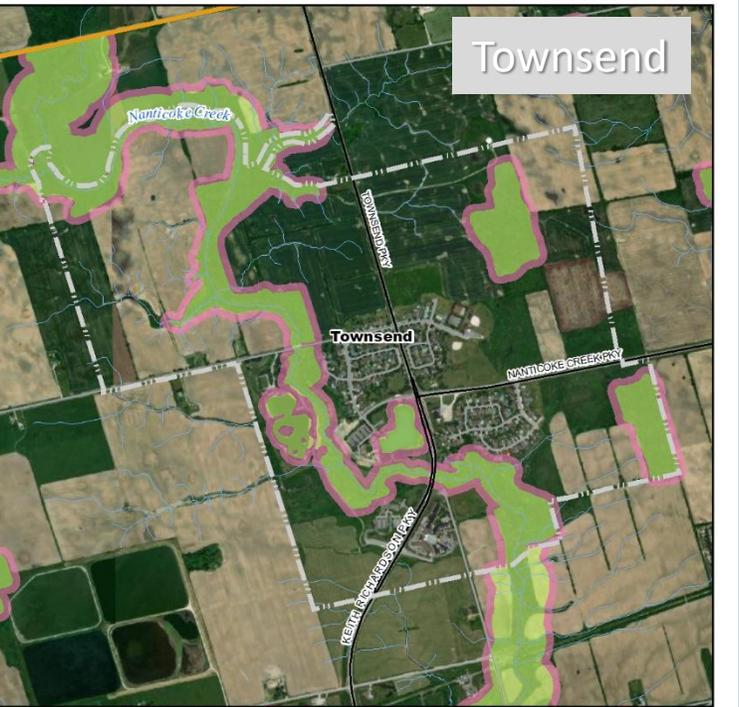
Caledonia



Hagersville



Townsend



Jarvis



Cayuga



Dunnville



POLL #4:

Within settlement areas, should all significant natural features have a 30m buffer?

