



VTDEC Lakes and Ponds Program

ANR NATURAL RESOURCE ATLAS: GUIDANCE FOR SHORELAND PERMIT APPLICATIONS

ANR Natural Resource Atlas


The [ANR Natural Resource Atlas](https://anrmaps.vermont.gov/websites/anra5/) is a tool created by the VT Agency of Natural Resources GIS team for public use. It provides geographic information about the environmental sites and features managed, permitted, or monitored by the Vermont Agency of Natural Resources.

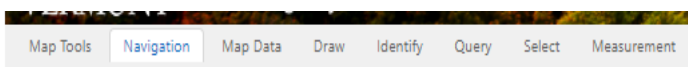
ANR Atlas Tools and Functions




Landowners, consultants, contractors, and municipalities can use the ANR Natural Resource Atlas to gather data and complete measurements required to complete a Shoreland Permit or Shoreland Registration Application.

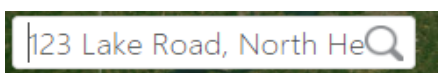
The following is an overview of how to use various tools and functions available on the Atlas.

Map Navigation Tools

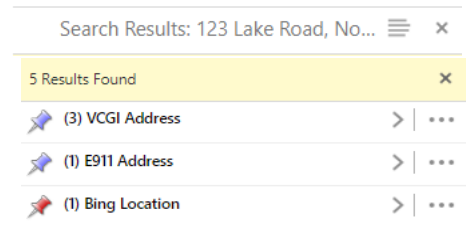
- Access the ANR Natural Resource Atlas at: <https://anrmaps.vermont.gov/websites/anra5/>
- Click on the “Tools” icon in the upper right corner of the screen to open the toolbar. 
- Click on the “Navigation” tab in the upper left of the screen on the toolbar.



- Click on the “Pan” icon and use your cursor and mouse to move the map around. 
- Use your mouse to scroll down (zoom out) and scroll up (zoom in) or use the zoom bar in the upper left corner of the map to find your location. 
- You can also use the “Zoom In” and Zoom Out” icons and then click and drag to an area of interest on the map. 
- To navigate directly to a parcel, enter the address into the search bar and press “enter”.



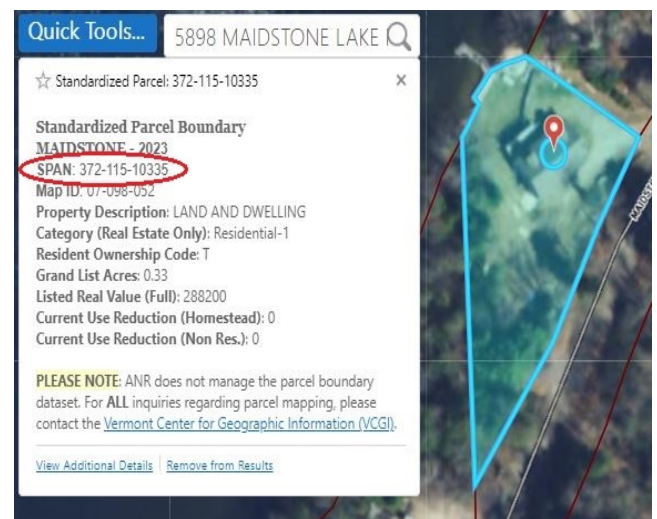
Click on the E911 address in “Search Results” and then click again on the address. The map will automatically zoom to the parcel location. A location point is also added to the map.



Parcel Data

Parcel SPAN

- To locate the parcel's SPAN number, click anywhere within the parcel's boundaries. The parcel will then be highlighted in blue and a text box under the “Quick Tools...” icon will appear:



The SPAN and other parcel specific information can be found within the text box.

Project Coordinates

- To identify the coordinates of the project location, using your cursor, hover over the area on the map where the project will be occurring, and right click.



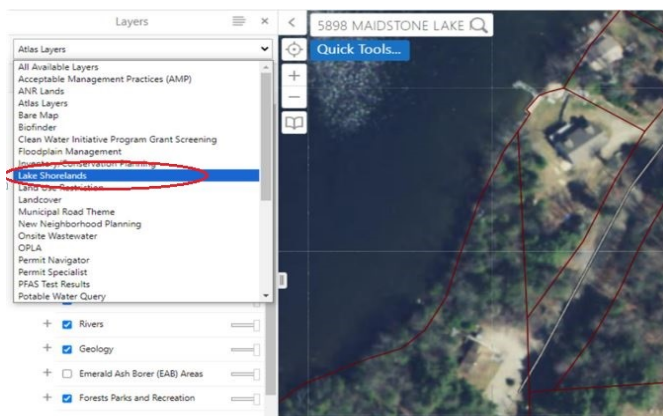
The coordinates (Latitude/Longitude) of that specific location will appear in a text box.

