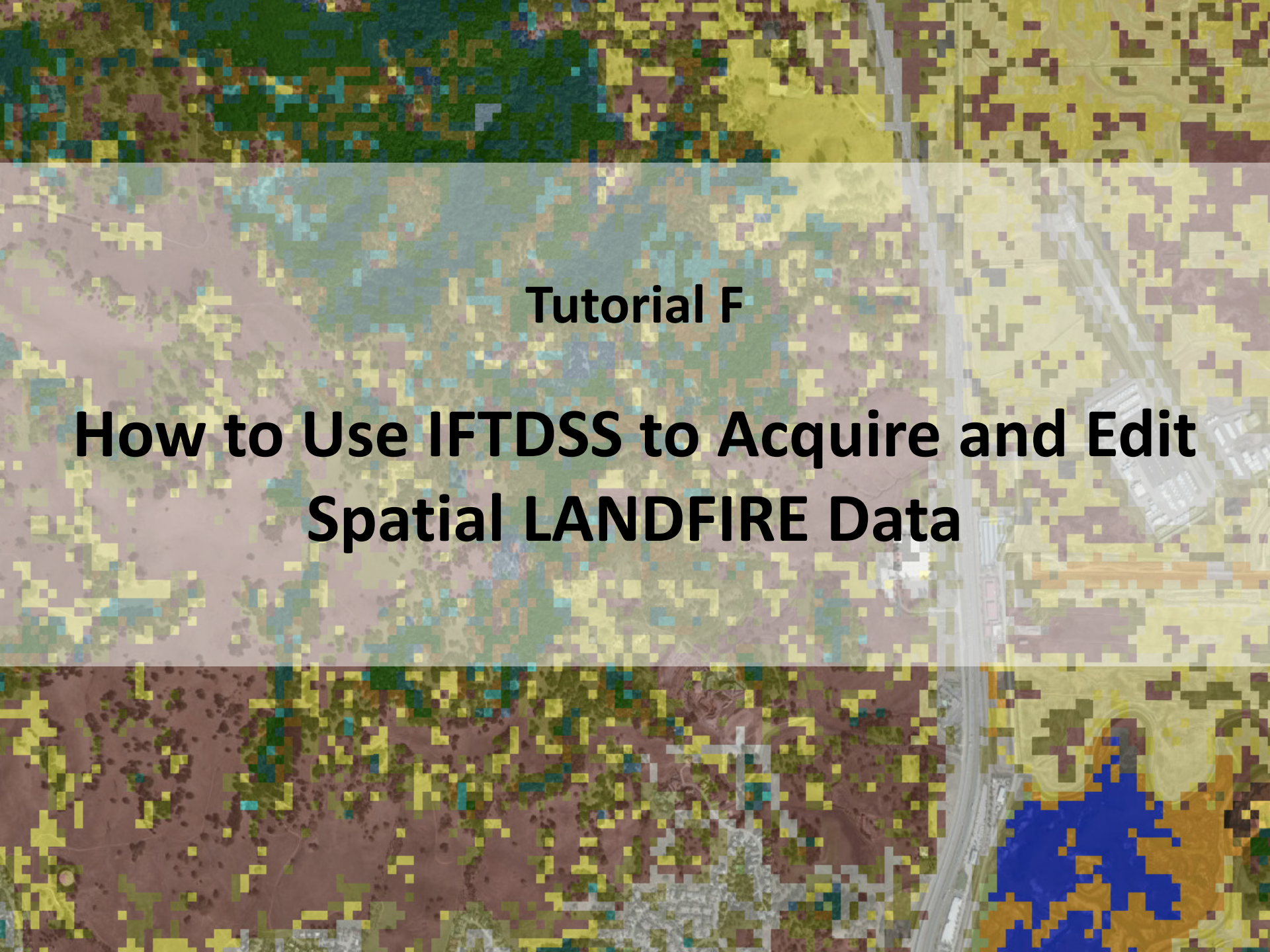


Tutorial F

How to Use IFTDSS to Acquire and Edit Spatial LANDFIRE Data

Overview

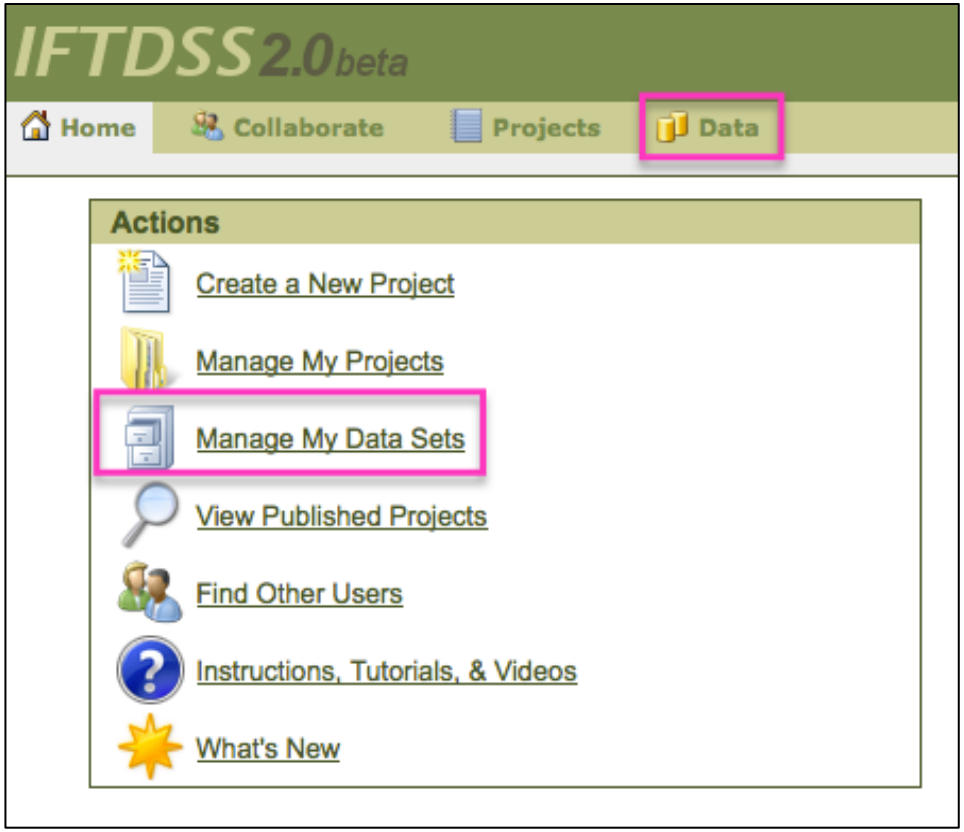
This landscape-based tutorial covers

- How to upload or acquire LANDFIRE data.
  - Upload a landscape (.lcp) file and corresponding projection (.prj) file from your local machine
  - Acquire landscape data from LANDFIRE for a specified area of interest using map tools in IFTDSS.
- Editing LANDFIRE data in Data Studio.
  - Point edit – editing one pixel at a time.
  - Advanced edit – editing multiple pixels at once.
  - Polygon advanced edit – editing pixels within a user-drawn polygon.

Navigating to the Data Tab

To manage your data sets in IFTDSS, navigate to the Data tab.

Choose **Manage My Data Sets** on the Home page, or access the **Data** tab.



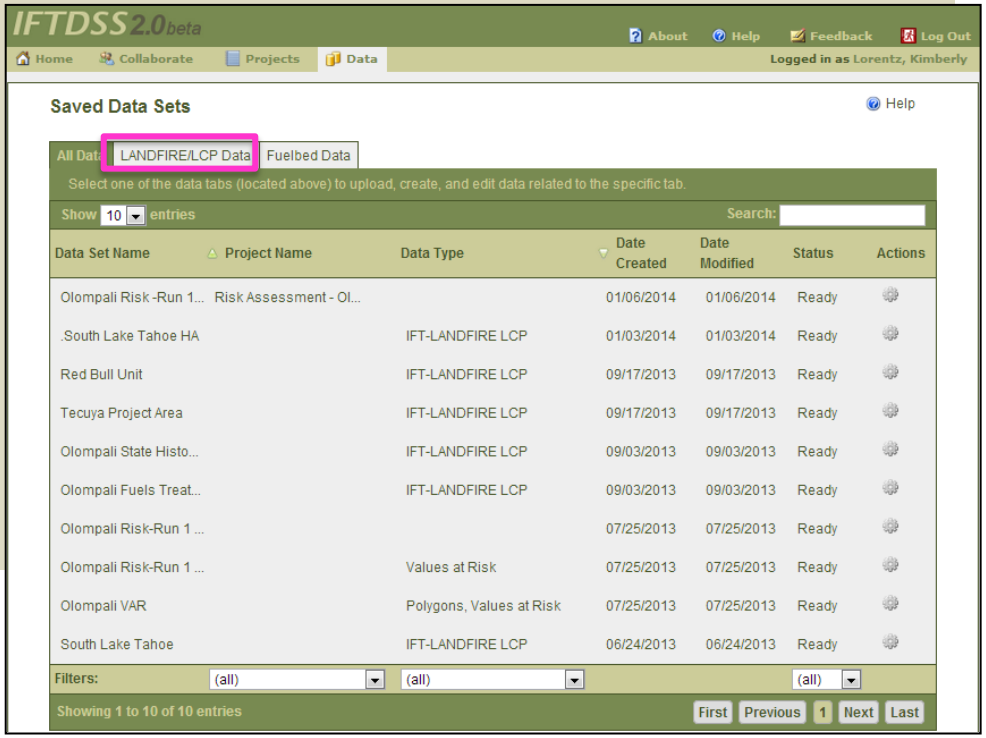
Introducing the Data Tab

From the **All Data** tab, you can do the following:

- View all saved data sets.
- Sort data sets by name, project, data type, date created, date modified, or status.
- Use the Actions dropdown to edit, copy , rename, or delete existing data sets.
- Search for data sets.
- Filter the view of data sets by project name or data type.
- Select how many data sets you wish to view per page.

From the **Data** tab, select the **LANDFIRE/LCP Data** tab.

All data sets containing LANDFIRE data can be viewed and edited on this tab.



Uploading a Landscape (.LCP) File into IFTDSS

From the **LANDFIRE/LCP Data** tab, there are two options for loading .lcp files into IFTDSS:

Option 1. **Upload a Landscape (.LCP) File** and corresponding projection (.prj) file from your local machine.

