WSDOT
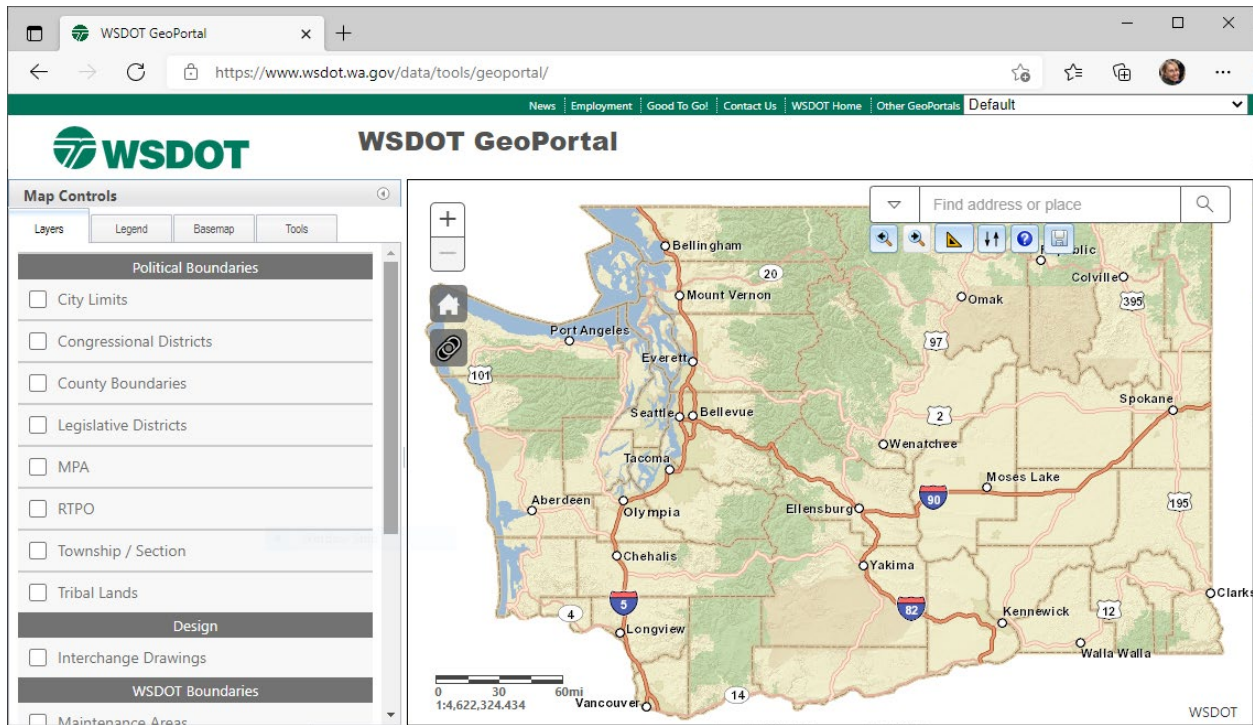# GeoPortal User Guide

Author: Julie Jackson, WSDOT GIS and Roadway Data Office (April 2022)

