

Painting Grey County Green

Natural Heritage System Planning

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NATURAL RESOURCE SOLUTIONS INC.
Aquatic, Terrestrial and Wetland Biologists



November 15, 2018



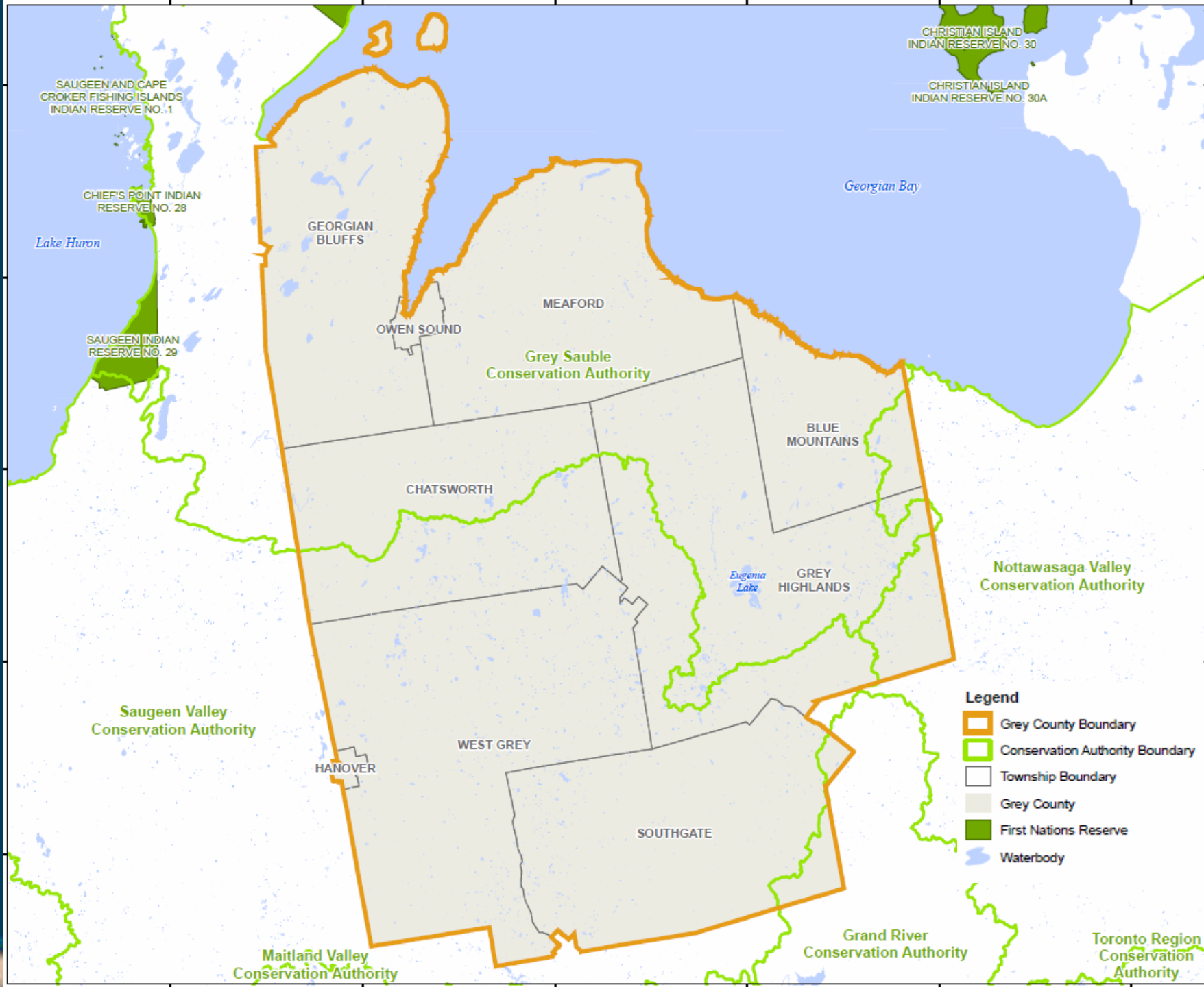
Colour It Your Way

Recolour Grey – Official Plan update

- Council adopted OP on October 25, 2018
- OP sent to Province for final review and approval

Green in Grey – Natural Environmental Study

- NRSI and MSH (Macaulay Shiomi Howson Ltd.)



“Green in Grey”

- Natural heritage
- Industry of agriculture, tourism, recreation, and resource extraction
- Rich history of aboriginal peoples, settlement, and agriculture

➡ Balanced approach

- Technical Advisory Committee

Natural Heritage System

*“A **system** made up of **natural heritage features and areas**, and **linkages** intended to provide connectivity (at the regional or site level) and support natural processes which are necessary to maintain biological and geological diversity, natural functions, viable populations of indigenous species, and ecosystems. These systems can include natural heritage features and areas, federal and provincial parks and conservation reserves, other natural heritage features, lands that have been restored or have the potential to be restored to a natural state, areas that support hydrologic functions, and working landscapes that enable ecological functions to continue.”*



Core Areas and Linkages

2014 Provincial Policy Statement

Under the Planning Act

Ontario.ca/PPS

Ontario



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.

NHS Studies

- Oxford Natural Heritage Study (2006)
- Sustainable Halton (2009)
- Kincardine Natural Heritage System Study (2009)
- Collingwood Natural Heritage System Study (2011)
- Kawarthas, Naturally Connected (2013)
- Middlesex Natural Heritage Systems Study (2014)
- Huron Natural Heritage Plan Technical Document (2015)
- Credit Valley Conservation Natural Heritage Systems Strategy (2015)
- Greater Golden Horseshoe NHS (2018)

Criterion #	Key Words	Description
Applied to <i>Vegetation Groups</i>		
1	Significant Valley System	Any <i>Vegetation Group</i> within or touching a significant valley system
2	ANSI	Any <i>Vegetation Group</i> located within or touching a Life Science ANSI (Area of Natural and Scientific Interest)
3	Open Watercourse	Any <i>Vegetation Group</i> located within 30 m of an open watercourse
4	Wetlands	All evaluated wetlands and any unevaluated Wetland <i>Vegetation Groups</i> >0.5 ha
5	Woodland Size	Any Woodland <i>Vegetation Group</i> ≥ 4 ha
6	Woodland Proximity	Any Woodland <i>Vegetation Group</i> within 100 m of a 4 ha Woodland <i>Vegetation Group</i>
7	Thicket Size	Any Thicket <i>Vegetation Group</i> ≥ 2 ha
8	Meadow Size	Any Meadow <i>Vegetation Group</i> ≥ 10 ha
9	Meadow Proximity	Any Meadow <i>Vegetation Group</i> within 100 m of a large size Woodland or Thicket <i>Vegetation Group</i>
Applied to <i>Vegetation Patches</i>		
10	Patches with a <i>Vegetation Group</i> that meet a Group Criteria	Any <i>Vegetation Patch</i> that contains a <i>Vegetation Group</i> that meets a group criteria (i.e., meets Criteria 1 – 9 above)
11	Diversity	Any <i>Vegetation Patch</i> that contains a diversity of <i>Vegetation Communities, Groups or Ecosystems</i>
12	Proximity	Any <i>Vegetation Patch</i> within 100 m of a significant <i>Vegetation Patch</i> (Meeting Criteria 10 or 11)
Applied to <i>Vegetation Groups</i> but Not Mapped Currently		
13	Significant Wildlife Habitat	Any <i>Vegetation Group</i> that contains Significant Wildlife Habitat
14	Groundwater Dependent Wetland	Any <i>Vegetation Group</i> that contains a Groundwater Dependent Wetland
15	Bluff or Depositional Area	All Watercourse Bluff or Depositional Areas