Map Layers

There are many layers of mapping data included within the Atlas. To eliminate potential clutter on the map, these data layers can be filtered and specific sets of map layer data can be selected. The Atlas includes a subset of map layers relevant to Shoreland permitting.

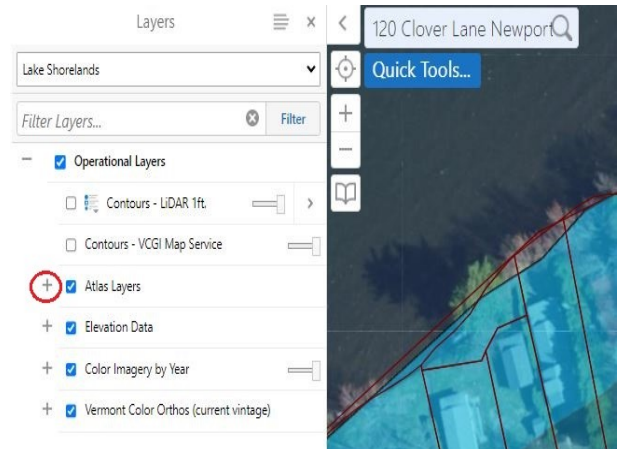
Lake Shoreland Layers

- To turn on the subset of map layers for Shoreland, place your cursor over the “Atlas Layers” drop down box on the left side of the screen, and click on “Lake Shorelands.”

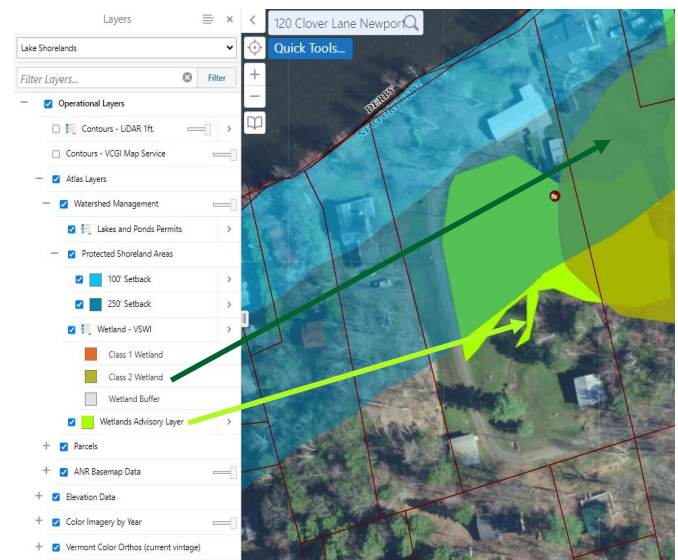


The number of layers on the map is reduced to those most relevant to Shoreland.

- To view the different Shoreland sub-layers, click on the plus sign “+” next to “Atlas Layers” and then click the plus sign again to expand within those layers.



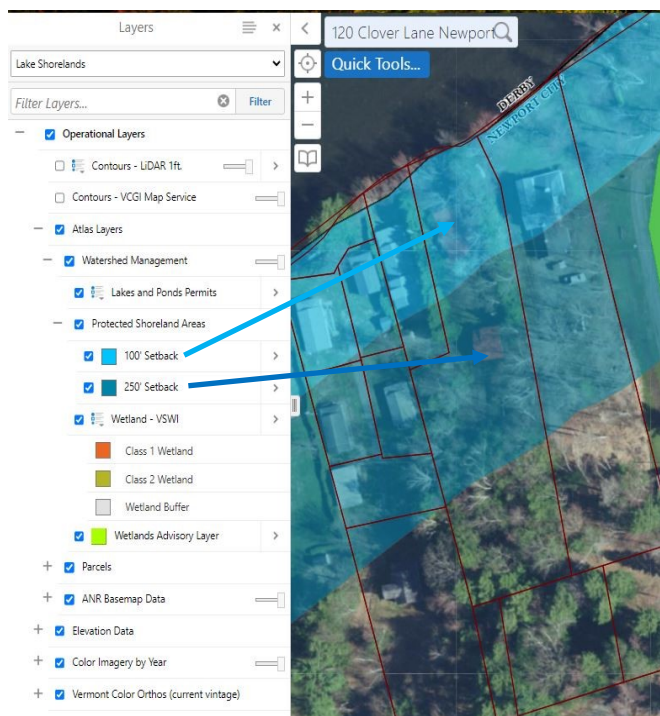
- Wetland—VSWI/Wetland Advisory Layer**
The Wetland VSWI layer displays both Class I (red polygons) and Class II (dark green polygons) wetlands. The Wetland Advisory Layer displays wetlands that may be present, but have not been determined to be Class I or Class II.