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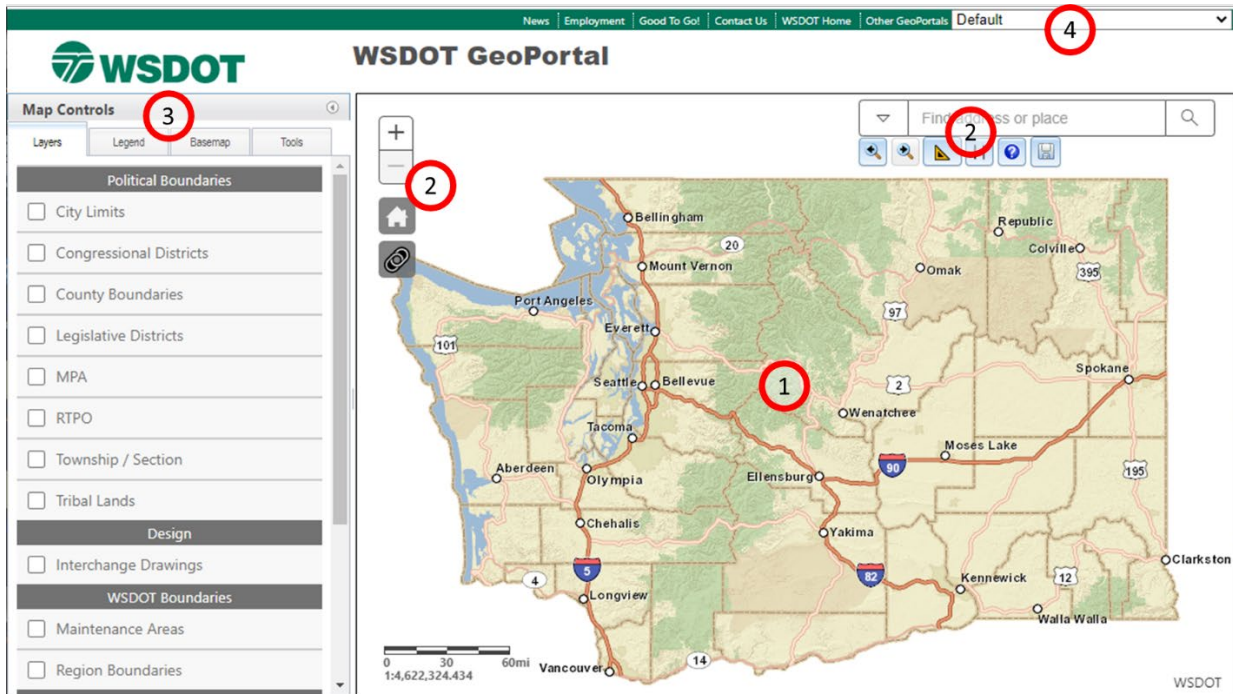
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Overview

The WSDOT GeoPortal is a browser-based map application that allows users to view spatial data, locate State Route milepost locations, and share base map information with others. This User Guide will help you learn to use the GeoPortal to display data, use the tools in the GeoPortal, and share GeoPortal maps with others.

The application website is: https://www.wsdot.wa.gov/data/tools/geoportal/

This User Guide will cover the 4 main elements of the GeoPortal:

1) Map Display
2) Map Tools
3) Map Controls
4) Map Theme Selection

Map display

The map display area is where you will see selected map layers displayed. As you make map layer selections or zoom in or out the map display will automatically update with the selected data layers. A scale bar and reference scale in the lower left corner of the display will help you estimate distances on the map.

Map Navigation Shortcuts
You can zoom and pan the map in the following ways:

- Drag the mouse to pan.
- Mouse Scroll Forward to zoom in.
- Mouse Scroll Backward to zoom out.
- SHIFT + Drag the mouse to zoom in.
- SHIFT + CTRL + Drag the mouse to zoom out.
- SHIFT + Click to recenter.
- Double Click to Center and Zoom in.
- SHIFT + Double Click to Center and Zoom in.
- Use arrow keys to pan.
- Use + key to zoom in a level.
- Use - key to zoom out a level.
- Zoom in and out using the zoom +/- buttons on the left side of the map.
- Home Icon: will return the map to full screen.

Map tools

Map tools are located around the perimeter of the map display area.

	Zoom in/zoom out
	Zoom to statewide extent.
	Click to update URL with map layer and extent parameters (for sharing with others)
	Zoom to previous extent
	Zoom to next extent
	Measure - Select the type of measurement (area, length, coordinates) and the units of measurement (e.g., acres, square mile, or hectares for an area measurement). Once you select the measurement type and the units, click on the map to sketch the

measurement. Quickly double click to finish your measurement sketch. The measurement result will appear in the measurement box in the units that you specified.

Arrange (re-order) layers – map layers are drawn in the order that they are listed on the Layers Tab (described below). The layer that is on top of the list draws on top of all of the layers below it. Use the Arrange Layers tool to open a list of layers, then click on a layer and drag and drop it in a new location on the layer list. The layer you select will now be "re-ordered" in the drawing order and will draw on top of (or below) the layers you choose.

Help (open the User Guide)

Export Graphics – Exports any map graphics that have been drawn on the Map Display to a GeoJson Feature Collection file.

