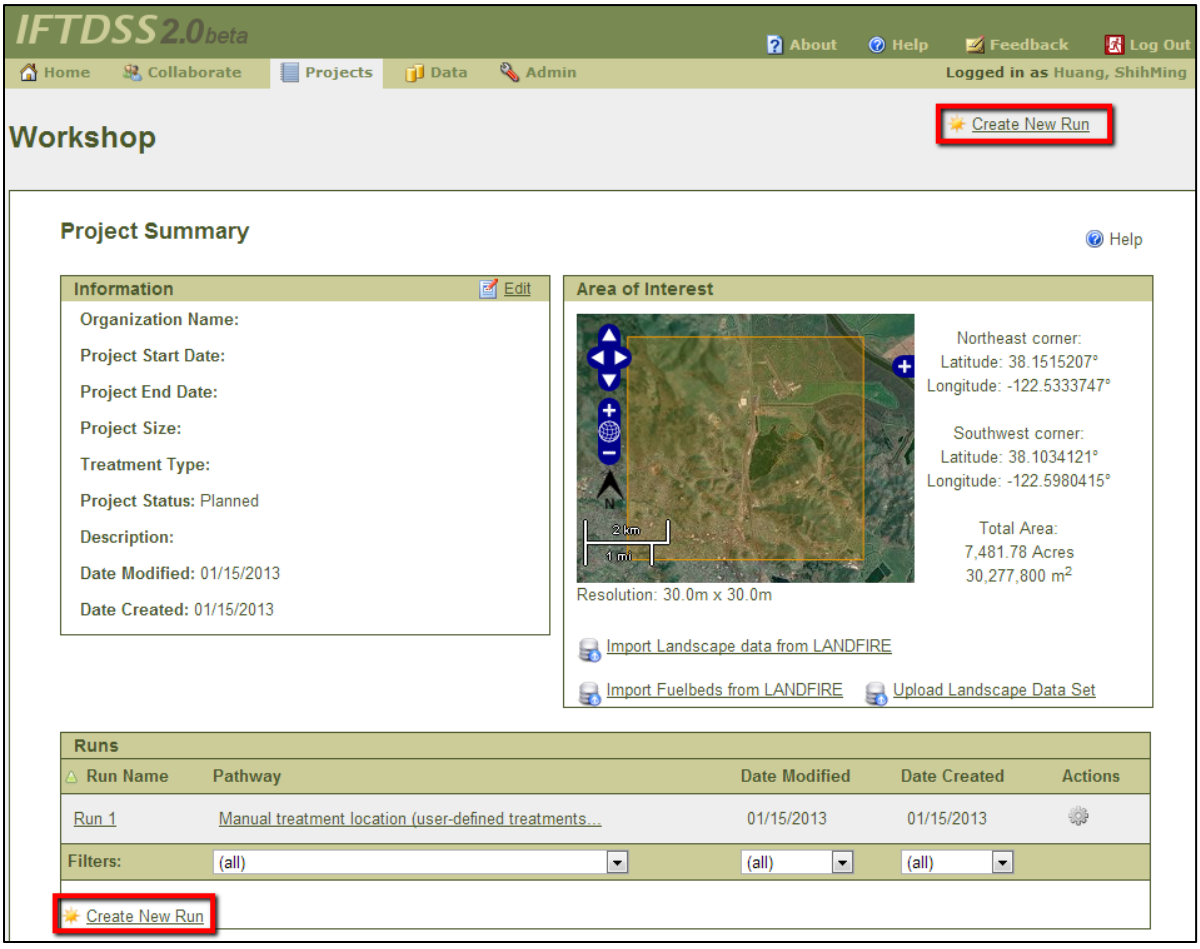
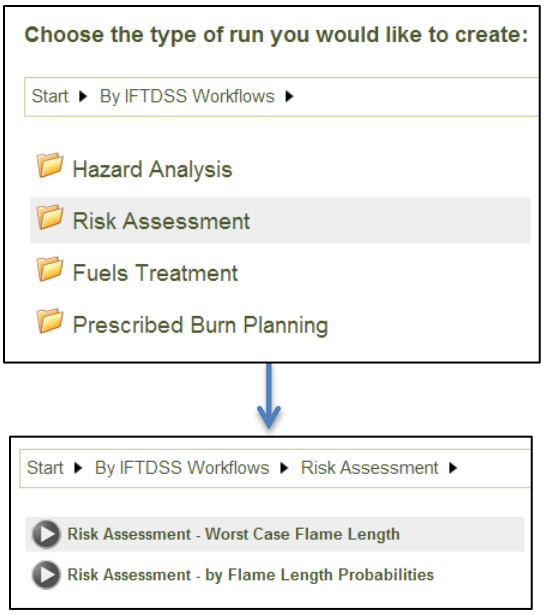
IFTDSS Workshop