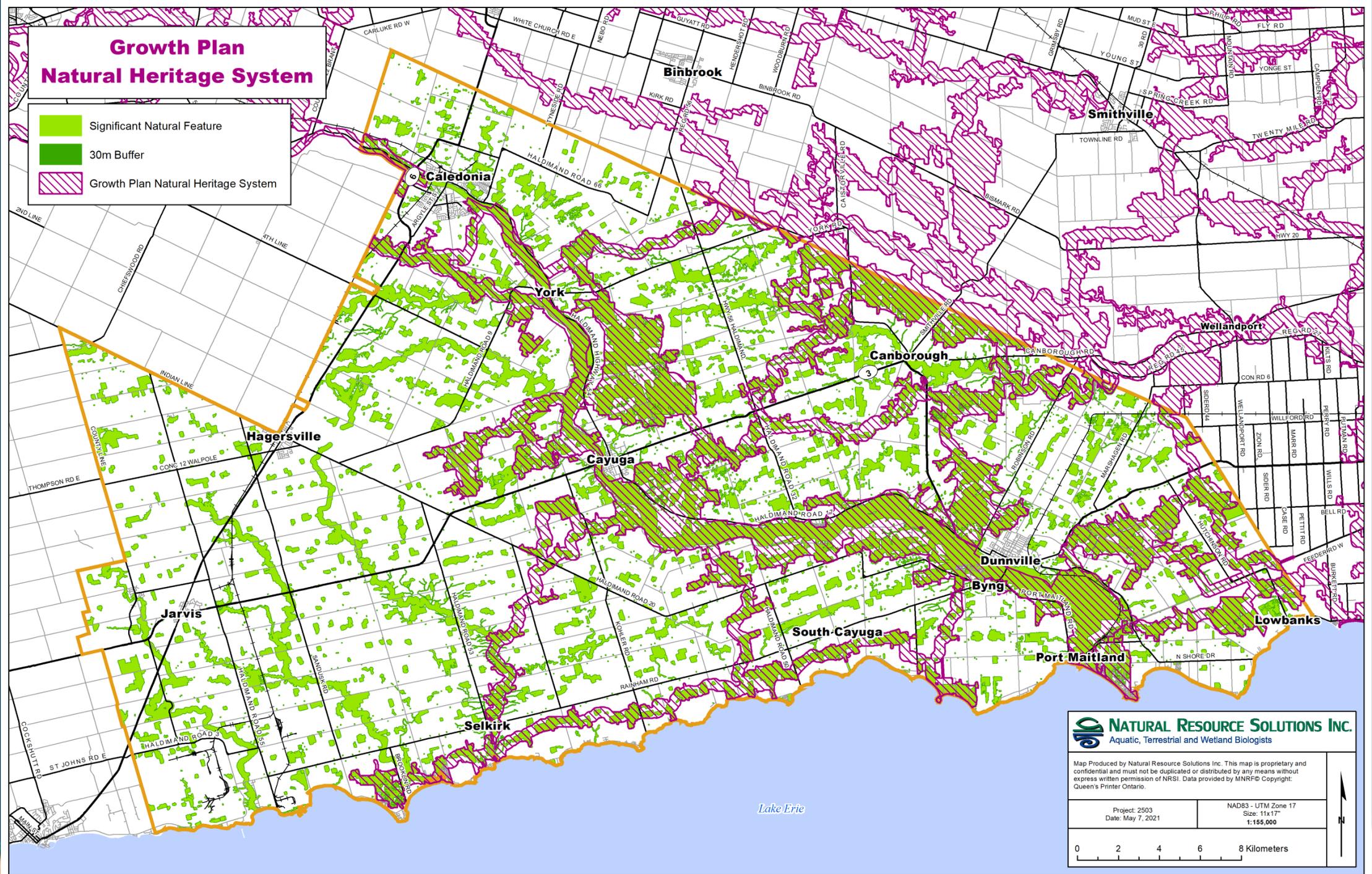
- Yes
- No

Answer on Zoom



Growth Plan Natural Heritage System

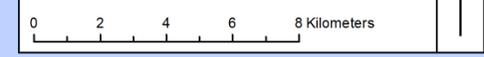
-  Significant Natural Feature
-  30m Buffer
-  Growth Plan Natural Heritage System



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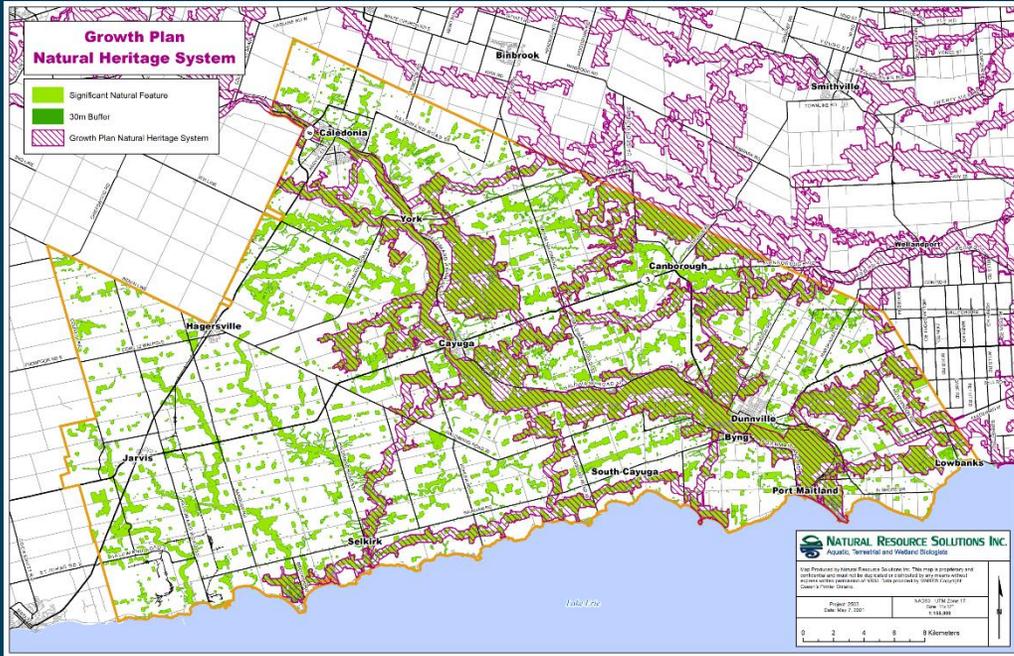
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Environmental Impact Studies

- Official Plan currently requires an Environmental Impact Study (EIS) for development in or adjacent to Natural Environment Area (except inside provincially significant wetlands or Habitat of Threatened or Endangered Species where no development is permitted) in order to demonstrate that there will be no negative impact on natural features or their ecological functions
- Updates to EIS requirements will be considered
- Detailed review of natural features and site specific mapping of the Natural Heritage System





Questions?

Additional Information

- For more information, background reports and project updates, visit the project website at:
<https://www.haldimandcounty.ca/planning-services/opupdate/>
- Please fill out the questionnaire by May 28th, found on the County's website

Contact for additional questions and comments:

Katharina Richter, NRSI

krichter@nrsi.on.ca

519-725-2227 x258



Haldimand County

Official Plan Update



Help Shape Haldimand's Future

**Hazard Land Policies
Public Consultation Workshop
May 13, 2021**

What are hazard lands?

