



NRM WCATT National Watershed Condition Web Map User Guide

The Forest Service recently conducted a National Watershed Condition Assessment project. Resulting watershed condition assessment data was entered into the Watershed Classification and Assessment Tracking Tool (WCATT) and can be accessed through the **National Watershed Condition Web Map**. The National Watershed Condition Web Map was developed by NRM in support of the Forest Service Watershed Condition Framework (WCF) to provide a nationally consistent approach for classifying watershed conditions. Note: The web map is updated nightly.

Hands On Basics

Follow the steps in this document for a basic understanding of how to use the application.

1. Launch the map using the **Launch Watershed Condition Web Map** button on the [WCATT NRM web page](#).
2. The map opens to a view of North America.

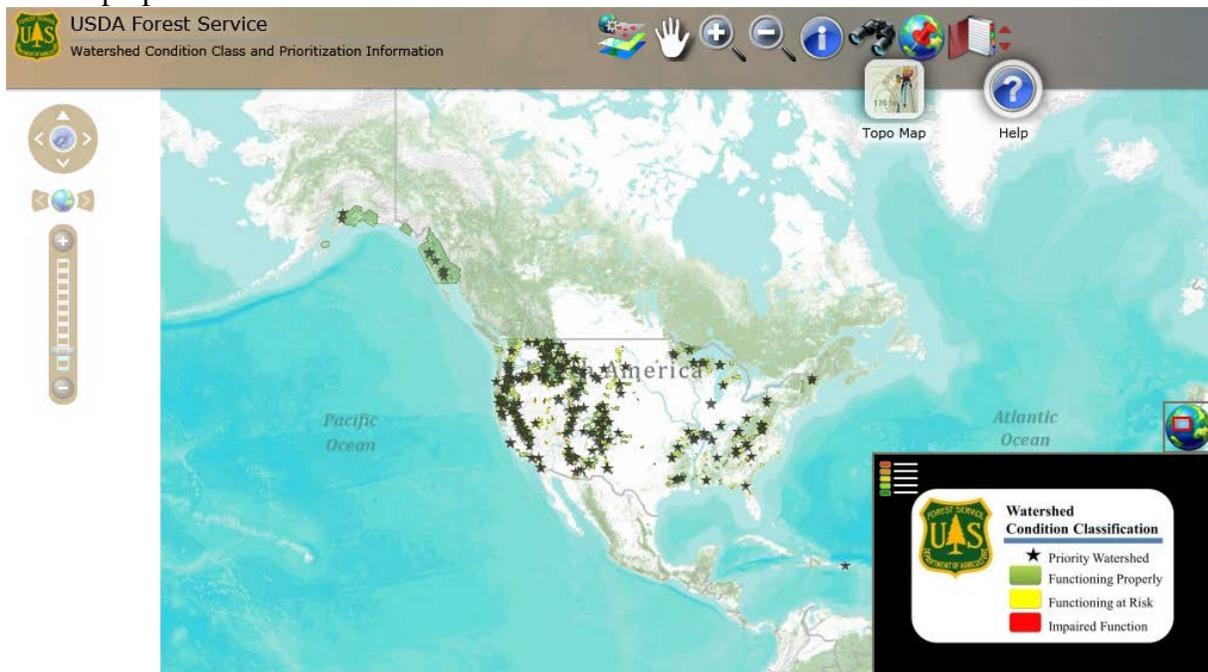


Figure 1: Initial Map

3. To explore the map and watershed condition assessment data, you will use the various tools on the main map toolbar. When the map is first opened, the toolbar is docked at the top of the map (the default location) and the cursor will appear as the hand or Pan tool.



Figure 2: Main Map Toolbar

4. There are three options for toolbar placement on the map: 1) docked at the top of the map, 2) docked at the bottom of the map, and 3) “floating” on the map. To change the toolbar placement, hover over the



toolbar, press and hold the **CTRL (control key) and Click** the left mouse button. This brings up a menu with three position choices: Enable Float, Dock to Top, and Dock to Bottom.

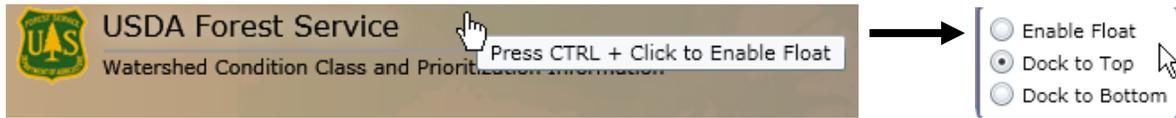


Figure 3: Toolbar Placement Options

- 5. Click **Enable Float** and the toolbar shrinks in size. Position the toolbar on the map by left clicking on it and dragging it to a new location on the map.