Handout 6: Risk Assessment – Worst-Case Flame Length

1. From the Project Summary page, click on **Create New Run**.

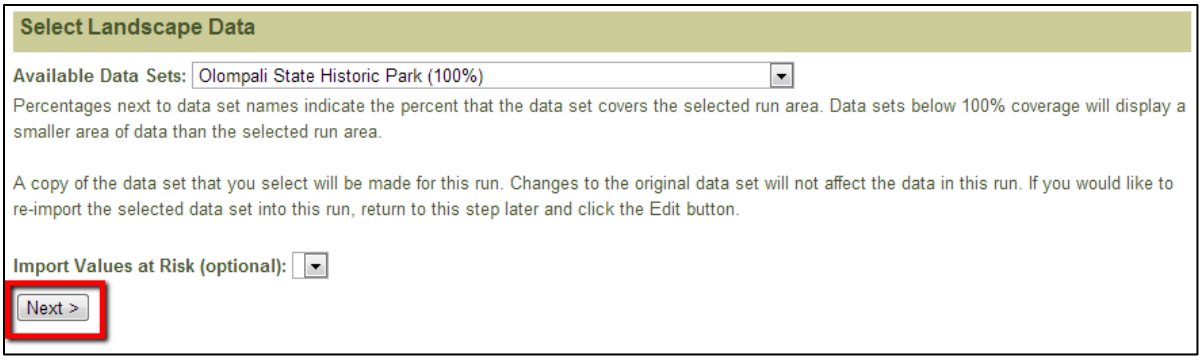


2. Select the **Risk Assessment** workflow, then the **Risk Assessment – Worst Case Flame Length** pathway.



3. Give the run a unique name, and then click **Next**.

4. The LANDFIRE data set you acquired will be selected as your data set. Select **Next**.



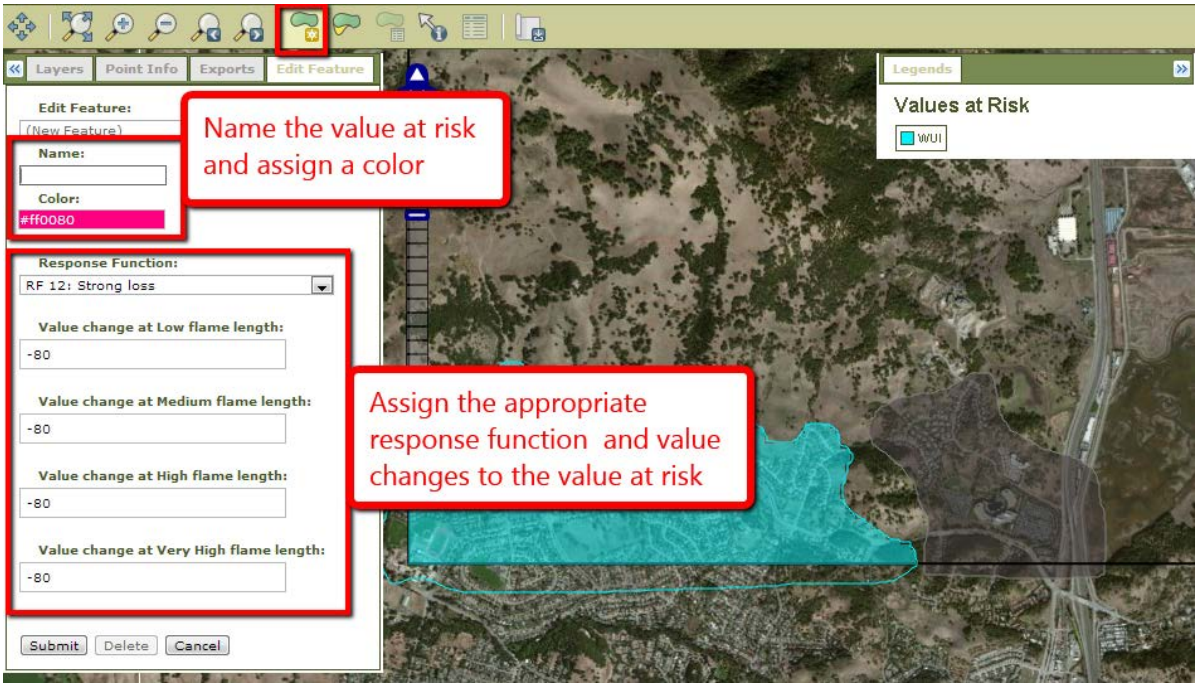
5. You are now on the Define Values at Risk step. In this step, you will define your values at risk across the entire area of interest using the **Draw Polygon** tool  on the tool bar.