- Property or lands that may be unsafe for development due to naturally occurring processes, such as:
 - Flooding
 - Erosion
 - Dynamic beach
 - Unstable soils
 - Unstable bedrock (karst topography)
- Can also result from human activity:
 - Abandoned mines (undermining)

Where are hazard lands found?

- Along rivers and streams
- Lake Erie shoreline
- Steep slopes
- Wetland areas
- Organic soils
- Areas of former mining activity

Why hazard land policies are important?

- **To protect lives** – 84 lives lost in Hurricane Hazel in 1954
- **To protect properties** – insurance payments for flood damage generally exceed \$1 billion each year

Provincial Policy Statement

- 3.1.1 Development shall generally be directed, in accordance with guidance developed by the Province to areas outside of:
- a) *hazardous lands* adjacent to the shorelines of the *Great Lakes - St. Lawrence River System* and *large inland lakes* which are impacted by *flooding hazards, erosion hazards* and/or *dynamic beach hazards*;
 - b) *hazardous lands* adjacent to *river, stream and small inland lake systems* which are impacted by *flooding hazards* and/or *erosion hazards*; and
 - c) *hazardous sites*.

Provincial Policy Statement continued

- 3.1.2 *Development and site alteration* shall not be permitted within:
- a) the *dynamic beach hazard*;
 - b) *defined portions of the flooding hazard along connecting channels* (the St. Marys, St. Clair, Detroit, Niagara and St. Lawrence Rivers);
 - c) areas that would be rendered inaccessible to people and vehicles during times of *flooding hazards, erosion hazards and/or dynamic beach hazards*, unless it has been demonstrated that the site has safe access appropriate for the nature of the *development* and the natural hazard; and
 - d) A *floodway* regardless of whether the area of inundation contains high points of land not subject to flooding.

Provincial Policy Statement continued

Development and site alteration may be permitted in certain areas associated with the *flooding hazard along river, stream and small inland lake systems*:

- a) in those exceptional situations where a **Special Policy Area** has been approved. The designation of a *Special Policy Area*, and any change or modification to the official plan policies, land use designations or boundaries applying to *Special Policy Area* lands, must be approved by the Ministers of Municipal Affairs and Housing and Natural Resources and Forestry prior to the approval authority approving such changes or modifications; or
- b) where the *development* is limited to **uses which by their nature must locate within the floodway**, including flood and/or erosion control works or minor additions or passive non-structural uses which do not affect flood flows.

Who regulates development on hazardous lands?

Conservation Authorities

- Map areas subject to flooding, steep slopes and other hazards
- Approve development and site alteration within regulated areas

Municipalities

- Official Plans
 - Map hazard lands
 - Policies on development on hazard lands
- Zoning Bylaw
 - Regulate development on hazard lands

