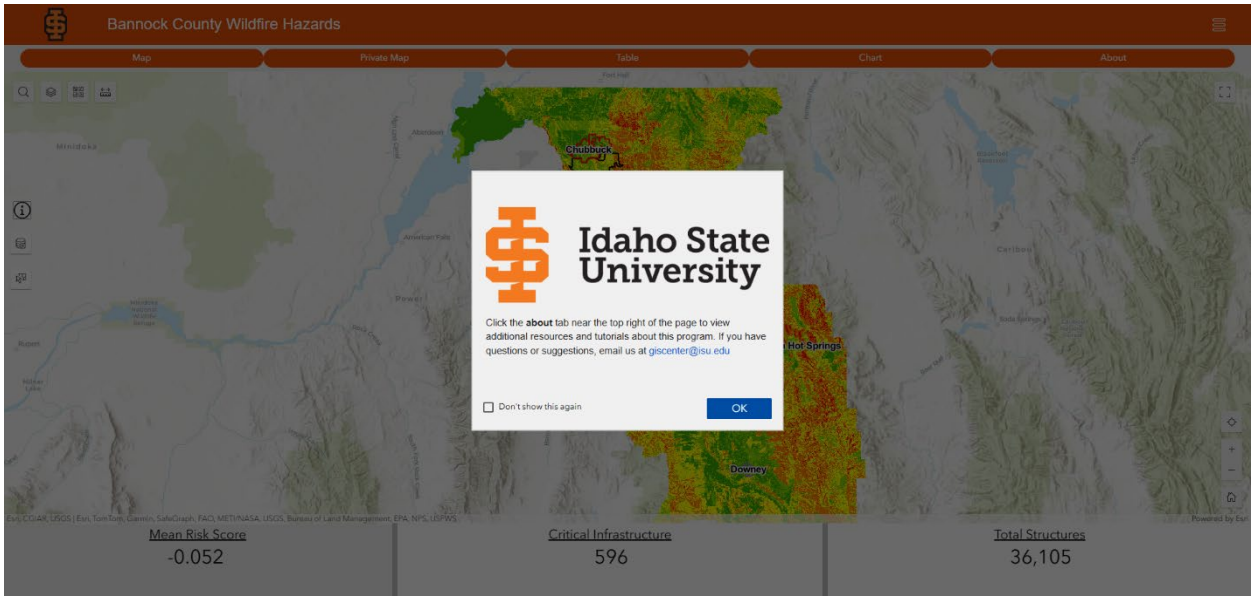
USING THE BANNOCK COUNTY HAZARDS WEB MAP SITE

This tutorial is designed to acquaint you with the Hazards web map site for Bannock County, Idaho. We recommend taking the time to complete this tutorial before an emergency arises so you are able to fully use its capabilities. In addition, we welcome your input and ideas to make this site better able to support your emergency management decisions.

1. Let's begin with a tour of the Bannock County Wildfire Hazards Experience graphical user interface (GUI).
    a. Launch your web browser and navigate to: https://tinyurl.com/BannockBRIC[1]
    b. Once the site launches, you will see a screen similar to the figure below.



    c. In the middle of the screen is an informational splash screen. The splash text can be closed by clicking the OK button (NOTE: you can turn off the splash screen permanently by clicking the Don't show this again checkbox. We do not recommend this as important changes/notes will be displayed on the splash screen)
    d. Across the top of the screen is the title bar (Bannock County Wildfire Hazards)
    e. Below the title bar are five navigation tabs.
    f. Using the navigation tabs, you can access the Map (the default tab), Private Map, Tables, Charts, and the About tab.

       NOTE: The Private Map contains the same layers as the main Map plus additional layers that are not allowed to be shared publicly.

2. Let's dig into the main map as there are many tools you can use.
    a. There are two areas on this page, (1) the web map area and (2) the statistics ribbon along the bottom of the screen.
    b. You can zoom into and out of the web map using the mouse wheel or the +/- zoom buttons in the lower-right corner of the web map area  .

[1] The full URL is https://experience.arcgis.com/experience/bce7dfb74848474f904c484fd4335c44

c. Alternatively, you can pan around the web map area by clicking and dragging the mouse cursor inside the web map.
d. Near the top left of the web map is a set of basic web map tools. The set contains the search, layers, base map, and measure tools. These tools will be addressed later in the tutorial.
e. On the left side of the web map is a second set of specialized tool buttons (Information, Add Data, and Select.).
f. The statistics grid generates the statistics relative to the current extent of the web map area. Try zooming into the web map to see these statistics change.

Now that you are familiar with the GUI, the capabilities and functions of the Wildfire Hazards Experience can be explored.

3. Search Tool 
    a. To use the search tool, simply click the search tool, then type in a real address.
    b. Try typing in **921 S 8th Ave, Pocatello, ID, 83201, USA**
    c. You should now see your web map area zoomed into the Idaho State University campus in Pocatello.

4. Layers Tool 
    a. The most important tool is the Layers tool. Find it in the upper left corner of the map area and click it
    b. This tool allows you to select what layer(s) are visible on the map.
    c. Within the Layer tool, there are layers and layer groups. The layer groups can be expanded by selecting the arrow to the left of the layer group. An example of a layer group is Topography. Within this group you will find several layers such as Contours and Hillshade.
    d. To make a layer within the layer group visible on the map, both the layer and its layer group must be visible  . Other layers within the same layer group can be turned off 
    e. Try experimenting with layers and layer group visibility to make sure you understand how this works.
    f. Another important note is the draw order for these layers. That is, the draw order is from top to bottom. Layers above other layers (as shown in the layers tool list) will draw over each other. This means that a county-wide polygon layer may be drawn over a line or point layer and as a result, you will not be able to see the point or line layers even if both layers are set as visible. To fix this, **you may need to turn off one layer to see another**.