   There are two methods for using the map tools to draw polygons: the freeform method and the point-and-click method.

   a. The **freeform drawing method**
      - While holding down the Shift key, click on the map, hold down the left mouse button, and start drawing your first polygon. While still holding down the Shift key and left mouse button, move the mouse as if it were a pencil to draw your polygon
      - Release the left mouse button when you are done drawing the polygon. This creates the polygon and opens the Edit Feature panel

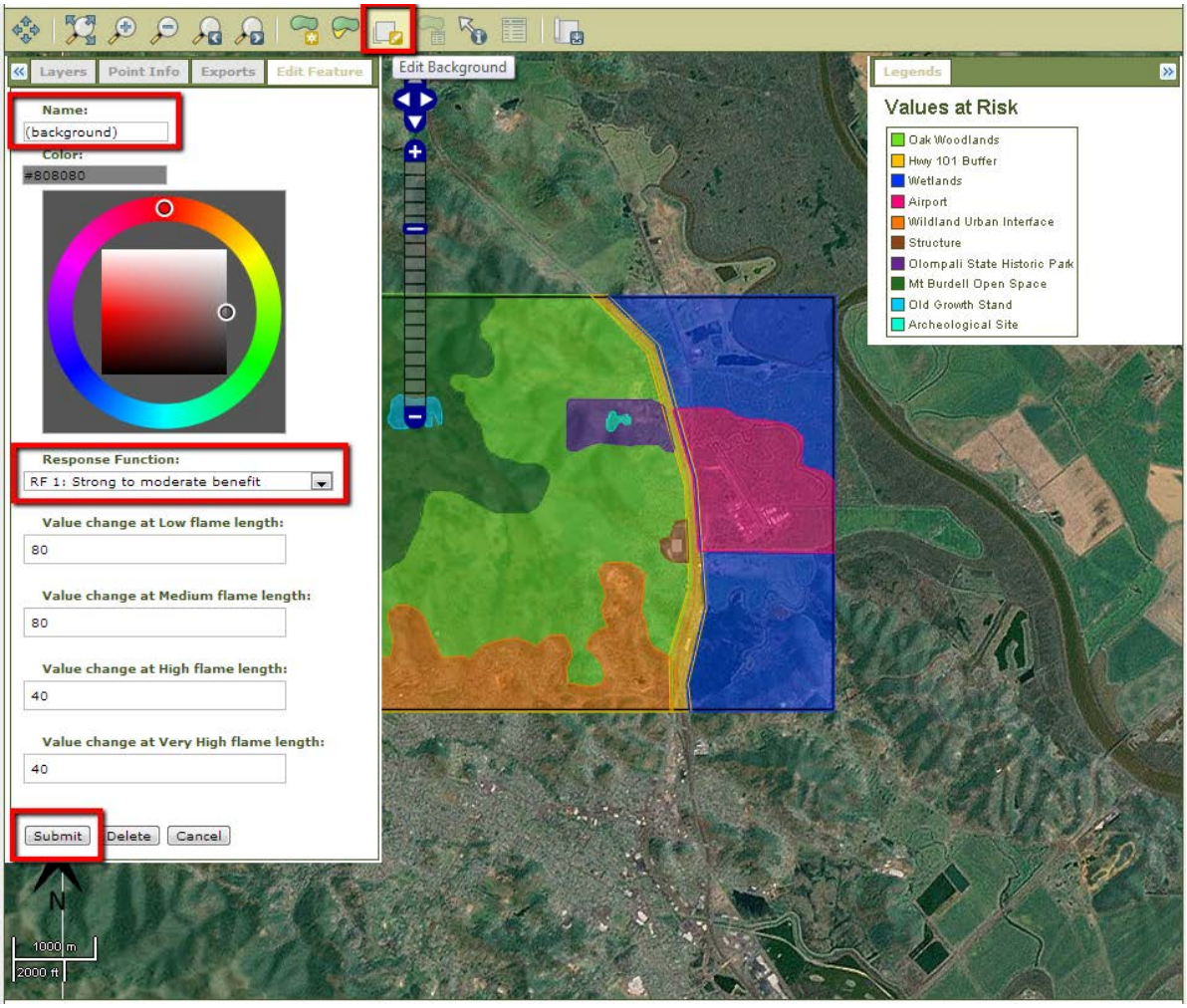
   b. The **point-and-click method**
      - To start drawing your first polygon, click on the map and release the mouse button.
      - Move the mouse to a new point and click and release to add another point. Before moving on, make sure the point is established by moving the mouse away from the point.
      - Continue this process until you are done drawing your polygon.
      - When you are done drawing the polygon, double-click to create the polygon and to open the Edit Feature panel.