Find address or place – click in the search box to type an address or location to zoom to. Click on the dropdown arrow to select a different type of search: Esri World Geocoder (provides the broadest search results), County (focuses on counties in Washington State), City (incorporated cities in Washington State), and Urban Areas in Washington State
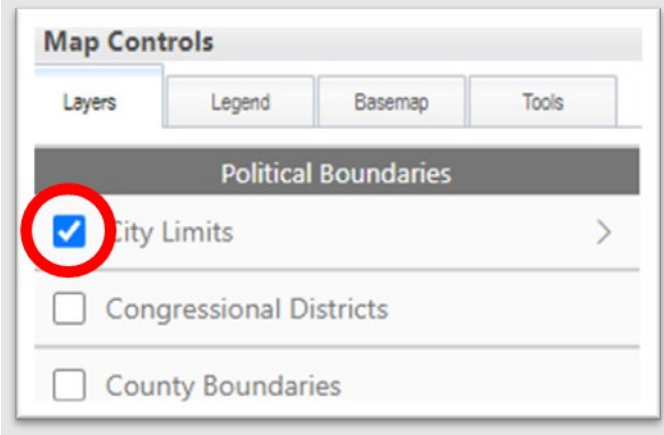
Map controls

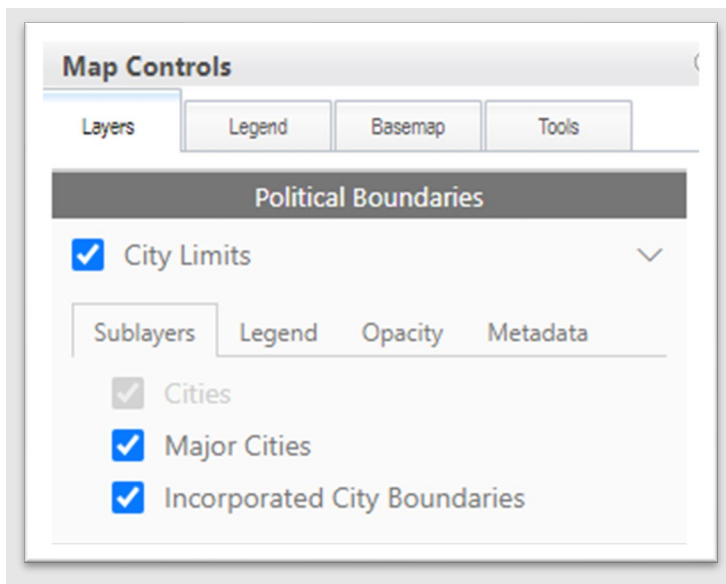Map controls are located on the left side of the application.

Layers Tab

Click on the Layers Tab to activate the tab.

