Updated August 2019

Introduction to Spatial Functionality in the ATFS Database

Contents

Introduction

In recent years, the ATFS program has been facilitating collection of spatial data for committees, through grants and creation of tools that facilitate outreach and data updates. Through 2017-2018, ATFS worked with several states to do massive landowner outreach and capture spatial data points, as well. Starting in early 2019, adding functionality to the ATFS database to capture and store spatial data began. With these new features, active ATFS volunteers will be able to draw boundaries to map out ATFS Tree Farms.

Having high-quality data and spatial data benefit the entire system in several ways:

- Facilitates location of property for regular re-inspections and during assessments.
- In the future, this information can be overlaid with landscape management plans or other tools to streamline the entry of inspections.
- Allows for GIS analysis on Tree Farms for more effective outreach, field days, determining Tree Farm hot spots or dead zones, implementation of conservation initiatives, etc.
- Prevents duplicate enrollment of the same property.
- Prevents enrollment of noncontiguous parcels.

What if Our State Has Spatial Data Readily Available?

With the help of our database programmer, shapefiles with digitized Tree Farms can be imported. If you have added new fields to your spatial data, there is no guarantee that additional data and fields will be imported, as well, but those situations will be handled individually. The main data of interest are the Tree Farm boundaries. Please contact Nephtali Chavez at nchavez@forestfoundation.org to begin the process and to ask any questions.

Required Fields:

- State
- Tree Farm number

Formatting Details:

- Zipped shapefile or geodatabase.
- Projection must be defined for the dataset.
- Each Tree Farm should only have one contiguous boundary. If a Tree Farm boundary is duplicated, or a Tree Farm number is repeated but has different boundaries, that property boundary will not be imported.

Instructions:

1. Please email Nephtali Chavez at nchavez@forestfoundation.org a zipped shapefile with the dataset.
2. Provide an estimate of when the dataset was last updated.
3. Folder can be shared through a file sharing site, such as drop box or google drive, if it is too large for email.

Permissions

The ATFS database is gaining spatial capabilities that will allow state committee members and ATFS inspectors to input Tree Farm boundaries. The same permission rules that exist currently for Tree Farm editing will apply for viewing, creating, and modifying Tree Farm boundaries.

For example, state program administrators can make edits and create new Tree Farms in their state, but not for other states. The same will apply to boundary creation/editing.

For example, inspectors cannot create new Tree Farms, but can edit/enter Tree Farm property information as part of an inspection. Inspectors will not be able to create boundaries for properties they are not assigned to.

Updated August 2019
To view the permissions of various roles, please look at this document:
https://www.treefarmsystem.org/stuff/contentmgr/files/2/3105c7731a9ca78986fdc7faa9c655b3/files/capabilities_of_each_role.pdf

Privacy Concerns

Information held within the ATFS database is closely guarded and only authorized users can access this information. This website (ATFS Database) is owned and operated by the American Forest Foundation (AFF) and is intended to provide useful information to those individuals managing records of the American Tree Farm System® (ATFS) in their respective state(s). AFF is committed to ensuring the privacy of persons (Tree Farmers) participating in ATFS and will take every precaution to protect Tree Farmer information, both online and offline. Each user of the ATFS database is required to agree to the ATFS nondisclosure agreement before being able to access the information within.

Troubleshooting

Please clear your browser's cache to ensure that all the new features can be used without issue.

If you continue to have technical issues please contact Nephtali Chavez at nchavez@forestfoundation.org or ATFS support at atfs.support@jws.com. In your message, please include the following information:

- Browser being used and version.
- What the issue is and what you are trying to achieve.
- Step that were taken that caused the issue.

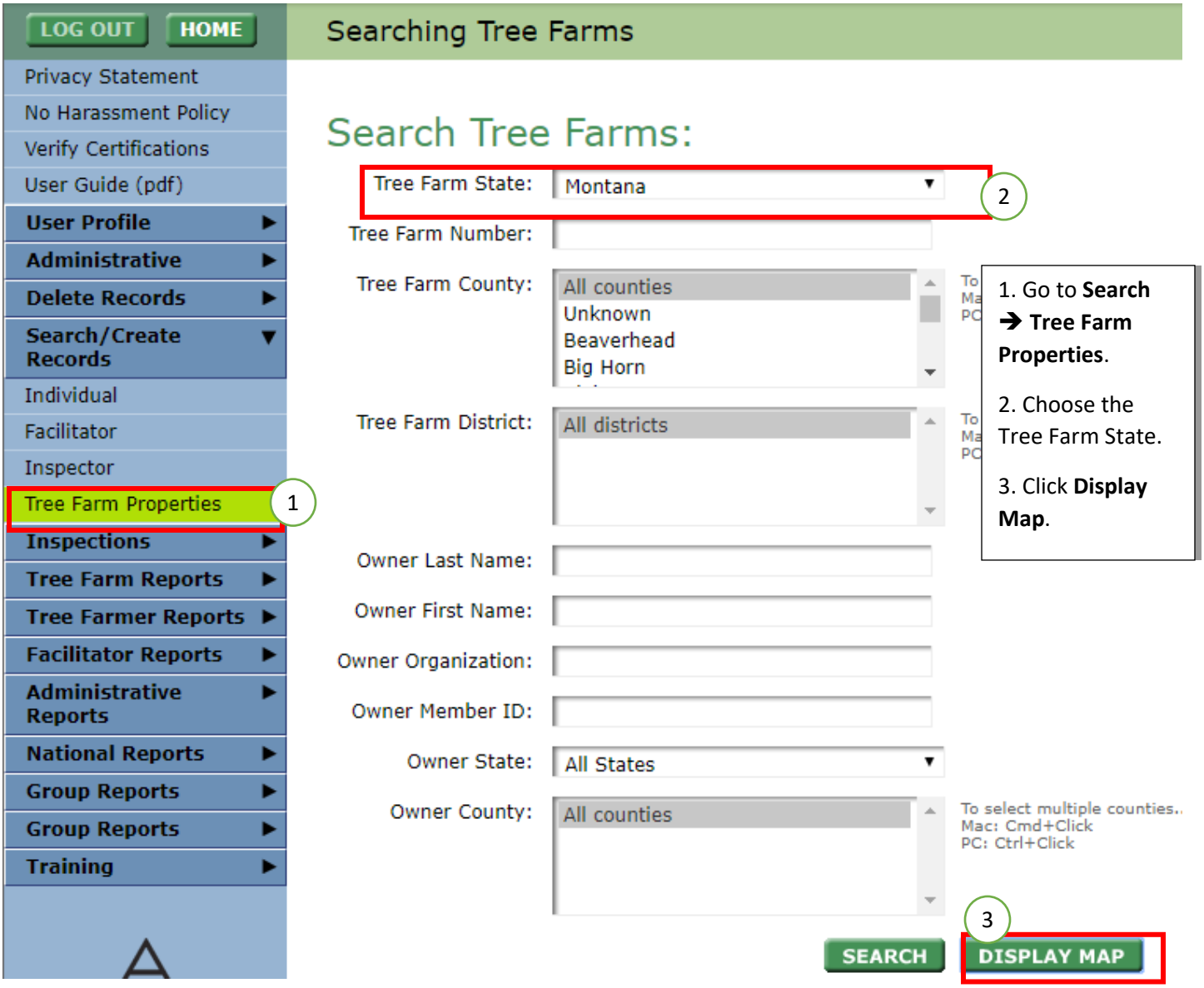
Searching for Spatial Data

The boundary for a Tree Farm is stored along with the other property details—such as acreage, location, status—that you are familiar with. You can view/edit boundary information by searching for a Tree Farm and clicking on the Tree Farm number or Display on Map.

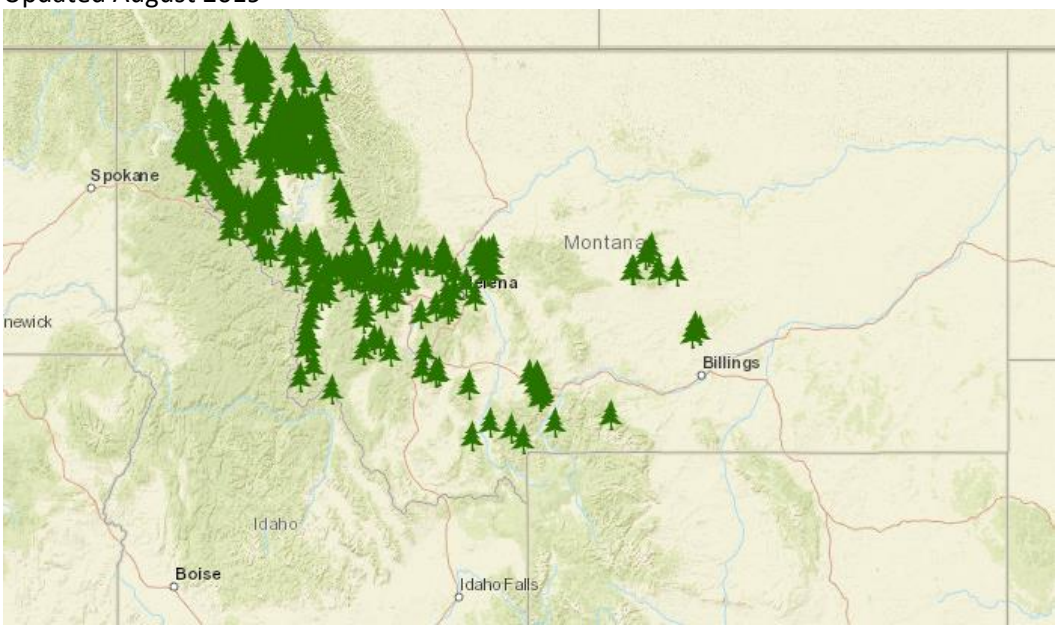
Searching from the Search/Create ➔ Tree Farm Properties Menu (Preferred):

Quickly Viewing all Locations of Tree Farms in Your State:

From this menu, you can view the location of all the Tree Farms (all that have had boundaries drawn) in your state for a quick review:

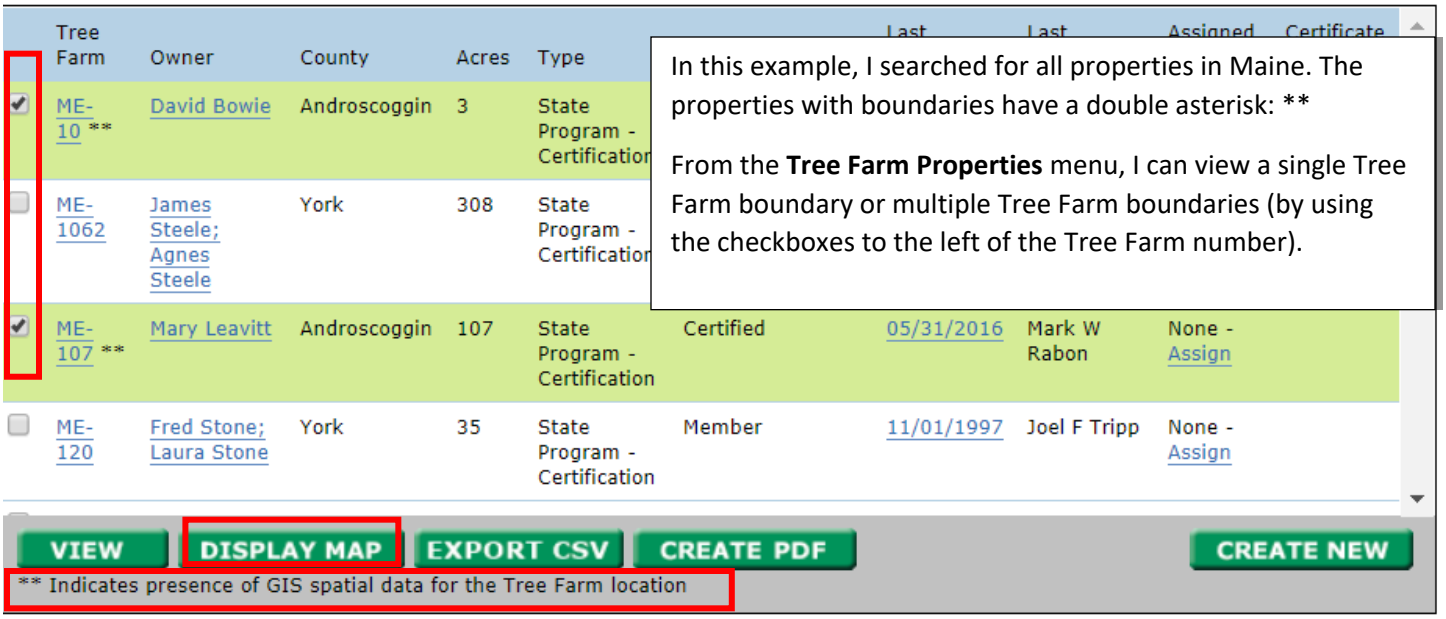


Clicking Display Map will launch the Tree Farm Viewer window showing the location of each Tree Farm:



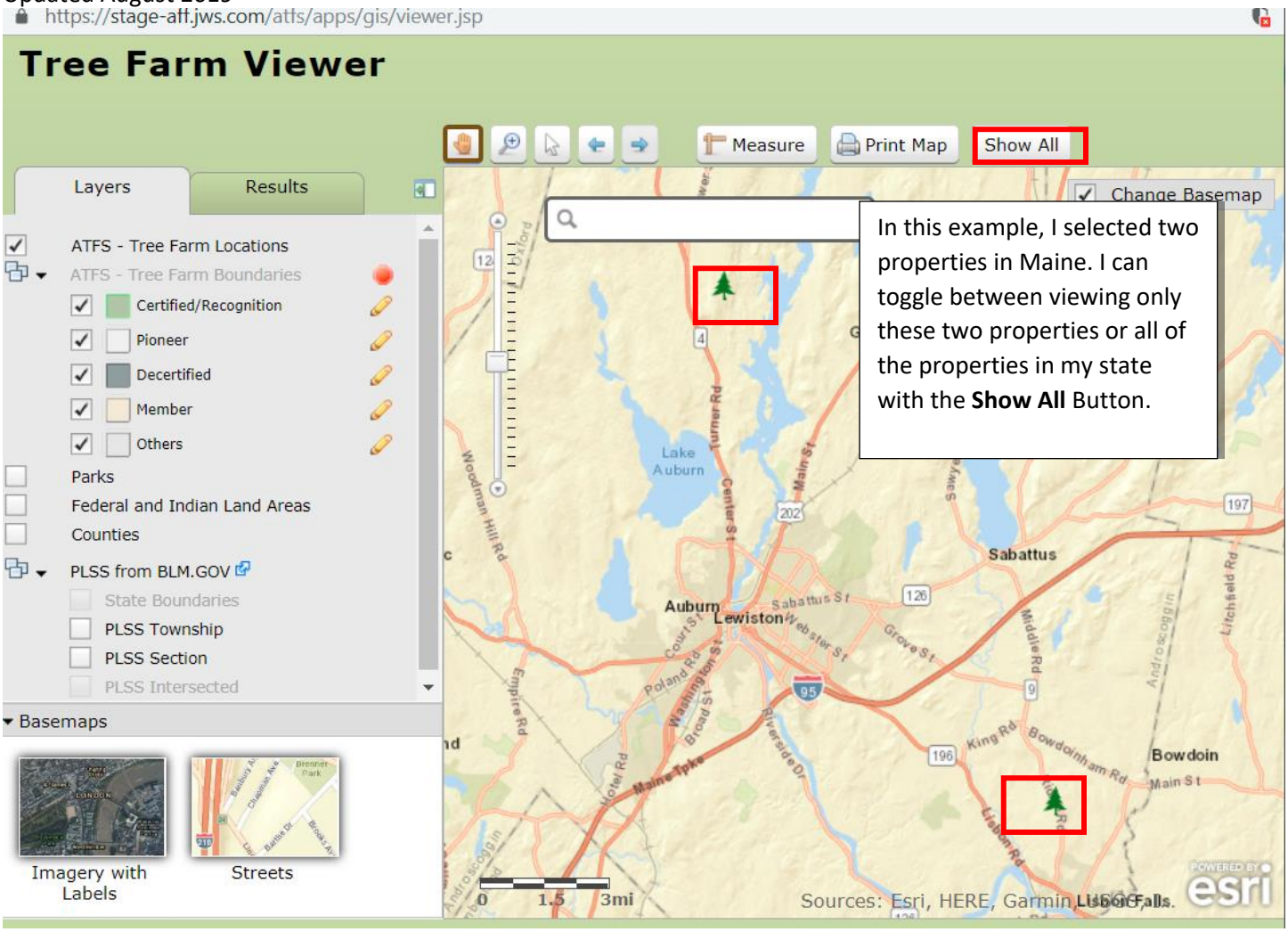
Finding the Locations of Specific Properties:

1. Go to **Search/Create Records➔Tree Farm Properties**.
2. Search for the Tree Farm(s) of interest.
3. From the search results select the Tree Farm(s) to view with the checkboxes.

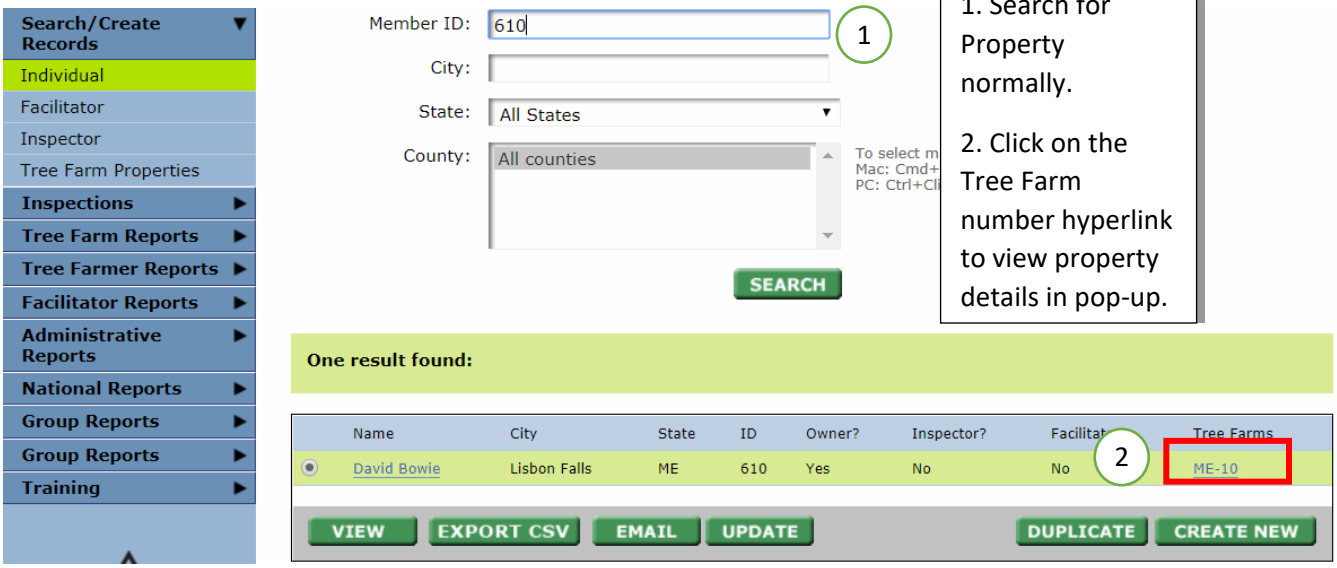


Although users can view multiple properties at once, nobody can edit or create multiple boundaries at the same time through the online database. View, submitting multiple boundaries at once.

When specific properties have been selected for viewing, the **Tree Farm Viewer** will only display the properties that were checked in the search results. You can toggle between viewing all properties in your state and the selected properties with the **Show All/Show Selected** Button.