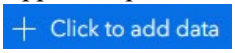
5. Basemap Tool 
    a. The basemap tool allows you to change the background map to any other that you prefer.
    b. Examples include: Imagery, Imagery Hybrid, and Community Map.

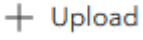
6. Measure Tool 
    a. After selecting the measure tool, simply click two different points on the map to approximate distance.
    b. To end measuring at a specific point, double click the end point.
    c. Alternatively, you can select the other tab in the measure tool popup in which you can add more than two points to measure along a curved line or area (NOTE: To close the desired area, double click the ending point).

Next, let's look at the more specialized tools shown along the left side edge of the map area.

7. The Information button  displays a pop-up screen describing how to use the Select tool.
8. Add Data Tool 
    a. The add data tool allows you to add your own spatial data layers to the map, whether these data are located on ArcGIS Online (AGOL) or on your own computer.
    b. The supported formats for uploading files from your computer are: a zipped shapefile, CSV, KML, GeoJSON, GPX.
    c. To learn how this works, download our sample data: https://giscenter.isu.edu/research/Techpg/FEMA_BRIC/zip/WestClark.zip
    d. Once this ZIP has been downloaded, you do not need to extract it. In fact, the easiest way to add spatial data to the map is to ZIP a shapefile.

> When creating your own ZIPPED shapefile, you need to include all the file pieces that make up a shapefile. For example, to ZIP the `Flood_Area` shapefile, you need to add all Flood_Area files to the ZIP file. Those files will include `Flood_Area.shp, Flood_Area.shx, Flood_Area.dbf, Flood_Area.prj`, and any other `Flood_Area.*` files as well.
>
> Zipping a shapefile is best done using Windows File Manager.

    e. To upload this zipped shapefile from your computer, click the Add Data button
    f. Next, click the 

button.
    g. Click the File tab
    h. Then click the 

button. This will open up your file manager.
    i. Select the previously downloaded zip file and click open.
    j. Click Done
    k. To view this layer on the map, click the action button  from the Add Data window.
    l. In the Actions Selection fly-out menu, click Add to Map.

    NOTE: data you add to the map cannot be seen by other users on other computers and will not be saved to the web map.

    m. What type of layer was added to your map? HINT: You can click on the shaded polygon to view its pop-up information.

9. Select Tool was designed to work with the layers found within the Infrastructure Layer group.

   NOTE you can only select features from visible layers.

   a. To use the select tool, click the select tool button on the left side of the screen.
   b. Next, choose the layer(s) you want to select from the popup.
   c. To clear all the selected layers, you can click the "Clear All" button at the top right of the popup.
   d. Next, near the top left of the popup, click down arrow on the right side of the select button .
   e. In this tutorial, we will experiment with Select by Lasso. Choose this option.
   f. Hover your mouse cursor over select button to see some brief instructions on its use
   g. Click the Select button
   h. Move your mouse cursor into the map, press and hold the left mouse button and draw an area (polygon) on the screen. When finished drawing, double click the left mouse button.
   i. All features within the polygon will be selected.
   j. Take a look at the Select window. You will see a number next to each selected layer. This indicates the number of features selected in each layer.
   k. The selected features can be exported to table, which will appear in the table tab, or exported to a specific file format and downloaded on your computer.
   l. To do this, select the actions icon,
   m. Next choose `View in table`,
   n. Click Table tab from the top of the screen.
   o. Another common option in the actions is `Export.`
   p. Using this tool you can export the selected geographic features to a shapefile, file geodatabase, or export the attribute table only to a CSV file.

Now that the main tools are out of the way, let's look at the other tabs.

10. Private Map Tab
    a. The map on this tab, contains sensitive data. Access requires an account approved by local authorities.
    b. When the Private Map tab is clicked, you will be prompted to provide your ArcGIS Online credentials.
    c. You can request collaborator permissions by emailing giscenter@isu.edu

11. Table Tab
    a. This tab contains a table detailing enriched data from the WUI layer, split up by the EMS zones.

       NOTE: Custom tables can be displayed here as well by selecting the desired data in the web map using the select tool and exporting it to the table.

b. Try finding the `EMS Zone` with the most structures (HINT: Pocatello Station 5 has over 1200 structures)
c. Now try finding the `EMS Zone` with the lowest population (HINT: Based on the 2020 Total Population field (column), the Downey EMS Zone has a population of 20 people).

12. Chart Tab
    a. Use this tab to view charts of the enriched statistics from the WUI layer.

       NOTE: This tab does not support custom tables or data.

    b. Current Chart options are shown along the left side of the screen.
    c. Try finding the EMS Zone with the lowest IDL Fire Hazard (HINT: Pocatello Station 2 has a median fire hazard of two (the maximum is five))
    d. Now try finding the EMS Zone with the largest number of people living at or below the poverty level (HINT: The Pocatello Station 1 EMS Zone has 210 individuals living below the poverty level)

13. About Tab
    a. Here you will find additional information about how Wildfire Hazards Experience was developed along with tutorials and other links to assist you.