



Colorado Wildfire Risk Viewer

User Manual

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Welcome to the Colorado Wildfire Risk Viewer User Manual

Whether you're a novice or advanced user, this documentation should cover almost everything you need to know about using the application.

Getting started with the Colorado Wildfire Risk Viewer is easy and it won't take long to learn the basics, but if you need any help or just want to find out more about a particular feature, then this manual is for you.

If you have further questions or need additional support, please contact us directly using the contact page on the Colorado Forest Atlas portal website.

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Welcome Screen



Wildfire Risk Viewer splash screen

When the Wildfire Risk Viewer loads, the above welcome screen appears on the screen. The welcome screen provides a brief introduction to the application, explaining the application's primary use, as well as, the primary tool of the application, the Identify Your Fire Intensity Rating tool.

The welcome screen will automatically cycle through a series of Colorado fire facts. This is intended to help the public user gain awareness of the historical fire conditions in Colorado.

Click on the *Open Disclaimer* button to read the application's Disclaimer. Once you have read the Disclaimer, click the *I Accept* button to start using the Wildfire Risk Viewer.

Getting Started Tour



Wildfire Risk Viewer Getting Started Tour pop up.

Once you have accepted the application’s disclaimer and dismissed the welcome screen, you will be presented with a Getting Started Tour. The purpose of this tour is to provide you with a brief introduction to the application’s layout and where you can find and access the application’s tools and toolboxes.

You can close or skip the Getting Started Tour at any time by clicking *Skip Tour*. You can also access the Getting Started Tour at any time by opening the Getting Started toolbox and clicking the *Take a Tour* button.

Application Bar



Wildfire Risk Viewer Application Bar.

The Application Bar is located at the top of the screen of the Wildfire Risk Viewer. This is where you will find links to the Colorado Forest Atlas website (located in a drop down when you click on the 3 dots icon), access to map tools for the application and the ability to hide and show the left sidebar.

The links to the Colorado Forest Atlas website are:

- Home
- Support
- Contact

The map tools included in the application bar are:

- Swipe Tool
- Measure Tool
- Identify Tool
- Legend

Note: The Map Tools section will outline how to use the above map tools.

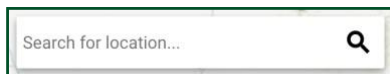


To show and hide the left side bar, click on the 3-line menu icon located on the far left-hand side of the application bar.

Navigating the Map

There are several ways to navigate around the map. You can zoom to a specific location by entering an address in the search bar located in the top right-hand corner of the map, or you can manually zoom around the map using the zoom controls, or your mouse. You can also zoom to your current location.

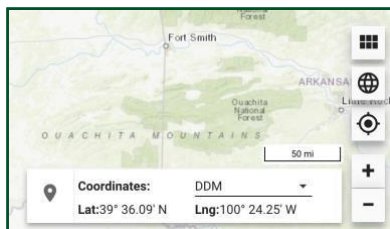
Navigating to a Specific Location



Wildfire Risk Viewer search bar.

Using the search bar, enter an address or place name that you would like to navigate to. All places matching that location will be listed in a panel that appears below the search bar as you type. Click on any of the results to zoom on the map to that location. The location will be identified on the map by a green dot.

Zooming and Panning the Map



Wildfire Risk Viewer Map Navigation Tools

There are a few ways to zoom and pan around the map. The first way is to use the zoom in/out (+ and -) buttons located in the bottom right-hand corner of the map. These will zoom in and out on the center of the map.

The second option is to use your mouse. The mouse controls are as follows:

- Pan – Left click and drag the map
- Incremental Zoom – Use the mouse center scroll wheel to zoom in and out
- Zoom in & Center – Double left click the map

Zoom to Full Extent



Wildfire Risk Viewer Full Extent button.

You can zoom to the original full extent of the map by clicking the mesh globe icon, located in the bottom right corner of the map.

