



**KAWARTHAS, NATURALLY CONNECTED**

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# **Implementing a Natural Heritage System (NHS) for the Kawarthas**

Official Launch

October 19, 2016

Bridgenorth Branch – Selwyn Public Library,  
Bridgenorth



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# Municipal Approaches

- City of Kawartha Lakes
- Peterborough County



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# Outline:

- KNC and the PPS/Planning Act
- Guiding Principles, Goals & Objectives
- Municipal Utilization by City of Kawartha Lakes and Peterborough County



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# Overview

### **Vision:**

- “A landscape that supports the needs of people and nature in a way that preserves the unique character of the Kawarthas.”

### **Objectives:**

- Identify and map a connected system of natural areas that can inform and support:
  - sustainable land use planning and resource management decision making while protecting and maintaining agriculture and natural heritage
  - development of strategies for land stewardship, restoration projects, conservation land acquisitions, natural heritage inventories and research





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# **What is a Natural Heritage System?**

**“...a system made up of natural heritage features and areas, and linkages intended to provide connectivity...to maintain biological and geological diversity...can include lands that have been restored or have the potential to be restored...”**

**(Provincial Policy Statement (PPS) 2014)**

- Maintains the health of the landscape and communities
- Essential backbone of sustainability (economic, environmental, and social)
- Supports the full life cycle of living creatures in their environment

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Amanda Warren  
Kawartha Conservation



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# **Legislative Basis**

**NHS have the following legislative basis:**

- 2016 Planning Act  
Section 2: Matters of Provincial Interest
- 2014 Provincial Policy Statement  
Section 2.1.3 – Identification of natural heritage systems
- Proposed 2016 Growth Plan for Greater Golden Horseshoe  
Section 4.2.2: Municipalities to incorporate natural heritage systems based on provincial mapping

