

Kawarthas Naturally Connected

Kawarthas Naturally Connected Natural Heritage System Mapping Tools

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For the

Kawarthas, Naturally Connected Fall Launch

October 19, 2016



Kawarthas, Naturally Connected through Google Earth

- Kawarthas, Naturally Connected (KNC) is a map of natural spaces in the City of Kawartha Lakes, Peterborough County and some of the surrounding areas.

Where to find the maps



The screenshot shows a web browser window with the URL www.kawarthasnaturally.ca/resources/. The browser's address bar and tabs are visible at the top. The website's navigation menu includes links for HOME, ABOUT THE PROJECT, PROJECT AREA, RESOURCES, and CONTACT. The 'RESOURCES' link is circled in red. Below the navigation menu is a banner with four images: a forest, a lake with a boat, a group of people on a boat, and a house in a field. The banner text reads 'KAWARTHAS, NATURALLY CONNECTED' and 'Working together to sustain our landscape'. The main content area is titled 'Resources' and features a section for 'Kawarthas, Naturally Connected Reports and Maps'. This section includes a link to 'Phase 1 Project Report' and a 'Download PDF, 6.2 MB' button. Below this, it states: 'The following three maps represent the central mapping outcomes of Phase 1 of the KNC project.' To the right of the text is a diagram titled 'STEPS TO CREATING NATURAL HERITAGE SYSTEM' with a link to 'Click here to view the steps'. The diagram shows a flowchart with numbered steps 1 through 8. The Kawartha Conservation logo is visible in the bottom right corner of the page.

Map Types

- PDF's

Resources

Kawarthas, Naturally Connected Reports and Maps

Phase 1 Project Report

[Download PDF, 6.2 MB](#)

The following three maps represent the central mapping outcomes of Phase 1 of the KNC project.

The Preferred Solution is the final map product. The other two maps – **The Preferred Sum Solution** and the **Combined Feature Sum Solution** – represent the mapping data used to produce the Preferred Solution. **Please refer to the report for detailed explanation of the data contents of each map.**

Preferred Solution Map

[Download PDF, 20MB](#)

Preferred Sum Solution Map

[Download PDF, 25MB](#)

Combined Feature Sum Solution Map

[Download PDF, 23MB](#)

- PDF's cont'd

Phase 2 Implementation Mapping – Baseline Connectivity Mapping

There are two sources of information on new KNC mapping reflecting natural heritage connectivity within the study area.

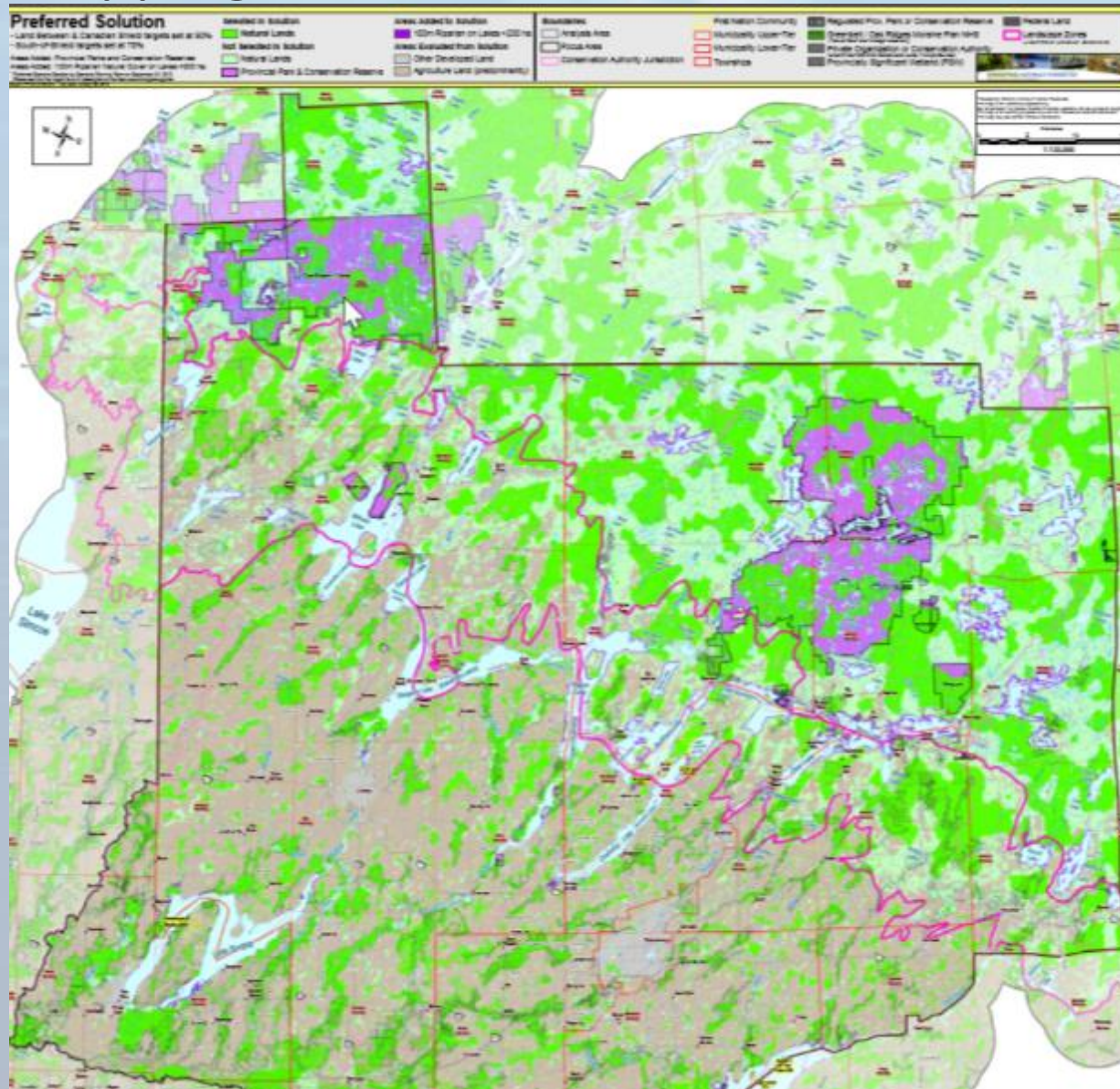
The objective of the connectivity mapping is to delineate areas that connect, or through restoration, have the potential to connect the areas identified under the KNC Preferred Scenario.

