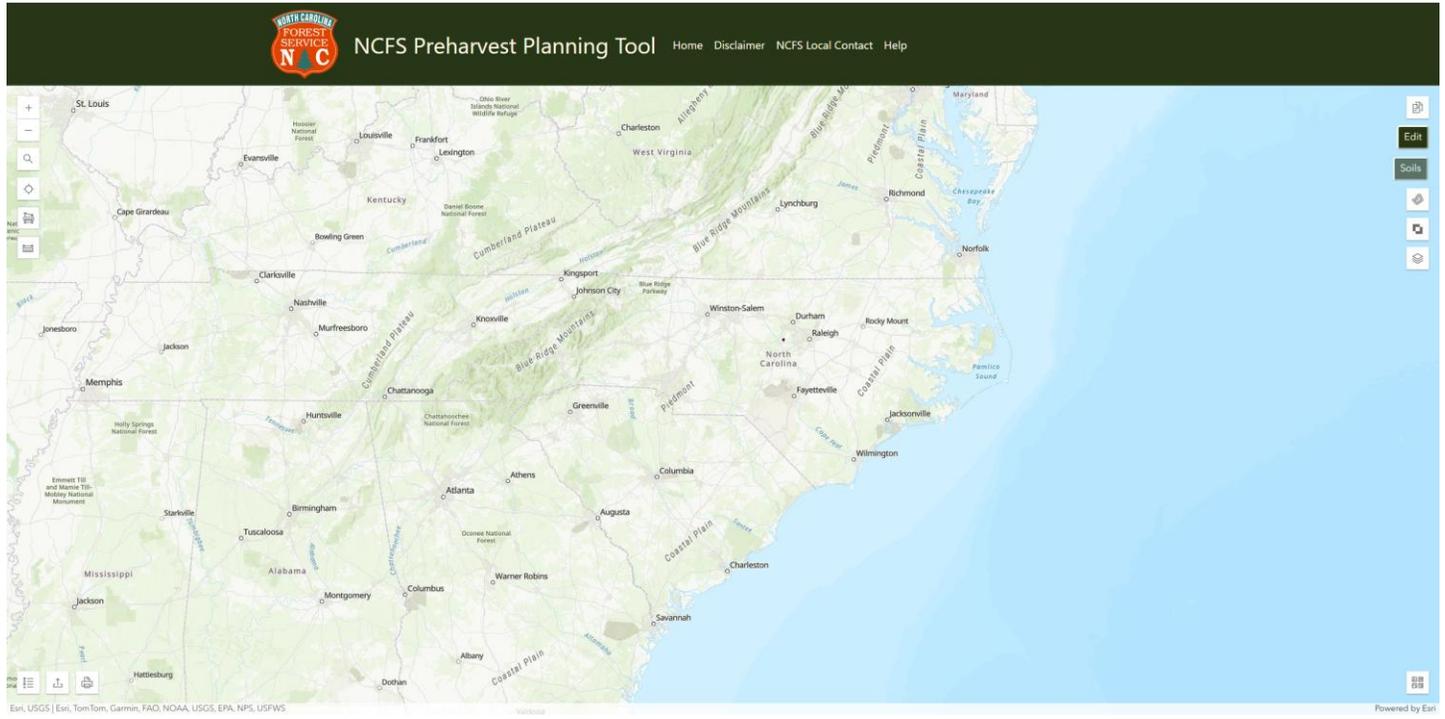# FORESTRY PREHARVEST PLANNING TOOL (FPPT)
USER'S GUIDE

VERSION 2.0

A Website Application to Help Facilitate
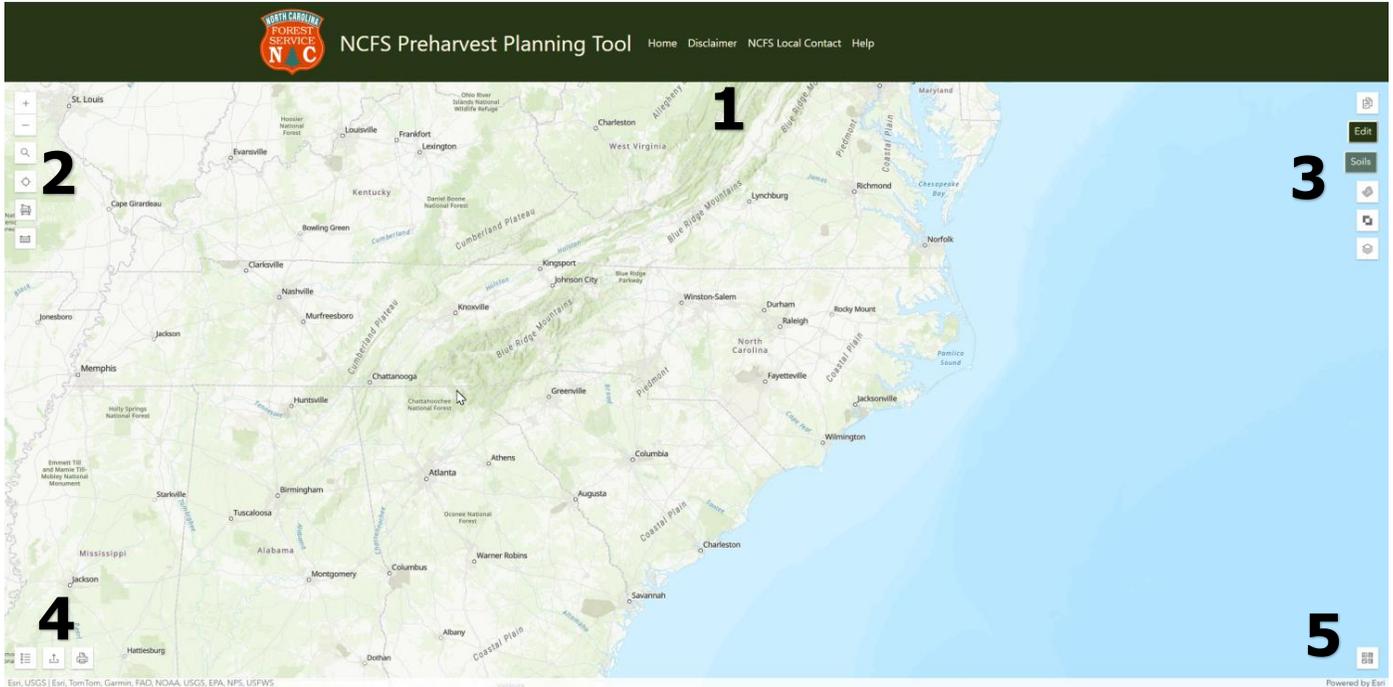
Water Quality Protection and Resource Management Project Planning

CONTENTS

TOOL OVERVIEW

There are five general areas of the tool that have buttons/functions. Each button/function is described in more detail in its respective section. If a button expands to show a list/menu, you must click the button again to collapse that list/menu.

Area 1 includes, in order from left to right, Home, Disclaimer, NCFS Local Contacts, and Help.

Area 2 includes, in order from top to bottom, zoom in/out, search for an address or place, your location, measure area, and measure lenghts.

Area 3 includes, in order from top to bottom, creating a tract by copying a parcel boundary, edit functions, populate web soil survey data (after a tract is created), create a buffer (you must first create a feature to buffer), exclude the buffer in the calculation of tract area, and layers list.