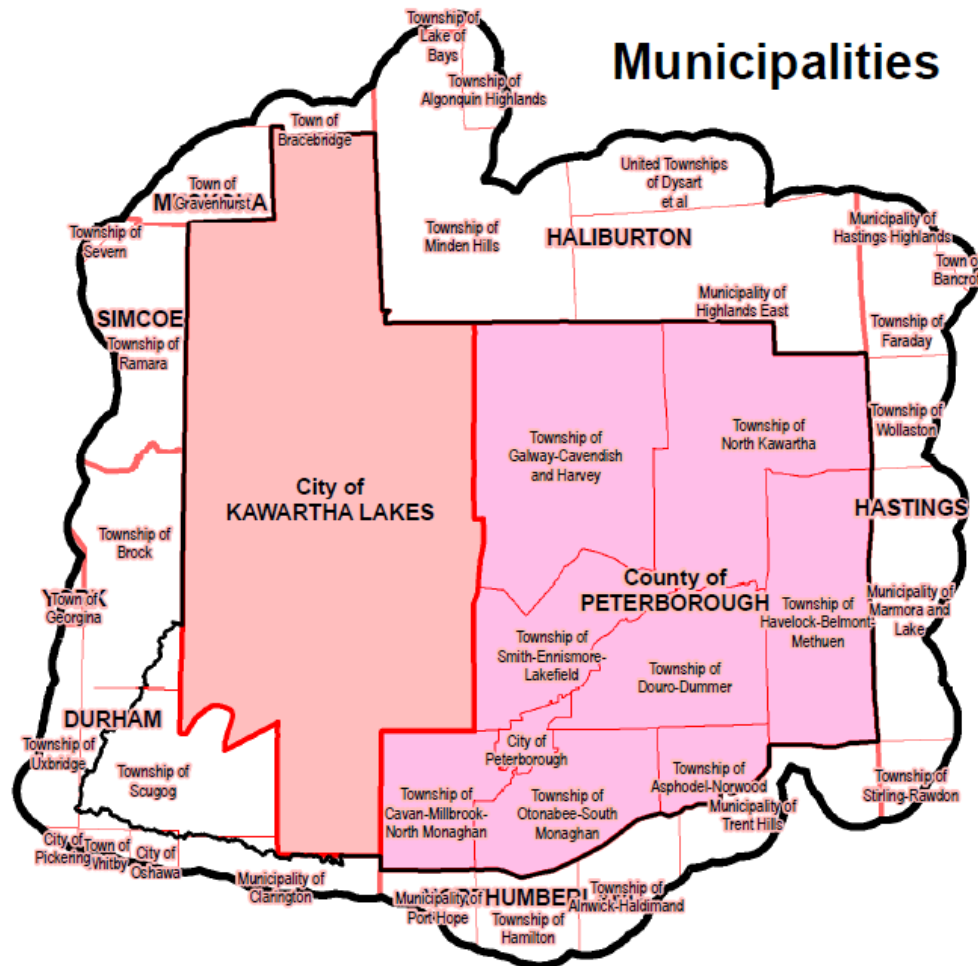




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## Project Area Review



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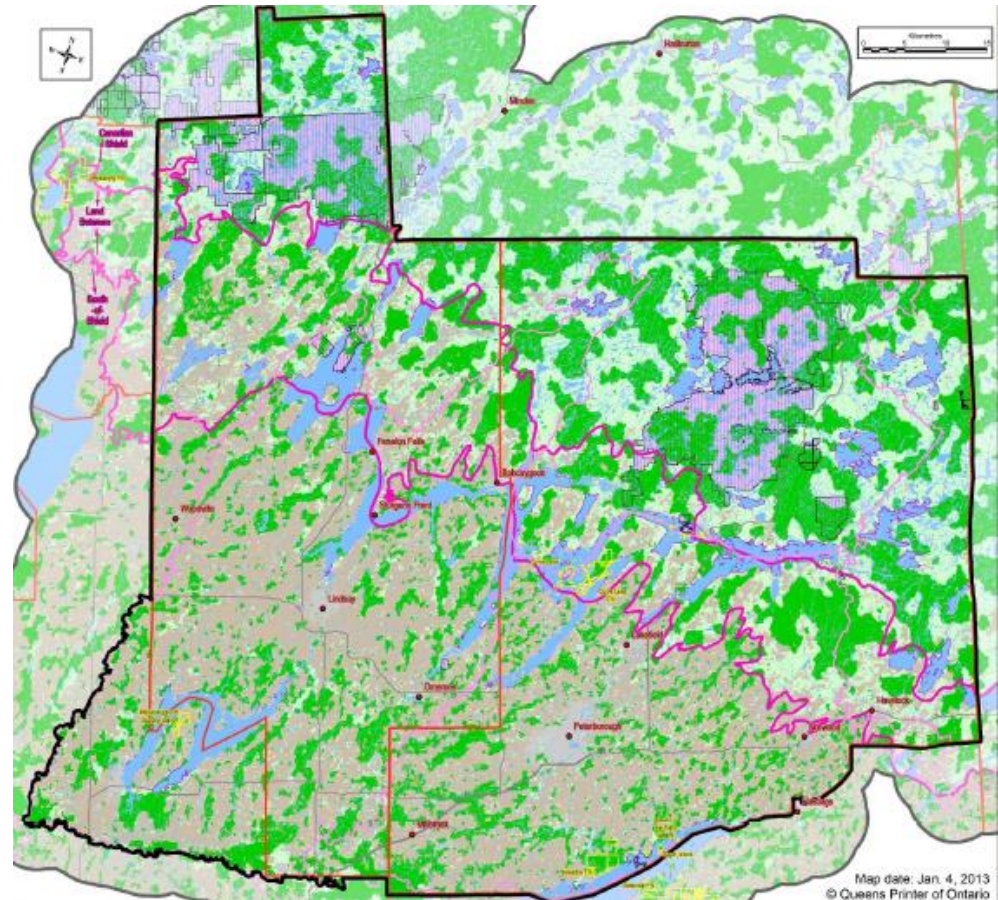


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# KNC Connectivity Mapping

- Comprised of 3 zones:
  - Canadian Shield
  - The Land Between
  - South-of-Shield
- Targets % existing features:
  - Landscape features
  - Biodiversity representation
  - Unique character features
  - Wild rice stands
  - Known rare habitat features
  - Riparian zone on lakes > 200 ha



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# KNC Mapping Tool

The KNC Natural Heritage System Mapping Tool contains the following information.

## 1. KNC Boundary

- Purpose to design a regional natural heritage system (NHS) using an ecological boundary
- Includes a 5km buffer around the extent of all 33 tertiary watersheds within the City of Kawartha Lakes, County of Peterborough, and City of Peterborough

## 2. Core Areas

Core Areas are building blocks of an NHS and should be capable of providing and sustaining ecological functions consisting of four core area types:

- **(a) Aquatic Core Areas** – includes large lakes,  $\geq 20$  ha in size and river segments  $\geq 60$ m wide.
- **(b) Terrestrial Core Areas** – includes the least fragmented areas that are at least 500 m wide.
- **(c) Core Area Enhancement Zones** – areas represent opportunities to expand and enhance the Terrestrial Core Areas through restoration.
- **(d) Potential Core Areas** - areas represent opportunities to build entirely new Terrestrial Core Areas through restoration.

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# KNC Mapping Tool

**3. Corridors** – areas that connect or have the potential to connect, through restoration, terrestrial and/or aquatic Cores Areas together, utilizing selected areas between Cores as stepping stones, including the following three parts:

- **(a) Corridor Pathways** – identify the shortest distance between Core Areas within Corridor Zones, while travelling through as much of the KNC selected areas as possible and avoiding the Barrier Features.
- **(b) Corridors** – are 200m wide buffers delineated along Corridor Pathways and reflect the minimum recommended width necessary in order to support plant and animal movement between Core Areas.
- **(c) Corridor Zones** – identify broader zones that connect Core Areas together where the KNC selected areas are most concentrated and within which the Corridor Pathways were mapped.