Check on the box next to a map layer to make it visible in the map display.
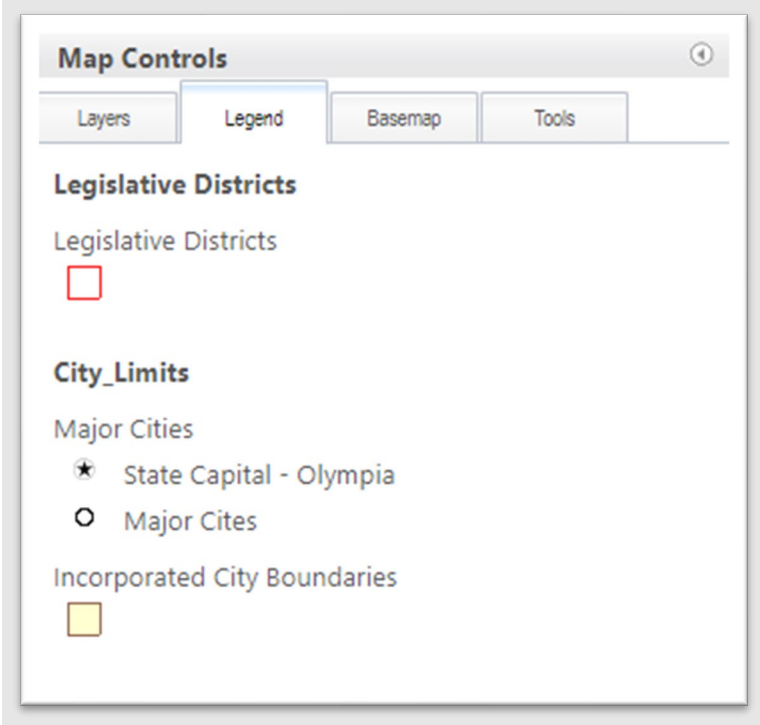
Once you have the box checked, you will see a newly activated layer options arrow on the right side of the window. Inside the Layer options window, you can: turn on/off sublayers, view the layers legend, adjust the layer's opacity (transparency), and read the layer metadata (information about how the dataset was developed).
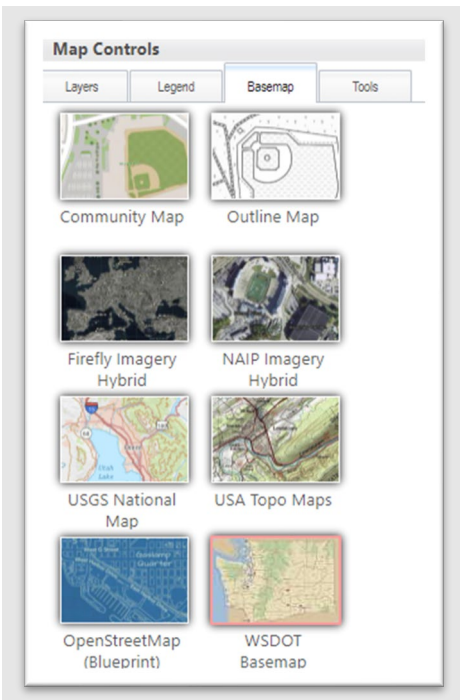

Legend Tab

When activated, the Legend tab displays the symbology for all active (visible) layers in the map view.

Basemap Tab

You can change the basemap displayed in the Map View by clicking on the Basemap Tab and clicking on a new basemap. For the most accurate representation of the Washington State Highway System, use the WSDOT Basemap.
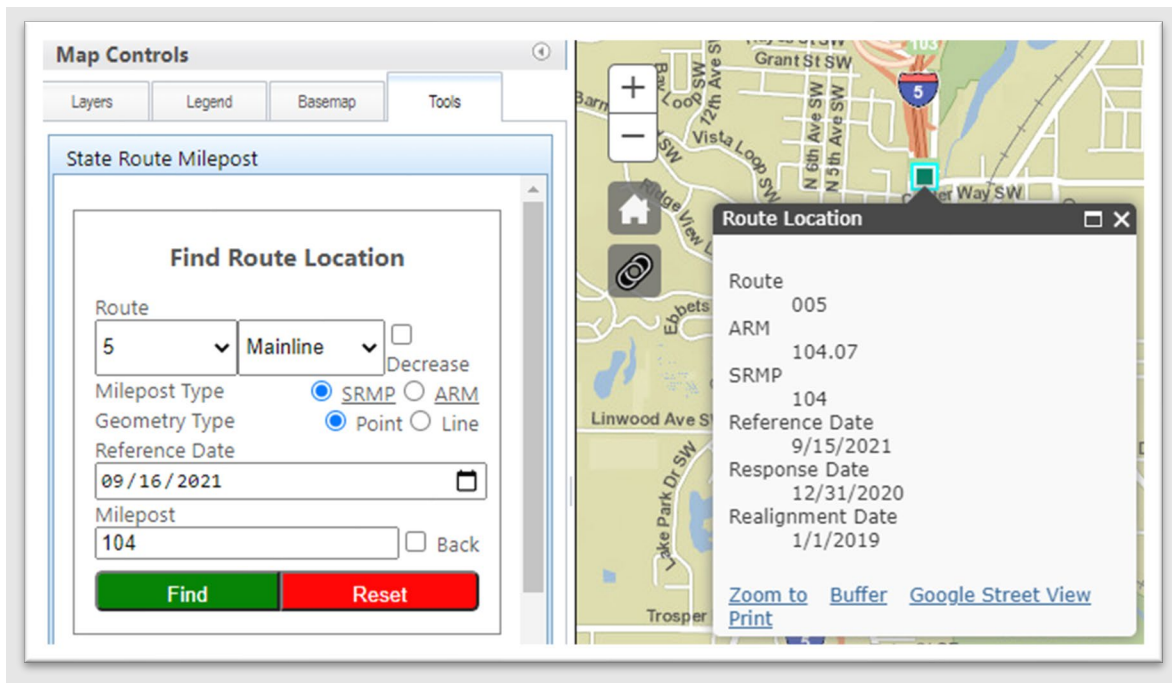
Tools Tab