Area 4 includes, in order from left to right, legend, export data to .kml, and print (export to a georeferenced .pdf).
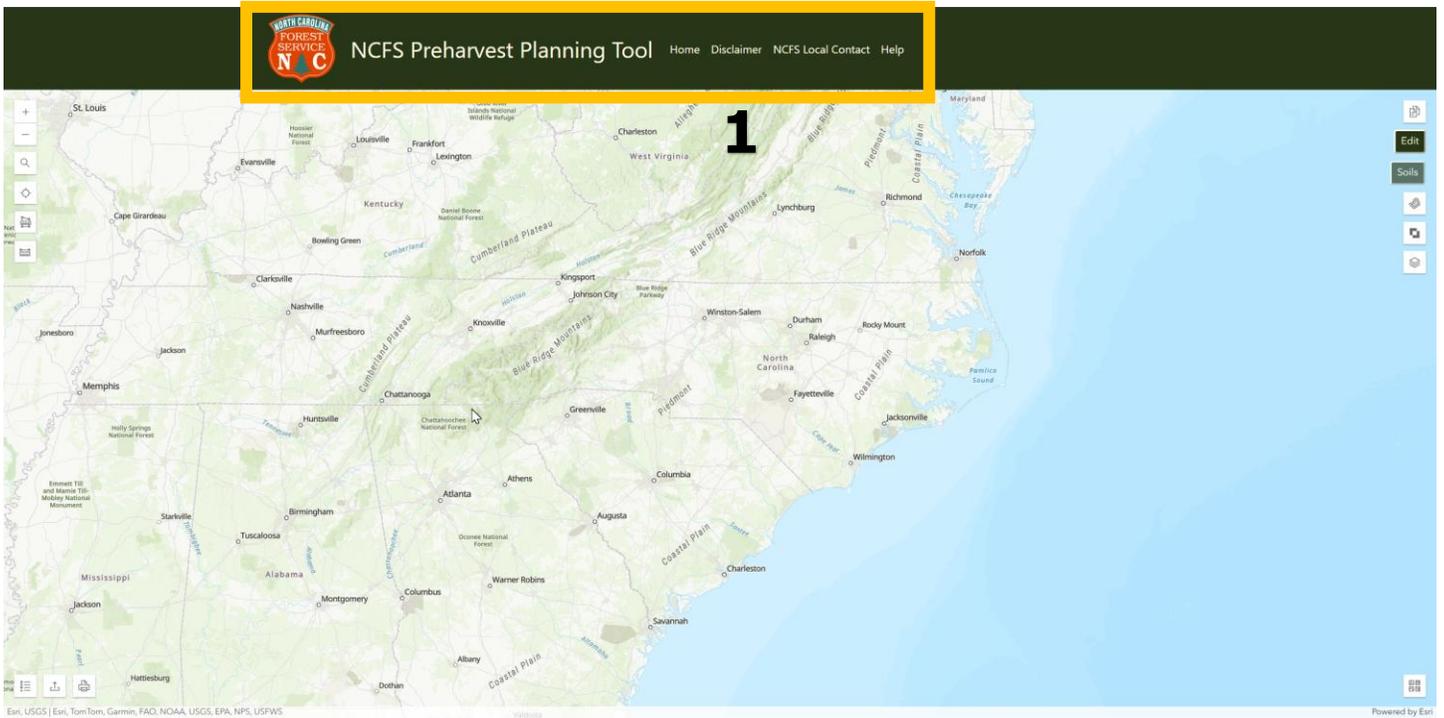
Area 5 is a button to change the basemap.

** NOTES **

THIS USER GUIDE IS ORGANIZED BY THE GENERAL AREAS LISTED ABOVE AND DESCRIBES HOW EACH FUNCTION WORKS.

*** THIS IS NOT A GUIDE ON HOW TO CONDUCT PREHARVEST PLANNING ***

AREA 1 TABS (TOP BANNER)

HOME

Clicking the "Home" tab (boxed in orange above) will 1) navigate you to a statewide view, 2) return the basemap to "Topographic" and 3) redisplay the disclaimer. If you had created features moments before clicking Home, they should still be visible by zooming back into your tract area. Read the Disclaimer to learn about when data is deleted by the server reset.

DISCLAIMER

Clicking the "Disclaimer" tab (boxed in orange above) will display the disclaimer text in the body of the webpage.

NCFS LOCAL CONTACT

Clicking the "NCFS Local Contact" tab (boxed in orange above) will navigate your webpage to the N.C. Forest Service's Contact webpage https://www.ncagr.gov/divisions/nc-forest-service/contacts. Use the interactive map on that page to display N.C. Forest Service's county contact information.

HELP

Clicking the "Help" tab (boxed in orange above) will display the help information in the body of the webpage. This is for any questions regarding the use or issues with the application itself. If you are experiencing any technical difficulties or need assistance in how to use the application, you can fill out the Help form. Submitting this help form sends an email to the staff supporting this application. Please be aware that the email address is monitored sporadically during business hours. An N.C. Forest Service Water Resources Branch employee will respond as soon as they are able.

Help

Have questions about this website? We're here to help. We'll respond as soon as we are able.

First Name | Last Name

Return Email Address

Message

Cancel   Send Email

MOBILE VIEW OF THE TOP BANNER (AREA 1)

On smaller screen devices (like a mobile phone), the menu appears in a dropdown to the right of the page title. Click the three stacked lines to display the menu of tabs (see below).
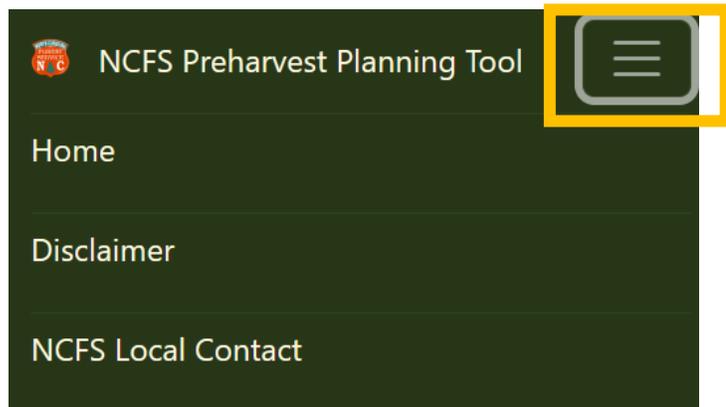
AREA 2 BUTTONS (ZOOM, SEARCH, LOCATE, AND MEASURE)

ZOOM IN/OUT

 You can zoom in by clicking plus sign "+" or by using your mouse scroll wheel (scroll up to zoom in). You can zoom out by clicking the minus sign "-".

SEARCH

 The Search tool on the top left side of the page accepts an address, a place, or longitude/latitude and zooms the map view to the input. Click on the magnifying glass to enter a location. The system will attempt to autofill addresses and places, which automatically suggests and fills in complete, verified addresses as the user types.

If entering a longitude/latitude, use

> **degree decimals** (e.g., -78.63876, 35.78700) OR

> **degree, minutes, seconds** (e.g., -78d 38m 19.55s, 35d 47m 13.2s), OR

> **degree decimal minutes** (e.g., -78d 38.325m, 35d 47.233m)

LOCATE

The locate tool on the top left finds the current location and zooms the map view to the users' location. You may need to enable or allow the device to access your location to use this feature. If using on a mobile device, ensure your GPS is toggled on.

MEASURE

Both measurement tool buttons are temporary and will disappear when you close the tool. User can only do one measurement at a time.

The measurement tool with the ruler and four points is used to calculate area. This tool uses a transparent orange shape.

The measurement tool with the ruler and arrows is used to calculate length/distance. This tool uses an orange and white dashed line.

Start by choosing which type of measurement, then begin drawing on the map by left mouse clicks. Once drawing has started, the menu will adjust to calculate simultaneously. To stop drawing, double click at the last vertex. After drawing, change the Unit from the dropdown. To clear and start a new measurement, click the blue "New measurement" button. To collapse the measure tool and end measuring click on the respective measure icon.

