



KAWARTHA CONSERVATION

Discover • Protect • Restore



An aerial photograph of a rural landscape. A wide river flows horizontally across the upper half of the image. Below the river, there are green fields, a line of trees, and a road that curves from the left towards the bottom right. The sky is hazy and blue.

Kawartha Stewardship Strategy & Kawartha's Naturally Connected

Kawartha's Naturally Connected
Natural Heritage System Launch

October 19, 2016

Holly Shipclark, Stewardship Coordinator,
Kawartha Conservation

Kawartha Conservation Stewardship Strategy



The Kawartha Watershed

2,563 square km

Unique landscape that holds vast wetlands, and long meandering rivers that flow to and from big lakes along the Trent-Severn Waterway.

Varied land use – agricultural, rural, developed shorelines and urban.



Subwatersheds



20+ subwatersheds

Many of these have associated scientific studies and management plans which include a set of recommended stewardship actions (Lake Management Plans)

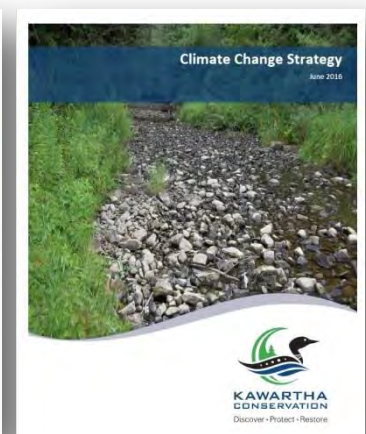
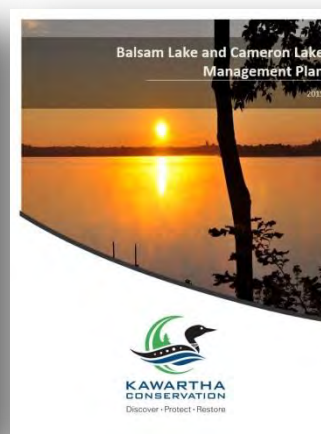
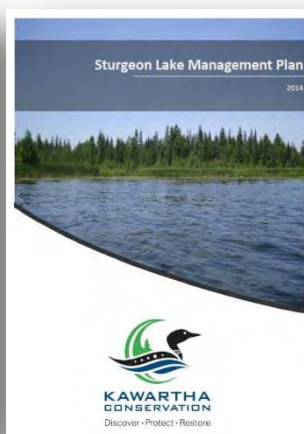
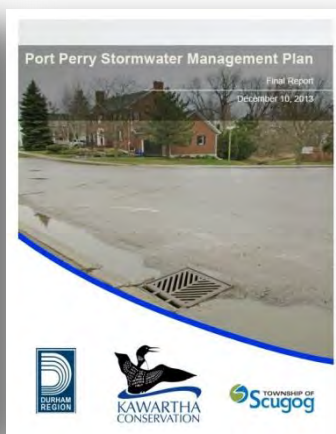
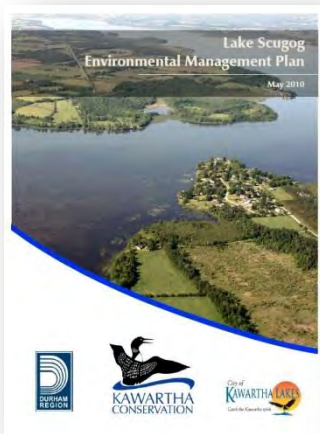
KawarthaConservation.com/Watershed

Implementing Lake Management Plans (LMPs)

We must all understand our collective impact on the lakes and be informed as to *what we can do* to help sustain a healthy lake and its watershed.

LMP Stewardship strategies are comprised of core actions focused on farms and rural lands, towns and urban lands, shoreline areas, and lake users. The primary focus is to develop an understanding of individual responsibility for effective land and soil stewardship practices at the property level.

