

IFTDSS Workshop

Handout 9: Calculate Minimum Travel Time (IFT-MTT)

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

IFTDSS2.0beta

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Workshop

[Create New Run](#)

Project Summary

[Help](#)

Information

[Edit](#)

Organization Name:

Project Start Date:

Project End Date:

Project Size:

Treatment Type:


Project Status: Planned

Description:

Date Modified: 01/15/2013

Date Created: 01/15/2013

Area of Interest



Northeast corner:
Latitude: 38.1515207°
Longitude: -122.5333747°

Southwest corner:
Latitude: 38.1034121°
Longitude: -122.5980415°

Total Area:
7,481.78 Acres
30,277,800 m²

Resolution: 30.0m x 30.0m

[Import Landscape data from LANDFIRE](#)

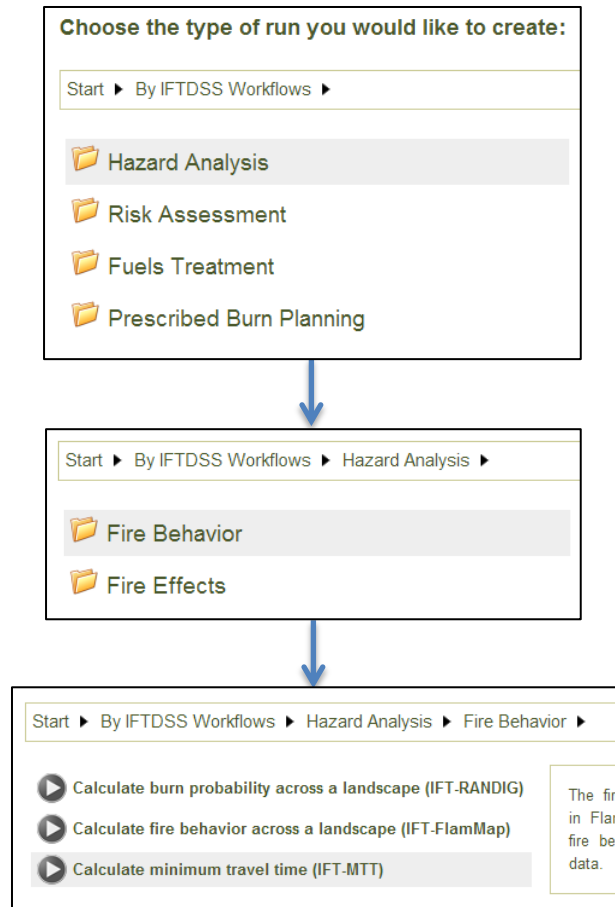
[Import Fuelbeds from LANDFIRE](#) [Upload Landscape Data Set](#)

Runs				
Run Name	Pathway	Date Modified	Date Created	Actions
Run 1	Manual treatment location (user-defined treatments...	01/15/2013	01/15/2013	

Filters: (all) (all) (all)

[Create New Run](#)

2. Select the **Hazard Analysis** workflow, then **Fire Behavior**, and finally the **Calculate minimum travel time (IFT-MTT)** pathway.



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

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

MTT - Calculate minimum travel time (IFT-MTT)

Help Tools

The minimum travel time module calculates two-dimensional fire growth and fire behavior by searching for the set of pathways with minimum spread times for an ignition source, using spatial information of topography and fuels under constant wind and fuel moisture conditions. Users can upload a spatial dataset or define the spatial extent manually. All fire growth calculations across the landscape are performed assuming independence of fire behavior among neighboring cells (e.g., the travel time across a cell does not depend on the behavior in adjacent cells). [Click here](#) for more information about this module

Select Data Set

Available Data Sets: North Novato (copy) (100%)

Percentages next to data set names indicate the percent that the data set covers the selected run area. Data sets below 100% coverage will display a smaller area of data than the selected run area.

A copy of the data set that you select will be made for this run. Changes to the original data set will not affect the data in this run. If you would like to re-import the selected data set into this run, return to this step later and click the Edit button.

Select Ignitions Data Set

Import Ignitions (optional):

Select Barriers Data Set

Import Barriers (optional):

Next >

- You are now on the Inputs step. Customize the inputs, then click **Next**.