Zoom to My Location

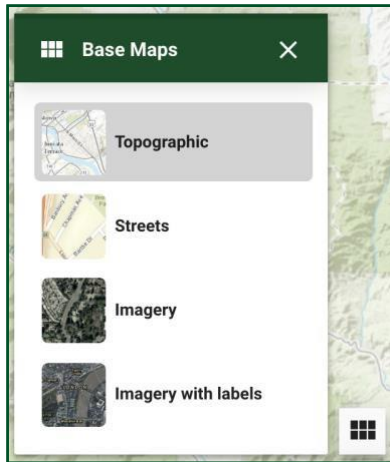


Wildfire Risk Viewer Zoom to My Location button.

You can zoom to your current location by click the GPS crosshairs icon, located in the bottom right hand corner of the map. This will zoom and center the map on your location.

If you have not done so already, the first time you use this tool the browser will prompt you for permission to use your location. Please allow this permission in order for the Zoom to my Location tool to work properly.

Selecting a Base Map



Wildfire Risk Viewer base map button and pop up.

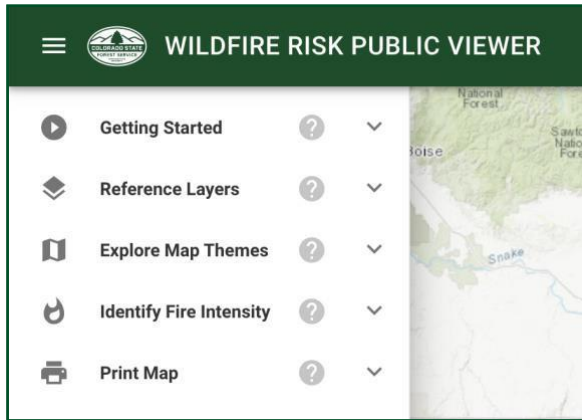
You can view different base maps with the wildfire risk layers. To select or change a base map, click on the base maps icon located in the bottom right corner of the map. A pop up will appear containing the available base maps.

The selected/active base map will be highlighted by a grey background. To dismiss the base maps pop up, click the X located in the top right hand corner.

A few options exist:

- Topographic
- Streets
- Imagery
- Imagery with Labels

Left Sidebar and Toolboxes

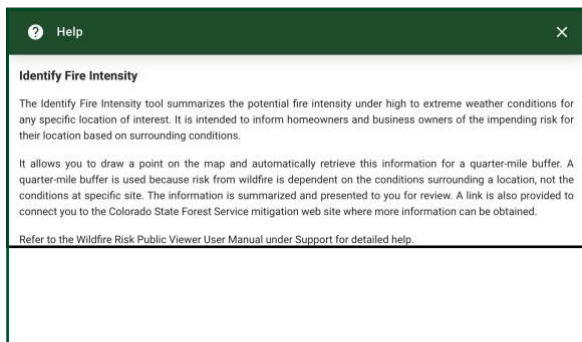


Wildfire Risk Viewer left sidebar with toolboxes.

The toolboxes available for the Wildfire Risk Viewer are on the left side of the map located inside the left sidebar. You can show and hide the left sidebar by clicking on the menu icon located in the application bar. Click on the toolbox title to expand that section.

When a toolbox is open, the icon next to the toolbox title will turn gold. To close or collapse a toolbox, click on the toolbox title again.

Toolbox Quick Help



Wildfire Risk Viewer Quick Help pop up.

Each toolbox has a Quick Help pop up to introduce you to that specific tool and provide a brief explanation as to what that tool does. To open a Quick Help pop up, click on the question mark icon to the right of the toolbox title.

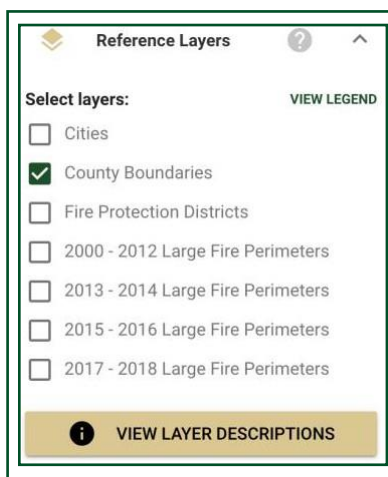
Map Layers

The Map Layers found in the Colorado Wildfire Risk Viewer allow you to view key maps associated with the Colorado Wildfire Risk assessment.