6. After drawing a polygon, use the Edit Feature panel to name the polygon and choose a color for it. In addition, pick the appropriate Response Function that best represents the value at risk, and set the values for value change at low, medium, high, and very high flame lengths. Click **Submit** to save your polygon.

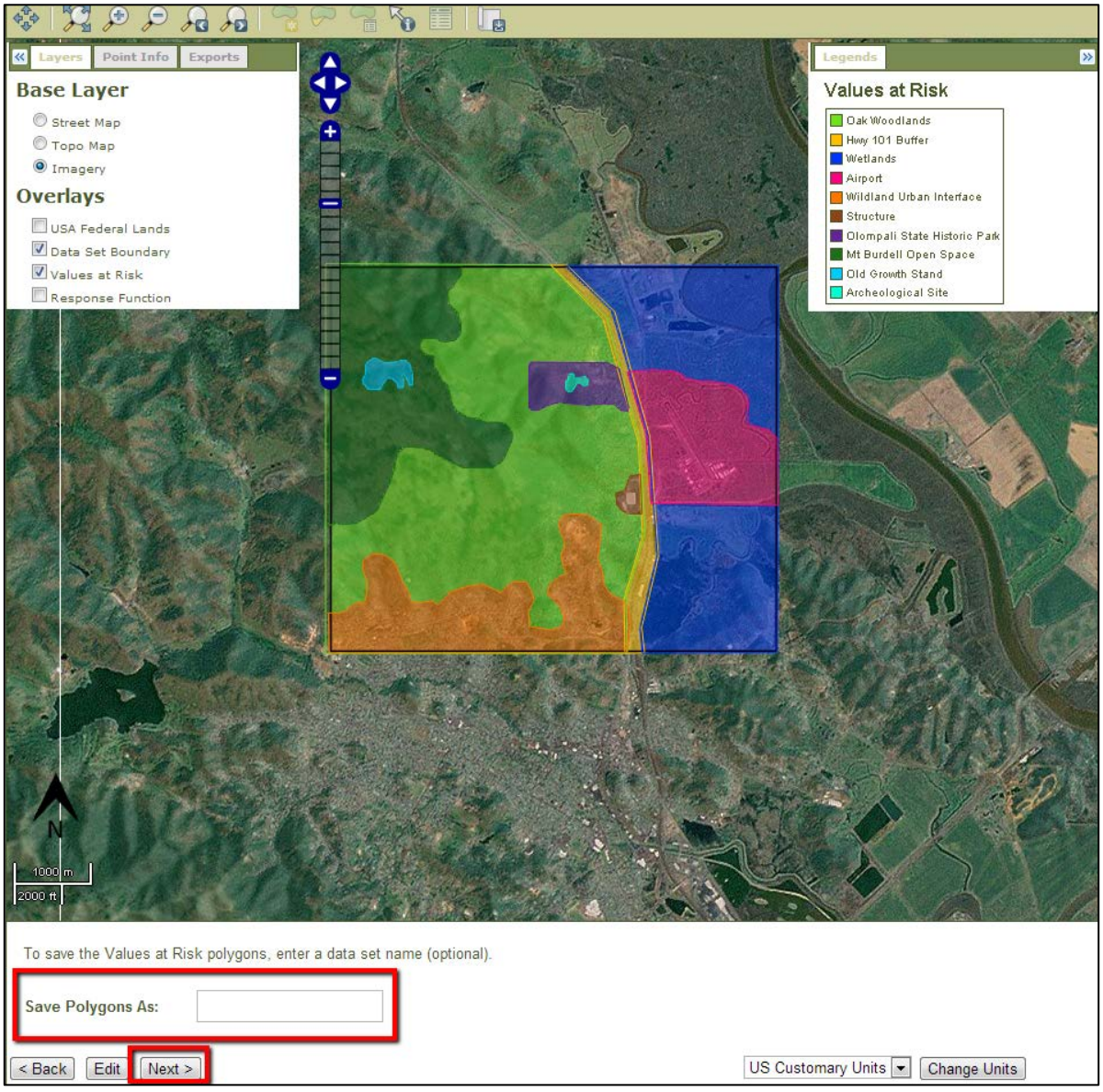


7. Repeat steps 5 and 6 to create more Values at Risk polygons. Define the large values at risk first. Draw smaller values at risk on top of the larger values at risk. When one polygon is drawn on top of another polygon, the one on top replaces the one on the bottom in the areas where they overlap.

