

INSTRUCTIONS FOR USING THE CUSTOM TOOLS IN GRANTVIEW TO DRAW WETLAND OR WATERSHED BOUNDARIES, VIEW ACREAGES AND SAVE THE MAPS YOU CREATED

The NH Method-Wetland Tools section of GRANITView replaces the previous stand-alone NH Wetlands Mapper. GRANITView and the Wetlands Mapper Tools section support [The Method for Inventorying and Evaluating Freshwater Wetlands](#) (NH Method), a method for communities, conservation groups, and natural resources consultants to evaluate wetland functions.

Through GRANITView you can access the data layers to collect mapped data you need for the wetland evaluation. The **Wetlands Custom Tool** provides you with the ability draw wetland and watershed boundaries (and provides the calculated acreage of each) and draw the 500 ft (or other width) zone around the wetland.

Below are instructions for using the NH Method - Wetland Mapping Tools

1. Open [GRANITView](https://granitview.unh.edu/) <https://granitview.unh.edu/>
2. Click on the **Custom Tools** tab at the top of the page and select **Wetland Mapping Tools**
3. Use the **Zoom To...** button to Zoom directly to the town you are working in (you can also access the Zoom tool from the Quick Tools button on the map). Click on the X in the top right corner to close out the Zoom menu and display Wetland Mapping Tools again.
4. Click on the layer/s you would like to use (hydric soils and/or NWI). **Note that you need to Zoom in for the layers to display.** Also note that the labels for Hydric Soils and NWI classes have been turned off in the Mapping Tools for a less cluttered view. If you need the labels for either of these data layers, you can turn them on by clicking on Quick Tools and selecting Change Visible Map Layers:
 - a. Select the NWI data layers from the **Inland Water Resources theme** and click on the arrow to the right. Toggle the labels on or off. Click on the *Wetland Mapping Tools* button to return to the map. Zoom in on the map until the labels appear.
 - b. Select the Hydric Soils from the **Geological and Geophysical theme**, click the arrow on the right and toggle the labels on or off. Click on the *Wetland Mapping Tools* button to return to the map. Zoom in on the map until the labels appear.

USING THE NH WETLANDS MAPPER DRAWING (DIGITIZING) TOOL

Follow the instructions below to:

- ✓ Draw the wetland boundary.
- ✓ Display the area 500 ft from the wetland edge (“buffer”).
- ✓ Draw/create the watershed boundary.
- ✓ Save your drawings/maps.

A few notes about the Drawing Tool:

You can use the mouse scroll wheel to zoom in and out while drawing/digitizing. Likewise, a left mouse button “hold” will provide map panning to move to the area of interest while actively drawing/digitizing.

If you have an ArcGIS online account, go to the Projects tab and **Sign In** so that you can save the maps you created directly to your account.

If you want your drawn boundary to show as an outline only, close the drawing tool (click the “x” in the yellow banner just above the map), click the drawn feature so the editing dots appear, and from the Drawings popup menu you now should see, click Styles, and then select a style. The user can then choose whichever style they prefer (outline or shaded). Note that after doing this, subsequent drawings/polygons will use the newest style selected.

1. Draw the wetland boundary:

- This assumes you are Zoomed in to the wetland you are working on, as above.
- Click on the **Drawings and Measurements** tab to turn on the drawing tools.
- In the Create tab, Select freehand shape. Follow directions in the yellow bar at the top of the map.
- Move your mouse around the wetland area to show the boundary. Release your finger on the mouse at the end to close off the drawing. You are aiming for a rough shape that you can then edit to refine afterwards.
 - If you want to delete and redo drawing the outline, click on the *Display Drawing Acreage* button and then click on the *Clear Drawing* button. You can also left click on the edit tool and select *delete* from the pop-up menu.
- Left click on the shape that you just drew and use the editing dots that appear to refine the drawn boundary around the wetland – drag the dots to the boundary you want to edit. It is easiest if you zoom in to the drawn boundary for more accurate editing. You can move around the map by holding your mouse down and dragging the map on your screen to get to all the points you want to edit. Be sure to note the wetland acreage when you have completed your drawing/polygon.
- When you finish editing, click on the **Display Drawing Acreage** button to get the acreage of the shape you drew.
- To save your drawing, follow the instructions below (page 3).

