The Make a Map: Natural Heritage Areas mapping application displays some of Ontario’s natural heritage information, such as wetlands, woodlands, provincial parks, and Natural Heritage Information Centre data. The application can show planning areas and designations for provincial plans such as the Niagara Escarpment Plan. It also displays topographic base information such as roads, rivers and municipal boundaries.

Users can zoom in and out, turn information on and off, identify features, and print a map of the displayed information along with your own added text.

This document provides Help for users of Make a Map: Natural Heritage Areas, including information on some natural heritage features, how to find addresses and print maps.

Note: Make a Map: Natural Heritage Areas is optimized to run in Internet Explorer 9+, Firefox 30+, and Chrome 36+. Users with IE 8 and earlier may experience decreased functionality in the application.
About Tab

The About tab provides information about the Make a Map: Natural Heritage Areas application and has a link to the web page for a further description about this application.

Launch Make a natural heritage area map web page

About: Select the About button for relevant information about the application tool.

At the bottom left corner of the application window, below About, there are two default icons that provide quick access to the Select Map Layers and tools. New icons may appear next to these icons as other tools are used.

Additional Tab Button Options:

Pan: Moves the map view around. Select and drag the map or use direction keys on the keyboard to move the viewable area.

Zoom In: Select the tool and move cursor to the area of interest, clicking to hold to draw a box around an area of interest to zoom in. The map will zoom in to that location. The scroll wheel can also be used to zoom in.

Zoom Out: Select the tool and move cursor to the area of interest, clicking to hold to draw a box around an area of interest to zoom out. The map will zoom out to that location. The scroll wheel can also be used to zoom out.

Initial View: Returns to a map view of the whole Province.

Previous Extent and Next Extent: returns to the previous view. Next Extent will be greyed out until the user has selected Previous Extent. Select to take you through past views.

Help: Select Help to open this User Guide with details on how to use the Make a Map: Natural Heritage Areas application.
**Additional Options:**

**Language:** Switch from French to English or English to French.

**Search:** A quick search option. Type the name of a Provincial Park, Conservation Reserve or wetland and select the magnifying glass. Search Results opens and displays any matching results.

**Full Screen:** Application switches to full screen mode using function key F11 on the keyboard. Use the key again restores the view.

**Close/Open Toolbar:** Hides the toolbar tabs when selected once. Select again and it restores the toolbar.

**Overview Map:** Open by selecting the arrow at the bottom right of the map view. Select and drag the blue box and the view will also move.

**Scale:** Scale bar adjusts with the map view.

**Coordinate Widget:** Select to open the Coordinate Widget. Select between Latitude/Longitude and Degrees/Minutes/Seconds to view the coordinates at the cursor position.

**Bookmarks:** Opens the Bookmarked Locations window. See **Bookmark Tab** for full details of use.

**Zoom In / Zoom Out:** Zoom in and out using the plus or minus buttons.

**The I Want To...** button provides quick access to several tools. Select the desired option.

- **Change visible map layers:** refer to **Map Layers** for further information on how to turn map layers on and off.
- **Legend:** Displays the legend for the map.
- **Printing:** refer to **Markup and Printing** for further information on how to create and print a custom map.
- **Bookmarks:** A list of all bookmarks opens to the left of the map for addition or review of bookmarks. For further information on bookmarks refer to the **Bookmark Tab**.
- **Initial View:** Return to initial map extent.
- **Help:** Opens this User Guide in a new browser window.
Bookmarks Tab

The Bookmarks tab allows the user to add new locations and store them in a list for easy future access. The window opens into the map view.

Note: The user’s internet browser must be able to accept cookies in order to create a bookmark.

**Bookmarks:** Zoom to a desired location on the map. Select the Bookmarks button, then **Bookmark Current Extent**.

Type a bookmark name for the location and select OK or select the Enter key on your keyboard. The location is added to the bookmarks list. The X to the left of the bookmark will remove it if selected. Previous saved bookmarks will appear in the list.

Map Layers Tab

The Map Layers tab contains **Select Map Layers**, a tool for turning map layers on and off, and the **Legend**.

**Select Map Layers:** Turn layers on and off using Select Map Layers.

The check marked boxes indicate if the layer is visible. To turn off a layer, uncheck the box. Transparency is also available for users to view underlying layers. For example, adjust the transparency slide bar on the Base Data Cache to see through to the Ontario Imagery.

Note: Assessment Parcel does not appear in the Map Layers list if the user has declined the Ontario Parcel License Agreement Disclaimer when the application is first opened.
**Map Legend:** The Legend describes the types of features included in the application and provides symbols showing how the features are represented.