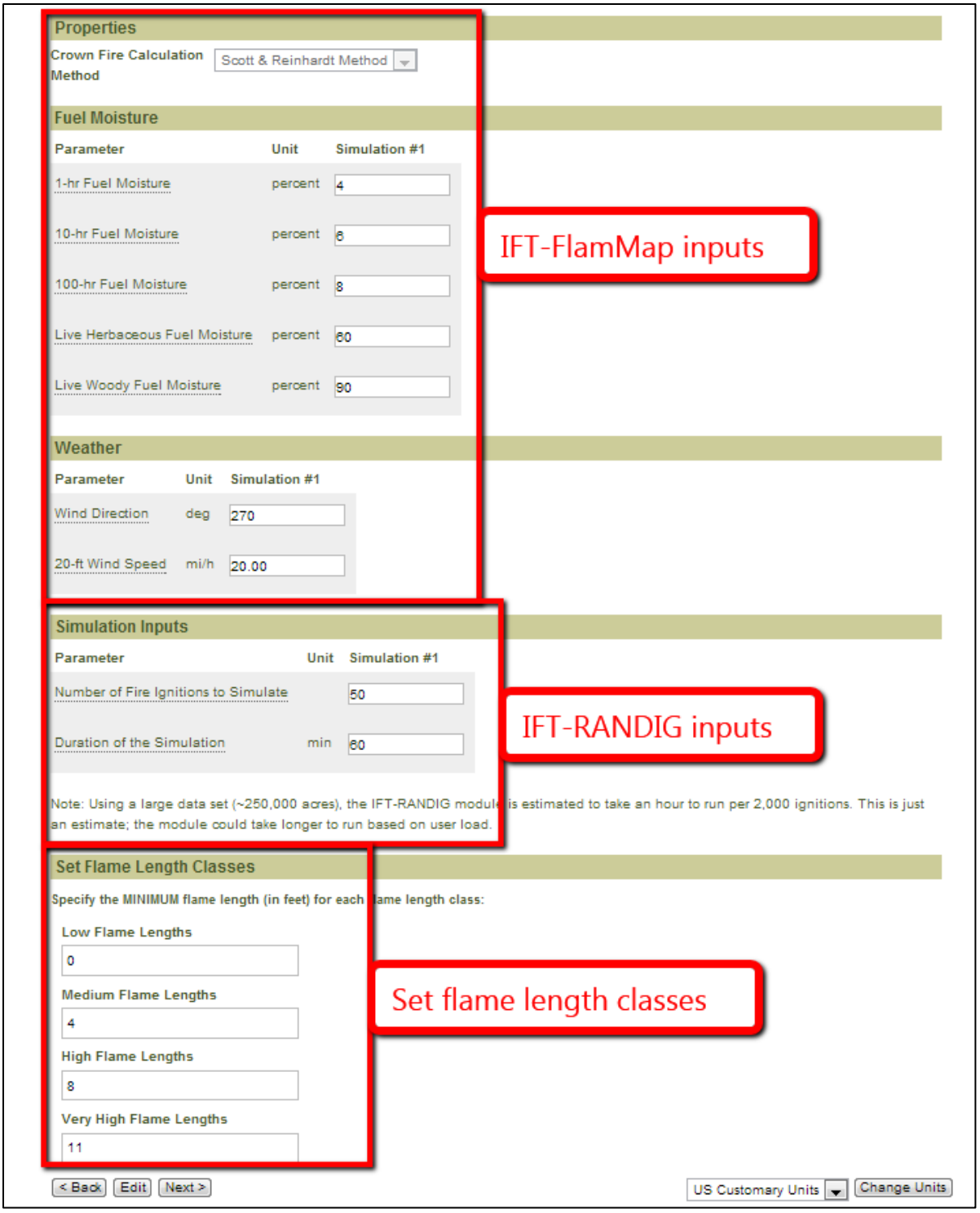
8. In order for IFTDSS to calculate an output in the risk pathways, all pixels within an area of interest need a response function. To fulfill this requirement, you can assign a background to your Values at Risk map:
    a. Select the **Edit Background** tool.
    b. In the **Edit Feature** panel, (background) is automatically assigned as the name.
    c. You can edit the name and color, and assign the background response function.
    d. Finally, click **Submit** to save the background.



9. When the values at risk have been defined for every pixel in the area of interest, enter a name for the Values at Risk polygons in the **Save Polygon As:** box, and click **Next**.

