



# NEBRASKA

## WILDFIRE RISK ASSESSMENT PORTAL

### ADVANCED

USER GUIDE



ASSESS WILDFIRE RISK

Launch the Risk Ex

RISK ASSESSMENT PORTAL

THEMES

Rapid City

to identify the wildfire risk  
within the general vicinity of

High

RISK ASS

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## Preface

The Nebraska Wildfire Risk Assessment Portal Advanced Viewer of the Risk Explorer can be found at <https://nebraskawildfirerisk.com> by selecting “Launch Risk Explorer.” Registration for the Advanced Viewer and approval by an administrator are required. For a simpler, smaller set of Risk Explorer features, please use the Basic Viewer instead.

## Compatibility

The current version of NEWRAP is compatible with the following browsers, but it is recommended that Google Chrome be used with the application for optimal performance:

- Google Chrome
- Microsoft Edge
- Safari

The minimum recommended screen resolution is 1024 x 768.

## Support

- User guides can be found on the [Support](#) page.
- For technical support, email [trees@unl.edu](mailto:trees@unl.edu).

## Feedback

Nebraska Forest Service invites users to provide feedback on NEWRAP. Please provide your comments and suggestions for improvement via the [Contact](#) form.

## Overview

The Nebraska Wildfire Risk Assessment Portal and Risk Explorer are the primary mechanisms for the Nebraska Forest Service (NFS) to deploy wildfire risk information and create awareness about wildfire issues across the state. It comprises a suite of applications tailored to support specific workflow and information requirements for the public, local community groups, private landowners, government officials, hazard mitigation planners, and wildland fire managers. Collectively, these applications will provide the baseline information needed to support mitigation and prevention efforts across the state.

- For more information about NEWRAP, see the [Overview](#).
- For more information about the Basic Viewer and the Advanced Viewer, click the **Learn More about Basic vs. Advanced** link in the **Choose a Viewer** modal when entering the [Risk Explorer](#).

The image shows two screenshots from the application. The left screenshot is the 'CHOOSE A VIEWER' modal, which has two columns: 'BASIC' and 'ADVANCED'. The 'BASIC' column features an icon of three people and text stating it is 'Best suited for: Homeowners, Landowners, General Interest' with an 'ENTER' button. The 'ADVANCED' column features an icon of a person with a magnifying glass and text stating it is 'Best suited for: Emergency Managers, Natural Resource Professionals, Wildland Fire Response' with 'CREATE AN ACCOUNT' and 'SIGN IN' buttons. At the bottom, there is a link 'Learn More about Basic vs. Advanced' and a checkbox 'Don't show this window again'. The right screenshot is the 'COMPARE THE BASIC VS. ADVANCED VIEWER' modal, which contains a table comparing features between the two viewer types.

	BASIC	ADVANCED
Assesses wildfire risk at your location	✓	✓
Download a wildfire risk assessment report for your location	✓	✓
View wildfire map layers	✓	✓
Navigate the map and inspect pertinent geospatial data	✓	✓
Print maps of wildfire risk	✓	✓
Create and manage your areas of interest or project boundaries	✗	✓
Upload shapefiles representing your areas of interest or projects	✗	✓
Create an area of interest from an existing reference layer feature	✗	✓
Generate a risk summary report for an area of interest	✗	✓
Download an editable summary report to be used for Community Wildfire Protection Plan (CWPP) development	✗	✓
Export a map document and GIS data (Esri File Geodatabase) for your area of interest	✗	✓

Figure 1. Comparing the Basic and the Advanced Viewers

## Accessing the Advanced Viewer

To access the NEWRAP Advanced Viewer of the Risk Explorer web application:

1. Open a compatible browser while connected to the internet and navigate to <https://nebraskawildfirerisk.com>.
2. Select **Launch Risk Explorer**
  - a. If not yet registered, click **Create an Account** under the **Advanced Viewer** or select the **Create an Account** link in the top right corner of the Basic Viewer. After entering contact information and clicking **Create Account**, you will receive an email notification that your registration has been submitted and an administrator has been notified. You will then receive another email notification when your access has been approved.
  - b. If already registered, click **Sign In** under the **Advanced Viewer** and enter your email address and password.