A breakdown of each symbol is provided in “Appendix A: Legend symbols”. Scroll to the bottom of the Legend for the View Base Legend button.

**View Base Legend:** Click button to view base cache legend.

**Base Legend:** Use scroll bar to view base map legend.

**View Legend:** Scroll to the bottom of the Base Legend and select View Legend button to return to the Map Legend.
Find Information Tab

The Find Information tab provides multiple **Search By Location** options, and tools to move around in the map view.

**Search By Location:** Select the Search By Location button to activate this tool.

**Search By Location** includes nine tools for finding a location. Select an item from the list and select Search to launch the tool. Once opened each tool also provides some direction for use.

*Note: The Assessment Parcel feature in Search by Location will only be available if the Ontario Parcel Licence Agreement disclaimer was accepted when starting the application.*

**Map Coordinate:** Coordinates can be entered in UTM or Degrees, Minutes, Seconds (DMS), or Decimal Degrees (DD). Select the desired option and select Continue. Use the Cancel button if a change is required.

**Assessment Parcel:** Search by an individual Assessment Roll Number (ARN) and zoom to that parcel.
- Enter the first 15 digits of an existing ARN.
- The tool begins to look for the potential matches. A list will appear after a few moments.
- Select the parcel of interest from the list provided and select Search.
- The tool will zoom in to the parcel boundaries.

**Find an Address:** Allows users to locate an address. Enter an address with or without a street number. Entering a municipality is optional. Select Search. A list of potential matches appears in a results panel. The list can be switched to table format, and an option to clear the selected features is also available. Users can toggle through the list to select the most suitable location.

**ANSI (Area of Natural and Scientific Interest):** Allows users to locate an ANSI. Enter a name or partial name of an ANSI. Select Search. A list of potential matches appears in a results panel. Select the most suitable location and the map will zoom to that location.
Conservation Reserve: Allows users to locate a Conservation Reserve. Enter a name or partial name of a Conservation Reserve. Select Search. A list of potential matches appears in a results panel. Select the most suitable location and the map will zoom to that location.

Ecoregion: Allows users to locate an Ecoregion. Enter an Ecoregion number. Select Search. A list of potential matches appears in a results panel. Select the most suitable location and the map will zoom to that location.

NEP Parks and Open Space System: Allows users to locate a Park and Open Space found on the Niagara Escarpment. Enter a name or partial name of a Park or Open Space. Select Search. A list of potential matches appears in a results panel. Select the most suitable location and the map will zoom to that location.

Provincial Parks: Allows users to locate a Provincial Park. Enter a name or partial name of a Provincial Park. Select Search. A list of potential matches appears in a results panel. Select the most suitable location and the map will zoom to that location.

Wetlands: Allows users to locate a Wetland that has been evaluated using the Ontario Wetland Evaluation System. Enter a name or partial name of a known wetland. Select Search. A list of potential matches appears in a results panel. Select the most suitable location and the map will zoom to that location.

Find: Click bottom half of button to access additional selection tools. The top half of the button becomes active.

Note: Find tool only works on visible map layers so zoom to area of interest first.

Find Selection Tools: Select desired selection tool. Options are Point, Freehand, Line, Polygon and Rectangle.

Note: Make sure tool is active before clicking in the map area.

Point: Click a point on the map.

Freehand, Rectangle: Click and drag shape on the map to cover the desired location.

Line, Polygon: Single click to create line segments; double click to complete the line.

Hint: A window will open at the bottom of the map specific to the selected tool. Select the X to close the window.
**Identify Results:** The identify results data frame opens with the results of the Find selection. Multiple pages of results can be accessed using the page navigation tools at the bottom of the data frame.

**Natural Heritage Information Centre data:** The Find Information tab also includes the Natural Heritage Information Centre’s data. It can be used to view MNRF’s Provincially Tracked species, plant communities, and wildlife concentration area occurrence data generalized to the provincial one kilometre grid. By using the Find button as described above you can select rectangles, points, freehand or draw lines and polygons to find out more information about what is present.

The NHIC 1km reference grid activates at a scale of 1:288,895, it is better to zoom in to area of interest. The tool works by selecting NHIC 1km grid square or multiple squares and reporting results for the grid cell(s).

Zooming in until you can see the NHIC square identifier in the middle of the square will allow you to record which square(s) you are looking at. You can select more than one square by dragging the rectangle find tool into more than one kilometre cells of interest. A list of NHIC conservation values and the cell(s) that contain the information will be displayed below the map.

Once you have selected the square(s) you want to work with, an Identify Results window will pop up information regarding the square(s) selected.