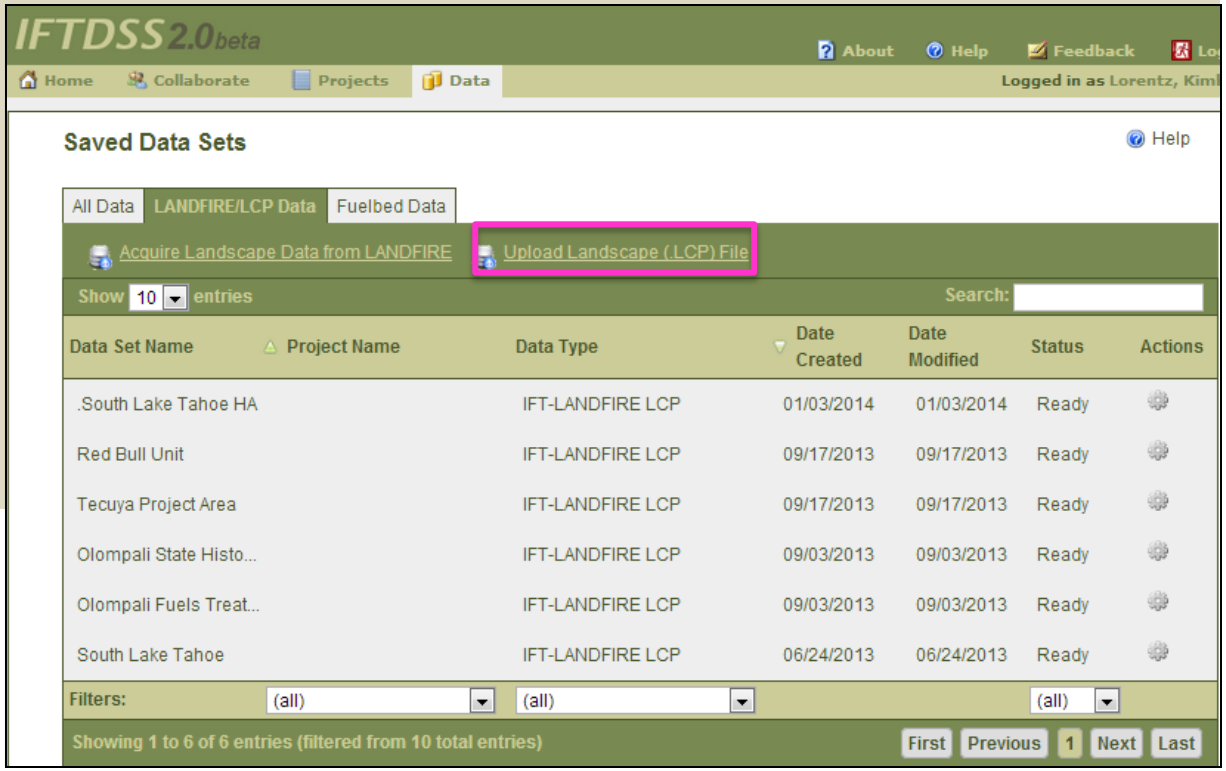
Option 2. **Acquire Landscape Data from LANDFIRE** for a specified area of interest using map tools in IFTDSS. The corresponding .lcp data will be retrieved and loaded into IFTDSS.

Option 1: Upload a Landscape (.LCP) File

To create a data set, you can upload a LANDFIRE landscape file (an .lcp file and accompanying .prj file) from your local computer.

To upload a data set, Choose **Upload Landscape (.LCP) File**.

This opens the **Upload New Data Set** page.



Uploading a Landscape (.LCP) File into IFTDSS

On the **Upload New Data Set** page, enter a name for your data set. This name will later be displayed on the **Saved Data Sets** page.

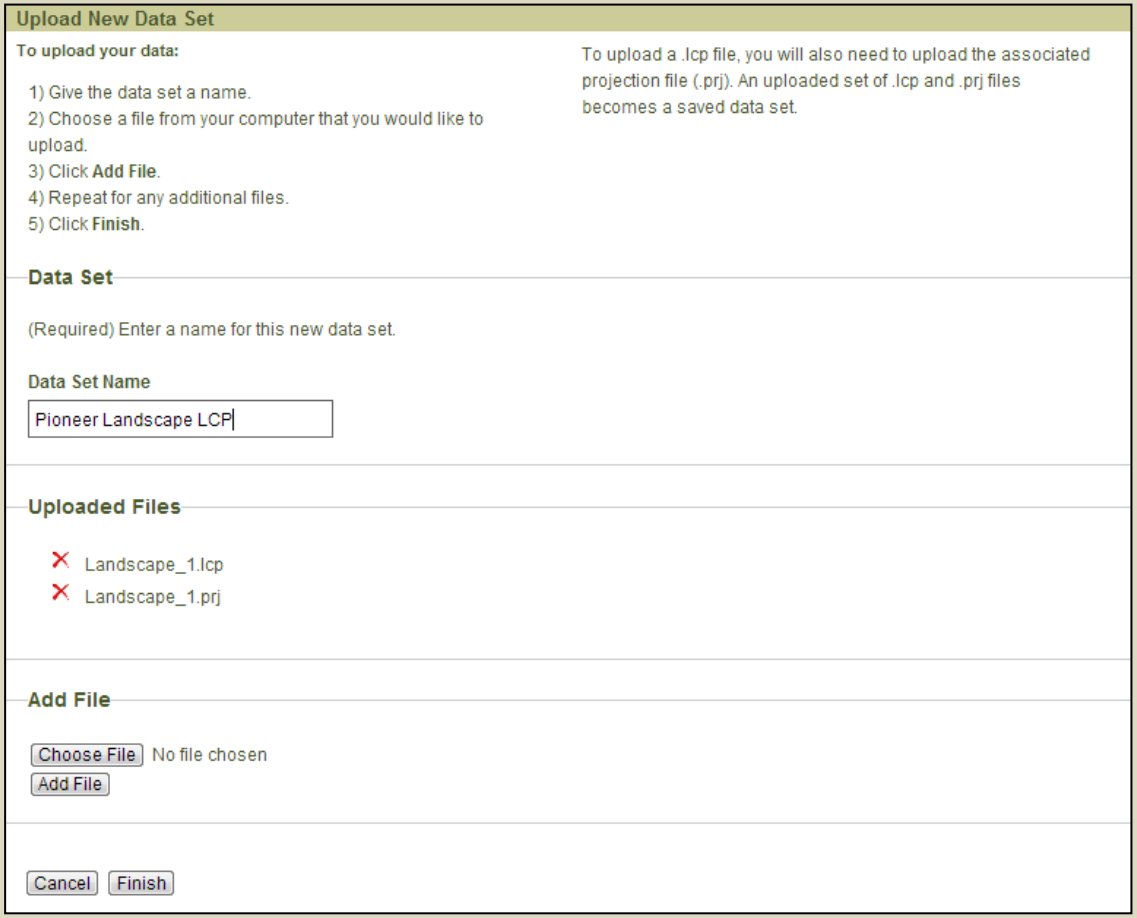
Add a file by choosing **Choose File** under **Uploaded Files**. Browse on your local computer for the file (in .lcp format).

Once you have found the desired file, choose **Add File**.

Repeat the previous steps to add the corresponding .prj file (each .lcp file also needs a corresponding .prj file).

Once you have selected all the files you want to upload, choose **Finish** to upload the files.

Note: The file upload size is limited to 24 MB.



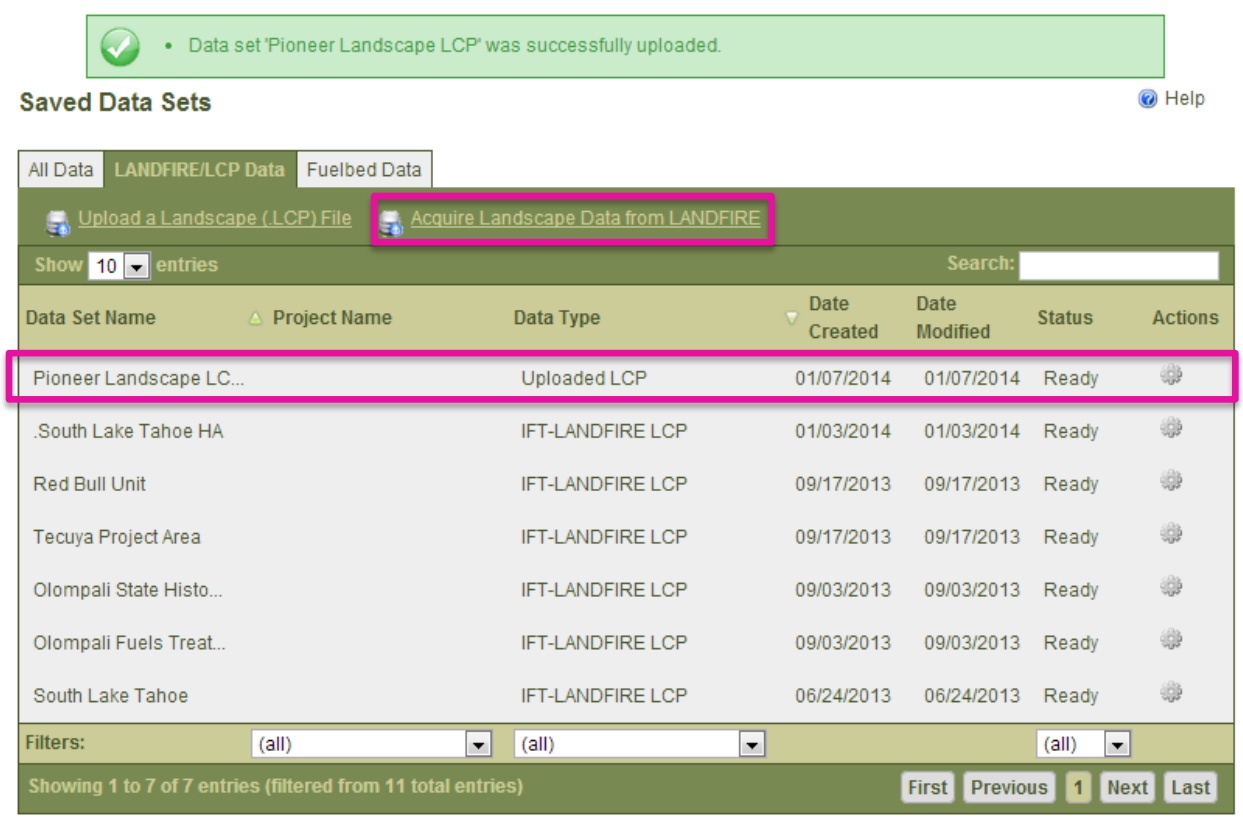
Acquiring Landscape Data from LANDFIRE Using IFTDSS

After you have uploaded your file(s), your new data set will be listed on the **Saved Data Sets** page under the LANDFIRE/LCP Data tab and the **All Data** tab. All uploaded .lcp data sets will be tagged with the data type "Uploaded LCP."

Note: Because you created the data set directly and not as part of a project, there is no project associated with the data set.

Next, we will acquire spatial LANDFIRE data using IFTDSS.

From the LANDFIRE/LCP Data tab, select **Acquire Landscape Data from LANDFIRE**.