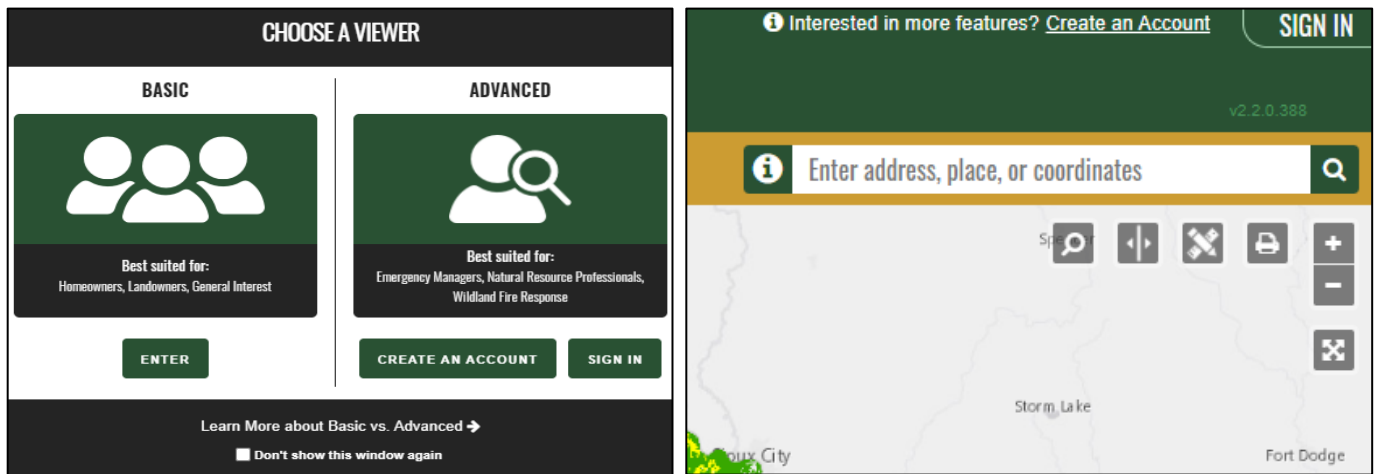


Figure 2. Accessing the Viewers

3. Once signed in, the **Sign In** option changes to **Hi, [user name]**.
  - a. Click **Hi, [user name]** to access additional options, such as **Edit Account Details**, to change your password or other account-related details.
  - b. Click **Sign Out** under the options menu to sign out of the Advanced Viewer.

## Using the Advanced Viewer

The **Advanced Viewer**, like the **Basic Viewer**, is a web-mapping application designed to let users explore map themes and quickly identify areas where fire potential exists in relationship to homes or other valued assets. The differentiator for the **Advanced Viewer**, however, is the ability to create areas of interest and generate summary reports or export data associated with them.

The **Advanced Viewer** has the same basic mapping functionality contained within the **Basic Viewer**. For a guide to the functionality available in the **Basic Viewer**, visit [Support](#) to access the **Basic Viewer User Guide**.

The **Advanced Viewer** has several features that differ from the **Basic Viewer** and are detailed below:

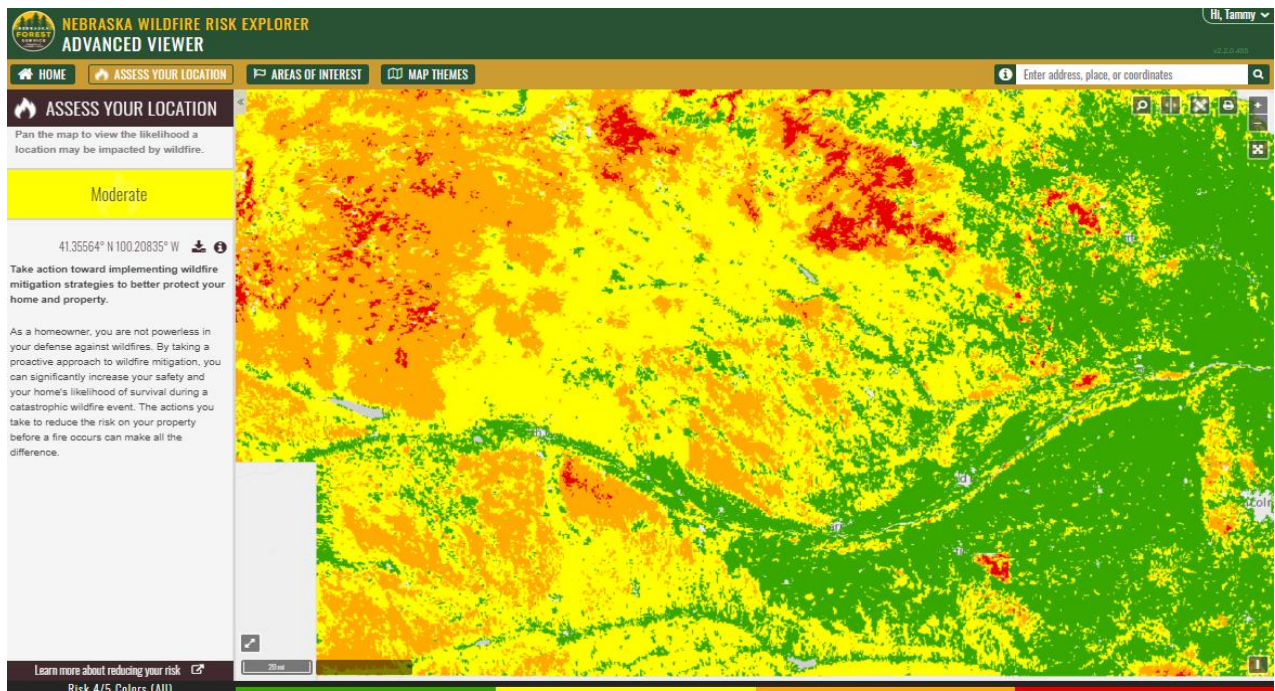


Figure 3. Advanced Viewer user interface

## Areas of Interest

The Areas of Interest (AOI) tool allows users to create, delete, zoom to, and select a project area for which to generate a summary report or export data.

The parameters of the tool are as follows:

- Only one AOI can be selected or “active” at a time.
- Multiple AOIs can be created and saved.
- The user’s AOIs are stored on the server and associated with the user’s login credentials, making them accessible from any location.
- AOIs have a maximum size limit of 10,000,000 square miles.

## Creating an AOI

To get started, click the **Areas of Interest** button as shown in figure 3. There are three ways to create an AOI:

1. [Manually draw an AOI on the map](#)
2. [Create an AOI from a feature within a reference layer](#)
3. [Create an AOI from shapefiles \(.shp\)](#)

For any of the three methods above, you must do the following:

1. **Name your AOI:** Select a name to associate to your AOI. This is the name that will appear in the AOI widget each time you access the **Advanced Viewer** with your login credentials. Multiple AOIs can have the same name.
2. **Use one of the three methods** listed above by following its specific procedures.
3. **Apply buffer distance:** Under **Buffer (miles)**, define a buffer distance around the AOI by entering the number of miles. The map then automatically zooms to the extent of the shape as it expands or contracts with changing the buffer distance (figure 4).
4. **Save the AOI:** Once satisfied with the buffer, click **Create** to save the AOI. The new AOI and its area in square miles will display in the AOI widget.

### Manually Draw an AOI on the Map

Press the **Create New** button in the AOI widget and do the following:

1. Under **Define Area Boundary/By Custom Shape**, choose point, line, or polygon.
2. Follow the tool tips locked onto the cursor while hovering over the map. Active shape edges appear as dashed lines. Once the shape is completed, the geometry turns blue (figure 5). Multipart polygons are supported.