## 4. Riparian Linkages

- areas that connect or have the potential to connect through restoration, terrestrial and/or aquatic Cores Areas together along riparian systems and may also serve as supporting connections between Corridors.
- 100m wide buffers delineated along Riparian Linkage Pathways that follow streams, creeks or rivers that connect Core Areas while avoiding Barrier Features.

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# KNC Mapping Tool

## 5. Barriers

- man-made features on the landscape that are considered impediments to plant and animal movement and consist of urban areas and subdivisions, rural homesteads and 400 series highways.
- barrier features are not included within any of the connectivity components delineated on this map.

## 6. Adjacent KNC Selected Areas

- consist of less fragmented KNC selected areas that are located within 100m of any of the other connectivity components described above.

The full KNC Natural Heritage System mapping tool is located on the County of Peterborough's website at:

<https://ptbocounty.maps.arcgis.com/apps/webappviewer/index.html?id=f780cd8d018245309e22b8bbb72d6dfe>

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# Opportunities for Natural Heritage System Policy Planning

- Providing direction for land use planning by identifying key natural heritage features, core areas, and connections
- Foundation for protecting these features
- Updating Official Plans
  - Identifying natural heritage system with connections to abutting jurisdictions
  - Shoreline policy planning
  - Lake management planning
- Aggregate operations long term planning (restoration)
- Land Securement for conservation or recreational purposes
- City will sign Memorandum of Understanding to implement the KNC NHS



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- Guiding Principles, Goals and Objectives
  - Developed by a sub-Committee of the Steering Committee
  - Working draft focused on Land Use Planning, Land Stewardship and Land Securement
  - Forms the basis for policy development



Stewardship Guiding Principles	Stewardship Goals	Stewardship Objectives
<ul style="list-style-type: none"><li>❖ <b>Quality of life for the region's residents is directly related to the integrity of natural systems (air, water, soil, wildlife, plants).</b></li><li>❖ <b>Landowners, private citizens, councils and various other authorities have responsibility to maintain and increase the integrity of natural systems for present and future generations.</b></li></ul>	<ul style="list-style-type: none"><li>• The region's Natural Heritage System will be protected and enhanced to preserve its ecological features and functions and provide diverse benefits for residents and future generations.</li><li>• A wide range of environmental protection will be achieved through increased awareness and collaborative activity among key groups and individuals.</li></ul>	<ul style="list-style-type: none"><li>○ Explore and propose ways, in which Natural Heritage System data and mapping can be used by stakeholders and, with them, identify refinements and additions required.</li><li>○ Contribute to watershed studies, community plans, and development applications that further the establishment of the Natural Heritage System.</li><li>○ Compile a list of, and promote programs that provide funding and incentives to environmental stewardship.</li><li>○ Support organizations and government agencies providing stewardship education.</li></ul>





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### Land Stewardship Guiding Principles:

- Quality of life for the region's residents is directly related to the integrity of natural systems (air, water, soil, wildlife, plants).
- Landowners, private citizens, councils and various other authorities have responsibility to maintain and increase the integrity of natural systems for present and future generations



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### Land Stewardship Goals:

- The region's Natural Heritage System will be protected and enhanced to preserve its ecological features and functions and provide diverse benefits for residents and future generations.
- A wide range of environmental protection will be achieved through increased awareness and collaborative activity among key groups and individuals.



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### **Land Stewardship Objectives:**

- Explore and propose ways, in which Natural Heritage System data and mapping can be used by stakeholders and, with them, identify refinements and additions required
- Contribute to watershed studies, community plans, and development applications that further the establishment of the Natural Heritage System.
- Compile a list of, and promote programs that provide funding and incentives to environmental stewardship
- Support organizations and government agencies providing stewardship education





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### Land Use Guiding Principles:

- Stakeholders support a Natural Heritage System that:
  - identifies environmentally significant landscape requiring protection;
  - has been developed collaboratively using a scientific approach.
- The principal of “Environment First” is the base for all planning decisions since natural heritage features are irreplaceable.