MTT - Olompali - Calculate minimum travel time (IFT-MTT)

Help Tools

Properties

Crown Fire Calculation Method: Scott & Reinhardt Method

Fuel Moisture

Parameter	Unit	Simulation #1
1-hr Fuel Moisture	percent	6
10-hr Fuel Moisture	percent	7
100-hr Fuel Moisture	percent	8
Live Herbaceous Fuel Moisture	percent	80
Live Woody Fuel Moisture	percent	80

Weather

Parameter	Unit	Simulation #1
Wind Direction	deg	290
20-ft Wind Speed	mi/h	15.00

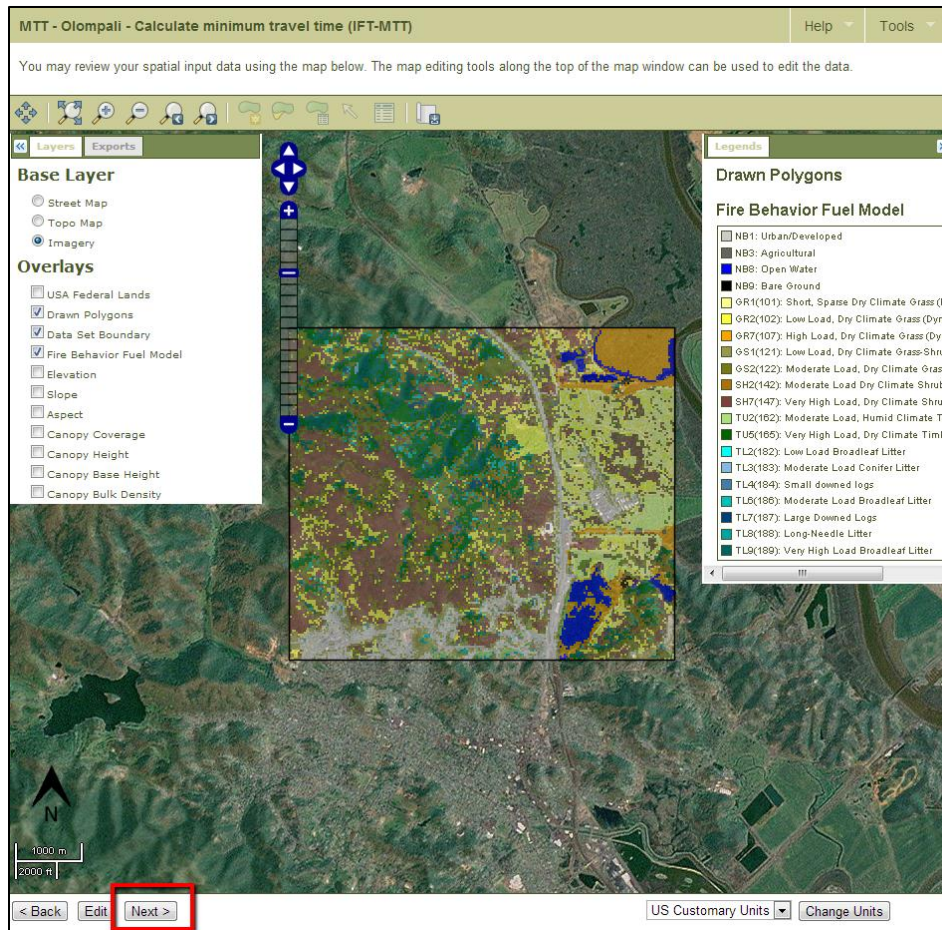
Simulation Inputs

Parameter	Unit	Simulation #1
Duration of the Simulation	min	100
Travel Path Interval	ft	500
Spot Fire Probability		0.00
Fill Barriers		Yes