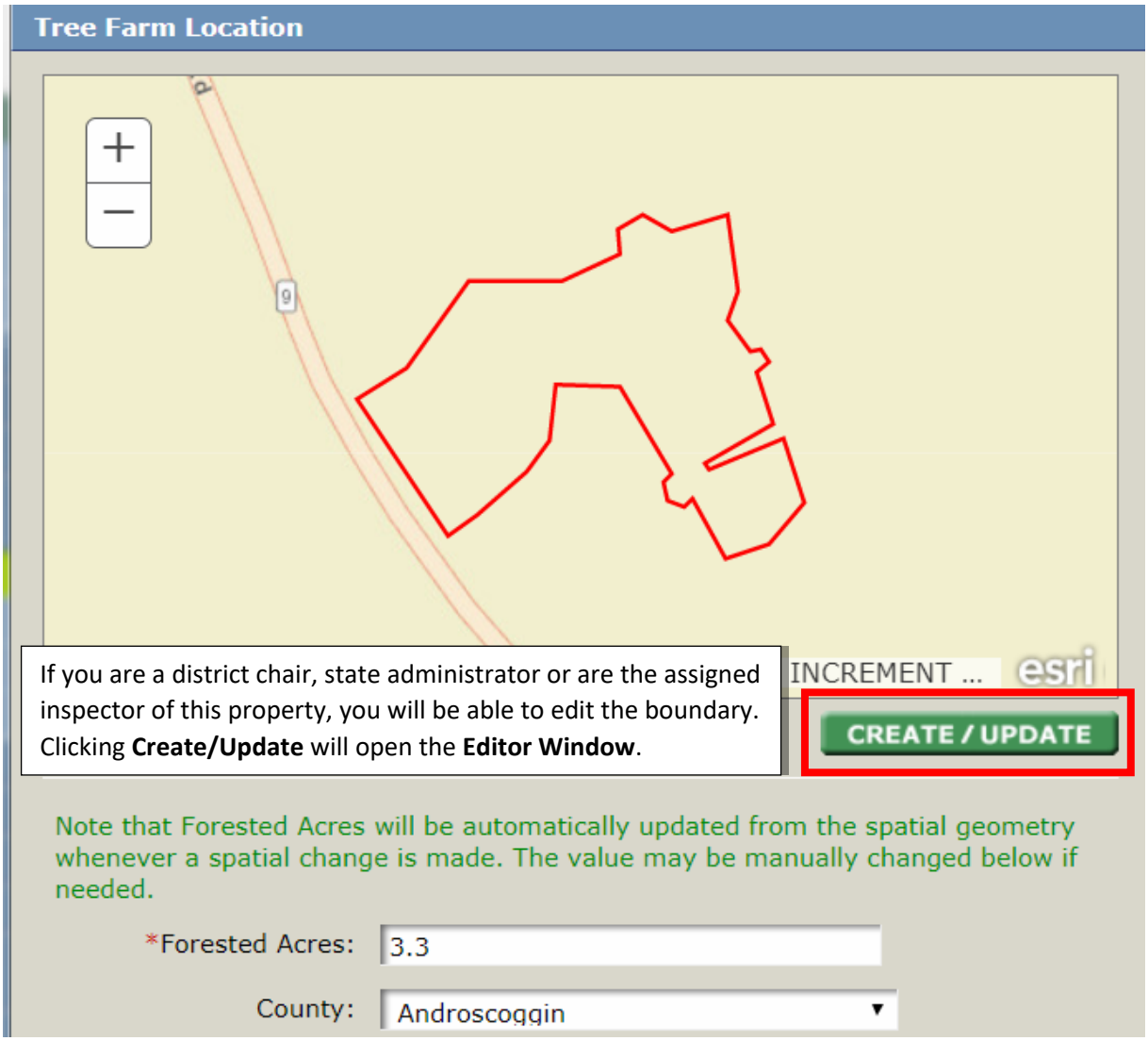


Searching from Other Menus



Anywhere that the Tree Farm number is hyperlinked, you can view the boundary (if it exists). In the resulting pop-up window, click the **Next** button at the bottom of the page *twice* to get to the **third page**, where the boundary is stored.

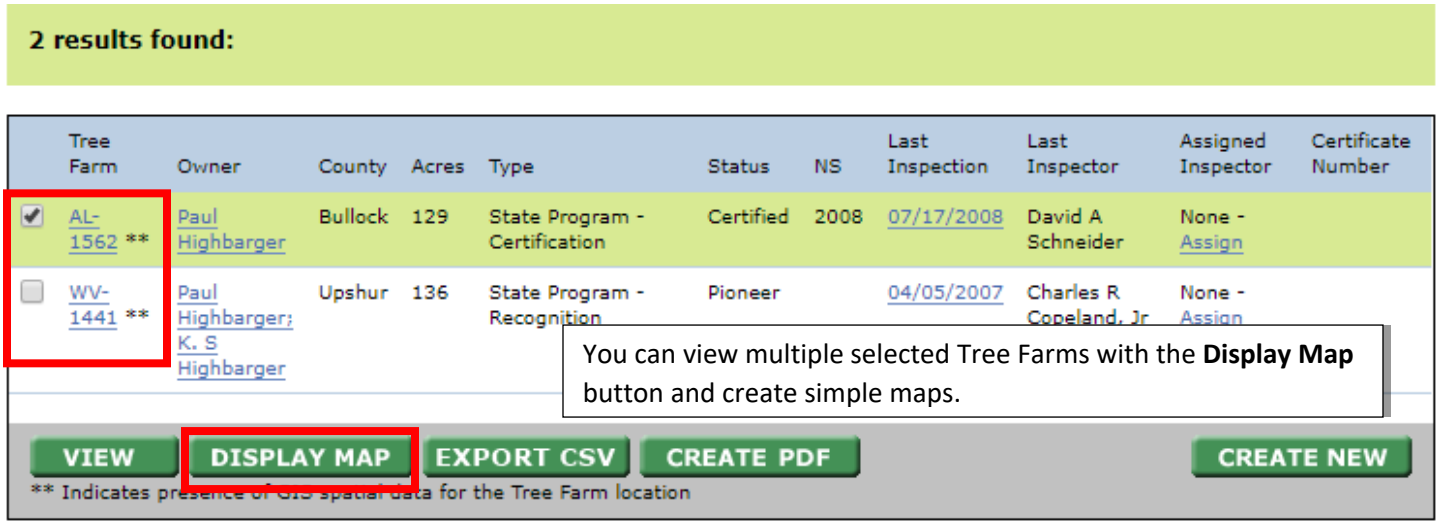
If the boundary exists, the third page will look something like the image below. Otherwise, you would see an outline of the entire state.



Viewing Spatial Data

The quickest method to view existing Tree Farm boundaries is to search for a Tree Farm property.

1. Go to **Search/Create Records ➔Tree Farm Properties**.
2. Search for the Tree Farm of interest.
3. From the search results select the Tree Farm(s) to view through the checkboxes.
    a. Alternatively, you can select one Tree Farm and click the **View** button. This will display property details and a quick spatial overview in a new webpage that can be printed. Do not proceed with the next steps.
4. Click **Display Map**.
    a. A pop-up will open; make sure you allow pop-ups.



5. This is the **Viewer Window**; here, you can:
    a. Create and print a basic map.
    b. Zoom in and out (Keyboard short cuts: - +)
    c. Pan around an area (Keyboard short cuts: arrow keys)
    d. Select a Tree Farm to view details about it, such as last inspection, owner, status, etc.
    e. Select a Tree Farm(s) and download the shapefile for further analysis.
    f. Take measurements.
    g. Overlay layers over properties

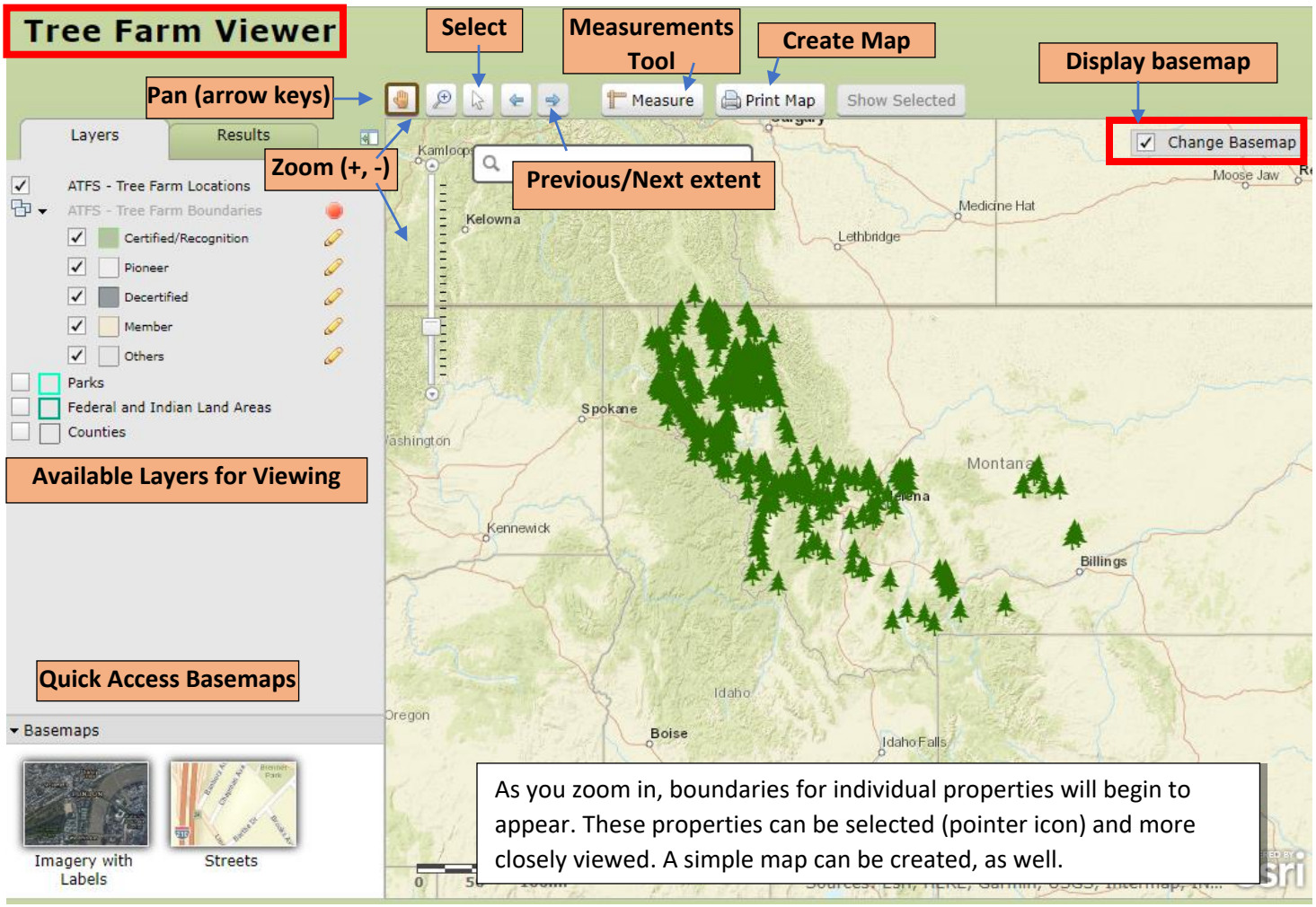
Note: You cannot make edits in the **Viewer Window**. This must be done in the **Editor Window** and can only done by authorized users. See Permissions.

