

NOVA SCOTIA COASTAL HAZARD MAP USER GUIDE

Nova Scotia Environment
and Climate Change



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INTRODUCTION:

Climate change is a global issue, requiring global action. In Nova Scotia, we are proud to be a leader in climate change action.

This Coastal Hazard Map is a new tool you can use to make informed decisions and support action.

The map shows the worst-case scenario: what sea level rise and storm surge could look like during a high tide in the year 2100. This information is currently shown up to 100 metres inland, along the province's coast. This is where impacts will be felt the most.

You can look at information in this tool in a variety of ways. You can look up a community, civic address or property identification number (PID) and move around the map, zooming in and out to see larger areas. If you look up a property and then click on it, you will see the number of metres of flooding that are projected in the year 2100, from highest tide, storm surge and sea level rise combined.

The Coastal Hazard Map also allows you to measure things, draw on the map, and print out copies of the map and your notes.

This guide will help you do all of these things.

If you have more questions about the Coastal Hazard Map or would like some help using it, please contact our Navigator at **coastalnavigator@novascotia.ca** or **1-888-570-4240**.

As you explore this tool, you may have some questions. **Safeguarding Your Coastal Property: A Guide to Protecting Your Property and Promoting Healthy Coastlines in the Face of Climate Change (novascotia.ca/coastal-climate-change)** is a new resource for coastal property owners that can help you address and adapt to coastal hazards.

As future phases of the Coastal Hazard Map roll-out, this guide will be updated.



Disclaimer:

The Province of Nova Scotia makes no representations, expressed or implied, as to the accuracy, completeness and timeliness of the information, maps, and other data, including PID numbers or property boundaries, and coastal flood hazards which are displayed in this map application. This map has been created with data from various sources that was accurate at the time of creation or has different resolutions and levels of accuracy. Therefore, certain items like the line of the coast may not align perfectly. For information purposes, assume that all areas at an elevation below the High Water Coastline will be regularly flooded by the tides.

The map is provided on the understanding that it is not guaranteed to be correct or complete or current, is subject to change, and conclusions drawn or decisions made, based on an interpretation of the data, are the responsibility of the user. Users with site specific questions or concerns are encouraged to consult with a competent professional to have a coastal risk assessment completed.

By continuing to use this application, you agree to the terms of this disclaimer.

Overview:

The Coastal Hazard Map (CHM) is an easy way to explore coastal hazards in Nova Scotia. nsgi.novascotia.ca/chm

The data projection of the map data is NAD83(CSR98) / UTM Zone 20N.