County Natural Heritage



39.1%

- Forest cover



39.2%

- Significant features



44.6%

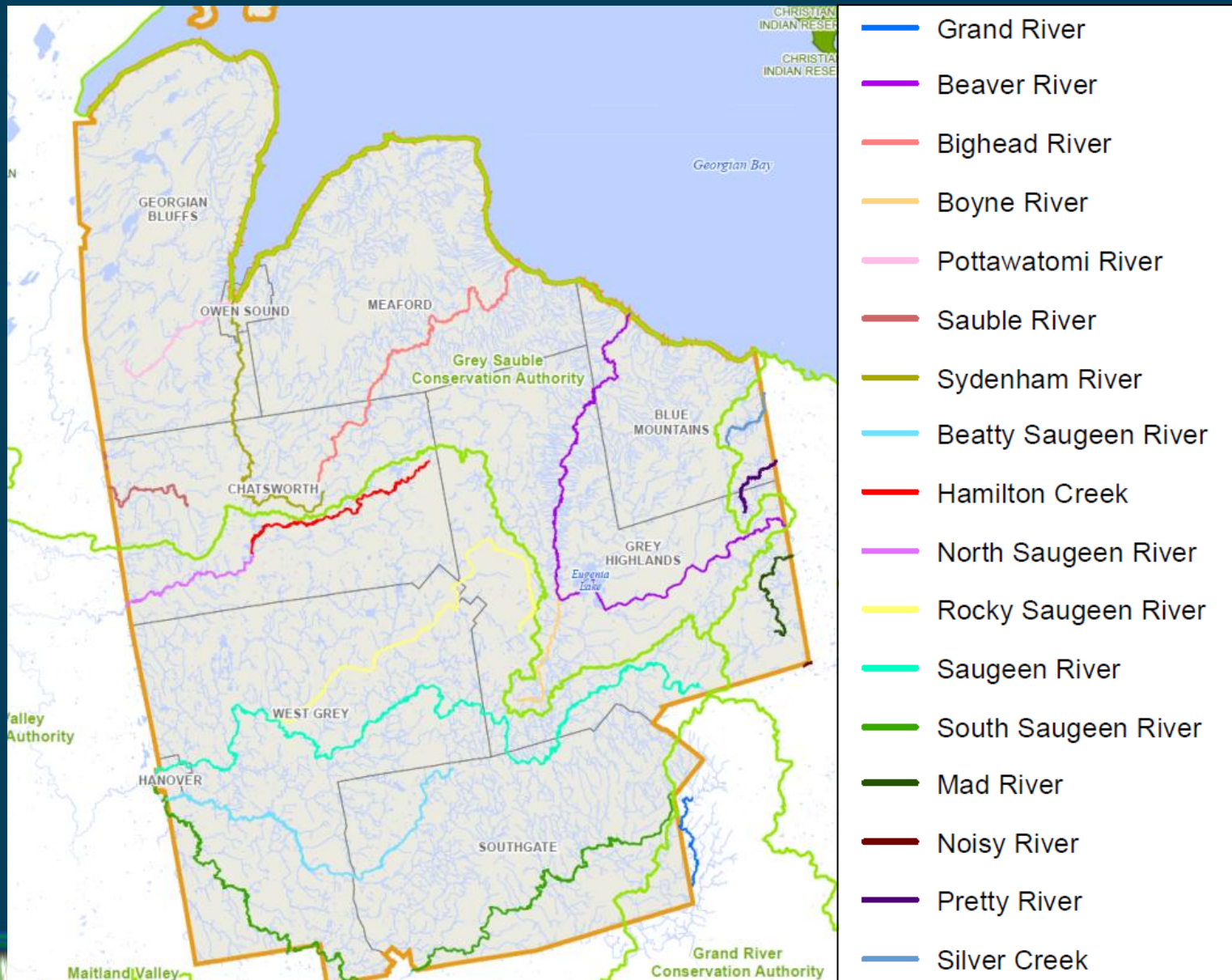
- Natural heritage cover

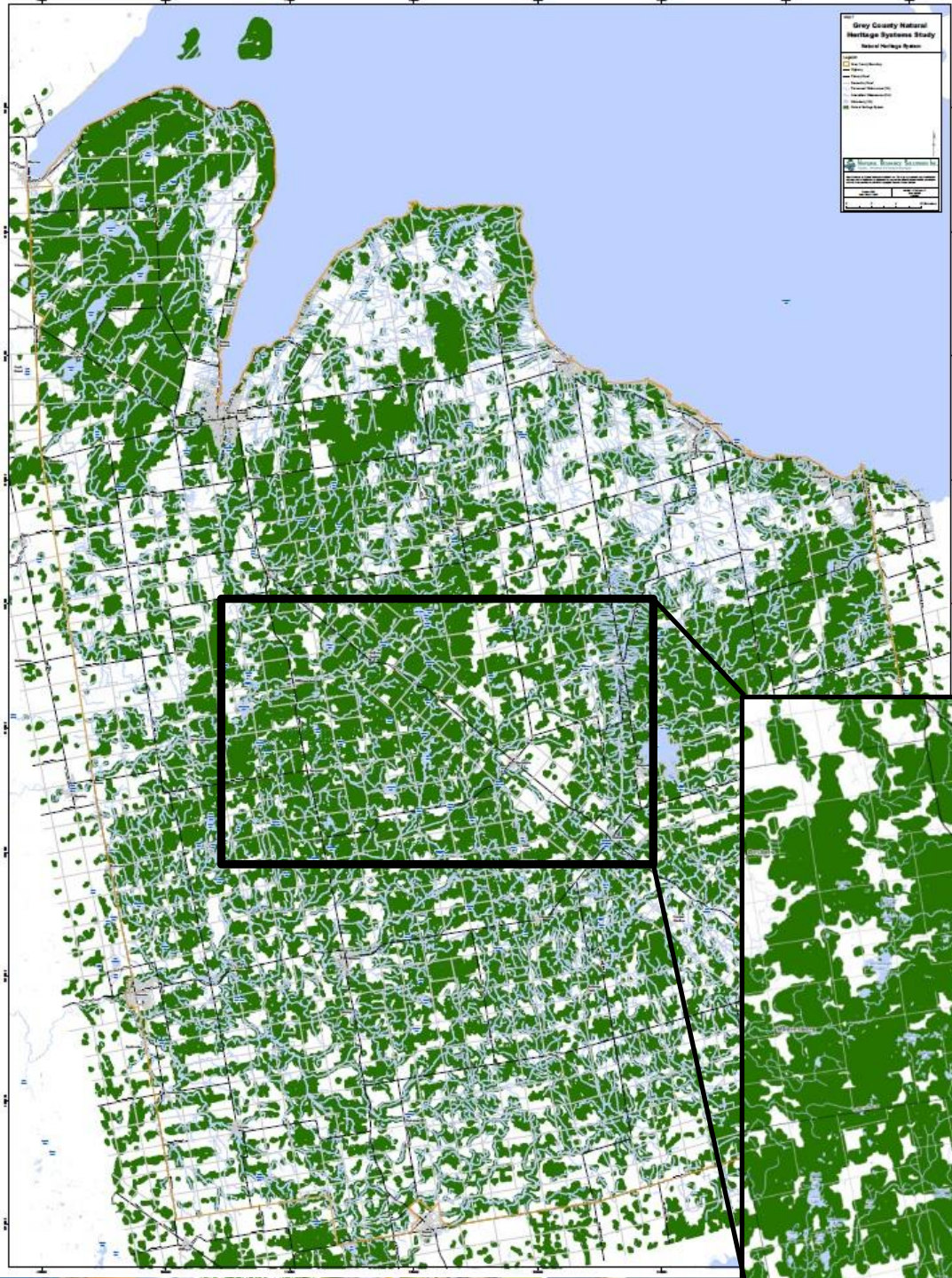
Significant Features

- Wetlands ≥ 2 ha
- Provincially Significant Wetlands
- Significant Woodlands
- Significant Valleylands
- Life Science Areas of Natural and Scientific Interest
- Deer Yards and Deer Wintering Areas
- Aquatic features (watercourses and waterbodies)