Figure 4: Example of a Floating Toolbar

- 6. To re-dock the toolbar, Use the CTRL + Click To Enable Float menu OR drag the toolbar to the top or bottom of the map. A red bar will appear behind the toolbar indicating where it will be docked. When you see the red bar, release the mouse and the toolbar will dock in place.



Figure 5: Re-docking the Toolbar

- 7. When the toolbar is docked, all of the map tools are displayed across the top of the toolbar (see Figures 1 & 2). When the toolbar is “floating” (see Figure 4), click the **Widgets** icon to access the same tools.

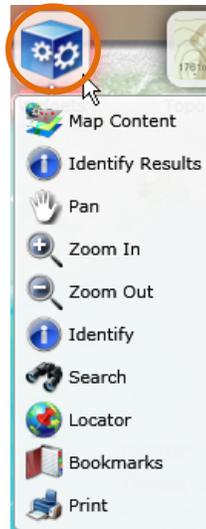


Figure 6: Widgets Menu



8. From either the “floating” or docked toolbar, use the Widget tools to find your forest. Note: With any of the Widget tools you can use your mouse wheel to zoom in or out. Roll forward to zoom in and roll backward to zoom out. Be patient as it may take the map some time to redraw.

9. **Zoom In** tool -  Click the icon (magnifying glass with a plus sign) and the cursor changes into the tool. Click and drag a box around an area to “zoom to” on the map.



Figure 7: Using the Zoom In Tool

10. **Zoom Out** tool -  Click the icon (magnifying glass with negative sign) and the cursor changes into the tool. Click and drag a box around an area to “zoom out to” on the map (similar to the Zoom In tool).

11. **Pan** tool -  Click the icon (hand) and the “pan” cursor changes into the tool. Click and drag the map to move around on the map.

12. **Search** tool -  Click the icon (binoculars) to open the Search tool. In the **Search for:** field, click the black dropdown arrow and select either: **Watershed Name**, **Watershed Code**, or **Forest Name**. Type in a watershed name, watershed code, or forest name in the text box below and click **Search**. The map zooms to the resulting watershed or forest, which will be displayed in grey and highlighted in light blue.