Municipalities work in cooperation with Conservation Authorities

Diagram of Regulatory Floodplain and Regulated Area

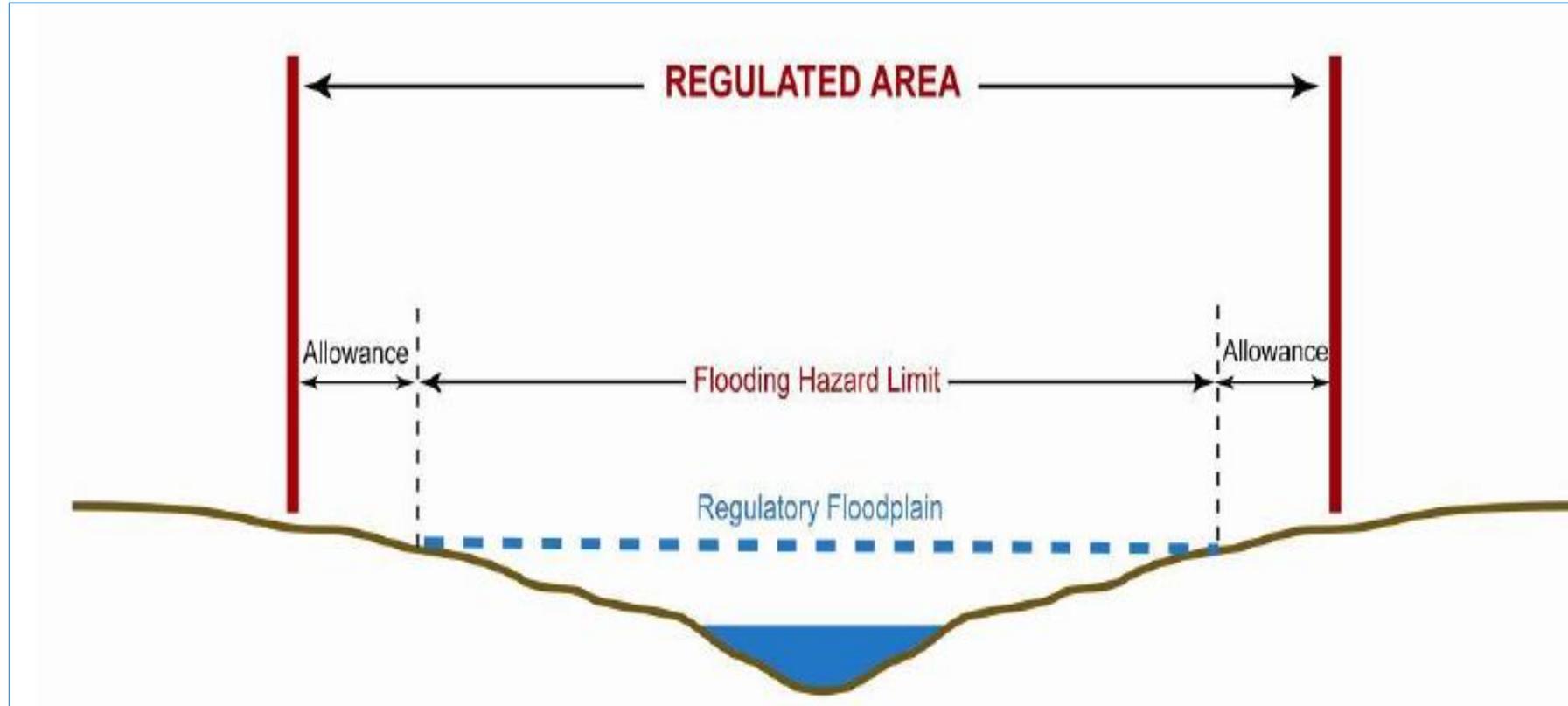


Diagram is from GRCA publication "Policies for the Administration of the Development, Interference with Wetlands and Alterations to Shorelines and Watercourses Regulation Ontario Regulation 150/06".