Significant Valleylands

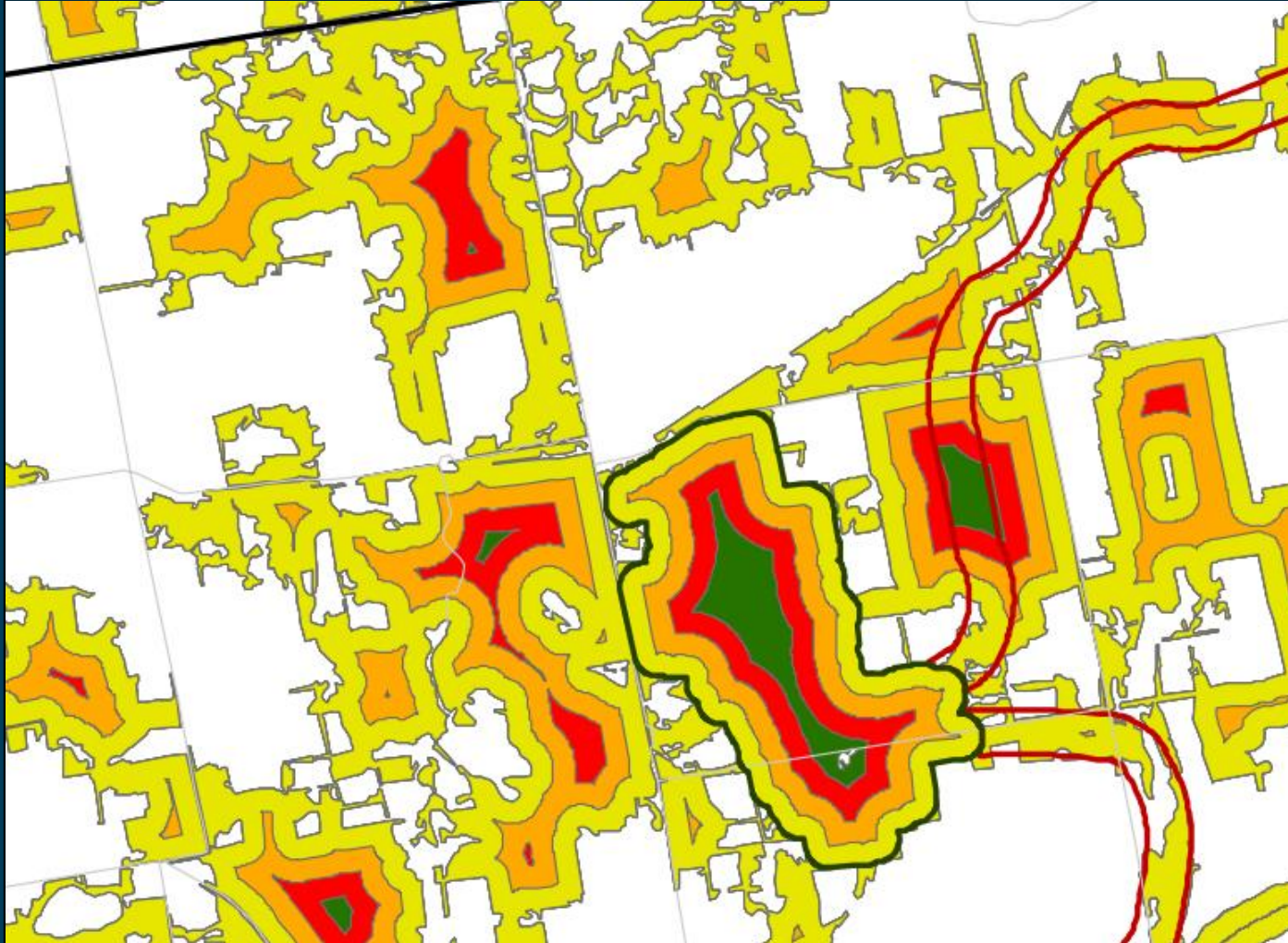




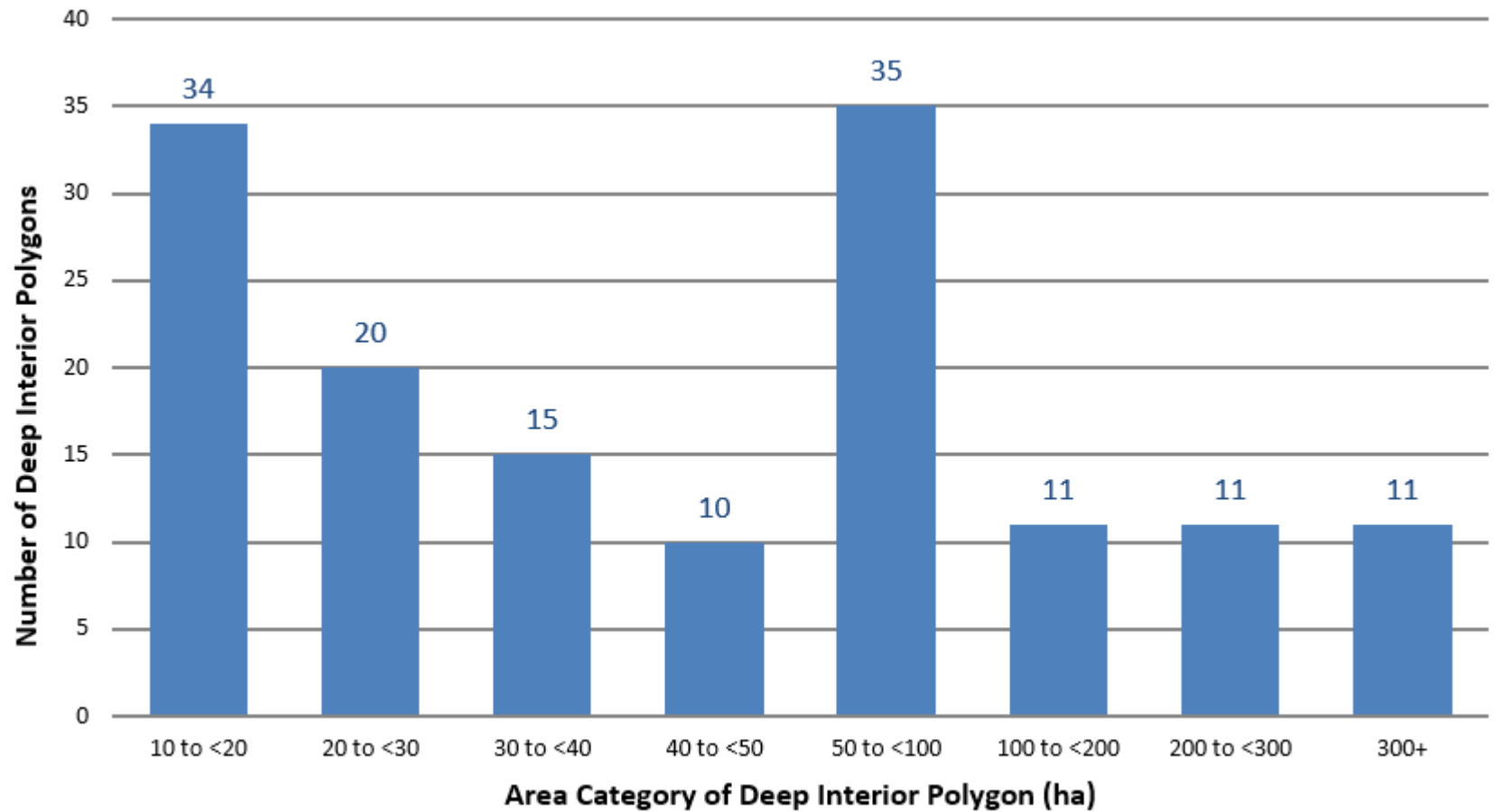
- Wetlands >= 2ha
- Provincially Significant Wetland (PSW)(MNR)
- Significant Woodland (County)
- Significant Valleylands
- ANSI, Earth Science
- ANSI, Life Science
- Deer Yard (Stratum 1) and Deer Wintering Area (Stratum 2)