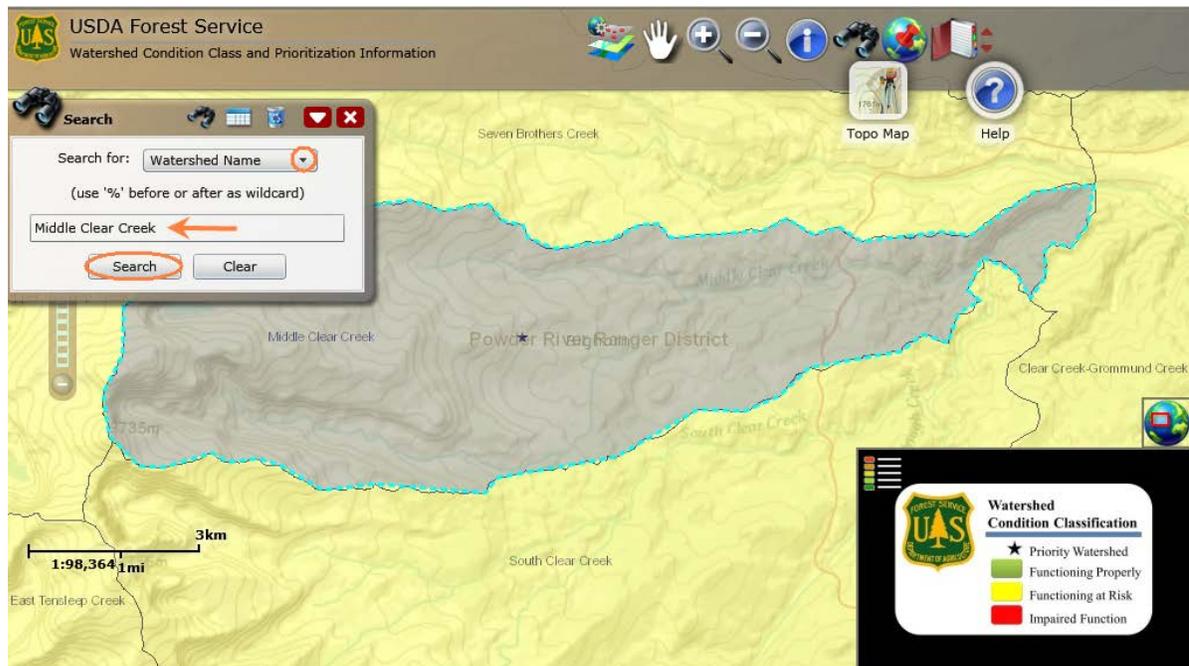


Figure 8: Example Search for: Watershed Name



- 13. The icons at the top of the Search tool allow you to **Search**, view the **Search Results**, **Clear Graphics** placed on the map from the search, and **Minimize** or **Close** the window.

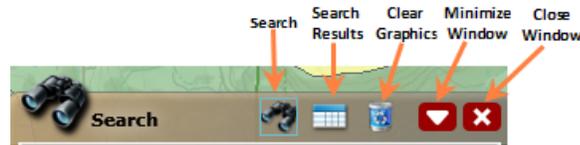


Figure 9: Search Window Icons

- 14. Note: If the search returns multiple features, the map zooms out to show all the features. The first feature in the result list is highlighted in light blue and the additional features are highlighted in red on the map.

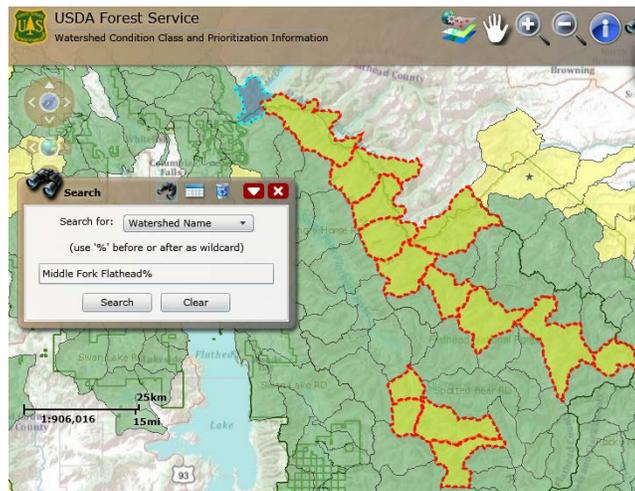


Figure 10: Example Search By Watershed Name - Multiple Watershed Result

- 15. Click the **Search Results** icon to see a list of the resulting watersheds. The watershed highlighted in purple in the list will correspond to the grey and light blue highlighted watershed on the map. Click on a watershed in the list to highlight it in purple and it will turn grey and light blue highlighted on the map.

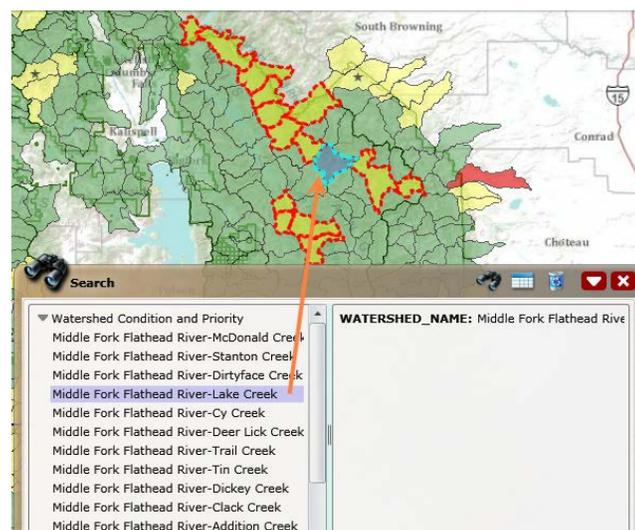


Figure 11: Example Search By Watershed Name - Search Results



- When searching for watersheds and forests, you can use the percent (%) symbol as a wildcard. For example, to search for watershed names that END in “Clear Creek”- set the **Search for:** field to **Watershed Name**, type in **%Clear Creek** in the text box, and click **Search**. Click the **Results** icon to see a list of watersheds that end with Clear Creek. Click on the watershed and it will turn grey and highlight in light blue on the map.