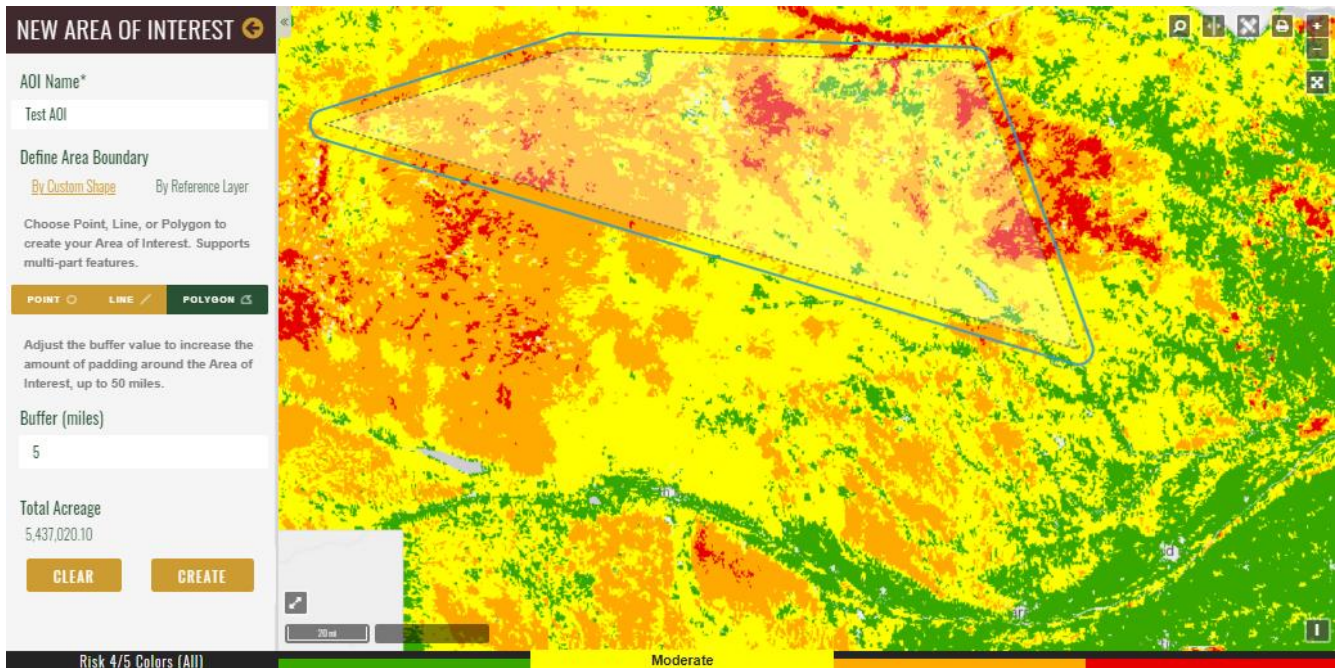


Figure 4. AOI widget showing completed custom shape with a 0.5-mile buffer before save