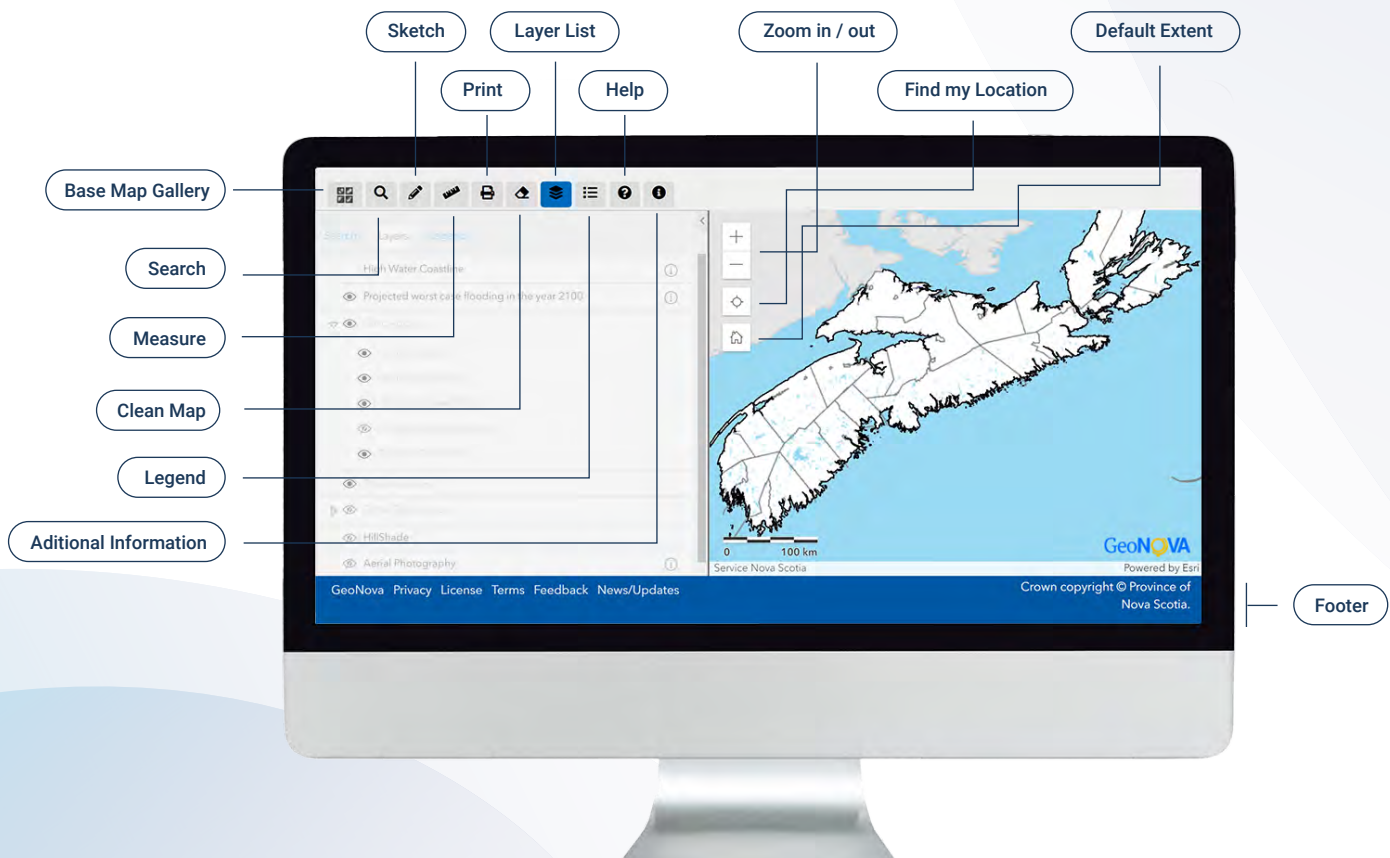
Questions and/or comments about the CHM may be submitted directly by clicking the Feedback link.

Responsiveness:

You can use the CHM map on a desktop or mobile device. On mobile, the application has been optimized for both portrait and landscape orientations. The left panel, containing the Search, Layer List, and Legend widgets, is only visible when in desktop. While using a mobile device, these widgets will be modular and appear over the map.

Desktop View:

These are the main components of the CHM, and the key functions and features available to you.





Mobile View:

These are the main components of the CHM for mobile (portrait orientation). You will find the buttons for the Basemap Gallery, Legend, Print, Measure, Clear Map, Help, and the footer links by clicking on the Options button. The exact layout of your screen may vary depending on the size of the device you are using.





Navigation:



← Zoom In/Out will incrementally zoom the map in or out with each click.



← Find My Location will place a marker pin on the map at your current location. This functionality takes advantage of HTML5 Geolocation. When connected to the internet, this feature will use the network to determine the location. When connected to a cellular network, it will use the GPS receiver on the device to determine the location. The accuracy of the location varies based on the browser, device, and network.



← Default Extent returns the map to its original extent, a full, centred, map of Nova Scotia.



ON SCREEN NAVIGATION

Clicking the Zoom To in a popup window will zoom to and centre the item on the map.

Navigation Short Cuts

On desktop:

To pan the map: Click and hold the left mouse button and drag the map to a new location.

Zoom In: Shift + Click – Drag Allows you to draw a box, which will become the new extent.

Zoom Out: Ctrl + Shift + Click – Drag Allows you to draw a box and zoom out.

Mouse Wheel: Zooms in and out.

On mobile:

To pan the map: Put a finger on the map and drag to a new location.

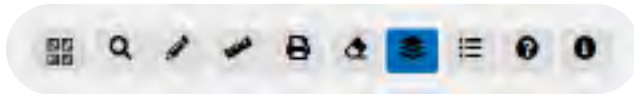
Zoom In: Put two fingers on the map and pinch in.

Zoom Out: Put two fingers on the map and pinch out.



Application Tools:

Specialized widgets and tools are available along the top of the application and through specific popups.