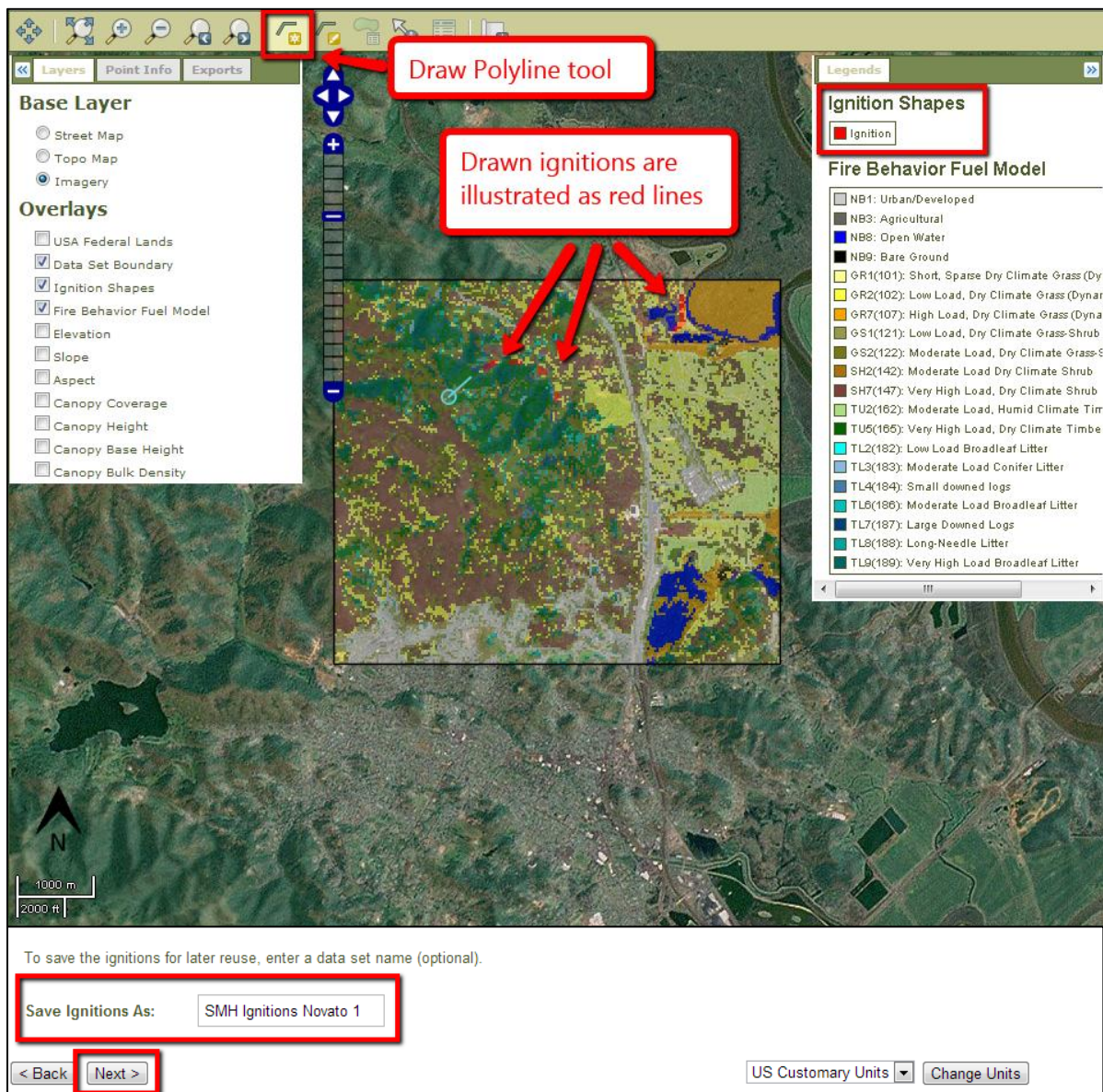
< Back (Next >)