There are four tools in the Tools Tab[1]: State Route Milepost, Zoom To, Buffer and Draw.
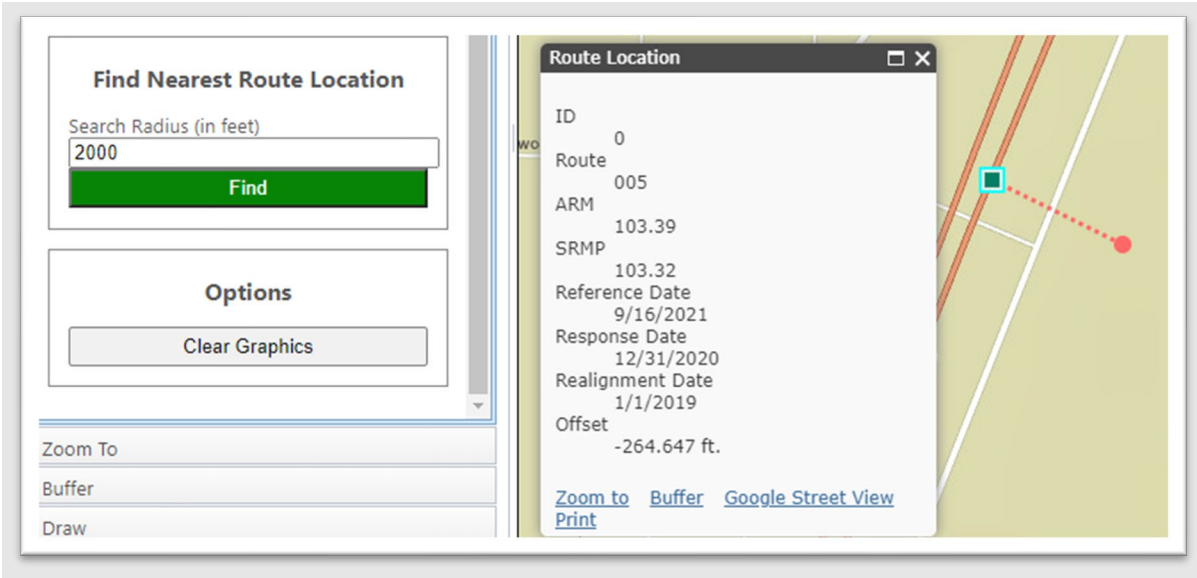
State Route Milepost

Find Route Location - type in a route number an ARM or SRMP, and a reference date[2]. Then, click on the Find Milepost button. The GeoPortal will place a graphic dot and a callout text box at the location that you specify. If the GeoPortal is unable to find your location it will return an error message.

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[1] Other versions of the GeoPortal (Airport, Functional Class, etc.) may not include these tools. The tools listed in this part of the User Guide apply to the basic "default" GeoPortal application.
[2] For further information regarding these fields please reference the Washington State Highway Log.

Find Nearest Route Location – specify a search radius and click on the Find button. Then click on the map to see the nearest State Route and Mile Post.
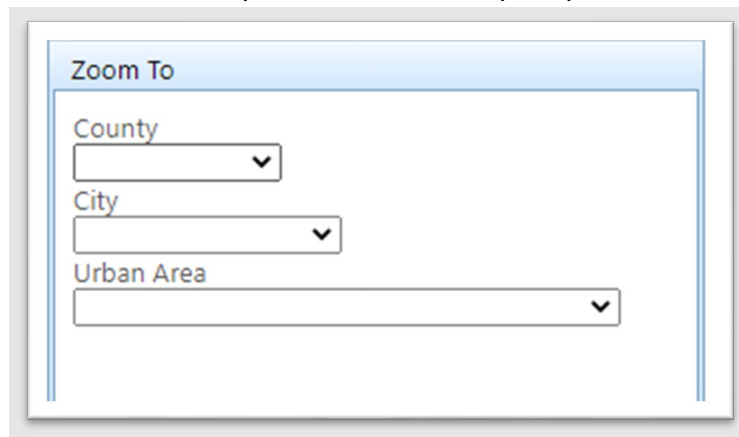

Clear Graphics – click on the clear graphics button to clear the graphics from map.

