Lesson 8 – Situation Assessment and Map Images

Estimated time to complete: 30 minutes

In this lesson, you will work from the **Incidents** tab and explore the Situation Map to:

- View values in the fire area.
- View feature information.
- View Predictive Services Significant Fire Potential.
- Draw a planning area.
- Capture a map image.
- Upload an image.

This lesson contains six exercises.

The Situation Map

The Situation map is available from the **Incidents** tab and is the primary map used when creating, editing, and updating a decision document. The Analysis map is a comparable map display and it is available from the Analysis tab. Both maps allow users to assess the situation for a selected incident throughout the duration of the incident.

The Situation Map page displays a map with the incident in the center, and three tabs in the left pane: Menu, Map, and Info.

- The **Menu** tab allows access to a full range of incident-related menu options. If you click on a menu option, a Return button is available for you to return to the Situation map (and WFDSS remembers which map layers you were viewing).
- The **Map** tab allows access to the various map layers you've enabled for viewing in your system preferences (Lesson 6).
- The **Info** tab allows you to capture a map image for use in a decision document and view:
    - Specific information about a point or feature on the map ,
    - A fire danger rating graph from the reporting weather station closest to the incident or point you select on the map.
    - A smoke dispersion forecast for the incident or point you select on the map.
    - Strategic objectives applicable to a point you select on the map and the area around it based on the radius value you've chosen.
    - A current fire weather planning forecast for the incident or point you select on the map.
    - Predictive Services Significant Fire Potential for the Predictive Services Area that the incident latitude and longitude is located in.
    - LANDFIRE data for a point on the landscape.

Viewing Values in the Fire Area

From the Situation Map and the **Map** tab, you can view the map layers to get an idea of what types of critical values are located in the area of the fire. You customized your map displays in Lesson 6 and determined which map layers are available for viewing. Visit that lesson for help with setting your system preferences or proceed with following exercise.

To view values the fire area:

1. Navigate to the Situation Map and the **Map** tab for your training incident.
2. Open the **Incident** > **Fire Perimeter** layers by selecting the ⊞ before each of them. Select the checkbox before the perimeter you drew in Lesson 7.
3. Open the **Disturbance History** map layers to determine if there is record of historical fires in the area. What year did they occur? Open the **Boundaries** map layers. Which agency has jurisdiction in the area of the fire? How about protection responsibility?
4. Open the **Designated Areas** map layers. Are there any designated Wilderness areas in the area of your training incident?
5. Open the **Infrastructure** map layers. What types of buildings are located in the area of the fire? What about National Scenic Trails or Byways?
6. Open the **Natural and Cultural Resources** Map Layers. Is your training incident located in a Class I airshed? Does the area contain critical habitat?
7. Open the **Unit Shapes** map layers. Which FMUs are affected and from how many different agencies or units? (Because of spatial limitations, you can view all the FMUs or individual FMUS for a unit but you can't view more than one unit at a time.) Does the unit you've chosen to work with have unit shapes loaded?
8. Practice using the scale bar, navigation arrows and Pan  Tool. You can also use the following quick zoom method: Hold the shift key down, place the curser where you want to start, and then left click and drag the pointer diagonally to where you want to zoom. Release the left click key to zoom to your framed area.

Viewing Feature Information

You can glean specific information about a feature by using the **Feature information** option on the **Info** tab. For example, if you are viewing NPS buildings in the vicinity of a fire, you can determine what types of buildings they are, their construction type, cost to replace, etc. These facts help you better understand what types of values are at risk. With this tool, you can also query additional values layers that may intersect your point of interest.