There are two ways to view the connectivity mapping:

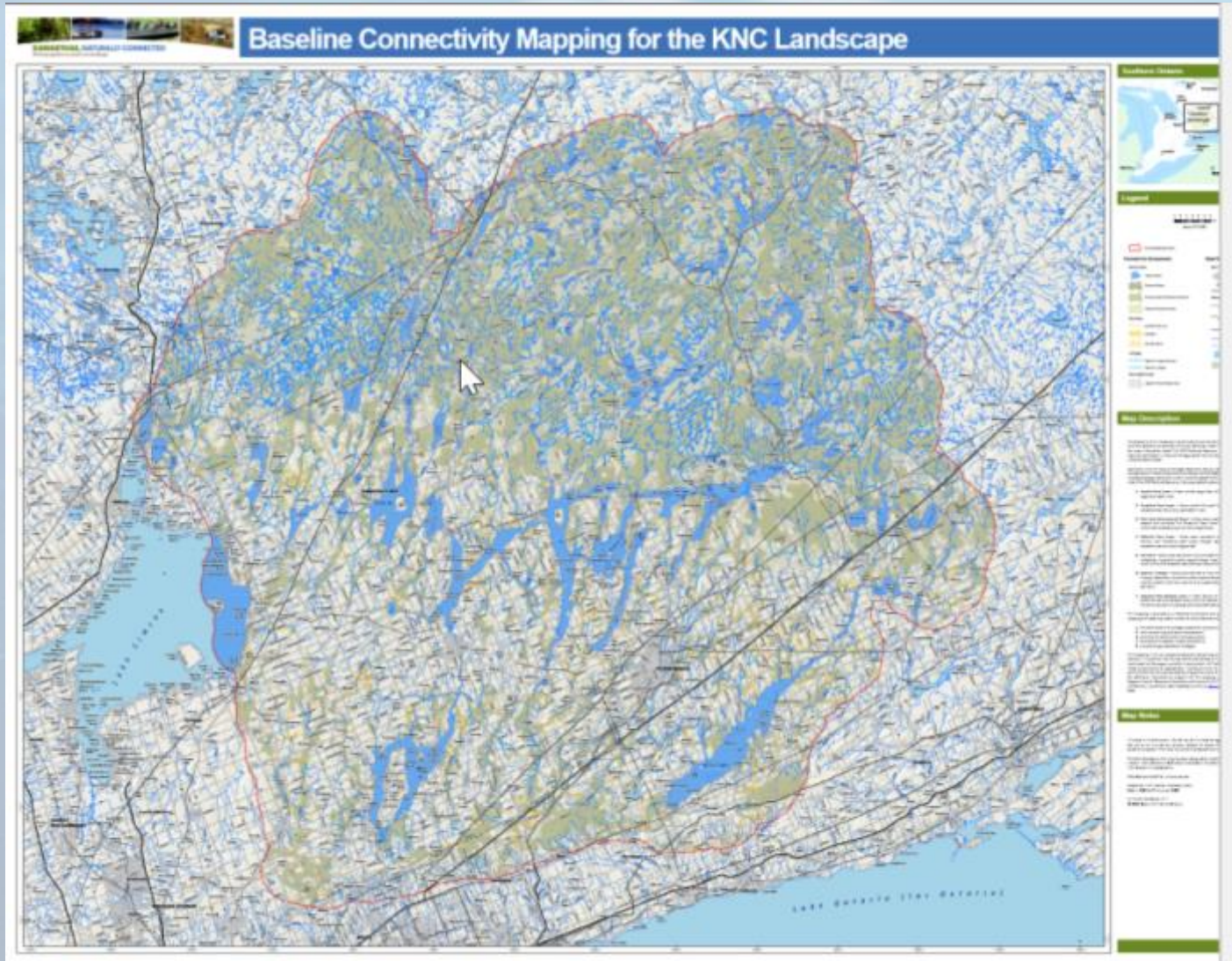
1 – PDF Version – This version will allow you to zoom in and pan around specific areas of the map. To use this version of the map you will need to have Acrobat Reader installed on your computer, which is available as a free download from here:

<https://get.adobe.com/reader/>

Phase 1 Mapping

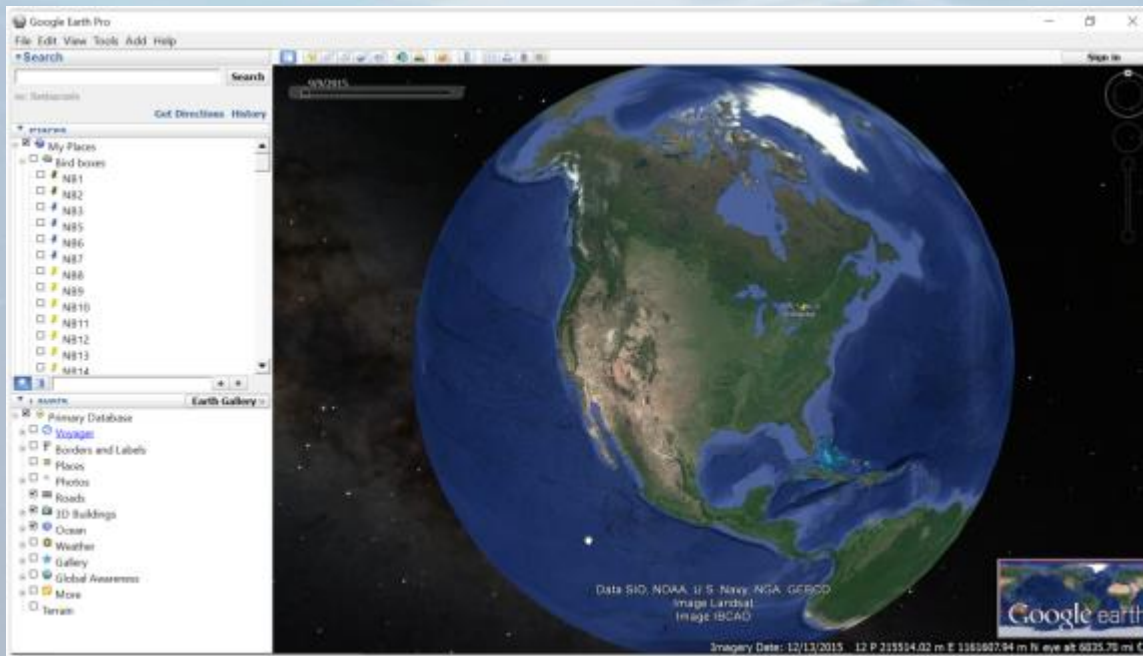


Phase 2 Mapping

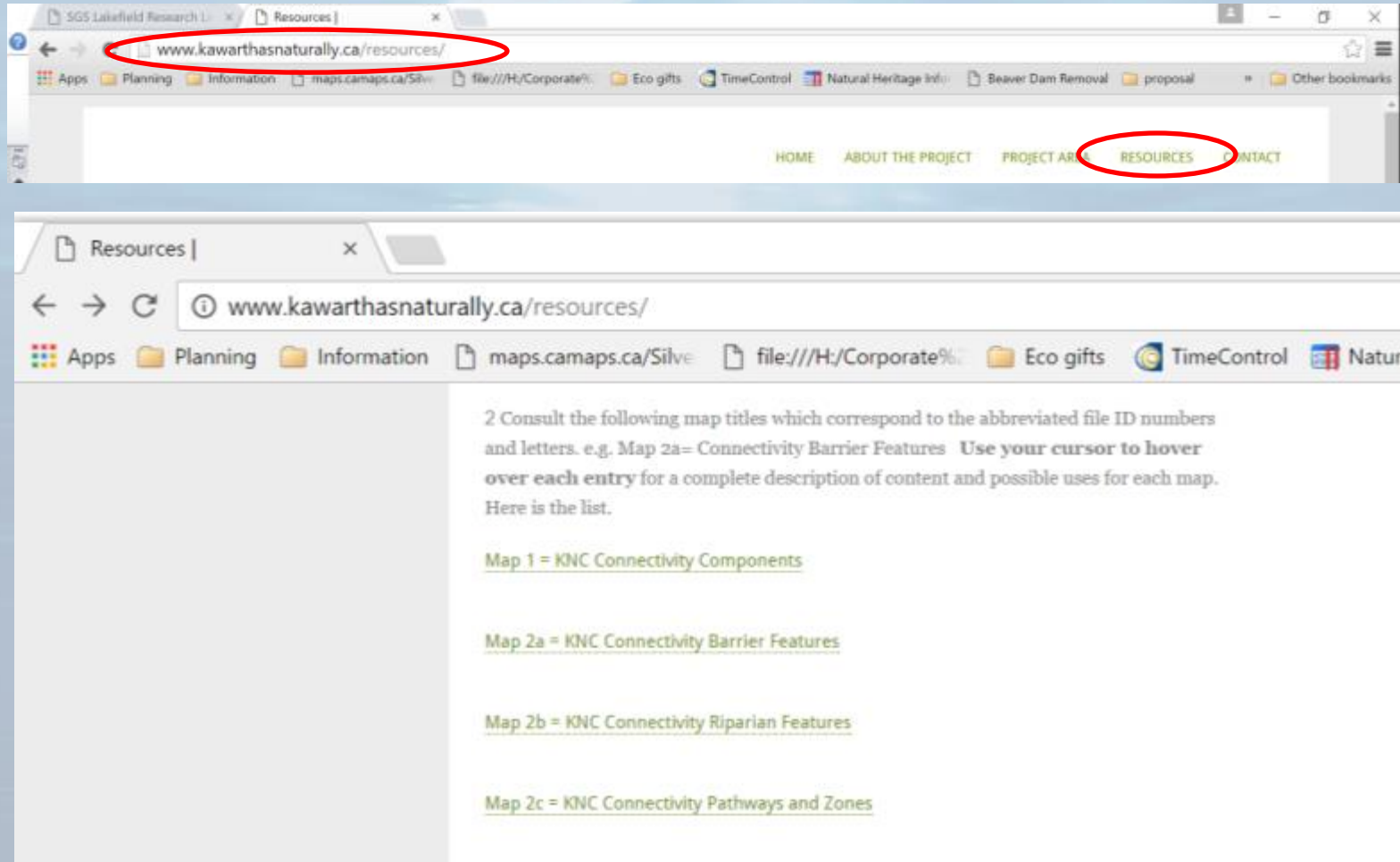


Google Earth

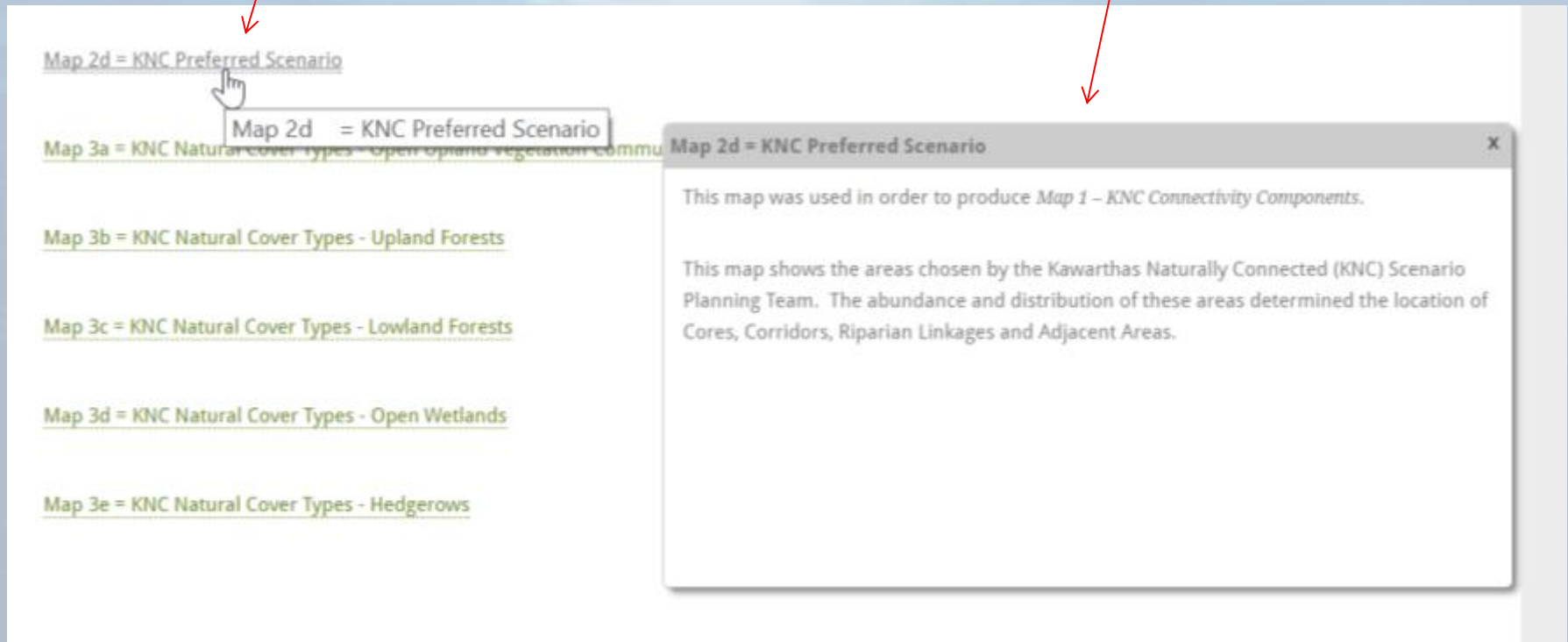
- Requires the program Google Earth to be installed on your computer or device



Where to find information about the Google Earth “Layers”



Hover over a layer name and an information box appears



The screenshot displays a web interface with a list of map layers on the left and an information box on the right. The list includes:

- Map 2d = KNC Preferred Scenario
- Map 3a = KNC Natural Cover Types - Open upland vegetation commu
- Map 3b = KNC Natural Cover Types - Upland Forests
- Map 3c = KNC Natural Cover Types - Lowland Forests
- Map 3d = KNC Natural Cover Types - Open Wetlands
- Map 3e = KNC Natural Cover Types - Hedgerows

A mouse cursor is hovering over 'Map 2d = KNC Preferred Scenario', which has triggered an information box. The box has a title bar 'Map 2d = KNC Preferred Scenario' and a close button 'X'. The text inside the box reads:

This map was used in order to produce *Map 1 – KNC Connectivity Components*.

This map shows the areas chosen by the Kawarthas Naturally Connected (KNC) Scenario Planning Team. The abundance and distribution of these areas determined the location of Cores, Corridors, Riparian Linkages and Adjacent Areas.

Layers are available for download

b) download the Google Earth KMZ map files found here:

<http://www.kawarthasnaturally.ca/map-files/>. Each of these map files is identified by a file name and number, eg. Map Package 1 KNC Connectivity Components (.kmz – 41 mb). Please note that the KMZ map files are quite large in size which will limit the number of files you can open simultaneously...(see Instruction Manual below).