Map layers are organized into the following toolboxes:

- Reference Layers
- Explore Map Themes

Selecting Reference Layers



Wildfire Risk Viewer Reference Layers toolbox.

The primary purpose of the Reference Layers is to provide supporting map layers or reference information for viewing in conjunction with the risk assessment maps. Use the check boxes to show or hide these layers. You can display more than one reference layer at a time.

The available Reference Layers include:

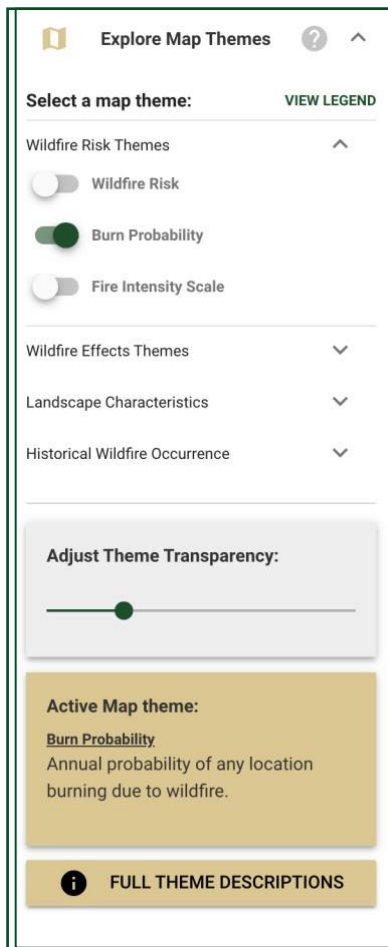
- CSFS Field Offices
- CSFS Areas
- Cities
- County Boundaries
- Fire Protection Districts
- 2000 – 2012 Large Fire Perimeters
- 2013 – 2014 Large Fire Perimeters
- 2015 – 2016 Large Fire Perimeters
- 2017 – 2018 Large Fire Perimeters
- 2019 – 2020 Large Fire Perimeters

- Social Vulnerability Index

To view a description of the Reference Layers, click the *View Layer Descriptions* button. This will open a PDF in a new tab containing descriptions for all Reference Layers.

Click the *View Legend* button to see the map legend.

Selecting Map Themes



Wildfire Risk Viewer Map Themes toolbox.

Map Themes are organized into layer groups. The groups are as follows:

- **Wildfire Risk Themes** – This group contains the primary risk assessment results
- **Wildfire Effect Themes** – This group contains the key fire effects derived for the risk assessment
- **Landscape Characteristics** – This group describes Colorado landscape characteristics
- **Historical Wildfire Occurrence** – This group contains maps for all historical

wildfire ignitions

- **2020 Forest Action Plan** – This group contains layers relevant to the 2020 Forest Action Plan

The Map Themes are considered “active” map layers. They are called “active” layers because you can only view one map theme at a time – the one that is “active” or selected. To activate a map theme, click on the toggle switch located to the left of the layer you want to view. The switch will turn green to indicate which map theme is turned on. If you turn on a different map theme, the existing map theme will be automatically turned off.

Once a map theme is selected, it will display on the map and a short description will display in the Active Map theme box. You have the option to view a more in-depth description for the active map theme, as well as the other available map themes by clicking on the *Full Theme Descriptions* button. Similar to the Reference Layers, this will open a PDF in a new tab containing all theme descriptions.

You can adjust the transparency of the selected theme by using the Transparency Slider. This may be necessary to view the underlying base map.

Click the *View Legend* button to display the legend.

Identify Fire Intensity

The Identify Your Fire Intensity Tool (previously the What’s Your Risk Tool) provides the capability to select a location on the map and calculate the potential fire intensity for that location. It is intended to inform homeowners and business owners of the risk for their location based on surrounding conditions.

You can use the search tool to enter in a specific address and zoom to that address, or manually click on a location on the map.

The tool will provide a description of the fire intensity potential based on the conditions within the general vicinity of the location you define. Basic recommendations are also provided for preparedness. To obtain more detailed information, it is highly recommended you contact a qualified local mitigation planner. A link is provided to connect you to the Colorado State Forest Service mitigation website where more information can be obtained.