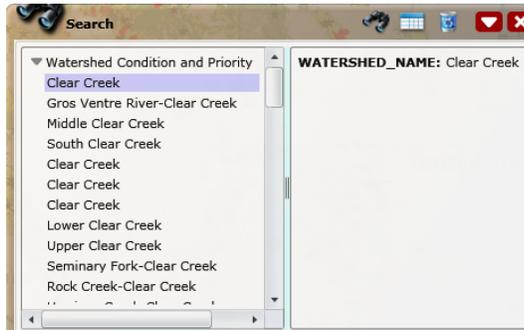


Figure 12: Example Wildcard Search Results

Note: To search for watershed names that BEGIN with “Clear Creek” type in: **Clear Creek%** in the text box. To search for watershed names that have the words “Clear Creek” IN them type in: **%Clear Creek%** in the text box.

- Locator tool** -  Click the icon (world with red push pin) to open the tool. Select a **Locate By:** method of either **Address** or **Coordinates**, type in the information, and click **Locate**. The map zooms in to the location you have entered and a red push pin with a large blue circle graphic is placed at the specific location on the map.



Figure 13: Locator Tool

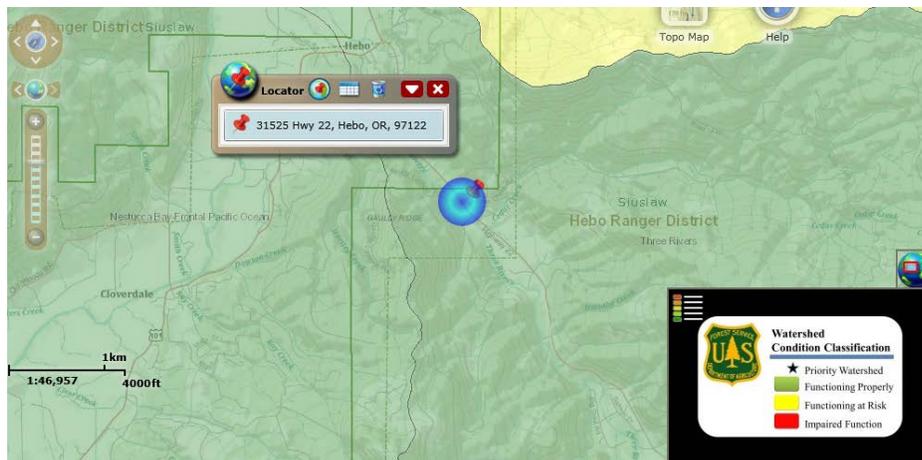


Figure 14: Locator Tool - Locate By: Address Example



- When using the **Locate By: Address** option, you must type in a complete address (i.e. 1234 Park Ave, Somewhere, CA). When using the **Locate By: Coordinates** option, you can either enter coordinates (in Decimal Degrees only, i.e. -122.451 Longitude, 45.678 Latitude) or click on the map. Note: If you choose to click on the map, depending on the map scale the locator may not return the correct location. After finding a location, you can Identify a watershed (if present) and print or bookmark the map.
- The icons at the top of the Locator tool allow you to go back to the **Input Form** to search again, view **Results**, **Clear Graphics** placed on the map, and **Minimize** or **Close** the window.

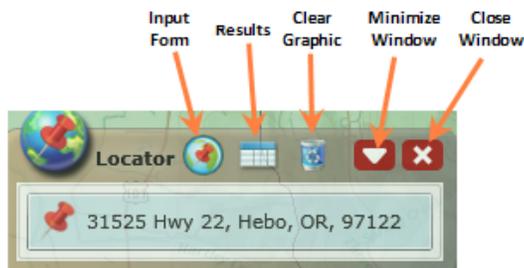


Figure 15: Locator Tool Icons

- Bookmark** tool – A bookmark allows you to save a specific location on the map so you can zoom right to it in the future. To use the tool, you need to first zoom in and position the map to how you would like the specific area to be bookmarked. Click the icon (open book) on the toolbar to open the tool.

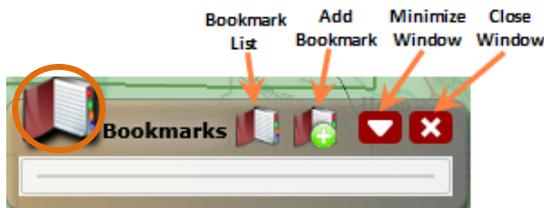


Figure 16: Bookmark Dialog Box

- In the **Bookmarks** box, click the **Add Bookmark** icon to create a bookmark for the area on the map you are currently viewing. Type in a name for the bookmark and click **Add Bookmark**.

