RAPTOR
REAL-TIME ASSESSMENT AND PLANNING TOOL FOR OREGON
USER MANUAL

Version 1.7
As of May 5, 2015
### VERSION HISTORY

<table>
<thead>
<tr>
<th>Version #</th>
<th>Implemented By</th>
<th>Revision Date</th>
<th>Description</th>
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<tbody>
<tr>
<td>1.0</td>
<td>Daniel Stoelb</td>
<td>09/12/2014</td>
<td>Initial version of user guide</td>
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<tr>
<td>1.1</td>
<td>Daniel Stoelb</td>
<td>10/13/2014</td>
<td>Formatting/Removal of vUSA Library</td>
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<td>1.2</td>
<td>Daniel Stoelb</td>
<td>11/04/2014</td>
<td>Formatting, textual edits, addition of Address Search Tool</td>
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<td>1.3</td>
<td>Daniel Stoelb</td>
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<td>Addition of Route Widget</td>
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<td>12/12/2014</td>
<td>Addition of National Digital Forecast Database, added new basemaps and descriptions, reference to tsunami configuration</td>
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<td>1.5</td>
<td>Daniel Stoelb</td>
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<td>Addition of Shapefiles Widget, reworking of important links, update to export map tool</td>
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1 BACKGROUND

The Real-Time Assessment and Planning Tool for Oregon (RAPTOR) is the Oregon Office of Emergency Management’s (OEM) situational awareness mapping tool.

In 2009, the Science and Technology Directorate (S&T) of the U.S. Department of Homeland Security (DHS) launched the Virtual USA (vUSA) initiative, which is helping to create a future where jurisdictions at all levels have the capabilities necessary to voluntarily share information with each other, as appropriate and authorized, regardless of the data format. The states of Alaska, Idaho, Montana, Oregon and Washington agreed to partner with the U.S. Department of Homeland Security (DHS) on a component of the Virtual USA Initiative, the Pacific Northwest (PNW) Pilot. The pilot advanced a technical and cultural shift in how the Nation shares information during an emergency.

Within Oregon, the State’s Office of Emergency Management (OEM), Department of Transportation (ODOT), the Department of Administrative Services (DAS) and Multnomah County’s Department of Emergency Management agreed to partner on the development of a GIS-enabled situational awareness prototype (i.e. VENOM – the Virtual Emergency Network of Multnomah). On behalf of their partners, Multnomah County took the lead on technical development of the prototype while OEM, ODOT, and DAS provided business requirements, access to vital information and geospatial datasets, and subject matter expertise. The prototype furnished a much needed virtual interoperability platform that allows collaboration and a coordinated response across the State’s Emergency Management community. The tool was the first step towards new emergency management capabilities, offering real-time situational information in combination with ‘traditional’ Geospatial Information Systems (GIS) layers to create a comprehensive picture of existing and potential situations. VENOM also served as a prototype for Oregon’s contribution to the Virtual USA (vUSA) Pacific NW Pilot.

As of October 2011, the State of Oregon’s OEM and DAS rebranded the tool as RAPTOR – the Real-time Assessment & Planning Tool for Oregon.

RAPTOR is the statewide version of the VENOM tool, built on the original concepts and stakeholder needs that were defined in VENOM. RAPTOR will allow OEM to spatially display interrelated information and aggregate information from various systems such as OR-IRIS, SAFE, Bridge, Ops Center, WebEOC, Computer Aided Dispatch (CAD), ODOT T-TIP and the National Weather Service into a geospatial platform. This allows for a real-time comprehensive situational picture. Examples of this include:

- Displaying the location of hospitals around a rapidly escalating traffic incident
- Showing the location of schools or childcare centers around a hazardous material spill
- Showing the infrastructure affected by a storm or natural disaster
- Providing predictive modeling tools to support ‘what-if’ scenario development and related planning activities
• Facilitated improved regional coordination and interoperability

RAPTOR’s potential value is that it instantly displays the relationships between events, allowing emergency operations centers (EOC’s) to be alerted to potential issues and providing real-time analysis for decision support. As this tool will complement other existing systems, it is intended to promote a multi-platform model of GIS information sharing amongst all levels of government via standardized feeds and data services such as GeoRSS, .xml and map services. This allows maximum information sharing with OEM regardless of which system agencies and localities are using for daily operations and in emergencies, therefore maximizing existing investments and minimizing potential costs.

2 POINT OF CONTACT (POC)

The point of contact for the RAPTOR program is Daniel Stoelb. His email address is Daniel.stoelb@state.or.us and phone number is (503) 378-2911 x 22234.

3 SYSTEM OVERVIEW

The RAPTOR program is built on the ESRI Flex 3.0 platform. As such, users need to have Adobe Flash plug-in version 10.0 or newer. This platform allows the application to run natively within any browser.

There are three different versions of RAPTOR, which are described below:

1. Public Version: the general public can view this version of RAPTOR at the following url: https://raptor.oregon.gov/raptorfx. Keep in mind that some of the layers are restricted and not available within this version of RAPTOR.

2. OpsCenter Version (RAPTOR/RAPTOR Training): entities and personnel that work in emergency management or are response personnel can access the OpsCenter version of RAPTOR through the single-sign-on portal at https://oregonem.com. This does require a user name and password for access. Through that same webpage, users can request an account. This version of RAPTOR includes the ability to view and populate incident information within the map (Oregon Planning tool). This same ability can be found in the RAPTOR Training site as well, with the caveat that any incident information populated in the training version of RAPTOR using the planning tools is for exercise/training purposes only.

3. PCII Version: entities and personnel that work for (or contracted by) state, local, or federal government can access the protected critical infrastructure information version of RAPTOR. This sign-on requires users to have first received PCII certification prior to registering for an account. PCII certification can be received via the following link at https://pciims.dhs.gov. After receiving certification, users can request an account for entry at https://raptor.oregon.gov. Users must supply a username and password for access. This version of RAPTOR includes Department of Homeland Security (DHS) data from the HSIP Gold program. This information contains sensitive data, such as
utility lines and energy facilities. Additionally, users can populate and view incident information.

4 RAPTOR BASIC TOOLS

The following tools and descriptions describe how to navigate and view data through the RAPTOR program.

4.1 MAP NAVIGATION TOOLS

These tools describe how to navigate and move through the map, and they are located on the left side of the map.

A – Zoom the map to the full extent (State of Oregon). Click on the icon to zoom to the State of Oregon.

B – Move the map to the north at the same scale (pan north). Click on the icon and the map will move in that direction.

C – Move the map to the west at the same scale (pan west). Click on the icon and the map will move in that direction.

D – Move the map to the south at the same scale (pan south). Click on the icon and the map will move in that direction.

E – Move the map to the east at the same scale (pan east). Click on the icon and the map will move in that direction.

F – Zoom the map to the previous extent (where you were last). Click on the icon and the map will move to the last extent.

G – Zoom the map to the next extent. Click on the icon and the map will move to the next extent.

H – Zoom in or zoom out (works similar to using the scroll wheel on the mouse). Click on the “+” icon to zoom in. Conversely, click on the “-“ icon to zoom out. Lastly, the user can click on the scroll bar and drag the mouse upwards to zoom in or downwards to zoom out.

I – Pan the map at the same scale. Click on the icon, then click and drag the map to move to a specific location.

J – Zoom in the map using a box. Click on the icon, then click and drag to draw a box in the map and zoom in to that extent.

K – Zoom out the map using a box. Click on the icon, then click and drag to draw a box in the map and zoom out from that extent.

4.2 MAP SCALE, LATITUDE, AND LONGITUDE

These tools describe the reference information for the current view of the map, and they are located on the bottom left corner of the map.
A – The current scale of the map. As the user zooms in or out, this will automatically adjust. Metric units will always show above, with English units below.

B – The current latitude and longitude for the cursor. As the user moves their mouse, this will automatically update to show their current location in decimal degrees.

4.3 OVERVIEW MAP

This map describes the main map area in reference to the rest of the world. This map is found in the bottom right corner of the map.

Click on the arrow icon to show/hide the map. The red area within the overview map describes the area that is currently being viewed within the main map. Users can also click and drag the red area to move the main map to a different area.

4.4 BASEMAP SWITCHER

This tool allows the user to switch between various basemaps that describe the area. This tool can be found on the top right corner of the main map.

This tool allows the user to switch between various pre-loaded basemaps. Basemaps are reference information that show in the background of the map. The current available basemaps are as follows:

- Imagery with Labels – displays imagery data as well as landmarks/places as served by ESRI.
- Imagery – displays imagery as served by ESRI.
- Streets – displays street level data as served by ESRI.
- Topographic – displays topographic data as served by ESRI.
- Dark Gray Canvas – displays dark gray overlays/boundaries as served by ESRI.
- Light Gray Canvas – displays light gray overlays/boundaries as served by ESRI.
- National Geographic – displays the National Geographic data as served by ESRI.
- Oceans – displays ocean data as served by ESRI.
- Terrain with Labels – displays terrain information with reference labels as served by ESRI.
- OpenStreetMap – displays OpenStreetMap data as served by ESRI.
- USA Topo Maps – displays the scanned USGS Quad information as served by ESRI.
- USGS National Map – displays the basemap utilized within the National Map mapping application from USGS.

4.5 MORE… MENU (TABLE OF CONTENTS LIST)

This tool displays layers (mapping data) currently loaded within the map. This tool can be found to the left of the “Basemap Switcher”.

Shows the current data layers that are loaded in the map. The user has many options to manipulate the data available within the tool. These options are accessed by clicking on the dropdown arrow to the right of the layer name. The options available are as follows:
- Zoom to – allows the user to zoom to the full extent of the layer. For example, if the data is statewide in nature, the map will zoom out to the entire state.

- Transparency – allows the user to change the color transparency, or the ability to see through the layer.

- Move up – moves the layer above the next layer listed above in the More… menu. This places the layer above the other layer, enabling it to be viewed on top of that layer. Instances where this may be used are when it relates to putting point data on top of polygon/area data.

- Move down – moves the layer below the next layer listed below in the More… menu. This places the layer below the other layer, enabling it to be viewed below the other layer. Instances where this may be used are when polygon/area data need to be moved underneath point data.

- Description (non KML/KMZ files) – allows the user to see the service description for that layer. This service description describes the data and opens in another tab the raw URL to that service.

- Download (KML/KMZ files only) – allows the user to download a copy of the KML/KMZ file.

Items that are grayed out in this menu refer to layers that are scale dependent. When the user zooms in further, these layers will turn on. Conversely, zooming out will turn off these layers.

### 4.6 POPUP MENU

Clicking on the map allows the user to display information within a popup window for all items on display. This also allows the user to click on “Zoom to”, which will zoom to the extent of that item identified in the popup.

For example, the user can click on a county to bring up the county information at that location.

If there are more items found at that location, a different set of options will display on the top-right corner of the popup window.
4.7 ADDRESS SEARCH TOOLBAR

This tool allows the user to enter an address to navigate to that particular location within RAPTOR.

- Type in the base address, followed by the city name to search for a location. When complete, press “enter” or click on the magnifying glass to conduct the search.

Search results will display below the text entered.

- Click on the entry to zoom the map to that location.
Results will then display with the location highlighted in green and a popup window displaying the address for that location.

5 RAPTOR MAIN TOOLBAR

The following tools describe the current toolbar options found within the RAPTOR program.

1. RAPTOR Event Switcher
2. Identify Tool
3. Bookmarks
4. Legend
5. Virtual Oregon
6. Weather Related
7. Traffic Cameras
8. Events and Data Feeds
9. Search Oregon
10. Map Tools and Analysis
11. Oregon Faults Search (Tsunami/Earthquake Configuration only)
12. Important Links
All items that open a new window allow the user to manipulate the size and position of the new window. Each new window is formatted in the same manner and can be manipulated as follows:

- **Close:** click on the “X” to close the window.
- **Minimize:** click on the “-“ next to the “X” to minimize the window. To bring the window back to its last view, click on the corresponding tool’s icon.
- **Resize:** click and drag the bottom right corner of the new window to resize the window. This is occasionally necessary when the scroll bar is not visible on the right side of the new window.
- **Move:** click and drag on the top edge of the window to move the window throughout the map.

### 5.1 RAPTOR EVENT SWITCHER

This tool allows the user to switch between different pre-set configurations of RAPTOR.

Users have the ability to click on each icon, which represent a different configuration of RAPTOR. As of this date, there are six different configurations available:

- Default (the main configuration loaded when initially viewing RAPTOR)
- Fire
- Flood
- HazMat (OpsCenter and PCII versions only)
- Nuclear (OpsCenter and PCII versions only)
- Tsunami/Earthquake
➢ Click on the icon and select “Open” to change to that configuration.

Each configuration loads in data that is relevant for that particular type of event. This data relates to all items found within the “More...” menu, bookmarks, and important links. Keep in mind that each configuration has the same main tools available.

5.2 IDENTIFY TOOL

This tool allows the user to find more detailed information about a specific location on the map.

➢ To begin, click on the blue circle icon, and then click once in the map at a particular location to identify the data. All information at that location is then displayed in the Identify window, organized by the order of the layers in the “More...” menu.