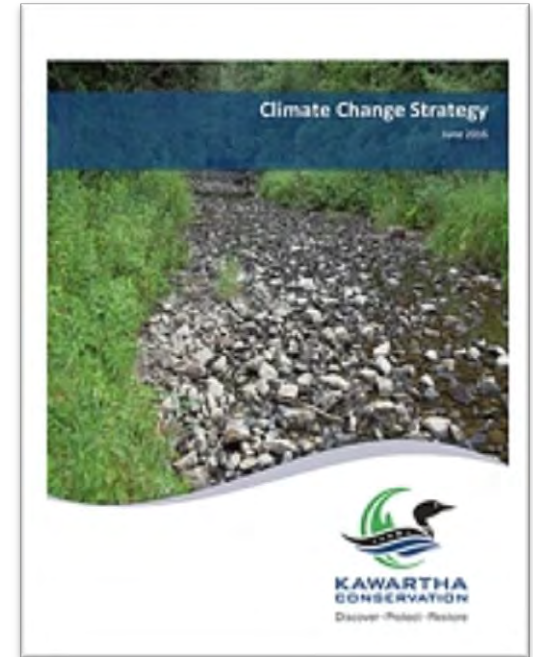
- Recommend programs types that will help to achieve the targets plan targets.



Implementing Kawartha Conservation's Climate Change Strategy

Conserving and Restoring - Increase watershed resistance to climate change and ability to mitigate it through conservation, restoration and improvement natural ecosystems

Why is it important? - Implementing recommendations will enhance local ability to adapt to changing climate conditions through further development of *green infrastructure*. The actions will support mitigation of climate change by increasing the watershed's capacity to sequester greenhouse gases by protecting water quality and quantity and natural heritage features



KawarthaConservation.com/Watershed



...develop and deliver targeted programs and projects for agricultural, rural, urban and shoreline landowners.

Provide Access to tools

Create Awareness

Provide Recognition

Educate Youth



Landowner contact

Provide Incentive

Provide Technical support


Demonstrate



CLIMATE CHANGE STRATEGY
LAKE MANAGEMENT PLANS
KAWARTHA CONSERVATION STRAT. PLAN
WATERSHED REPORT CARDS
FISHERIES MANAGEMENT PLANS



STEWARDSHIP
PRIORITIZATION TOOL
Under Development, 2016


KAWARTHA CONSERVATION
WATERSHED STEWARDSHIP
STRATEGY
Under Development, 2016

- Better allocation of resources
- Improved “big picture” implementation and monitoring



STEWARDSHIP PRIORITIZATION TOOL

Under Development, 2016

Goals:

- Improve ecological hot spots
- Maximize the shape, quality and connectivity of natural heritage features of our Natural Heritage System
- Protect and further improve high quality lands