Two-Zone Floodplain Concept

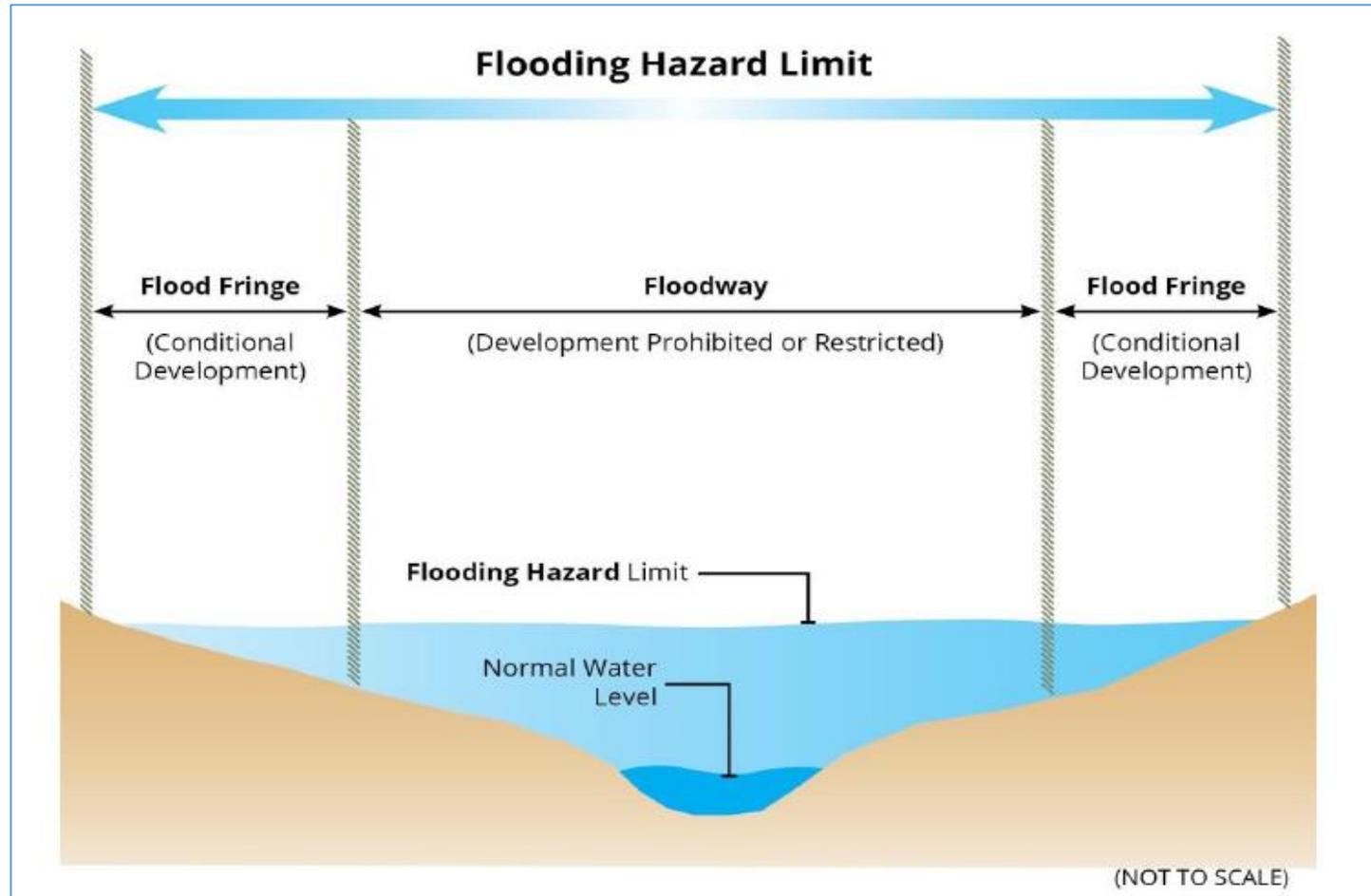
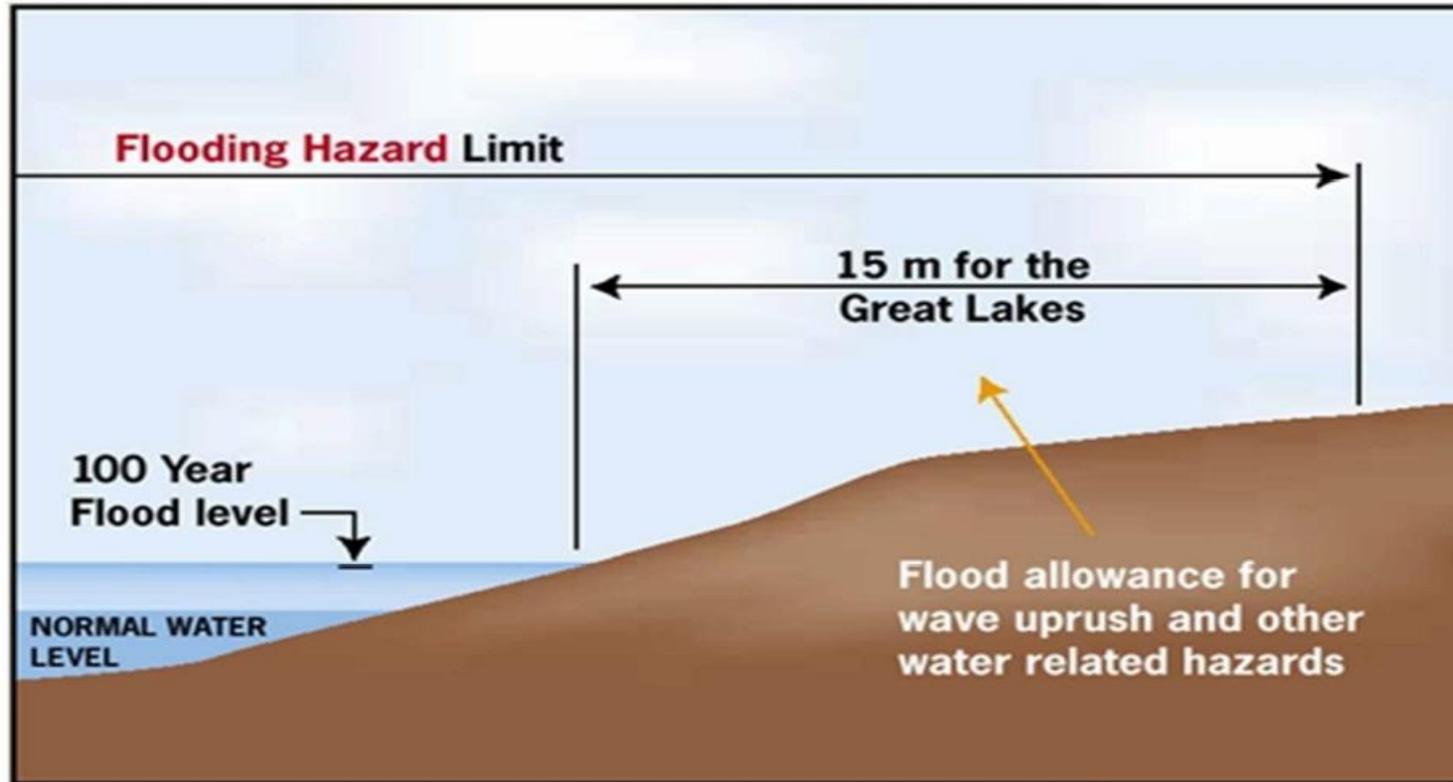