Results are then shown within the “Identify” window. Items can be dynamically removed from the results by clicking on the red “X” icon in the results list.

Click on the “Clear” text to clear the results and start a new Identify session.
5.3 BOOKMARKS

This tool allows the user to zoom in to a particular pre-defined location on the map.

- Click on the item in the list to zoom to that location.

Clicking on the icon allows the user to create a custom bookmark location based on the current extent of the map (current view).

- Users must then enter a valid name for the location and press “Add Bookmark”. The new location will then be accessible as the last item in the main list of bookmarks.

- To remove this bookmark, click on the icon.
Each configuration of RAPTOR may have different bookmarks. For example, the nuclear configuration includes bookmarks for additional areas as it relates to the Hanford Nuclear Reservation.

Keep in mind that this bookmark will only remain active and available during the current browsing session. If the user closes the browser and returns to RAPTOR, this bookmark will no longer exist. In order to have a permanent bookmark placed in the system, please contact the RAPTOR coordinator.

5.4 LEGEND
This tool displays the legend for the current view of RAPTOR.

As items are turned on/off within the “More…” menu, the legend will update. Additionally, layers that are scale dependent and turn on when zooming in will update the legend as well.

5.5 VIRTUAL OREGON
This toolbar is a group of tools that allow the user to add in additional data within the RAPTOR map.
5.5.1 My Oregon Widget
This tool displays ArcGIS Server bookmarks for partner agencies throughout the state and nationally.

The top set of icons within the window is described as follows:

1. Listing of ArcGIS Server bookmarks
2. Items found within specific ArcGIS Server bookmark
3. Items added from the ArcGIS Server bookmarks
4. Add custom ArcGIS Server bookmark

The listings of items (item number 1) within this tool are organized alphabetically by the following format:

- State Agencies
- Universities
- Counties
- Cities
- Tribal Entities
- Other States
- Federal Entities
- Public/Private Partners
Clicking on one of the entries will open their ArcGIS Server bookmark and display all folders and data layers available for loading into RAPTOR. This opens item number 2.

- To view data within the folder, click on the folder icon. Items that are available to be placed within RAPTOR will have the icon next to the data layer name. Click on the layer to add it into RAPTOR. This data layer will now load and be visible as the first item listed within the “More…” menu, and the layer added will now display in item number 3.

- To remove the item from the map, click on the icon. Alternatively, the user can uncheck the layer within the “More…” menu.

- To add in any additional layers from this tool, click on the icon to add data from the same agency, or click on the icon to add data from another agency.

Clicking on the icon allows the user to add in a custom ArcGIS Server bookmark.
➤ After typing in the server webpage address, click and choose the options for using a proxy (typically on by default) and determining if it is an ArcGIS Online REST endpoint (format is slightly different – http://services.arcgis.com/folder/ArcGIS/REST/Services), then type in a bookmark name. Once the information is supplied, click once on “Add Bookmark”, which will add that new bookmark at the bottom of the main listing of server bookmarks.

In order to add any data using this option, the server must be a public facing ArcGIS Server. A public facing ArcGIS Server allows the user to navigate to that specific webpage address (typically in the format of http://server/ArcGIS/REST/Services) within a browser. If the server is not public facing, the tool will not be able to add that bookmark.

Just like with the Bookmark tool, these custom server bookmarks only remain during the current browser session. If the user closes their browser and goes back into RAPTOR, this link will have been removed. If the link is needed within the system by default, contact the RAPTOR coordinator.

5.5.2 ArcGIS Online

This tool allows the user to search and add in data from ArcGIS Online.
The top set of icons are described as follows:

1. Conduct Search
2. Remove data loaded from ArcGIS Online

This search utility allows the user to define a name in the box entitled “search ArcGIS Online” and search the Virtual USA Library by checking the “vUSA” box, or by all ArcGIS Online by checking the “All AGOL” box, or by your own group within ArcGIS Online by checking the “My Groups” box (only after signing in). Users can sign in by clicking on the “Login” text, which will bring a prompt for the user to sign in with their ArcGIS Online user account and password.

After the search has completed, the user will see records display within the central part of the tool, as shown in the graphic below:
The user can click on the “Add” button underneath the icon to add the data into RAPTOR. Additionally, the user can click on the “Details” button to see more detailed information about the data.

➢ To remove the data from the map, click on the button, then click on “Remove” shown under the particular dataset needing removal.
5.5.3 Geoportal Find Data

This tool allows the user to search for data from specific sources, such as the Oregon Explorer, Washington Geospatial Clearinghouse, and ArcGIS.com.

The top set of icons within the window is described as follows:

1. Conduct Search
2. View Results
3. Help

This search utility allows the user to define what item they are looking for and based upon that entry, conduct a name search. The various options available are related to which portal to search for data within, which is the first dropdown entry. The dropdown entry allows the user to select from Oregon Explorer, WA Geospatial Clearinghouse, Wyoming GeoLibrary, Montana GIS Portal, ArcGIS.com, GeoData.gov, EPA Environmental Dataset Gateway, National Climatic Data Center, and GPTOGC (ESRI’s Geoportal).

Additionally, the user can define if the data is a live data map by clicking on the checkbox.
Lastly, the user can select from data that is located anywhere, intersecting (is somewhere within the current view of RAPTOR), and fully within (is solely within the boundary defined by the current view of RAPTOR).

- When the specific search criteria have been entered, click on “Search” to conduct a search.

Shown in the graphic below is a simple search for “Transportation” with the default items checked.

![Search Result Graphic]

Shown in the graphic are the results found. Closest matches are located at the top of the window. On the main view of RAPTOR, red boxes have appeared. These boxes represent the boundaries of the extent of all layers found to be matching the search.

Clicking on a specific result will zoom to that layer’s extent as well as display a popup for that particular layer, as shown in the graphic below.
This popup includes detailed information about the particular layer as well as the option to “Download”, view the “Website”, see the “Details”, view the “Metadata”, and “Add To Map”. This last option is only available for data that is found as a web map service (from an ArcGIS Server) and can be added to RAPTOR by clicking on “Add To Map”, which will add it as the first item in the “More…” menu. If the data is not a web map service, this option will not display.

➢ To conduct a new search, click on item 1 on the tool’s window.

5.5.4 **Add Shapefile Data**

This tool allows the user to add in a zipped file with shapefile data to their local copy of RAPTOR.

The top set of icons within the window is described as follows:
1. Load Shapefile
2. Preferences

Prior to loading a shapefile, the user will need to define the preferences.

➢ To define the preferences, click on the icon.

➢ This will now display the Preferences menu.

Preferences allow the user to display labels, change the text color of the labels, change the marker color (for points), change the line color (for lines/polylines), change the fill color (for polygons and areas). Each option allows for multiple variations of the interior color and outline color (for points and polygons/areas only). Additionally, the user can define the width of the line as well as the transparency, shown respectively as “Width” and “Alpha”. Text options allow for placement of the first text field within the shapefile at the middle, above, below, at the end, or at the start of the point, line, or polygon,

➢ Once the preferences have been selected, the user can then add the shapefile by clicking on the icon.
➢ Next, click on “Load Local Shapefile” to find the location of the zipped shapefile and add it to RAPTOR.

Keep in mind that this data is loaded within the map based upon the preferences selected. If the colors are not acceptable, the user will need to remove the shapefile and select the preferred preferences first.

➢ Once the layer has been loaded, the user will see a similar display as shown below that indicates the layer and number of features found within the shapefile in the “Load Shapefile” option of this tool.

The data will now be shown within the map as well as be the first item shown within the “More…” menu. This allows the user to turn on/off the layer in the current display of RAPTOR.

The user can add in additional datasets by clicking on the “Load Local Shapefile” button. Keep in mind that the preferences for this new layer will need to be selected prior to adding in another shapefile if the user does not want the same preferences applied.

➢ To remove the shapefile from the map, click on the icon.

5.6 WEATHER RELATED
This toolbar is a group of tools that allow the user to add in additional weather related data within the RAPTOR map.

5.6.1 NEXRAD RADAR
This tool allows the user to pull in NEXRAD weather radar information within RAPTOR.
Clicking on the NEXRAD Radar link displays the weather radar information as well as a new window, shown in the graphic below.

This window displays the time that data is relevant for as well as allowing the user to define the data opacity (transparency) by clicking and dragging the slider bar at the bottom of the window. Keep in mind that the data loops through every five minutes and displays the last hour’s worth of data. Users have the option to pause the data at a specific point in time by clicking on the icon. To resume, click on the icon.

Closing the window removes the weather radar from RAPTOR.

5.6.2 National Digital Forecast Database
This tool allows the user to display forecasted data from the National Digital Forecast Database from the National Weather Service. Details regarding this service can be found here: http://www.nws.noaa.gov/ndfd/.
Clicking on the tool will display a new window allowing the user to select between three different time-enabled layers:

1. NDFD Wind Gust Forecast – displays the next 72 hours of wind gust information, broken out in 3 hour increments.
2. NDFD Wind Speed Forecast – displays the next 72 hours of wind speed information (sustained winds for one hour), broken out in 3 hour increments.
3. NDFD Snowfall Forecast by Time – displays the next 72 hours of snowfall accumulation by time, broken out in 3 hour increments.

When the particular layer is selected, the user will see that information display within the map, with the corresponding symbols found within the legend tool.

The user can then utilize the tools within the window to choose between the define range of time. Clicking on the \( \text{Play} \) button will play the 72 hour sequence of data, scrolling through by 3 hour increments. Clicking on the \( \text{Rewind} \) button will move the data back by 3 hours. Clicking on the \( \text{Fast Forward} \) button will move the data forward by 3 hours.

Data found within this tool can also be clicked to bring up detailed information. This is time enabled – clicking on the area in question will bring up the details for that area at that particular point in time. The details shown relate to the wind speed (for NDFD Wind Gust Forecast and Wind Speed Forecast), snowfall (for NDFD Snowfall Forecast by Time), from date, and end date.

To remove the forecast data from RAPTOR, close the National Digital Forecast Database window.
5.7 TRAFFIC CAMERAS

These set of tools allow the user to add traffic camera data into RAPTOR from Oregon, California, Washington, and Idaho.

In the graphic below, the user selected “Oregon Traffic Cameras”.

As shown in the graphic, images of traffic cameras have appeared throughout the state. These cameras are the same locations as indicated on the ODOT Tripcheck website (http://tripcheck.com).

- Clicking on the camera within the map will display the same image as found within the Tripcheck program. These images are updated every six minutes.
Additionally, the user can select a camera name from the listing of cameras in the new window to zoom and view that camera’s information.

Closing the traffic camera window removes the cameras from RAPTOR.

5.8 EVENTS AND DATA FEEDS

This set of tools allows the user to add Rich Site Summary (RSS) data into RAPTOR. The following are a list of data available:

- FEMA X (FEMA Region 10 News)
- NOAA Incidents
- Earthquakes with Mag 4.0+ Global

5.8.1 FEMA X (FEMA Region 10 News)

This tool allows the user to add in RSS data from FEMA Region X’s news feed. Clicking on the icon will populate georeferenced (mapped) data from the FEMA Region X news feed, as shown in the graphic below.

All news will populate within a new window, as well as a will appear at that particular location within RAPTOR.
Clicking on the location in the map or an item on the list will display a popup about the news for that area, with a webpage link to go to the news article.

Clicking on the webpage link will open that webpage in another tab within the browser.

- Close the FEMA X window to remove all FEMA Region X News from RAPTOR.

### 5.8.2 NOAA Incidents

This tool allows the user to add in RSS data from the NOAA Incidents news feed. Clicking on the icon will populate georeferenced (mapped) data from the NOAA Incidents news feed, as shown in the graphic below.

All news will populate within a new window, as well as a icon will appear at that particular location within RAPTOR.

Clicking on the location in the map or an item on the list will display a popup about the incident information for that area, with a webpage link to go to the incident information.

Clicking on the webpage link will open that webpage in another tab within the browser.
- Close the NOAA Incidents window to remove all NOAA Incident information from RAPTOR.

5.8.3 Earthquakes with Mag 4.0+ Global

This tool allows the user to add in RSS data from the USGS Earthquakes Magnitude of 4.0 or Greater feed. This data displays earthquakes with a magnitude of 4.0 or greater within the last 7 days.

Clicking on the icon will populate georeferenced (mapped) data from the USGS Earthquake feed, as shown in the graphic below.

All news will populate within a new window, as well as a icon will appear at that particular location within RAPTOR.

Clicking on the location in the map or an item on the list will display a popup about the incident information for that area.

- Close the Earthquakes with Mag 4.0+ (Global) window to remove all USGS Earthquake information from RAPTOR.
5.9 SEARCH OREGON

This set of tools allows the user to search specific sets of data graphically using geographic search tools. Each of these tools function in the same manner. The following are the data layers available for searching:

- Dams
- Fire Stations
- Hazardous Substances
- Hospitals
- Law Enforcement
- Military Facilities
- Places of Worship
- Schools
- State Buildings
- Towers
- Urgent Care

Keep in mind, with all of these search tools, there is a maximum number of 1000 records that can be returned. If more specific details are necessary, narrow down the search by zooming in to a more precise location.