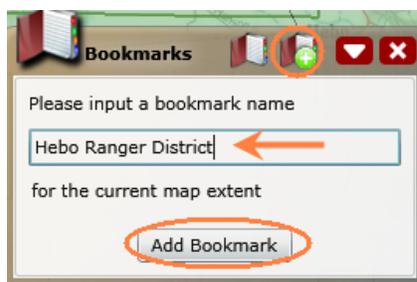


Figure 17: Add Bookmark

- The bookmark will now display in the **Bookmark List**. You can remove the bookmark by clicking the red **X** to the right of the bookmark name.



Figure 18: Bookmark List

23. **Map Scale** – Additional zoom tools are located on the left side of the map. Click and hold the blue slider zoom bar and drag it up (to zoom in) or down (to zoom out). You can also zoom in by clicking the plus sign (+) and zoom out by clicking the negative sign (-). The scale bar below the slider zoom bar automatically updates and displays the scale every time the map changes. Note: You must zoom in to a scale of **1:2,500,000** or less to view watersheds and **1:235,000** or less to view watershed names.



Figure 19: Zoom Bar and Map Scale Bar

24. The icons above the slider zoom bar can also be used to change the map view. The icons around the compass move the map a set amount in a specific cardinal direction (N, E, S, W). Zoom to Previous Extent moves the map back to the previous map view and Zoom to Next Extent moves the map forward to the next map view. Zoom to Full Extent moves the map out to the entire map view.



Figure 20: Additional Zoom and Extent Icons



25. Another thing you can do with the map is to **Rotate** it. Move the mouse to the very outside edge of the brown circle around the cardinal zoom icons. Left click and drag the circle up or down and the map will rotate. To put the map back to how it was, click the compass icon in the center to **Reset Map North**.



Figure 21: Drag to Rotate

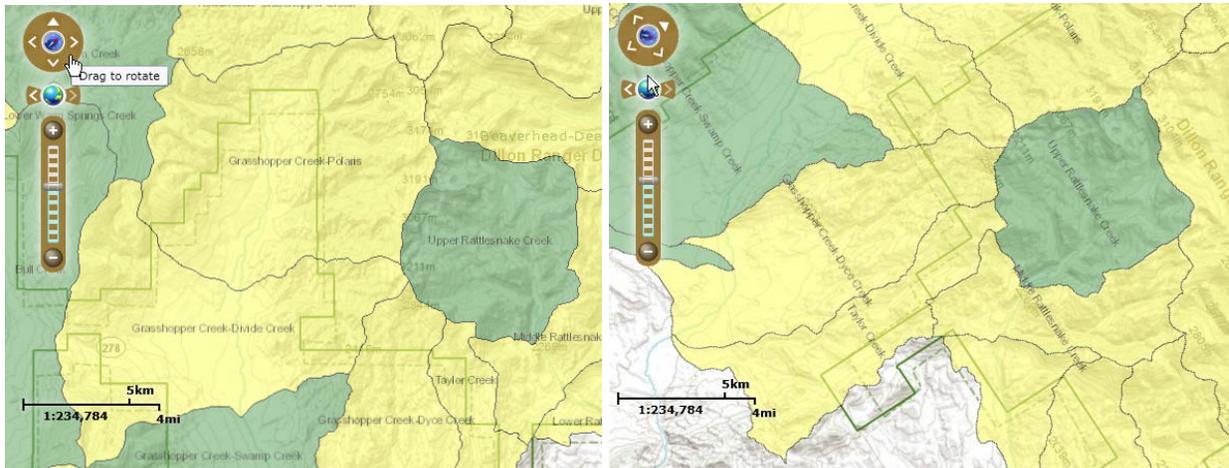


Figure 22: Rotating The Map – Before and After

Key to Frequently-Used Icons

Zoom In	Click, then drag a selection box to zoom in closer (cursor doesn't change)	Previous Extent	Returns to previous map view
Zoom Out	Click to zoom out	Next Extent	Proceeds to next map view
Full Extent	Click to see the entire map view	Identify	Opens a data viewer
Pan or Re-Center Map	Click left mouse button to grab and drag the map to position the map in the viewer	Map Content	Opens a map table of contents

26. **Legend** – The map legend displays symbols representing watershed conditions and priority watersheds. Initially, the Legend is open on the map but can be toggled on or off by clicking the Legend icon. The default map location for the legend is the bottom right corner. However, if the toolbar is docked to the bottom of the map, the legend automatically moves up to the top right corner of the map.