Being Guided by Kawartha's Natural Connected, Natural Heritage System



KAWARTHAS, NATURALLY CONNECTED

Working together to sustain our landscape

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



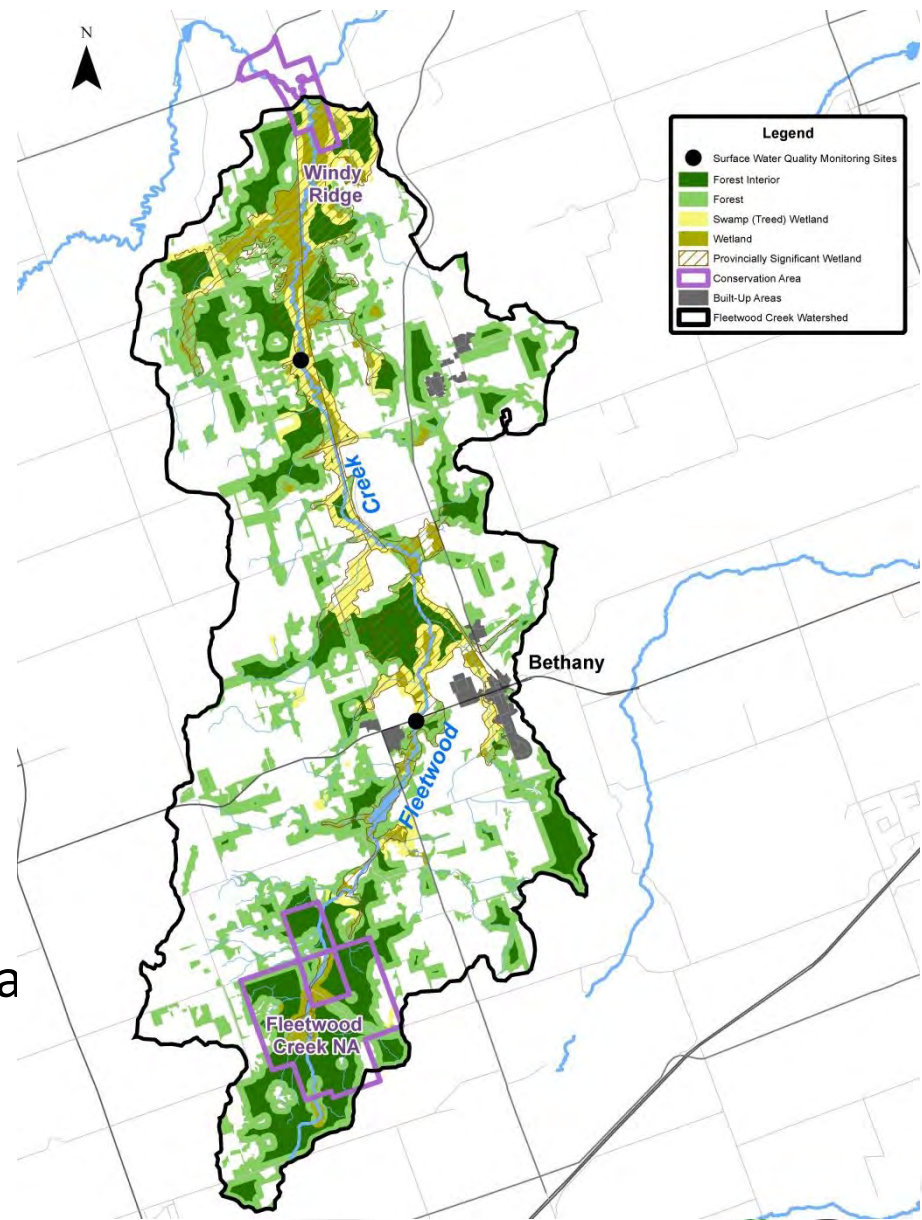
Fleetwood Creek Subwatershed

Subwatershed Characteristics

- Subwatershed area: 73 km² or 7,292ha
- Total watercourse length: 109 km
- Length of main channel: 20 km

Conservation and Natural Areas

- Fleetwood Creek Natural Area (South)
- Windy Ridge Conservation Area (North)





STEWARDSHIP PRIORITIZATION TOOL



Step 1 – Catchment Delineation

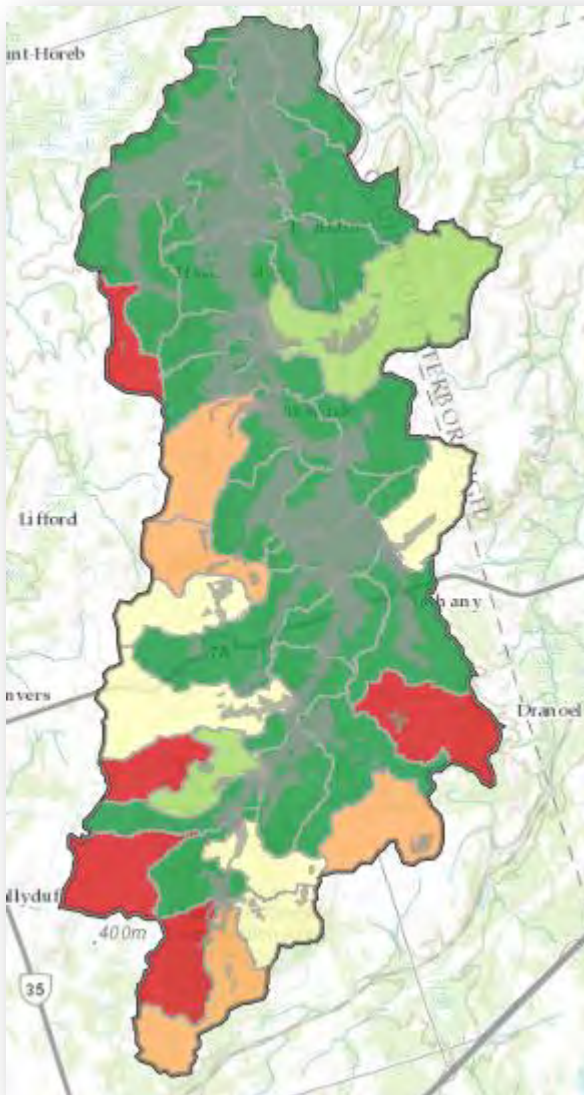
- Within each subwatershed delineate catchments using Arc Hydro and three key data sets
- Catchments smaller than 50 ha were merged manually
- In this study area there are 41 catchments ranging in size from 50-120 ha