US Customary Units Change Units

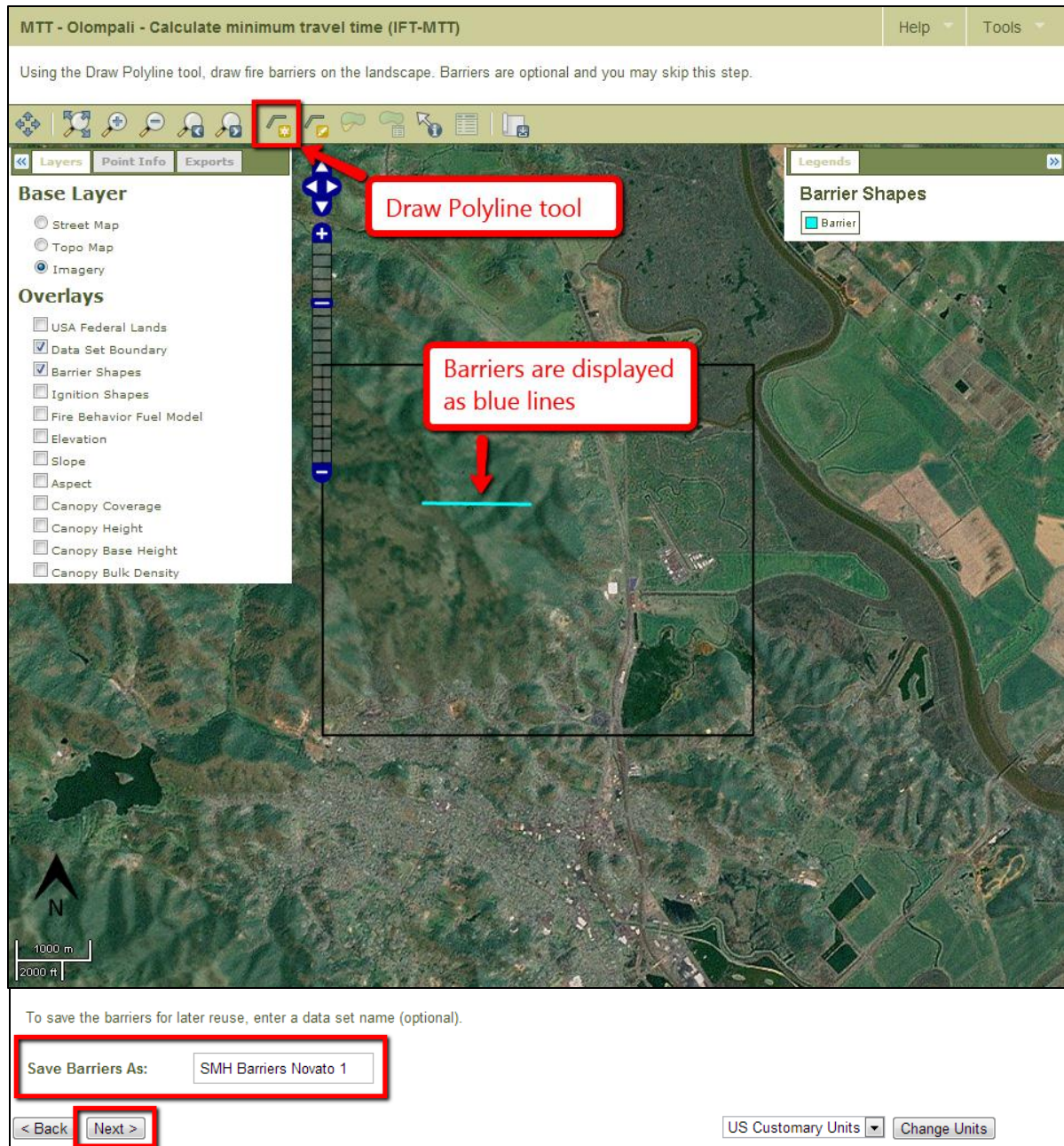
6. Now you can review your spatial landscape data using the Overlays panel on the left. After reviewing your data, select **Next**.