5.9.1 Dams Search

This tool allows the user to search for dams within a particular user-defined area.

Clicking on this search displays a search window, as shown in the graphic below.

The top set of icons within the window are described as follows:
1. Select Features
2. Select by Attributes
3. View Results

Under the select features option, the user will see various different shapes. Each of these shapes allow the user to define a particular area of interest to conduct the search. These options are described as follows:

- select using a point. This allows the user to click once in the map to place a point and search at that location. If any results are found, they display in the map as shown in the following graphic:

Results are shown on the map using the “Dams” icon, and results can be found in the view results section of the window. A total number of features selected are shown in the top portion of the window. Clicking on the icon for the dam will display a popup window with more detailed information about that particular dam.

- To clear the results, click on the “Select Features” button, then press “Clear”.

- select using a line. This allows the user to click once in the map to start drawing a line, then click subsequent times to place a new vertex for the line. Double-click to complete the line and conduct the search. If any results are found, they display in the map as shown in the following graphic:
Results are shown on the map using the “Dams” icon, and results can be found in the view results section of the window. A total number of features selected are shown in the top portion of the window. Clicking on the icon for the dam will display a popup window with more detailed information about that particular dam.

- To clear the results, click on the “Select Features” button, then press “Clear”.

- select using a freehand line. This allows the user to click and drag in the map to draw a line and conduct the search. This tool works best for users utilizing a pen tool on a tablet. If any results are found, they display in the map as shown in the following graphic:

Results are shown on the map using the “Dams” icon, and results can be found in the view results section of the window. A total number of features selected are shown in the top portion of the window. Clicking on the icon for the dam will display a popup window with more detailed information about that particular dam.

- To clear the results, click on the “Select Features” button, then press “Clear”.
- select using a rectangle. This allows the user to click and drag in the map to draw a boxed boundary and conduct the search. If any results are found, they display in the map as shown in the following graphic:

![Rectangle Selection](image1.png)

Results are shown on the map using the “Dams” icon, and results can be found in the view results section of the window. A total number of features selected are shown in the top portion of the window. Clicking on the icon for the dam will display a popup window with more detailed information about that particular dam.

- To clear the results, click on the “Select Features” button, then press “Clear”.

- select using a circle. This allows the user to click and drag in the map to draw a circle and conduct the search. The circle is drawn using the initial point clicked as the center of the circle. If any results are found, they display in the map as shown in the following graphic:

![Circle Selection](image2.png)

Results are shown on the map using the “Dams” icon, and results can be found in the view results section of the window. A total number of features selected are shown in the top portion of the window. Clicking on the icon for the dam will display a popup window with more detailed information about that particular dam.
➢ To clear the results, click on the “Select Features” button, then press “Clear”.

- select using a polygon. This allows the user to click once to start drawing the polygon, then click subsequent times to place additional vertices for the polygon. Double-click to complete drawing the polygon and conduct the search. If any results are found, they display in the map as shown in the following graphic:

Results are shown on the map using the “Dams” icon, and results can be found in the view results section of the window. A total number of features selected are shown in the top portion of the window. Clicking on the icon for the dam will display a popup window with more detailed information about that particular dam.

➢ To clear the results, click on the “Select Features” button, then press “Clear”.

- select using a freehand polygon. This allows the user to click and drag in the map to draw a polygon and conduct the search. This tool works best for users utilizing a pen tool on a tablet. If any results are found, they display in the map as shown in the following graphic:
Results are shown on the map using the “Dams” icon, and results can be found in the view results section of the window. A total number of features selected are shown in the top portion of the window. Clicking on the icon for the dam will display a popup window with more detailed information about that particular dam.

➢ To clear the results, click on the “Select Features” button, then press “Clear”.

Through the “Select by Attributes” option, users can type in a specific name to conduct a search of all items matching that name.

➢ Type in the name and press “Search” to conduct the search.

➢ To clear the results, click on the “Select by Attributes” button, then press “Clear”.

5.9.2 Fire Stations Search

This tool allows the user to search for fire stations within a particular user-defined area.

Clicking on this search displays a search window, as shown in the graphic below.

The top set of icons within the window are described as follows:
1. Select Features
2. Select by Attributes
3. View Results

Under the select features option, the user will see various different shapes. Each of these shapes allow the user to define a particular area of interest to conduct the search. These options are described as follows:

- select using a point. This allows the user to click once in the map to place a point and search at that location. If any results are found, they display in the map as shown in the following graphic:

![Fire Stations Search](image)

Results are shown on the map using the “Fire Stations” icon, and results can be found in the view results section of the window. A total number of features selected are shown in the top portion of the window. Clicking on the icon for the fire station will display a popup window with more detailed information about that particular fire station.

➢ To clear the results, click on the “Select Features” button, then press “Clear”.

- select using a line. This allows the user to click once in the map to start drawing a line, then click subsequent times to place a new vertex for the line. Double-click to complete the line and conduct the search. If any results are found, they display in the map as shown in the following graphic:
Results are shown on the map using the “Fire Stations” icon, and results can be found in the view results section of the window. A total number of features selected are shown in the top portion of the window. Clicking on the icon for the fire station will display a popup window with more detailed information about that particular fire station.

➢ To clear the results, click on the “Select Features” button, then press “Clear”.

- select using a freehand line. This allows the user to click and drag in the map to draw a line and conduct the search. This tool works best for users utilizing a pen tool on a tablet. If any results are found, they display in the map as shown in the following graphic:

Results are shown on the map using the “Fire Stations” icon, and results can be found in the view results section of the window. A total number of features selected are shown in the top portion of the window. Clicking on the icon for the fire station will display a popup window with more detailed information about that particular fire station.

➢ To clear the results, click on the “Select Features” button, then press “Clear”.

- select using a freehand line. This allows the user to click and drag in the map to draw a line and conduct the search. This tool works best for users utilizing a pen tool on a tablet. If any results are found, they display in the map as shown in the following graphic:
- select using a rectangle. This allows the user to click and drag in the map to draw a boxed boundary and conduct the search. If any results are found, they display in the map as shown in the following graphic:

![Rectangle Selection Graphic]

Results are shown on the map using the “Fire Stations” icon, and results can be found in the view results section of the window. A total number of features selected are shown in the top portion of the window. Clicking on the icon for the fire station will display a popup window with more detailed information about that particular fire station.

- To clear the results, click on the “Select Features” button, then press “Clear”.

- select using a circle. This allows the user to click and drag in the map to draw a circle and conduct the search. The circle is drawn using the initial point clicked as the center of the circle. If any results are found, they display in the map as shown in the following graphic:

![Circle Selection Graphic]

Results are shown on the map using the “Fire Stations” icon, and results can be found in the view results section of the window. A total number of features selected are shown in the top portion
of the window. Clicking on the icon for the fire station will display a popup window with more detailed information about that particular fire station.

- To clear the results, click on the “Select Features” button, then press “Clear”.

- select using a polygon. This allows the user to click once to start drawing the polygon, then click subsequent times to place additional vertices for the polygon. Double-click to complete drawing the polygon and conduct the search. If any results are found, they display in the map as shown in the following graphic:

Results are shown on the map using the “Fire Stations” icon, and results can be found in the view results section of the window. A total number of features selected are shown in the top portion of the window. Clicking on the icon for the fire station will display a popup window with more detailed information about that particular fire station.

- To clear the results, click on the “Select Features” button, then press “Clear”.

- select using a freehand polygon. This allows the user to click and drag in the map to draw a polygon and conduct the search. This tool works best for users utilizing a pen tool on a tablet. If any results are found, they display in the map as shown in the following graphic:
Results are shown on the map using the “Fire Stations” icon, and results can be found in the view results section of the window. A total number of features selected are shown in the top portion of the window. Clicking on the icon for the fire station will display a popup window with more detailed information about that particular fire station.

- To clear the results, click on the “Select Features” button, then press “Clear”.

Through the “Select by Attributes” option, users can type in a specific name to conduct a search of all items matching that name.

- Type in the name and press “Search” to conduct the search.

- To clear the results, click on the “Select by Attributes” button, then press “Clear”.

5.9.3 Hazardous Substances Search
This tool allows the user to search for hazardous substances within a particular user-defined area.

Clicking on this search displays a search window, as shown in the graphic below.
The top set of icons within the window are described as follows:

1. Select Features
2. Select by Attributes
3. View Results

Under the select features option, the user will see various different shapes. Each of these shapes allow the user to define a particular area of interest to conduct the search. These options are described as follows:

- select using a point. This allows the user to click once in the map to place a point and search at that location. If any results are found, they display in the map as shown in the following graphic:

Results are shown on the map using the “Hazardous Substances” icon, and results can be found in the view results section of the window. A total number of features selected are shown in the top portion of the window. Clicking on the icon for the hazardous substance will display a popup window with more detailed information about the hazardous substance at that location.
➢ To clear the results, click on the “Select Features” button, then press “Clear”.

- select using a line. This allows the user to click once in the map to start drawing a line, then click subsequent times to place a new vertex for the line. Double-click to complete the line and conduct the search. If any results are found, they display in the map as shown in the following graphic:

![Image of RAPTOR hazards substances search using line](Image)

Results are shown on the map using the “Hazardous Substances” icon, and results can be found in the view results section of the window. A total number of features selected are shown in the top portion of the window. Clicking on the icon for the hazardous substance will display a popup window with more detailed information about the hazardous substance at that location.

➢ To clear the results, click on the “Select Features” button, then press “Clear”.

- select using a freehand line. This allows the user to click and drag in the map to draw a line and conduct the search. This tool works best for users utilizing a pen tool on a tablet. If any results are found, they display in the map as shown in the following graphic:

![Image of RAPTOR hazards substances search using freehand line](Image)
Results are shown on the map using the “Hazardous Substances” icon, and results can be found in the view results section of the window. A total number of features selected are shown in the top portion of the window. Clicking on the icon for the hazardous substance will display a popup window with more detailed information about the hazardous substance at that location.

➢ To clear the results, click on the “Select Features” button, then press “Clear”.

- select using a rectangle. This allows the user to click and drag in the map to draw a boxed boundary and conduct the search. If any results are found, they display in the map as shown in the following graphic:
Results are shown on the map using the “Hazardous Substances” icon, and results can be found in the view results section of the window. A total number of features selected are shown in the top portion of the window. Clicking on the icon for the hazardous substance will display a popup window with more detailed information about the hazardous substance at that location.

- To clear the results, click on the “Select Features” button, then press “Clear”.

- select using a polygon. This allows the user to click once to start drawing the polygon, then click subsequent times to place additional vertices for the polygon. Double-click to complete drawing the polygon and conduct the search. If any results are found, they display in the map as shown in the following graphic:

Results are shown on the map using the “Hazardous Substances” icon, and results can be found in the view results section of the window. A total number of features selected are shown in the top portion of the window. Clicking on the icon for the hazardous substance will display a popup window with more detailed information about the hazardous substance at that location.

- To clear the results, click on the “Select Features” button, then press “Clear”.
- select using a freehand polygon. This allows the user to click and drag in the map to draw a polygon and conduct the search. This tool works best for users utilizing a pen tool on a tablet. If any results are found, they display in the map as shown in the following graphic:

Results are shown on the map using the “Hazardous Substances” icon, and results can be found in the view results section of the window. A total number of features selected are shown in the top portion of the window. Clicking on the icon for the hazardous substance will display a popup window with more detailed information about the hazardous substance at that location.

➢ To clear the results, click on the “Select Features” button, then press “Clear”.

Through the “Select by Attributes” option, users can type in a specific name to conduct a search of all items matching that name.

➢ Type in the name and press “Search” to conduct the search.

➢ To clear the results, click on the “Select by Attributes” button, then press “Clear”.

5.9.4 Hospitals Search
This tool allows the user to search for hospitals within a particular user-defined area.
Clicking on this search displays a search window, as shown in the graphic below.

The top set of icons within the window are described as follows:

1. Select Features
2. Select by Attributes
3. View Results

Under the select features option, the user will see various different shapes. Each of these shapes allow the user to define a particular area of interest to conduct the search. These options are described as follows:

- select using a point. This allows the user to click once in the map to place a point and search at that location. If any results are found, they display in the map as shown in the following graphic:
Results are shown on the map using the “Hospitals” icon, and results can be found in the view results section of the window. A total number of features selected are shown in the top portion of the window. Clicking on the icon for the hospital will display a popup window with more detailed information about the hospital at that location.

- To clear the results, click on the “Select Features” button, then press “Clear”.

- select using a line. This allows the user to click once in the map to start drawing a line, then click subsequent times to place a new vertex for the line. Double-click to complete the line and conduct the search. If any results are found, they display in the map as shown in the following graphic:

Results are shown on the map using the “Hospitals” icon, and results can be found in the view results section of the window. A total number of features selected are shown in the top portion of the window. Clicking on the icon for the hospital will display a popup window with more detailed information about the hospital at that location.

- To clear the results, click on the “Select Features” button, then press “Clear”.

- select using a freehand line. This allows the user to click and drag in the map to draw a line and conduct the search. This tool works best for users utilizing a pen tool on a tablet. If any results are found, they display in the map as shown in the following graphic:
Results are shown on the map using the “Hospitals” icon, and results can be found in the view results section of the window. A total number of features selected are shown in the top portion of the window. Clicking on the icon for the hospital will display a popup window with more detailed information about the hospital at that location.