Pop Up Window - gives you a 'Google Street View' option for Find Route Location and an 'Offset' result value for Find Nearest Route Location. To close the pop-up window, click the X in the upper right corner of the pop up window.
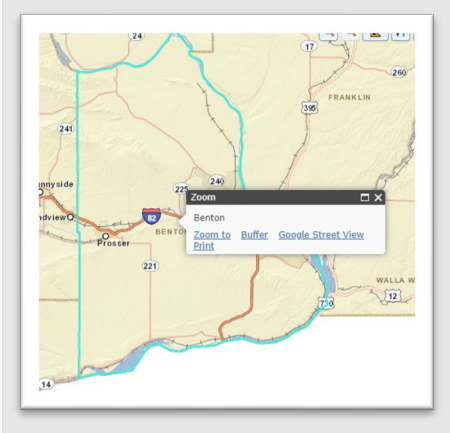
Zoom To

Choose from a dropdown list of County, City or Urban Areas in Washington State to zoom to.

When you select an area to zoom to, the map display will zoom to the selected area, outline the area, show a popup window that displays the name of the area, and provide links to Zoom To,

Buffer, Google Street View, and Print.

Clicking on the zoom to link will do nothing, since you have already Zoomed to the area.

Clicking on the buffer tool will activate the buffer tool in the Map Controls window. (This tool is described below).

Clicking on the Google Street View link will open a new browser window to the location that you searched for.

Print – this tool is currently returning an error. We will update the User Guide when this tool is working correctly.
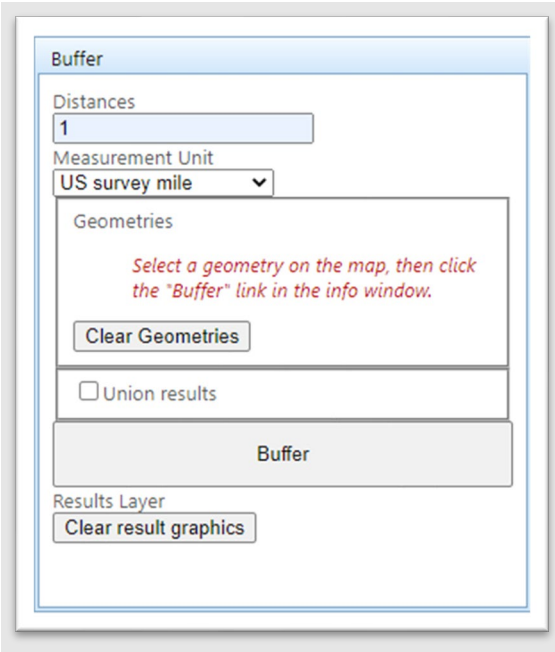
Buffer

The buffer tool can only be used, when the map contains a selected feature (for example, by using the Zoom To tool, or the State Route Milepost tool. You must either have a graphic (like a milepost extent) or a selected feature on the map. "Selected" features will be highlighted in light blue.

Once you have a graphic or a selected feature, enter a buffer distance and measurement unit into the Buffer window.

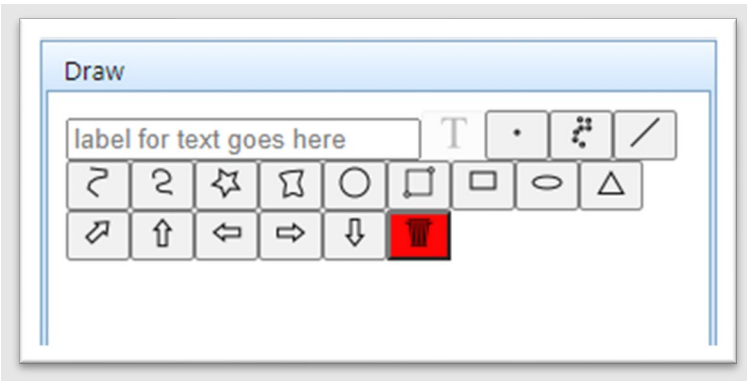Click on the **Buffer** button near the bottom of the Buffer tool window.