The tool uses the Fire Intensity Scale (FIS) layer to determine the potential fire intensity for the specified location. FIS quantifies potential fire intensity based on high to extreme

weather conditions, fuels, and topography. It is similar to the Richter scale for earthquakes, providing a standard scale to measure potential wildfire intensity by magnitude. FIS consist of five classes where the order of magnitude between classes is ten-fold. The minimum class, Class 1, represents very low wildfire intensity and the maximum class, Class 5, represents very high wildfire intensity.

Class 1 (Lowest Intensity)	Class 2	Class 3	Class 4	Class 5 (Highest Intensity)
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To ensure that FIS provides a rating that not only considers the specific location defined by the user, but also incorporates risk for the surrounding area, further modeling was undertaken that utilizes a decay function to calculate risk for any given location. A 0.25 mile buffer was used, with values closer to the user defined location weighted higher than those farther away. This results in a value that considers the risk around any location, not just the value at the specific location. This value is returned in the results of the Identify Fire Intensity tool.

FIS data is modeled at 30-meter resolution. Accordingly, while this is accurate enough to provide general ratings, it is not appropriate for site specific recommendations. For site specific advice, please contact a local mitigation planner for help as they can incorporate local conditions not available in the risk assessment scale of data.

Follow the steps below to generate a summary:

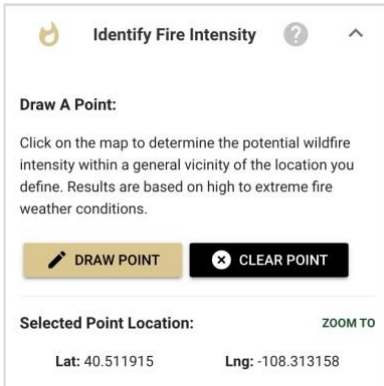
1. Location of Interest

Identify a specific location of interest, such as your house or place of work. You can use the address bar to search for a specific location or use the general zoom tools to manually zoom and pan the map.

2. Explore Map Themes

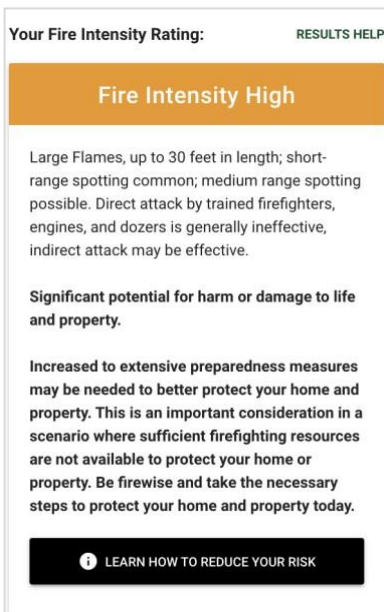
Once you have found your location of interest, you can use the Explore Map Themes tool to view the Fire Intensity Scale layer. Expand the Explore Map Themes toolbox and select the Fire Intensity Scale layer to view it. By default, the Fire Intensity Scale layer will be turned on when you open the application.

3. Identify Fire Intensity



Wildfire Risk Viewer Identify Fire intensity toolbox.

Open the Identify Fire Intensity toolbox. Click the *Draw Point* button to enter drawing mode, and then click on the map for the location you would like to select. Click *Finish Drawing* to exit drawing mode. The latitude and longitude of the selected location will be displayed in the Identify Fire intensity toolbox.



Wildfire Risk Viewer Fire Intensity Scale Summary for Identified Location

A summary will automatically be generated. This summary will appear at the bottom of the Identify Fire intensity toolbox.

If you navigate away from the location on the map, you can click the *Zoom To* button to quickly zoom back to the identified location.

If you would like to add a new location, click the *Clear Point* button to clear the map. Then draw another point on the map.

4. Reduce Your Risk

Follow the link, by clicking the *Learn How to Reduce Your Risk* button to find out more about prevention and mitigation options for homeowners, or to contact your local Colorado State Forest Service mitigation planner.