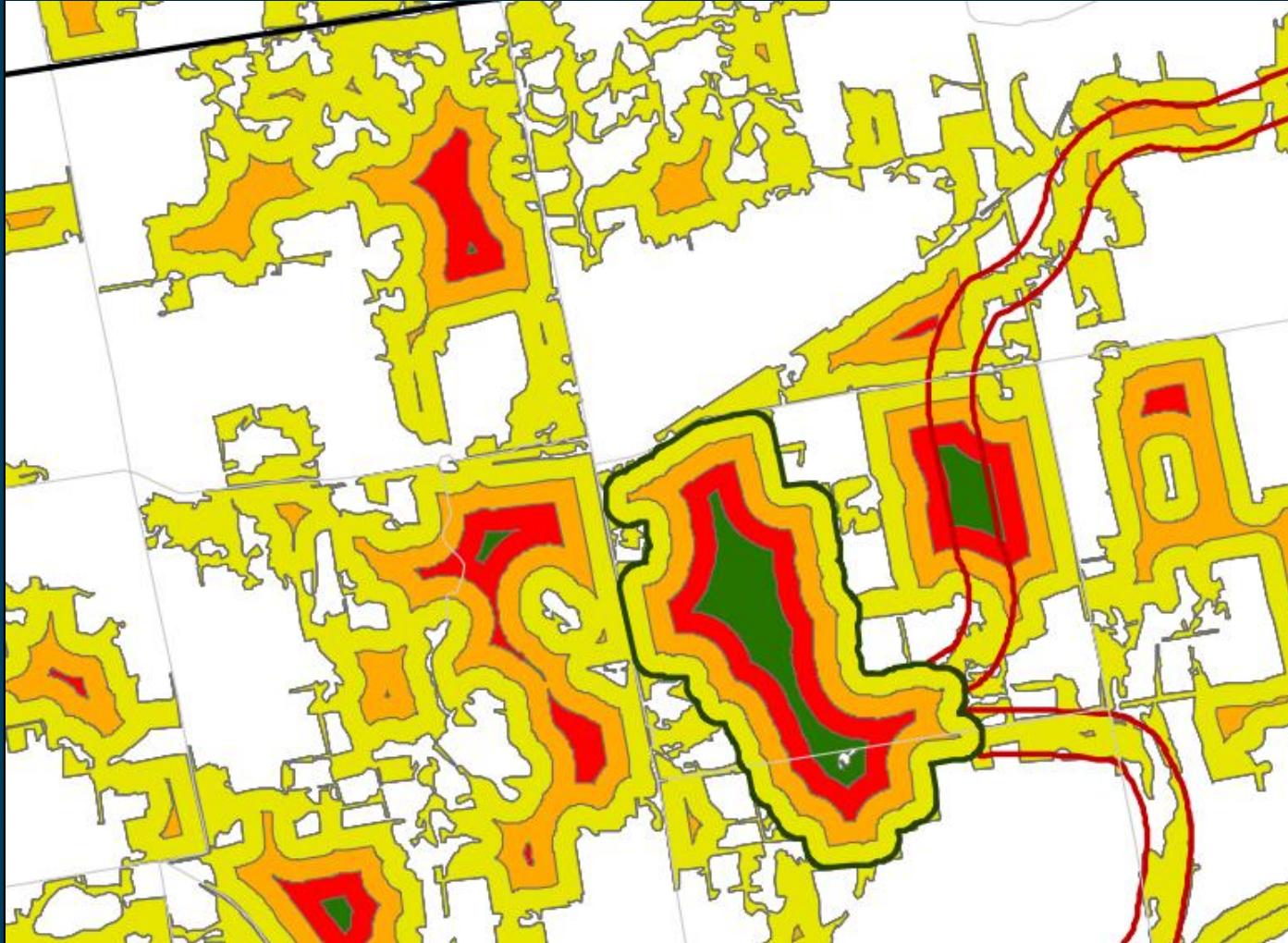
Core Area Analysis



Deep Interior Habitat Polygons

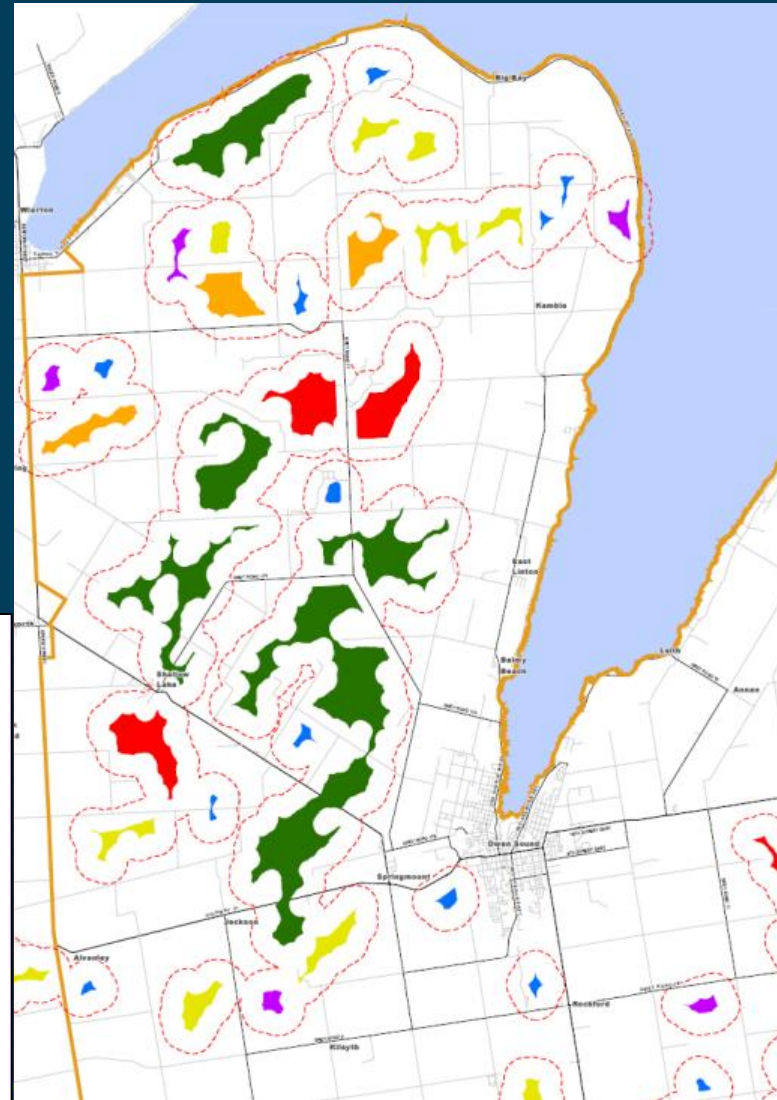


Core Area Analysis



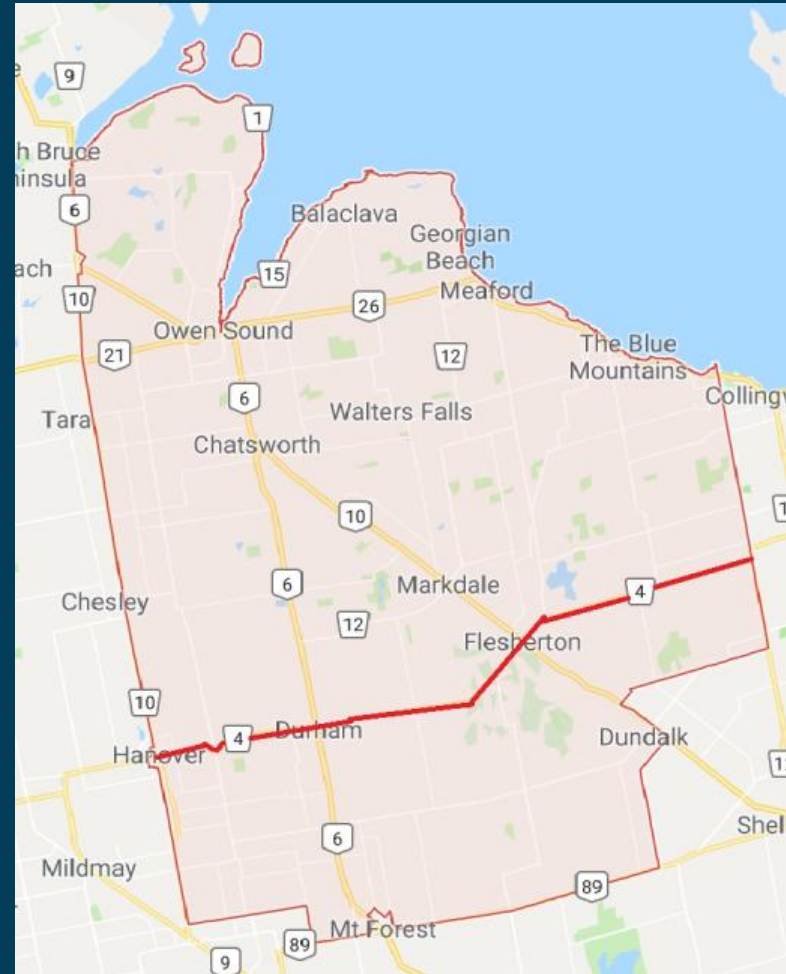
Core Area Rule Set

- All 50ha+ deep interior areas
- Deep interior areas at least 10ha in area connected (within 100m) to 50ha+ areas



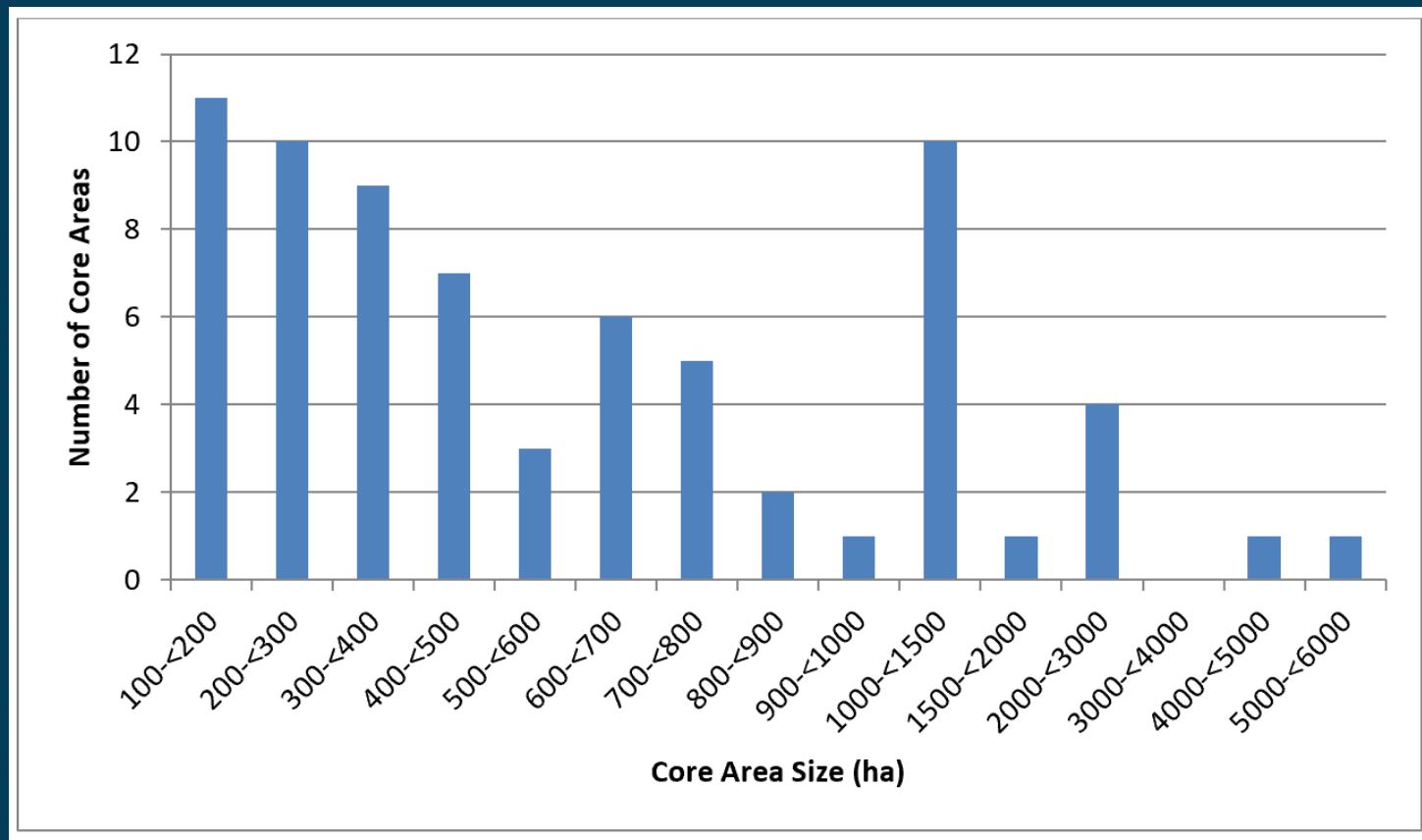
Core Area Rule Set

- Deep interior areas $\geq 10\text{ha}$ in area within 5km of the shoreline west of Owen Sound
- Deep interior areas $\geq 10\text{ha}$ in area within 10km of the shoreline east of Owen Sound
- South of Grey Road 4, all deep interior areas $\geq 10\text{ha}$