Map Files

Map Package 1 KNC Connectivity Components (.kmz – 41 mb)

Map Package 2a KNC Connectivity Barrier Features (.kmz – 12 mb)

Map Package 2b KNC Connectivity Riparian Features (.kmz – 77 mb)

Map Package 2c KNC Connectivity Pathways and Zones (.kmz – 9.1 mb)

Map Package 2d KNC Preferred Scenario (.kmz – 22 mb)

Map 3a KNC Natural Cover Types – Open Upland Vegetation Communities (.kmz – 8 mb)

Map 3b KNC Natural Cover Types – Upland Forests (.kmz – 52 mb)

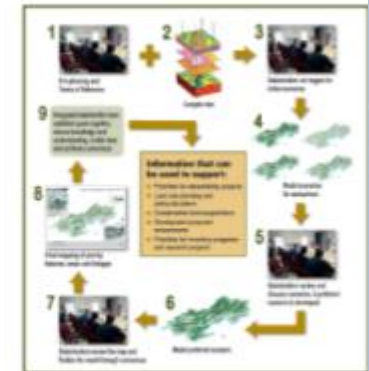
Map 3c KNC Natural Cover Types – Lowland Forests (.kmz – 32 mb)

Map 3d KNC Natural Cover Types – Open Wetlands (.kmz – 23 mb)

Map 3e KNC Natural Cover Types – Hedgerows (.kmz – 3.4 mb)

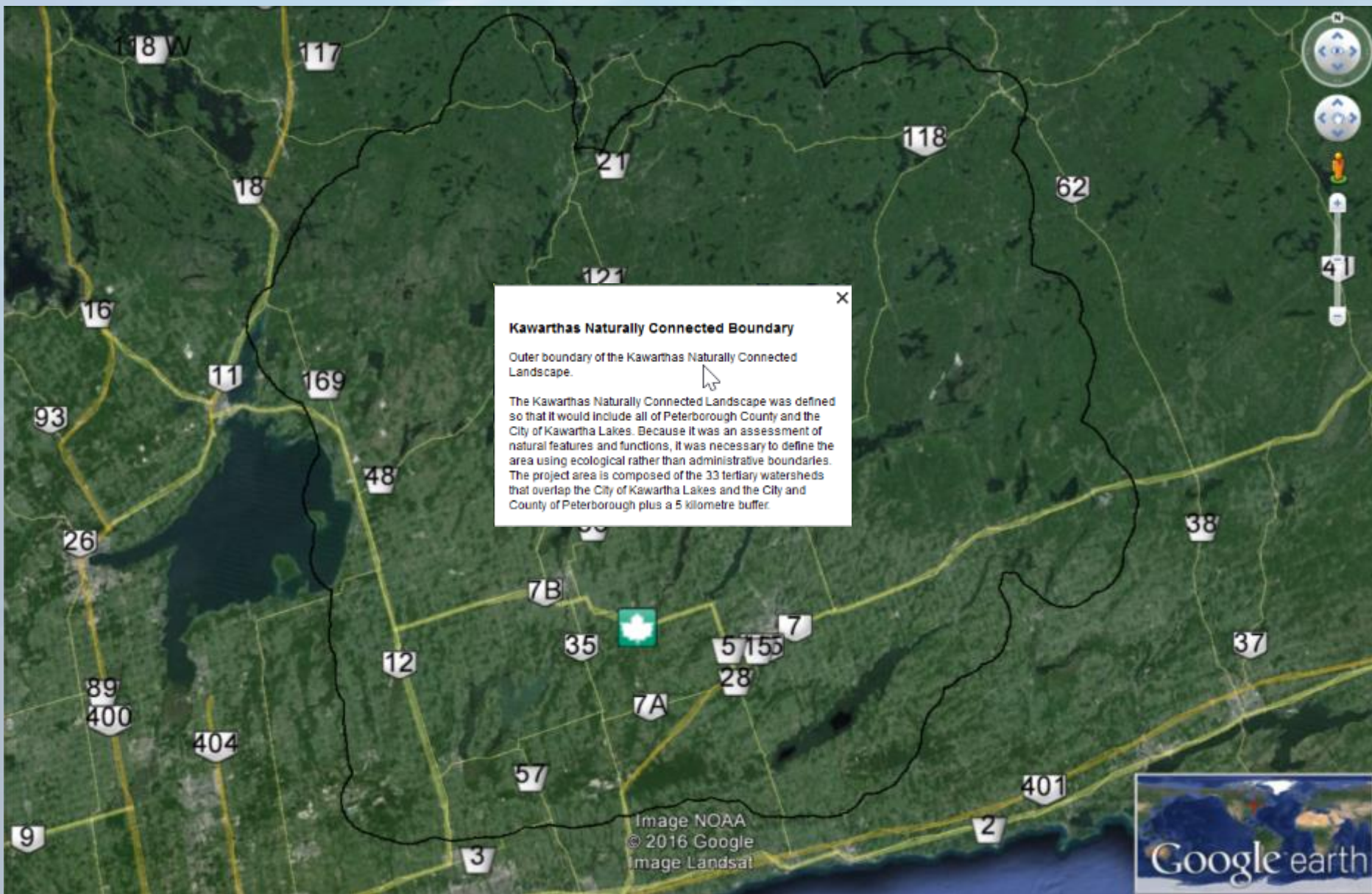
STEPS TO CREATING NATURAL HERITAGE SYSTEM

[Click here to view the steps](#)



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Kawarthas Naturally Connected Boundary

Outer boundary of the Kawarthas Naturally Connected Landscape.