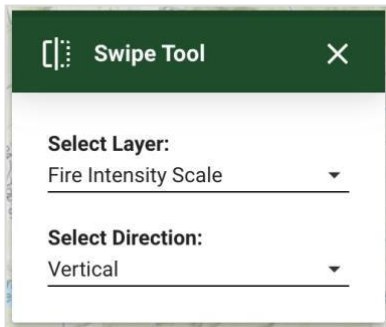
Map Tools

Tools are provided that allow you to view and explore the map layers in more detail.

These include:

- **Swipe** – Use this tool to visually compare two layers by choosing a layer to swipe over the top of the active layer
- **Measure** – Use this tool to measure the distance or area/perimeter on the map
- **Identify** – Use this tool to show the values of several map layers for a specific user defined location
- **Coordinates** – Use this tool to show the current coordinates of the mouse pointer or the coordinates of a user-defined point on the map
- **Legend** – Use this tool to identify and become familiar with the symbology and visual colors of each map layer

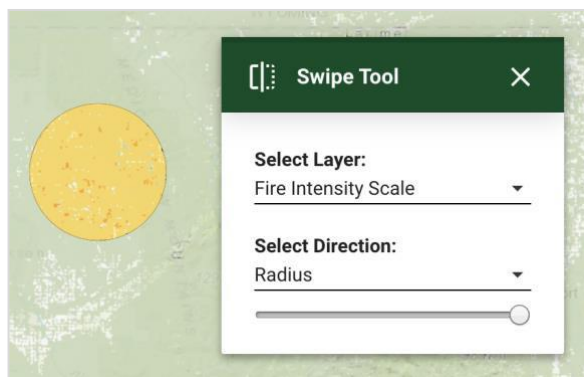
Swipe Tool



Wildfire Risk Viewer swipe tool pop up.

Click the *Swipe Tool* button in the application bar to activate the tool. The Swipe Tool can be used to compare one map theme with another. The “bottom” layer is the active layer selected in the Explore Map Themes toolbox. The “swipe” layer is the layer selected from the Swipe Tool dropdown menu.

When the Swipe Tool is first initiated the Select Layer dropdown will be empty. Selecting a “swipe” layer from this dropdown will activate the swipe mouse control. A line with an arrow will appear on the map that follows your mouse cursor. Move your mouse cursor around the map to swipe on and off the “swipe” layer that is on top of the “bottom” layer.

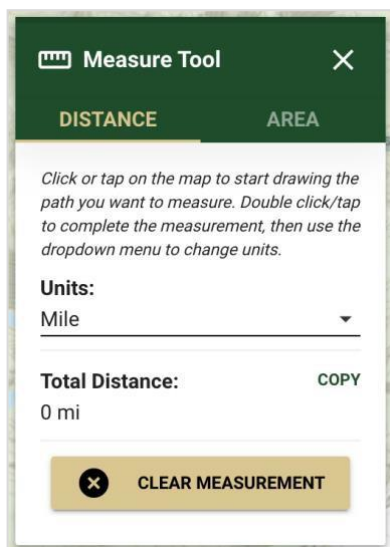


Wildfire Risk Viewer Swipe Tool pop up – Radius option selected.

The “Select Direction” dropdown allows you to choose the swipe direction: vertical, horizontal or radius. If you select “Radius”, a circle will appear around your mouse cursor. Inside of this circle is where the “swipe” layer will appear. You can adjust the size of the circle by using the radius slider in the Swipe tool pop up.

To deactivate or close the Swipe Tool, click the X in the top right-hand corner.

Measure Tool



Wildfire Risk Viewer Measure Tool pop up.