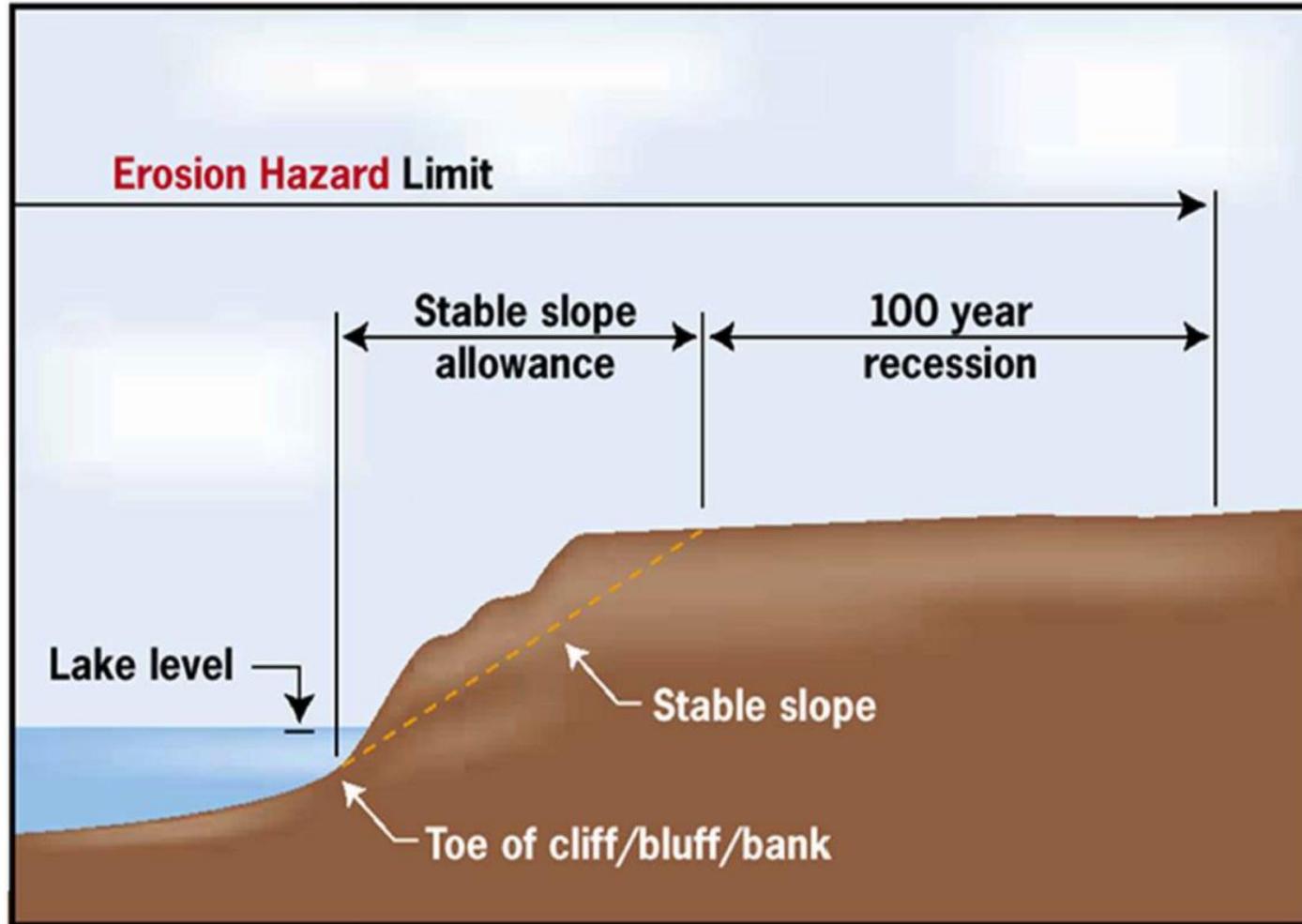
Diagram is from Niagara Peninsula Conservation Authority