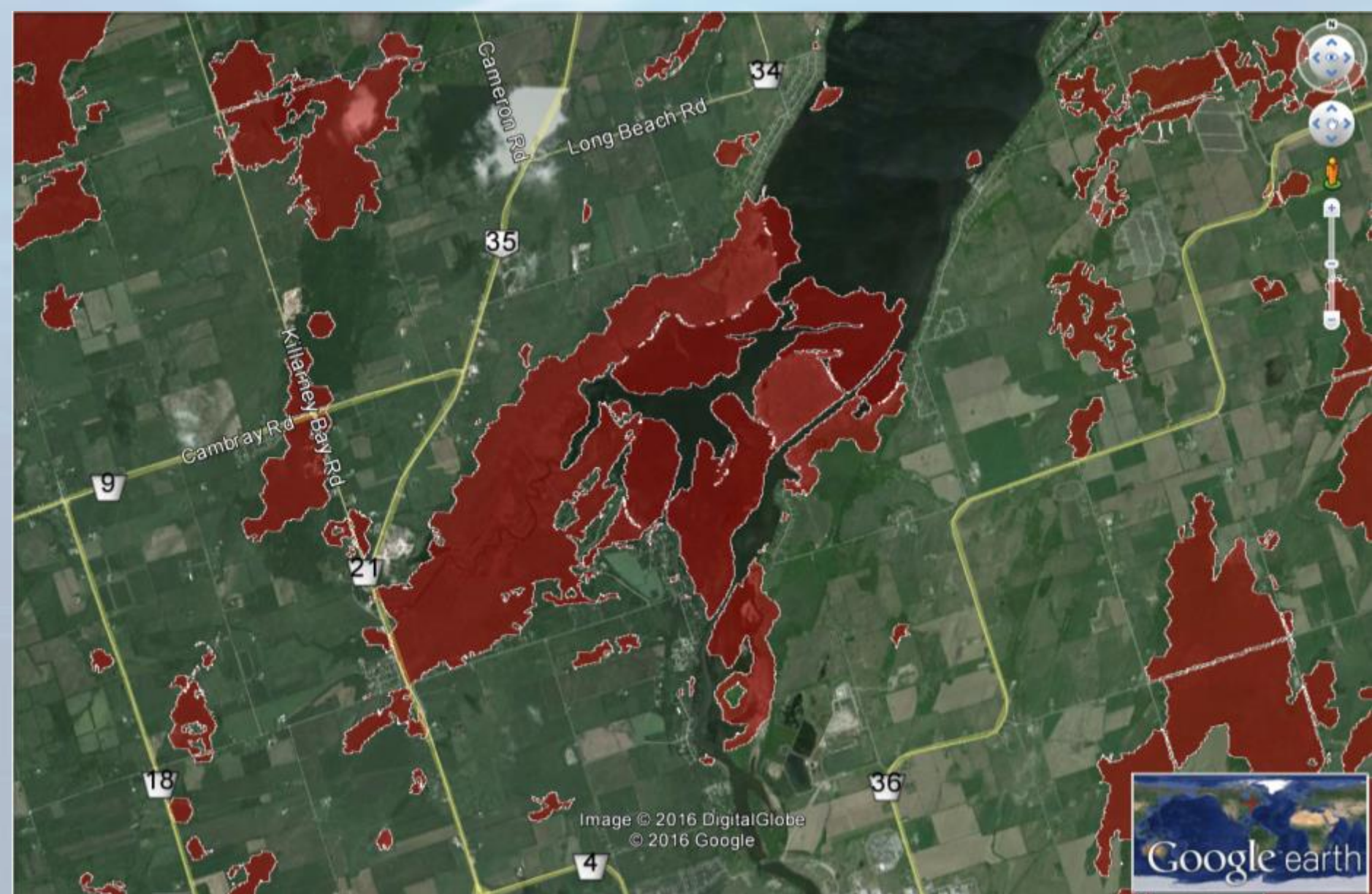
The Kawarthas Naturally Connected Landscape was defined so that it would include all of Peterborough County and the City of Kawartha Lakes. Because it was an assessment of natural features and functions, it was necessary to define the area using ecological rather than administrative boundaries. The project area is composed of the 33 tertiary watersheds that overlap the City of Kawartha Lakes and the City and County of Peterborough plus a 5 kilometre buffer.