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### Land Use GP (cont'd):

- Geologic and ecologic diversity throughout the region's various bio-regions within the NHS will be recognized
- Consideration of competing interests for the same land area will be guided by direction contained in the PPS
- Relationships and synergies between the Natural Heritage System and the surrounding environment, including agricultural lands, urban areas and resource extraction areas, will be recognized



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### Land Use Goals:

- Strong land use policies will be in place that support sustainable development, foster conservation and provide resiliency to climate change through protection of the Natural Heritage System
- Growth and land use will be managed in a manner that maintains, restores, and enhances the biodiversity, connectivity, and ecological functions of the Natural Heritage System





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### Land Use Goals (cont'd):

- A full range of planning functions and tools will be applied recognizing:
  - a relationship between natural and built environments, including agriculture
  - the principle of preserving resources and protecting the environment
- Opportunities for natural heritage enjoyment, appreciation, and outdoor recreation will be increased
- Land use policies that appropriately recognize geologic and ecologic diversity will be in place



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### Land Use Objectives:

- Protect terrestrial natural heritage and aquatic systems (including their features and functions) from incompatible land use and development that may result in a lasting or irreversible negative impact
- Direct new development and land uses away from the Natural Heritage System so that negative impacts will be avoided where possible, minimized where avoidance is not feasible, and compensated for as a last resort
- Permit new land uses and development by applying a net-gain or no-net-loss principle that is achieved either through financial compensation or off-site enhancement using accepted and viable approaches



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### Land Use Objectives (cont'd):

- Clearly set out the requirements for terrestrial and aquatic environmental impact assessments, including required content (such as analysis, recommendations, mitigation/restoration/enhancement strategies)
- Give natural features that are within the Natural Heritage System a greater standard for restoration and enhancement as opposed to similarly categorized features outside the NHS
- In planning documents, define and identify existing terrestrial and aquatic natural heritage features that are prioritized for restoration and whose protection is essential to the fulfillment of the goals





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### Land Use Objectives (cont'd):

- Create, maintain, and update an inventory of all core natural heritage features and corridors, and all linkages to aquatic systems and include them as Official Plan Schedules or overlays.
- Encourage the development and implementation of complementary policies, programs and practices, including site alteration and tree removal by-laws, and site plan control for waterfront and other priority natural system heritage areas
- Draft policy for Official Plans that requires implementation of Natural Heritage Systems planning using Zoning provisions



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### Land Securement Guiding Principle:

- Where urban land uses or development have the potential to negatively affect natural heritage lands or waters, the affected lands or waters should be conveyed to, or otherwise secured in favor of, a public authority or non-profit organization, where possible



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### Land Securement Goal:

- Provisions will be established to grow and enhance the secured and environmentally managed portion of the natural heritage system (e.g. through conservation agreements, stewardship agreements, or acquisitions)





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### Land Securement Objectives:

- Develop a program and funding for the long-term acquisition of important or threatened natural heritage areas. Acquisition may occur as properties become available primarily through the following methods: purchase; dedication; and donation or bequest
- Develop Official Plan policies and other means/directives that facilitate the severance and transfer of Natural Heritage Systems lands to non-profit organizations, land trusts or other conservation agencies



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### Land Securement Objectives (cont'd):

- Recognize that public or nonprofit ownership of important or threatened major open spaces and natural features within the NHS is preferred in most cases
- Establish partnerships for the acquisition and stewardship of priority lands which contribute to the overall integrity of the system
- Discourage the sale or disposal of publicly owned lands within the Natural heritage System for non-compatible purposes



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# **Towards Implementation City of Kawartha Lakes 5 Year OP Review**

- City of Kawartha Lakes to commence 5 year review of its Official Plan in 2017
- Many background studies and Public Meetings will inform this review
- Need to complete 2014 Provincial Policy Statement as well as proposed 2016 Growth Plan and Oak Ridges Moraine Conservation Plan updates
- City will undertake an updated review of its rural land base
- Natural Heritage System as prepared through KNC will inform a large component of the City's land use review
- NHS will work together with other reviews currently being conducted by other agencies





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# **Towards Implementation City of Kawartha Lakes 5 Year OP Review**

- KRCA is undertaking lake management planning and floodplain mapping for various river systems for the City
- City will update Source Water Protection policy policies
- City is subject to the Lake Simcoe Protection Plan – need further policy update for conformity
- Proposed 2016 Growth Plan policies suggest that the Province will complete an NHS strategy for the Greater Golden Horseshoe
- Natural Heritage System would likely be shown as a series of development constraints mapping for features with policies
- Will be integrated with other features and land use considerations



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### County of Peterborough Official Plan Update:

- Commencing in 2017
- Studies underway:
  - Soils review by OMAFRA
  - Growth Strategy
  - KNC data and information → policy formation and mapping



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- KNC Mapping and information:
  - To be used as an overlay
  - Will supplement OP land use designations
  - Will contain direction for appropriate land use (public and private) and stewardship
  - May assist in Zoning by-law formulation (for Townships)





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- More specifically:
  - To identify, preserve, enhance and restore important natural heritage features that create connectivity to ensure ecological health and biodiversity
  - Goes beyond the specific feature to recognize a system or inter-connectedness of natural heritage features



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Thank you.

# Questions?