Images below are an example of the measure distance/length (left) and area measurement (right).
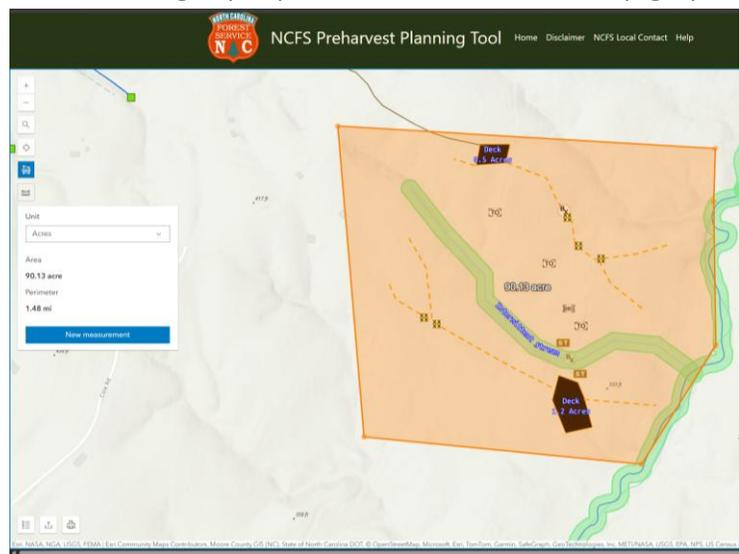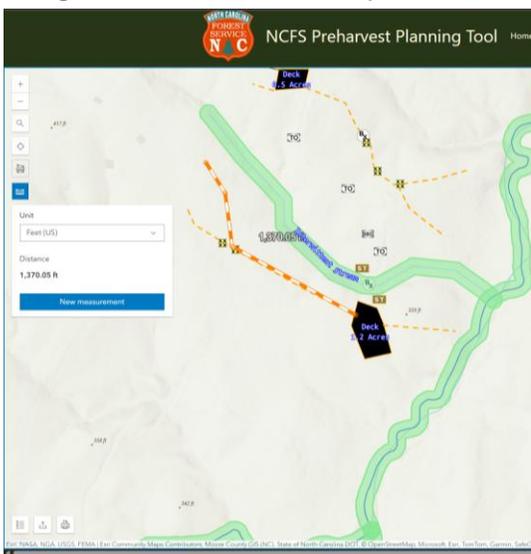
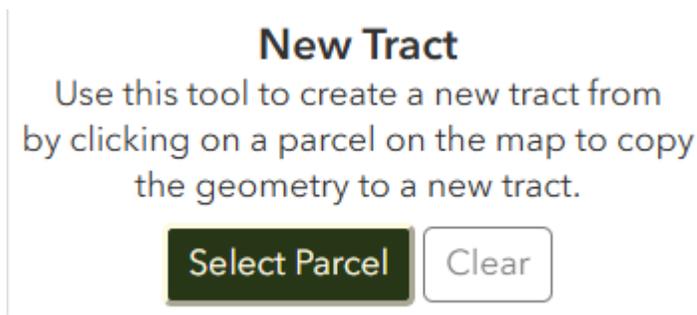# AREA 3 BUTTONS (CREATE TRACT, EDIT, SOILS, BUFFER, EXCLUDE, & LAYERS)

CREATE A TRACT

There are two methods to create a tract.

METHOD 1 - CREATE TRACT FROM A PARCEL BOUNDARY

 Click the button in the top right corner of the screen that looks like a Microsoft Word Copy symbol.

Click "Select Parcel", note that this will turn on the parcel layer if it is not activated.

When at least one parcel is selected, an option to "Clear" or "Create a Tract" appears at the tool window.
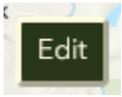
Click "Create a Tract" to finish or "Clear" to redo.
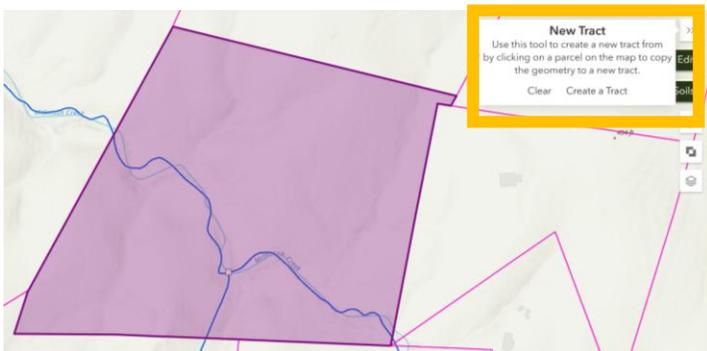
Note that when multiple adjacent parcels are selected, only the exterior lines will appear in the new tract. To see interior lines, either create each tract individually or turn on the parcel layer.

METHOD 2 – CREATE TRACT USING EDIT

Use this method if you need custom tract boundary lines.
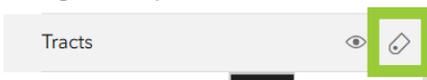
 Click on the Edit button.

To create a tract, click the word "Tracts" in the Editor widget (see green box highlighting the button below and note that you may need to scroll to the bottom of the widget to find it). This will begin the Create a feature process. Draw the tract. If you want to use parcel lines as a guide, you will need to toggle Parcels on the layers button. Snapping is on by default to help follow the parcel boundaries.
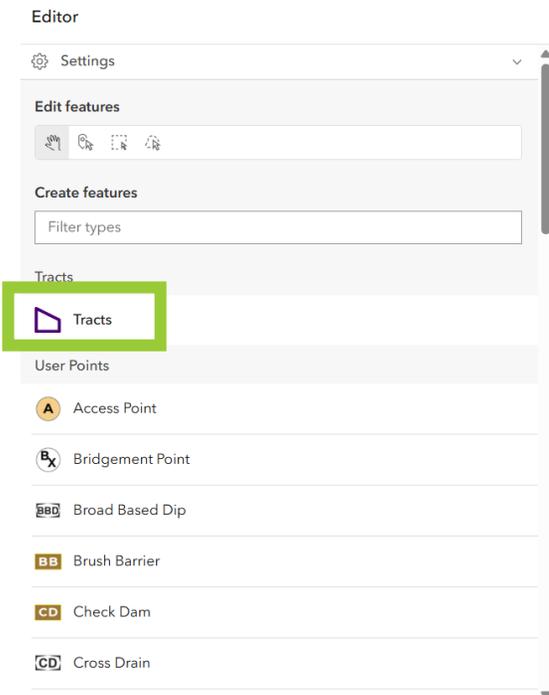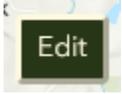

Below is an 'in-progress' example of creating a tract.
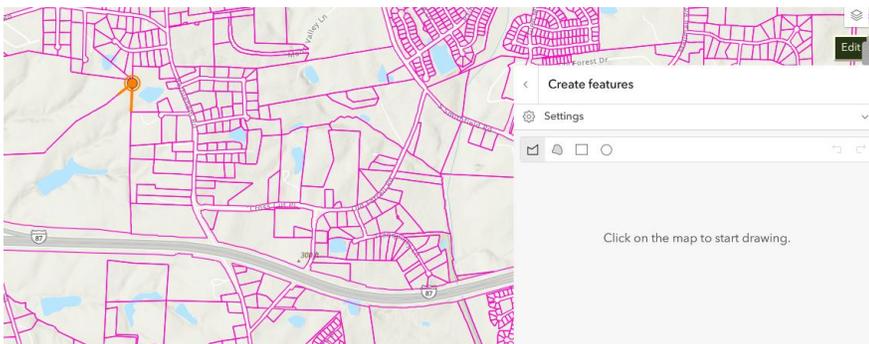
Once created, tracts are labeled with Parcel ID, size (acres), and Area with Exclusions. To turn this label off, go to layers, scroll to tracts, and click the label icon (highlighted in green in the image).
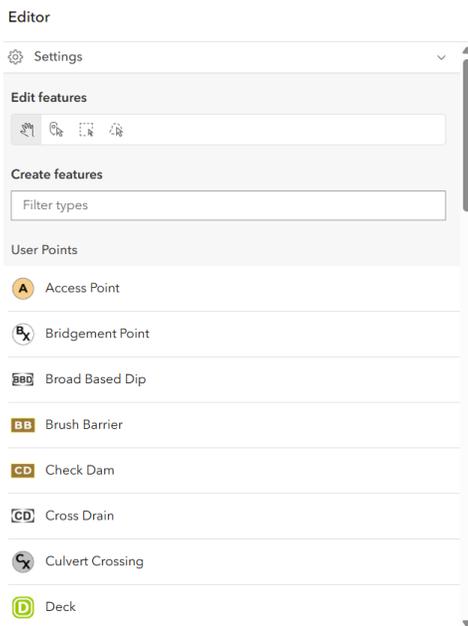
EDIT

 The Edit button opens a widget to allow you to add specified User points, User lines and/or User polygons onto the map. It also allows you to select, delete, or reshape existing user created features.