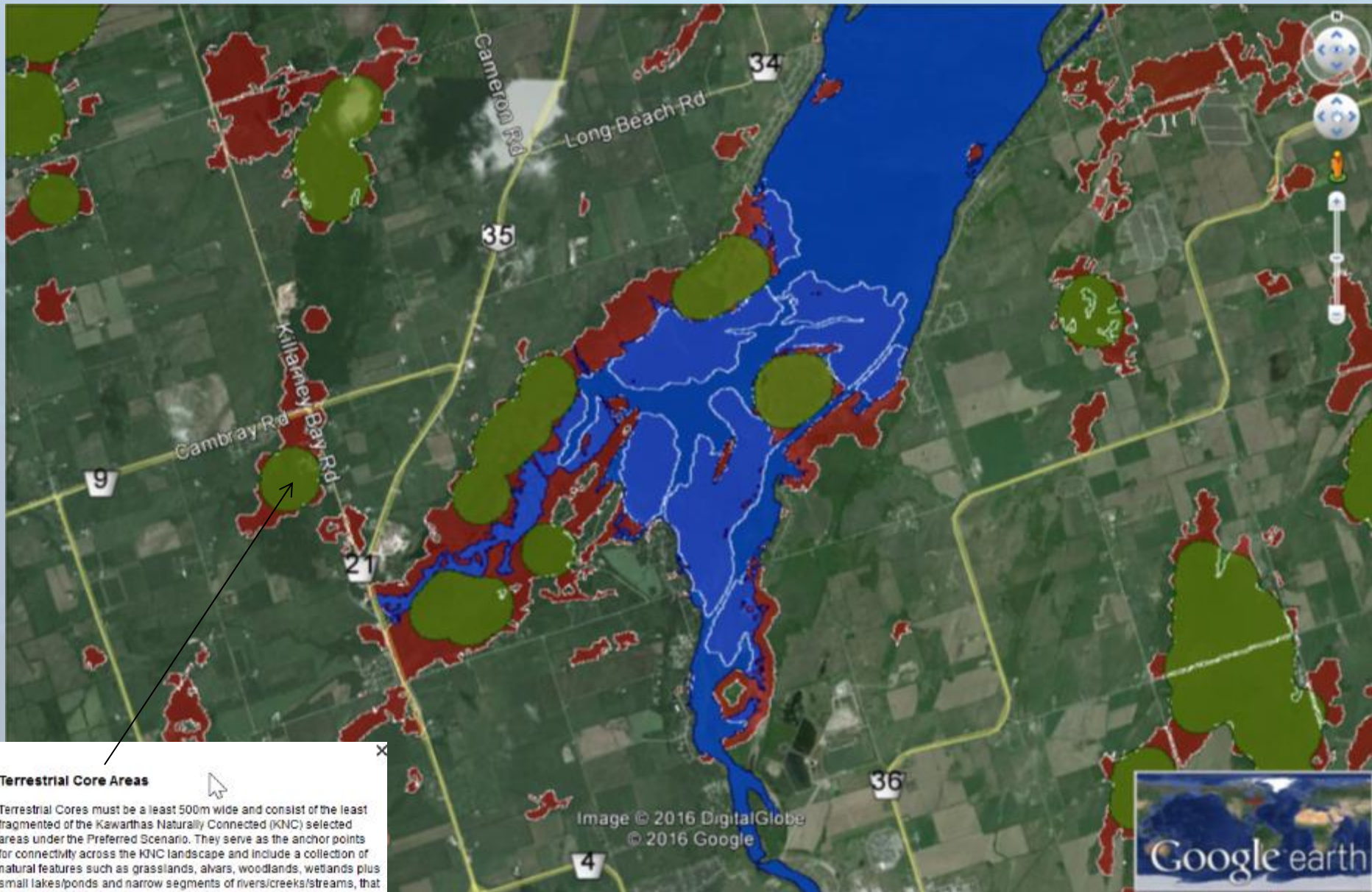
Image NOAA
© 2016 Google
Image Landsat



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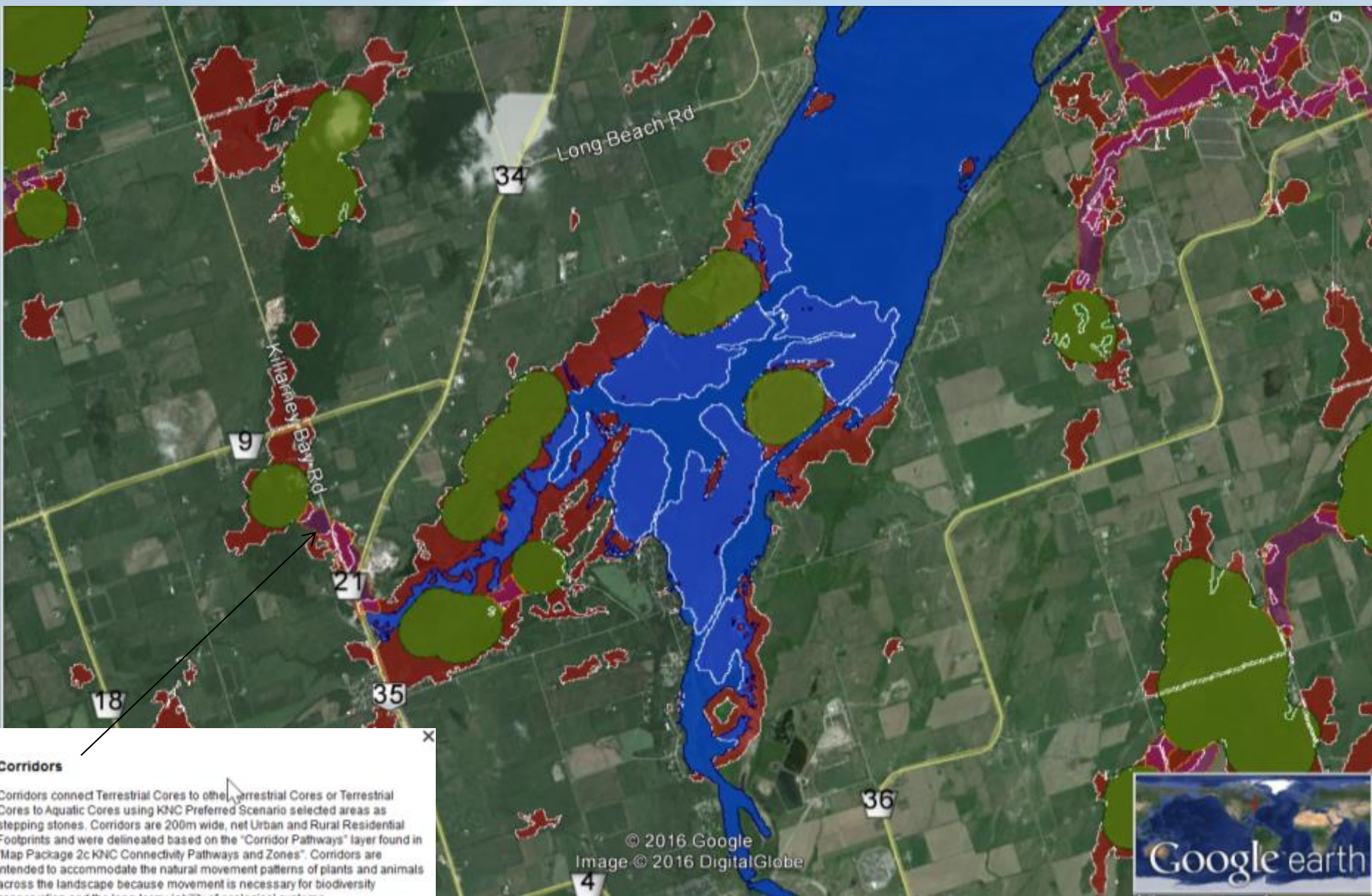


Terrestrial Core Areas

Terrestrial Cores must be a least 500m wide and consist of the least fragmented of the Keweenaw Naturally Connected (KNC) selected areas under the Preferred Scenario. They serve as the anchor points for connectivity across the KNC landscape and include a collection of natural features such as grasslands, alvars, woodlands, wetlands plus small lakes/ponds and narrow segments of rivers/creeks/streams, that individually or together, are large enough to sustain a range of ecological functions and habitats.

See the "Preferred Scenario Selected Areas" map found in "Map Package 2d KNC Preferred Scenario", for the locations of the KNC Preferred Scenario selected areas used to map the Terrestrial Core Areas.

Urban and Rural Residential Footprints, Aquatic Cores and 400 Series Highways are barriers to Terrestrial Core Areas.



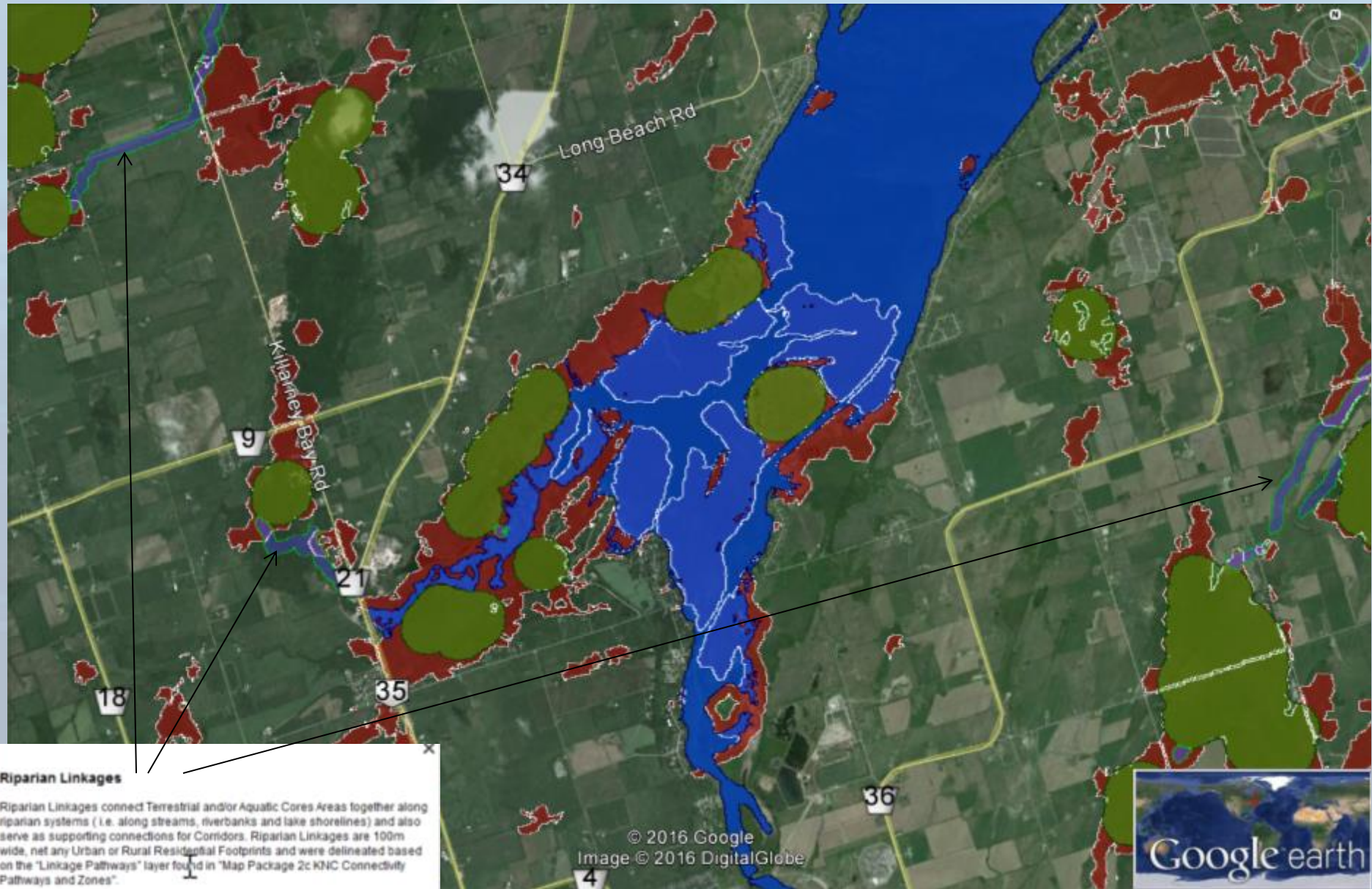
Corridors

Corridors connect Terrestrial Cores to other Terrestrial Cores or Terrestrial Cores to Aquatic Cores using KNC Preferred Scenario selected areas as stepping stones. Corridors are 200m wide, net Urban and Rural Residential Footprints and were delineated based on the "Corridor Pathways" layer found in "Map Package 2c KNC Connectivity Pathways and Zones". Corridors are intended to accommodate the natural movement patterns of plants and animals across the landscape because movement is necessary for biodiversity conservation and the long-term viability of ecological systems.