➢ To clear the results, click on the “Select Features” button, then press “Clear”.

- select using a rectangle. This allows the user to click and drag in the map to draw a boxed boundary and conduct the search. If any results are found, they display in the map as shown in the following graphic:

Results are shown on the map using the “Hospitals” icon, and results can be found in the view results section of the window. A total number of features selected are shown in the top portion of the window. Clicking on the icon for the hospital will display a popup window with more detailed information about the hospital at that location.

➢ To clear the results, click on the “Select Features” button, then press “Clear”.
- select using a circle. This allows the user to click and drag in the map to draw a circle and conduct the search. The circle is drawn using the initial point clicked as the center of the circle. If any results are found, they display in the map as shown in the following graphic:

Results are shown on the map using the “Hospitals” icon, and results can be found in the view results section of the window. A total number of features selected are shown in the top portion of the window. Clicking on the icon for the hospital will display a popup window with more detailed information about the hospital at that location.

➢ To clear the results, click on the “Select Features” button, then press “Clear”.

- select using a polygon. This allows the user to click once to start drawing the polygon, then click subsequent times to place additional vertices for the polygon. Double-click to complete drawing the polygon and conduct the search. If any results are found, they display in the map as shown in the following graphic:
Results are shown on the map using the “Hospitals” icon, and results can be found in the view results section of the window. A total number of features selected are shown in the top portion of the window. Clicking on the icon for the hospital will display a popup window with more detailed information about the hospital at that location.

- To clear the results, click on the “Select Features” button, then press “Clear”.

- select using a freehand polygon. This allows the user to click and drag in the map to draw a polygon and conduct the search. This tool works best for users utilizing a pen tool on a tablet. If any results are found, they display in the map as shown in the following graphic:

Results are shown on the map using the “Hospitals” icon, and results can be found in the view results section of the window. A total number of features selected are shown in the top portion of the window. Clicking on the icon for the hospital will display a popup window with more detailed information about the hospital at that location.

- To clear the results, click on the “Select Features” button, then press “Clear”.

Through the “Select by Attributes” option, users can type in a specific name to conduct a search of all items matching that name.
Type in the name and press “Search” to conduct the search.

To clear the results, click on the “Select by Attributes” button, then press “Clear”.

5.9.5 Law Enforcement Search

This tool allows the user to search for law enforcement facilities within a particular user-defined area.

Clicking on this search displays a search window, as shown in the graphic below.

The top set of icons within the window are described as follows:

1. Select Features
2. Select by Attributes
3. View Results

Under the select features option, the user will see various different shapes. Each of these shapes allow the user to define a particular area of interest to conduct the search. These options are described as follows:

- select using a point. This allows the user to click once in the map to place a point and search at that location. If any results are found, they display in the map as shown in the following graphic:
Results are shown on the map using the “Law Enforcement” icon, and results can be found in the view results section of the window. A total number of features selected are shown in the top portion of the window. Clicking on the icon for the law enforcement facility will display a popup window with more detailed information about the law enforcement facility at that location.

- To clear the results, click on the “Select Features” button, then press “Clear”.

- select using a line. This allows the user to click once in the map to start drawing a line, then click subsequent times to place a new vertex for the line. Double-click to complete the line and conduct the search. If any results are found, they display in the map as shown in the following graphic:

Results are shown on the map using the “Law Enforcement” icon, and results can be found in the view results section of the window. A total number of features selected are shown in the top portion of the window. Clicking on the icon for the law enforcement facility will display a popup window with more detailed information about the law enforcement facility at that location.
To clear the results, click on the “Select Features” button, then press “Clear”.

- select using a freehand line. This allows the user to click and drag in the map to draw a line and conduct the search. This tool works best for users utilizing a pen tool on a tablet. If any results are found, they display in the map as shown in the following graphic:

Results are shown on the map using the “Law Enforcement” icon, and results can be found in the view results section of the window. A total number of features selected are shown in the top portion of the window. Clicking on the icon for the law enforcement facility will display a popup window with more detailed information about the law enforcement facility at that location.

To clear the results, click on the “Select Features” button, then press “Clear”.

- select using a rectangle. This allows the user to click and drag in the map to draw a boxed boundary and conduct the search. If any results are found, they display in the map as shown in the following graphic:
Results are shown on the map using the “Law Enforcement” icon, and results can be found in the view results section of the window. A total number of features selected are shown in the top portion of the window. Clicking on the icon for the law enforcement facility will display a popup window with more detailed information about the law enforcement facility at that location.

- To clear the results, click on the “Select Features” button, then press “Clear”.

- select using a circle. This allows the user to click and drag in the map to draw a circle and conduct the search. The circle is drawn using the initial point clicked as the center of the circle. If any results are found, they display in the map as shown in the following graphic:

Results are shown on the map using the “Law Enforcement” icon, and results can be found in the view results section of the window. A total number of features selected are shown in the top portion of the window. Clicking on the icon for the law enforcement facility will display a popup window with more detailed information about the law enforcement facility at that location.

- To clear the results, click on the “Select Features” button, then press “Clear”.

- select using a polygon. This allows the user to click once to start drawing the polygon, then click subsequent times to place additional vertices for the polygon. Double-click to complete drawing the polygon and conduct the search. If any results are found, they display in the map as shown in the following graphic:
Results are shown on the map using the “Law Enforcement” icon, and results can be found in the view results section of the window. A total number of features selected are shown in the top portion of the window. Clicking on the icon for the law enforcement facility will display a popup window with more detailed information about the law enforcement facility at that location.

➢ To clear the results, click on the “Select Features” button, then press “Clear”.

- select using a freehand polygon. This allows the user to click and drag in the map to draw a polygon and conduct the search. This tool works best for users utilizing a pen tool on a tablet. If any results are found, they display in the map as shown in the following graphic:

Results are shown on the map using the “Law Enforcement” icon, and results can be found in the view results section of the window. A total number of features selected are shown in the top portion of the window. Clicking on the icon for the law enforcement facility will display a popup window with more detailed information about the law enforcement facility at that location.

➢ To clear the results, click on the “Select Features” button, then press “Clear”.
Through the “Select by Attributes” option, users can type in a specific name to conduct a search of all items matching that name.

- Type in the name and press “Search” to conduct the search.
- To clear the results, click on the “Select by Attributes” button, then press “Clear”.

### 5.9.6 Military Facilities Search

This tool allows the user to search for military facilities within a particular user-defined area.

Clicking on this search displays a search window, as shown in the graphic below.

The top set of icons within the window are described as follows:

1. Select Features
2. Select by Attributes
3. View Results

Under the select features option, the user will see various different shapes. Each of these shapes allow the user to define a particular area of interest to conduct the search. These options are described as follows:
- select using a point. This allows the user to click once in the map to place a point and search at that location. If any results are found, they display in the map as shown in the following graphic:

Results are shown on the map using the “Military Facilities” icon, and results can be found in the view results section of the window. A total number of features selected are shown in the top portion of the window. Clicking on the icon for the military facility will display a popup window with more detailed information about the military facility at that location.

➢ To clear the results, click on the “Select Features” button, then press “Clear”.

- select using a line. This allows the user to click once in the map to start drawing a line, then click subsequent times to place a new vertex for the line. Double-click to complete the line and conduct the search. If any results are found, they display in the map as shown in the following graphic:
Results are shown on the map using the “Military Facilities” icon, and results can be found in the view results section of the window. A total number of features selected are shown in the top portion of the window. Clicking on the icon for the military facility will display a popup window with more detailed information about the military facility at that location.

➢ To clear the results, click on the “Select Features” button, then press “Clear”.

- select using a freehand line. This allows the user to click and drag in the map to draw a line and conduct the search. This tool works best for users utilizing a pen tool on a tablet. If any results are found, they display in the map as shown in the following graphic:

Results are shown on the map using the “Military Facilities” icon, and results can be found in the view results section of the window. A total number of features selected are shown in the top portion of the window. Clicking on the icon for the military facility will display a popup window with more detailed information about the military facility at that location.

➢ To clear the results, click on the “Select Features” button, then press “Clear”.

- select using a rectangle. This allows the user to click and drag in the map to draw a boxed boundary and conduct the search. If any results are found, they display in the map as shown in the following graphic:
Results are shown on the map using the “Military Facilities” icon, and results can be found in the view results section of the window. A total number of features selected are shown in the top portion of the window. Clicking on the icon for the military facility will display a popup window with more detailed information about the military facility at that location.

➢ To clear the results, click on the “Select Features” button, then press “Clear”.

- select using a circle. This allows the user to click and drag in the map to draw a circle and conduct the search. The circle is drawn using the initial point clicked as the center of the circle. If any results are found, they display in the map as shown in the following graphic:

Results are shown on the map using the “Military Facilities” icon, and results can be found in the view results section of the window. A total number of features selected are shown in the top portion of the window. Clicking on the icon for the military facility will display a popup window with more detailed information about the military facility at that location.
➢ To clear the results, click on the “Select Features” button, then press “Clear”.

- select using a polygon. This allows the user to click once to start drawing the polygon, then click subsequent times to place additional vertices for the polygon. Double-click to complete drawing the polygon and conduct the search. If any results are found, they display in the map as shown in the following graphic:

Results are shown on the map using the “Military Facilities” icon, and results can be found in the view results section of the window. A total number of features selected are shown in the top portion of the window. Clicking on the icon for the military facility will display a popup window with more detailed information about the military facility at that location.

➢ To clear the results, click on the “Select Features” button, then press “Clear”.

- select using a freehand polygon. This allows the user to click and drag in the map to draw a polygon and conduct the search. This tool works best for users utilizing a pen tool on a tablet. If any results are found, they display in the map as shown in the following graphic:
Results are shown on the map using the “Military Facilities” icon, and results can be found in the view results section of the window. A total number of features selected are shown in the top portion of the window. Clicking on the icon for the military facility will display a popup window with more detailed information about the military facility at that location.

- To clear the results, click on the “Select Features” button, then press “Clear”.

Through the “Select by Attributes” option, users can type in a specific name to conduct a search of all items matching that name.

- Type in the name and press “Search” to conduct the search.

- To clear the results, click on the “Select by Attributes” button, then press “Clear”.

5.9.7 Places of Worship Search
This tool allows the user to search for places of worship within a particular user-defined area.

Clicking on this search displays a search window, as shown in the graphic below.
The top set of icons within the window are described as follows:

1. Select Features
2. Select by Attributes
3. View Results

Under the select features option, the user will see various different shapes. Each of these shapes allow the user to define a particular area of interest to conduct the search. These options are described as follows:

- select using a point. This allows the user to click once in the map to place a point and search at that location. If any results are found, they display in the map as shown in the following graphic:

Results are shown on the map using the “Places of Worship” icon, and results can be found in the view results section of the window. A total number of features selected are shown in the top portion of the window. Clicking on the icon for the places of worship will display a popup window with more detailed information about the place of worship at that location.
- To clear the results, click on the “Select Features” button, then press “Clear”.

- select using a line. This allows the user to click once in the map to start drawing a line, then click subsequent times to place a new vertex for the line. Double-click to complete the line and conduct the search. If any results are found, they display in the map as shown in the following graphic:

Results are shown on the map using the “Places of Worship” icon, and results can be found in the view results section of the window. A total number of features selected are shown in the top portion of the window. Clicking on the icon for the places of worship will display a popup window with more detailed information about the place of worship at that location.

- To clear the results, click on the “Select Features” button, then press “Clear”.

- select using a freehand line. This allows the user to click and drag in the map to draw a line and conduct the search. This tool works best for users utilizing a pen tool on a tablet. If any results are found, they display in the map as shown in the following graphic:
Results are shown on the map using the “Places of Worship” icon, and results can be found in the view results section of the window. A total number of features selected are shown in the top portion of the window. Clicking on the icon for the places of worship will display a popup window with more detailed information about the place of worship at that location.

- To clear the results, click on the “Select Features” button, then press “Clear”.

- select using a rectangle. This allows the user to click and drag in the map to draw a boxed boundary and conduct the search. If any results are found, they display in the map as shown in the following graphic:

![Map with Places of Worship Search]

Results are shown on the map using the “Places of Worship” icon, and results can be found in the view results section of the window. A total number of features selected are shown in the top portion of the window. Clicking on the icon for the places of worship will display a popup window with more detailed information about the place of worship at that location.

To clear the results, click on the “Select Features” button, then press “Clear”.

- select using a circle. This allows the user to click and drag in the map to draw a circle and conduct the search. The circle is drawn using the initial point clicked as the center of the circle. If any results are found, they display in the map as shown in the following graphic:
Results are shown on the map using the “Places of Worship” icon, and results can be found in the view results section of the window. A total number of features selected are shown in the top portion of the window. Clicking on the icon for the places of worship will display a popup window with more detailed information about the place of worship at that location.

➢ To clear the results, click on the “Select Features” button, then press “Clear”.