A buffer will appear around the shape that you selected.

To clear the shape, click on the **Clear Result Graphics** button in the Buffer window. You must click outside of the buffer area to see the result cleared.

Draw

The Draw tool selection allows you to sketch any shape on the map display.

To select a tool, click on the shape that you want to draw, then click on the map to begin drawing.

To delete a drawing, click on the red trashcan icon, or click on the shape to activate the popup window and select the **Delete** button.
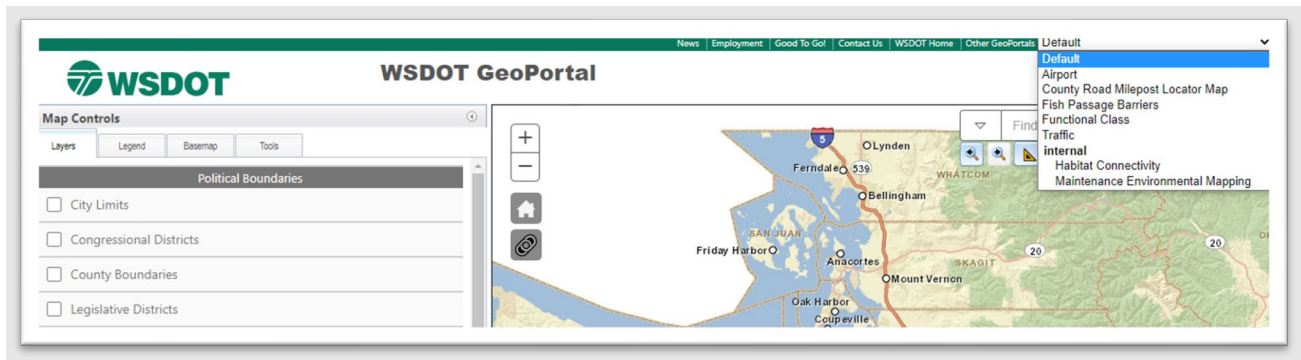
To buffer a drawing:

- draw the shape you want to buffer
- click on the shape to activate the popup
- click on Buffer in the popup to activate the buffer window
- specify the buffer distance and measurement units.

- click the **Buffer** button
- to clear the shape, click on the Clear Result Graphics button in the Buffer window.

Map themes

The GeoPortal has several "map themes" to choose from. Most are available to the public, and some are available to WSDOT staff only. You can switch between themes by selecting from the dropdown list in the upper right corner of the window. Each map theme is designed to serve a specific audience, and for that reason, may have a slightly different collection of map layers and tools. The section below highlights some of the key features within each theme.
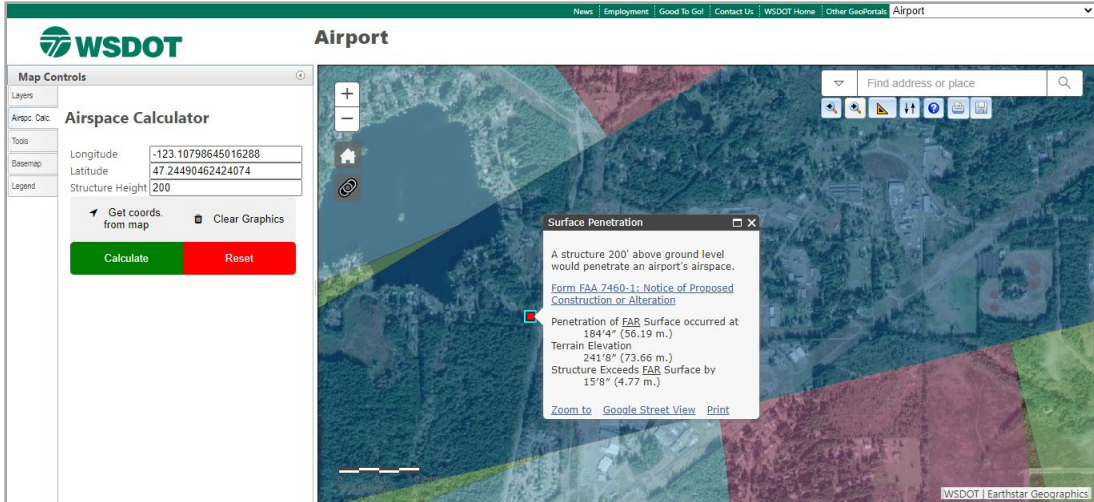