See the "Preferred Scenario Selected Areas" map found in "Map Package 2d KNC Preferred Scenario", for the locations of the KNC Preferred Scenario selected areas used to map the Corridor Pathways and Corridors. Where feasible, based on the location of Preferred Scenario selected areas, more than one Corridor connecting the same two Core Areas were delineated.

Urban and Rural Residential Footprints and Aquatic Cores are barriers to Corridors.





Riparian Linkages

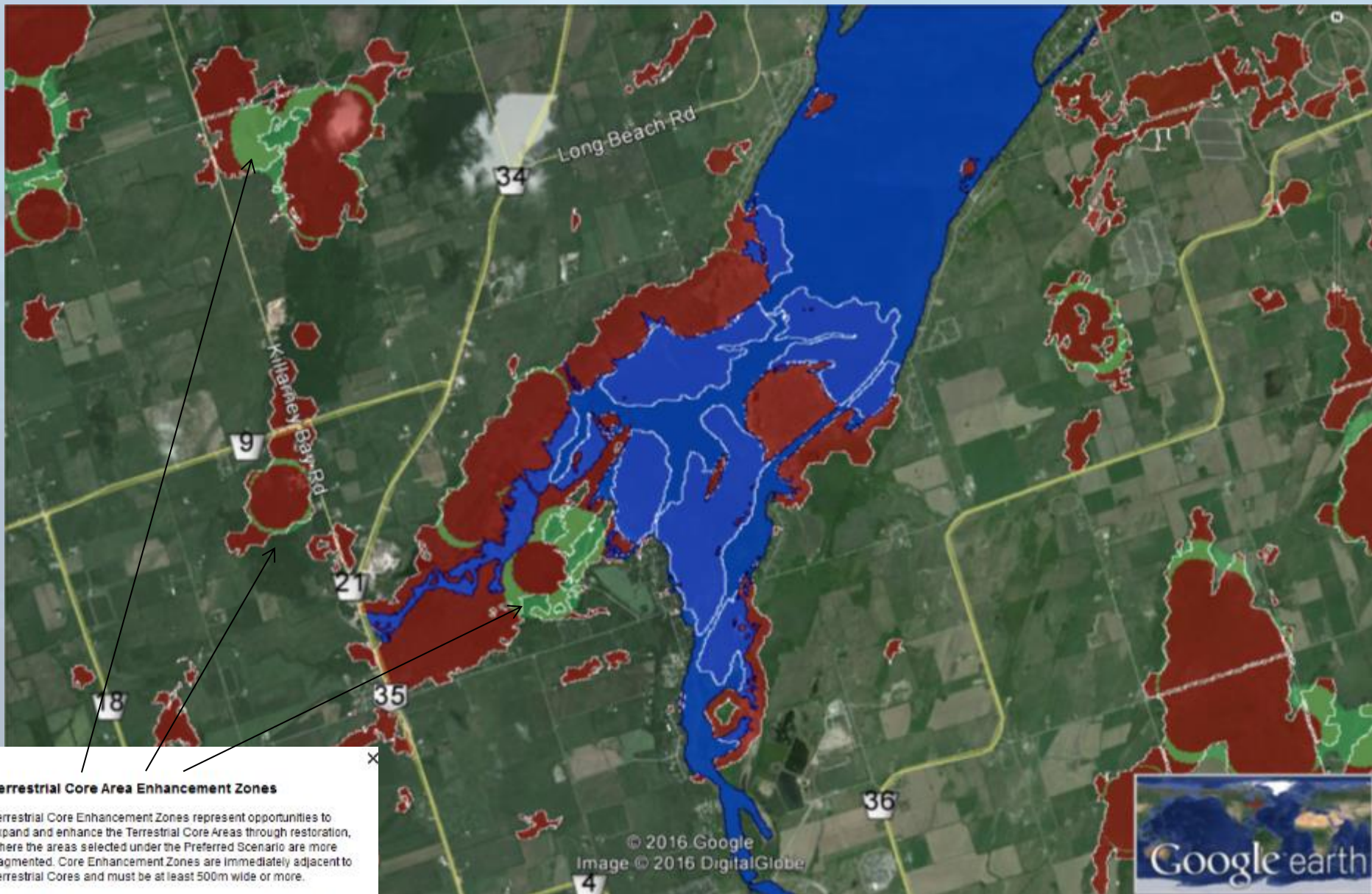
Riparian Linkages connect Terrestrial and/or Aquatic Cores Areas together along riparian systems (i.e. along streams, riverbanks and lake shorelines) and also serve as supporting connections for Corridors. Riparian Linkages are 100m wide, net any Urban or Rural Residential Footprints and were delineated based on the "Linkage Pathways" layer found in "Map Package 2c KNC Connectivity Pathways and Zones".

The intent of Riparian Linkages is to facilitate the movement of a broad range of species between Aquatic and Terrestrial Core areas while at the same time supporting a range of ecological and hydrologic functions. In particular, it is assumed that Linkages can provide movement habitat for species that rely on water to complete all or part of their life cycles such as fish, amphibians, reptiles certain mammal species and hydrophytic vegetation communities.

Urban and Rural Residential Footprints and Aquatic Cores are barriers to Riparian Linkages.