ADD POINTS, LINES, OR POLYGONS

In the edit widget, select the feature you want to add and click on the map where you want it to display. Scroll down on the widget to see line and polygon (area) options. These symbols and lines are programed into the tool, and the appearance cannot be modified. Double click to finish lines and polygons.


EDIT AN EXISTING FEATURE

To edit an existing feature created by the user, select it using the select tools at the top of the Editor widget:
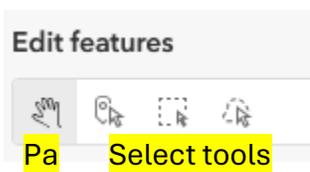

** NOTE: EVEN IF THE EDITOR IS CLOSED, THE SELECT TOOLS REMAIN ACTIVE. YOU MUST SWITCH BACK TO PAN TO CONTINUE WORKING OUTSIDE OF THE EDITOR. **

Once an existing feature is selected, update any available attributes in the Editor. When a feature is first selected, the vertices aren't visible:
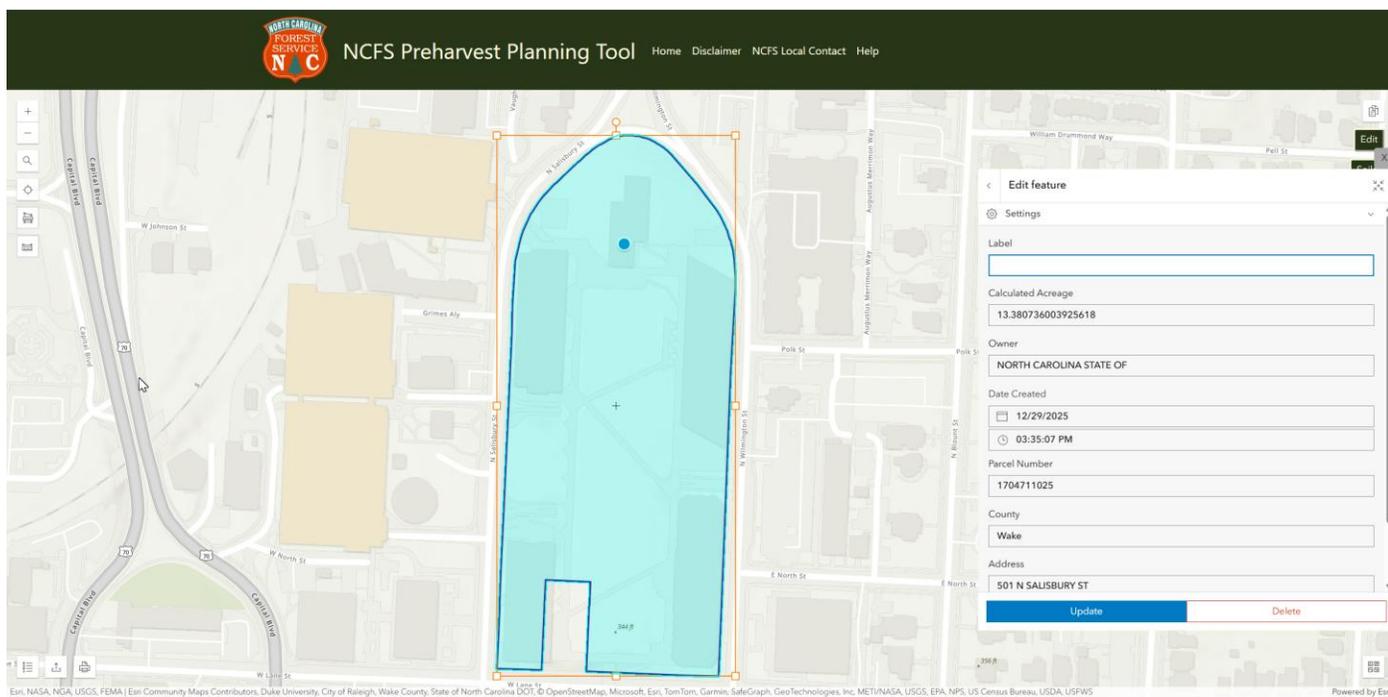
To edit the shape of a feature, click on the selected shape in the map view once more to enable the vertices editing.
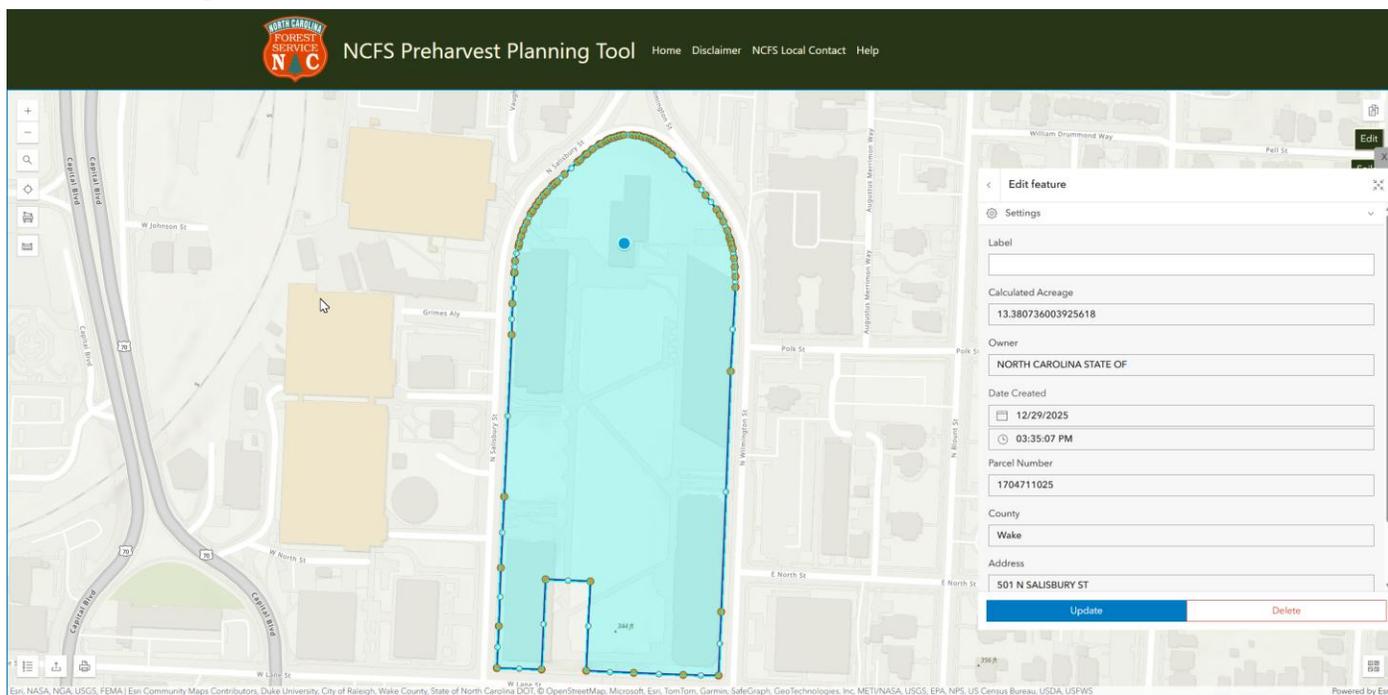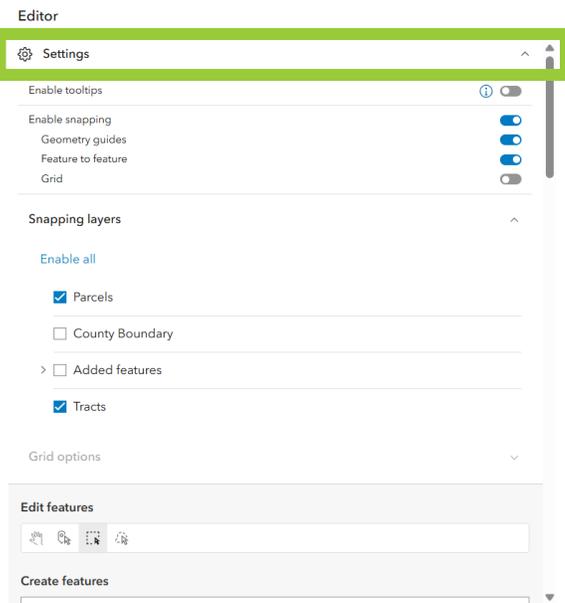