STEWARDSHIP PRIORITIZATION TOOL

Step 2 – Use Watershed Health Indicators to Quantify and Assign Points

Indicators:

- Forest Cover
- Wetland Cover
- 100 & 200M Interior Forest Cover
- Natural Cover
- Riparian Cover
- Thermal Regime
- Water Quality



Wetland cover

Percent Wetland Cover

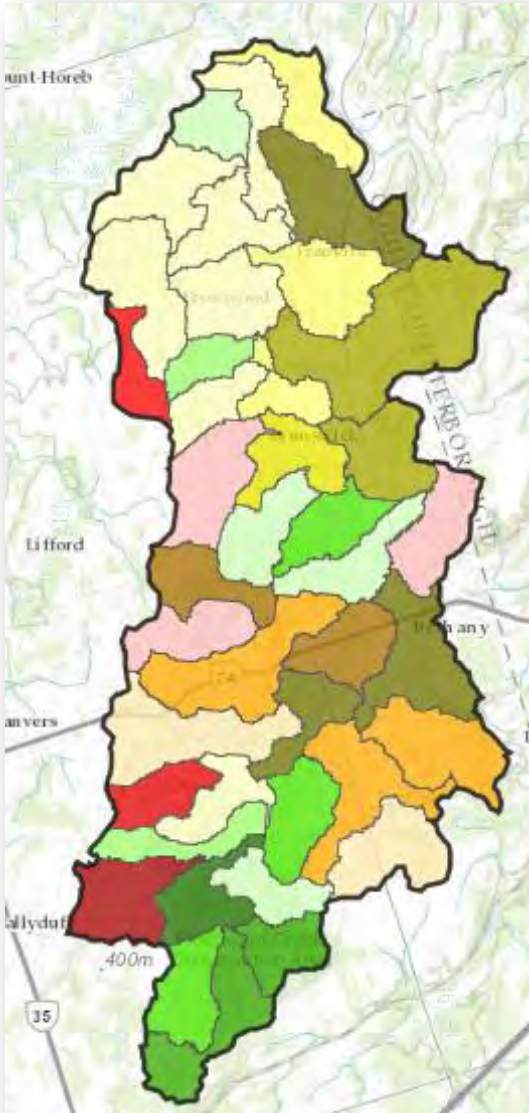
Percent_We

- > 11.5 (Point Score - 5)
- 8.5 to 11.5 (Point Score - 4)
- 5.6 to 8.5 (Point Score - 3)
- 2.6 to 5.5 (Point Score - 2)
- 0 to 2.5 (Point Score - 1)