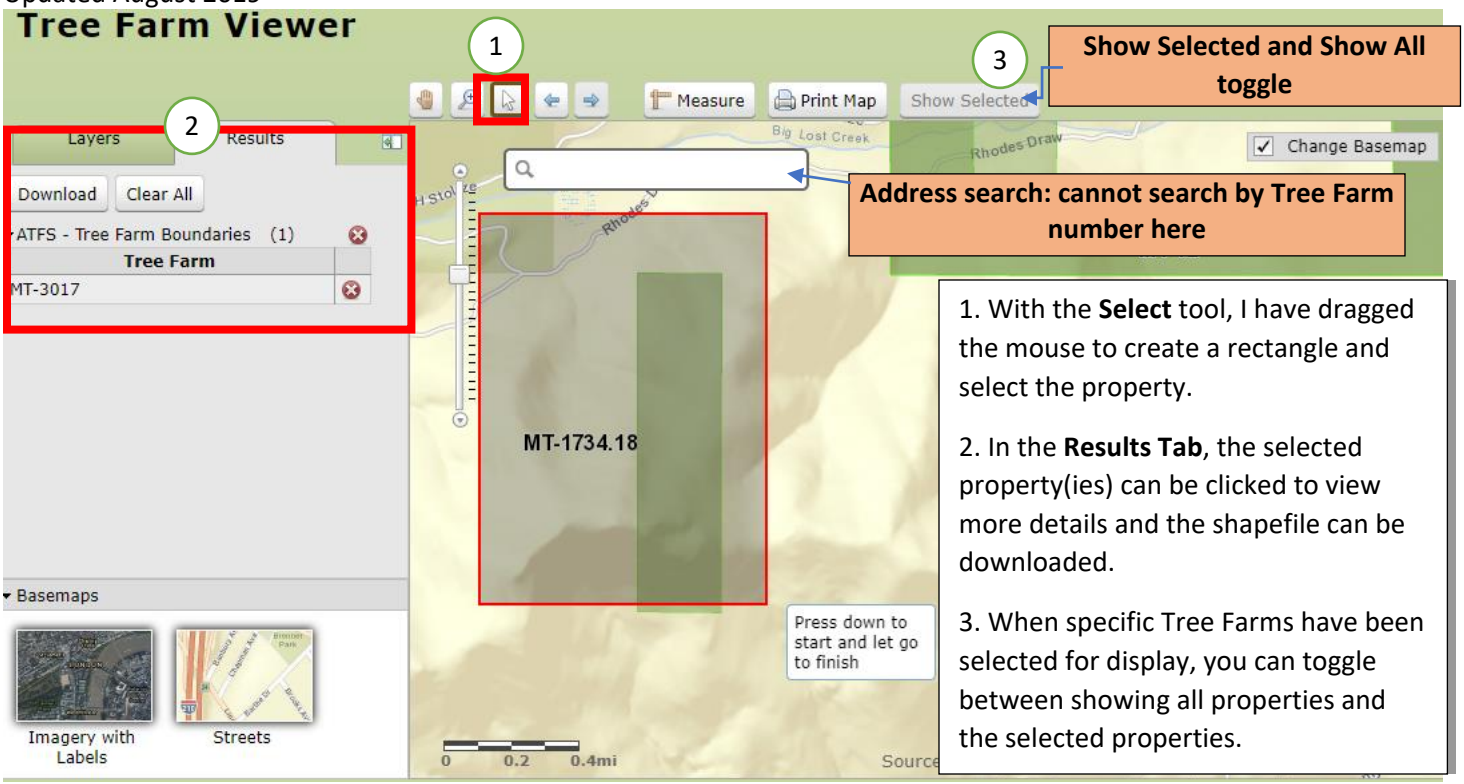
Spatial Viewer Example

The image below demonstrates a Tree Farm Viewer Window, showing the location of each Tree Farm with spatial boundaries drawn.

1. This is the **Viewer Window**, here you can:
    a. Create and print a basic map.
    b. Zoom in and out (Keyboard short cuts: - +)
    c. Pan around an area (Keyboard short cuts: arrow keys)
    d. Select a Tree Farm to view details about it, such as last inspection, owner, status, etc.
    e. Select a Tree Farm(s) and download the shapefile for further analysis.
    f. Take measurements.

g. Overlay layers over properties



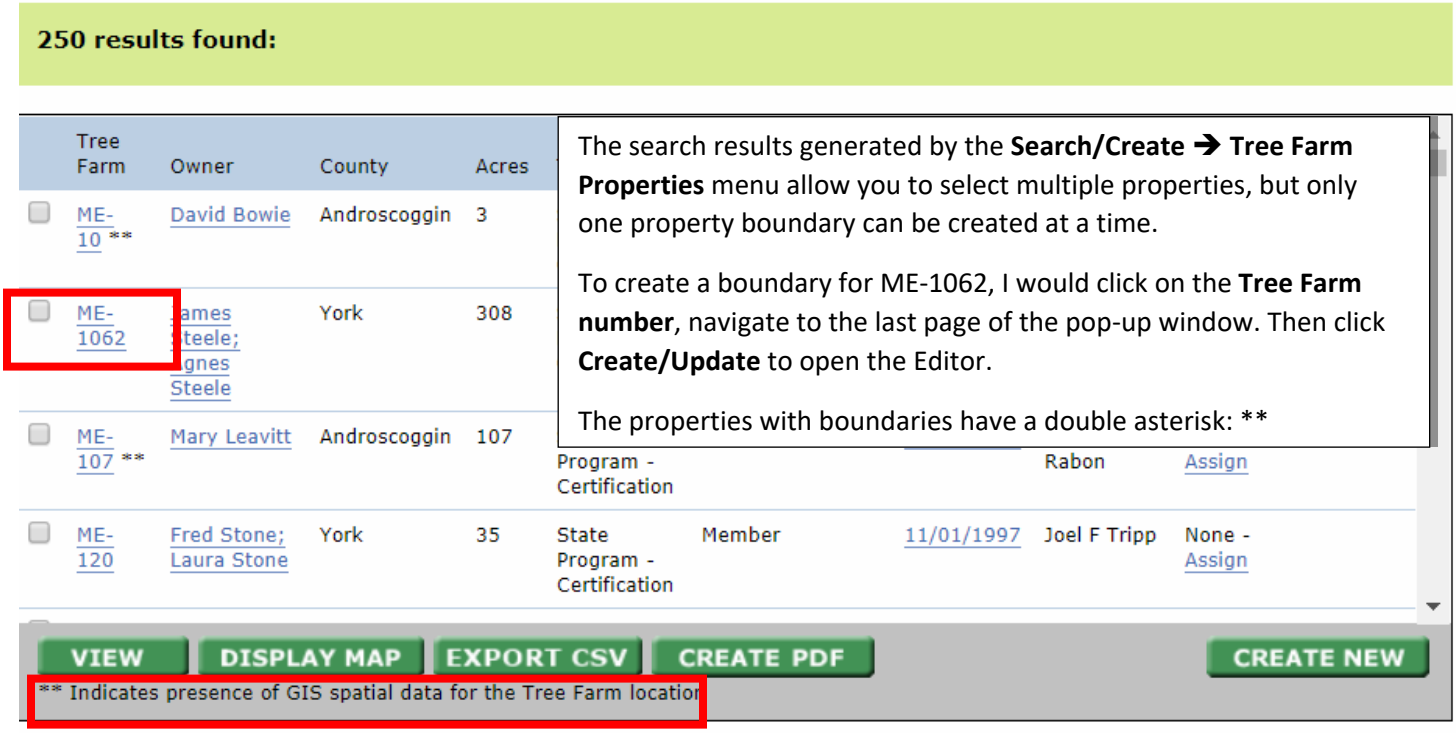

Tree Farm Viewer
1
2
3
Show Selected and Show All toggle
Measure
Print Map
Show Selected
Change Basemap
Layers
Results
Download
Clear All
ATFS - Tree Farm Boundaries (1)
Tree Farm
MT-3017
Address search: cannot search by Tree Farm number here
MT-1734.18
Press down to start and let go to finish
Basemaps
Imagery with Labels
Streets
0
0.2
0.4mi
1. With the **Select** tool, I have dragged the mouse to create a rectangle and select the property.
2. In the **Results Tab**, the selected property(ies) can be clicked to view more details and the shapefile can be downloaded.
3. When specific Tree Farms have been selected for display, you can toggle between showing all properties and the selected properties.

Creating a Single Tree Farm Boundary

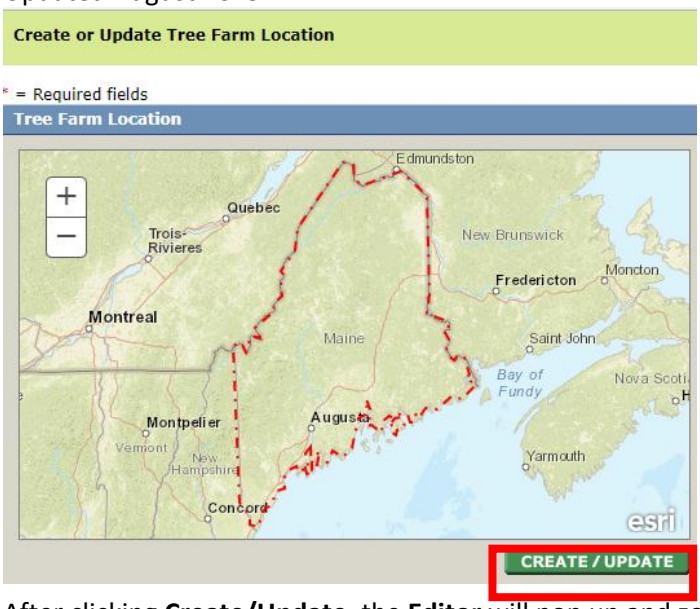
The boundary for a Tree Farm is stored with the other property details, such as acreage, location, etc., that you are familiar with. A Tree Farm boundary can only be created by users with certain permissions and in the **Editor Window**.