The dark green arrow is pointing to a Class II wetland and the bright green arrow is pointing to an Advisory wetland in the screenshot above. If wetlands are within or adjacent to your parcel, please reach out to the Wetlands Program to discuss your project.

- Protected Shoreland Areas Layer**

The protected shoreland area layer shows the approximate location of the 250ft protected shoreland area. The layer is divided into 2 separate sections; 0-100ft from the water (light blue polygon), and 100ft-250ft from the water (darker blue polygon).

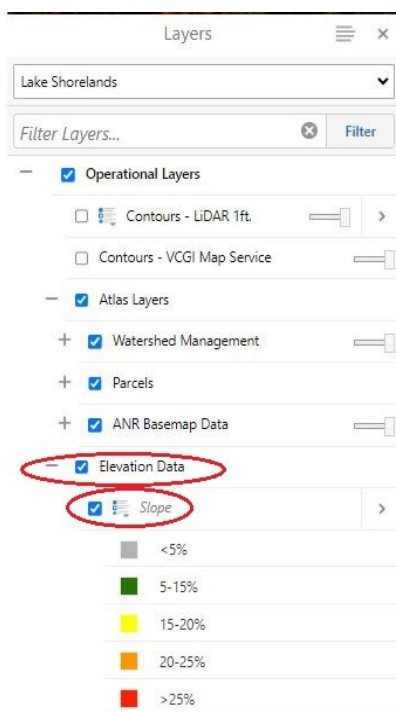


The light blue arrow is pointing to 0-100ft layer and the dark blue arrow is pointing to 100-250ft layer.

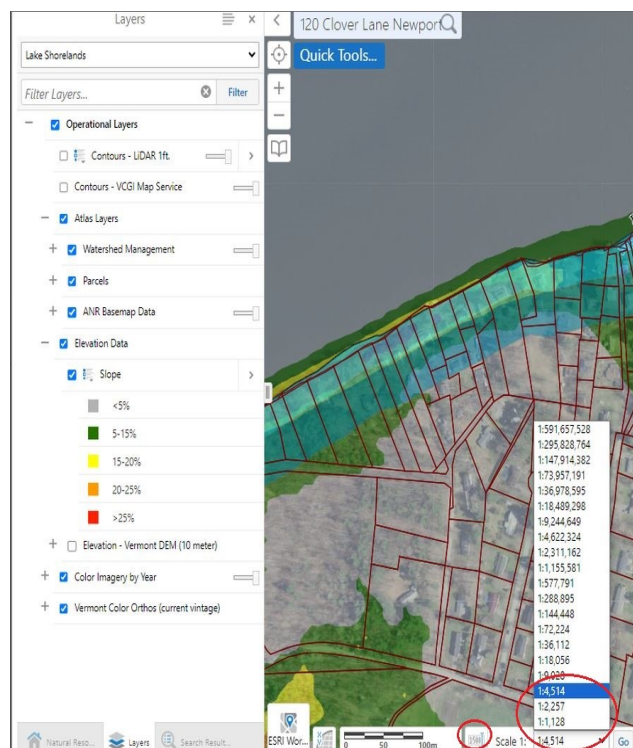
- Slope Layer**

The slope layer is a sub layer located under "Elevation Data." Click the "+" next to "Elevation Data" and then check the box next to "Slope."

To view the slope layer symbol legend, click the legend symbol with the down arrow. To get the slope layer to display on the map, the map needs to be zoomed out to a



scale of 1:4,514. To do this, click on the scale input box and select "1:4,514" from the dropdown box. The map will zoom out and the slope layer will display

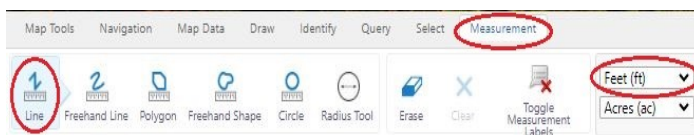


Map Measurements

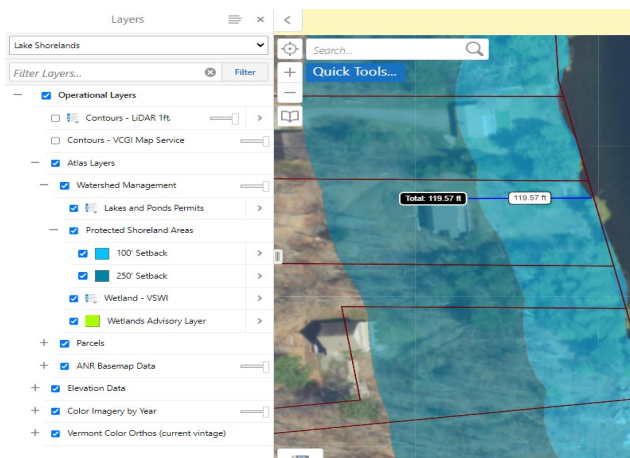
The Atlas has many tools that can be utilized to measure distances between 2 or more points and the area of a surface. These tools can be helpful in determining distances to mean water level, area of the parcel within the Protected Shoreland Area, and a parcels existing impervious surface and existing cleared area, when completing a shoreland permit application or registration. Measurements taken from the Atlas are approximate.