Public Themes

Default – This is the standard view. Everything that you have read so far in this User Manual refers to this theme.
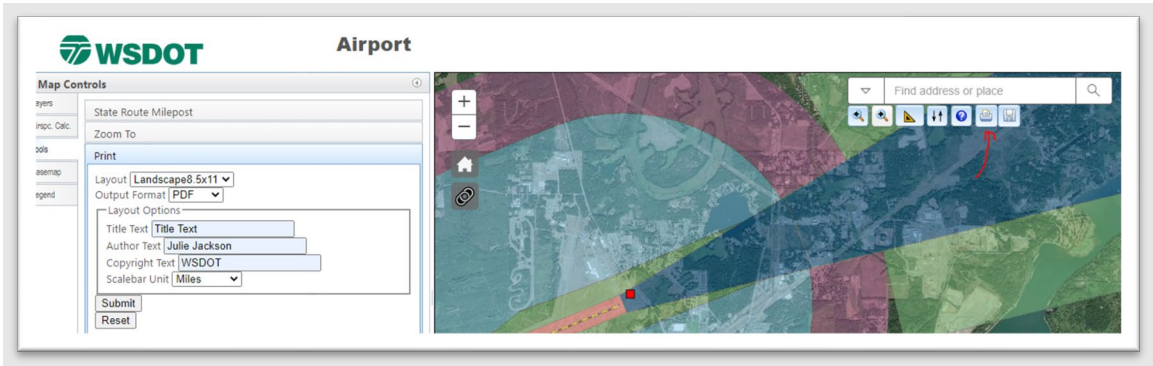
Airport

> **Overview**: Intended for Airport Managers, this theme has data layers and tools that are specific to the aviation planning.

> **Custom Tools**: The Airport GeoPortal has a custom tool (on the Airsp. Calc tab) that allows users to select a location on the map – either by clicking on the map or entering a Latitude/Longitude coordinate – and the proposed height of a structure. The tool will calculate if the proposed structure intersects any existing airspace features. If an intersection exists, a popup will show exactly how much of the proposed feature intersects the airport's airspace, and a link to Form FAA 7460-1 (Notice of Proposed Construction or Alteration) will be provided.

The Airport GeoPortal also has a custom print option that allows users to select from a wide range of large format prints (from 8.5" x 11" up to 34" x 44").

County Road Milepost Locator Map

Overview – The County Road Milepost Locator Map (GeoPortal) allows users to search for and zoom to locations based on the county road ID and milepost extent.

Custom Tools -

Located on the Tools tab, the County Road Milepost Locator map allows users to:

- Zoom in close to see the County Road Number (Zoom to a county via the search box to make the CRAB routes visible not all roads are CRAB Routes)
- Click on a County Road to see the County Road Number
- Specify a County, County Road Number and milepost extent to see the location on a map.

Functional Class

> **Overview** – The Functional Class GeoPortal is primarily used to view Federal Functional Class code for State and Local (e.g., County and City-owned) roads.

> **Custom Tools** – None.

WSDOT Themes (available to WSDOT users)

Habitat Connectivity

> **Overview** – WSDOT uses tactics such as wildlife fencing, crossings, and median barriers to encourage animals to stay off highways. The WSDOT Habitat Connectivity GeoPortal helps WSDOT staff plan for and monitor habitat connectivity structures.

> **Custom Tools** – The popups for the habitat connectivity layers contain links to photos associated with each structure. There is also a print tool which allows the user to print to a variety of outputs.

Maintenance Environmental Mapping

> **Overview** - The Maintenance Environmental Mapping GeoPortal is intended to be used for internal WSDOT use in guiding regulatory compliance and other general planning purposes only and is not suitable for site specific engineering uses.

> **Custom Tools** – There is a print tool which allows the user to print to a variety of outputs.