2. Display the area 500 ft from the wetland edge (“buffer”)

- The NH Method looks at land use within 500 feet of the wetland edge. There are other questions that look at different distances from the wetland edge, such as proximity of any designated rivers. The “buffer” tool allows the user to use a range of widths and also provides the opportunity to display two buffer widths at the same time.
- To display a buffer width:
 - Complete your wetland drawing and edits for the final boundary.
 - Select your buffer width and click on **Show Buffer**.
 - If you want to create a second buffer, check the box next to Create a Second Buffer and select the width you would like to show. A second buffer will appear.
 - You can now return to the **HOME** tab and click **View Layers** to turn on other GRANITView data layers (such as an aerial photo background) to view land use in the buffer.
 - To remove the buffer/s, click Clear Buffer.

3. Create a watershed boundary and calculate acreage:

- Locate the wetland you are working on and zoom to the site.
- Turn on the Elevation layer and select the USGS 7.5-minute topos.
- Locate the wetland outlet.
- Go to Drawings and Measurements tab to turn on the drawing tool.
- In the Create tab, Select polygon or freehand shape. Follow the directions in the yellow bar at the top of the map.

- Starting at the outlet, click your mouse around the watershed high points as best you can. You may need to zoom out if it is a large watershed. Return to the outlet and double click to end the watershed drawing. You're aiming for a rough shape that you can then edit to refine later.
- If you want to delete and redo drawing the outline, click on the Clear Drawing button. You can also right click on the drawing line and select delete from the pop-up menu.
- Left click on the shape that you just drew and use the dots that appear to refine the drawn boundary around the watershed – drag the dots to the boundary you want to show. You will need to zoom in to sections for more accurate refining of the watershed boundary.
- If you want to check the boundary with additional detail, you can turn on the LiDAR-derived 2-foot Hypsographic Contours (but note that this layer is only available when zoomed in.)
- Click on the Display Drawing Acreage button to get the acres of the watershed you drew (be sure you click on the watershed outline to highlight it first, and then click display acreage). You may find that the drawn wetland polygon acreage gets subtracted from the watershed acreage, so be sure to add that back into get the total watershed acreage.

4. Saving Your Drawings/Maps

To save your map as a jpeg/pdf:

- Click on Home and go to the tasks tab on the sub-menu.
- Select “print” to just print your map.
- To save your wetland or watershed map, click on “export” – select the image type you want to save it as, or select the PDF option. Then select Create Image. **Note:** you can also click the “Include Georeference Data” to use the image in other georeferenced platforms such as ARCGIS Online. You can save the image in different formats if you like – e.g., save as an image and then go back and save again as a PDF.
- Click view image and then save it to your hard drive.
- Once you save the image, the popup box is viewable again so you can save it as a different file type.

To save your wetland map as a shapefile:

- To save your map as a shapefile, go to the Drawings and Measurements tab and select Export Drawings. Make sure the Editing tool is clicked off otherwise you won't be able to save it. The shapefile will be saved as a zip folder that you can open and save on your desktop. Note that you are saving the drawing you created, not the base layers.
- Note that the user can export the drawing/polygon to a shapefile AFTER it has been created from Drawings and Measurements. If there is not a drawing/polygon, the Export Drawings button is not visible.
- You can also upload shapefiles after saving them by going to Data Sources and clicking on **Upload**.

To save your map in ArcGIS online:

- If you have an ArcGIS online account, go to the Projects tab and **Sign In** so that you can save the maps you created directly to your account.

Note that the map legend cannot be saved using the Export tool. You will need to take a screenshot of the layer list and then paste the screen shot into a Word document.