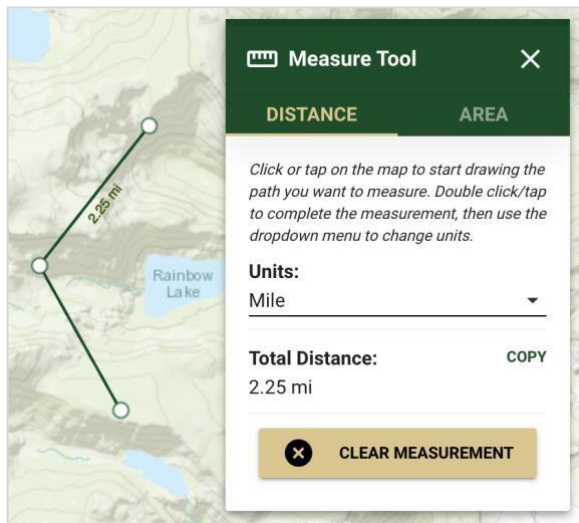
Click the *Measure* button in the application bar to activate the tool. The measurement tools allow you to measure distance or area on the map. When the measurement tool is open you are automatically in “drawing mode” where you can start clicking on the map to measure. To select whether you want to measure distance or area, use the tabs in the Measure Tool pop up. The active tab will be highlighted in gold.

You can copy the measurement results by clicking the *Copy* button. After pressing Copy, you may paste this information into another application, such as a text editor.

If you make a mistake while drawing the measurement or want to clear the map, you can click the *Clear Measurement* button. This will remove the drawn measurement from the map and resets the measurement values to 0.

To deactivate or close the Measure Tool, click the X in the top right-hand corner.

Distance



Wildfire Risk Viewer Measure Tool and distance measurement on the map.

To measure the distance, select the *Distance* tap in the Measure Tool. Use the Units dropdown to select the units it which you want the measurement to be displayed.

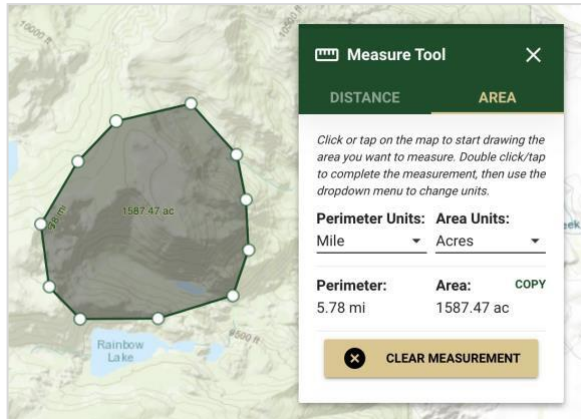
To start drawing a measurement, click on the map. You can draw a single line or draw one line with multiple vertices.

To finish the measurement and stop drawing, double click when you draw your final point.

To edit your measurement, hover over one of the vertices or on the line. A blue dot will appear indicating that you can click and drag to edit.

Displayed units can be changed at any time.

Area



Wildfire Risk Viewer Measure Tool pop up and area measurement on the map.

To measure the area, select the *Area* tab in the Measure Tool. Use the Units dropdowns to select the units in which you want the measurement to be displayed.

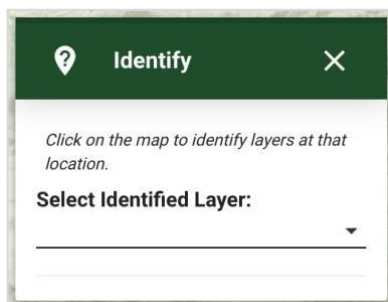
To start drawing a measurement, click on the map.

To finish the measurement and stop drawing, double click when you draw your final point.

To edit your measurement, hover over one of the vertices or on the line. A blue dot will appear indicating that you can click and drag to edit.

Displayed units can be changed at any time.

Identify Tool



Wildfire Risk Viewer identify Tool pop up.

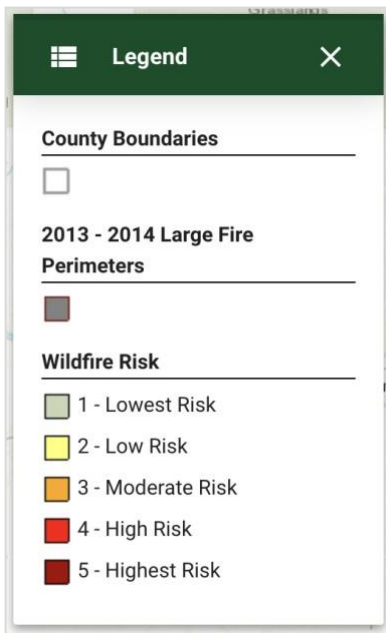
Click the *Identify* button in the application bar to activate the tool. Use the Select identified layer dropdown to select the layer you would like to identify.