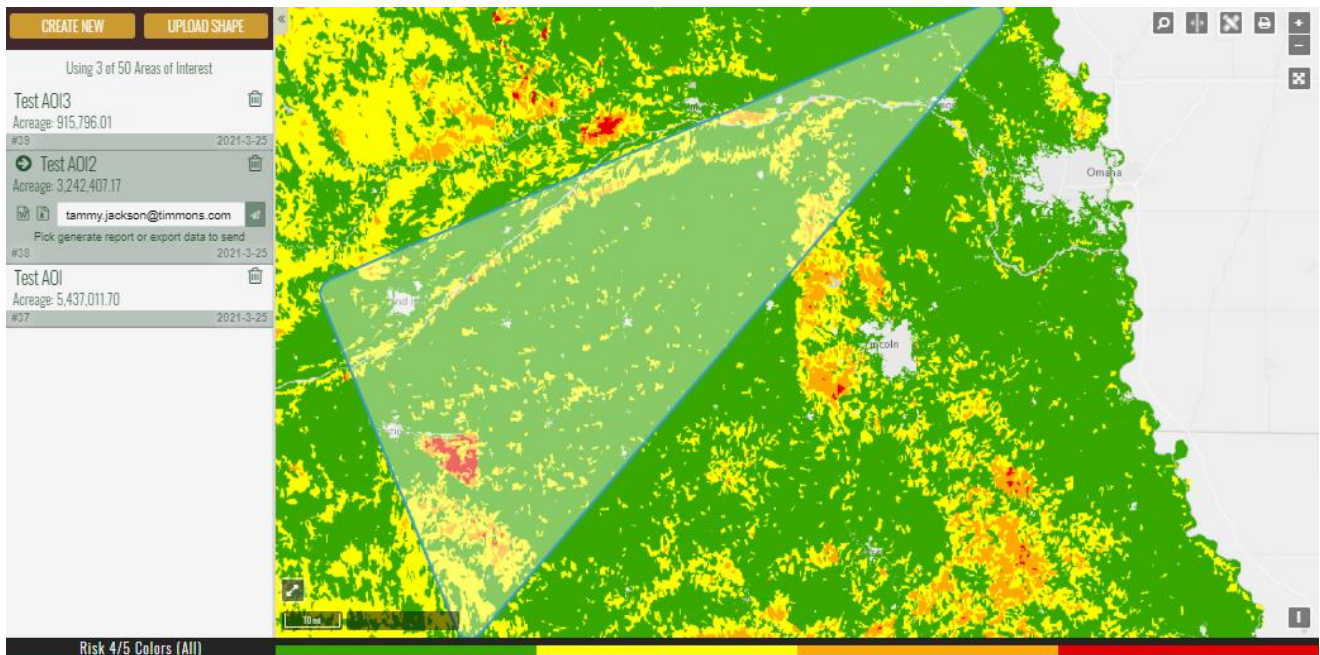


Figure 5. Map showing a recent AOI. Widget shows two other AOIs and their respective areas and created dates.

### Create an AOI from a Feature within a Reference Layer

Press the **Create New** button on the AOI widget and

1. Under **Define Area Boundary**, select **By Reference Layer** and choose a layer (e.g., HUC10 Watersheds) and then a feature (e.g., a watershed name) from a series of dropdown menus (figure 6).