To view feature information:

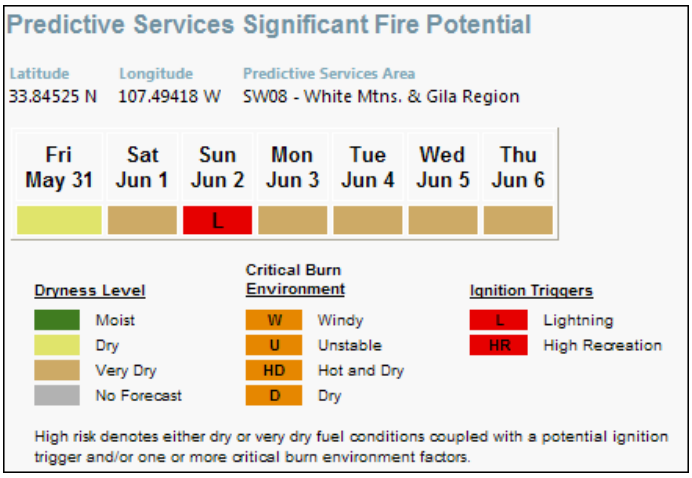
1. From any map, click  (Identify tool.)
2. Select a Layers feature (such as a NPS building, for example).
3. From the left pane, choose the **Info** tab, and then click **Feature Information**. A pop-up window appears that shows specifics for the selected feature.
4. If the feature contains a Copy  or  Download icon, you can copy the selected feature and save it as an incident or analysis shape or download the feature as a zipped shapefile.

Viewing a 7 day Predictive Services Significant Fire Potential Forecast for the Fire Area

From the **Info** tab, you can view the 7-day Predictive Services Significant Fire Potential Forecast for the location of the fire. You can also view the forecast, albeit in a slightly different format, from the **Map** tab. You will do this in Lesson 10, when you gather information for the Relative Risk Assessment.

To view 7 day Predictive Services Significant Fire Potential Forecast:

1. From the any map display, click the **Info** tab (located above the LayerSwitcher, the list of map layers on the left).
2. Select **Pred Svcs Sig Fire Potential**.
3. A pop-up window appears that displays a 7 day Significant fire Potential forecast, with a legend, for the Predictive Services Area that the incident is located in.



Drawing a Planning Area

Now that you've viewed the fire area and the values it contains, you need to create a planning area.

A planning area is an area an Incident Owner or Editor defines on the landscape that includes all the land a fire might burn during the life of the current decision; it includes the area used for analysis and planning to manage the fire. Planning areas help you to establish an area of interest around an incident and accomplish two things:

- Planning areas determine which FMUS are contained or partially contained by the planning area, and subsequently, which pre-loaded strategic objectives and management requirements will need to be addressed when developing incident objectives and requirements, and
- Planning areas generate a Values Inventory, a list of known values that are located in the planning area. These values should be considered and/or addressed when developing a relative risk assessment, as well as incident objectives and requirements.

Planning areas need to be large enough to include the following:

- Where actions are planned (e.g., firelines, evacuation points, protection points)
- Contingency plans (MAPs)

- Fire behavior modeling outputs
- Values you are concerned about
- Where you want to contain the fire
- The physical reality of where the fire could burn during the life of the current decision (even if you don't want it to burn there)

Planning areas are required for documenting a decision and are different from a WFSA boundary or WFIP Maximum Manageable Area, two outdated and no longer used concepts. By limiting the planning area to just where you think a fire might go, you are limiting the decision support capability of the application.

Drawing a large planning area may incorporate more FMUs, which in turn may require you to address more strategic objectives, management requirements, and values at risk, but if the planning area is too small, you will have to create a new decision each time management actions occur outside of the existing planning area. It's helpful to use an FSPro probability output as a general guide when trying to determine an appropriate planning area size as the output can inform you of where the fire may try to move. Doing this will ensure that the Values at Risk identified by an FSPro output are included in the Values Inventory (a product of the planning area), and addressed in the Incident Objectives. If your FSPro outputs are larger than your planning area, your planning area is too small.