Change Basemap:



← This widget allows you to choose between various basemaps which changes the colour of the map.



← **Topo White:** Map will be white. (Default)



← **Topo Colour:** Map will be colour.



← **Topo Grey:** Map will be greyscale.

Search:



← The Search widget allows you to search for various types of data.

First, select a type of data to search for. The options are Placename, Civic Address, Coordinate Location, and PID.

Placename Search:

Allows you to type in a placename (example: Northport). As you type, a dropdown of suggestions will appear in a drop-down menu. Select an option by clicking on it or by using the arrow and enter keys. The map will zoom to and centre at the selected placename.

Search Layers Legend

Search for an area of interest by:

Placename ▼

Placename
Civic Address
Coordinate Location
PID

Search Layers Legend

Search for an area of interest by:

Placename ▼

Placename Search

Northpo

Northport, Cumberland County, (Unincorporated area)

Northport Beach Provincial Park, Cumberland County, (Conservation area)

Search for an area of interest by:

Civic Address ▼

Civic Address Search

7721 Highway

7721 Highway 14, Brooklyn, West Hants Regional Municipality, Hants County

7721 Highway 201, South Williamston, Municipality of the County of Annapolis, Annapolis County

7721 Highway 366, Northport, Municipality of the County of Cumberland, Cumberland County



Search for an area of interest by:

Coordinate Location

Coordinate Type:

X/Y (NAD 83 UTM 20N)

X (Easting):

Y (Northing):

Clear Zoom to Location

Coordinate Location Search:

You can input a pair of coordinate values to locate. You must select which coordinate type to search for; X/Y (NAD 83 UTM 20N), Decimal Degrees (WGS84), or Degrees Minutes Seconds (WGS84).

Search Layers Legend

Search for an area of interest by:

PID

PID Search

Search the parcels layer by PID and zoom to the location.

25115510

Clear Search


PID Search:


Type in a PID (Parcel ID) to locate (example: 25115510). Press the Search button and the map will zoom and centre at the selected parcel. If the Property layer is not visible, a disclaimer will be shown first, and if Accept is chosen, the layer will become visible.


Sketch:




← The sketch tool allows you to add points, lines, polygons, and text graphics on the map.

A point can be added by clicking the  button, and then the desired location on the map. Points can be moved by first clicking the desired point, and then clicking and dragging to the desired location.

A line can be added by clicking the  button. Points can be added by clicking at two or more desired locations, and the line can be finished by double-clicking on the last location added. Lines can be moved by clicking on the desired line, and then clicking and dragging to the desired location. Additional points can be added or modified by clicking on the desired line, clicking again to change the modification mode to reshape, and then dragging the points to the desired locations.

A shape can be added by clicking the  button. Points can be added by clicking at three or more desired locations, and the shape can be finished by double-clicking at the last location added. Shapes can be moved by clicking on the shape, and then clicking and dragging to the desired location. Additional point can be added or modified by clicking on the desired shape, clicking again to change the modification mode to reshape, and then dragging the points to the desired locations.

All graphics can be cleared by clicking the  button.



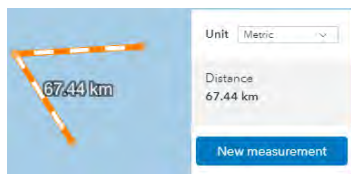
Measure:



The Measure widget allows you to draw on the map, to measure distances and areas.

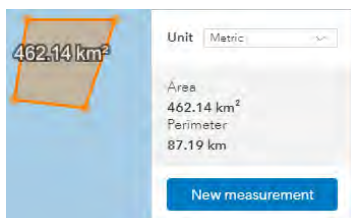


When you open the widget, a dialog will appear and ask you to select distance, area, or location. Distance is selected by default.



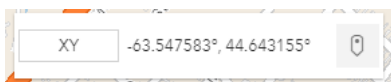
Distance:

Draw a line by placing two or more points on the map. Double-click to stop drawing the line. The distance will be displayed in the dialog box. The units can be chosen from the drop-down menu.



Area:

Draw a shape by placing three or more points on the map. Double-click to stop drawing. The area and perimeter will be displayed in the dialog box. The units can be chosen from the drop-down menu.