- select using a polygon. This allows the user to click once to start drawing the polygon, then click subsequent times to place additional vertices for the polygon. Double-click to complete drawing the polygon and conduct the search. If any results are found, they display in the map as shown in the following graphic:
- select using a freehand polygon. This allows the user to click and drag in the map to draw a polygon and conduct the search. This tool works best for users utilizing a pen tool on a tablet. If any results are found, they display in the map as shown in the following graphic:

Results are shown on the map using the “Places of Worship” icon, and results can be found in the view results section of the window. A total number of features selected are shown in the top portion of the window. Clicking on the icon for the places of worship will display a popup window with more detailed information about the place of worship at that location.

- To clear the results, click on the “Select Features” button, then press “Clear”.

Through the “Select by Attributes” option, users can type in a specific name to conduct a search of all items matching that name.

- Type in the name and press “Search” to conduct the search.

- To clear the results, click on the “Select by Attributes” button, then press “Clear”.

5.9.8 Schools Search
This tool allows the user to search for schools within a particular user-defined area.
Clicking on this search displays a search window, as shown in the graphic below.

![Search Window Graphic](image)

The top set of icons within the window are described as follows:

1. Select Features
2. Select by Attributes
3. View Results

Under the select features option, the user will see various different shapes. Each of these shapes allow the user to define a particular area of interest to conduct the search. These options are described as follows:

- select using a point. This allows the user to click once in the map to place a point and search at that location. If any results are found, they display in the map as shown in the following graphic:

![Result Display Graphic](image)

Results are shown on the map using the “Schools” icon, and results can be found in the view results section of the window. A total number of features selected are shown in the top portion.
of the window. Clicking on the icon for the schools will display a popup window with more detailed information about the school at that location.

- To clear the results, click on the “Select Features” button, then press “Clear”.

- select using a line. This allows the user to click once in the map to start drawing a line, then click subsequent times to place a new vertex for the line. Double-click to complete the line and conduct the search. If any results are found, they display in the map as shown in the following graphic:

Results are shown on the map using the “Schools” icon, and results can be found in the view results section of the window. A total number of features selected are shown in the top portion of the window. Clicking on the icon for the schools will display a popup window with more detailed information about the school at that location.

- To clear the results, click on the “Select Features” button, then press “Clear”.

- select using a freehand line. This allows the user to click and drag in the map to draw a line and conduct the search. This tool works best for users utilizing a pen tool on a tablet. If any results are found, they display in the map as shown in the following graphic:
Results are shown on the map using the “Schools” icon, and results can be found in the view results section of the window. A total number of features selected are shown in the top portion of the window. Clicking on the icon for the schools will display a popup window with more detailed information about the school at that location.

- To clear the results, click on the “Select Features” button, then press “Clear”.

- select using a rectangle. This allows the user to click and drag in the map to draw a boxed boundary and conduct the search. If any results are found, they display in the map as shown in the following graphic:

Results are shown on the map using the “Schools” icon, and results can be found in the view results section of the window. A total number of features selected are shown in the top portion of the window. Clicking on the icon for the schools will display a popup window with more detailed information about the school at that location.

- To clear the results, click on the “Select Features” button, then press “Clear”.
- select using a circle. This allows the user to click and drag in the map to draw a circle and conduct the search. The circle is drawn using the initial point clicked as the center of the circle. If any results are found, they display in the map as shown in the following graphic:

![Circle selection graphic](image)

Results are shown on the map using the “Schools” icon, and results can be found in the view results section of the window. A total number of features selected are shown in the top portion of the window. Clicking on the icon for the schools will display a popup window with more detailed information about the school at that location.

- To clear the results, click on the “Select Features” button, then press “Clear”.

- select using a polygon. This allows the user to click once to start drawing the polygon, then click subsequent times to place additional vertices for the polygon. Double-click to complete drawing the polygon and conduct the search. If any results are found, they display in the map as shown in the following graphic:

![Polygon selection graphic](image)

Results are shown on the map using the “Schools” icon, and results can be found in the view results section of the window. A total number of features selected are shown in the top portion of the window. Clicking on the icon for the schools will display a popup window with more detailed information about the school at that location.
➢ To clear the results, click on the “Select Features” button, then press “Clear”.

- select using a freehand polygon. This allows the user to click and drag in the map to draw a polygon and conduct the search. This tool works best for users utilizing a pen tool on a tablet. If any results are found, they display in the map as shown in the following graphic:

Results are shown on the map using the “Schools” icon, and results can be found in the view results section of the window. A total number of features selected are shown in the top portion of the window. Clicking on the icon for the schools will display a popup window with more detailed information about the school at that location.

➢ To clear the results, click on the “Select Features” button, then press “Clear”.

Through the “Select by Attributes” option, users can type in a specific name to conduct a search of all items matching that name.

➢ Type in the name and press “Search” to conduct the search.

➢ To clear the results, click on the “Select by Attributes” button, then press “Clear”.

➢ To clear the results, click on the “Select Features” button, then press “Clear”.

- select using a freehand polygon. This allows the user to click and drag in the map to draw a polygon and conduct the search. This tool works best for users utilizing a pen tool on a tablet. If any results are found, they display in the map as shown in the following graphic:
5.9.9 State Buildings Search

This tool allows the user to search for state owned buildings within a particular user-defined area.

Clicking on this search displays a search window, as shown in the graphic below.

The top set of icons within the window are described as follows:

1. Select Features
2. Select by Attributes
3. View Results

Under the select features option, the user will see various different shapes. Each of these shapes allow the user to define a particular area of interest to conduct the search. These options are described as follows:

- select using a point. This allows the user to click once in the map to place a point and search at that location. If any results are found, they display in the map as shown in the following graphic:
Results are shown on the map using the “State Buildings” icon, and results can be found in the view results section of the window. A total number of features selected are shown in the top portion of the window. Clicking on the icon for the state building will display a popup window with more detailed information about the state building at that location.

- To clear the results, click on the “Select Features” button, then press “Clear”.

- select using a line. This allows the user to click once in the map to start drawing a line, then click subsequent times to place a new vertex for the line. Double-click to complete the line and conduct the search. If any results are found, they display in the map as shown in the following graphic:
- select using a freehand line. This allows the user to click and drag in the map to draw a line and conduct the search. This tool works best for users utilizing a pen tool on a tablet. If any results are found, they display in the map as shown in the following graphic:

Results are shown on the map using the “State Buildings” icon, and results can be found in the view results section of the window. A total number of features selected are shown in the top portion of the window. Clicking on the icon for the state building will display a popup window with more detailed information about the state building at that location.

- To clear the results, click on the “Select Features” button, then press “Clear”.

- select using a rectangle. This allows the user to click and drag in the map to draw a boxed boundary and conduct the search. If any results are found, they display in the map as shown in the following graphic:

Results are shown on the map using the “State Buildings” icon, and results can be found in the view results section of the window. A total number of features selected are shown in the top portion of the window. Clicking on the icon for the state building will display a popup window with more detailed information about the state building at that location.
➢ To clear the results, click on the “Select Features” button, then press “Clear”.

- select using a circle. This allows the user to click and drag in the map to draw a circle and conduct the search. The circle is drawn using the initial point clicked as the center of the circle. If any results are found, they display in the map as shown in the following graphic:

Results are shown on the map using the “State Buildings” icon, and results can be found in the view results section of the window. A total number of features selected are shown in the top portion of the window. Clicking on the icon for the state building will display a popup window with more detailed information about the state building at that location.

➢ To clear the results, click on the “Select Features” button, then press “Clear”.

- select using a polygon. This allows the user to click once to start drawing the polygon, then click subsequent times to place additional vertices for the polygon. Double-click to complete drawing the polygon and conduct the search. If any results are found, they display in the map as shown in the following graphic:
Results are shown on the map using the “State Buildings” icon, and results can be found in the view results section of the window. A total number of features selected are shown in the top portion of the window. Clicking on the icon for the state building will display a popup window with more detailed information about the state building at that location.

- To clear the results, click on the “Select Features” button, then press “Clear”.

- select using a freehand polygon. This allows the user to click and drag in the map to draw a polygon and conduct the search. This tool works best for users utilizing a pen tool on a tablet. If any results are found, they display in the map as shown in the following graphic:

Results are shown on the map using the “State Buildings” icon, and results can be found in the view results section of the window. A total number of features selected are shown in the top portion of the window. Clicking on the icon for the state building will display a popup window with more detailed information about the state building at that location.

- To clear the results, click on the “Select Features” button, then press “Clear”.

Through the “Select by Attributes” option, users can type in a specific name to conduct a search of all items matching that name.
➤ Type in the name and press “Search” to conduct the search.

➤ To clear the results, click on the “Select by Attributes” button, then press “Clear”.

### 5.9.10 Towers Search

This tool allows the user to search for communication towers within a particular user-defined area.

Clicking on this search displays a search window, as shown in the graphic below.

The top set of icons within the window are described as follows:

1. Select Features
2. Select by Attributes
3. View Results

Under the select features option, the user will see various different shapes. Each of these shapes allow the user to define a particular area of interest to conduct the search. These options are described as follows:

- select using a point. This allows the user to click once in the map to place a point and search at that location. If any results are found, they display in the map as shown in the following graphic:
Results are shown on the map using the “Towers” icon, and results can be found in the view results section of the window. A total number of features selected are shown in the top portion of the window. Clicking on the icon for the tower will display a popup window with more detailed information about the tower at that location.

➢ To clear the results, click on the “Select Features” button, then press “Clear”.

- select using a line. This allows the user to click once in the map to start drawing a line, then click subsequent times to place a new vertex for the line. Double-click to complete the line and conduct the search. If any results are found, they display in the map as shown in the following graphic:

Results are shown on the map using the “Towers” icon, and results can be found in the view results section of the window. A total number of features selected are shown in the top portion of the window. Clicking on the icon for the tower will display a popup window with more detailed information about the tower at that location.

➢ To clear the results, click on the “Select Features” button, then press “Clear”.

-
- select using a freehand line. This allows the user to click and drag in the map to draw a line and conduct the search. This tool works best for users utilizing a pen tool on a tablet. If any results are found, they display in the map as shown in the following graphic:

![Freehand Line Example]

Results are shown on the map using the “Towers” icon, and results can be found in the view results section of the window. A total number of features selected are shown in the top portion of the window. Clicking on the icon for the tower will display a popup window with more detailed information about the tower at that location.

➢ To clear the results, click on the “Select Features” button, then press “Clear”.

- select using a rectangle. This allows the user to click and drag in the map to draw a boxed boundary and conduct the search. If any results are found, they display in the map as shown in the following graphic:

![Rectangle Example]

Results are shown on the map using the “Towers” icon, and results can be found in the view results section of the window. A total number of features selected are shown in the top portion of the window. Clicking on the icon for the tower will display a popup window with more detailed information about the tower at that location.
➢ To clear the results, click on the “Select Features” button, then press “Clear”.

- select using a circle. This allows the user to click and drag in the map to draw a circle and conduct the search. The circle is drawn using the initial point clicked as the center of the circle. If any results are found, they display in the map as shown in the following graphic:

Results are shown on the map using the “Towers” icon, and results can be found in the view results section of the window. A total number of features selected are shown in the top portion of the window. Clicking on the icon for the tower will display a popup window with more detailed information about the tower at that location.

➢ To clear the results, click on the “Select Features” button, then press “Clear”.

- select using a polygon. This allows the user to click once to start drawing the polygon, then click subsequent times to place additional vertices for the polygon. Double-click to complete drawing the polygon and conduct the search. If any results are found, they display in the map as shown in the following graphic:
Results are shown on the map using the “Towers” icon, and results can be found in the view results section of the window. A total number of features selected are shown in the top portion of the window. Clicking on the icon for the tower will display a popup window with more detailed information about the tower at that location.

- To clear the results, click on the “Select Features” button, then press “Clear”.

- select using a freehand polygon. This allows the user to click and drag in the map to draw a polygon and conduct the search. This tool works best for users utilizing a pen tool on a tablet. If any results are found, they display in the map as shown in the following graphic:

Results are shown on the map using the “Towers” icon, and results can be found in the view results section of the window. A total number of features selected are shown in the top portion of the window. Clicking on the icon for the tower will display a popup window with more detailed information about the tower at that location.

- To clear the results, click on the “Select Features” button, then press “Clear”.

Through the “Select by Attributes” option, users can type in a specific name to conduct a search of all items matching that name.

- Type in the name and press “Search” to conduct the search.
➢ To clear the results, click on the “Select by Attributes” button, then press “Clear”.

5.9.11 Urgent Care Search
This tool allows the user to search for urgent care facilities within a particular user-defined area.

Clicking on this search displays a search window, as shown in the graphic below.

The top set of icons within the window are described as follows:

1. Select Features
2. Select by Attributes
3. View Results

Under the select features option, the user will see various different shapes. Each of these shapes allow the user to define a particular area of interest to conduct the search. These options are described as follows:

- select using a point. This allows the user to click once in the map to place a point and search at that location. If any results are found, they display in the map as shown in the following graphic:
Results are shown on the map using the “Urgent Care” icon, and results can be found in the view results section of the window. A total number of features selected are shown in the top portion of the window. Clicking on the icon for the urgent care facility will display a popup window with more detailed information about the urgent care facility at that location.