Click on the information within the row and the species information will now be shown in a table. Click the ‘x’ in the top right corner of this window to go back to the square information box.

Using the bulleted list button in the Identify Results display window you can Create NHIC Data Reports. This information can be copied and pasted into other software such as Microsoft Word and Excel for you to work with. You can click the ‘X’ button to close the Identify Results display window.
Markup and Printing Tab

The **Printing** tool allows users to print maps with all relevant map elements like Title, Inset map, North Arrow and Scale.

The **Markup** tools allow users to use a set of markup tools to add text and mark the map with points, lines and polygons.

**Printing:** Click button to activate print tools.

**Print Map:**

- **Select Layout:** Letter Landscape by default and only option.
- **Output Format:** Pdf by default and is the only option.
- **Map Scale:** current map scale by default; other options range from 1:1,128 through 1:2,311,162.
- **Title:** Enter map title (optional).
- **Notes:** Enter map notes (optional).
- **Print:** Click print button to create Pdf file for local printing.

**File Ready:** The application has created a Pdf and is ready for the user to open the file.

**Open File:** Click button to open, view and print/save file locally.

**Close:** Click X (close) button to close window without opening file.

**Markup:** Click bottom half of the button to access additional tools that can be used to personalize the map before printing.

**Markup Tools:** Select the desired markup tool. Options are Point, Text, Line, Freehand (line), Freehand Polygon, Ellipse, Circle, Polygon and Rectangle.

*Note:* Make sure tool is active before clicking in the map area.

- **Point:** Click a point on the map.
- **Freehand, Freehand Polygon, Ellipse, Circle and Rectangle:** Click and drag to create shape.
- **Line, Polygon:** Single click to create line segments, double click to complete.
**Text:** Click point on map, enter text in box, click OK or Cancel to close without action.

*Hint: A window specific to selected tool will appear at the bottom of the map screen. Click X to close window.*

**Styles:** Click button to activate style options. Options are based on the Markup tool selection. New style selection applies to subsequent features created (image for Polygon options).

Click Cancel to close window

**Edit:** Click button and select the markup feature to modify and edit feature as desired.

*Hint: A window will appear at the bottom of the map screen. Click X to close window.*

**Erase:** Click button and select markup feature to erase.

*Hint: A window will appear at the bottom of the map screen. Click X to close window.*

**Clear All:** Click button to clear all markup features from the map. Click OK to remove features or Cancel to close without action.
Measure Tab

The Measure tool lets Users measure distance and/or area on the map in several units.

*Note: Users can change the unit of measure at any time, but all areas and/or distances measured will change accordingly.*

**Measure Area:** Use the Measure Area function to click or tap to draw a multi-sided shape and find the area. Select a starting location on the map and continue to select around the perimeter of the polygon. Double-click/tap to finish. This will give you the area and perimeter of the shape you drew.

**Measure Distance:** Use the Measure Distance function to click or tap to draw a measurement line. Select a starting location on the map, continue selecting as needed. Double-click/tap to finish. This will give you the total distance of the line or shape you drew. If a user measures a distance and it includes more than two points, the distance between each pair as well as the total distance will display.

You can change the measurement output using the drop down menus. The top menu changes distance output and options include metres, feet, yards, kilometres, miles and nautical miles. The bottom menu changes the area output and options include feet squared, yards squared, metres squared, kilometres squared, miles squared, nautical miles squared, acres and hectares.

**Erase:** Clicking the Erase button will allow you to erase your drawing from the map by first selecting Erase and then click the distance or area calculation on the map you wish to remove. This erasure is permanent.

**Clear All:** Selecting the Clear All button will prompt you to confirm or deny your desire to permanently remove all measurement calculations currently on the map. Choose OK to proceed or Cancel to preserve drawings.

**Add as Drawing:** If checked the measure lines and polygons will remain as features on the map and be visible when the map is printed. If unchecked the features will not print.
Appendix A: Legend symbols

Legend

Assessment Parcel: Grey polygon.

Woodland: Green shaded polygon.

Provincial Park: Green shaded polygon.

Conservation Reserve: Green shaded polygon.

Natural Heritage System: Green shaded polygon.

Ecoregion: Purple polygon.

Provincially Significant Wetland – Evaluated: Blue shaded polygon with wetland symbols.

Non-Provincially Significant Wetland – Evaluated: Bright green shaded polygon with wetland symbols.

Unevaluated Wetland: Blue polygon with wetland symbols.


Provincially Significant – Earth Science ANSI: Pink shaded polygon with darker pink border.

Greenbelt Plan – Boundary: Dark green polygon.

Greenbelt Plan - Protected Countryside: Green shaded polygon.