To access the **Editor Window:**

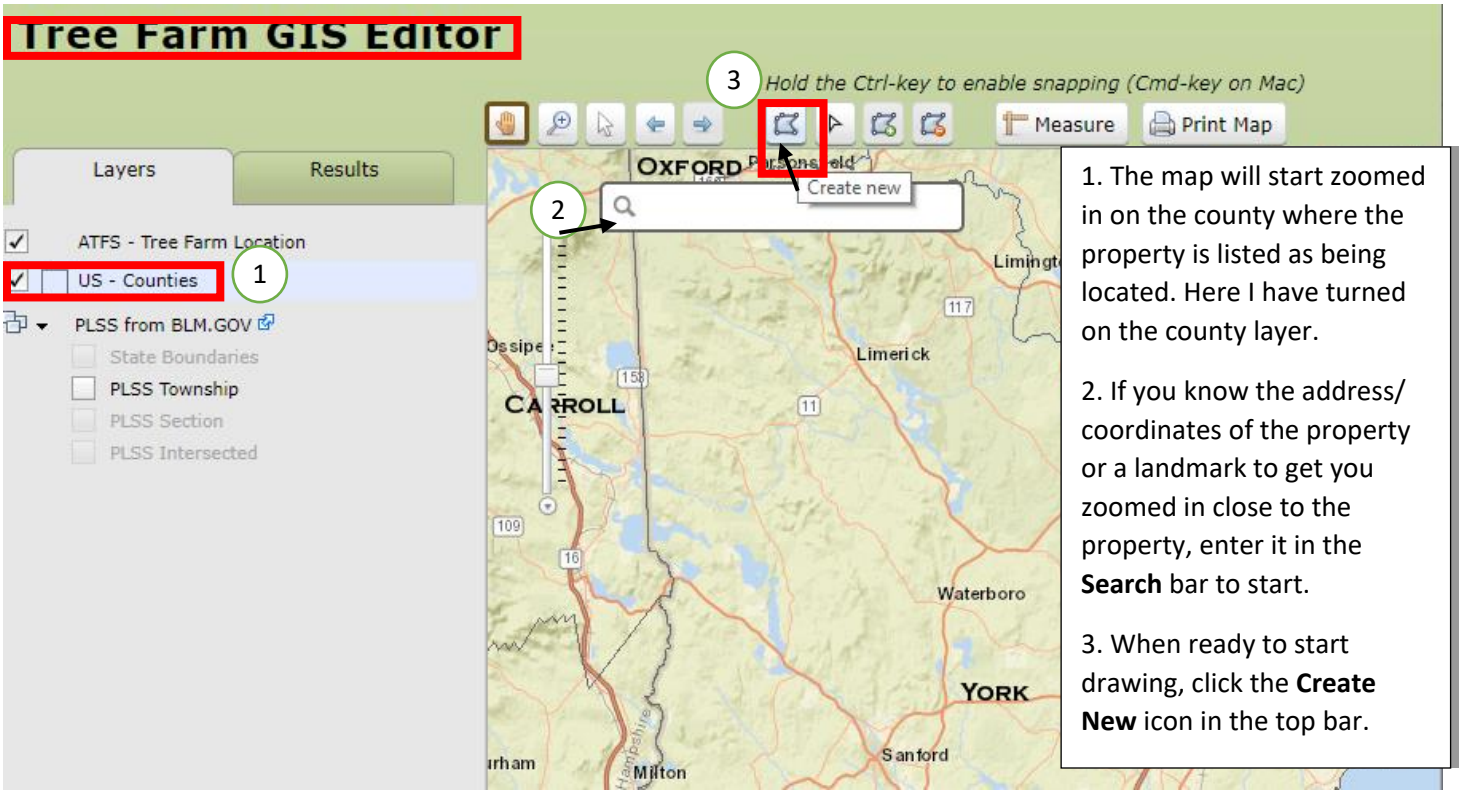
1. The Tree Farm must already exist.
2. Search for the Tree Farm Property
3. In the search results, open the property of interest.
4. In the resulting pop-up window, click the **Next** button at the bottom of the page *twice* to get to the **third page**, where the boundary is stored.

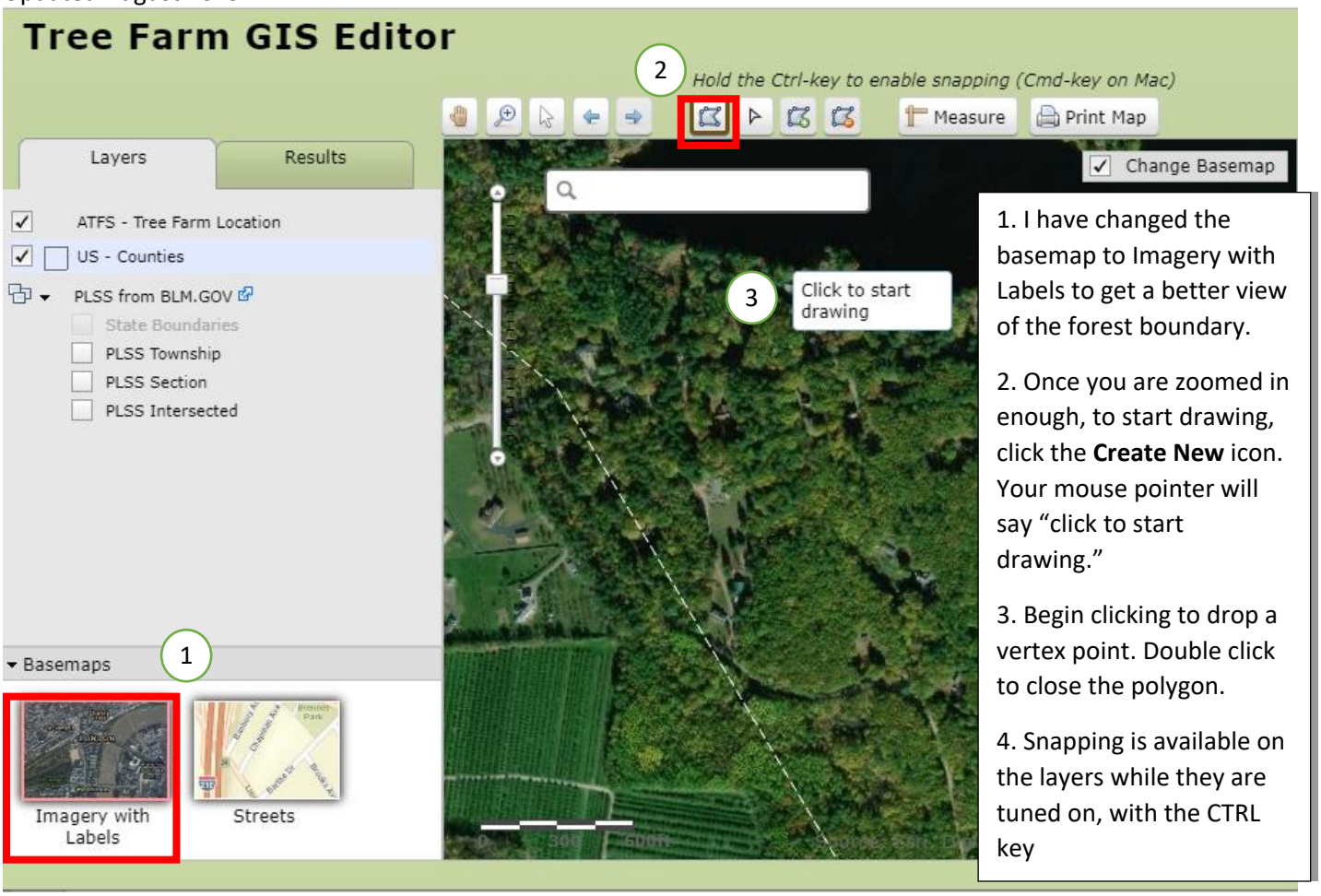


Anywhere that the Tree Farm number is hyperlinked, you can get to the Editing window. If there is no boundary you will see a general outline of the state:



After clicking **Create/Update,** the **Editor** will pop up and zoom into the county where the property is located.



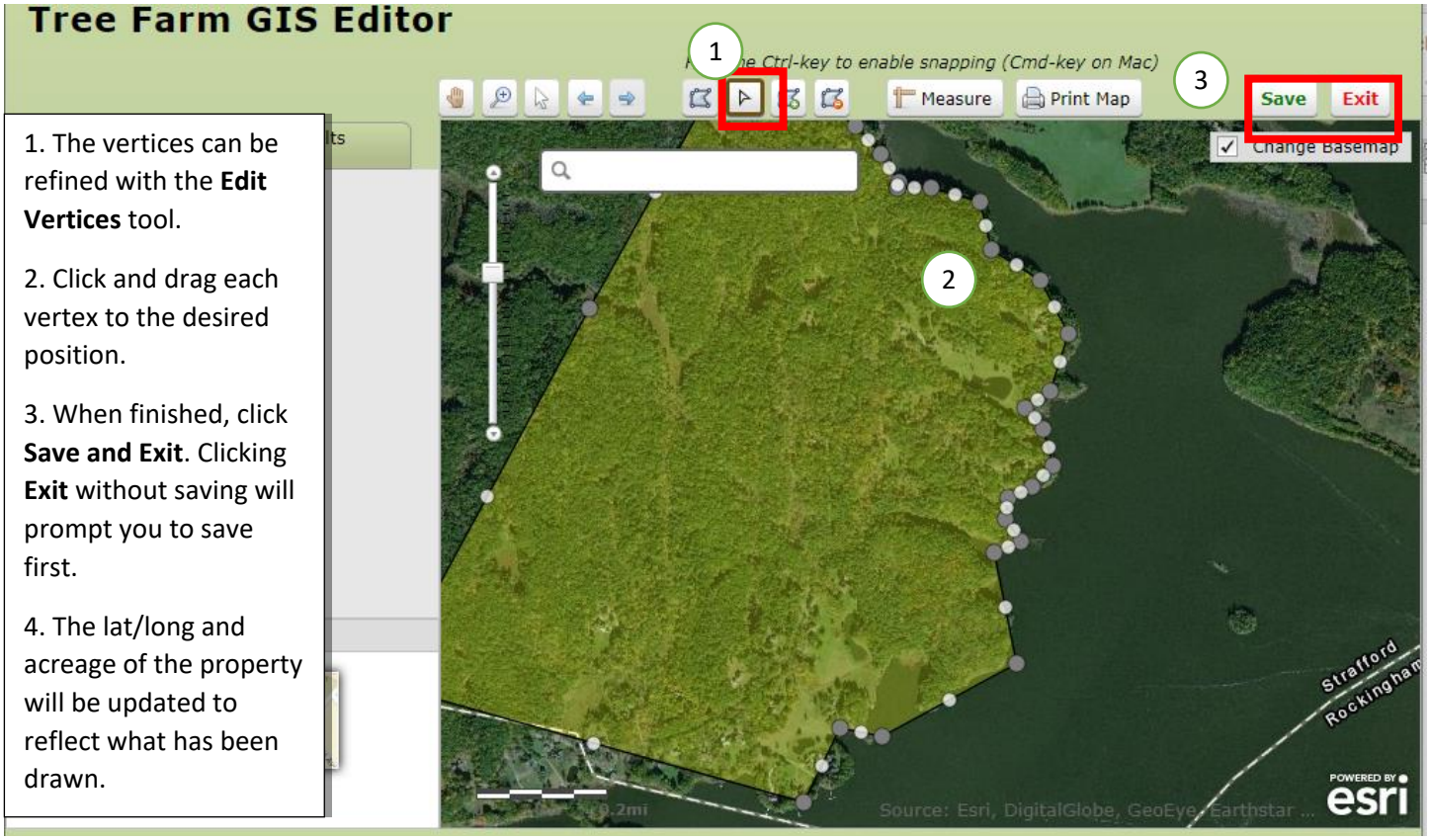


1. I have changed the basemap to Imagery with Labels to get a better view of the forest boundary.

2. Once you are zoomed in enough, to start drawing, click the **Create New** icon. Your mouse pointer will say "click to start drawing."

