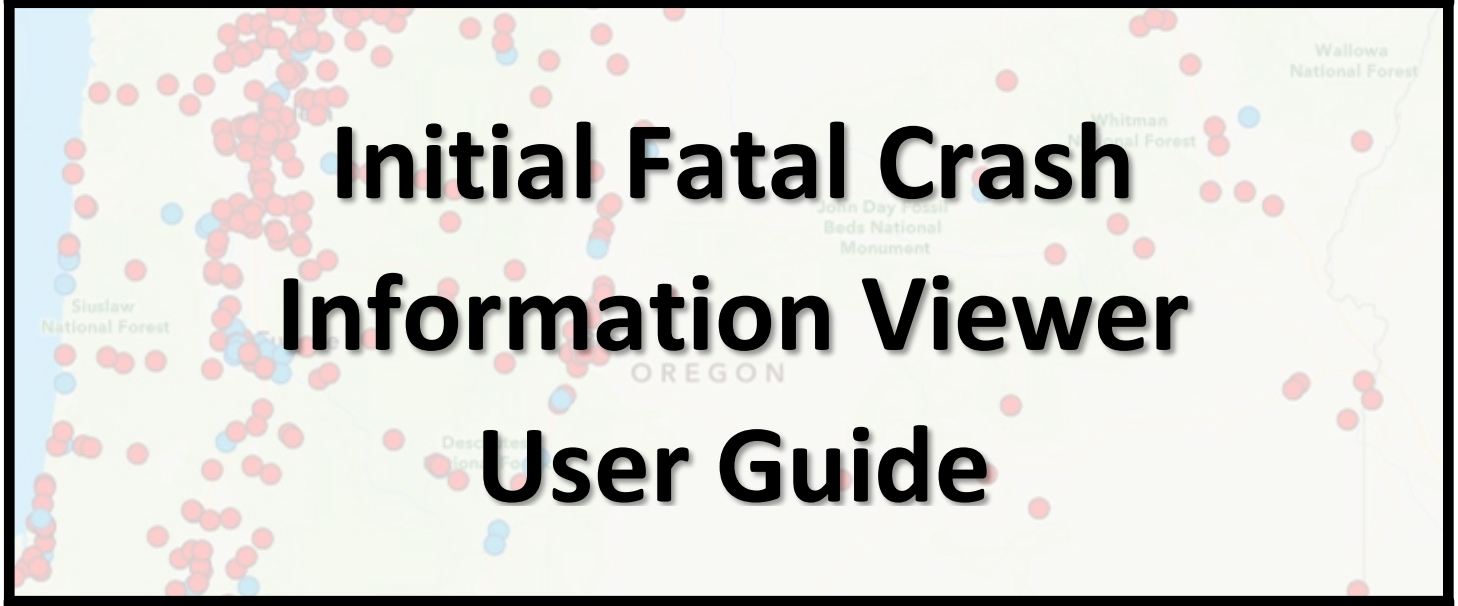
Oregon Department of Transportation



Initial Fatal Crash Information Viewer User Guide

This guide introduces the Oregon Department of Transportation's Initial Fatal Crash Information Viewer, aimed at providing users with preliminary data on fatal crashes in Oregon. Accessible via the department's website, this application offers initial insights but cautions users about the provisional nature of the data, which is updated daily as new information becomes available and is analyzed. Not all crashes may be reported immediately due to delays in data acquisition or if they don't meet the reporting criteria. For detailed disclaimers and further documentation on crash data, users are directed to the Crash Data Tools and Products section.

As a primer for utilizing the Initial Fatal Crash Information Viewer, this manual highlights its basic functionalities designed to offer early observations on fatal incidents within the state. Users should note the data's tentative status, subject to frequent revisions upon the integration of more detailed reports. Some incidents might be omitted from the reporting or delayed due to the intricacies of data collection. For an in-depth understanding of the crash data, including disclaimers and additional resources, visiting the Crash Data Tools and Products section is recommended.

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Disclaimer: Preliminary Data on Fatal Crashes in Oregon

Upon visiting the Oregon Department of Transportation's website, a disclaimer alerting users to the preliminary nature of the data within the CAR Unit Initial Fatal Crash Information Viewer is presented. The information provided on fatal crashes is updated daily as new data is received and reviewed, but users must be aware that this information can change, and some cases may not be reported promptly or could be excluded from the current data set due to the department's reporting criteria. For more comprehensive details, including disclaimers and extensive documentation on crash data, visitors should consult the "Crash Data Tools and Products" section.