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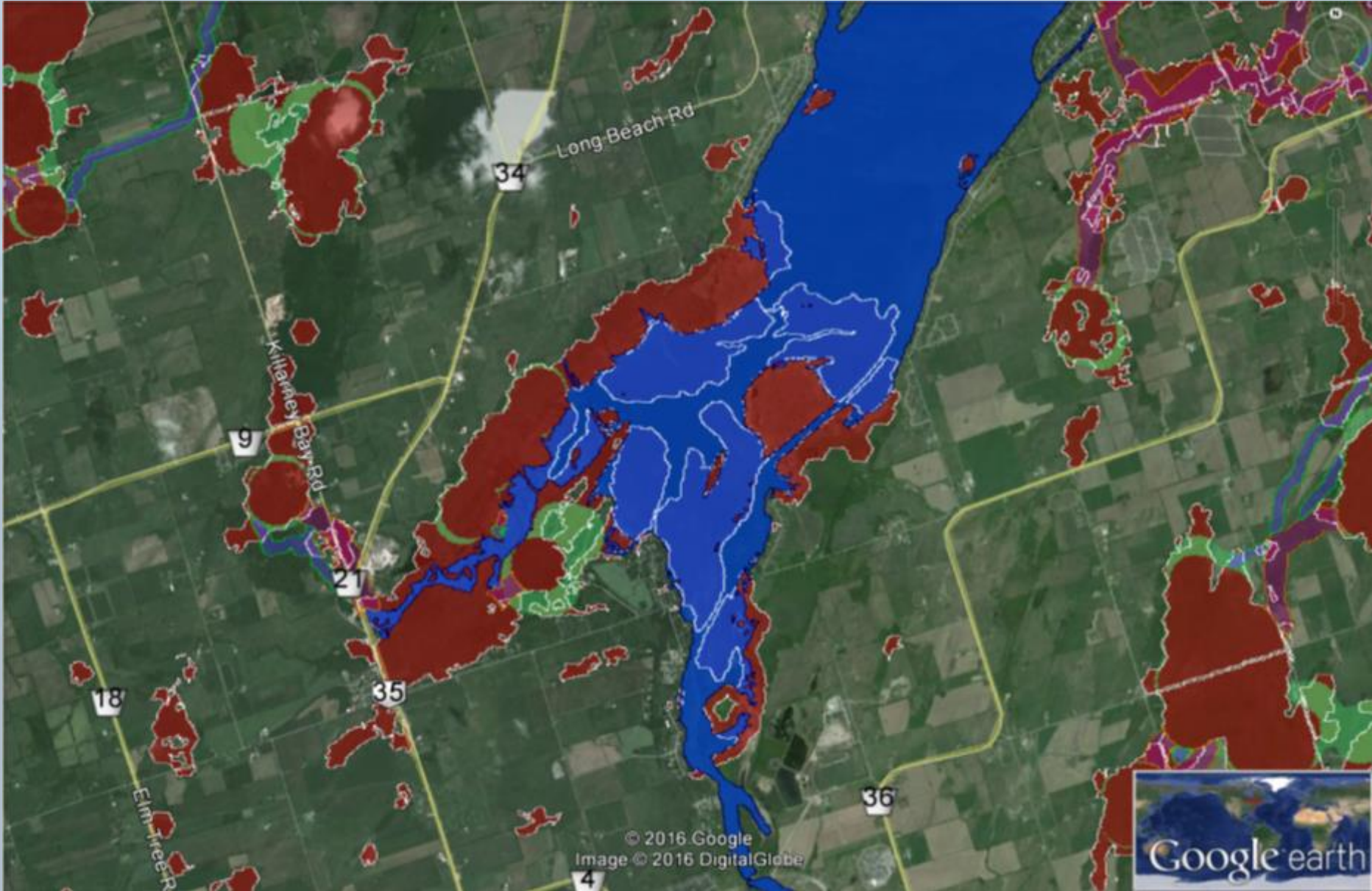
Terrestrial Core Area Enhancement Zones

Terrestrial Core Enhancement Zones represent opportunities to expand and enhance the Terrestrial Core Areas through restoration, where the areas selected under the Preferred Scenario are more fragmented. Core Enhancement Zones are immediately adjacent to Terrestrial Cores and must be at least 500m wide or more.

See the "Preferred Scenario Selected Areas" map found in "Map Package 2d KNC Preferred Scenario", for the locations of the KNC Preferred Scenario selected areas used to map the Terrestrial Core Enhancement Zones.

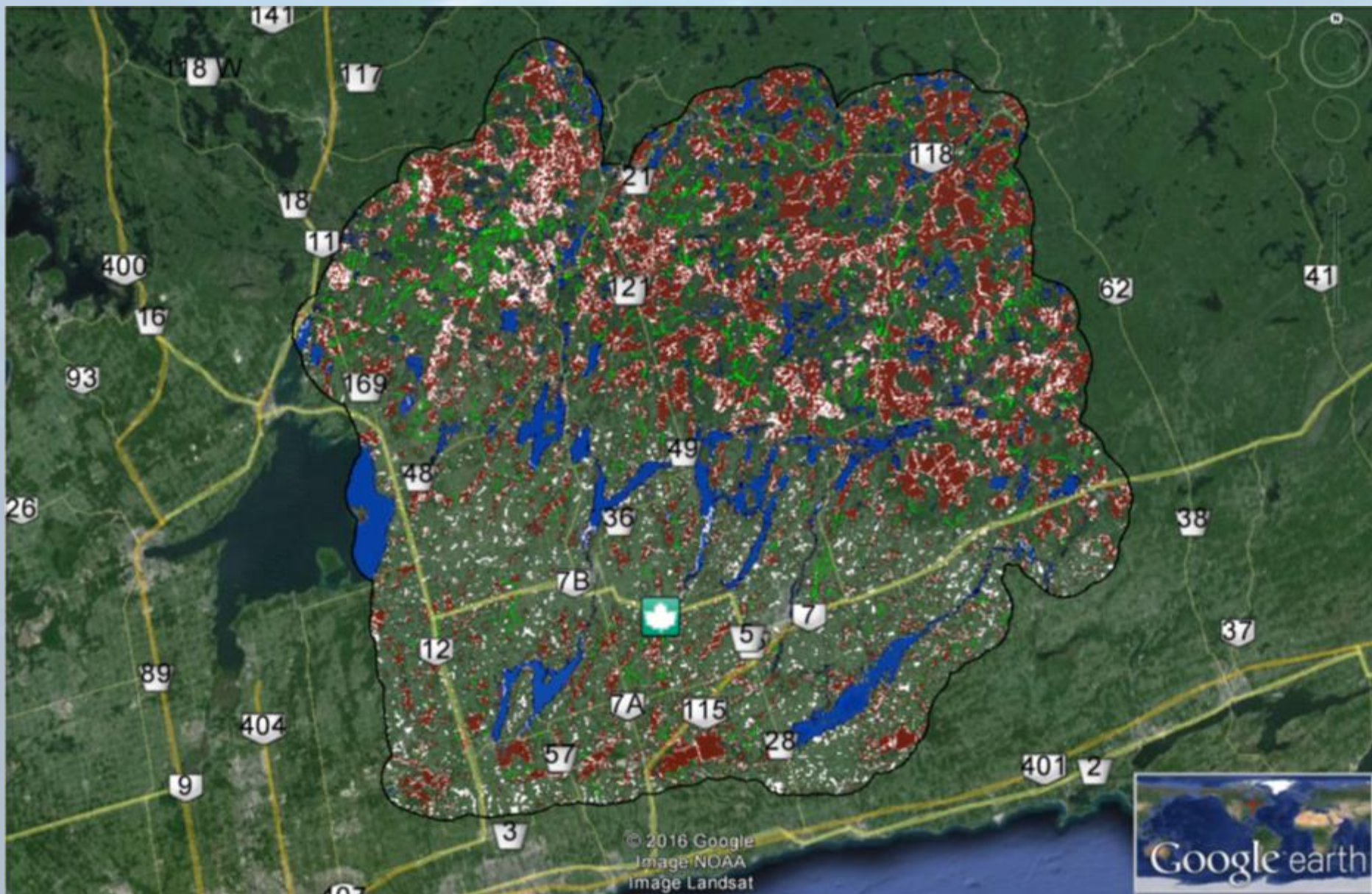
Identical to Core Areas, Urban and Rural Residential Footprints, Aquatic Cores and 400 Series Highways are barriers to Core Enhancement Zones.





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Final map with linkages and corridors

Next, online mapping tool...

- County of Peterborough user friendly online mapping

<http://www.kawarthasnaturally.ca/>