- To clear the results, click on the “Select Features” button, then press “Clear”.

- select using a line. This allows the user to click once in the map to start drawing a line, then click subsequent times to place a new vertex for the line. Double-click to complete the line and conduct the search. If any results are found, they display in the map as shown in the following graphic:
- select using a freehand line. This allows the user to click and drag in the map to draw a line and conduct the search. This tool works best for users utilizing a pen tool on a tablet. If any results are found, they display in the map as shown in the following graphic:

![Urgent Care Search](image)

Results are shown on the map using the “Urgent Care” icon, and results can be found in the view results section of the window. A total number of features selected are shown in the top portion of the window. Clicking on the icon for the urgent care facility will display a popup window with more detailed information about the urgent care facility at that location.

- To clear the results, click on the “Select Features” button, then press “Clear”.

- select using a rectangle. This allows the user to click and drag in the map to draw a boxed boundary and conduct the search. If any results are found, they display in the map as shown in the following graphic:

![Urgent Care Search](image)

Results are shown on the map using the “Urgent Care” icon, and results can be found in the view results section of the window. A total number of features selected are shown in the top portion
of the window. Clicking on the icon for the urgent care facility will display a popup window with more detailed information about the urgent care facility at that location.

- To clear the results, click on the “Select Features” button, then press “Clear”.

- select using a circle. This allows the user to click and drag in the map to draw a circle and conduct the search. The circle is drawn using the initial point clicked as the center of the circle. If any results are found, they display in the map as shown in the following graphic:

![Urgent Care Search Graphic]

Results are shown on the map using the “Urgent Care” icon, and results can be found in the view results section of the window. A total number of features selected are shown in the top portion of the window. Clicking on the icon for the urgent care facility will display a popup window with more detailed information about the urgent care facility at that location.

- To clear the results, click on the “Select Features” button, then press “Clear”.

- select using a polygon. This allows the user to click once to start drawing the polygon, then click subsequent times to place additional vertices for the polygon. Double-click to complete drawing the polygon and conduct the search. If any results are found, they display in the map as shown in the following graphic:
Results are shown on the map using the “Urgent Care” icon, and results can be found in the view results section of the window. A total number of features selected are shown in the top portion of the window. Clicking on the icon for the urgent care facility will display a popup window with more detailed information about the urgent care facility at that location.

- To clear the results, click on the “Select Features” button, then press “Clear”.

- select using a freehand polygon. This allows the user to click and drag in the map to draw a polygon and conduct the search. This tool works best for users utilizing a pen tool on a tablet. If any results are found, they display in the map as shown in the following graphic:

Results are shown on the map using the “Urgent Care” icon, and results can be found in the view results section of the window. A total number of features selected are shown in the top portion of the window. Clicking on the icon for the urgent care facility will display a popup window with more detailed information about the urgent care facility at that location.

- To clear the results, click on the “Select Features” button, then press “Clear”.

Through the “Select by Attributes” option, users can type in a specific name to conduct a search of all items matching that name.

- Type in the name and press “Search” to conduct the search.
- To clear the results, click on the “Select by Attributes” button, then press “Clear”.

5.10 MAP TOOLS AND ANALYSIS

This set of tools are custom tools designed for the RAPTOR program. The tools are as follows:

5.10.1 Find an Address or Place (Oregon only)

This tool allows the user to search for a specific address or place within Oregon.

The top set of icons within the window are described as follows:

1. Address Search
2. Coordinates Search
3. View Results
When starting the tool, the window opens by default with the address search option.

- To search for a particular address, type in the base address with the city name. For example, type the following:
  
  3225 State St, Salem

- To conduct the search, click on “Locate”. This will then zoom the map to the location and display a set of results in the results window as shown in the graphic below.

There will be a red icon placed at the location that was found as matching the address entered into the system. This icon is removed if the address search tool is closed.

Within the results window, there will be a listing of all addresses that match the address typed in the address search. As shown in the graphic, there were three unique entries for this address. The top two entries have a “Score” of 100. This indicates that the entire address matched. The last entry indicates a score of 79, which indicates that only a portion of the address matched. This is true since it stated 3226 instead of 3225. Also, there is a red “X” next to each entry. If there are results that do not need to be visible, click on this “X” to remove them from the list.

Additionally, users can type in the name of the city by itself to search for that city within the map. Keep in mind that all addresses or cities must be within the confines of Oregon.

- When ready to conduct a new search, click on the “Address Search” button, then press “Clear” to type in a new address.

The second option available is the Coordinates Search. Click on the pushpin icon to display the coordinate search utility, as shown in the graphic below.
Similar to the address search, this option allows the user to search for a particular location, this time based upon latitude and longitude coordinates.

When entering the coordinate information, keep in mind that the Longitude must be entered first. Also, the coordinates must be entered in decimal degrees.

- When ready to search for that location, press “Locate”. This will then zoom the map to the location and display a set of results in the results window as shown in the graphic below.

There will be a red icon placed at the location that was found as matching the address entered into the system. The icon is removed if the address search tool is closed.

Within the results window, there will be a listing of the coordinates that matched the ones entered in the coordinates search.

- When ready to conduct a new search, click on the “Coordinates Search” button, then press “Clear” to type in a set of coordinates.

5.10.2 Route Widget
This tool allows the user to create a route from one location to another within RAPTOR.
The top set of icons within the window are described as follows:

1. Create Route
2. Directions
3. Print

To create a route, use the following procedure.

- The user can type in an address within the “Address 1” entry area and press enter to place a point at the location to route from.

- Alternatively, the user can click on the button to enter the address based upon the location clicked within the map. To do this, use the following procedure:
  - Click on the button next to the “Address 1” entry area.
  - This will now prompt the user to Click once in the map at the desired location to obtain an address for that location. Invalid locations (where an address cannot be found) will display as the following:
Once the address has been found, the user will see the address display within the “Address 1” entry area. An icon will also display on the map as shown below:

If the user needs to clear the address, click on the button.

The user can type in an address within the “Address 2” entry area and press enter to place a point at the location to route to.

Alternatively, the user can click on the button to enter the address based upon the location clicked within the map. To do this, use the following procedure:

- Click on the button next to the “Address 2” entry area.
- This will now prompt the user to . Click once in the map at the desired location to obtain an address for that location. Invalid locations (where an address cannot be found) will display as the following:

Once the address has been found, the user will see the address display within the “Address 2” entry area. An icon will also display on the map as shown below:
If the user needs to clear the address, click on the button.

Once the second address has been placed, a route will display within the map as a blue line going from the “Address 1” location to the “Address 2” location.

The user can add an additional address to the route by clicking on the “Add Stop” button. This will add an additional address entry area as shown below.
The user can add in a road closure by clicking on the “Add Barrier” button. This will add an additional barrier entry area as shown below.

Barrier entry follows the same format as the address entries above. Once the barrier has been placed, an icon will display at that location.

The route will automatically re-route to the location to avoid the barrier as shown below.
➢ To clear the route, click on the “Reset” button.

Once the route has been drawn, the user can further define additional parameters, such as shortest time and shortest distance.

➢ Shortest time is selected by default.
➢ To select shortest distance, click on the “Distance” radial button.

The user can also find the best sequence (from multiple locations) as well as return to the first stop (usually utilized when there are three or more address entries).

➢ Click on the “Find Best Sequence” button to find the best sequence between visiting multiple addresses. This will re-route to limit backtracking for multiple addresses.
➢ Click on “Return to First Stop” button to end the route at the first address location.

Once the route has been drawn, the user can view the text directions in the “Directions” window.

➢ Click on the icon to view the directions for the route shown. Directions will be shown similar to the graphic below.
Once the route has been drawn, the user can print the directions using the “Print” window.

- Click on the icon to print the directions.

- The user can click on the “Include Map” option to include the map in the printing of the directions.
- Click on “Print Map” to print the map to the default printer.
- Click on “Save Map to PDF” to save the directions to a PDF file. As the PDF is being created, the user will see under the “Save Map to PDF” button.
- When ready, the tool will prompt the user to select a save location.
- Once the file location has been chosen, press the “Save” button.
- The file will save as “MyRoute.pdf” by default.
- When opened, the file will resemble one shown below:
5.10.3 Emergency Response Guide (OpsCenter, PCII Versions only)
This tool allows the user to create a graphic displaying isolation areas based upon a particular substance or placard spilled at a location.
The top set of icons within the window are described as follows:

1. ERG
2. Demographics
3. Facilities
4. Wind Direction
5. Guide Book

Under the ERG option, the user will see details to fill in regarding the particular type of substance and specific conditions.
➢ To begin, click on the [ ] and click once in the map to place the location of the spill.
➢ Next, click on the dropdown stating “Chemical” to pick between chemical listing or placard listing.
➢ Click on the dropdown to select the chemical name or placard number.
➢ Select the proper spill size (large or small).
➢ Select the proper time of day (day or night). Night times will create larger areas.
➢ Manually type in the wind direction by entering in the window or click on the “Lookup wind info” to find the nearest wind station to calculate this value automatically.
   o When using the lookup wind option, the user will see information displayed in the “Wind Direction” tab of this tool.
   
   o Select “Yes” to use the information pulled from the weather station.
➢ Check the appropriate boxes to run the following:
   o “Run Demographics” – pulls in 2000 census population information from the census block covered
   o “Run Facilities” – searches for schools within the impacted area
   o “Zoom to” – zooms to the spill and isolation areas
Click “Run” to run the tool.

Results will display on the map and are described as follows:

- The pink area pertains to the initial isolation area. This is the same area identified using the ERG guidebook under the “Public Safety” portion for the guide number.
- The red area pertains to the protective action zone. This is the same area identified using the ERG guidebook under the “Evacuation” portion for the guide number.
- The black lines represent the area of interest within the protective action zone based upon the wind direction.
- If there is a school within the protective action zone or isolation area, the user will see an icon at the school location. Hover over this icon to see the details for that school.

In looking at the results within the tool, users will see the demographic tab open displaying the age breakdown from the 2000 census. Clicking on this table once will display the breakdowns for male and female.

Clicking on the icon will display the breakdowns based upon type of school (public or private).

Clicking on the icon will display the weather station information (if used when initially creating the data).
Clicking on the icon will allow the user to navigate directly to the guide number for that particular substance. Click on the “Click to view Emergency Guide Book” to navigate to the webpage, which opens in a separate tab on the browser.

- Closing the tool will remove the results within RAPTOR until the tool is opened again.
- To run the tool again with separate parameters or clear the results in RAPTOR, click on the icon, then “Clear Results”.

### 5.10.4 Print

This tool allows the user to create a printed map of the current view of RAPTOR.

The user can then define the following:

- Title – type in the text for the title of the resulting map
- Author – a name for the author producing the map
- Layout templates – the formatted layout for the map. The current options available are:
  - A3 Landscape
  - A3 Portrait
  - A4 Landscape
  - A4 Portrait
  - Letter ANSI A Landscape (default option)
  - Letter ANSI A Portrait
  - Tabloid ANSI B Landscape
  - Tabloid ANSI B Portrait
  - MAP_ONLY (prints only the map and nothing else)
- Formats – the format for the resulting map file. The current options available are:
  - PDF (default option)
  - PNG32
  - PNG8
Use this scale – force a user defined scale (off by default, which takes a snapshot of the current view)

Once the options have been defined, click on “Print” to produce the map. The tool will then prompt the user to choose a save location and name for the resulting map. Once complete, click on the new map in the save location to open the file.

5.10.5 Export Map JPEG

This tool allows the user to create a snapshot of the current view of only the map.

When this tool is opened, a small icon will display on the bottom left corner of the map, as shown in the graphic below.

This icon will remain on the map for the duration of the browser session.

Clicking on this icon will prompt the user to choose between two options: include widgets and include map window. These options are selected by default and shown in the below graphic.

The include widgets option includes all tools shown on display within the map. This can be useful to display the legend in addition to the view of the map. The include map info window option includes any popups that are shown within the map. This can be useful in showing additional data within the screen capture.

At any time, the user can press “Cancel” to cancel the export map operation.
After the options have been selected, click on “Export”.
- This will now prompt the user to save a new file, as shown in the graphic below.

![Save As dialog box]

Choose the save location and enter a name (with the extension “.jpg”) and click “Save” to save the map jpg file.

Clicking again on the icon will prompt the user to save another map jpg image to the file destination selected earlier.

### 5.10.6 Draw and Measure
This tool allows the user to annotate (mark up the map) with shapes and text, as well as measure distances.
The top set of icons within the window are described as follows:

1. Save Graphics Layer
2. Open Saved Graphics Layer

Prior to drawing or placing text within the map, users will need to choose what symbols/colors/text need to be displayed, including the measurement options. Additionally, measurements will only display after the user has finished creating the point/line/area.