When finished editing, click the Update button. To delete the feature entirely, click the Delete button.
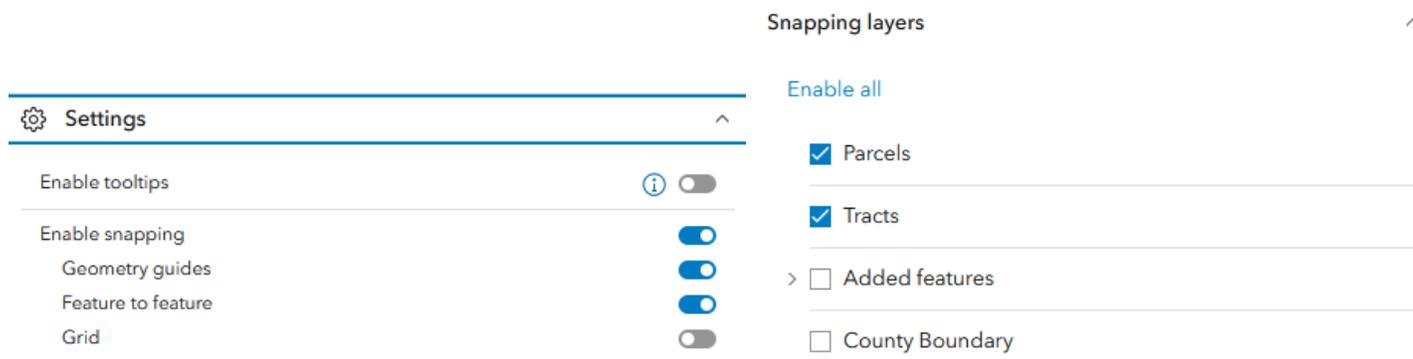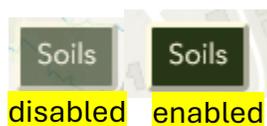
SNAPPING OPTIONS WITHIN EDIT

Snapping is a convenience feature that makes your lines connect or align cleanly to an edge or endpoint. To modify or disable snapping, click the Settings options at the top of the editor widget.

The user can disable Snapping entirely or turn off layers that should not be included in the Snapping.
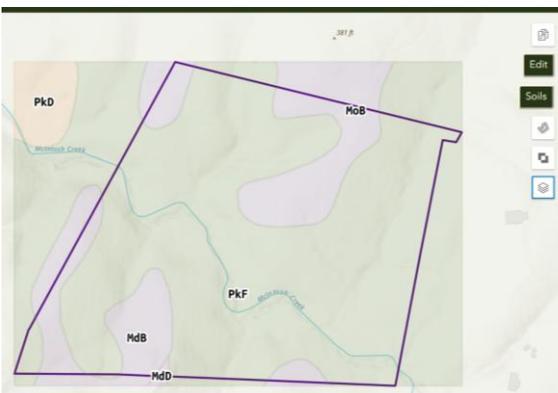

SOILS

disabled   enabled

It is recommended to create a tract first before clicking to activate this tool. This feature starts disabled and will become accessible once the map view is at an acceptable level of zoom. The Soils button will return soil polygons from the NRCS Web Soil Survey. These polygons are clipped according to tract boundaries. The tabular data nested within the soil polygons are sourced from SURRGO data and have been filtered to display select attributes that most pertain to forestry preharvest planning.

Being zoomed out too far will prevent this tool from working, so zoom the map view in to a tract. The soils render based on your tract boundary and zoom level. The further out the map view is zoomed, the longer this analysis will take to complete. It is best to zoom as tightly around the area to be analyzed as possible. Here is a good example:

Once the button is clicked, the analysis will begin. A spinner will replace the button to indicate that the analysis tool is working. Once completed, the soils layer will be added around the extent of the tract in the map view.

This soils layer is selectable and will display all data related to the selected soil type. In the example here we selected the PkF soil type.
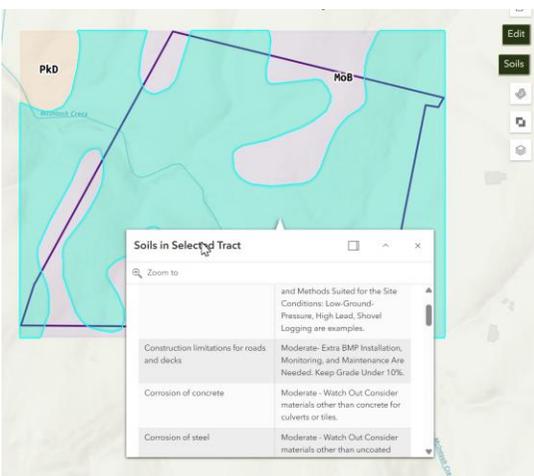
The soils analysis can be repeated as often as needed.

** NOTE: IF MORE THAN ONE TRACT EXISTS IN THE MAP WINDOW, THE EXTENT OF THE SOILS ANALYSIS WILL STRETCH TO COVER ALL TRACTS IN THE MAP EXTENT. **

BUFFER

Buffering in this tool adds a polygon around a feature. The most common use of this feature will likely be for streams. *WARNING* The extent of streams shown in this tool may not be the extent of streams found on the ground. Users should ground truth where the streams exist prior to conducting the forestry operation. Seek help from a forestry professional if you have questions about stream protection.

 The buffer tool below the Soils button will buffer a selected feature. Once clicked, the Buffer menu will open to choose the options for buffering.
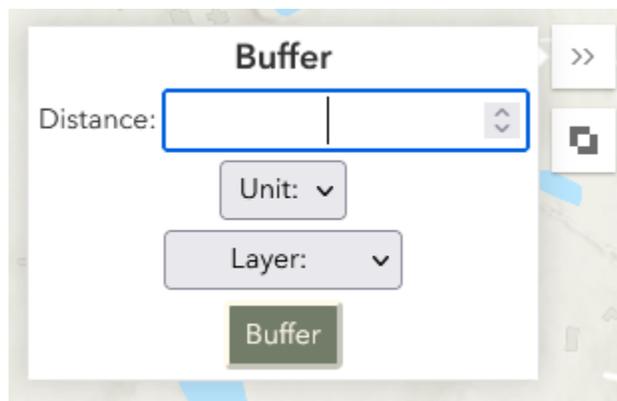

Type in a Distance in the top option. This must be a number. The tool does not allow any decimals between 0 and 1 but will allow decimals greater than 1. For example, 2.5 is acceptable; while 0.25 will NOT work.

ONCE A DISTANCE IS ADDED, THE BUFFER TOOL WILL ANALYZE THE LOCATION OF THE TRACT BY RIVER BASIN. PLEASE DOUBLE CHECK ANY SPECIAL BUFFER RULES THAT MIGHT EXIST FOR THE RIVER BASIN IN WHICH THE TRACT IS LOCATED.
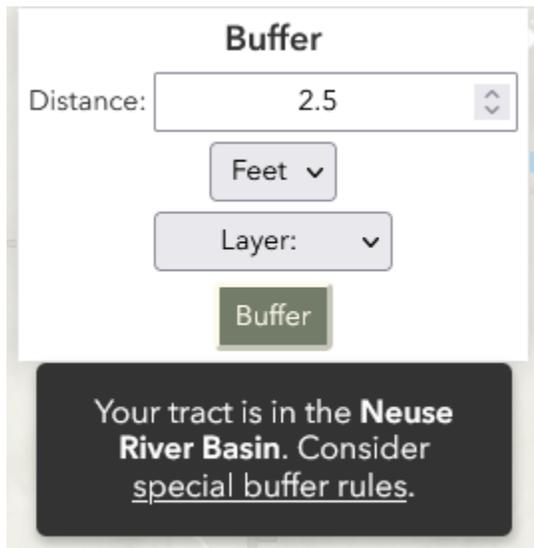
Select the Unit from the dropdown.