Greenbelt Plan – Towns and Villages: Dark brown shaded polygon.

Greenbelt Plan – Hamlets: Dark brown shaded circle.

Greenbelt Plan – Urban River Valley: Light brown shaded polygon.

Greenbelt Plan – Specialty Crop Area: Purple shaded polygon with pink border.

Greenbelt Plan - River Valley Connections: Dark green dash line.

Niagara Escarpment Plan – Boundary: Orange polygon.
Niagara Escarpment Plan – Parks and Open Space System: Green hatched polygon.

Niagara Escarpment Plan – Escarpment Natural Area: Green shaded polygon.

Niagara Escarpment Plan – Escarpment Protection Area: Orange shaded polygon.

Niagara Escarpment Plan – Escarpment Rural Area: Yellow shaded polygon.


Niagara Escarpment Plan – Escarpment Recreation Area: Light blue shaded polygon.

Niagara Escarpment Plan – Urban Area: Pink shaded polygon.

Niagara Escarpment Plan – Minor Urban Centre: Red hatched polygon.

Oak Ridges Moraine Conservation Plan – Boundary: Brown polygon.

Oak Ridges Moraine Conservation Plan – Natural Core Area: Green shaded polygon.

Oak Ridges Moraine Conservation Plan – Natural Linkage Area: Green shaded polygon.

Oak Ridges Moraine Conservation Plan – Countryside Area: Beige shaded polygon.


Oak Ridges Moraine Conservation Plan – Settlement Area: Grey shaded polygon.


Base Legend

Building as Symbol: small grey square.

Building to Scale: grey polygon as shape of the building’s footprint.

Airport: airplane symbol.

Heliport \ Hospital Heliport: helicopter symbol in green for Heliport or blue for Hospital Heliport.

Seaplane Base: symbol of a seaplane and waves.
**Ferry Route:** thin dashed blue line.

**Trail Head / Trail:** dotted green line for the trail and a black letter T on a green background indicating head of the trail.

**Railway:** thin line intersected with short perpendicular lines.

**Road (Major to Minor):** solid grey line and road hierarchy decreases.

**Winter Road:** thick dashed grey line.

**Road with Bridge:** road symbol with additional parallel dark grey lines as it crosses a water feature.

**Road with Tunnel:** road symbol with additional short section of parallel dashed lines joined by dark curved lines to indicate the tunnel.

**One Way Road:** road symbol with white arrow indicating the direction of traffic.

**Road with Permanent Blocked Passage:** road symbol with a white line in a brown circle.

**Road with Address Ranges:** road symbol with address numbers placed at the start and end of a road symbol.

**Hydro Line, Communication Line or Unknown Transmission Line:** solid grey line punctuated with hollow circles at regular intervals.

**Natural Gas Pipeline, Water Pipeline or Unknown Pipeline:** Line contains alternate white and gray segments.

**Spot Height:** point with numerical value of elevation (in metres).

**Index Contour:** elevation value on a solid dark brown line.

**Contour:** solid lighter brown line and no elevation value.

**Wooded Area:** green polygons for the extent of the wooded area.

**Wetland:** green hatched wetland symbols. Wetland areas can overlap land and water.

**Waterbody:** blue polygons.

**Waterbody Elevation:** waterbody symbol with numeric value of elevation.

**Watercourse:** solid blue curved line.

**Falls on a Watercourse:** solid dark blue curved lines indicating rotation.
**Rapids on a Watercourse:** solid dark blue line in a tight swirl.

**Falls in a Waterbody:** short dark blue vertical lines within a waterbody.

**Rapids in a Waterbody:** dark blue hatching to represent the extent of rapids in a waterbody.

**Rocks:** small black crosshair.

**Lock Gate:** black chevron-shaped lines.

**Dam \ Hydro Wall** as a line solid black line. Typically, a Dam will run perpendicular to a waterbody. A Hydro Wall may run horizontal to a waterbody, often along a shoreline and/or extend into a waterbody.

**Dam \ Hydro Wall to scale:** polygon with a solid black border and grey shading.

**Provincial \ State Boundary:** a solid grey line with a dashed black line on top.

**International Boundary:** solid dark grey line with a dashed black line on top.

**Upper Tier \ District Municipal Boundary:** thick solid grey line.

**Lower Tier \ Single Tier Municipal Boundary:** medium-thickness solid grey line.

**Lot Line:** thin solid grey line.

**Indian Reserve:** a yellow polygon with a darker yellow border.

**Provincial Park:** green polygon with a darker green border and the Ontario Provincial Park symbol within.

**National Park:** green polygon with a darker green border and the National Park symbol within.

**Conservation Reserve:** green polygon with a darker green border.

**Military Lands:** light brown polygon with a darker brown border.
Appendix B: Frequently Asked Questions

For further information about the data/information displayed in this application, please see make a natural heritage area map web site for general descriptions. Below are additional questions and answers not addressed on the webpage.