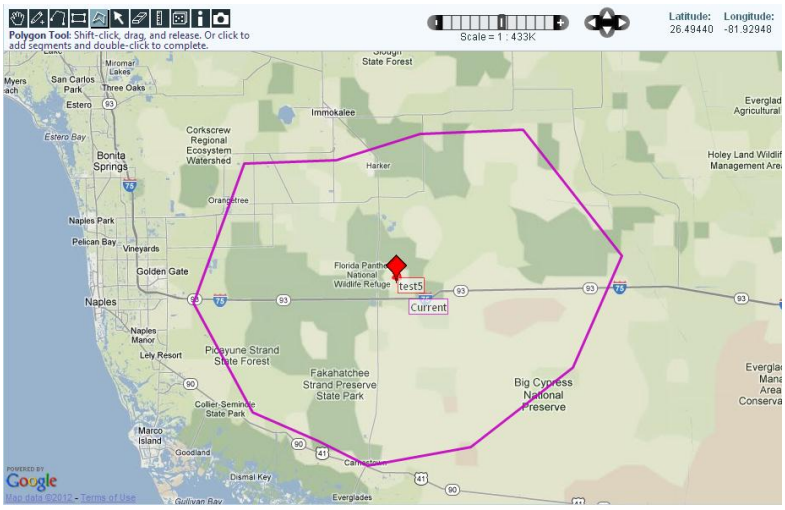
No ramifications result from drawing a large planning area. If you are currently planning Management Action Points or contingency plans outside of your planning area, you are planning outside of your planning area. Your planning area should be larger to include those areas.

To draw a planning area for your training incident:

1. From the left pane of the Situation map, choose the **Map** tab. The Map Layers are displayed.
2. Zoom out to 1:433K or more.
3. Open the **Base** Layers and view each of the options. Note that WFDSS topos is available only at finer resolutions. Select a base layer that gives you a good perspective at larger scales.
4. Display the map layers that you determined to be applicable to your training incident. They helps guide the creation of your planning area.
5. Select the polygon  or rectangle  drawing tool and draw a planning area. A polygon or rectangle are both acceptable planning area shapes, but the polygon tool give you more control over which FMUs you include, which could be important if you are trying to exclude 20 acres of a particular FMU. Otherwise, you would have to address the Strategic Objectives and Management Requirements for that FMU, also. If you don't like your finished product, click  (Erase Tool) and try again.
6. When you are satisfied with what you've drawn, click  beside **Planning Areas** (near top of Map Layers list).
7. Click **Save**.

   If the save was successful, your yellow rectangle becomes a purple outline (as in the image below).

8. Keep the current display; we'll pick up here in the next exercise.



About Images

Images can be captured or uploaded for use in an incident's decision document by WFDSS users with the following roles or privileges:

- Incident owners and editors,
- Fire Behavior Specialists and Super Analysts,
- Dispatchers (must be in the same geographic area as the incident), and
- Geographic Area Editors (must be in the same geographic area as the incident).

Captured and uploaded images are saved to the incident content, and incident owners and editors can access and/or view the images when making edits to a pending decision. Images are accessible via the decision editor, which can only be accessed after a decision is created (but before it is published).

Capturing Map Images

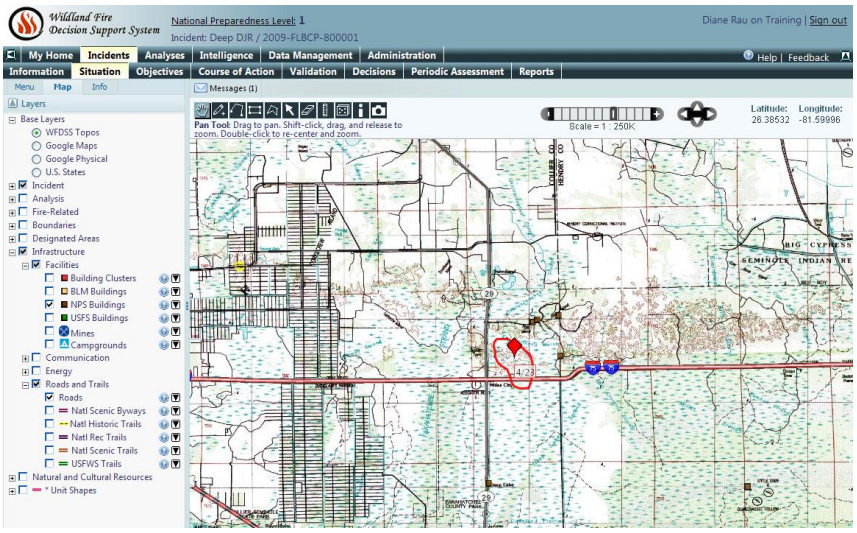
From the Situation and Analysis maps, you can capture map displays as snapshot photos that can be added to your decision document. Map displays that show fire perimeters, M.A.P.s, critical values, and fire behavior outputs are a few examples of images that are helpful to capture and help describe the complexities of an incident. WFDSS topos are the only base layer that can be copied or reproduced in WFDSS due to copyright issues. As a result, WFDSS automatically updates the base layer to WFDSS topos each time an image is captured.