Then, select the layer to be buffered.
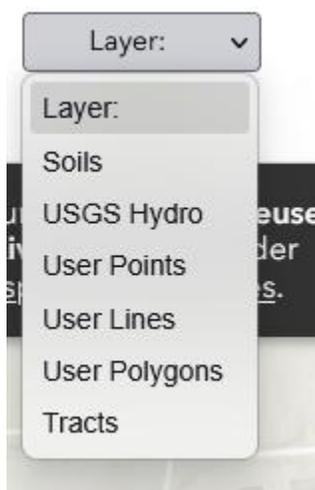
Soils: Choosing the soils layer will result in the analysis running again. If the soils layer already exists, it will run again. If it had not been previously completed, it will run for the first time and display the soils first. Please wait for the analysis to complete.

USGS Hydro: This will turn on the hydro layer and make it selectable.

User Points: This will make the user drawn points layer the only selectable layer.

User Lines: This will make the user drawn lines layer the only selectable layer.

User Polygons: This will make the user drawn polygons layer the only selectable layer.

Tracts: This will make the tracts layer the only selectable layer.

Once the layer is selected (wait for the soils to be redrawn/drawn), then a prompt will appear requesting a selection on the map view. The Buffer button will not be active until a feature is selected on the map.

Once a feature is selected, the buffer tool will indicate that a feature is selected and the feature will be highlighted in yellow on the map. The Buffer button will then become active.

Click a geometry on the map to buffer

**polygon selected**
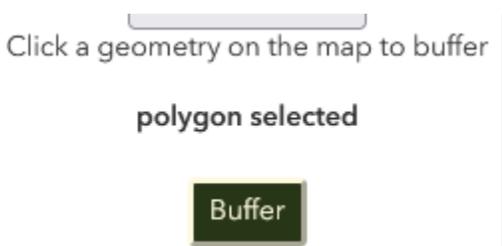
Buffer

Click the Buffer button to begin a buffer.

** NOTE: YOU MAY ONLY BUFFER ONE FEATURE AT A TIME. **

Upon completion, the buffer tool will close, and the buffers layer will be added to the map in a light green color.
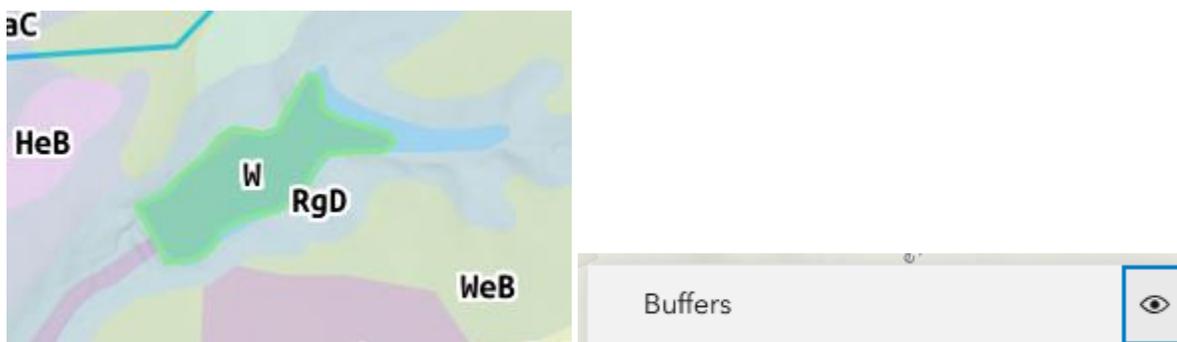
Buffers 👁

The Buffers layer can be toggled on and off in the Layer List tool from this point on. As new buffers are added, all buffers will be kept in the buffers layer together. To restart the buffers, refresh the page and begin again.

The special buffer rules link in the black box will open the N.C. Forest Service's website to the webpage containing information on River Basin & Watershed Riparian Buffer Rules. Select the appropriate Forestry Leaflet for more details on the Forest Harvesting requirements.

Layer: ⌄

Buffer

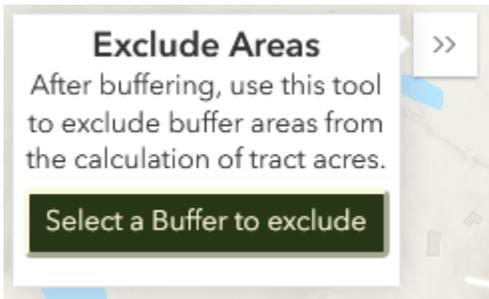Your tract is in the **Neuse River Basin**. Consider special buffer rules.
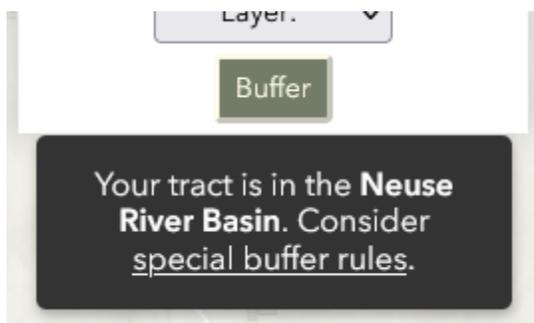
EXCLUDE AREAS

This tool cuts from created buffers. A common use might be to exclude streamside management zones areas from the total harvested area.

 The exclude areas button underneath the buffer button will open the exclude areas menu.