-OR-

2. Manually select a feature on the map by clicking on its centroid (figure 7).

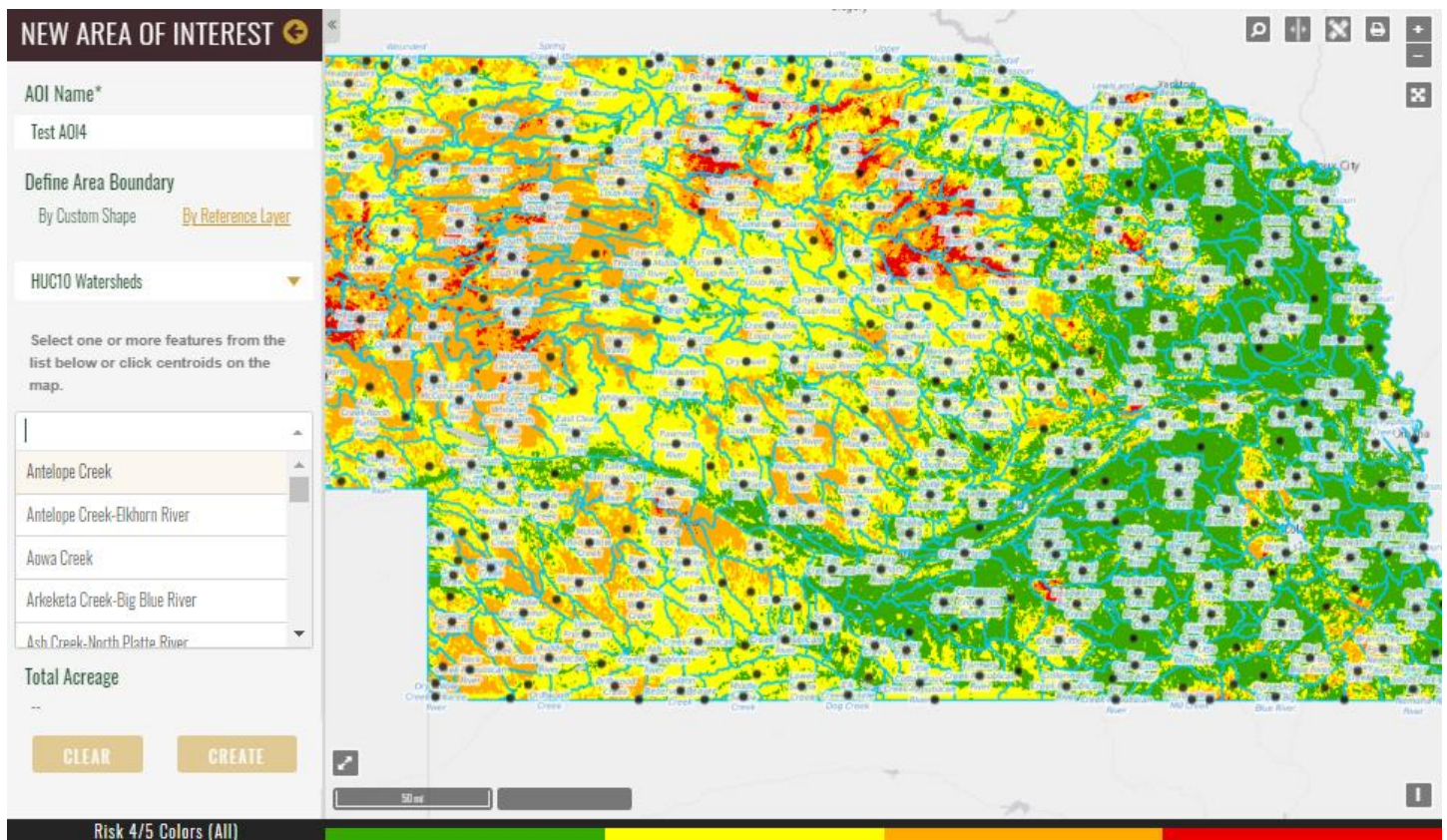


Figure 6. Creating an AOI from a feature within a reference layer by selecting a layer ("HUC10 Watersheds"), then a feature (watershed name)