To enhance the user experience, the viewer can be opened in a separate window, offering a more immersive and full browsing experience without the Oregon.gov website template. This allows users to focus solely on the crash information presented. The disclaimer serves as a first point of interaction, reinforcing the fluid nature of the data and directing users towards additional resources for verified data and further disclaimers. If users prefer to view the data in a larger format for clarity or convenience, the option to open the viewer in a new window is readily available.

Click OK.

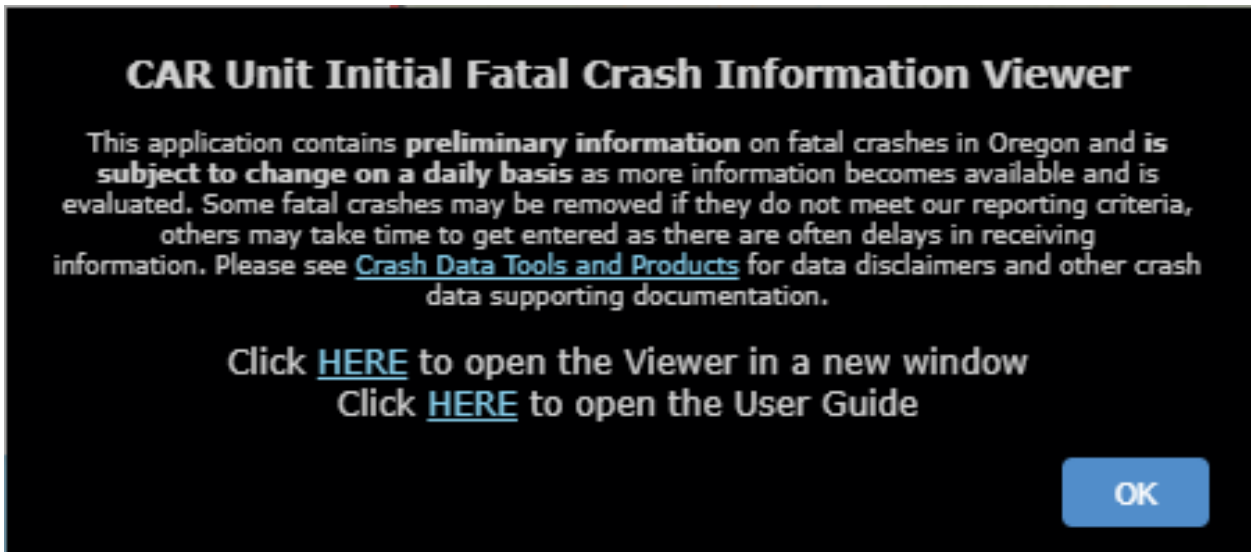


Figure 1 Disclaimer for CAR Unit Initial Fatal Crash Information Viewer

CAR Unit Initial Fatal Crash Information Viewer Navigation Tools

Upon entering the CAR Unit Initial Fatal Crash Information Viewer and accepting the disclaimer, users are presented with an interactive map of Oregon, depicting the sites of fatal crashes with distinguishable red and blue markers. The interface provides a suite of navigational tools along the left-hand side, including the ability to zoom in and out, reset to the default map extent, and locate your current position with the 'My Location' tool. Additionally, a 'Search' dropdown menu allows for location searches using various criteria such as an Oregon address or the ArcGIS World Geocoding Service.

The top right corner hosts a series of icons representing the Layer List, Legend, Basemap Gallery, as well as options for applying specific Crash Filters, accessing Crash Charts, and exploring additional settings through the 'More' option. These tools facilitate the customization of the data display according to user preference.

Below the map, a dynamic table displays the Initial Fatal Crashes data. A tab labeled 'Hide Attribute Table' is available at the top of this table, which users can click to minimize or expand the view of the data. The table menu offers additional functionalities like filtering records related to the map's extent, zooming into selected records, clearing current selections, and refreshing the data. For analytical and reporting purposes, the 'Options' dropdown provides choices to filter records, show or hide specific columns, and export the data to a CSV file. The bottom of the table indicates the total number of features (crash incidents) represented on the map and the count of any selected features for closer examination.

This interface is designed to give a comprehensive visual and data-driven overview of fatal crashes, providing important insights for various stakeholders interested in traffic safety and planning in Oregon.