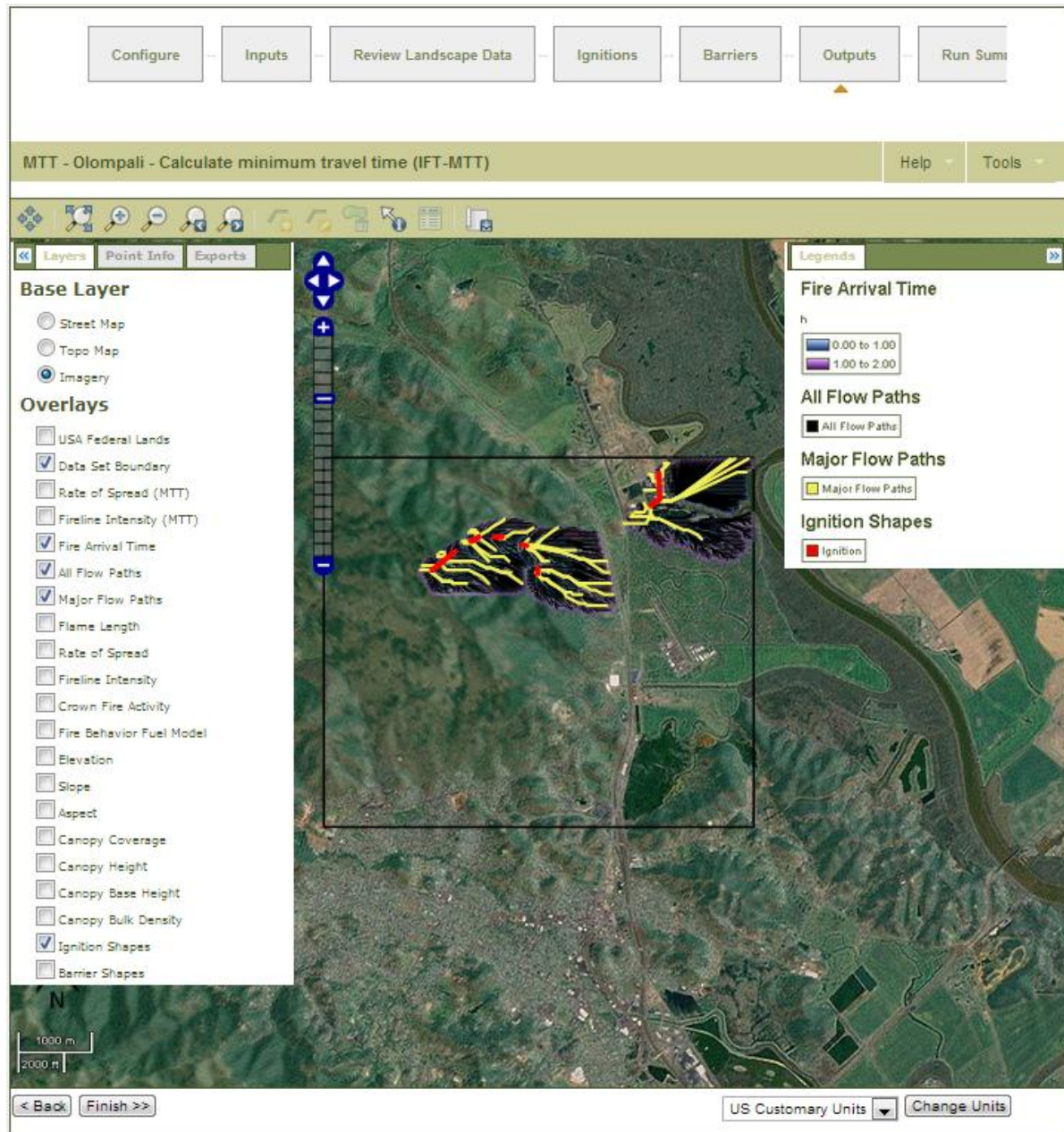
7. On the Ignitions step, draw at least one ignition on your landscape using the **Draw Polyline** tool.
 - a. To draw a line, select the **Draw Polyline** tool, click on the map once, move to a different point, and click again. Continue clicking until you are done drawing the ignition. Double-click to finalize and create the polyline.
 - b. You can draw multiple ignitions across the landscape. For a point ignition, just draw a very short line.
 - c. When all ignitions are drawn, you can save the ignitions by assigning them a name in the **Save Ignitions As:** space below the map. After saving the ignitions, you can use them in different IFT-MTT runs. Select **Next** to save ignitions and continue.



8. Now you are on the Barriers step. Use the same method you used for drawing ignitions to draw barriers. Barriers are optional; you may skip this step. When all barriers are drawn, you can save the barriers by assigning them a name in the **Save Barriers As:** space below the map. After saving the barriers, you can use them in different IFT-MTT runs. Select **Next** to save barriers and continue.



- On the Outputs step, you can review MTT outputs, including fire arrival time and flow paths, as well as fire behaviors.



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