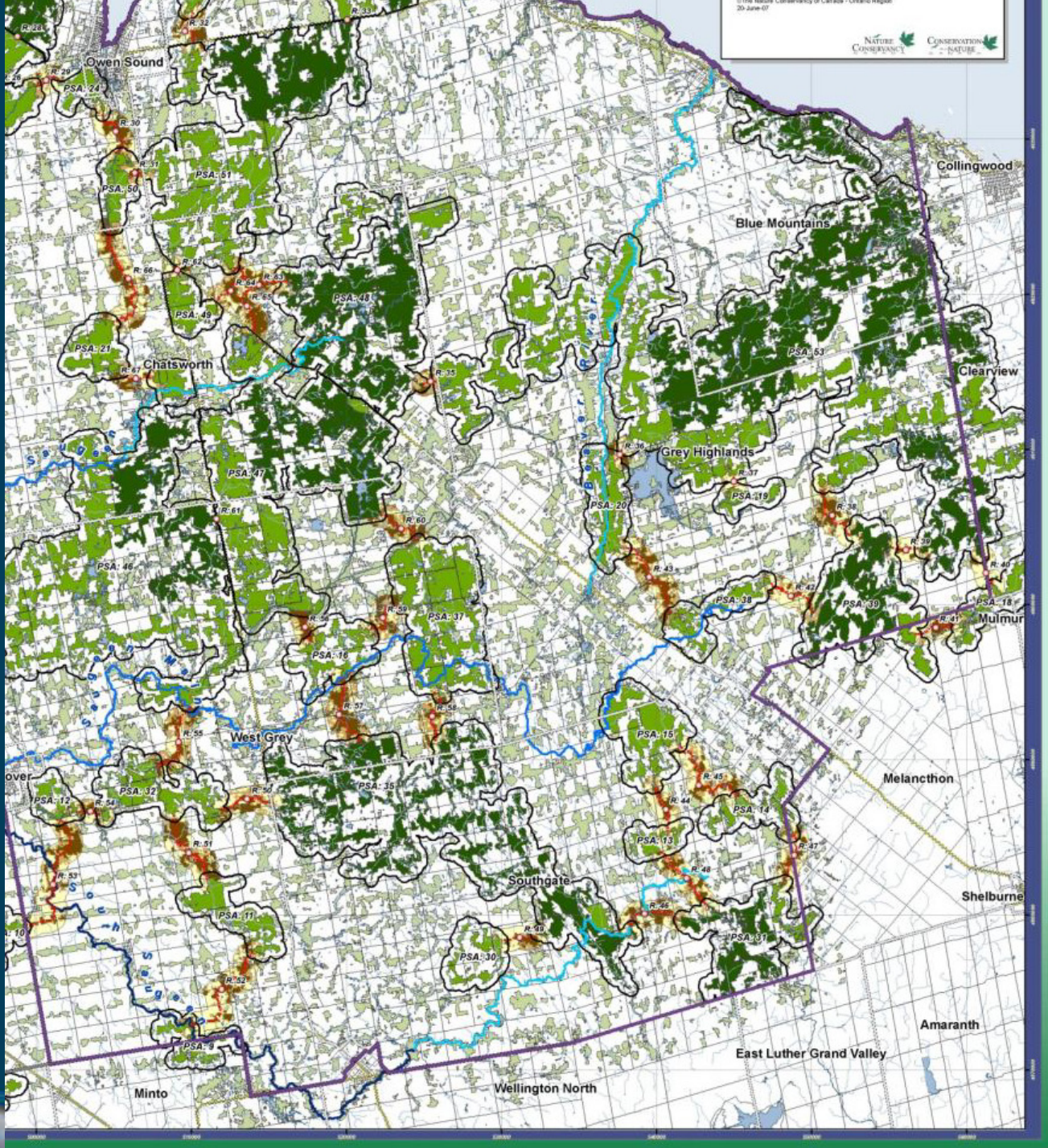
Core Areas

- 71 Core Areas
- Range in size from 132ha to 5,216ha



Linkages

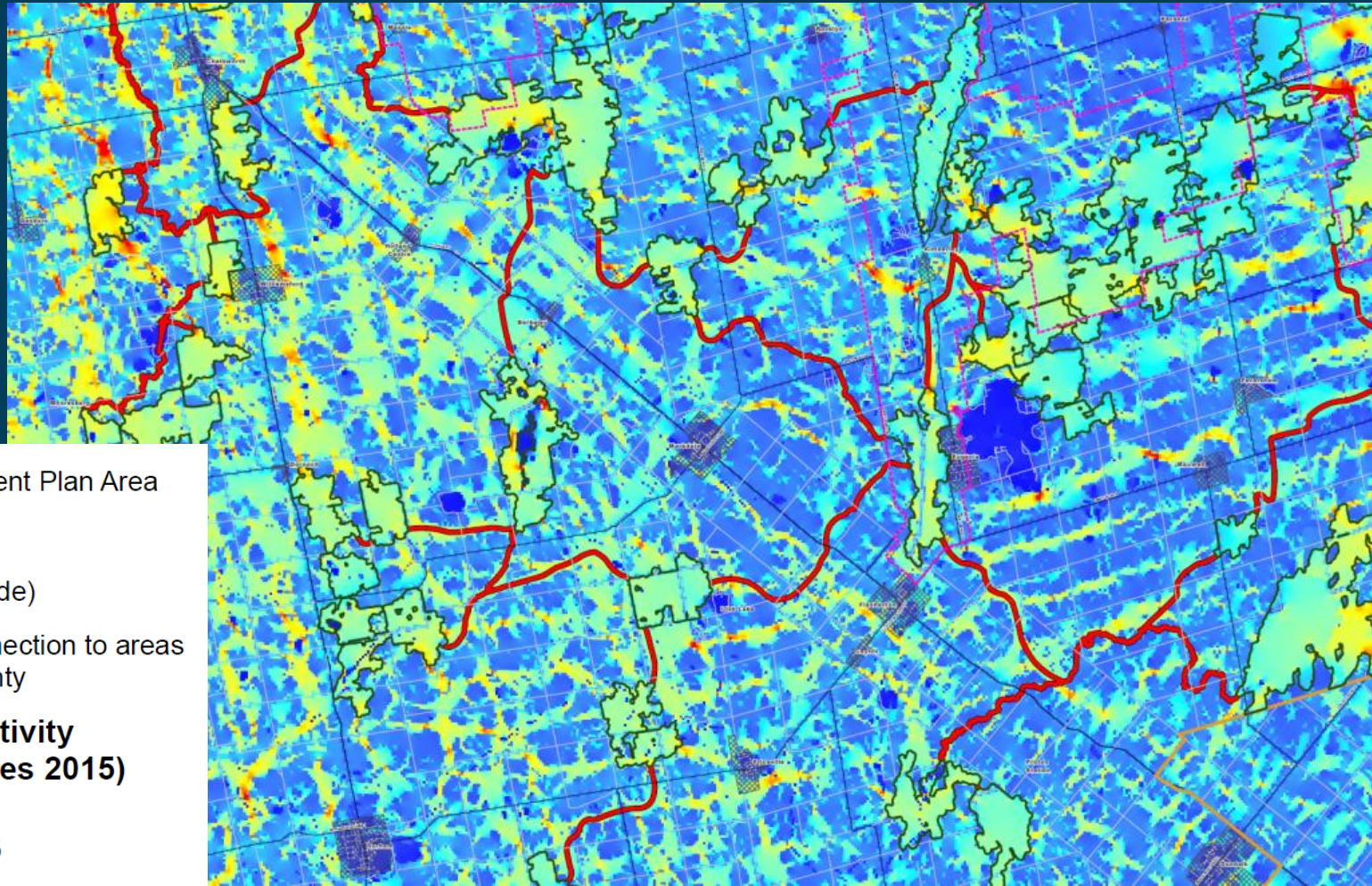
- Areas of greatest natural cover
- Shortest distance between Core Areas
- Number of Linkages was minimized
- 200m wide
- Considered:
 - Connection Routes as mapped in Ontario Nature's Greenway System
 - MNRF's landscape connectivity analysis
- Avoided settlement areas



Ontario Nature Greenway



Wildlife Corridor Analysis



Niagara Escarpment Plan Area



Core Area



Linkage (200m wide)



Broad NHS connection to areas
outside the County

**Landscape Connectivity
(Bowman and Cordes 2015)**

Value



High : 22.7973

Low : -1.21663



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High Value Biodiversity Areas