Figure 23: Map Legend



27. **Overview Map** – The Overview Map is a small map displaying the map area you are zoomed into in the context of a larger area. The icon opens and closes the Overview Map above the Legend. Note: The Overview Map is only available when the legend is docked on the bottom right side of the map.



Figure 24: Example Overview Map



28. **Topo Map** – The Topo Map icon is a toggle for different map background options. Click the icon to display the different background options including: **Topo Map**, **Street Map**, **Imagery**, and **Shaded Relief**. Topo Map is the default background; however, different backgrounds can be selected by clicking on the background icon and then selecting a new background. The top icon on the toolbar will change depending on what background is open in the map.



Figure 25: Map Background Options



Figure 26: Example of Changing the Map Background to Street Map



- 29.  **Help** – Click the Help icon for more information about the Web Map. Click **User Help** to open an online help document and click **About** to view application information such as build number, etc.

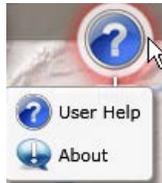


Figure 27: Help Options

- 30.  **Print** – Click the icon and the **Print** dialog box opens. Tip: If the main toolbar is docked, click the red down arrow to the right of the Bookmark icon to locate the Print icon.
- 31. **Print Map** (the default option) opens a map preview with options for map printing adjustments. You can zoom in and out while the Print box is open and then click **Update Map** and the print preview will update accordingly. Type in a map title in the **Print Map Title:** field, select or deselect the various options by clicking in the box next to them (i.e. click in the box next to Print Legend to add a Legend to the map) and click **Print Map** when ready.



Figure 28: Print Map Example

- 32. In addition to printing the map, you can also print the results of the **Identify** and **Search** tools. Note: The Identify Results and/or Search box **must be open** to print the data. Click the **Print Data** icon and check the box next to **Identify Results** and/or **Search**. Click **Create Printable Page** to print the data.

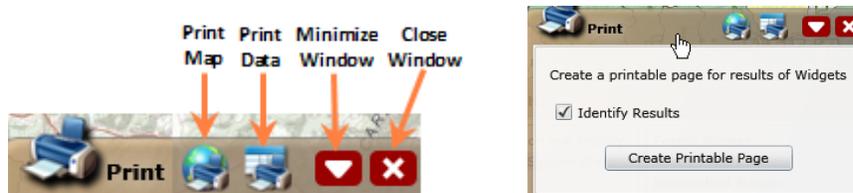


Figure 29: Print Box Options and Print Data - Identify Results Example



Map Layers

33.  Map Content- On the Widgets menu, click the icon (a world on top of three layers) to open the Map Content dialog box. This is a table of contents that is used to control the visibility of map layers.
34. Click the white arrow next to the **Watershed Condition and Priority** layer. The box will expand to show the various options for this layer as well as a slider bar under the layer. This slider bar controls the transparency of the layer - slide the bar to the right to make the layer darker and less transparent or slide the bar to the left to make the layer lighter and more transparent.

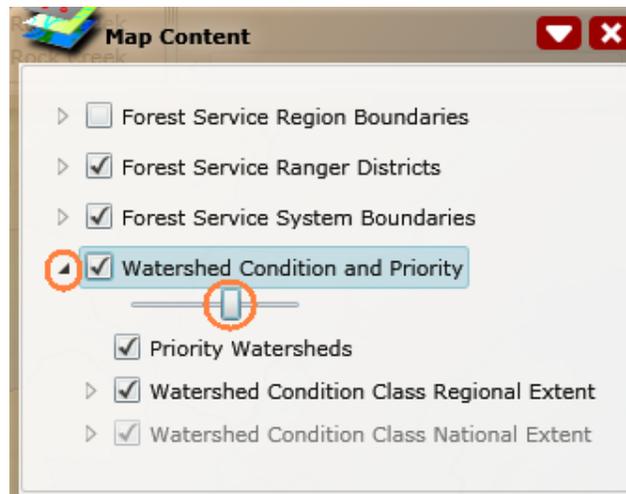


Figure 30: Map Content Dialog Box

35. You can also turn on or off the display of Priority Watersheds and/or the Watershed Condition Class Regional Extent (red, yellow, green watersheds). Click in the box next to the layer to remove a checkmark (turn off the layer) or add a checkmark (turn on the layer). Note: There may be a delay as the newly-checked layers draw.
36. At any time you can click a button in the top right corner of the **Map Content** box to minimize (white arrow icon) or close (white X) it.