Capturing images requires two inputs: Image Label and Description. When developing Image Labels and Descriptions, special characters can't be used; WFDSS warns you that special characters need to be removed before the application can successfully capture an image.

To capture an image for your training incident:

1. Change the bases layer to WFDSS topos. Remember, you can only view WFDSS topos at larger scales so you may have to adjust the map scale. Using the scale bar, zoom in until you can view the base layer (try 1:250K or 1:175K).

2. Create a map display relevant to your training incident. For example, display critical values near the fire perimeter, or land ownership in the area of the fire. The example below displays a fire perimeter, major roads, and NPS buildings.



3. You can capture your image in one of two ways:
   - Select the **Info** tab. On the left hand bottom of the screen, you'll see the Map Capture section. Click ▼ beside it, and you see two fields, **Image Label**, and **Description.**
   - Click 📷 **(Camera tool.)** The Map Capture section opens in the pane on the left, and you see two fields, **Image Label** and **Description**.
4. Create an **Image Label**. The Image Label helps you locate the image in the incident content. It is also displayed above the image when you add it to your decision document. The above example could be named *"0423 perim and values."*
5. Create a **Description** for your image. The description should include why the image is important and why it's relevant to the decision document it will be added to. It displays below the Image Label. A Description for the above example could be *"Image displays 0423 perimeter and nearby values that include NPS buildings to the north and east and a major interstate south of the fire."*
6. Select **Capture Image.** A message appears atop the map that says something similar to *"Sent map capture request for 0423 perim and values".* You will not be able to view the captured image until we create a decision in a later lesson.
7. Return to the **Map** tab in the left pane and create a few more images to capture. These images are added to your decision document in a later lesson.

Uploading Images

Often, decision documents require images and other data that are not created in WFDSS. The following examples are types of images you may want to upload to support a decision:

- Maps of nearby fuels treatments
- Photos of fuels or fire behavior
- Spot weather forecasts

- Miscellaneous documents

Uploading images requires more inputs than capturing images. In addition to Image Label and Description, you need to select an Image Type and browse to where the image is located. Special Characters cannot be used when creating Image Labels and Descriptions; WFDSS warns you that special characters need to be removed before the application can successfully capture an image.

You can upload the following file types:

- .JPG
- .GIF
- .PNG

You cannot load .BMP, .TIFF, or .PDF images at this time.

You will upload an image(s) for your training incident in this next exercise. Using the examples above as a guide, locate some images that you can upload. Any fire-related image will do, as the goal is for you to learn how to do it. You will add the images from the incident content tree to your decision document in a later lesson.

To upload an image for your training incident:

1. From the Situation map, select the **Menu** tab, and then select **Image Upload** from the list on the left.
2. Create an **Image Label**. You'll use the Image Label to locate the image in the incident content. It will also be displayed above the image when you add it to your decision document.
3. Create a **Description** for your image. The description should describe why the image is important and why it's relevant to the decision document it will be added to. It will display below the Image Label.
4. Select the **Image Type** from the drop-down menu.
5. Click **Browse**, and then navigate to the image file on your computer.
6. Select **Open**, and then select **Upload**. It may take a few moments, but look for a message in green atop the page that says the file was uploaded successfully. You will not be able to view the image until we create a decision in a later lesson. At that time, you will be able to access the decision editor and incident content to edit the pending decision.
7. Upload a few more images if you like, following the steps above. The more images you upload now, the more opportunity to practice using the decision editor you will have in later lessons.

Search for these related topics in the Help:

- About Maps
- Copying Feature Information
- Situation Map
- Viewing Feature Information

- Creating a Planning Area
- Capturing Map Images
- Uploading Images
- Incident Content Tree