Measuring Distance from Mean Water Level

- If the "Protected Shoreland Areas" layer is off, turn it on by checking the box next to the layer.
- Click on the "Tools" icon, select the "Measurement" tab on the toolbar, click "Line" and then select "Feet (ft)" from the dropdown box.



- On the map, bring your cursor towards the water's edge and click on the edge of the of the "100' Setback" layer. Then move the cursor towards the surface you're measuring (home, camp, shed, etc.).

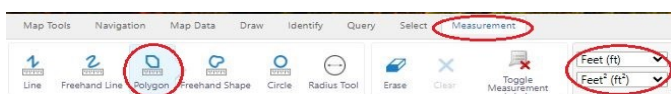


Double click to complete the measurement. The measurement will appear on the screen.

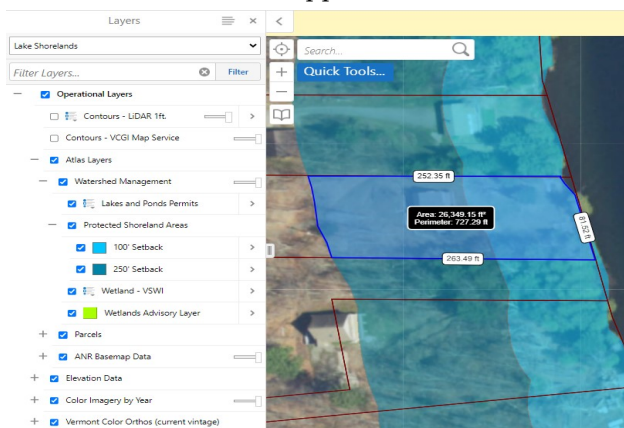
- To clear any measurement, select "Clear" on the toolbar, and then click "OK" on the pop-up screen.

Measuring Surface Area of a Parcel Within the Protected Shoreland Area

- Click on the "Tools" icon, select the "Measurement" tab on the toolbar, click "Polygon" and then select "Feet (ft)" from the first dropdown box and "Feet² (ft²)" on the second dropdown box.

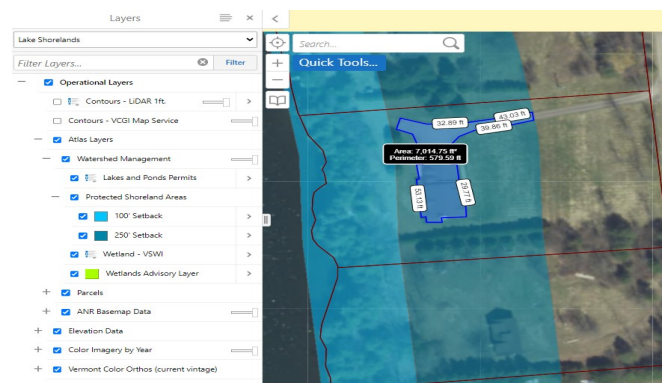


- Within the boundaries of the parcel of interest, trace the Protected Shoreland Area Layer (both the 100' and 250' setbacks) by clicking along the borders of the layer. Double-click to complete the measurement. The measurement will appear on the screen.



Measuring Impervious Surfaces of a Parcel Within the Protected Shoreland Area

- Click on the "Tools" icon, select the "Measurement" tab on the toolbar, click "Polygon" and then select "Feet (ft)" from the first dropdown box and "Feet² (ft²)" on the second dropdown box.
- Within the parcel of interest and within the Protected Shoreland Area layer, click and trace along the perimeters of impervious surfaces (homes, camps, driveways, sheds, walkways, patios, boat ramps, etc.). Double-click to complete the measurement. The measurement will appear on the screen. To avoid cluttering the map with measurements, consider measuring surfaces one at a time, clearing measurements after each measurement.



Measuring Cleared Areas of a Parcel Within the Protected Shoreland Area

- Click on the "Tools" icon, select the "Measurement" tab on the toolbar, click "Polygon" and then select "Feet (ft)" from the first dropdown box and "Feet² (ft²)" on the second dropdown box.
- Within the parcel of interest and within the Protected Shoreland Area layer, click and trace along the perimeters of cleared areas, including areas of impervious surfaces. Double-click to complete the measurement. The measurement will appear on the screen.