Why do I see white space in the map?

When you zoom in beyond each map layer’s limit it may disappear (leaving white space in the map view) due to a variety of factors:

- LIO Topographic Data Cache has accuracy restrictions limiting how far you can zoom in
- Ontario Imagery resolution varies across the province
- Assessment parcel data does not exist for all of Ontario

What browsers are supported by Make a Map: Natural HeritageAreas?

Internet Explorer 9+
Firefox 30+
Chrome 36+
Appendix C: Accessibility features

Make a Map: Natural Heritage Areas uses the Latitude Geographics Geocortex Viewer HTML5 2.4.x which adheres to Web Content Accessibility Guidelines (WCAG) 2.0. There are two aspects to accessibility support in Make a Map: Natural Heritage Areas:

1. Screen Readers

Screen readers read the application text aloud, so the user can listen to the page instead of seeing it. The text is read aloud where the mouse pointer is positioned. The application can be navigated by using a mouse, the keyboard, a sip-and-puff device, or any other type of navigation device. There are three pieces of information that are provided about the map:

- The coordinates at the centre of the current map extent.
- The current scale of the map. The scale is only provided when the zoom level changes.
- The number of visible features of each visible layer.

To make the screen reader read out information about the map without changing the map extent, select the map with either the mouse or the TAB key.

2. Keyboard Shortcuts

Keyboard shortcuts allow interaction with Make a Map: Natural Heritage Areas application using a keyboard instead of a mouse. The active command is highlighted with a red border. Keyboard shortcuts provide a level of precision that a mouse does not. You can move or resize a shape by a single pixel using the keyboard. At this time, Freehand Draw and Multi-point Identify Operations cannot be controlled using the keyboard.

**HTML5 standard keyboard shortcuts to navigate the page and select or activate items:**

**TAB:** Navigate forward through the page’s components. *Note: In Chrome, you cannot tab between individual items. You must tab to the group, and then use the arrow keys to change the selection.*

**SHIFT + TAB:** Navigate backward through the page’s components

**ENTER:** Select or activate the current user interface component

**SPACE BAR:** Select checkbox

**Arrow keys:** Pan the map (if selected), or move slider

**PAGE UP; PAGE DOWN:** Jump slider

**HOME; END:** Jump slider to the start or end
HTML5 Make a Map: Natural Heritage Areas Application

Keyboard Shortcuts

The application uses shortcuts for working with shapes, including text markup. These shortcuts are used with tools that require the user to manipulate a shape on the map, specifically, identify, draw, measure and edit tools. For greater precision when moving, rotating or resizing a shape, hold down the ALT key while selecting the desired shortcut keys. For example, select ALT + LEFT ARROW to move the selected shape one pixel to the left.

ENTER/EXIT: add a vertex to the shape that you are creating, or exit vertex editing mode

Arrow keys: moves a vertex or shape horizontally or vertically

PAGE UP; PAGE DOWN; HOME; END keys: Move the selected shape or vertex diagonally

S: enlarge the selected shape uniformly

SHIFT + S: reduce the selected shape uniformly

R: rotate the selected shape to the right

SHIFT + R: rotate the selected shape to the left

ENTER, ENTER: Select enter twice to complete the shape

V: Enter vertex editing mode or select the next vertex of the current shape (in vertex editing mode)

SHIFT + V: select the previous vertex of the current shape (in vertex editing mode)

D: Delete vertex

Use the Keyboard to Draw a Polygon

- Select TAB as many times as needed to navigate to Markup.
- Select ENTER to open Markup.
- Select TAB as many times as needed to navigate to the Polygon tool.
- Select ENTER to activate the Polygon tool.
- Select ENTER to create the first vertex.
- Use the arrow keys and diagonal movement keys to move the vertex close to the desired position.
- Use the ALT key in combination with any other movement keys to move the vertex to the precise position that you want. The ALT key restricts the movement to one pixel each key select.
- Select ENTER to mark the position of the first vertex and create the next vertex.
- Move the vertex to the desired position. Continue adding and positioning vertices until there are no more vertices to add.
- Select ENTER twice to close the polygon.

Source: Geocortex Viewer for HTML 5 2.4.x: Administrator and Developer Guide. Copyright © 2015 Latitude Geographics Group Ltd.
Feedback

Please email a screen capture of the missing data or error to naturalheritage@ontario.ca. Submissions will be reviewed and considered.