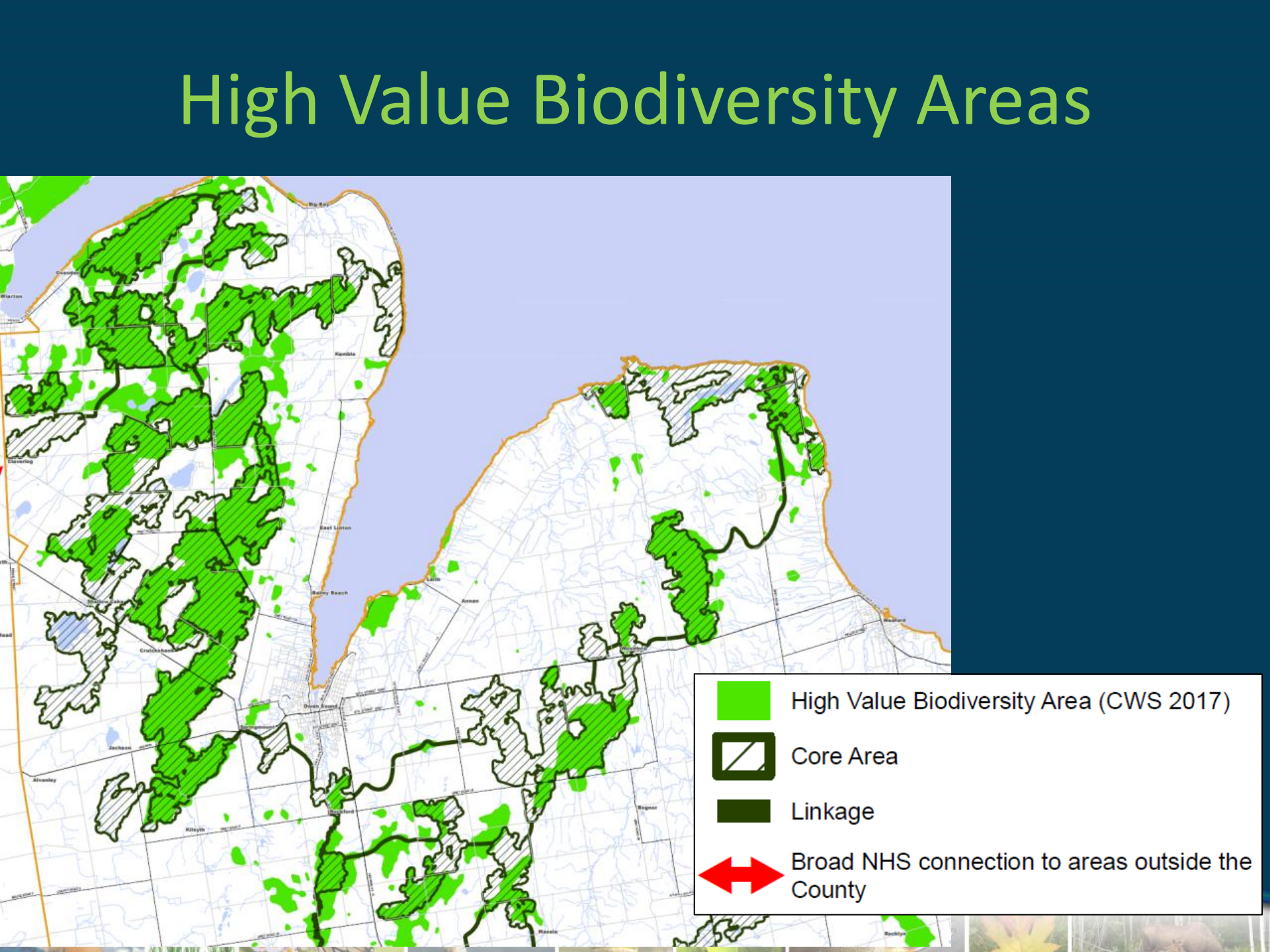
The map displays the geographical distribution of High Value Biodiversity Areas (HVBAs) in County Wick, Ireland, as of 2017. The areas are categorized into four types: High Value Biodiversity Area (CWS 2017), Core Area, Linkage, and Broad NHS connection to areas outside the County. The map shows a complex network of these areas, with a large concentration in the western part of the county and smaller patches in the east. The legend indicates that the High Value Biodiversity Area (CWS 2017) is represented by a solid green color, the Core Area by a green color with diagonal hatching, the Linkage by a solid black line, and the Broad NHS connection to areas outside the County by a red double-headed arrow. The map also shows the county's coastline, major roads, and some place names like Kesh, Keshbeg, and Keshbeg.

High Value Biodiversity Area (CWS 2017)