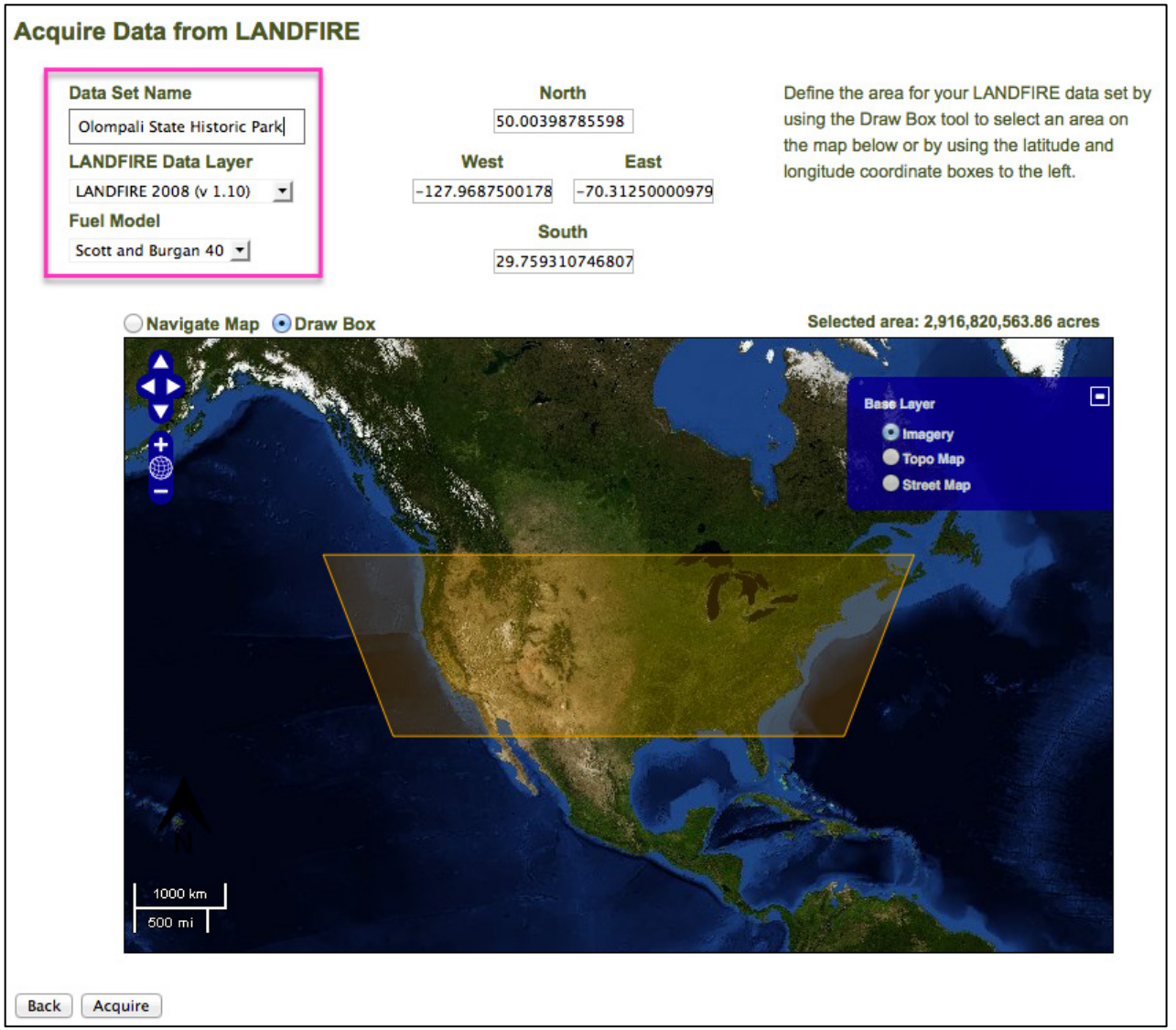


Acquiring Landscape Data from LANDFIRE using IFTDSS

This link takes you to the **Acquire Data from LANDFIRE** page, where you will

- Name your data set
- Choose a LANDFIRE data layer
- Select a fuel model type (Scott and Burgan 40 or Anderson 13)

The next page shows you how to select an area of interest for your project using the map window.

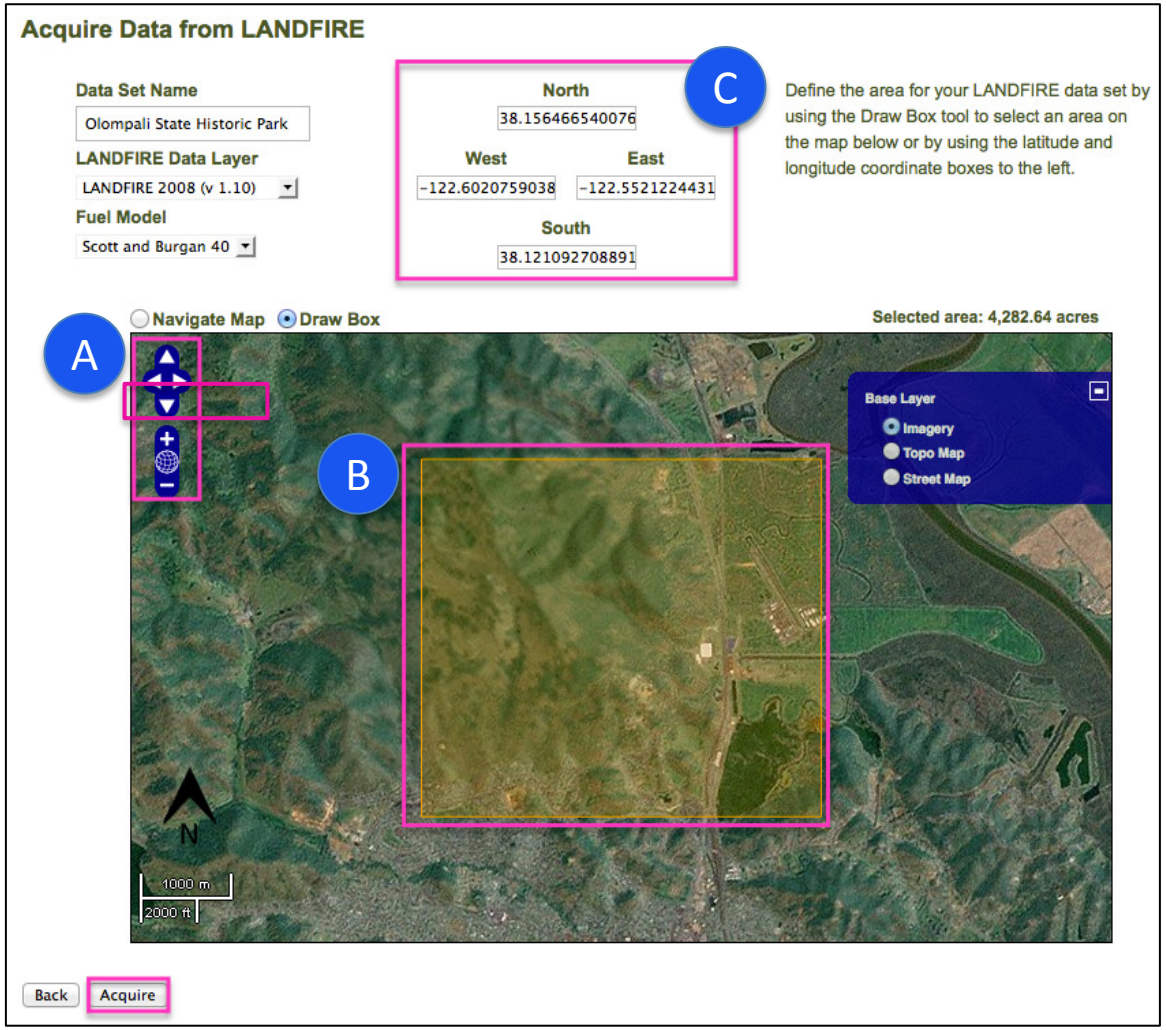


Acquiring Landscape Data from LANDFIRE Using IFTDSS

To set your area of interest, use one of these three options:

- **A** Select the **Navigate Map** button above the map, then use the navigation tools located in the top left portion of the map. After navigating to your area of interest, select **Draw Box** to manually draw your area of interest on the map.
- **B** Select the **Navigate Map** button above the map, then use the mouse. Click and drag to move; double-click to zoom in. After navigating to your area of interest, select **Draw Box** to manually draw your area of interest on the map.
- **C** Enter the geographic coordinate extents of your area of interest using the coordinate entry boxes.

Once you have defined your area of interest, choose **Acquire**.

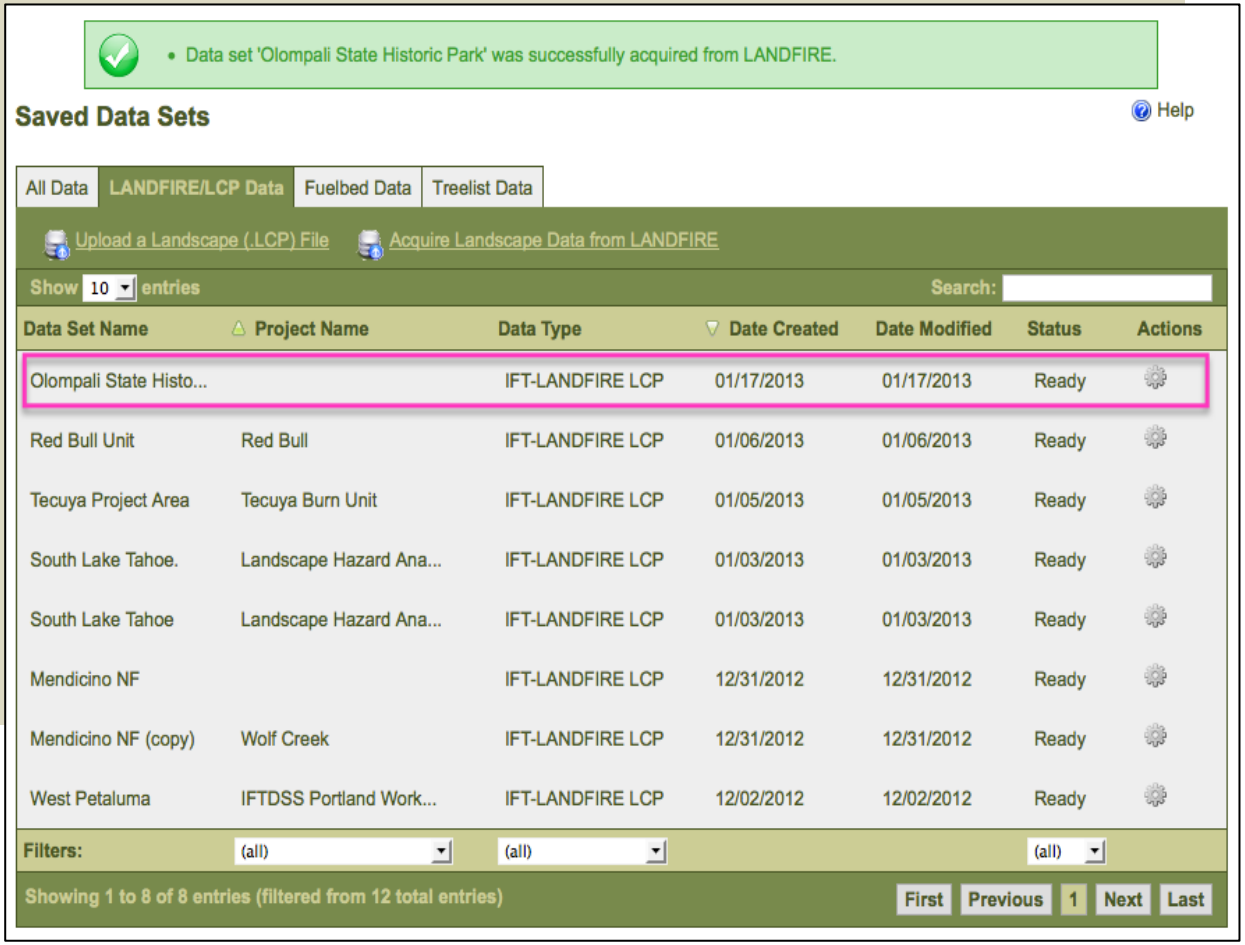


Acquiring Landscape Data from LANDFIRE Using IFTDSS

After your data set has been successfully acquired, you are returned to the **Saved Data Sets** page on the **LANDFIRE/LCP Data** tab, where a message confirms that IFTDSS has successfully acquired your data. Your new data set is in the list of available data sets. All LANDFIRE data sets acquired through IFTDSS will be tagged with the data set type "IFT-LANDFIRE LCP."

Note: Because you created the data set directly and not as part of a project, there is no project associated with the data set.

Next, we will edit LANDFIRE data using Data Studio.