Note: Only layers that you have turned on in the Reference Layers or Map Themes toolboxes will be available in the Identify Tool.

Once you have selected a layer, click a location on the map. The identify Tool pop up will display any available information for the clicked location.

To deactivate or close the Identify Tool, click the X in the top right-hand corner.

Legend

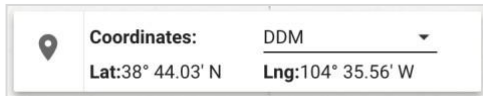


Wildfire Risk Viewer Map Legend pop up.

Click the *Legend* button in the application bar to activate the tool. You can also activate the tool by clicking the *View Legend* buttons in the Reference Layers and Explore Map Themes toolboxes. The legend will be auto populated based on the layers you have active.

To deactivate or close the Legend Tool, click the X in the top right-hand corner.

Coordinates Tool



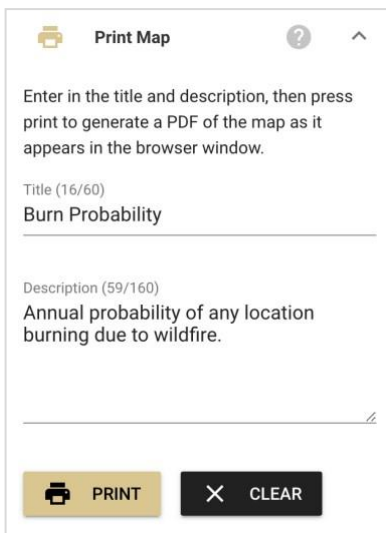
Wildfire Risk Viewer Coordinates Tool.

The Coordinates Tool is always visible. It is located in the bottom right hand corner of the map. The tool can be used to show the current coordinates of the mouse pointer or the coordinates of a user-defined point on the map.

By default, the Coordinates Tool will show the coordinates of your mouse cursor. You can change the format in which the coordinates are displayed by clicking on the dropdown inside the tool.

To get the coordinates for a specific location on the map click on the map pin icon to turn on selection mode (icon will turn green) and then click on the map. The selected point will be identified by a green dot on the map and the coordinates will be displayed in the Coordinates Tool. To turn off the selection mode, click on the map pin icon again.

Print Map



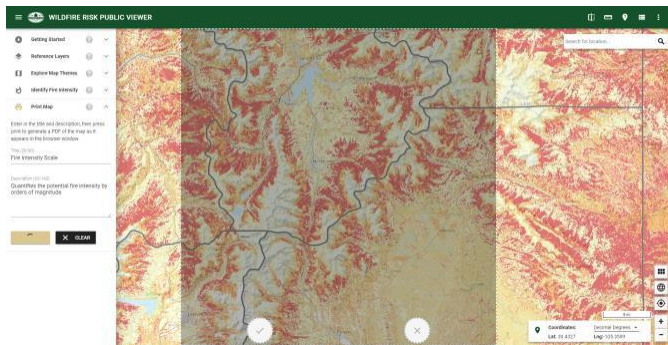
Wildfire Risk Viewer Print Map toolbox.

The Print Map tool allows you to create a simple map matching the contents of your browser. The map is created as a PDF and is available for download. You can enter a Title and Subtitle for the map to customize it. By default, the title and subtitle use the Active Map theme title and description.

Colorado State Forest Service

Press Clear to clear the default text provided. Press Print to generate the PDF document.

When you press Print, you will be prompted on the map to edit and confirm which area of the map is captured. You can pan and zoom the map to make sure your area of interest is captured. Once you are satisfied with the area being captured, click the checkmark. The PDF then be generated. A notification will appear in the bottom left hand corner of the screen when the PDF is ready for download. The PDF will be opened in a new browser tab where you can view and save the file.



Wildfire Risk Viewer Print map area selection.