Location:

By selecting XY on the drop-down menu, results will be displayed in WGS 84 (Decimal Degrees). By selecting BASEMAP, results will be displayed in NAD 83 UTM 20 N (Northing and Easting). By clicking on the button on the right, capture mode can be toggled. When this is enabled, you can select a point on the map and it will be saved – by clicking on the saved coordinates, the Copy button appears. When clicked, the Copy button will copy the coordinates to the clipboard.

Close:

This will close any active measure tools.



Print:



The Print widget allows you to export the current map view to an easily accessible format. You can then print your map and notes.

The file name, format, and page orientation can also be set.

Through Advanced options, additional options such as scale, author, copyright, DPI, and legend visibility can be set.

Once satisfied with the map and settings, click Export. Exported documents will appear at the bottom of the widget for download or printing.

Clear Map:



The Clear Map button will clear any popup or graphics overlaying the map.

Legend:



The Legend widget describes what each symbol/colour on the map represents.

Some layers visibilities are scale dependent and will only be visible if you are zoomed in far enough. The legend only shows currently visible layers.



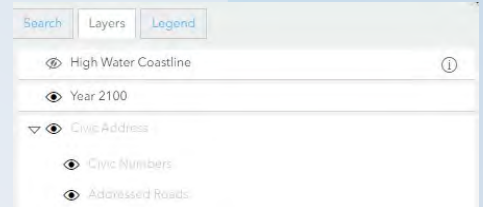
Layer List:

All layers are available for display. Click the eye visibility icon next to the layer you desire to see. Individual layers, or all layers in a layer group (such as Year 2100), can be turned on or off this way.

On the left are arrow buttons that collapse or expand the group of layers. Note: these do not affect the layer visibility but allow the widget contents to be simplified.

Some layers visibilities are scale dependent and will only be visible if you are zoomed in far enough. A layer's title will be black if visible and grey if not visible. For example, in the image above, Year 2100 is visible, and High Water Coastline is not.

Clicking the ⓘ button next to a layer will either open the layer information website or the information dialog.



Layer name	Description
High water coastline	A coastline derived from Higher High Water Large Tide information was applied to the coastline in 20 cm layers.
Projected worst case Flooding in the year 2100	Worst case scenario of what sea level rise and storm surge could look like during a high tide in the year 2100.
Civic address	Includes information from the civic address file: Civic Numbers points Addressed Roads Non-Addressed Roads Highway Distance Markers Community Boundaries Building outlines
Property lines	Land title parcels from the Land Registry
Hillshade	A shaded relief map: a hillshade simulates shadows cast from the direction of the Sun over a 3D elevation map.
Aerial photography	Images of the ground taken from an elevated position, typically from aircraft, providing a bird's-eye view of the landscape.



Help:



← The Help button opens this user guide.

Additional Information:



← The Additional Information button opens a resource document from the Department of Environment and Climate Change.





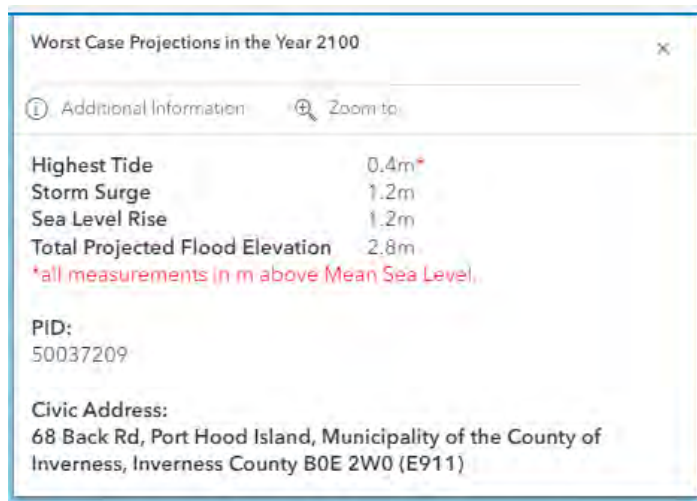
Popups:

When you click on any Civic Address feature, a popup will open, and you can view the feature's data.

It provides information on the projected flooding as well as the Property Identification number (PID) and the civic address.

The Additional Information button will open the coastal property owner's guide, *Safeguarding Your Coastal Property: A guide to protecting your property and promoting healthy coastlines in the face of climate change*.

The Zoom to button will make the map zoom to and centre at the selected feature.





NOVA SCOTIA