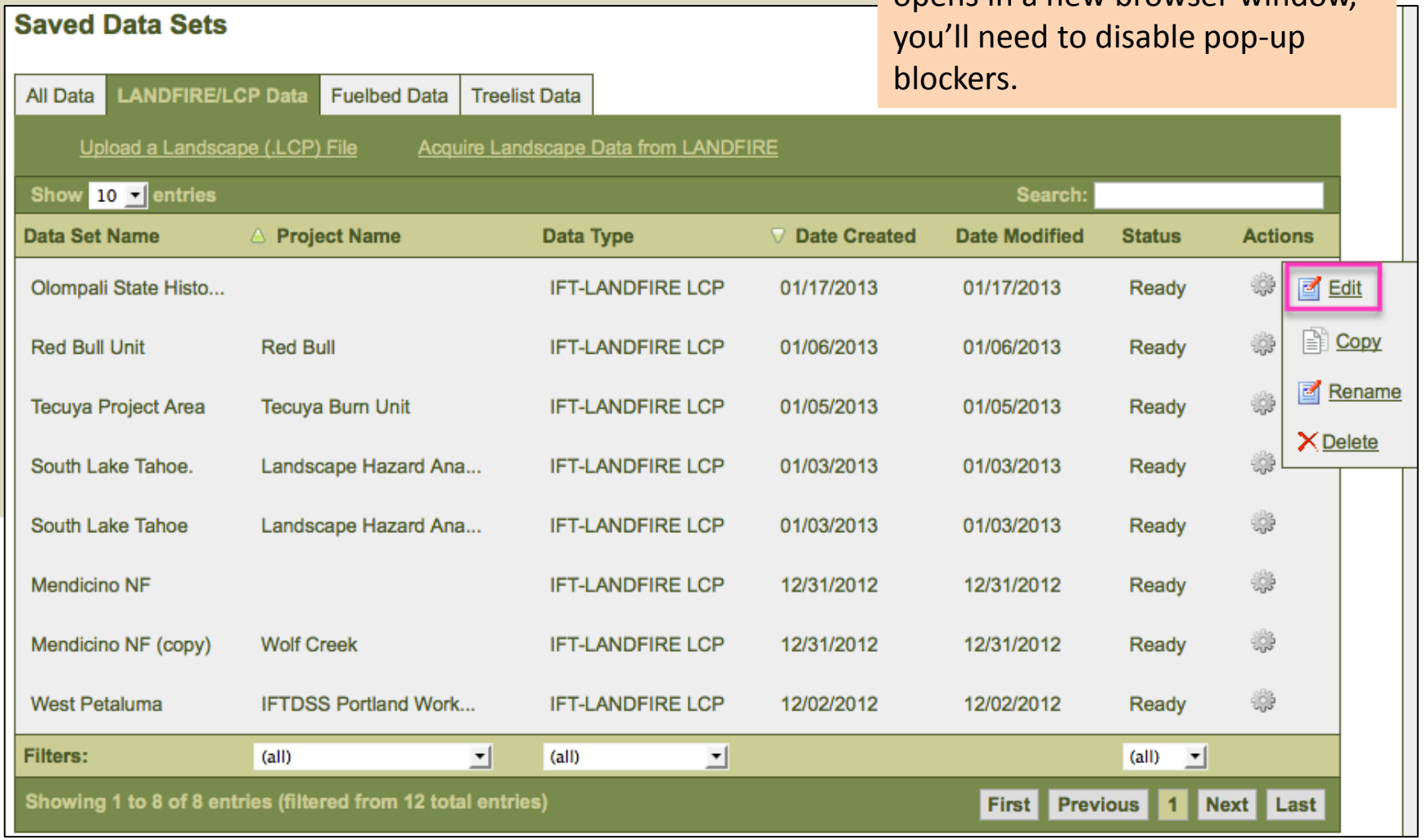


Opening Data Studio in IFTDSS

From the data set you would like to edit, click on the **Actions** dropdown and select **Edit**.

Data Studio opens in a new window.

Important: Because Data Studio opens in a new browser window, you'll need to disable pop-up blockers.



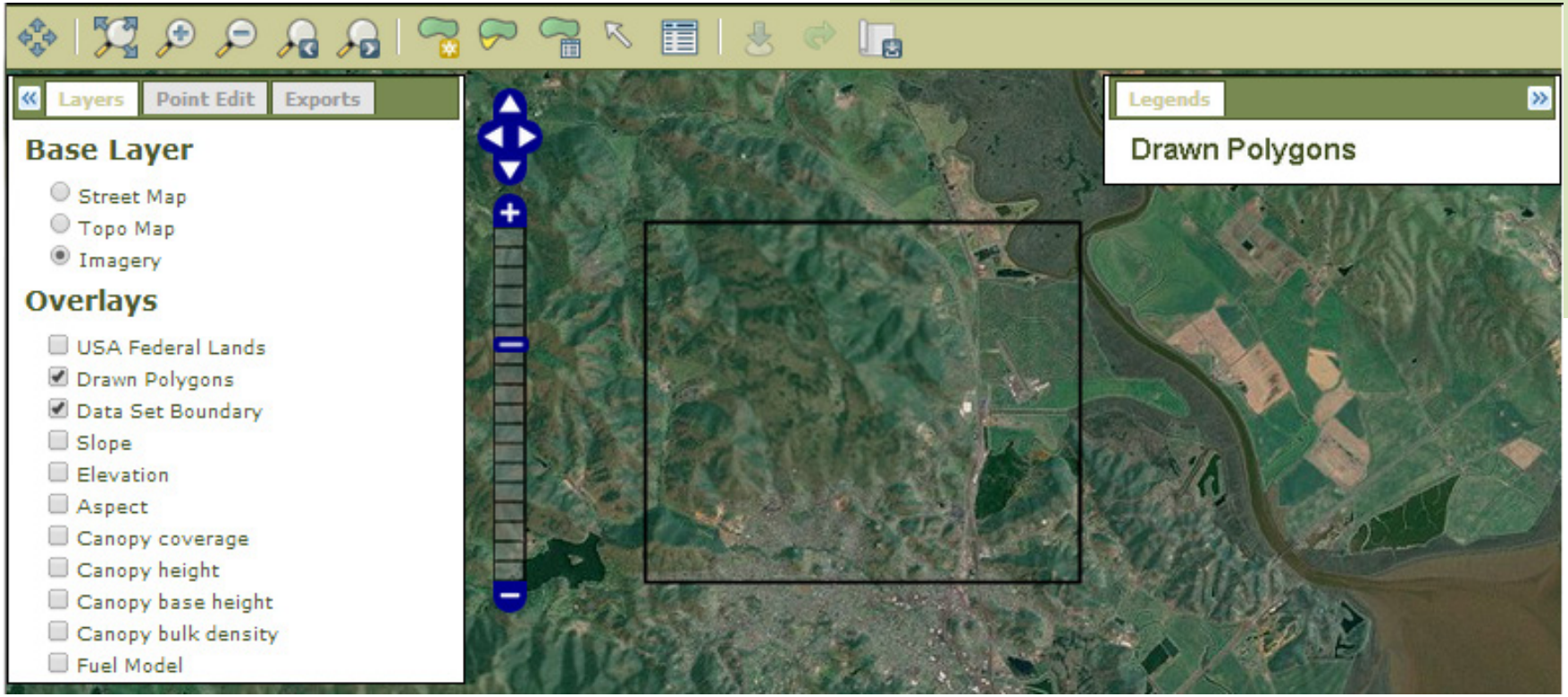
Introducing the Map Toolbar

Pan
Zoom to initial extent
Zoom in
Zoom out
Go back to previous pan/zoom
Go forward to next pan/zoom
Draw polygon
Modify polygon
Polygon advanced edit
Point edit
Advanced edit
Save All
Revert
Save map image

Now, you are in Data Studio.

The map toolbar, located at the top of the map, provides tools for viewing and editing data.

Hover your cursor over each tool for a brief description of that tool.



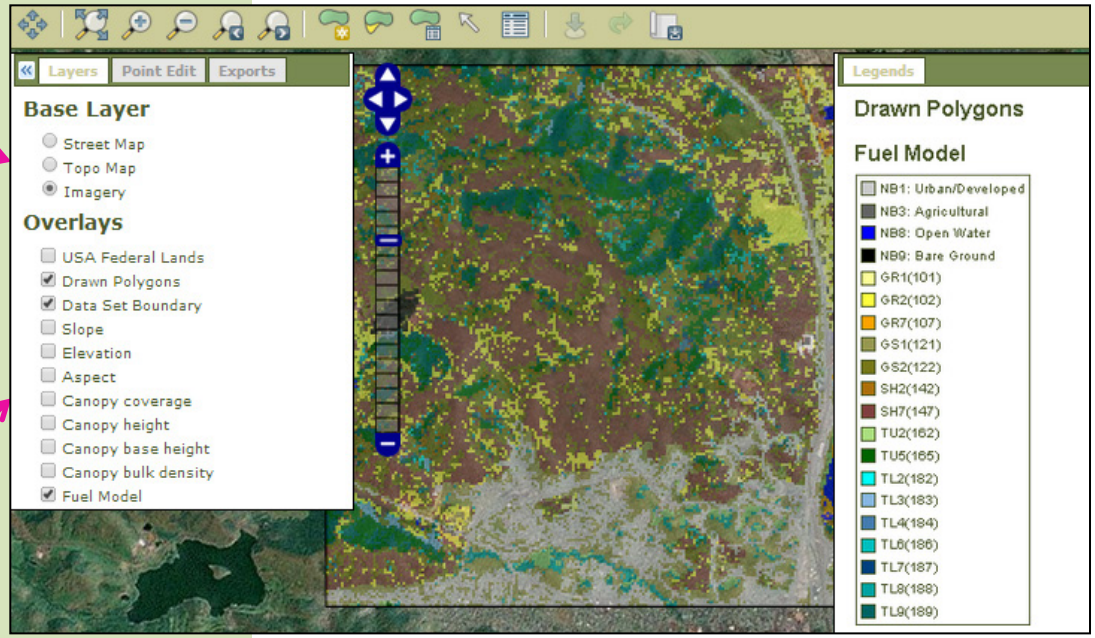
Reviewing Spatial Landscape Data

You can view the spatial area using different base layers.

- Imagery
- Topo map
- Street map

You can view your spatial landscape data by the following LANDFIRE data layers:

- USA Federal Lands polygons
- Elevation
- Slope
- Aspect
- Canopy Coverage
- Canopy Height
- Canopy Base Height
- Canopy Bulk Density
- Fuel Model



Editing Spatial Landscape Data (One Pixel at a Time)

If you need to edit the spatial landscape data, you can use three editing tools on the map toolbar.