Within this window, the user will see various different shapes. Each of these shapes allow the user to place a shape or text at a specific location on the map. These options are described as follows:

- draw point. This allows the user to click once in the map to place a point at that location. The options that are available for placing points are as follows:
- **Marker Color** – determines the color for the point. Click on the color block to change the color.
- **Style** – determines the type of point to place. Available options are:
  - Circle
  - Cross
  - Diamond
  - Square
  - Rectangle
  - X
- **Size** – the size of the point
- **Alpha** – the transparency of the point (by default, this is set to 1, indicating no transparency)
- **Angle** – the rotation of the point
- **Outline Color** – the color of the outline for the point. Click on the color block to change the color.
- **Width** – the thickness of the outline for the point.
- **Show Measurements** – allows the user to display a measurement for the point. Clicking on the checkbox will display an enhanced version of this window as shown below:

- Available options for measurement are as follows:
  - **Point Units** – the units to display for the measurement. For points, the options are:
- NAD83 AL East (SP Feet)
- Decimal Degrees (WGS84)
- DMS (WGS84)
- NAD 1983 UTM 19N

- Font – the type of font used for the text on the measurement. Available options are:
  - Courier New
  - Arial (default)
  - Broadway
  - Comic Sans MS
  - Algerian
  - Verdana
- “B” – bold/unbold text. By default, this option is not selected. To select, click on the icon.
- “I” – italicize text. By default, this option is not selected. To select, click on the icon.
- “U” – underline text. By default, this option is not selected. To select, click on the icon.
- - text color. Determines the color for the text. To change the color, click on this icon.
- Size – the text size.

- draw line. This allows the user to click once in the map to start drawing a line, then click subsequent times to place a new vertex for the line. Double-click to complete the line.

The options that are available for placing lines are as follows:

- Line Color – determines the color for the line. Click on the color block to change the color.
- Style – determines the type of line to place. Available options are:
  - Solid
- Dash
- Dot
- Dash Dot
- Dash Dot Dot

- **Width** – the thickness of the line.
- **Alpha** – the transparency of the line (by default, this is set to 1, indicating no transparency)
- **Show Measurements** – allows the user to display a measurement for the line. Clicking on the checkbox will display an enhanced version of this window as shown below:

![Show Measurements Window]

- Available options for measurement are as follows:
  - **Distance Units** – the units to display for the measurement. For lines, the options are:
    - Meters
    - Kilometers
    - Feet
    - Miles
  - **Font** – the type of font used for the text on the measurement. Available options are:
    - Courier New
    - Arial (default)
    - Broadway
    - Comic Sans MS
    - Algerian
    - Verdana
  - “**B**” – bold/unbold text. By default, this option is not selected. To select, click on the icon.
  - “**I**” – italicize text. By default, this option is not selected. To select, click on the icon.
  - “**U**” – underline text. By default, this option is not selected. To select, click on the icon.
  - - text color. Determines the color for the text. To change the color, click on this icon.
  - Size – the text size.
- draw freehand line. This allows the user to click and drag in the map to draw a line. This tool works best for users utilizing a pen tool on a tablet.

The options that are available for placing lines are as follows:

- Line Color – determines the color for the line. Click on the color block to change the color.
- Style – determines the type of line to place. Available options are:
  - Solid
  - Dash
  - Dot
  - Dash Dot
  - Dash Dot Dot
- Width – the thickness of the line.
- Alpha – the transparency of the line (by default, this is set to 1, indicating no transparency)
- Show Measurements – allows the user to display a measurement for the line. Clicking on the checkbox will display an enhanced version of this window as shown below:

  - Available options for measurement are as follows:
    - Distance Units – the units to display for the measurement. For lines, the options are:
      - Meters
      - Kilometers
      - Feet
- Miles
  - Font – the type of font used for the text on the measurement. Available options are:
    - Courier New
    - Arial (default)
    - Broadway
    - Comic Sans MS
    - Algerian
    - Verdana
  - “B” – bold/unbold text. By default, this option is not selected. To select, click on the icon.
  - “I” – italicize text. By default, this option is not selected. To select, click on the icon.
  - “U” – underline text. By default, this option is not selected. To select, click on the icon.
  - - text color. Determines the color for the text. To change the color, click on this icon.
  - Size – the text size.

- draw rectangle. This allows the user to click and drag in the map to draw a boxed boundary.

The options that are available for placing rectangles are as follows:

- Fill Color – determines the color for the interior of the rectangle. Click on the color block to change the color.
- Style – determines the type of fill to place within the rectangle. Available options are:
  - Solid
  - Backward Diagonal
  - Cross
• Forward Diagonal
• Horizontal
• Vertical

• Alpha – the transparency of the fill (by default, this is set to 0.5, indicating 50% transparency)

• Outline Color – the color of the outline for the rectangle. Click on the color block to change the color.

• Width – the thickness of the outline for the rectangle.

• Alpha – the transparency of the outline (by default, this is set to 0.8, indicating 20% transparency)

• Style – determines the type of outline to place. Available options are:
  • Solid
  • Dash
  • Dot
  • Dash Dot
  • Dash Dot Dot

• Show Measurements – allows the user to display measurements for the rectangle. Clicking on the checkbox will display an enhanced version of this window as shown below:

  ![Show Measurements Window]

  • Available options for measurement are as follows:
    • Distance Units – the units to display for the measurement of perimeter. For rectangles, the options are:
      • Meters
      • Kilometers
      • Feet
      • Miles
    • Area Units – the units to display for the area of the boundary. For rectangles, the options are:
      • Square Meters
      • Square Kilometers
      • Square Feet
      • Square Miles
      • Acres
      • Hectares
- Font – the type of font used for the text on the measurement. Available options are:
  - Courier New
  - Arial (default)
  - Broadway
  - Comic Sans MS
  - Algerian
  - Verdana
- “B” – bold/unbold text. By default, this option is not selected. To select, click on the icon.
- “I” – italicize text. By default, this option is not selected. To select, click on the icon.
- “U” – underline text. By default, this option is not selected. To select, click on the icon.
- Text color. Determines the color for the text. To change the color, click on this icon.
- Size – the text size.

- draw circle. This allows the user to click and drag in the map to draw a circle. The circle is drawn using the initial point clicked as the center of the circle. The options that are available for placing circles are as follows:
  - Fill Color – determines the color for the interior of the circle. Click on the color block to change the color.
  - Style – determines the type of fill to place within the circle. Available options are:
    - Solid
    - Backward Diagonal
    - Cross
    - Forward Diagonal
- Horizontal
- Vertical
- Alpha – the transparency of the fill (by default, this is set to 0.5, indicating 50% transparency)
- Outline Color – the color of the outline for the circle. Click on the color block to change the color.
- Width – the thickness of the outline for the circle.
- Alpha – the transparency of the outline (by default, this is set to 0.8, indicating 20% transparency)
- Style – determines the type of outline to place. Available options are:
  - Solid
  - Dash
  - Dot
  - Dash Dot
  - Dash Dot Dot
- Show Measurements – allows the user to display measurements for the circle. Clicking on the checkbox will display an enhanced version of this window as shown below:

- Available options for measurement are as follows:
  - Distance Units – the units to display for the measurement of perimeter. For circles, the options are:
    - Meters
    - Kilometers
    - Feet
    - Miles
  - Area Units – the units to display for the area of the boundary. For circles, the options are:
    - Square Meters
    - Square Kilometers
    - Square Feet
    - Square Miles
    - Acres
    - Hectares
  - Font – the type of font used for the text on the measurement. Available options are:
- draw ellipse. This allows the user to click and drag in the map to draw an ellipse. The ellipse is drawn using the initial point clicked as the center of the ellipse.

The options that are available for placing ellipses are as follows:

- Fill Color – determines the color for the interior of the ellipse. Click on the color block to change the color.

- Style – determines the type of fill to place within the ellipse. Available options are:
  o Solid
  o Backward Diagonal
  o Cross
  o Forward Diagonal
  o Horizontal
- Vertical
- Alpha – the transparency of the fill (by default, this is set to 0.5, indicating 50% transparency)
- Outline Color – the color of the outline for the ellipse. Click on the color block to change the color.
- Width – the thickness of the outline for the ellipse.
- Alpha – the transparency of the outline (by default, this is set to 0.8, indicating 20% transparency)
- Style – determines the type of outline to place. Available options are:
  - Solid
  - Dash
  - Dot
  - Dash Dot
  - Dash Dot Dot
- Show Measurements – allows the user to display measurements for the ellipse. Clicking on the checkbox will display an enhanced version of this window as shown below:

  ![Show Measurements](image)

  - Available options for measurement are as follows:
    - Distance Units – the units to display for the measurement of perimeter. For ellipses, the options are:
      - Meters
      - Kilometers
      - Feet
      - Miles
    - Area Units – the units to display for the area of the boundary. For ellipses, the options are:
      - Square Meters
      - Square Kilometers
      - Square Feet
      - Square Miles
      - Acres
      - Hectares
    - Font – the type of font used for the text on the measurement. Available options are:
      - Courier New
- Arial (default)
- Broadway
- Comic Sans MS
- Algerian
- Verdana

- “B” – bold/unbold text. By default, this option is not selected. To select, click on the icon.
- “I” – italicize text. By default, this option is not selected. To select, click on the icon.
- “U” – underline text. By default, this option is not selected. To select, click on the icon.

- Text color. Determines the color for the text. To change the color, click on this icon.
- Size – the text size.

- draw polygon. This allows the user to click once to start drawing the polygon, then click subsequent times to place additional vertices for the polygon. Double-click to complete drawing the polygon.

The options that are available for placing polygons are as follows:

- Fill Color – determines the color for the interior of the polygon. Click on the color block to change the color.
- Style – determines the type of fill to place within the polygon. Available options are:
  - Solid
  - Backward Diagonal
  - Cross
  - Forward Diagonal
  - Horizontal
  - Vertical
- Alpha – the transparency of the fill (by default, this is set to 0.5, indicating 50% transparency)
- Outline Color – the color of the outline for the polygon. Click on the color block to change the color.
- Width – the thickness of the outline for the polygon.
- Alpha – the transparency of the outline (by default, this is set to 0.8, indicating 20% transparency)
- Style – determines the type of outline to place. Available options are:
  - Solid
  - Dash
  - Dot
  - Dash Dot
  - Dash Dot Dot
- Show Measurements – allows the user to display measurements for the polygon. Clicking on the checkbox will display an enhanced version of this window as shown below:

![Show Measurements Window]

- Available options for measurement are as follows:
  - Distance Units – the units to display for the measurement of perimeter. For polygons, the options are:
    - Meters
    - Kilometers
    - Feet
    - Miles
  - Area Units – the units to display for the area of the boundary. For polygons, the options are:
    - Square Meters
    - Square Kilometers
    - Square Feet
    - Square Miles
    - Acres
    - Hectares
  - Font – the type of font used for the text on the measurement. Available options are:
    - Courier New
- Arial (default)
- Broadway
- Comic Sans MS
- Algerian
- Verdana

- “B” – bold/unbold text. By default, this option is not selected. To select, click on the icon.
- “I” – italicize text. By default, this option is not selected. To select, click on the icon.
- “U” – underline text. By default, this option is not selected. To select, click on the icon.

- Text color. Determines the color for the text. To change the color, click on this icon.
- Size – the text size.

- Draw freehand polygon. This allows the user to click and drag in the map to draw a polygon. This tool works best for users utilizing a pen tool on a tablet.

The options that are available for placing polygons are as follows:

- Fill Color – determines the color for the interior of the polygon. Click on the color block to change the color.
- Style – determines the type of fill to place within the polygon. Available options are:
  - Solid
  - Backward Diagonal
  - Cross
  - Forward Diagonal
  - Horizontal
  - Vertical
- Alpha – the transparency of the fill (by default, this is set to 0.5, indicating 50% transparency)
- Outline Color – the color of the outline for the polygon. Click on the color block to change the color.
- Width – the thickness of the outline for the polygon.
- Alpha – the transparency of the outline (by default, this is set to 0.8, indicating 20% transparency)
- Style – determines the type of outline to place. Available options are:
  - Solid
  - Dash
  - Dot
  - Dash Dot
  - Dash Dot Dot
- Show Measurements – allows the user to display measurements for the polygon. Clicking on the checkbox will display an enhanced version of this window as shown below:

  ![Show Measurements Window]

  - Available options for measurement are as follows:
    - Distance Units – the units to display for the measurement of perimeter. For polygons, the options are:
      - Meters
      - Kilometers
      - Feet
      - Miles
    - Area Units – the units to display for the area of the boundary. For polygons, the options are:
      - Square Meters
      - Square Kilometers
      - Square Feet
      - Square Miles
      - Acres
      - Hectares
    - Font – the type of font used for the text on the measurement. Available options are:
      - Courier New
- Arial (default)
- Broadway
- Comic Sans MS
- Algerian
- Verdana
  - “B” – bold/unbold text. By default, this option is not selected. To select, click on the icon.
  - “I” – italicize text. By default, this option is not selected. To select, click on the icon.
  - “U” – underline text. By default, this option is not selected. To select, click on the icon.
  -  - text color. Determines the color for the text. To change the color, click on this icon.
  - Size – the text size.

- add text. This allows the user to add text within the map. Type in the text and click once in the map to place the text at that location.

The options that are available for placing polygons are as follows:

- Text – the text to display. Type the text in this box for display.
- “B” – bold/unbold text. By default, this option is not selected. To select, click on the icon.
- “I” – italicize text. By default, this option is not selected. To select, click on the icon.
- “U” – underline text. By default, this option is not selected. To select, click on the icon.
- Font – the type of font used for the text on the measurement. Available options are:
  - Courier New
  - Arial (default)
  - Broadway
  - Comic Sans MS
- Algerian
- Verdana

- Color - text color. Determines the color for the text. To change the color, click on this icon.
- Size – the text size.
- Rotation – the text rotation.