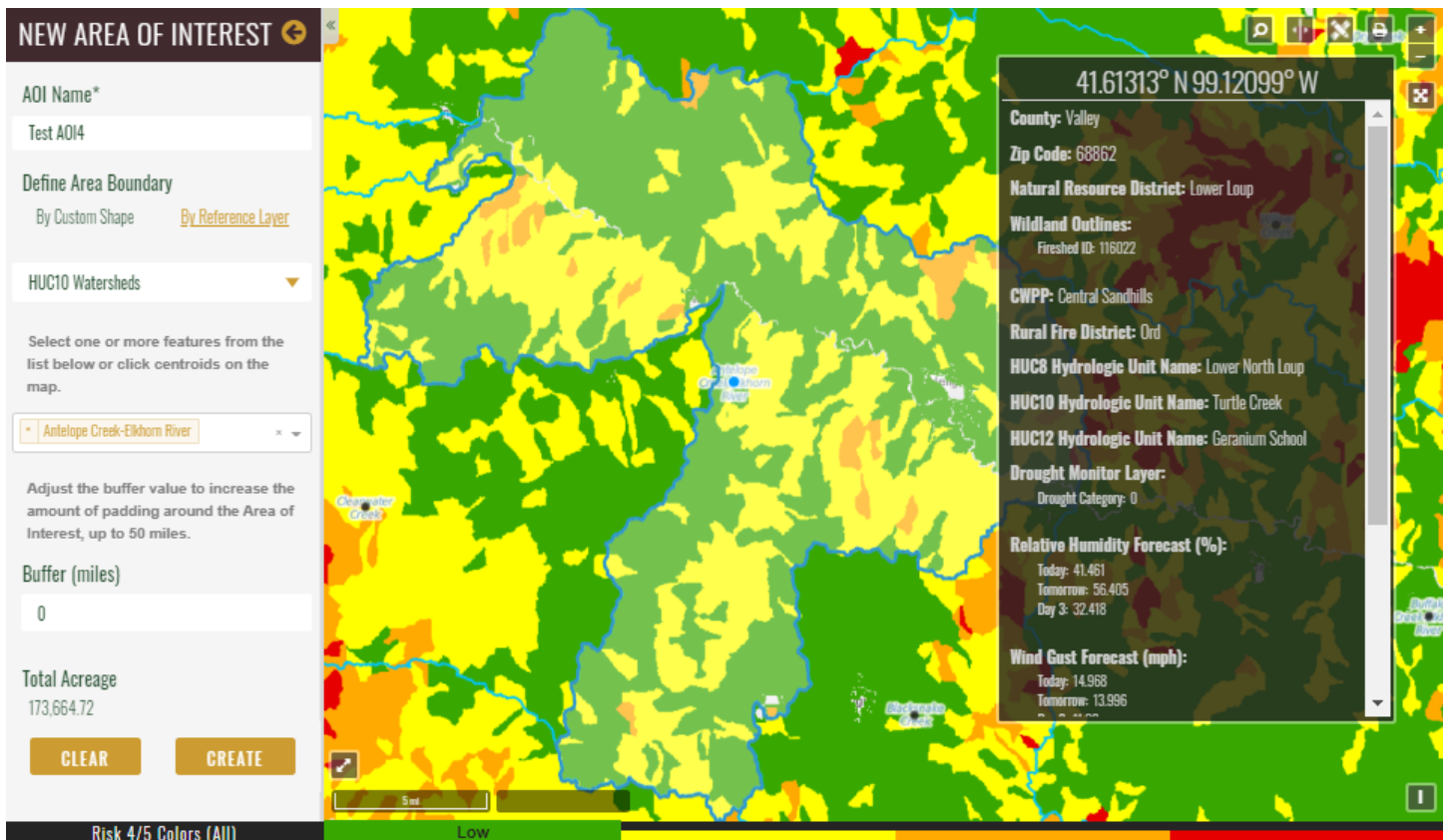


Figure 7. Creating an AOI from a feature within a reference layer by selecting a feature's centroid

### Create an AOI from Shapefiles

Users can also create areas of interest using the **Upload Shape** feature, which allows users to upload shapefiles.

The parameters are as follows:

- Your shapefile may contain a large number of features, but you may only store a maximum of 50 Areas of Interest.
- Features should be within the Nebraska state boundary.
- Zip files should include, at minimum, the following extensions: .shp, .dbf, and .prj.
- Features uploaded without a .prj file might not be reprojected or placed on the map in your anticipated location.
- Supported geometry types are Point, MultiPoint, LineString, MultiLineString, Polygon, and MultiPolygon.
- Point and line geometries will be automatically buffered by a 0.5-mile radius.

To use a shapefile as your AOI, follow these steps:

1. Press the **Upload Shape** button and navigate to the appropriate .zip file.
2. Select the file and click **Open**. The application unzips your shapefile and the map zooms to full extent of the polygon within.



## Managing AOIs

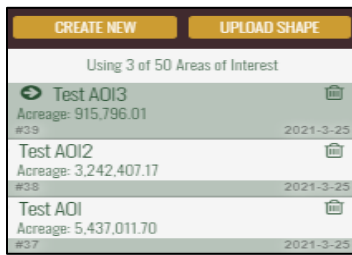


Figure 8. Names of existing AOIs in widget

The AOI widget lists areas you have created and allows you to create or delete areas. The widget can stay open while you work with the map.

- To zoom to an AOI boundary, click the name of the item in the list.
- To delete an AOI, click the trash can icon to the right of its name and confirm your decision by clicking the check mark icon.

## Generating a Summary Report

The Generate Summary Report tool generates a comprehensive summary report for the active AOI, i.e., the user must define an AOI before creating a report. The summary report includes statistics, maps, and charts of all key assessment input and output datasets and is provided in Microsoft Word format (.docx).

To generate a summary report, follow these steps:

1. Click an AOI name (e.g., Test AOI) in the AOI widget to activate it.
2. Click the **Word document icon** at the bottom left of the widget. “Ready to generate report” text appears.
3. Enter the appropriate email recipient for the report.
4. Click the **Send icon** to the right of the email address to create the report. Some reports may take more than a few minutes to complete. You can continue to use the **Advanced Viewer** application or exit the application without interrupting the report generation.
5. You will receive an email with a download link for the report when the report has been completed successfully.

## Exporting Data

The **Export Data** tool creates a .zip file containing GIS layers clipped to the active AOI. The user must define an AOI before exporting its data. The .zip file contains an Esri ArcGIS 9.3 file geodatabase that contains feature classes of the data within the **Advanced Viewer** and a map document (.MXD).

To export an AOI’s data, follow these steps:

1. Click an AOI name (e.g., Test AOI) in the AOI widget to activate it.
2. Click the **zip file icon** to the left of your email address (figure 8). “Ready to export data” text appears.
3. Enter the appropriate email recipient for the report.
4. Click the **Send icon** to the right of the email address to execute. Some exports may take more than a few minutes to complete. You can continue to use the **Advanced Viewer** application or exit the application without interrupting the data export.
5. You will receive an email with a link to the .zip file when the export has been completed successfully.