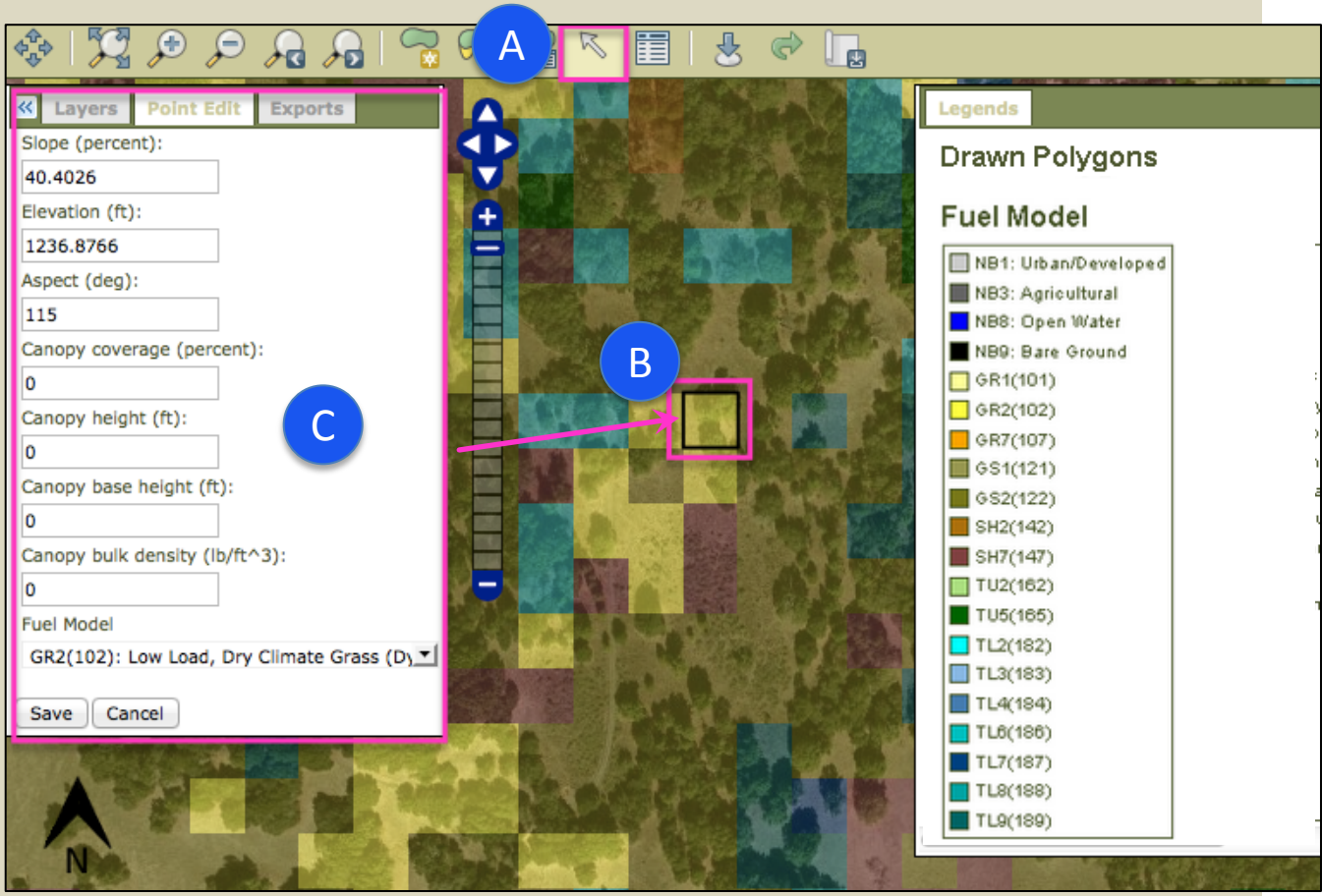
- **Point Edit**: edit one pixel at a time
- **Advanced Edit**: edit pixels across the entire run area.
- **Polygon Advanced Edit**: edit pixels within a user-drawn polygon

To edit one pixel at a time:

A. Select the **Point Edit** tool.

B. Click on the pixel you would like to edit, and the **Point Edit** panel appears.

C. Edit the pixel data and choose **Save**.



The next page shows how to edit the spatial landscape data using the **Advanced Edit** tool.

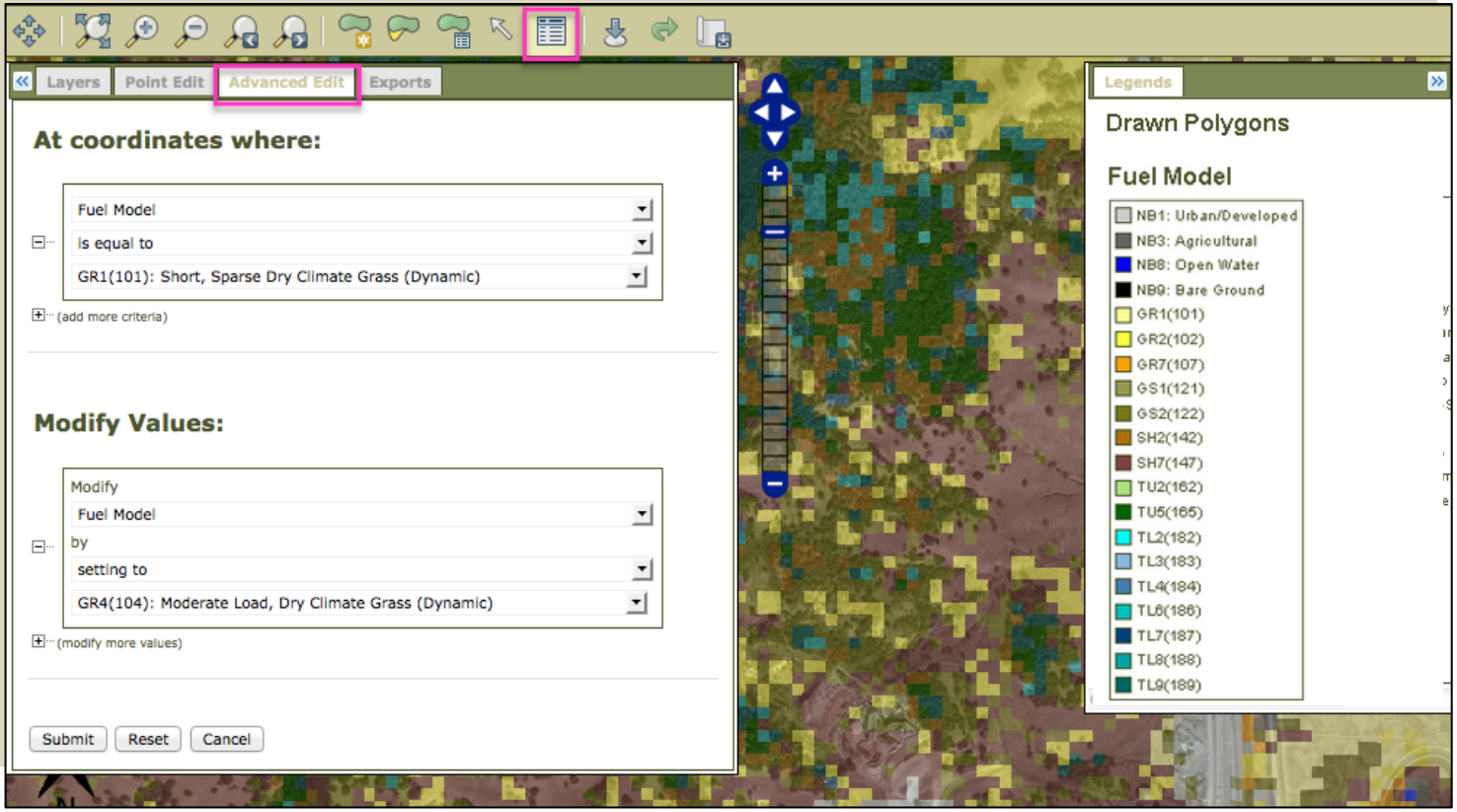
Editing Spatial Landscape Data (Multiple Pixels across the Run Area)

In the previous example, we showed how to edit pixels one at a time. You can also use the **Advanced Edit** tool to edit multiple pixels at once.

To get started, select the **Advanced Edit tool**.  The **Advanced Edit** panel appears.

In this panel, you can modify any of the spatial data in query format so that multiple pixels can be changed at once.

Next, you will learn how to edit pixels using the **Advanced Edit** tool.

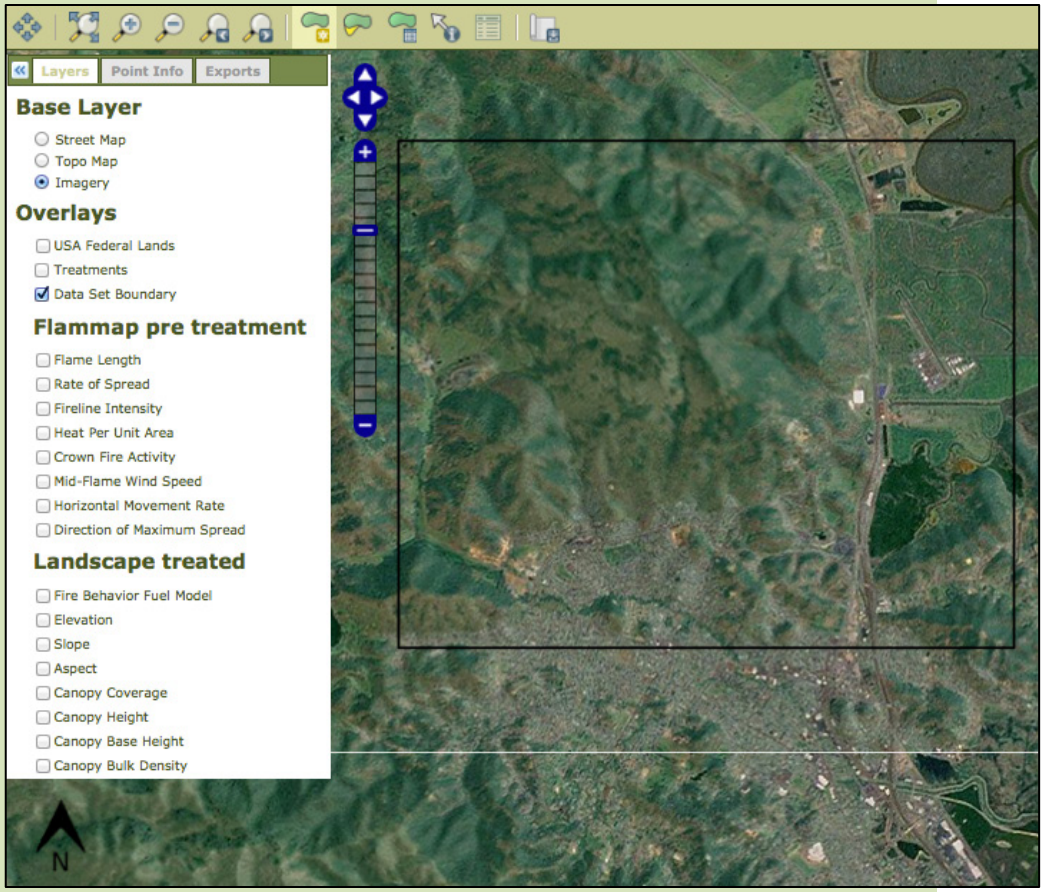


Editing Spatial Landscape Data (Multiple Pixels within a Polygon)

In the next few steps, you will draw polygons and edit LANDFIRE data within the polygons.

There are two methods for using the map tools to draw polygons.

1. The **freeform drawing method** is useful when
   - You want to quickly and easily draw polygons.
   - You have a small area of interest.
   - You can see the entire area your polygon will encompass without moving the map.
2. The **point and click method** is useful when
   - You want to zoom in to make a detailed polygon.
   - You need to move the map (using the pan tool) while you are drawing a polygon.