3. Begin clicking to drop a vertex point. Double click to close the polygon.

4. Snapping is available on the layers while they are tuned on, with the CTRL key



1. The vertices can be refined with the **Edit Vertices** tool.

2. Click and drag each vertex to the desired position.

3. When finished, click **Save and Exit**. Clicking **Exit** without saving will prompt you to save first.

4. The lat/long and acreage of the property will be updated to reflect what has been drawn.

Create or Update Tree Farm Location

Back in the Tree Farm record: The location and acreage of the property will be updated to reflect what has been drawn. This can be overwritten. Be sure to save this record, as well.

CREATE / UPDATE

Note that Forested Acres will be automatically updated from the spatial geometry whenever a spatial change is made. The value may be manually changed below if needed.

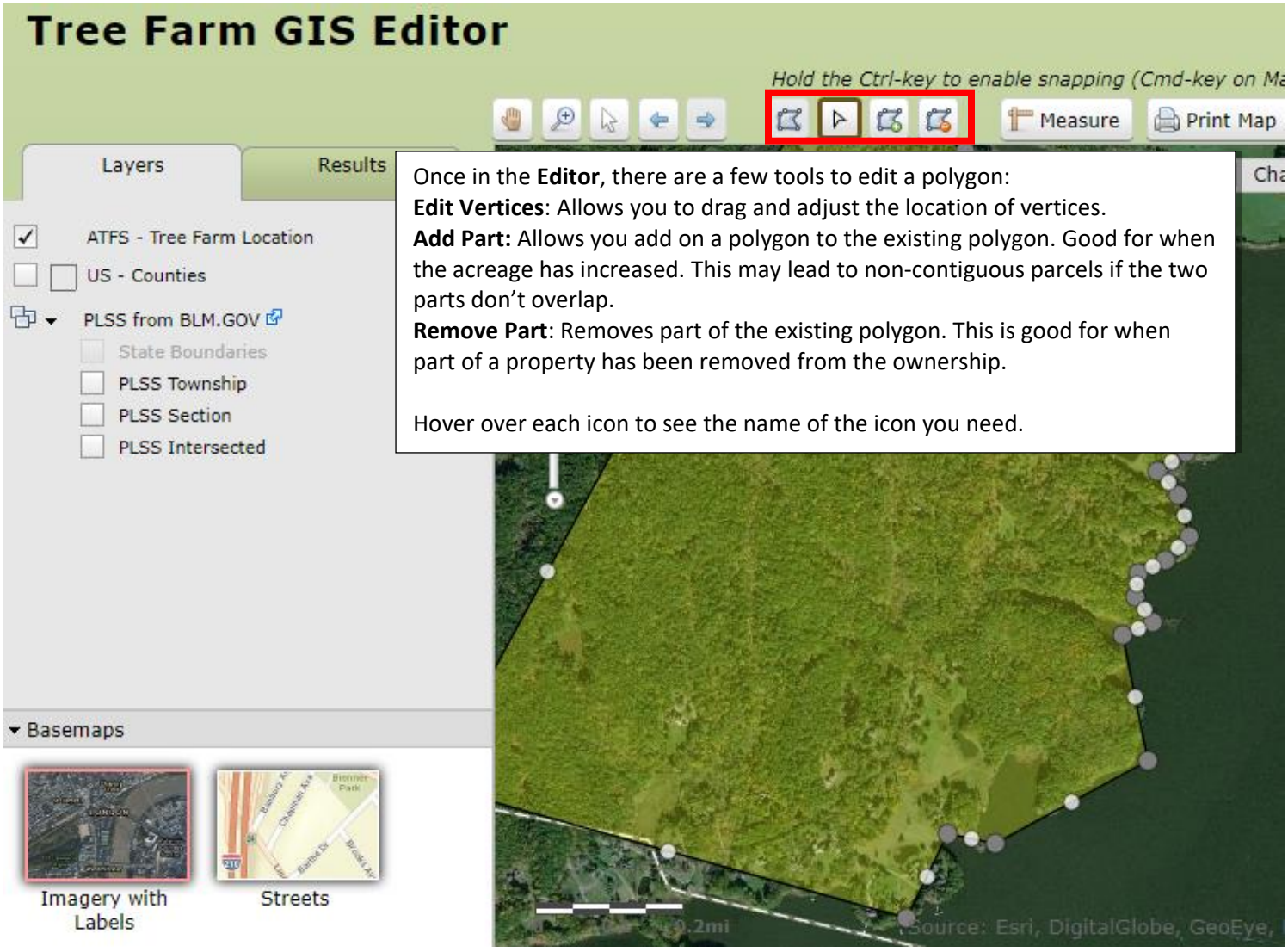
*Forested Acres: 458.7

Editing a Single Tree Farm Boundary

A Tree Farm boundary can only be edited by users with certain permissions and in the **Editor Window**.

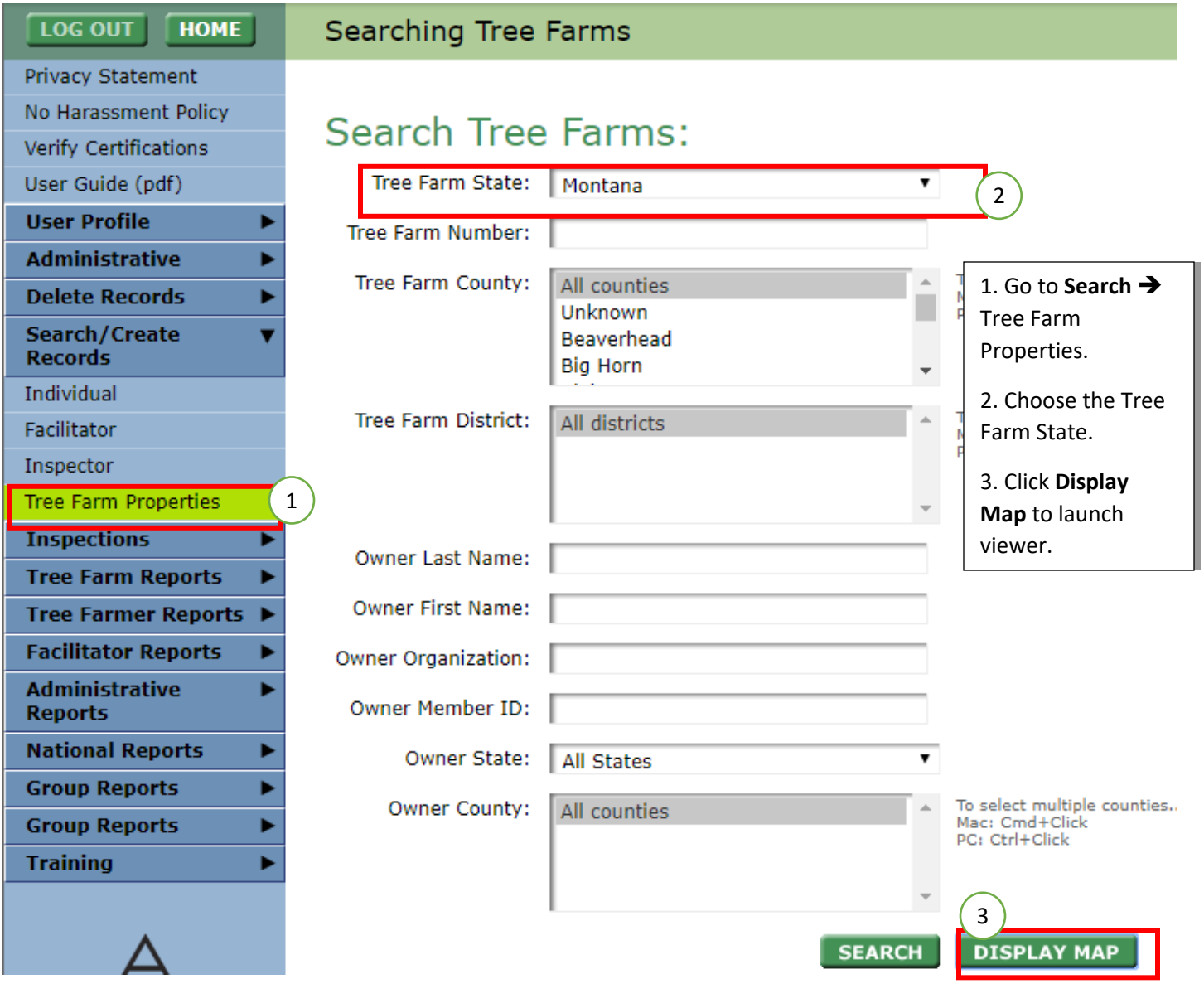
To access the **Editor Window:**

1. The Tree Farm must already exist.
2. Search for the Tree Farm Property
3. In the **Search** results, open the property of interest
4. In the resulting pop-up window, click the **Next** button at the bottom of the page *twice* to get to the **third page**, where the boundary is stored.
5. Click the **Create/Update** button to launch the **Editor Window.**
6. Once in the **Editor**, there are a few tools to edit a polygon:
    a. **Edit Vertices**: Allows you to drag and adjust the location of vertices.
    b. **Add Part**: Allows you add on a polygon to the existing polygon. This may lead to non-contiguous parcels if the two parts don't overlap.
    c. **Remove Part**: Removes part of the existing polygon. This is good for when part of a property has been removed from the ownership.