INTEGRATED STEWARDSHIP PRIORITIZATION TOOL

Step 3 – Calculate Total Score

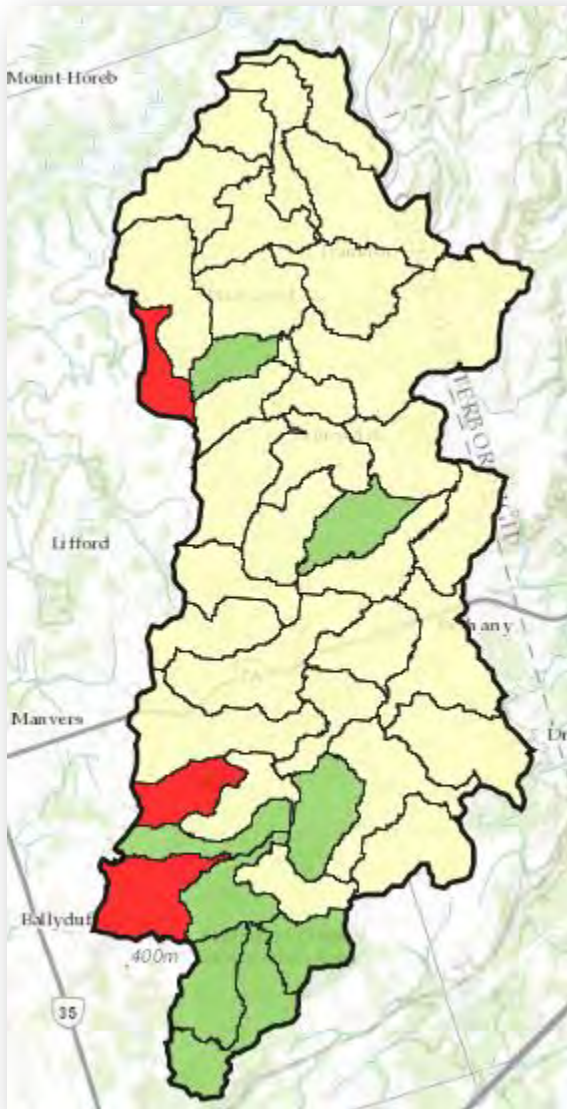
- Each catchment assigned score by adding the scores assigned for each indicator
- Possible score of 11 - 40



Total Score

INTEGRATED STEWARDSHIP PRIORITIZATION TOOL

Step 4 – Apply limits for High, Medium and Low Quality catchments



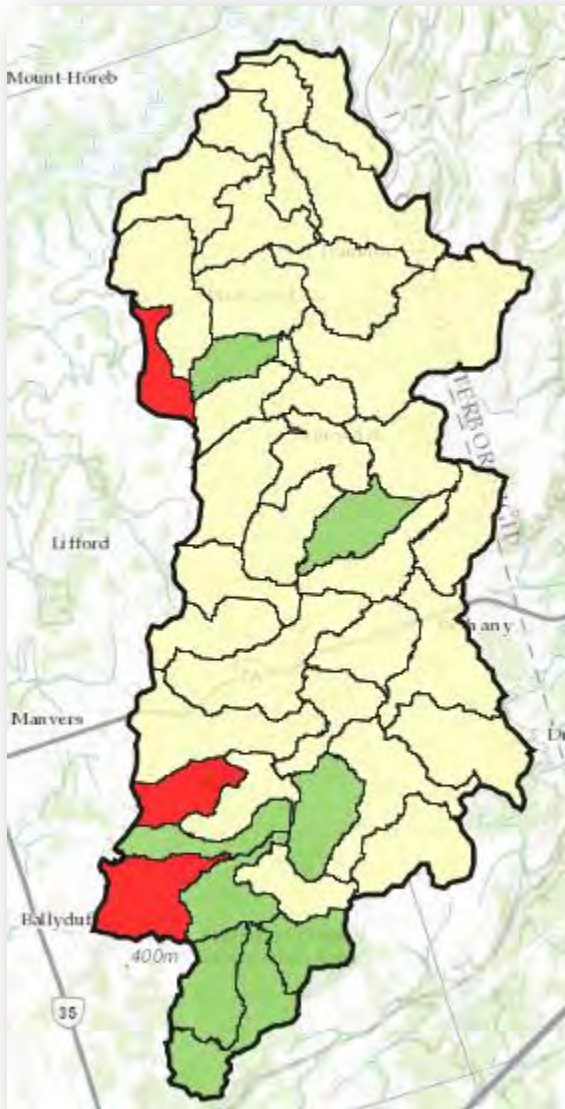
Priority Catchments

RankingS_7

- 26 to 30 (High Quality)
- 16 to 25 (Medium Quality)
- 0 to 15 (Low Quality)