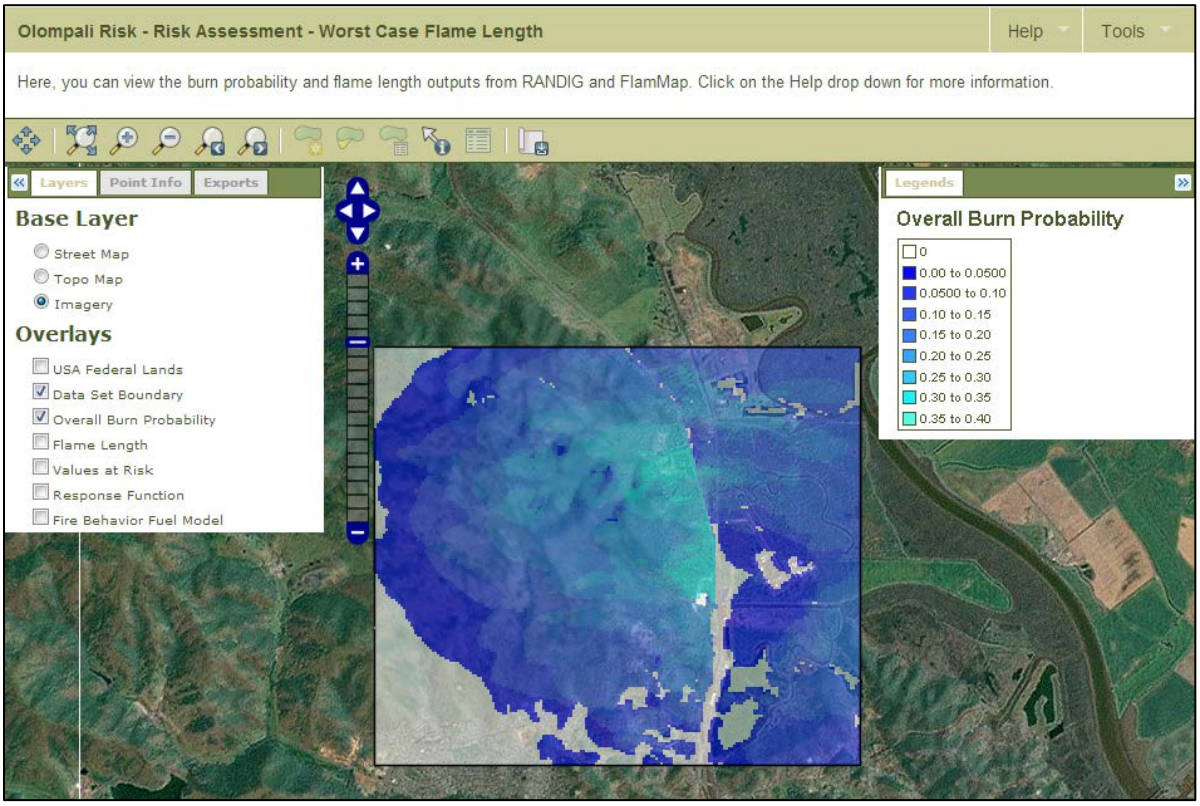


10. Now you are on the Inputs step. Customize the IFT-FlamMap and IFT-RANDIG inputs. In addition, specify the minimum flame length for each flame length class. Click **Next**.