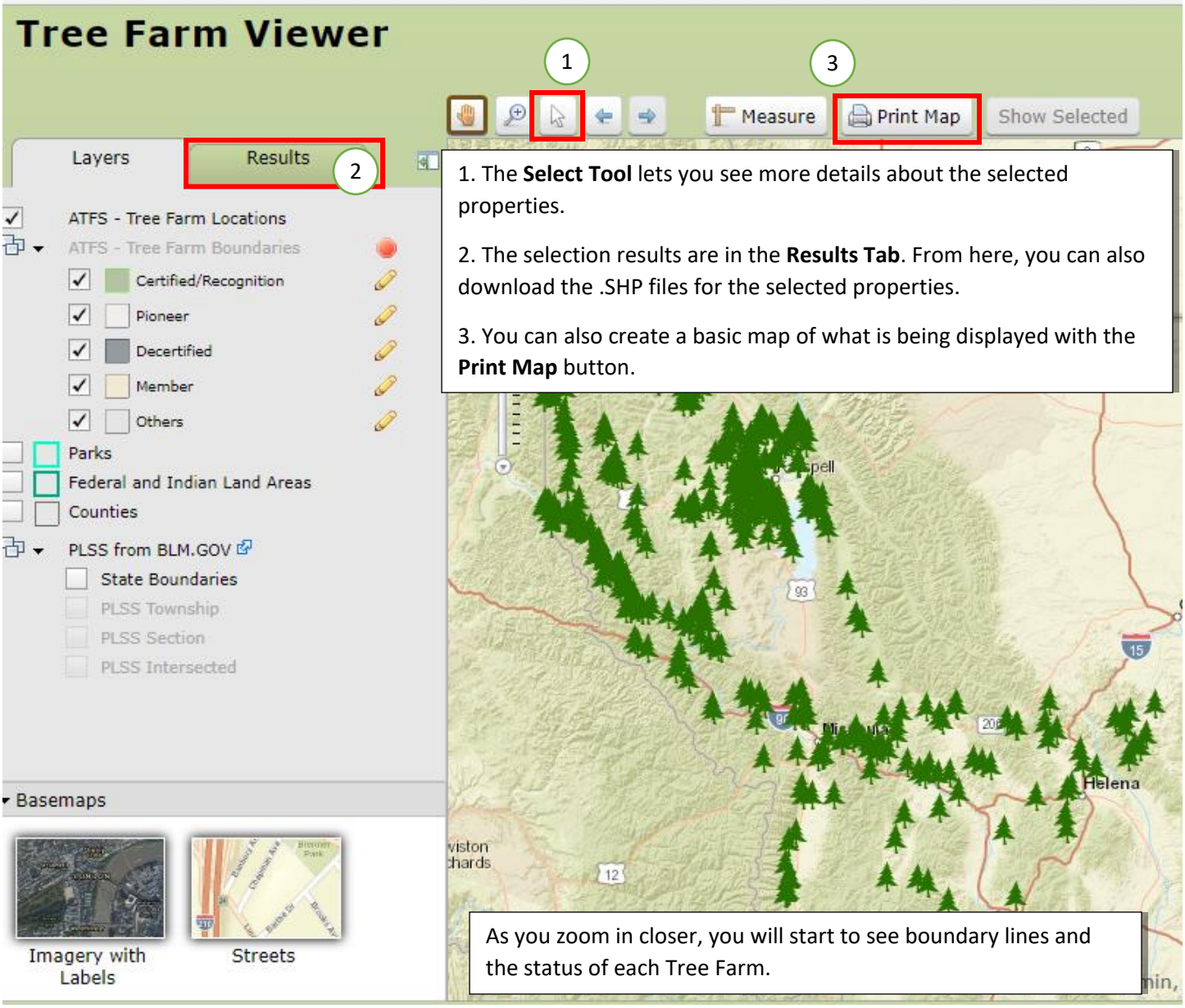


Viewing All Tree Farms for Your State

From the Tree Farm **Properties** menu, you can view the location of all the Tree Farms (all that have had boundaries drawn) in your state for a quick review:



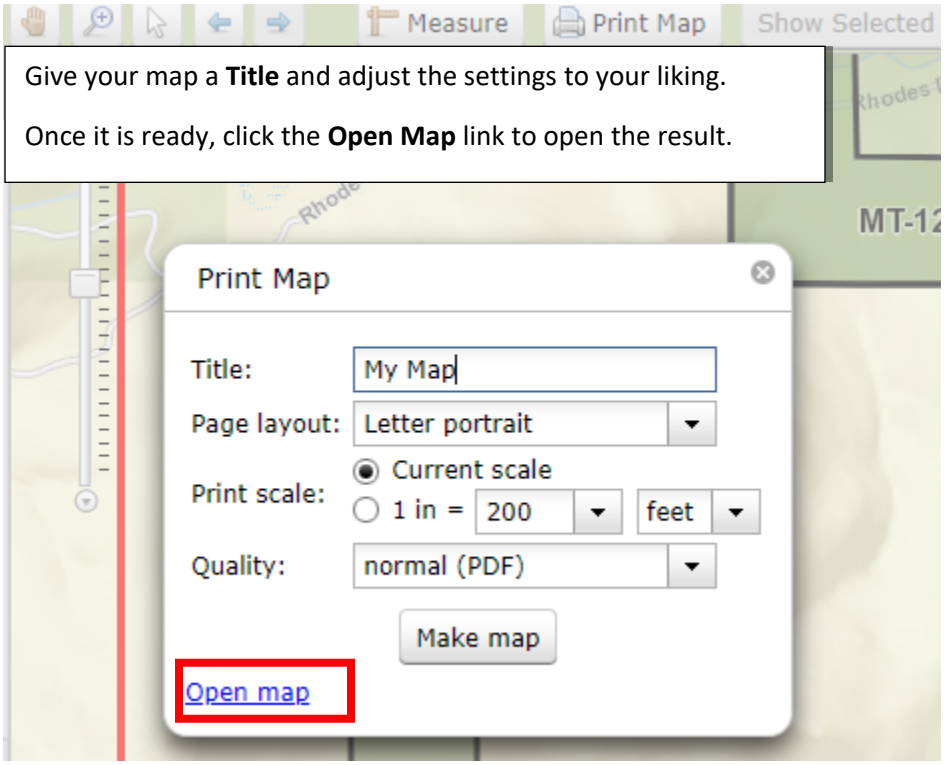
Clicking **Display Map** will launch the **Tree Farm Viewer** window showing the location of each Tree Farm. This map can be printed for sharing. The shapefile can also be downloaded for further spatial analysis or edits. See Downloading Shapefile.


Tree Farm Viewer
1
3
Measure
Print Map
Show Selected
Layers
Results
2
ATFS - Tree Farm Locations
ATFS - Tree Farm Boundaries
Certified/Recognition
Pioneer
Decertified
Member
Others
Parks
Federal and Indian Land Areas
Counties
PLSS from BLM.GOV
State Boundaries
PLSS Township
PLSS Section
PLSS Intersected
Basemaps
Imagery with Labels
Streets
1. The **Select Tool** lets you see more details about the selected properties.
2. The selection results are in the **Results Tab**. From here, you can also download the .SHP files for the selected properties.
3. You can also create a basic map of what is being displayed with the **Print Map** button.
Helena
As you zoom in closer, you will start to see boundary lines and the status of each Tree Farm.

Creating a Basic Map for a Single Property

The simplest way to create a basic map for a single property in particular is to search for the property of interest and open its boundary through the Tree Farm record.

1. The Tree Farm must already exist.
2. Search for the Tree Farm Property
3. In the Search results, open the property of interest.
4. In the resulting pop-up window, click the **Next** button at the bottom of the page *twice* to get to the **third page**, where the boundary is stored.
5. Click the **Create/Update** button to launch the **Editor Window.**
6. Once in the **Editor**, the basemap, shading of the property, and layers visible can be changed to customize the map.
7. click the **Print Map** button to get the following window:



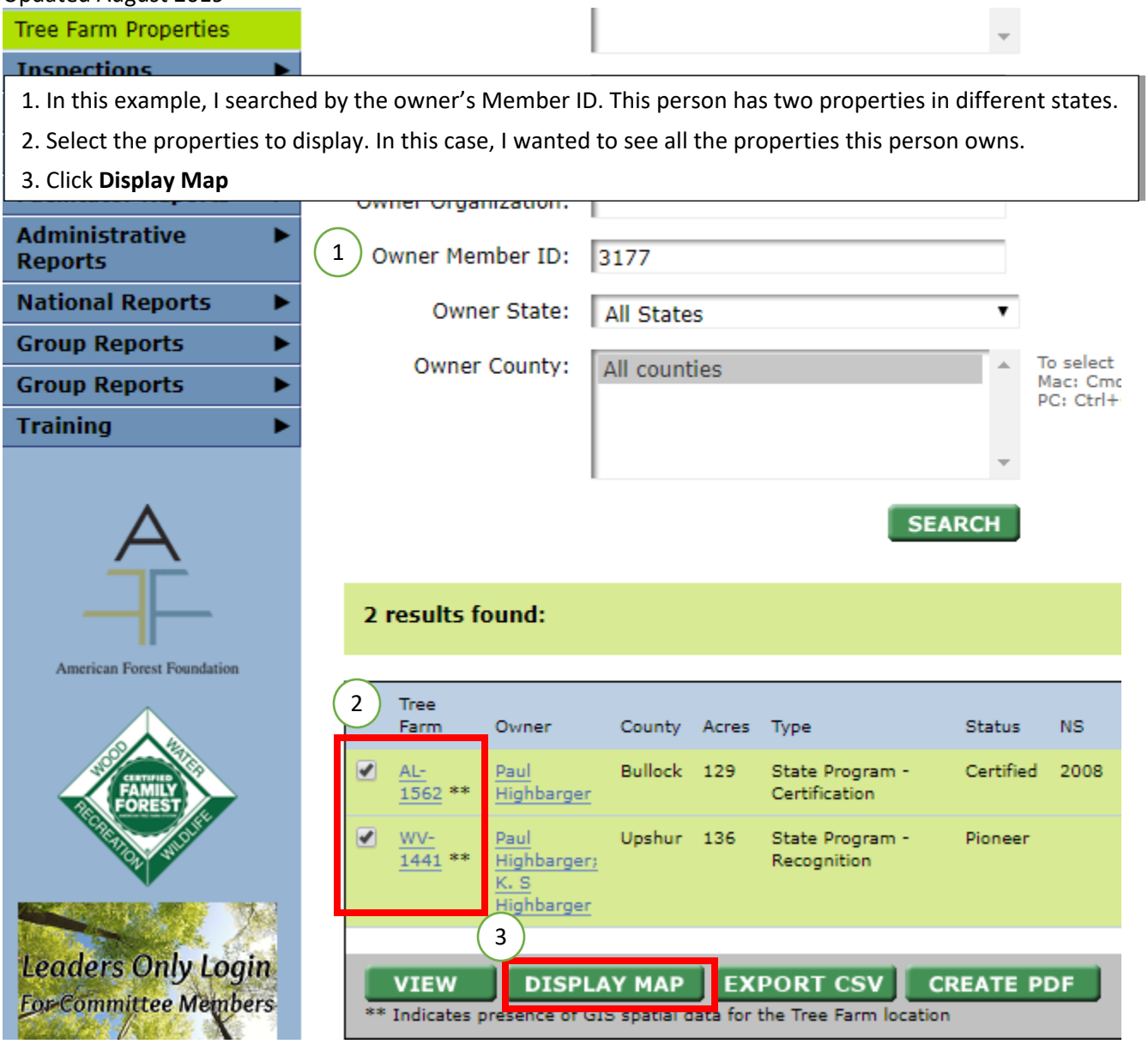
Creating a Basic Map for Multiple Tree Farms