Flooding Hazard Limit for Lake Erie Shoreline



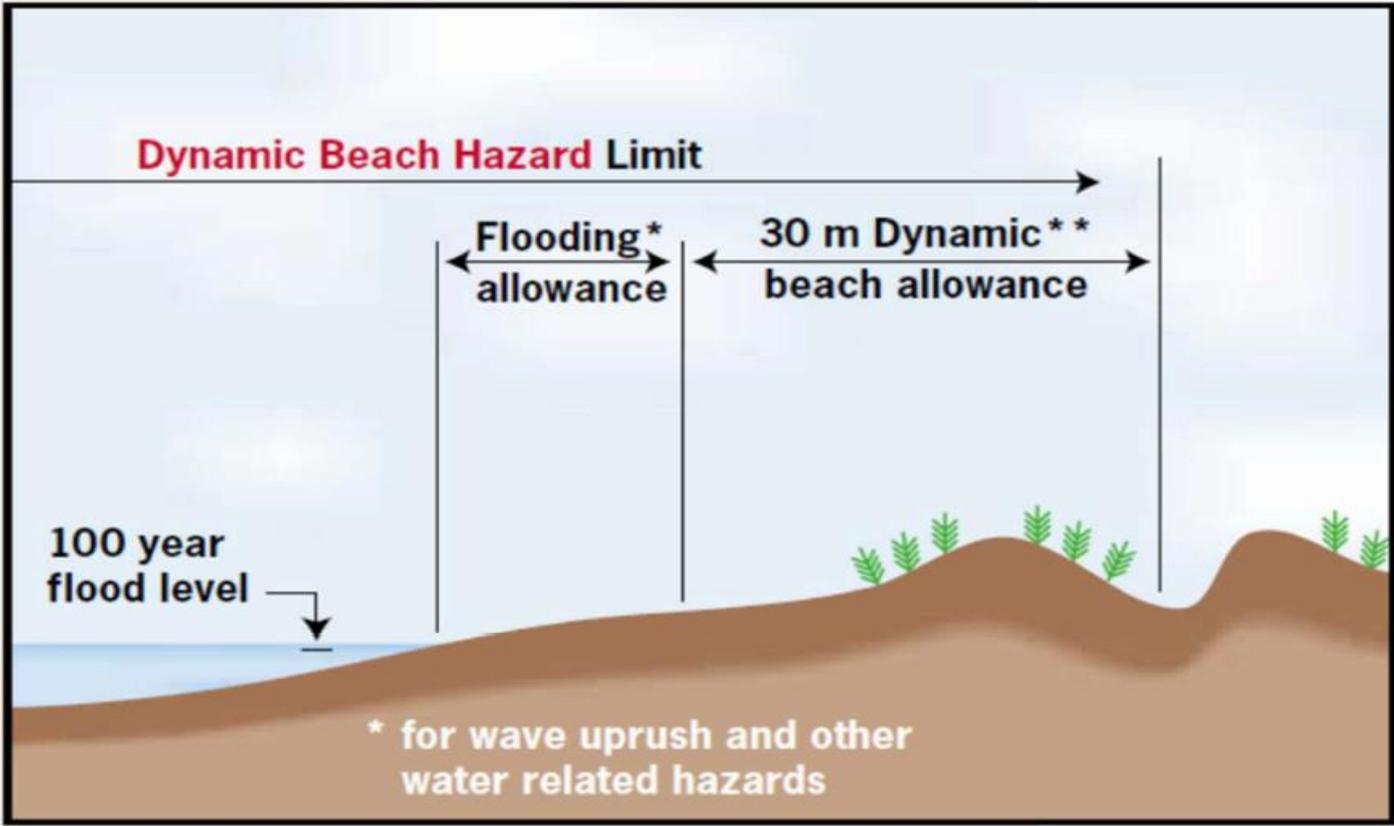
Extracted from Haldimand County Lake Erie Hazard Mapping and Risk Assessment, W. F. Baird and Associates, 2020