Core Area

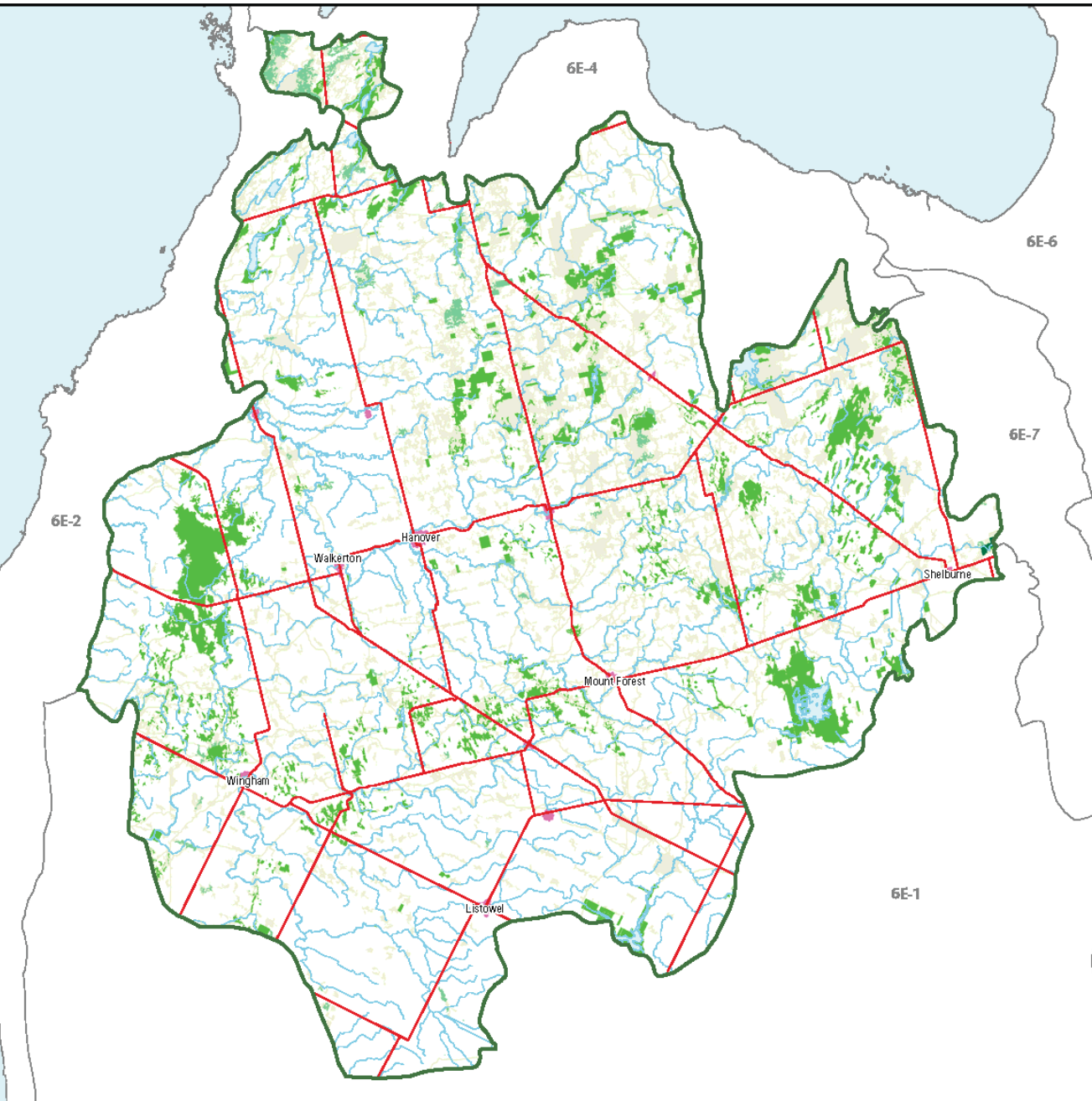
Linkage

Broad NHS connection to areas outside the County

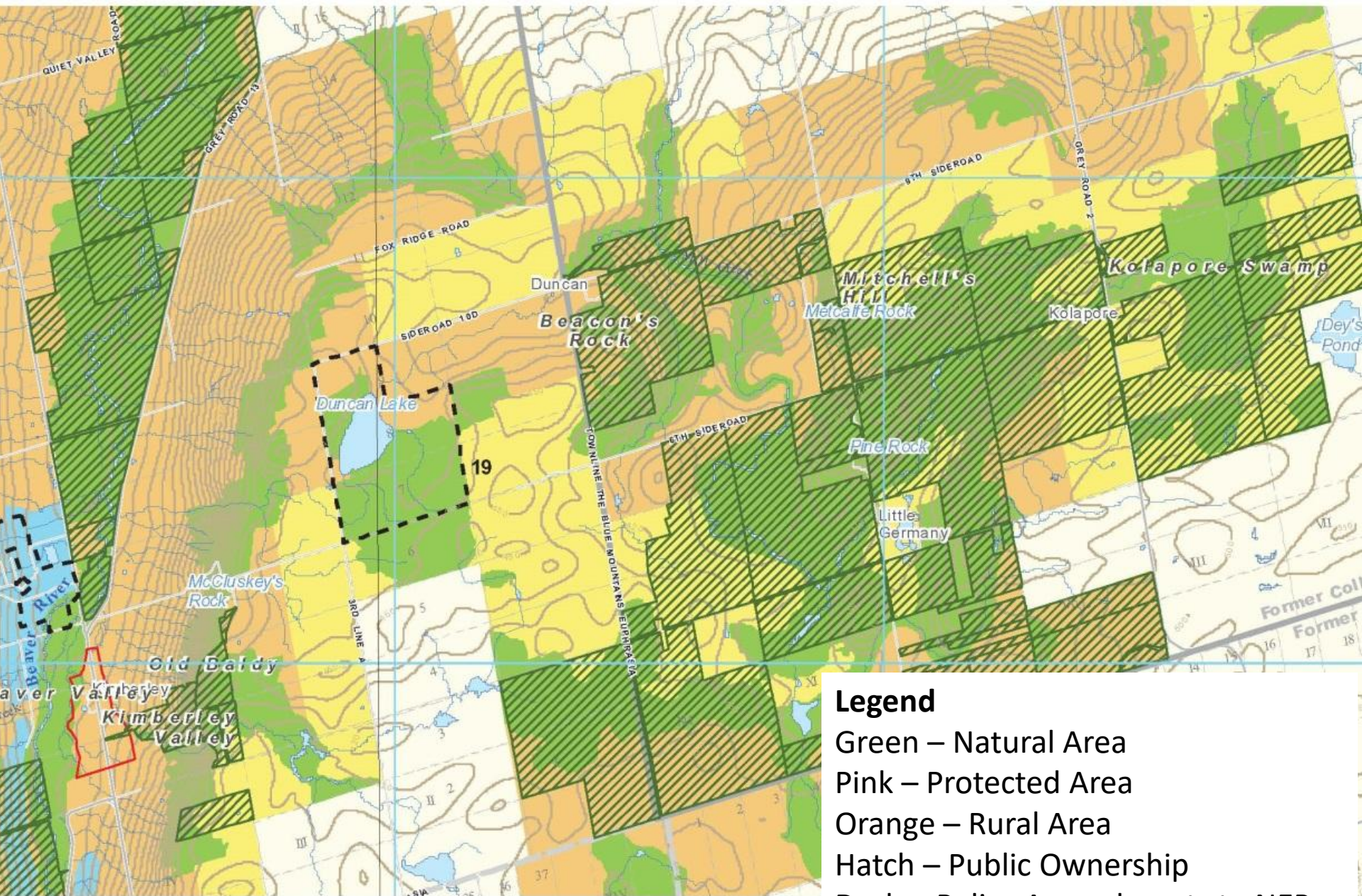


Great Lakes Conservation Blueprint for Biodiversity

- Terrestrial and Aquatic Protected Areas and Priority Stewardship Areas to protect biodiversity



Niagara Escarpment Plan Area



Legend

Green – Natural Area

Pink – Protected Area

Orange – Rural Area

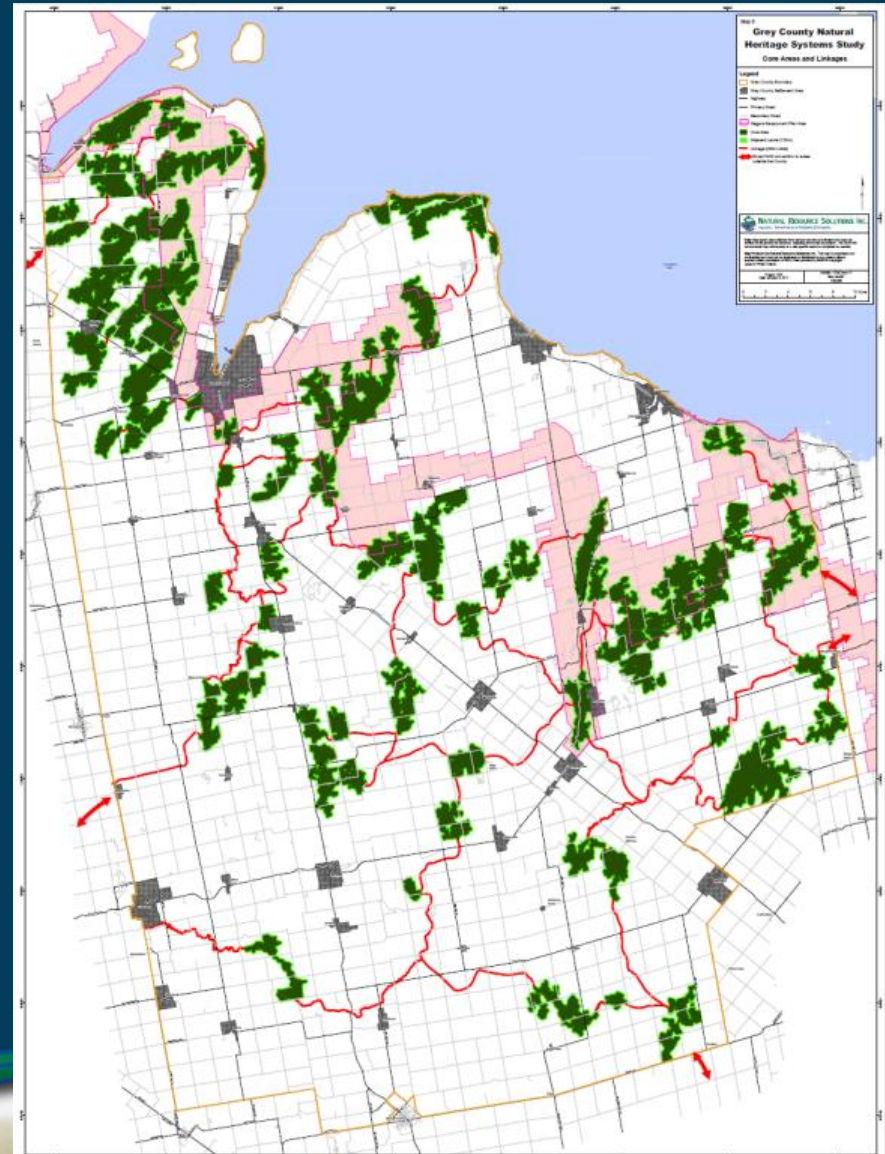
Hatch – Public Ownership

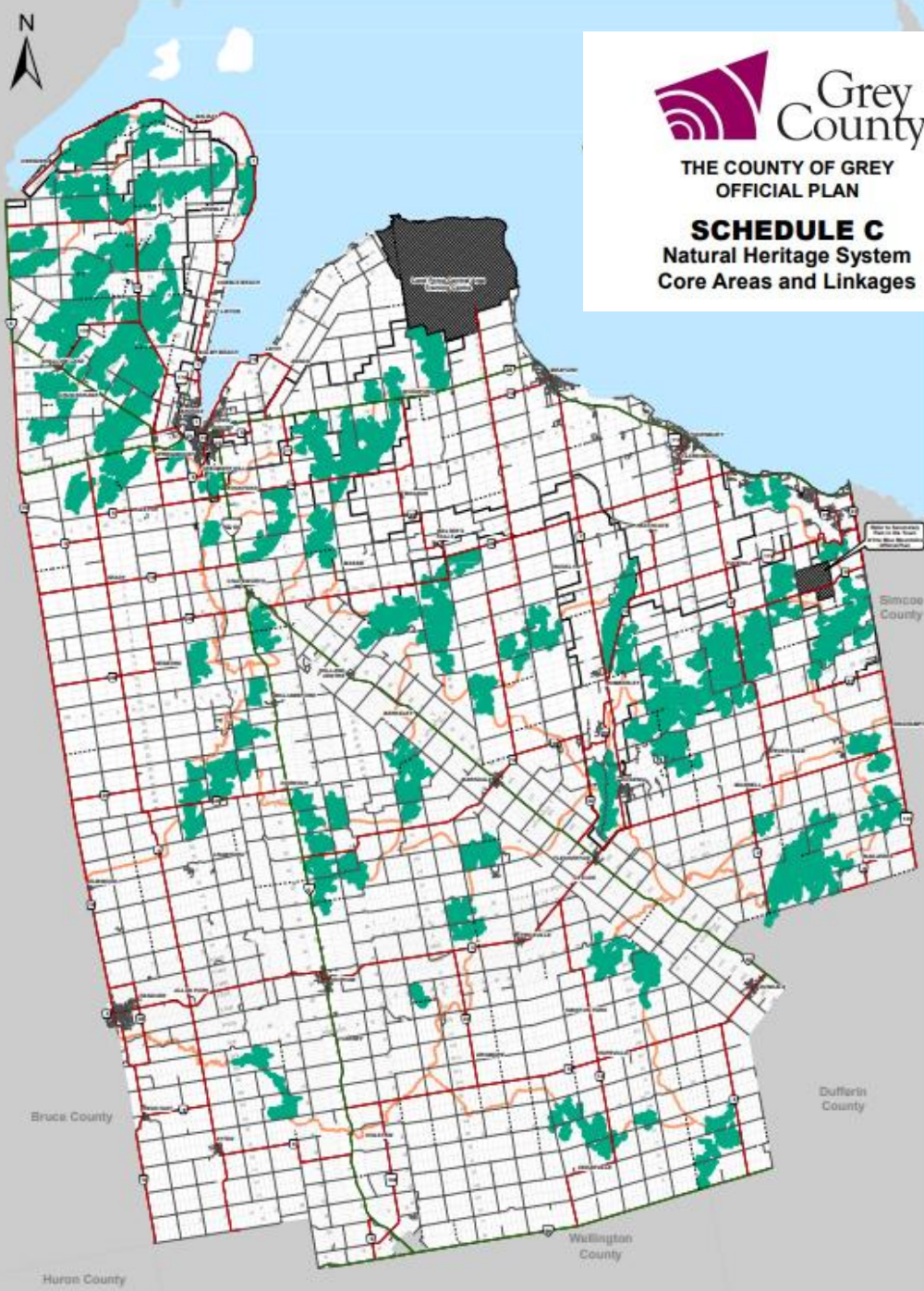
Dash – Policy Amendments to NEP

Red – Settlement Areas

Grey County Core Areas & Linkages

- 71 Core Areas
- 82 Linkages
- Total Area: 61,635 ha
- 13.6% of the County
- *Additional layer* to the other natural features already protected