INTEGRATED STEWARDSHIP PRIORITIZATION TOOL

Step 4 – Apply limits for High, Medium and Low Quality catchments



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INTEGRATED STEWARDSHIP PRIORITIZATION TOOL

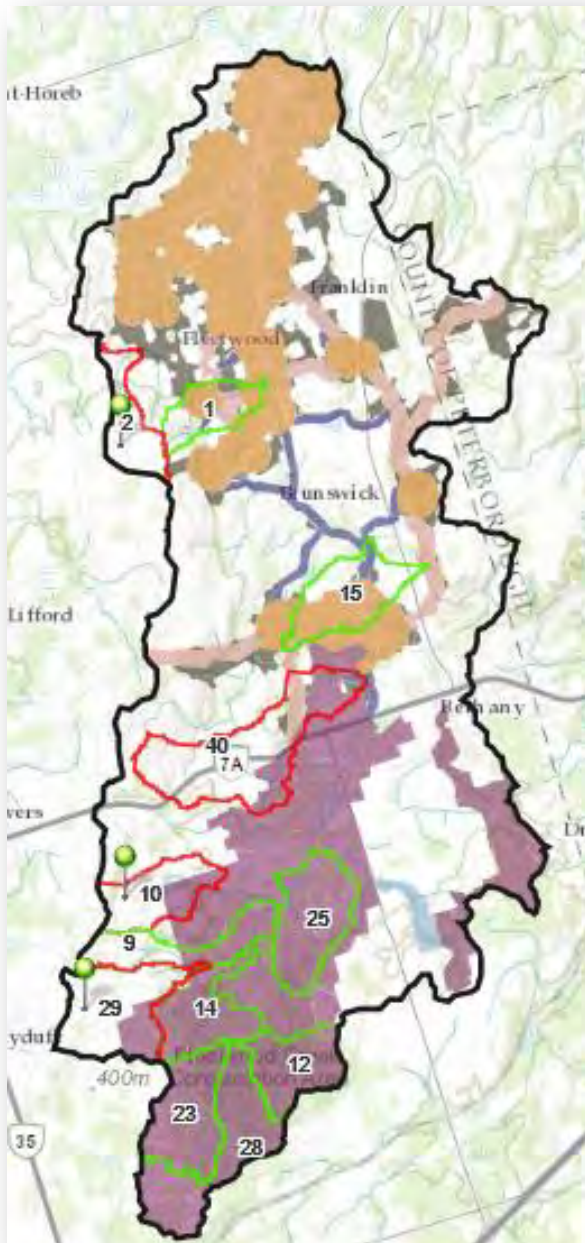
Step 5 – Overlay with Natural Heritage System and prioritize catchments