Erosion Hazard Limit

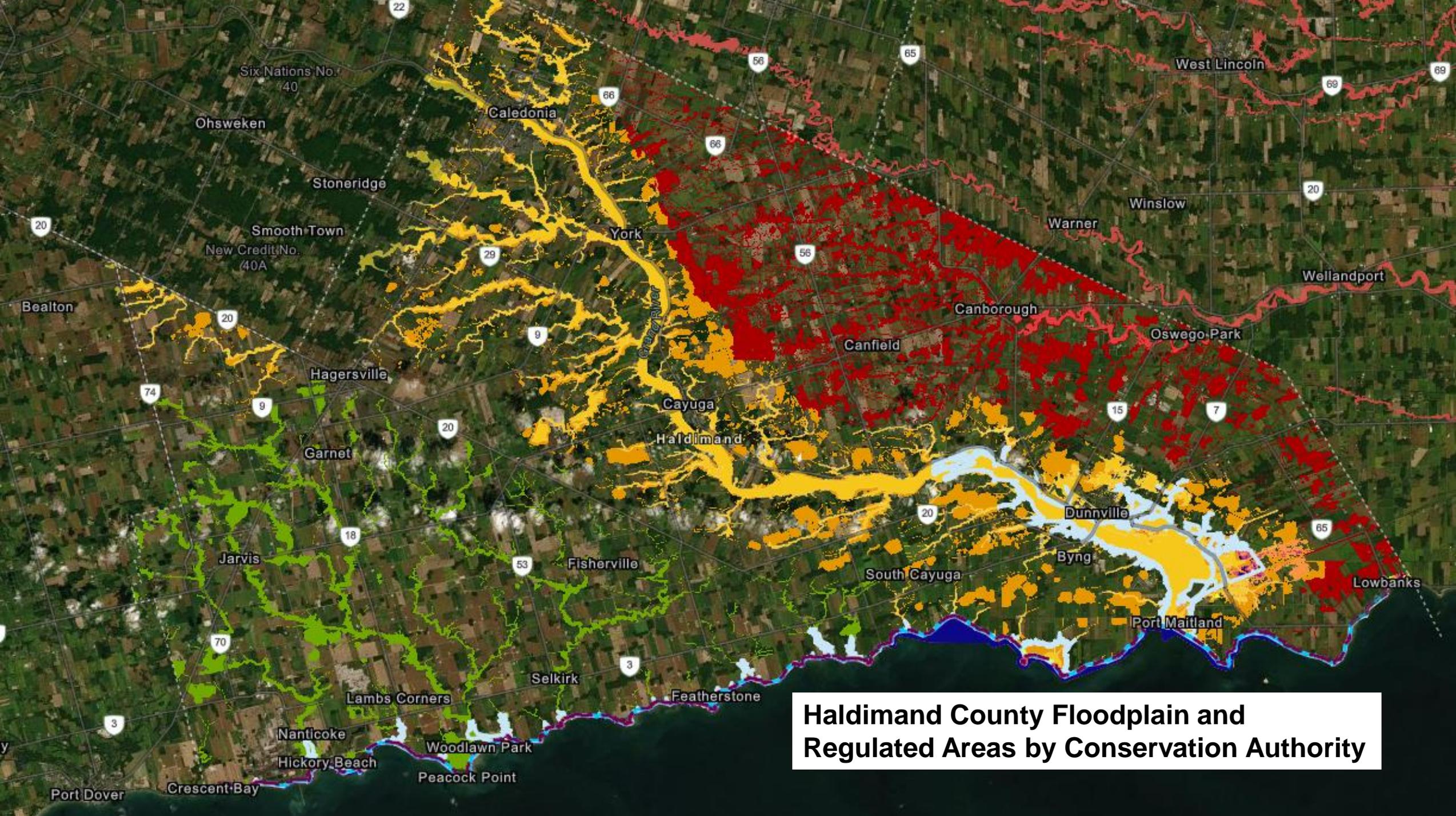


Extracted from Haldimand County Lake Erie Hazard Mapping and Risk Assessment, W. F. Baird and Associates, 2020

Dynamic Beach Hazard Limit



Extracted from Haldimand County Lake Erie Hazard Mapping and Risk Assessment, W. F. Baird and Associates, 2020



Haldimand County Floodplain and Regulated Areas by Conservation Authority

Current Official Plan

- Uses the following land use designations to deal with floodplain and other hazard lands:
 - Riverine Hazard Lands
 - Floodway
 - Floodway/Flood Fringe Limits
 - Other Hazard Lands (for steep slopes, undermined areas)
- These designations are not consistently applied
- Sometimes the floodplain designations overlap each other
- Policies are confusing – making interpretation difficult

Official Plan Update

- Considering an overlay approach – floodplain designations are not a land use designation but mapped on a separate schedule that can be overlaid onto the land use plan. This approach will be consistent with the new Zoning Bylaw.
- Development may be permitted according to the land use designation, if it can be demonstrated that the lands are not impacted by the floodplain.
- Allow flexibility where it can be demonstrated, to the satisfaction of the Conservation Authority, that the lands are not within the floodplain.
- Studying the potential of applying the floodway/flood fringe concept in the Frank A Marshall Business Park Area in Dunnville. Development may occur in the flood fringe subject to floodproofing acceptable to the Conservation Authority

Poll Question:
Do you support the overlay
mapping and policy
approach for floodplains
and other hazard lands?

- **Yes**
- **No**

Answer on Zoom



Questions or Comments?

Looking Ahead – Next Steps

- ❖ Growth Strategy Amendment – Council June 22, 2021 (tentative)
- ❖ Virtual Workshop Phase 2 – June 23rd 2021
This workshop will deal with other aspects of Phase 2
- ❖ Phase 2 Completion – December 2021

For project updates, visit the website at:

www.haldimandcounty.ca

Your Comments are Important

For more information, background reports and project updates, visit the project website at: www.haldimandcounty.ca

To provide written comments or for more information, please contact:

*Christina Botas, Administrative Assistant, Planning Department –
Tel: 905-318-5932, x 6209*

Or

Email: planning@haldimandcounty.on.ca



Thank You for your time and input!

Have a great night!