- To clear any drawing, right-click on that particular drawing and press “Clear” to remove it from the map. To clear all drawings, the user can click on “Clear Drawings” in the draw and measure window.

- To move any shape, click once on the shape, then click and drag the shape to the new location.

- To adjust any shape, click once on the shape, then move one of the vertices to adjust the boundary. For areas that have measurements, these will update automatically after the shape has been adjusted.

- To save the drawing, click on the “Save Graphics Layer” icon. This will then prompt the user to save a text file entitled “SavedGraphics.txt” in a save file location as shown in the graphic below.

![Save Graphics Layer]

Keep in mind that this will temporarily remove the drawings on RAPTOR. Click on “Save” to save the file.

- After the drawings have been saved, click on the “Open Saved Graphics Layer” icon to add in the drawings again. Additionally, any user utilizing RAPTOR can be sent the saved graphics file and open it within RAPTOR.
Closing the draw and measure tool will remove the drawings and text from the map until the tool is reopened.

5.10.7 Area of Concern Tool
This tool allows the user to search and produce a report for specific at-risk structures/facilities for a user-defined area.

The top portion of the window allows the user to choose how to select from the items listed. These selections operate in the same manner as the Search Oregon tools.

- draw rectangle. This allows the user to click and drag in the map to draw a boxed boundary and conduct the search.

- draw freehand polygon. This allows the user to click and drag in the map to draw a polygon and conduct the search. This tool works best for users utilizing a pen tool on a tablet.

- draw polygon. This allows the user to click once to start drawing the polygon, then click subsequent times to place additional vertices for the polygon. Double-click to complete drawing the polygon and conduct the search.

- draw circle. This allows the user to click and drag in the map to draw a circle and conduct the search. The circle is drawn using the initial point clicked as the center of the circle.
- draw point buffer. This allows the user to click once on the map and this tool will draw a buffer around that point as defined by the user. Clicking on this button will prompt the user to enter a distance as shown in the graphic below.

The available options for the distance unit are:

- Miles
- Kilometers
- Feet
- Meters

The user has various options of items to search from. The available items to search from are as follows:

- Area Population (2012) (selected by default)
- Child Care (selected by default)
- Correctional Facilities (selected by default)
- Elderly/Disabled Care (selected by default)
- Electrical Facilities (selected by default)
- Food Licensing
- Hazardous Substances
- Health Department Service Sites (selected by default)
- Hospitals (selected by default)
- Long Term Care Facilities (selected by default)
- Medical Providers (selected by default)
- Military Facilities (selected by default)
- Multnomah County data (city halls, shelters, facilities, medical points of distribution, taxlots)
- Residential Treatment Centers (selected by default)
- Schools (selected by default)
- Trimet Stops

Each item can be individually checked/unchecked. The user can also click on one of the icons on the bottom of the window to change items checked. The icons are described as follows:

1. Clear Selections – clears all items selected
2. Select All – selects all items shown
3. Restore Defaults – restore all default selections

➤ When the options have been selected, click on the appropriate drawing, then draw the area to conduct the search.

Results of the search will then be shown within the map as well as within the results window of the area of concern tool, as shown in the graphic below.

Items that have been selected display within the map and can be clicked on to display a popup with more information about that item.

Within the results window, the user will see the total number of features selected, the radius of the boundary drawn, the area for the boundary, as well as a breakdown categorically for the items selected.
On the top portion of the results window, the user will see icons that allow a report to be exported that will display the results of the search. These icons are described as follows:

<table>
<thead>
<tr>
<th></th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>Export to PDF – allows the user to export a PDF of the results. This PDF will include a map of the area, the legend for the items selected, and a detailed categorized listing of all items selected within that boundary.</td>
</tr>
<tr>
<td>B</td>
<td>Export to CSV – allows the user to export a CSV file of the results. This CSV file will include a spreadsheet with a detailed categorized listing of all items selected within that boundary.</td>
</tr>
<tr>
<td>C</td>
<td>Clear Results – allows the user to clear the results and conduct a new area of concern search.</td>
</tr>
</tbody>
</table>

5.10.8 Oregon Planning (OpsCenter, PCII Versions only)

This tool allows the user to create and populate incident information within RAPTOR. The data produced by this tool is visible by all RAPTOR users at the OpsCenter and PCII version level.

There are various templates available to populate incident information within the map. These templates are as follows:

- Planning Points
  - Blue Point
  - Industrial Fire
  - Red Point
  - Event
o Green Point
o Sandbag Station
o Fire Incident
o Biological Release
o EOC
o Law Enforcement
o First Aid
o Incident Command
o Chemical Release
o Radiological Release
o Staging Area
o Security Checkpoint
o Wildland Fire
o Fire Engine
o Mobile Camera
o Road Closed
o High Water
o Traffic Control Officer
o Demonstration
o Mobile Command Center
o Ambulance
o Air Release
o Explosion

• Planning Lines
  o Hard Barrier
  o Parade Route
  o Post Event Traffic Outflow
  o Detour
  o Evacuation Route

• Planning Areas
  o Blue Area
  o Area of Operations
  o VIP Area
  o Contigency Offsite Staging
  o Green Area
  o Red Area
  o Restricted Area
  o Area of Concern
To populate a point within the map, click on the template, then once in the map to place the point at that location. Once the point has been placed, the user has various options to input other data for that point, as follows:

- **OpPlanType** – the template for the point
- **Date** – the date this event pertains to
- **TIMESTART** – the time the event started
- **TIMEEND** – the time the event ended
- **STATUS** – status of the event. The options for entry are as follows:
  - Proposed
  - Active/Open
  - Inactive/Closed
- **Name** – a brief description of the event
- **URL** – the webpage URL to link the event to

Click “OK” to add the point.

To populate a line within the map, click on the template, then once in the map to start drawing the line. Then click subsequent times to place vertices for the line, then double-click to finish drawing the line. Once the line has been placed, the user has various options to input other data for that line, as follows:

- **OpPlanType** – the template for the point
- **Date** – the date this event pertains to
- **DOW** – the day of the week for the event
- **TIMESTART** – the time the event started
- **TIMEEND** – the time the event ended
- **STATUS** – status of the event. The options for entry are as follows:
  - Proposed
  - Active/Open
  - Inactive/Closed
- **Name** – a brief description of the event
- **URL** – the webpage URL to link the event to

Click “OK” to add the line.

To populate an area within the map, click on the template, then once in the map to start drawing the area. Then click subsequent times to place vertices for the area, then double-
click to finish drawing the area. Once the area has been placed, the user has various options to input other data for that area, as follows:

- **OpPlanType** – the template for the point
- **Date** – the date this event pertains to
- **DOW** – the day of the week for the event
- **TIMESTART** – the time the event started
- **TIMEEND** – the time the event ended
- **STATUS** – status of the event. The options for entry are as follows:
  - Proposed
  - Active/Open
  - Inactive/Closed
- **Name** – a brief description of the event
- **URL** – the webpage URL to link the event to

➤ Click “OK” to add the area.

Once the point/line/area has been drawn, all users utilizing RAPTOR at the OpsCenter/PCII level can view and edit these using this tool.

➤ To edit these, open the Oregon Planning tool, then click on the event to modify the boundary, line, point, or associated data about the event. When finished, press OK to update the feature.

Deletion of this data can only be done at the administrator level. To request deletion of any of the data populated by this tool, contact the RAPTOR coordinator.

### 5.11 OREGON FAULTS SEARCH (TSUNAMI/EARTHQUAKE CONFIGURATION ONLY)

This tool allows the user to search for Oregon Fault lines. Clicking on this search displays a search window, as shown in the graphic below.
The top set of icons within the window are described as follows:

1. Select Features
2. Select by Attributes
3. View Results

Under the select features option, the user will see various different shapes. Each of these shapes allow the user to define a particular area of interest to conduct the search. These options are described as follows:

- Select using a point. This allows the user to click once in the map to place a point and search at that location. If any results are found, they display in the map as shown in the following graphic:

![Oregon Faults Search](image)

Results are shown on the map using a bold red line, and results can be found in the view results section of the window. A total number of features selected are shown in the top portion of the window. Clicking on the bold red line will display a popup window with more detailed information about the fault at that location.

- To clear the results, click on the “Select Features” button, then press “Clear”.

- Select using a line. This allows the user to click once in the map to start drawing a line, then click subsequent times to place a new vertex for the line. Double-click to complete the line and conduct the search. If any results are found, they display in the map as shown in the following graphic:
Results are shown on the map using a bold red line, and results can be found in the view results section of the window. A total number of features selected are shown in the top portion of the window. Clicking on the bold red line will display a popup window with more detailed information about the fault at that location.

➢ To clear the results, click on the “Select Features” button, then press “Clear”.

- select using a freehand line. This allows the user to click and drag in the map to draw a line and conduct the search. This tool works best for users utilizing a pen tool on a tablet. If any results are found, they display in the map as shown in the following graphic:

Results are shown on the map using a bold red line, and results can be found in the view results section of the window. A total number of features selected are shown in the top portion of the window. Clicking on the bold red line will display a popup window with more detailed information about the fault at that location.

➢ To clear the results, click on the “Select Features” button, then press “Clear”.
- select using a rectangle. This allows the user to click and drag in the map to draw a boxed boundary and conduct the search. If any results are found, they display in the map as shown in the following graphic:

Results are shown on the map using a bold red line, and results can be found in the view results section of the window. A total number of features selected are shown in the top portion of the window. Clicking on the bold red line will display a popup window with more detailed information about the fault at that location.

➢ To clear the results, click on the “Select Features” button, then press “Clear”.

- select using a circle. This allows the user to click and drag in the map to draw a circle and conduct the search. The circle is drawn using the initial point clicked as the center of the circle. If any results are found, they display in the map as shown in the following graphic:

Results are shown on the map using a bold red line, and results can be found in the view results section of the window. A total number of features selected are shown in the top portion of the
window. Clicking on the bold red line will display a popup window with more detailed information about the fault at that location.

- To clear the results, click on the “Select Features” button, then press “Clear”.

- select using a polygon. This allows the user to click once to start drawing the polygon, then click subsequent times to place additional vertices for the polygon. Double-click to complete drawing the polygon and conduct the search. If any results are found, they display in the map as shown in the following graphic:

Results are shown on the map using a bold red line, and results can be found in the view results section of the window. A total number of features selected are shown in the top portion of the window. Clicking on the bold red line will display a popup window with more detailed information about the fault at that location.

- To clear the results, click on the “Select Features” button, then press “Clear”.

- select using a freehand polygon. This allows the user to click and drag in the map to draw a polygon and conduct the search. This tool works best for users utilizing a pen tool on a tablet. If any results are found, they display in the map as shown in the following graphic:
Results are shown on the map using a bold red line, and results can be found in the view results section of the window. A total number of features selected are shown in the top portion of the window. Clicking on the bold red line will display a popup window with more detailed information about the fault at that location.

- To clear the results, click on the “Select Features” button, then press “Clear”.

Through the “Select by Attributes” option, users can type in a specific name to conduct a search of all items matching that name.

- Type in the name and press “Search” to conduct the search.

- To clear the results, click on the “Select by Attributes” button, then press “Clear”.
5.12 IMPORTANT LINKS

This set of information are important webpages bookmarked within the RAPTOR program. The lists are organized based upon the links found to be of relevance for types of incidents and match the organization of the RAPTOR event switcher.

Clicking on a link will open the webpage in a separate tab of the browser. Clicking on the folder icon will display the links found within that specific folder. If the website link does not display in a separate tab, check the popup settings for the browser.

The important links are as follows:

- RAPTOR Website
- RAPTOR User Guide
- RAPTOR Inventory
- Important Links - Default:
  - Emergency Response Guidebook
  - HSIN
- Important Links - Fire:
  - AIRNow
  - Inciweb
  - National Interagency Fire Center (NIFC)
  - National Weather Service Air Quality and Smoke Maps
  - Northwest Interagency Coordination Center (NWCC)
  - Oregon DEQ:
    - Oregon DEQ Air Quality Index Map
    - Oregon DEQ Wildfire
  - Oregon Department of Forestry
    - Oregon Department of Forestry
    - Southwest Oregon Fire (ODF)
  - US Forest Service Fire Map
- Important Links - Flood:
  - National Weather Service
  - Northwest River Forecast Center
  - US Army Corps of Engineers:
    - Coastal Basins Teacup Diagram (USACE)
    - Lower Columbia Teacup Diagram (USACE)
    - Rogue Teacup Diagram (USACE)
    - Willamette Teacup Diagram (USACE)
- Important Links - Nuclear (OpsCenter and PCII Versions only):
  - National Atmospheric Release Advisory Center (NARAC)
o Oregon Department of Energy

- Important Links – Tsunami/Earthquake:
  o Oregon Fault Lines
  o Pacific Northwest Fault Lines
  o Tsunami Warning Center
  o USGS Earthquake Hazards