Watershed Data

37. **Identify** tool -  On the Widgets menu, click the icon (white i in a blue circle) and the cursor changes into the tool. Click on a watershed for detailed information about it. Note: The map needs to be zoomed in to **1:2,500,000** (or lower) to view watersheds and to be able to select them with the Identify tool.
38. The watershed will turn grey in color, be highlighted in light blue, and the **Identify Results** dialog box opens. This box displays the Watershed Condition and Priority information (if available) for the selected watershed. Use the scroll bar to the right of the box to see additional watershed data.

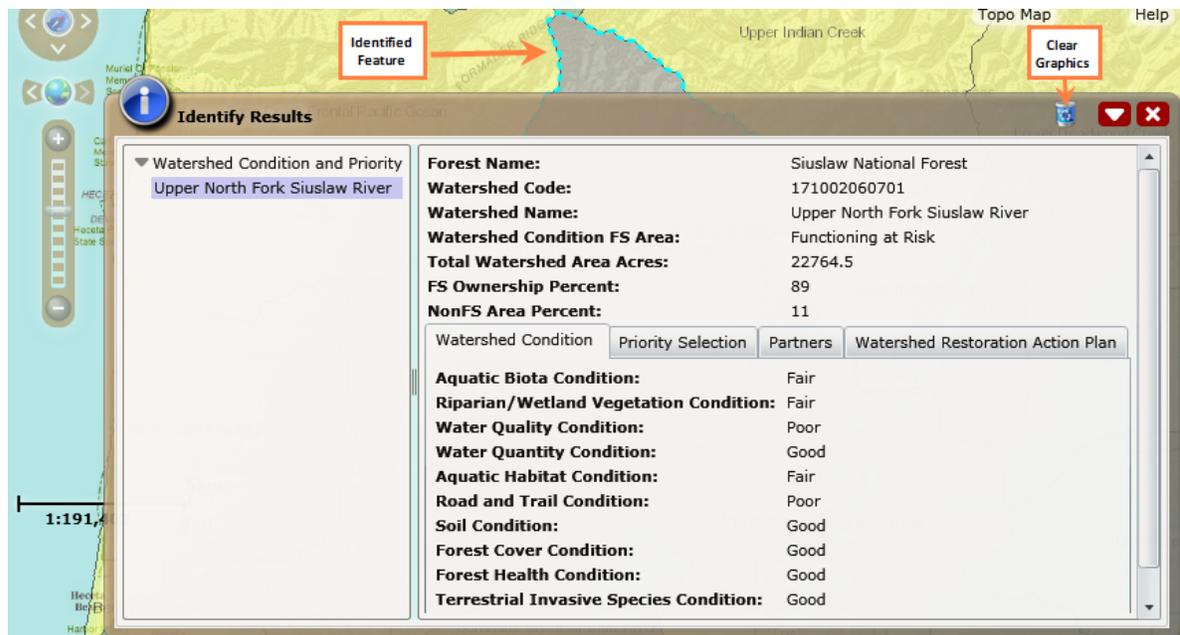


Figure 31: Example Identify Tool Results

39. You can also identify more than one watershed at a time. With the Identify tool, click on the boundary of two or three watersheds and the Identify Results box opens with a list of features. The watershed highlighted in purple in the Identify Results box (or currently selected watershed) will be highlighted in blue and the other watersheds will be highlighted in red on the map

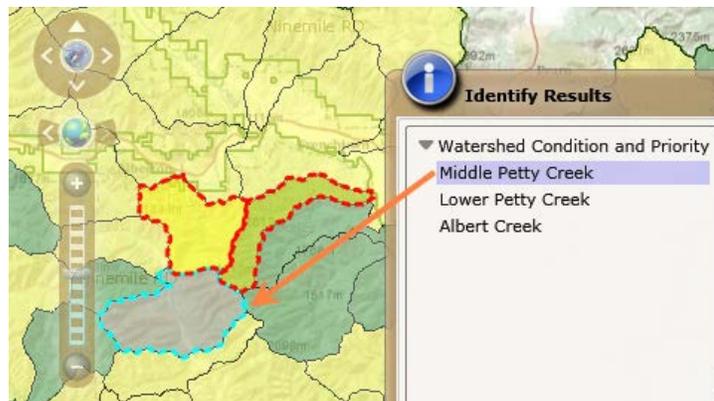


Figure 32: Identify Tool – Example of Multiple Watershed Selection

40. The Identify Results box can be resized by placing the cursor on the blue bar in between the watershed name and data, or on the outer area of the box. When the cursor changes to a double headed black arrow, click and drag to expand or contract the box.