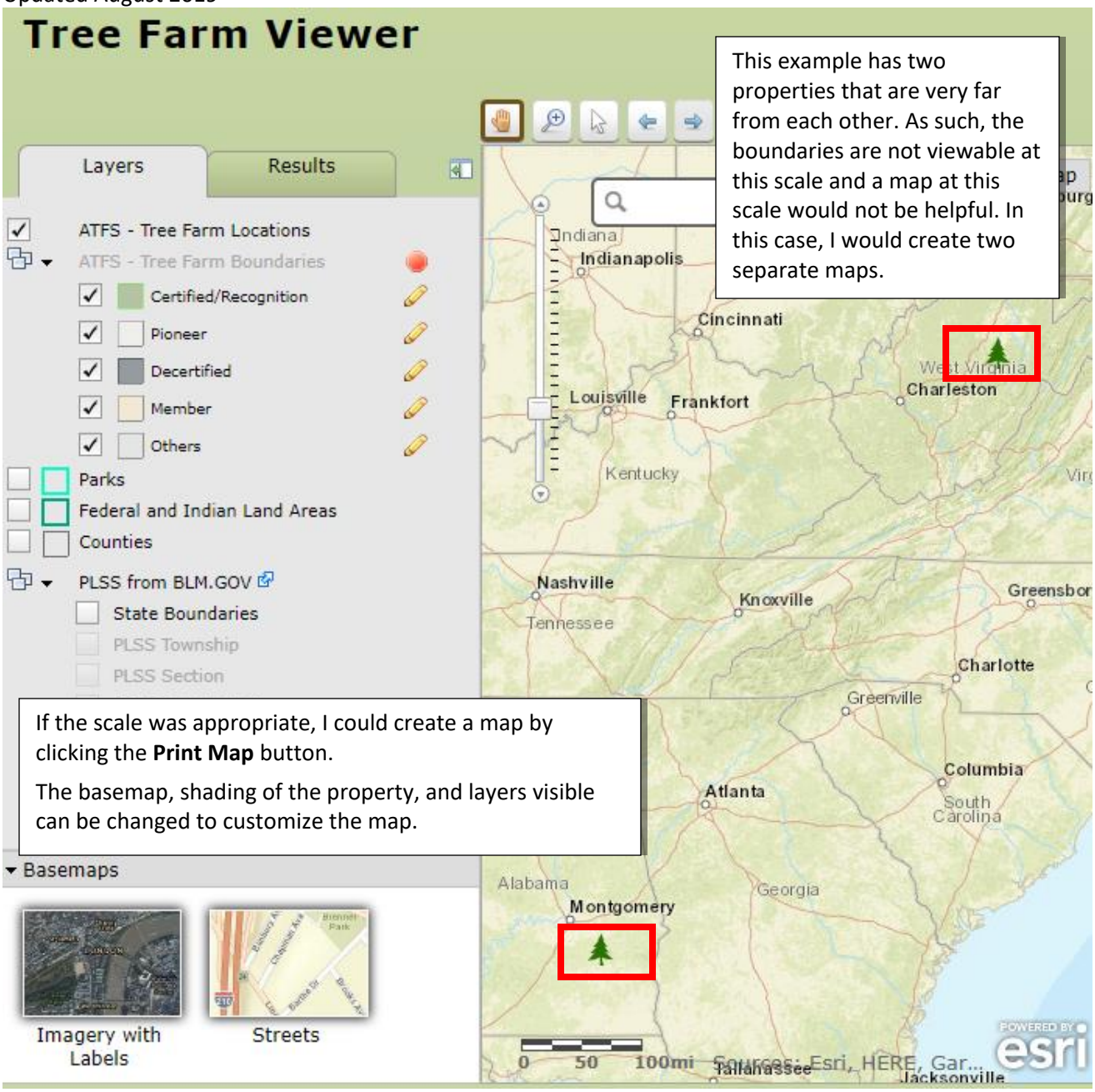
If you want to create a map that contains multiple Tree Farms, it is easiest if they have something in common, such as a common owner, but not required.

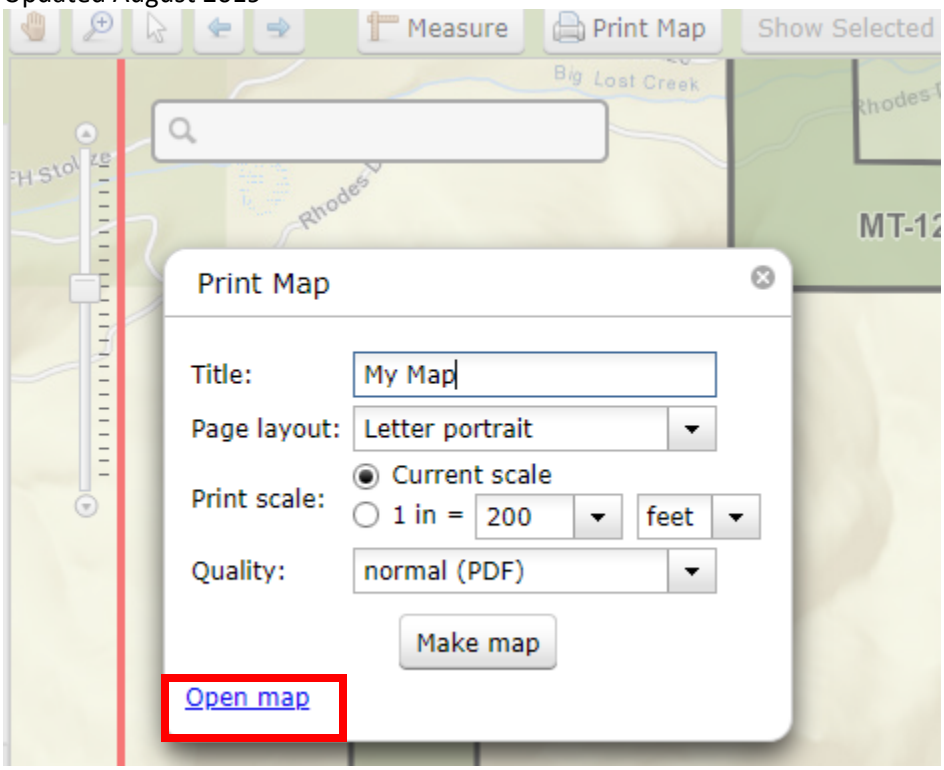
Note: If the properties are far apart from each other, their boundaries may not be visible. If that is the case, separate maps are suggested. Some guidelines:

1. The Tree Farms must already exist.
2. Search for the Tree Farm Property, in the **Search ➔ Tree Farm Properties** menu.
    a. Search by the feature that they have in common, such as owner, county, etc.
3. In the **Search** results, select the properties that you want to display using the check boxes.
4. Click **Display Map.**
5. Use **Print Map** button to create a basic map.

1. In this example, I searched by the owner's Member ID. This person has two properties in different states.
2. Select the properties to display. In this case, I wanted to see all the properties this person owns.
3. Click **Display Map**




Tree Farm Viewer
Layers
Results
ATFS - Tree Farm Locations
ATFS - Tree Farm Boundaries
Certified/Recognition
Pioneer
Decertified
Member
Others
Parks
Federal and Indian Land Areas
Counties
PLSS from BLM.GOV
State Boundaries
PLSS Township
PLSS Section
Basemaps
Imagery with Labels
Streets
This example has two properties that are very far from each other. As such, the boundaries are not viewable at this scale and a map at this scale would not be helpful. In this case, I would create two separate maps.
If the scale was appropriate, I could create a map by clicking the **Print Map** button.
The basemap, shading of the property, and layers visible can be changed to customize the map.
Indiana
Indianapolis
Cincinnati
Louisville
Frankfort
Kentucky
West Virginia
Charleston
Nashville
Tennessee
Knoxville
Charlotte
Greenville
Columbia
Atlanta
South Carolina
Alabama
Georgia
Montgomery
0 50 100mi
Sources: Esri, HERE, Gar...
esri


Measure
Print Map
Show Selected
Big Lost Creek
MT-12
Print Map
Title:
My Map
Page layout:
Letter portrait
Print scale:
Current scale
1 in =
200
feet
Quality:
normal (PDF)
Make map
Open map

Downloading Layer Data for Your State (Shapefiles)

1. Go to **Search/Create Records➔Tree Farm Properties.**
2. **Search** for the Tree Farm(s) of interest.
3. From the **Search** results, select the Tree Farm(s) to view with the checkboxes.
4. Click **Display Map** to launch **Tree Farm Viewer.**
5. Use the **Select Tool** to refine or select all the Tree Farms of interest.
6. In the **Results Tab** click the **Download** button to begin download.