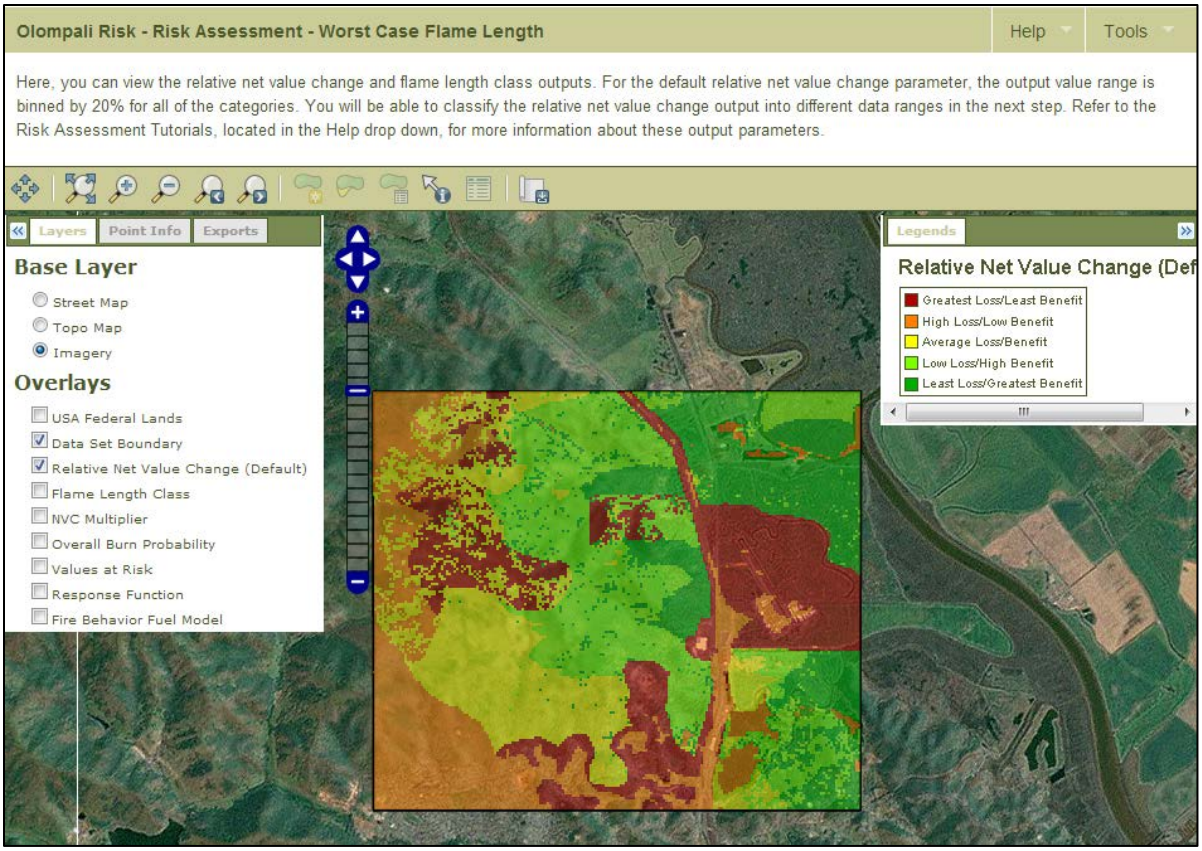


11. Now, you are on the Review Landscape Data step. Review the landscape data and then click **Next**.

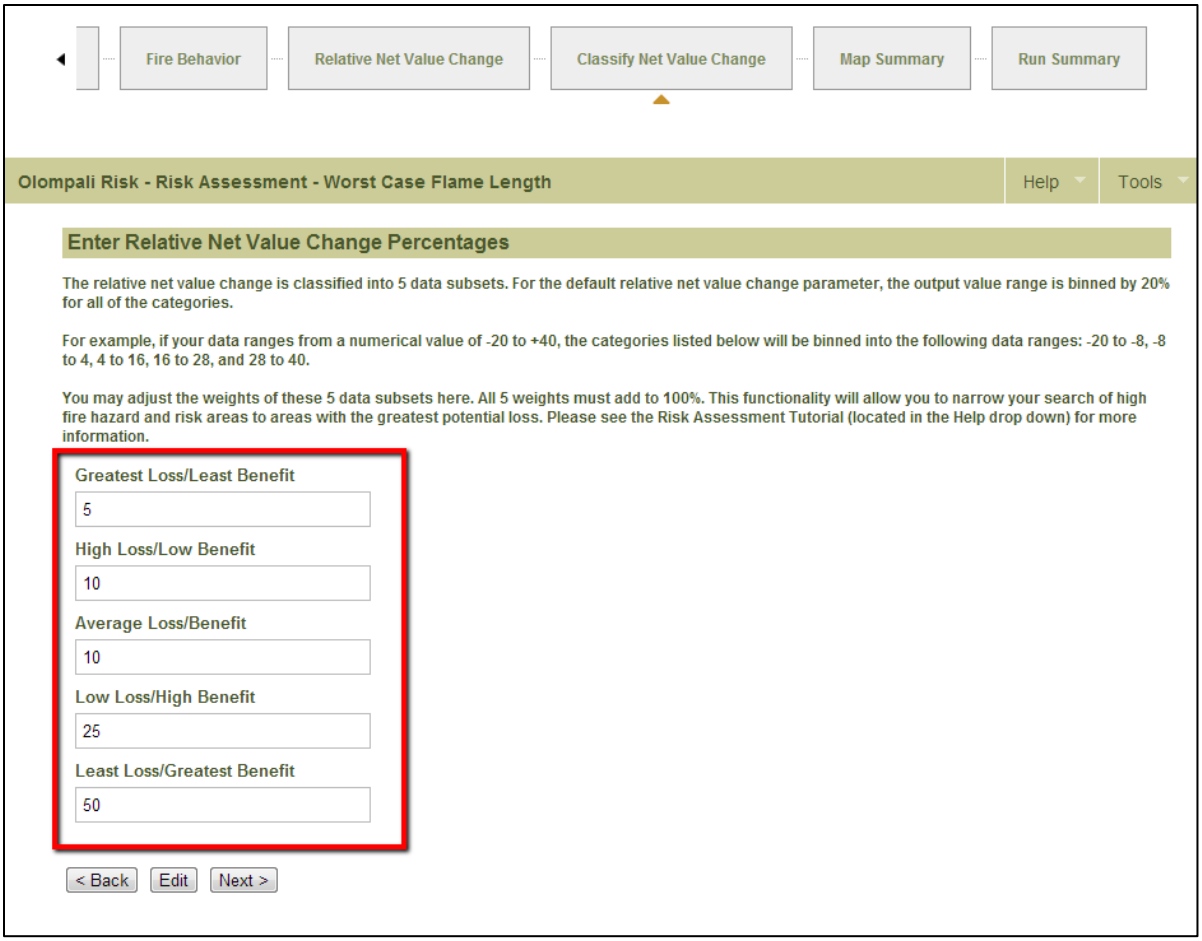
12. Now, you are on the Fire Behavior outputs page. On this page, you can review the spatial fire behavior and overall burn probability overlays. Click **Next** after viewing fire behavior outputs.