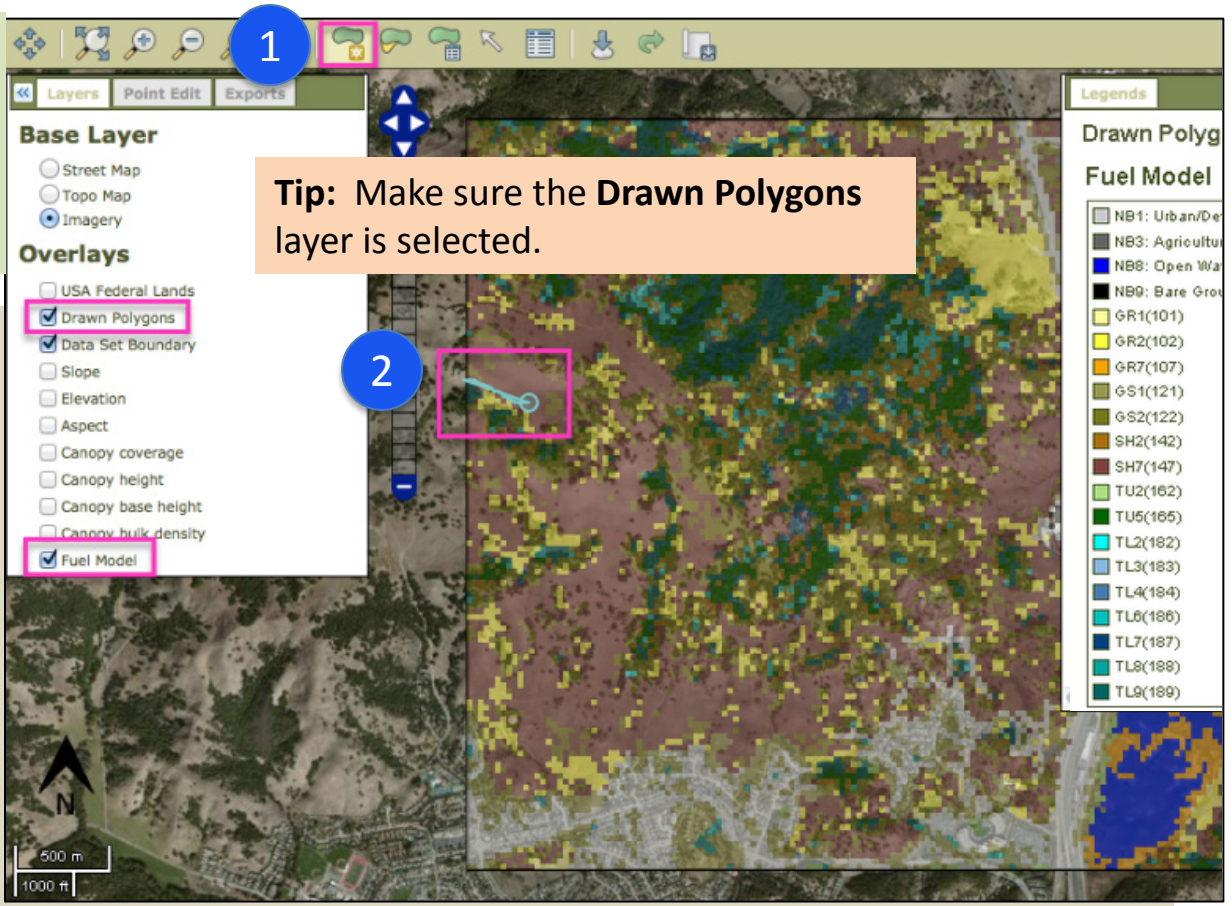


These polygon drawing methods are discussed on pages 17 through 24.

Editing Spatial Landscape Data – Freeform Drawing Method

In this step, you use the freeform drawing method to outline an area within your landscape that you would like to edit.

1. Select the **Draw Polygon** tool.
2. While holding down the **Shift** key, click on the map, hold down the left mouse button and start drawing your first polygon.
3. Continue to hold down the shift key and left mouse button. Moving the mouse as if it were a pencil, draw your polygon.



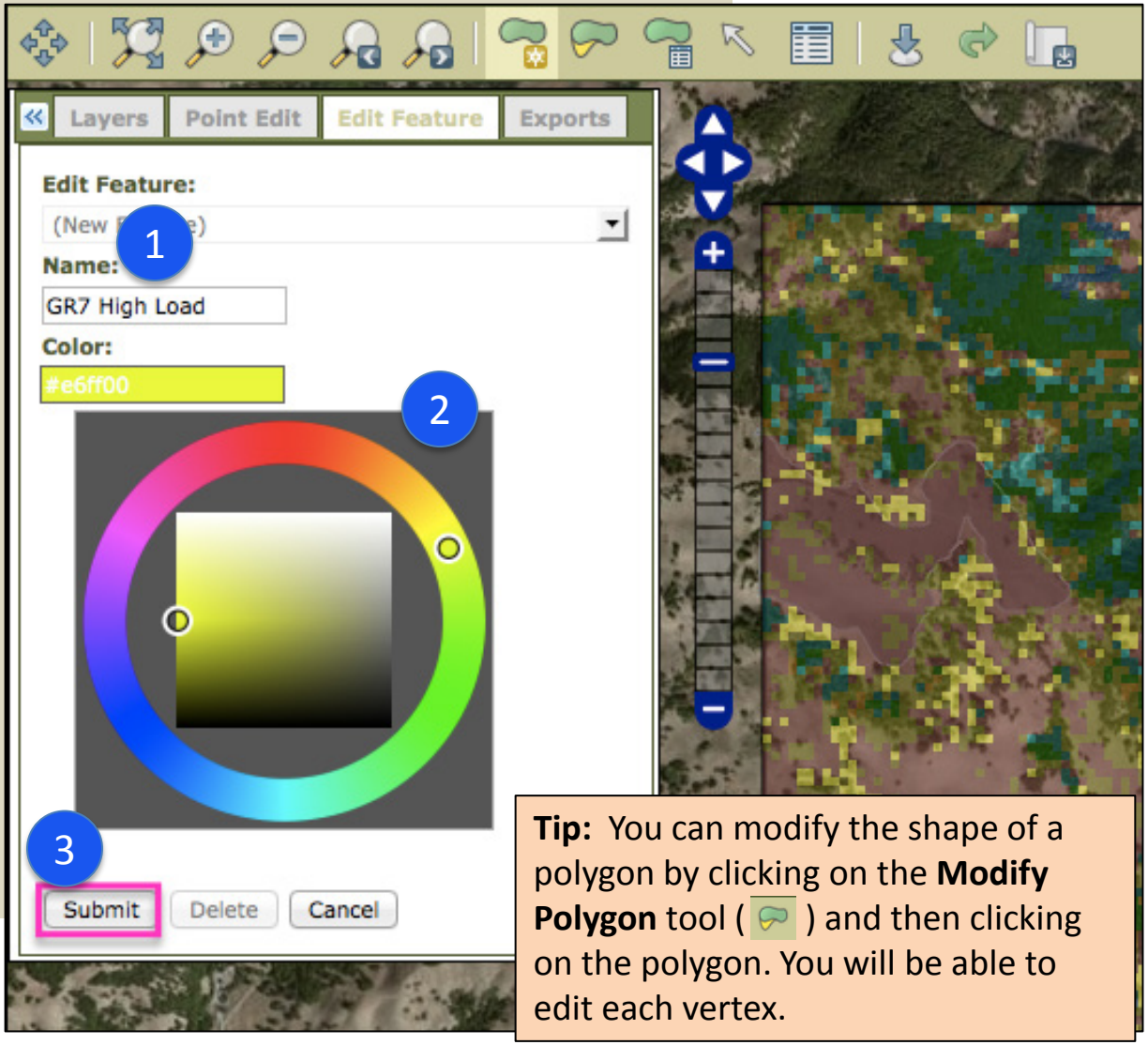
Tip: Make sure the **Drawn Polygons** layer is selected.

Let go of the left mouse button when you are done drawing the polygon. This creates the polygon and opens the **Edit Feature** panel (shown on the next page).

Using the Edit Feature Panel to Define a Polygon

After you create the polygon, the **Edit Feature** panel appears. To define the polygon,

1. Name the polygon. We name ours GR7 High Load.
2. Give the polygon a color.
   - Click on the **Color** text box. A color wheel appears.
   - Use the color wheel to choose a color.
   - Use the inner box to choose the shade of the color selected.
3. Choose **Submit** to save the polygon data.



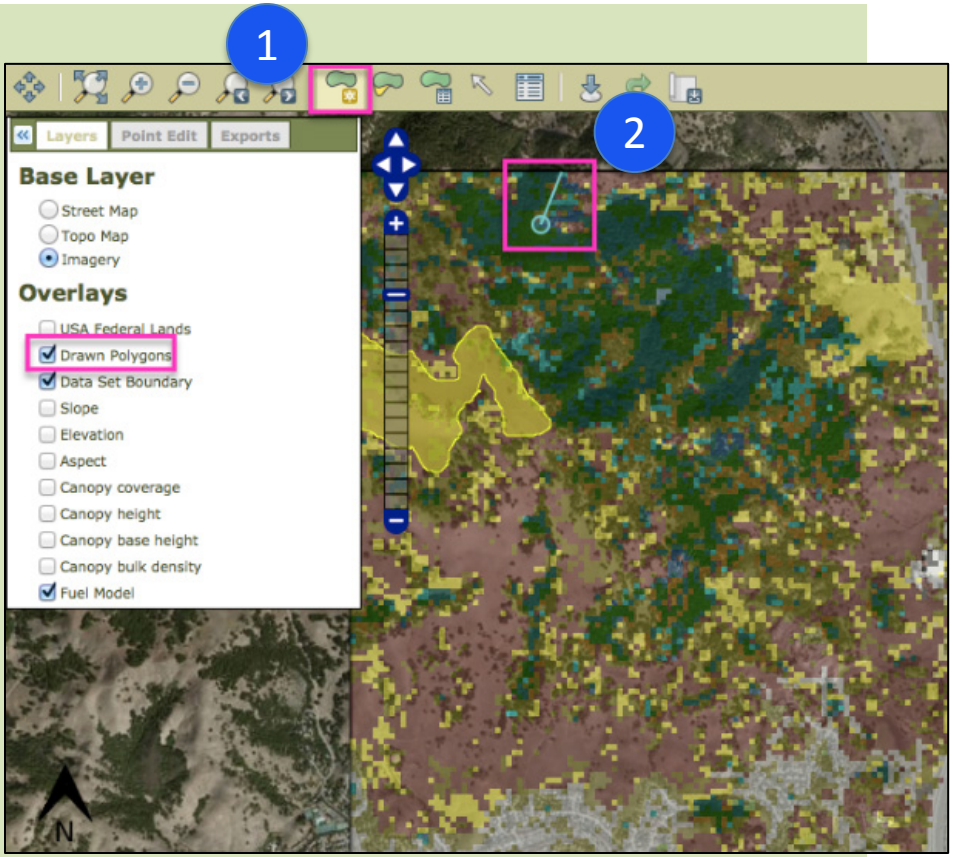
Tip: You can modify the shape of a polygon by clicking on the **Modify Polygon** tool ( ) and then clicking on the polygon. You will be able to edit each vertex.

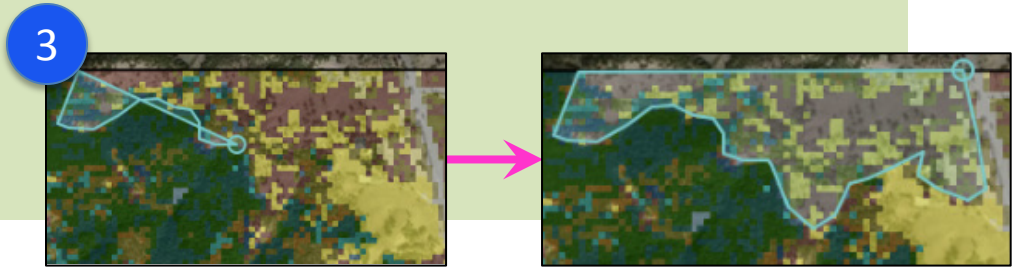
Editing Spatial Landscape Data – Point and Click Method

Next, define another polygon using the **point and click method**.

1. Select the **Draw Polygon** tool.
2. Click on the map and release to start drawing your first polygon.
3. Move the mouse to a new point and click to add another point. Before moving on, make sure the point is established (by moving the mouse away from the point). Continue this process until you are done drawing your polygon.

Double-click when you are done drawing the polygon to create the polygon and to open the **Edit Feature** panel (shown on the next page).