41. Note: All Forest Service watersheds have **Watershed Condition** data. However, only those watersheds designated as Priority Watersheds (indicated by a black star in their center - see the map legend) have priority information to display.



42. **Priority Watersheds** are a subset of watersheds, equivalent to a 5 year plan of work, where the Forest plans to concentrate watershed restoration activities to show improvement in watershed condition. Priority Watershed data is displayed in three tabs: **Priority Selection** (why the watershed was selected), **Partners** (partners in restoration activities), and **Watershed Restoration Action Plan**. You can navigate between the tabs to view the priority data. On the Watershed Restoration Action Plan tab, you can also download the actual Watershed Restoration Action Plan (WRAP) by clicking the blue **Download** link towards the bottom of the box and a new internet browser will open with the WRAP.

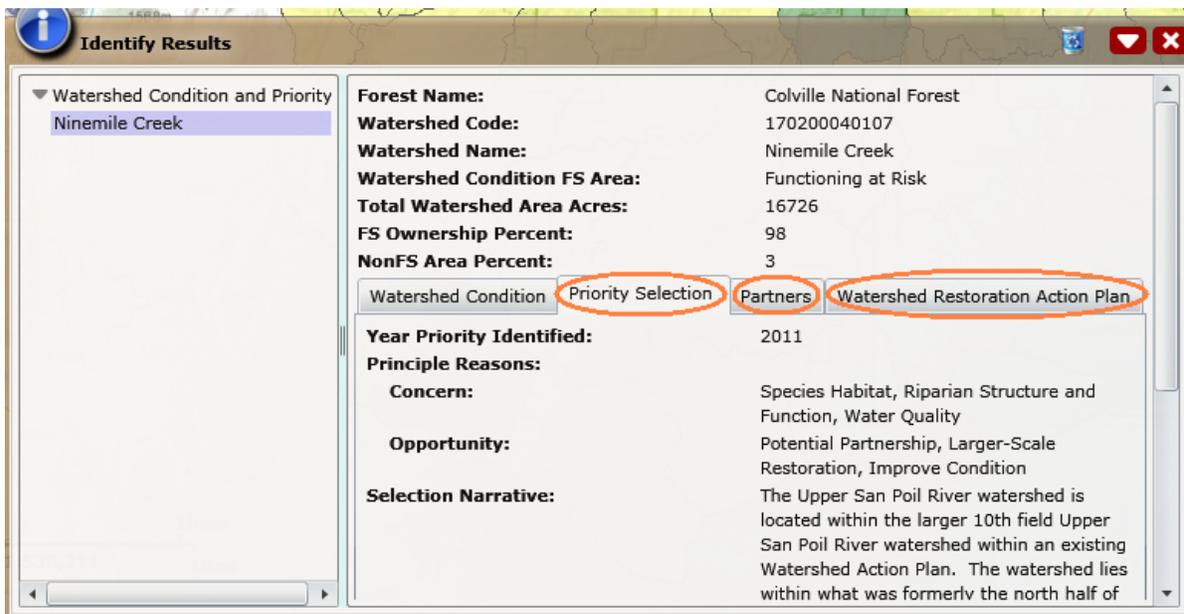


Figure 33: Identify Results - Example of Priority Designation Data

43. You can clear the Identify Results box by clicking the **Clear Graphics** button  at the top right of the box. When finished, you can either minimize the box (white arrow at top right) or close it (white X at top right).

Map Colors

44. The colors of the watersheds on the map are a result of the Forest Service Watershed Condition Assessment. This assessment represents physical and biological characteristics affecting soil and water. A reconnaissance-level evaluation of twelve indicators was completed at the sixth-level watershed scale using a simple score card approach. The resultant three classes relate to the level of watershed integrity:

Class	Condition	Map Color
Class 1	Functioning Properly	GREEN
Class 2	Functioning at Risk	YELLOW
Class 3	Impaired Function	RED

Figure 34: Watershed Condition Assessment and Map Colors



45. For more information:

- On the Forest Service Watershed Condition Classification approach, see: http://www.fs.fed.us/publications/watershed/watershed_classification_guide.pdf
- To download this application's mapping data, see: <http://www.fs.fed.us/publications/watershed/>
- Note: The mapping data is updated weekly on Sundays.

Closing the Map

46. Click the **X** on your Internet Explorer tab to close the application.

47. The next time you open the map, it should automatically “remember” where you were and open to the same location and map scale (zoom level).