**A BUFFER MUST EXIST IN ORDER TO USE THIS TOOL.**

To start the workflow of the exclusion tool, click the "Select a Buffer to exclude" button. Then select a buffer on the map by clicking it. When a buffer is selected, it will change color to yellow with a purple outline and the button will change. Once all buffers to exclude are selected, click the "Done Selecting" button.
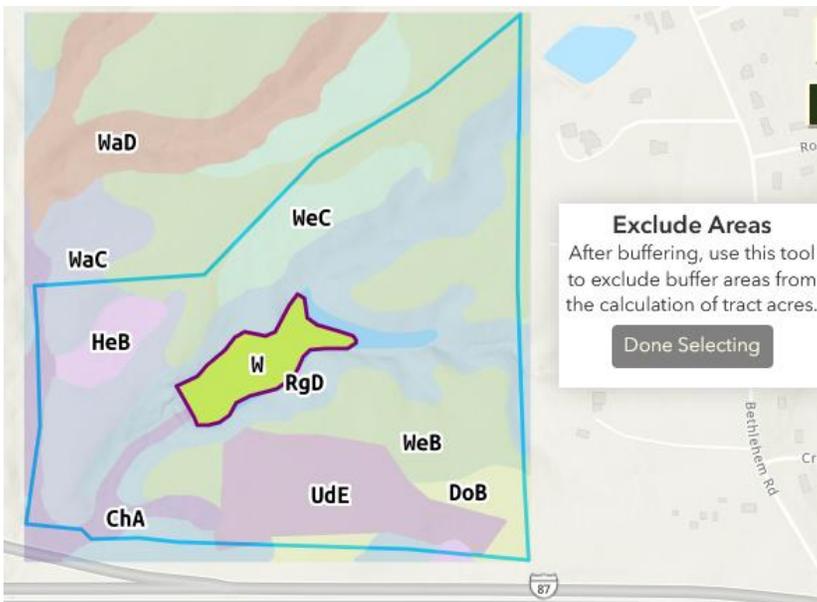
Once the "Done Selecting" button is clicked the new tract acreage will display in the Exclude Areas menu and a new tract shape will be drawn with the exclusion.
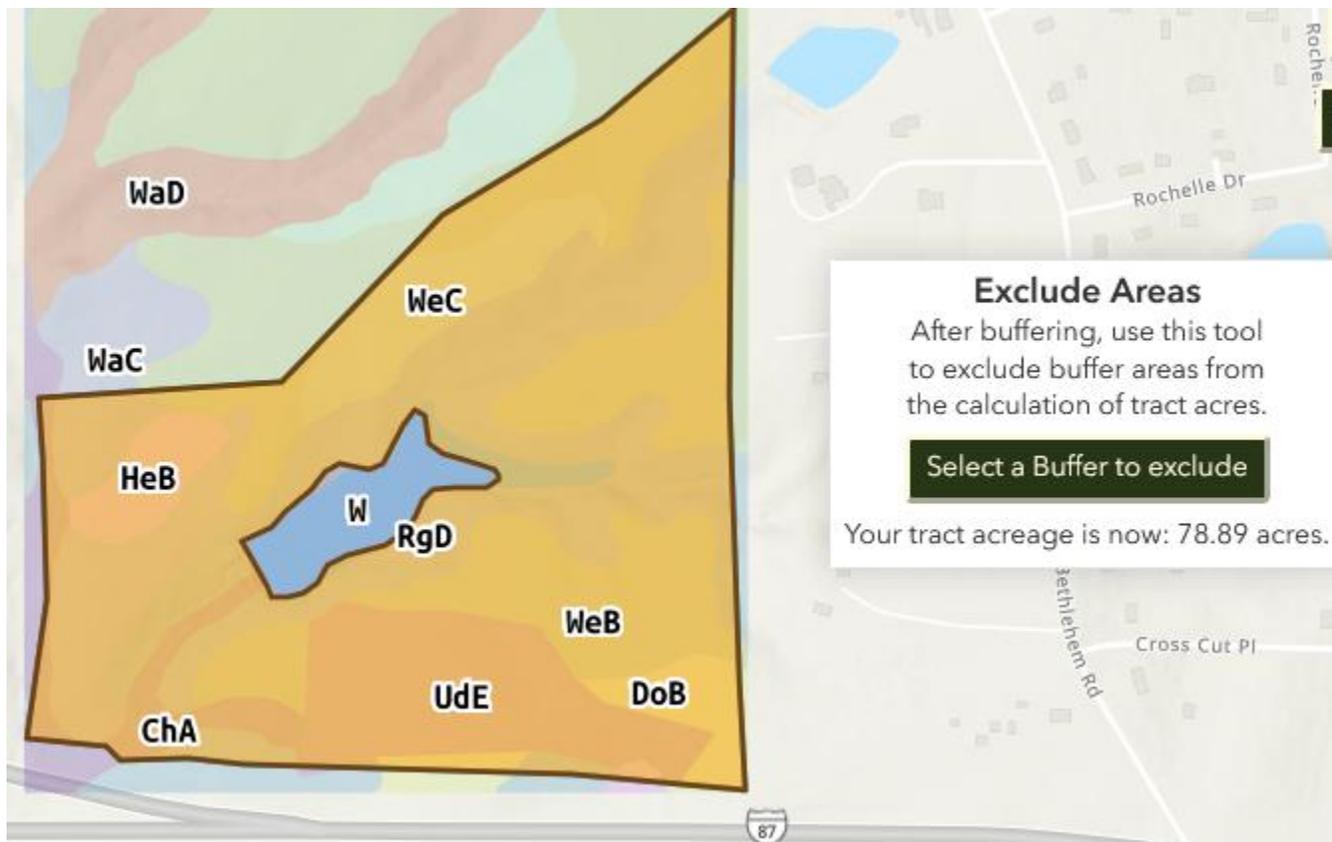
NOTE: THIS NEW TRACT WITH EXCLUSION IS A SEPARATE, TEMPORARY LAYER. IF THE PAGE IS REFRESHED, IT WILL BE DELETED. TOGGLE THE VISIBILITY OF THE BUFFERS, EXCLUSION, AND TRACTS LAYERS AS NEEDED IN THE LAYER LIST. THE NEW TRACT AREA IS SAVED IN THE TRACT ATTRIBUTE DATA WHICH WILL BE DISPLAYED IN THE LABEL OF THE ORIGINAL TRACT SHAPE.
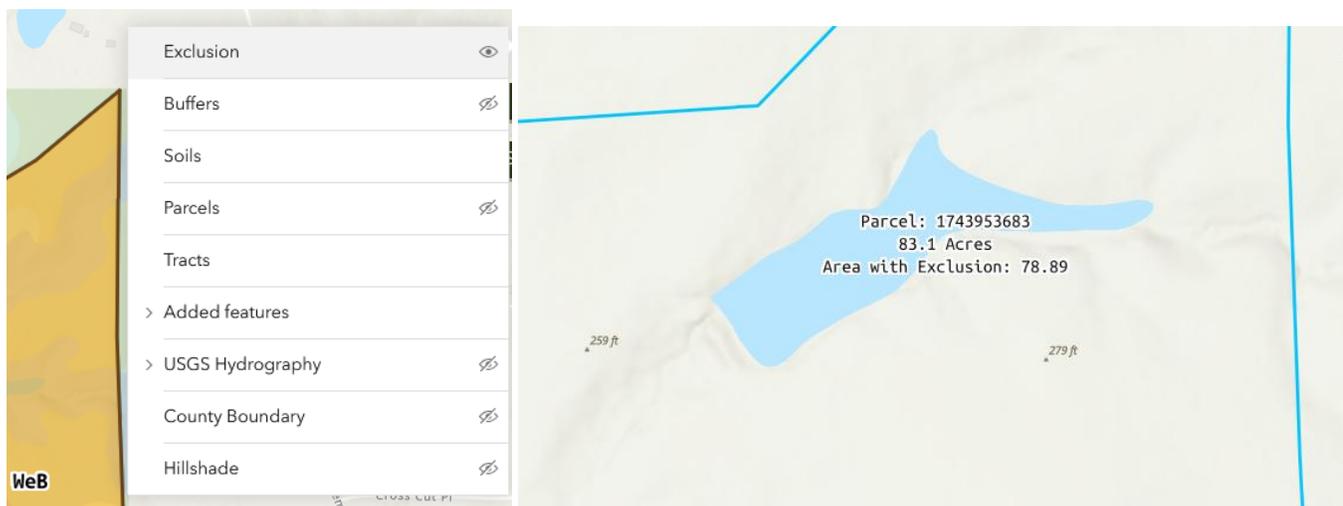
The new area is also visible in the Editor widget if the tract is selected. It is the last attribute on the tract Edit Feature menu window.

Parcel Number

1743953683

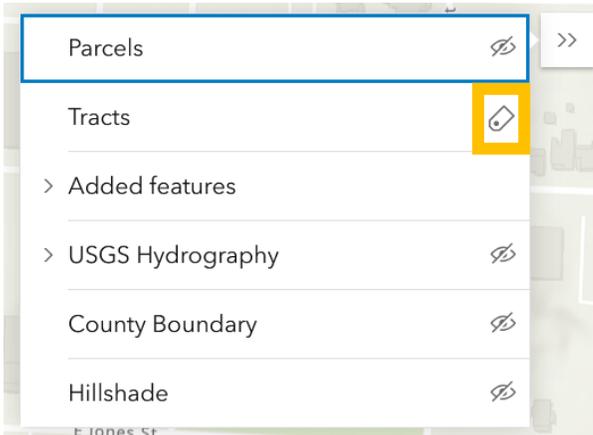County

Wake

Address

0 BETHLEHEM RD

Area with exclusions

78.89

LAYER LIST

The layer list shows all the layers available for display. To change the visibility of a layer, click on the eye located on the right side of each layer. The label symbol: ⬦ next to a layer in the layer list indicates that the labels may be toggled on or off by clicking that button.