Using the Edit Feature Panel to Define a Polygon

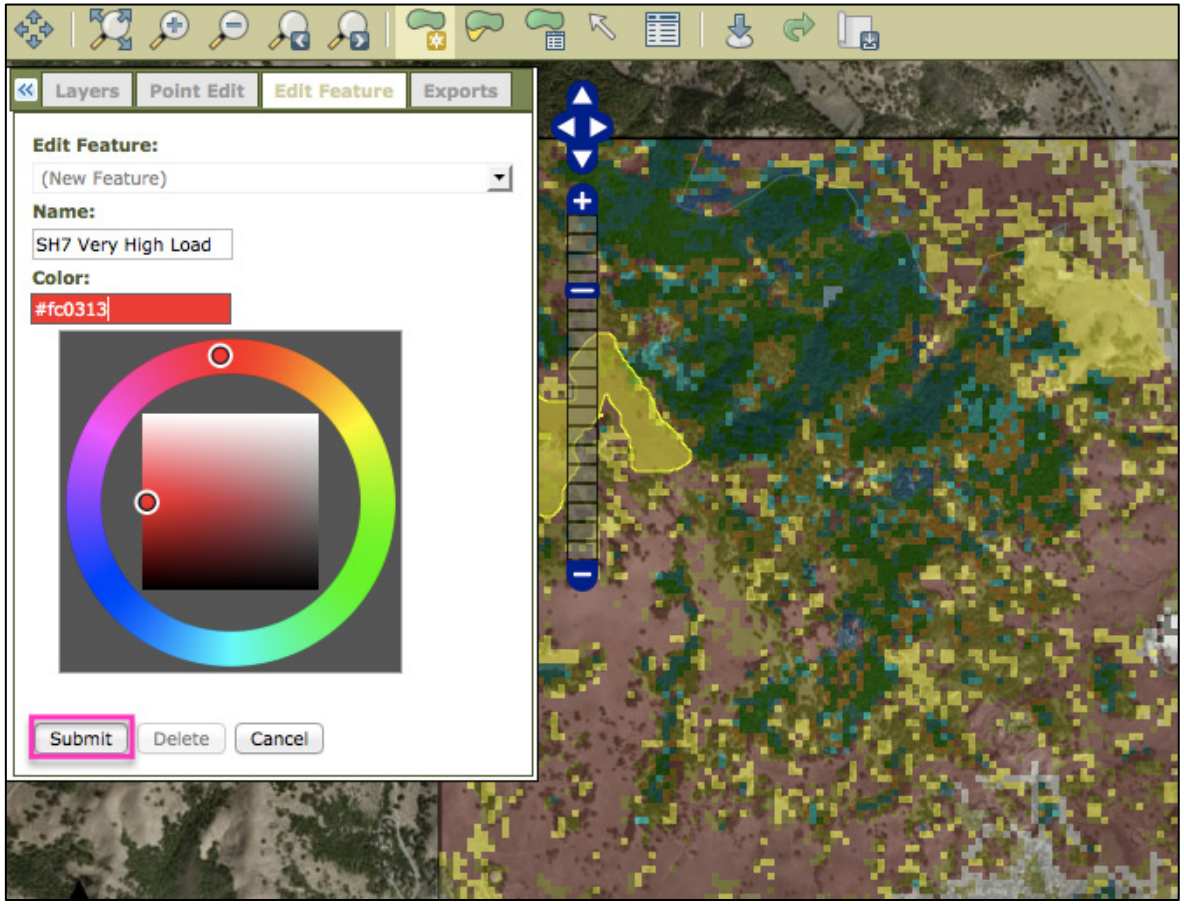
After you double-click to create the polygon, the **Edit Feature** panel appears. To define the polygon,

1. Name the polygon. We name ours SH7 Very High Load.

2. Give the polygon a color.
   - Click on the **Color** text box. A color wheel appears.
   - Use the color wheel to choose a color.
   - Use the inner box to choose the shade of the color selected.

3. Choose **Submit** to save the polygon data.

Next, we will edit the landscape data within these polygons.



Editing LANDFIRE Data within a Polygon

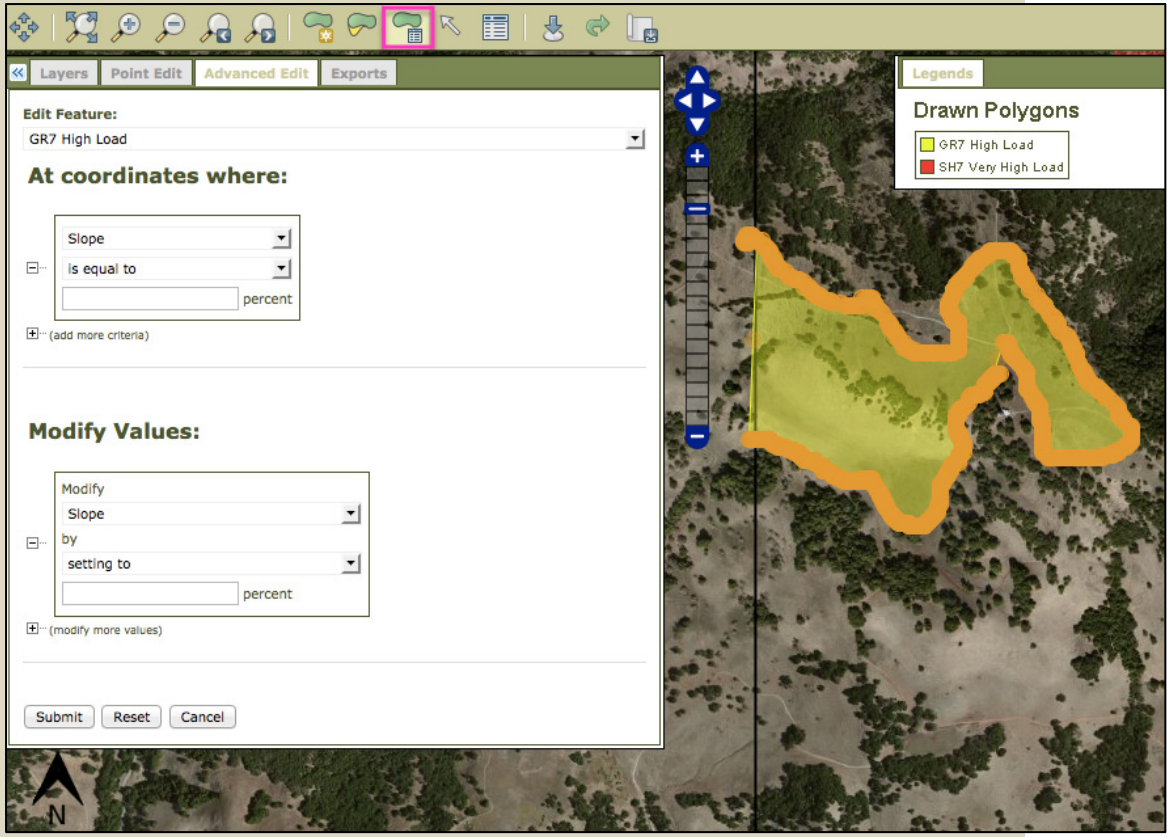
Now that we have created two polygons, the next step is to manually edit the landscape (LANDFIRE) data within these polygons.

Within the polygons, you can edit:

- Fire behavior fuel model
- Canopy coverage
- Canopy height
- Canopy base height
- Canopy bulk density
- Slope
- Aspect
- Elevation

Select the **Polygon Advanced Edit** tool, and click on the GR7 High Load polygon.

The **Advanced Edit** panel appears (discussed on next page).

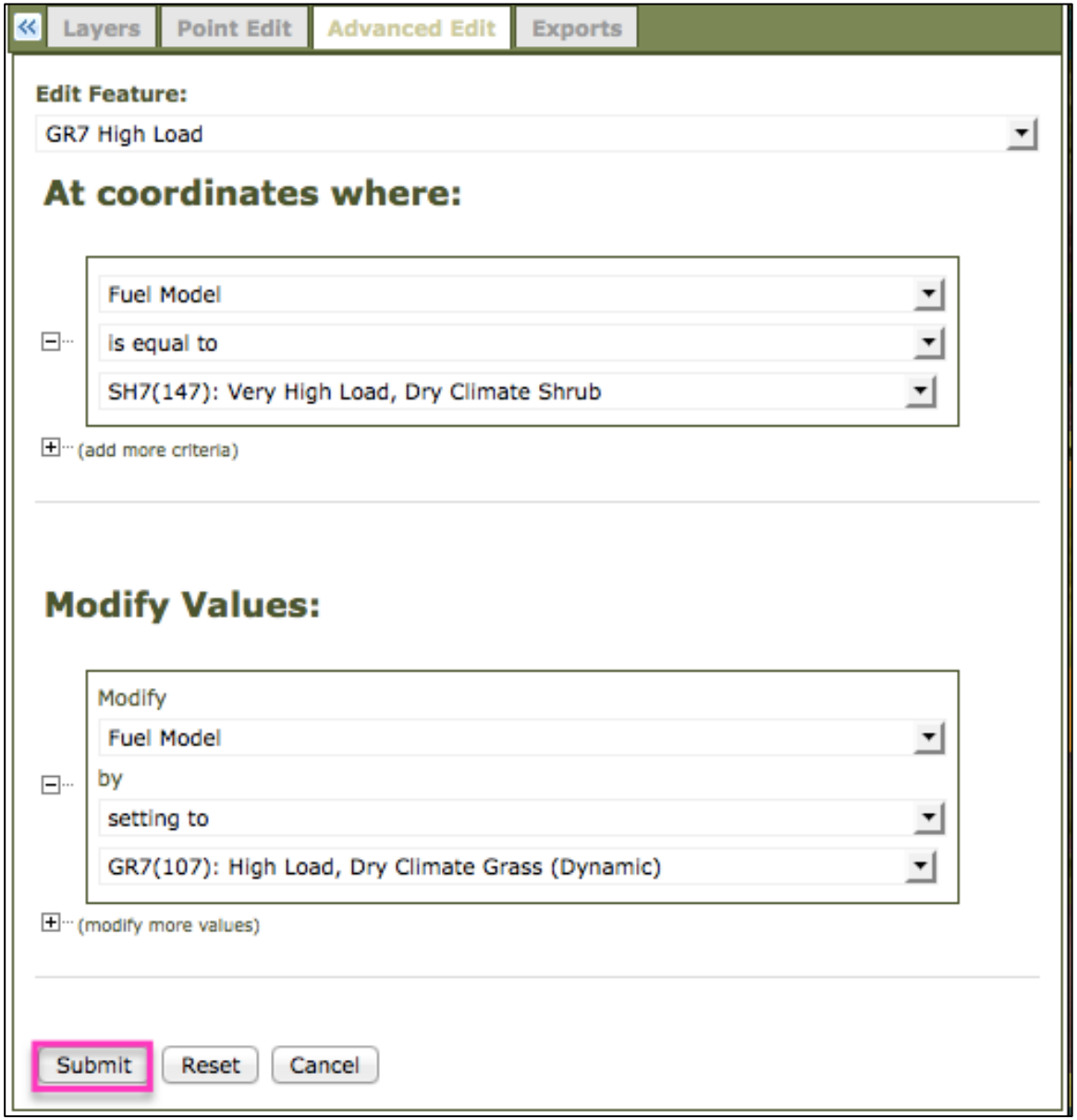


Editing Spatial Landscape Data (Multiple Pixels Within a Polygon)

You can modify the landscape data within a polygon using the **Advanced Edit** panel.

The **Advanced Edit** panel edits the pixels within the selected polygon using a query format. In this example, we will modify all pixels within the polygon that are assigned the fuel model SH7(147): Very High Load, Dry Climate Shrub and assign them the fuel model GR7(107): High Load, Dry Climate Grass (Dynamic).

Choose **Submit** to make edits to the polygon.