THE COUNTY OF GREY
OFFICIAL PLAN

SCHEDULE C
Natural Heritage System
Core Areas and Linkages

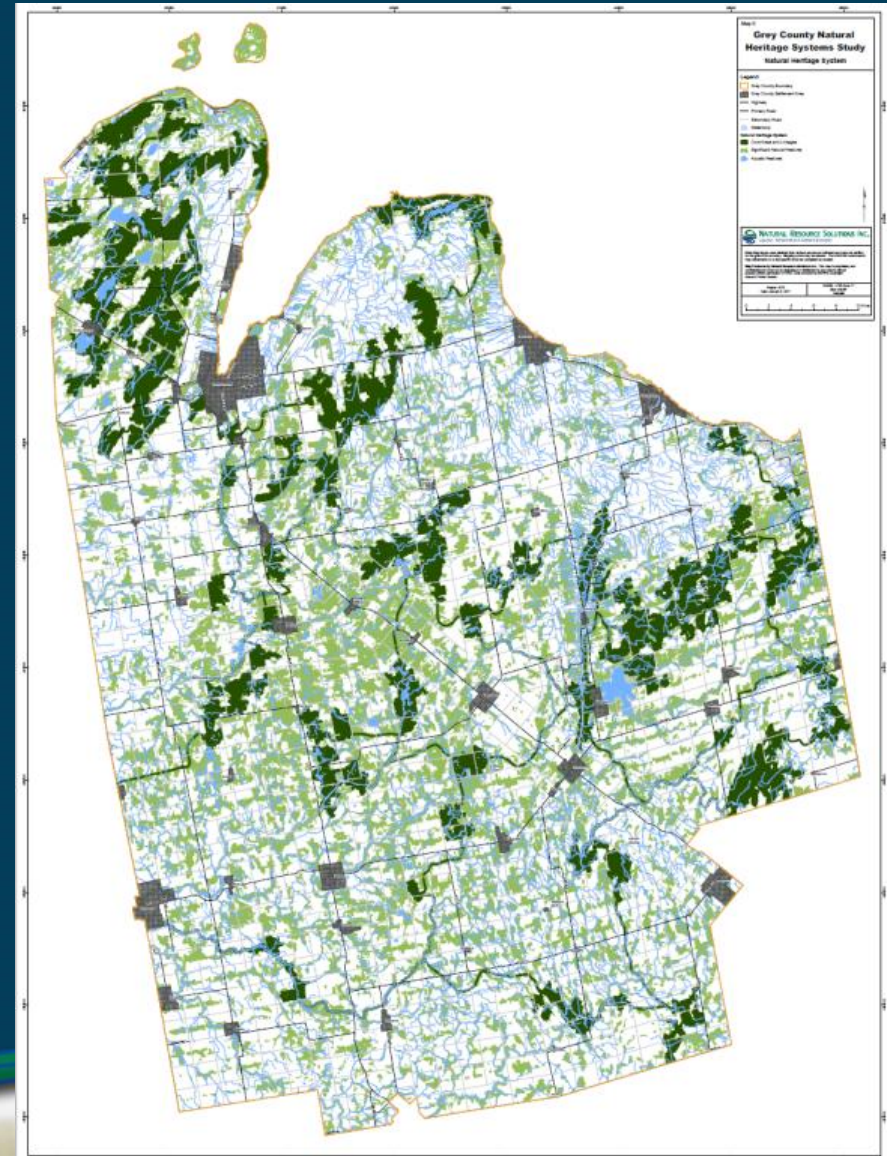
LEGEND

- Provincial Highway
- County Road
- Local Road
- Seasonal Road
- Core Area
- Linkage (200m wide)

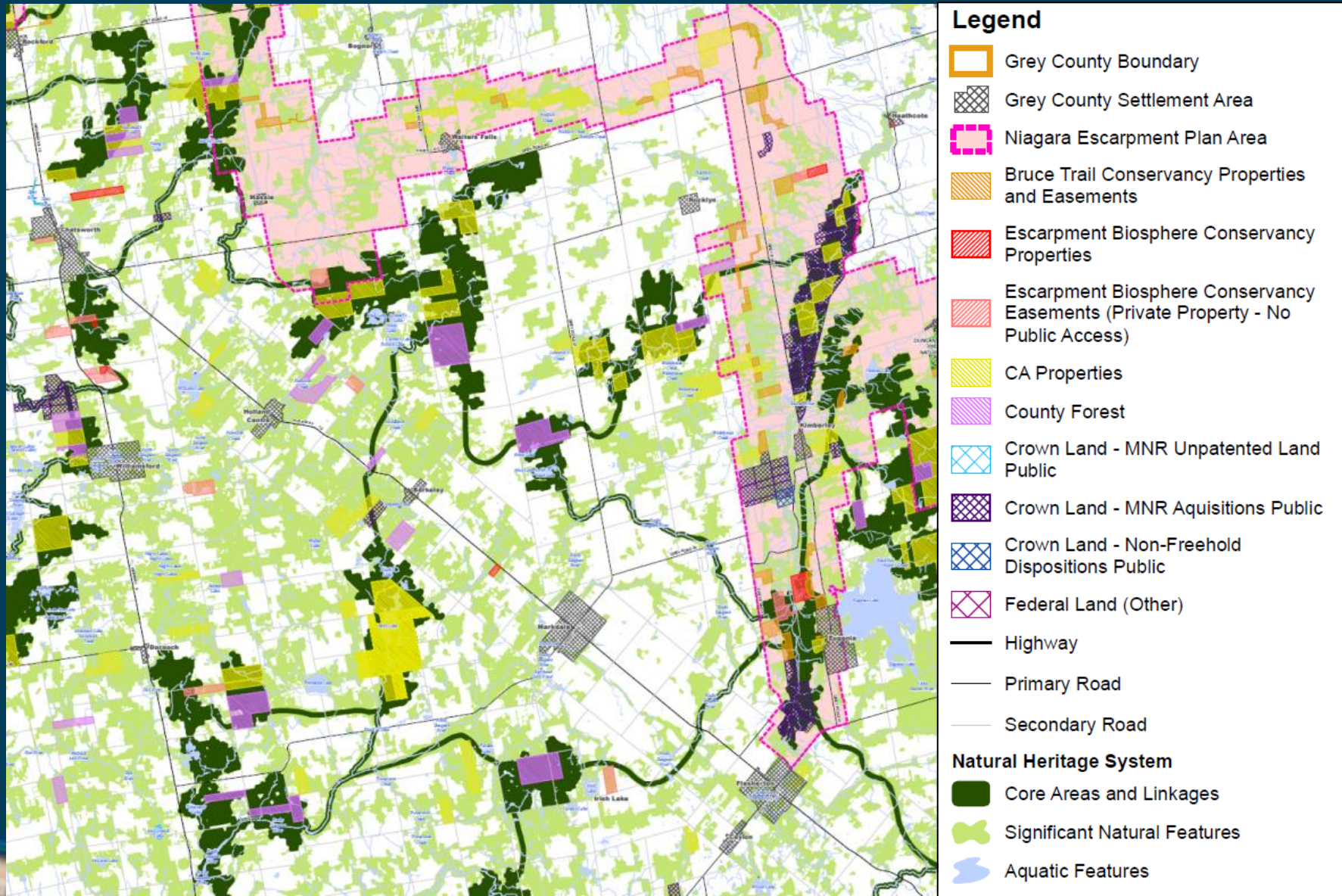
Niagara Escarpment Plan Area

Grey County NHS

- Core Areas + Linkages + Significant Natural Heritage Features:
 - 202,857.2 ha
 - 44.7% of the County



Other Protected Lands



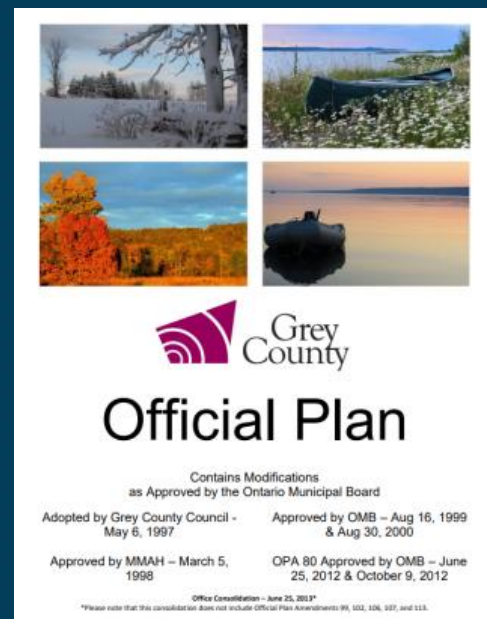
Recommendations

- Restoration of 'gaps' in Core Areas
- Grow Core Areas: SAR and SWH
- Identification of boundaries through site specific studies
- Policy recommendations for Official Plan update



Policy

- Core Areas and Linkages receive the highest level of protection
- Does not take away from protection of other features protected through:
 - Provincial Policy Statement
 - Endangered Species Act
 - Niagara Escarpment Plan
 - Conservation Authority Regulations
 - Other municipal policy



Summary Metrics

13.6%

- 71 Core Areas + 82 Linkages

39.1%

- Forest cover

39.2%

- Significant features

44.6%

- Natural heritage cover

44.7%

- Natural Heritage System



Thank you!



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