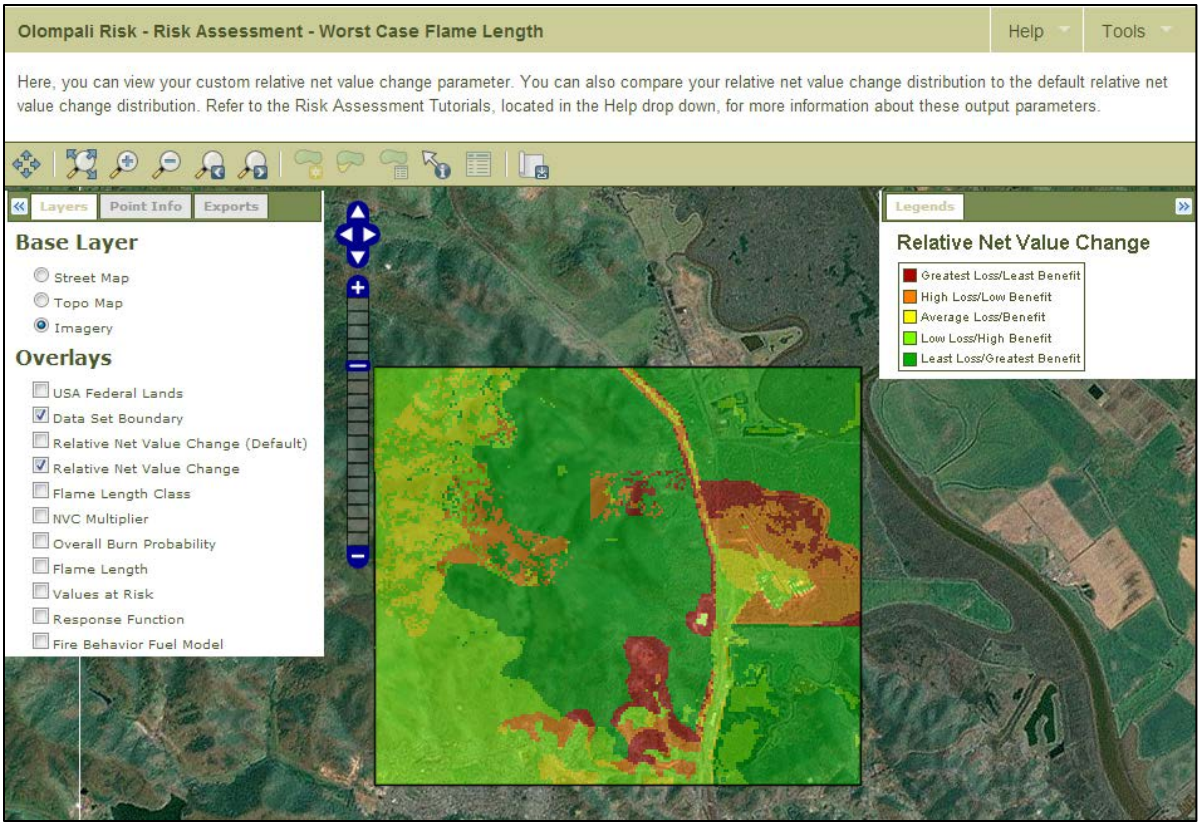
13. On the Relative Net Value Change step, you can view the default relative net value change as well as flame length class outputs. Click **Next**.



14. On the Classify Net Value Change step, you can customize the net value change breakdown percentages. The percentage values need to add up to 100. Click **Next** after the percentages are set.



15. Now you are on the Map Summary step, where you can view the custom relative net value change across the landscape.



16. Click **Finish** to end the run and go to the Run Summary page.