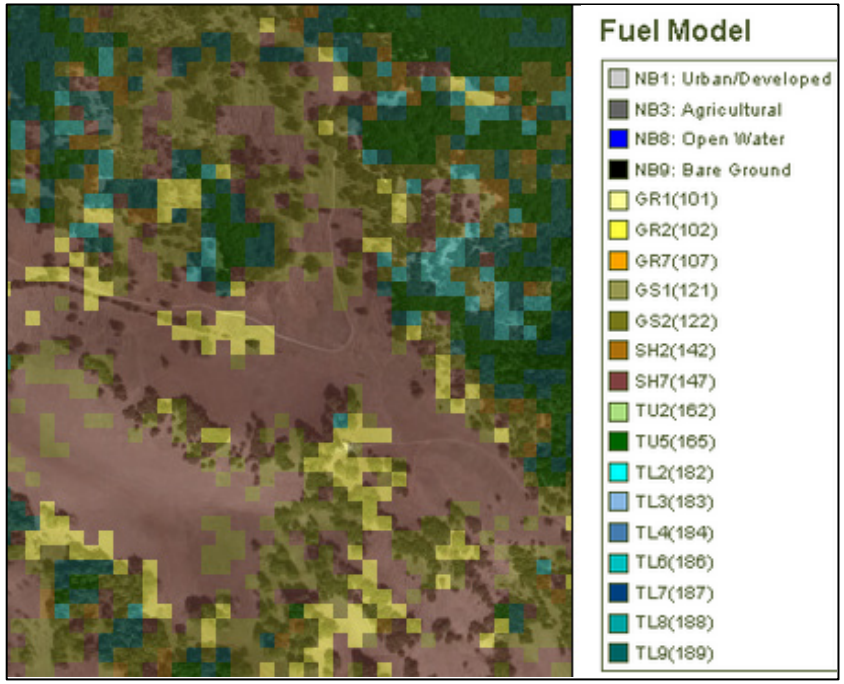


Editing Spatial Landscape Data (Multiple Pixels Within a Polygon)

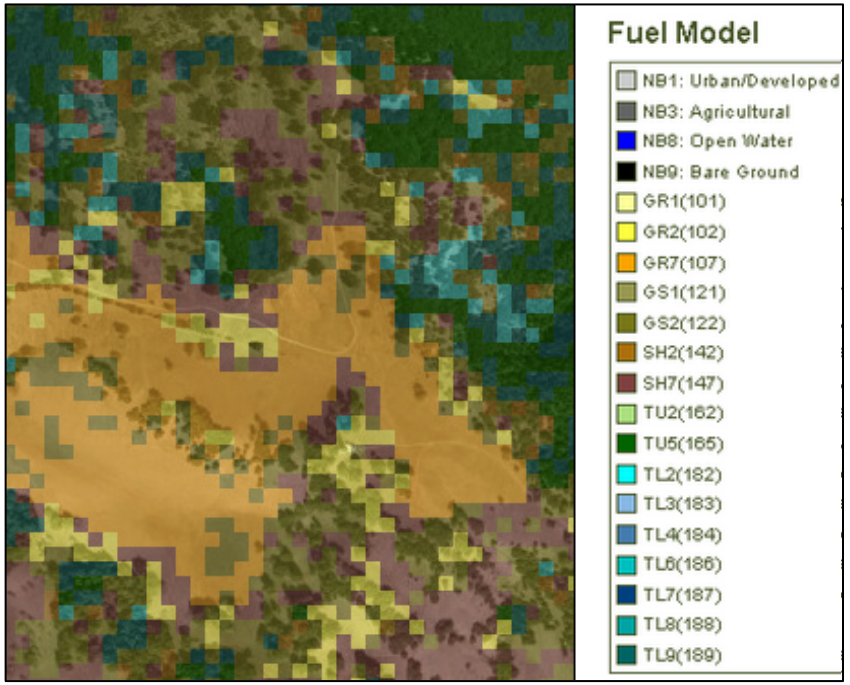
After you choose **Submit**, your edits to the landscape data are made to your polygon.

Next, we will edit landscape data within the other polygon.

Before Edits



After Edits



Editing Spatial Landscape Data (Multiple Pixels Within a Polygon)

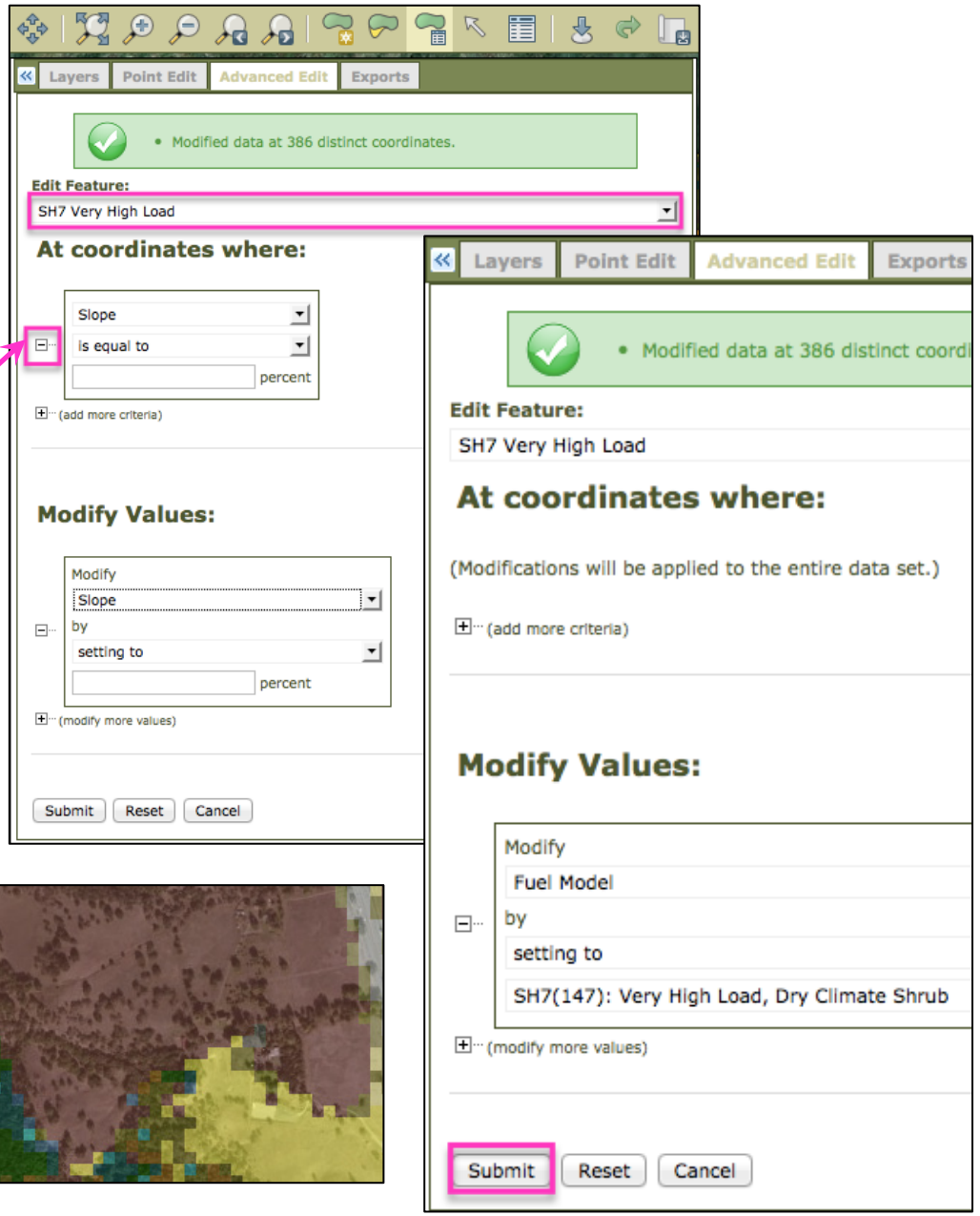
Next, we will modify the SH7 Very High Load polygon.

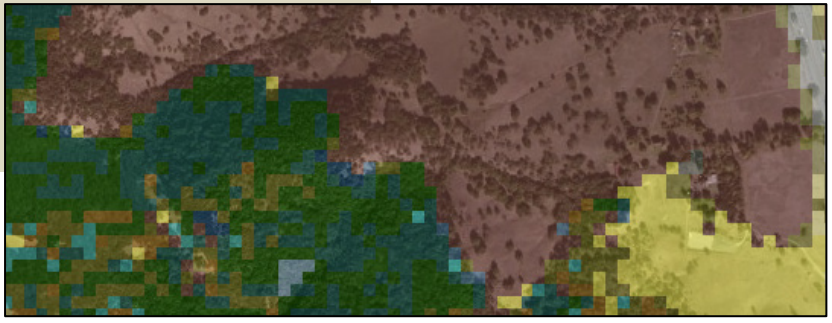
On the **Advanced Edit** panel, under the **Edit Feature** dropdown, select SH7 Very High Load.

For this polygon edit, we want to apply our edits to all pixels within the polygon. To do this, click on the minus sign (⊟) to the left of the "At coordinates where" box.

Now, the modifications will be applied to the entire polygon. For this polygon edit, change the fire behavior fuel model to SH7(147): Very High Load, Dry Climate Shrub.

Choose **Submit**.

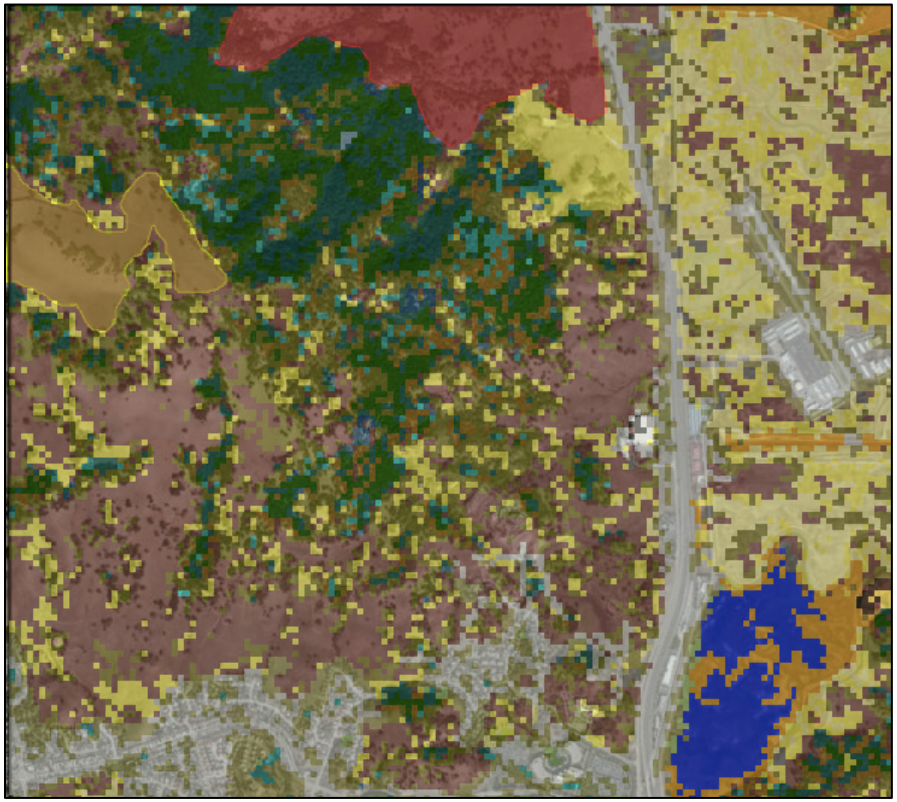




Review

In this tutorial, we were able to

- Upload or acquire LANDFIRE data.
  - Upload a landscape (.lcp) file and corresponding projection (.prj) file from your local machine.
  - Acquire landscape data from LANDFIRE for a specified area of interest using map tools in IFTDSS.
- Edit LANDFIRE data in Data Studio.
  - Point edit – editing one pixel at a time.
  - Advanced edit – editing multiple pixels at once.
  - Polygon advanced edit – editing pixels within a user-drawn polygon.



Additional Help

To navigate to additional tutorials in the IFTDSS online help content,

1. Click the **Help** button.
2. Then select **Getting Started (Tutorials and Videos)** from the side menu.

On that page, you'll find links to tutorials and videos on such topics as hazard analysis, precribed burn planning, fuels treatment, spatial analysis across a landscape, and many more.