Any grouped layers will have an arrow > indicating that there are sublayers which can either be toggled individually or as a group. To toggle visibility for the entire group, leave the arrow collapsed and click on the eye. To toggle visibility of a single sublayer, expand the arrow > and click the eye for the specific sublayer that you want visible or hidden.
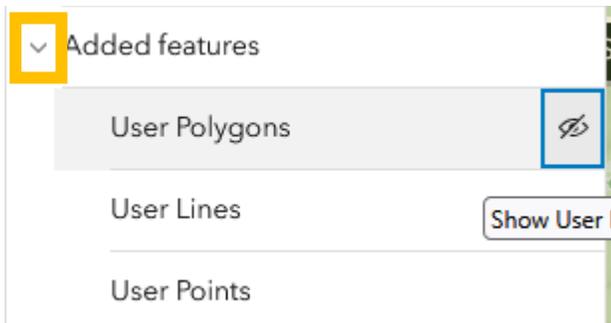
Some layers have zoom rules set on them. If a layer's name is greyed out at a state level zoom, you must zoom in to be able to view the layer. The parcel layer, for example, requires that the map view be zoomed in to view parcels. **It's best to turn on the parcel layer when searching for a place to start.**

There is also another Soils layer listed within the layers and labeled as "NRCS Soils". This layer is a black and white mosaic of the most recent print version of the NRCS soil survey books. Reference this layer for intermittent and perennial streams, particularly when operating in Riparian Buffer Rule areas. Note the disclaimer about use of this layer (do not use this for legal stream determinations). Contact your local NC Forest Service office or NC Division of Water Resources regional office for further buffer determinations. Example shown below.
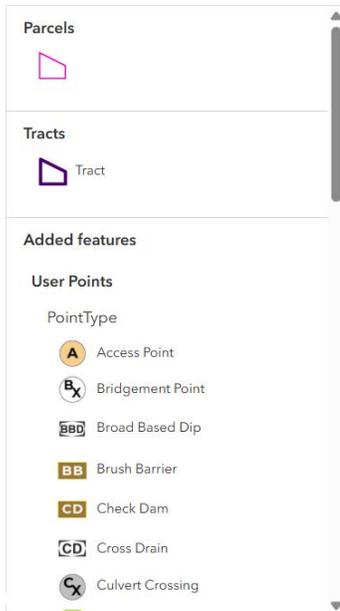
AREA 4 BUTTONS (LEGEND, EXPORT DATA, PRINT)

LEGEND

The legend is available in the bottom left corner of the map view. It will open the legend and show all visible layers. To change the contents of the legend, toggle the visibility of different layers in the Layer List tool in the top right of the page (Area 3).
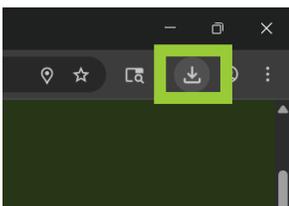
EXPORT

The export function allows the user created features to be exported in KML format.

Click the button with the word "Export" to begin the export.

This function will take all tracts, user lines, user points, and user polygons, export them into a KML file with their attributes, and download the file to the device. If using a Google Chrome web browser, the downloads button is at the top right and has an arrow pointing down.

PRINT

 The Print tool on the bottom left of the map window opens a print menu.

The print menu offers different options for exporting the current map based on the extent of the map window.

Add a Title for the file (green box below), choose a Template from the available options (orange box below). The Show print area toggle (yellow box below) will give a preview of what will be on the exported file. Choose a file format from the dropdown. PDF is the default and is the recommended format for most applications.
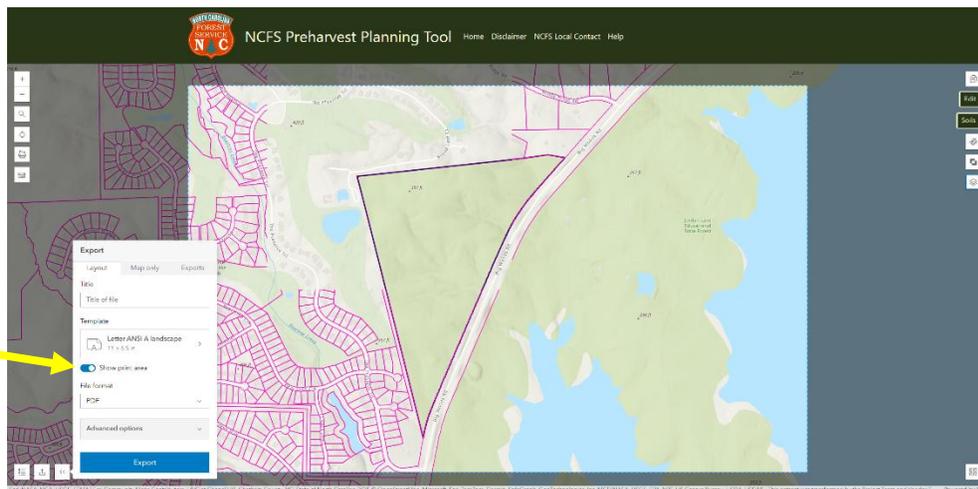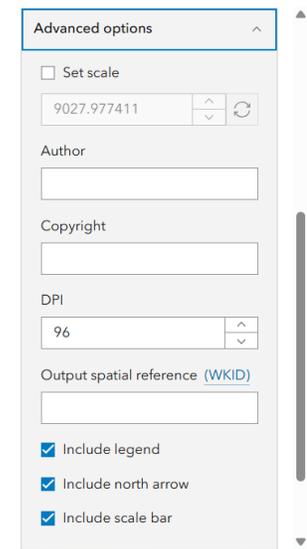
The Advanced Options provides choices for setting a scale, adding an Author, Copyright and DPI setting as well as Output spatial reference. It's also possible to choose to include or exclude the legend, north arrow, and scale bar in the file output.

Once all options have been selected, click the Export button and a file will appear in the Exports tab in the print menu. Exporting under the Map only tab will generate a map without the title, legend, scale bar, and north arrow.
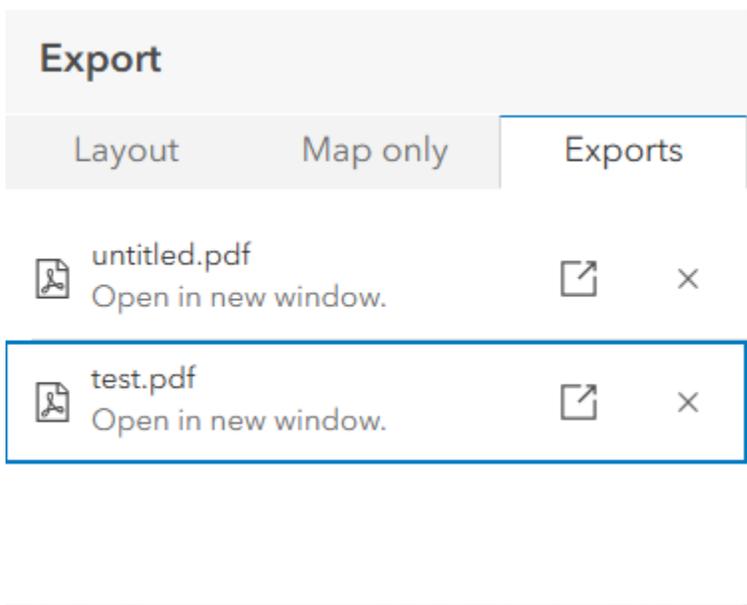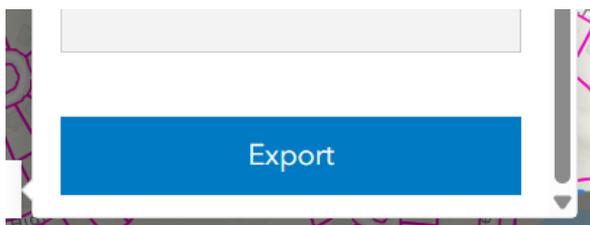
AREA 5 BUTTON (BASEMAPS)

Base maps refers to any type of georeferenced imagery that is used as a background or backdrop for a map. Change the basemap by clicking and selecting among the 35 default options. Collapse the options by clicking .