P1 – Low quality intersects with NHS

P2 – Low quality no intersect

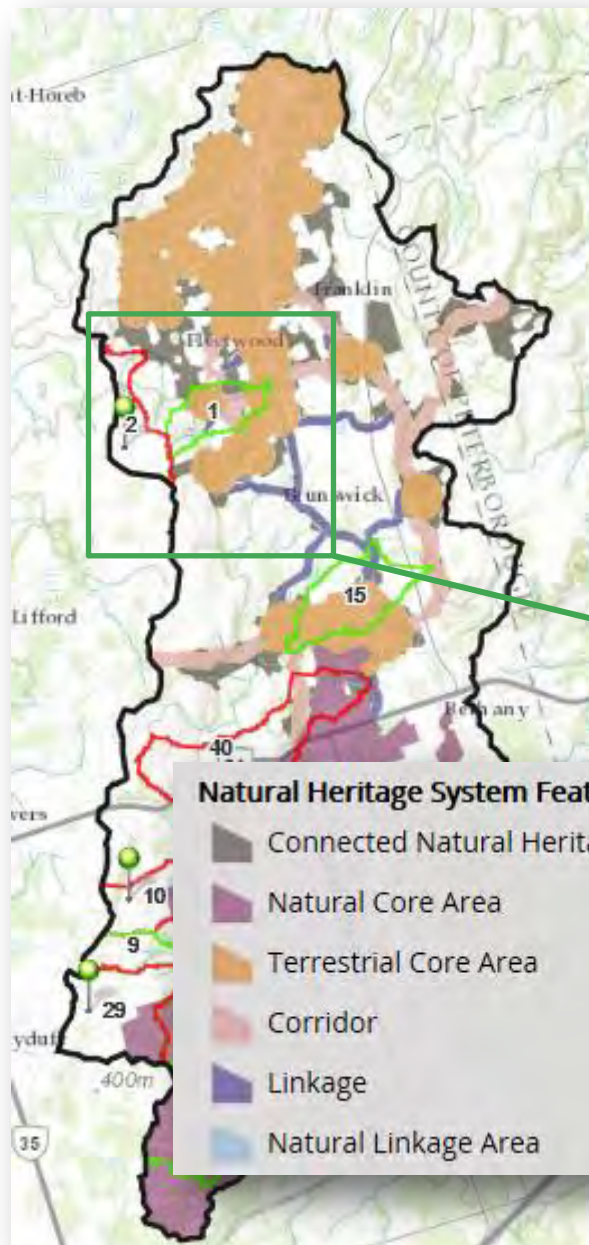
P3 – High quality intersects with NHS

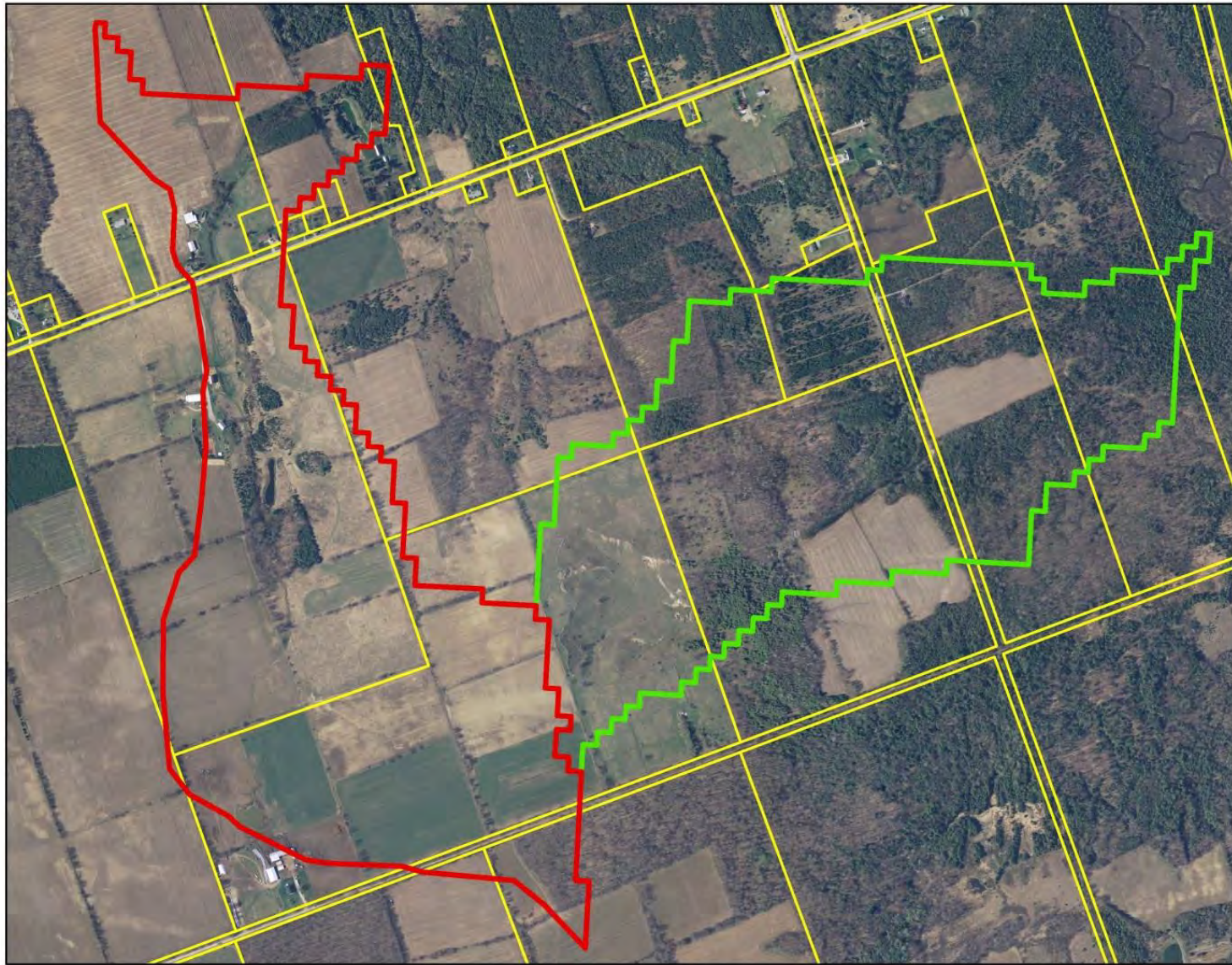
P4 – High quality no intersect



INTEGRATED STEWARDSHIP PRIORITIZATION TOOL

Step 5 – Overlay with Natural Heritage System and prioritize catchments

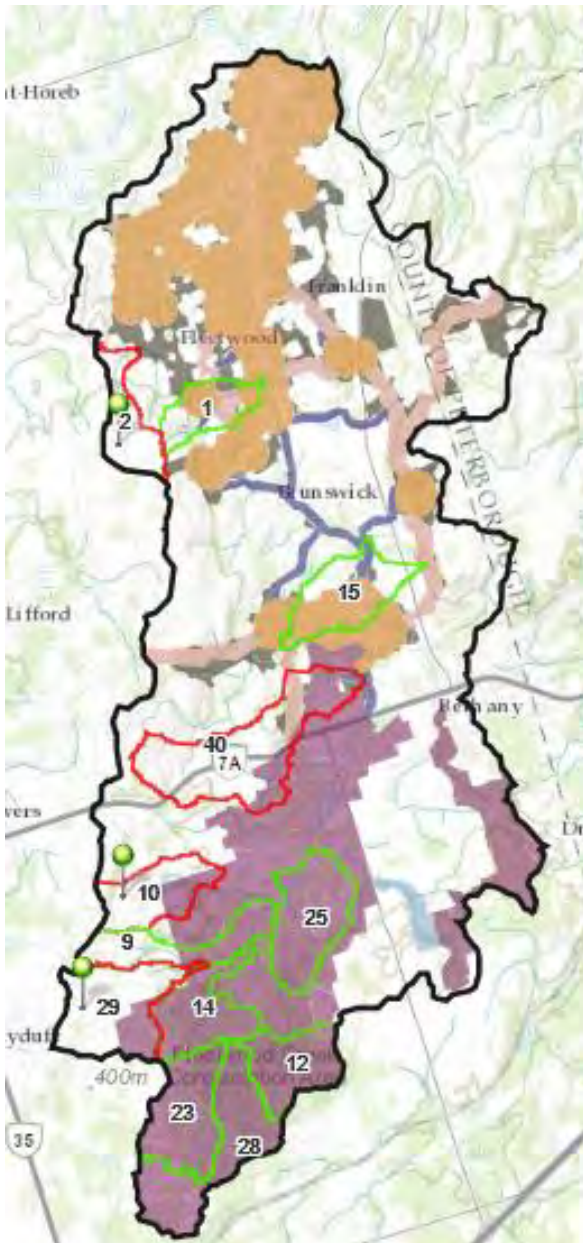




INTEGRATED STEWARDSHIP PRIORITIZATION TOOL

Next Steps:

- Refine catchment prioritization process
- Apply to rest Kawartha Watershed (the other 97%)
- Identify and improve data gaps and update model on an ongoing basis
- Implementation of stewardship projects within highest priority catchments



An aerial photograph of a landscape featuring a large body of water in the background, green fields in the middle ground, and a road in the foreground. The text is overlaid on the image.

Thank you

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