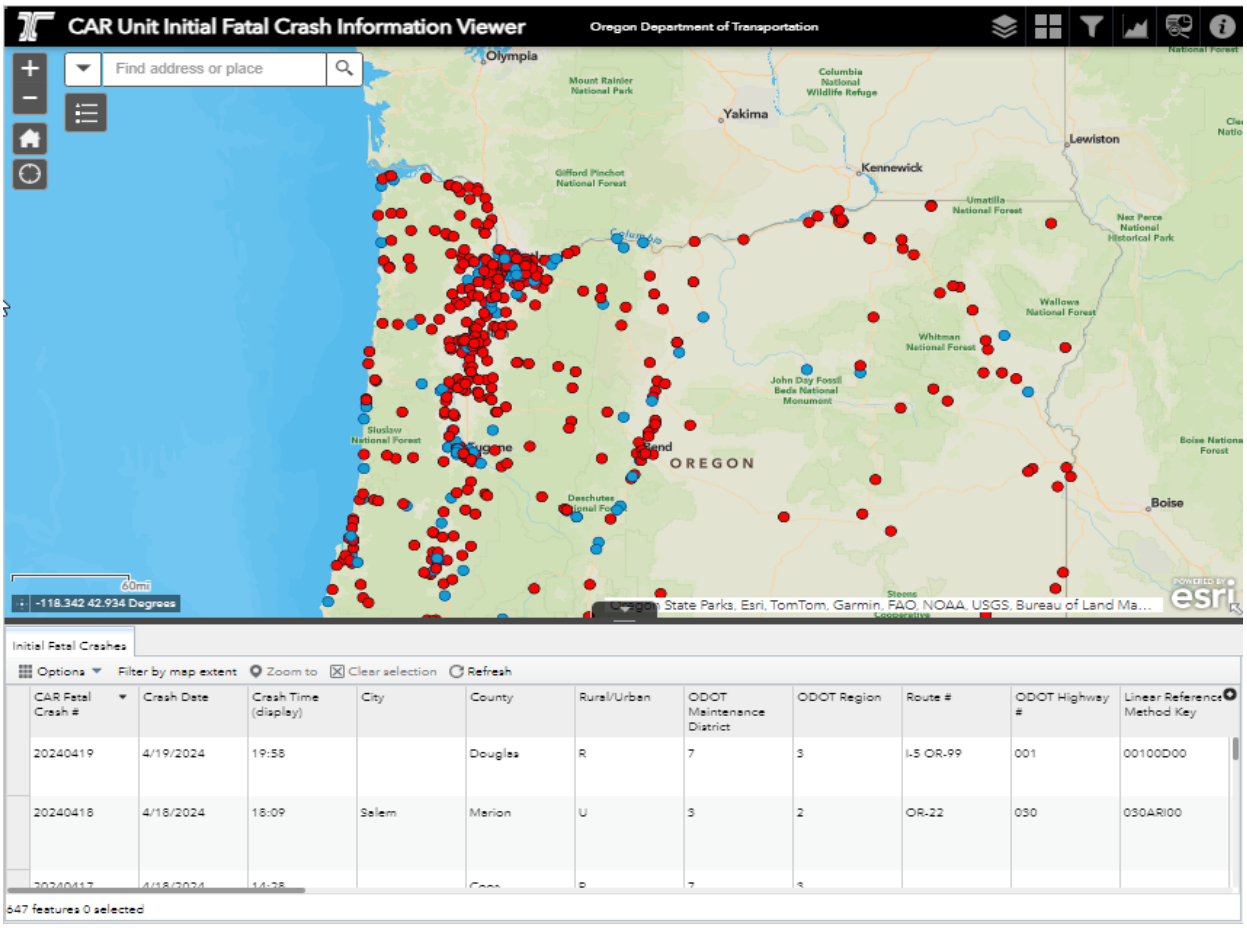


Figure 2 Interactive Visualization and Data for Oregon CAR Unit Initial Fatal Crash Information Viewer

Zoom In

For a closer inspection of crash sites, the 'Zoom In' function is integral to the CAR Unit Initial Fatal Crash Information Viewer's capabilities. When you require a detailed examination of a specific region, such as the Salem area, this tool is indispensable. It enables a refined focus on urban layouts and intricate road junctions, providing a clear view of where each fatal crash has occurred.

To engage the 'Zoom In' feature, locate and select the '+' symbol in the map's left-side navigation tools. Each click incrementally brings the view closer to the ground, revealing more granular details such as street names, neighborhood divisions, and the proximity of crash sites to local landmarks like the State Capitol, Willamette University, or Salem Hospital.

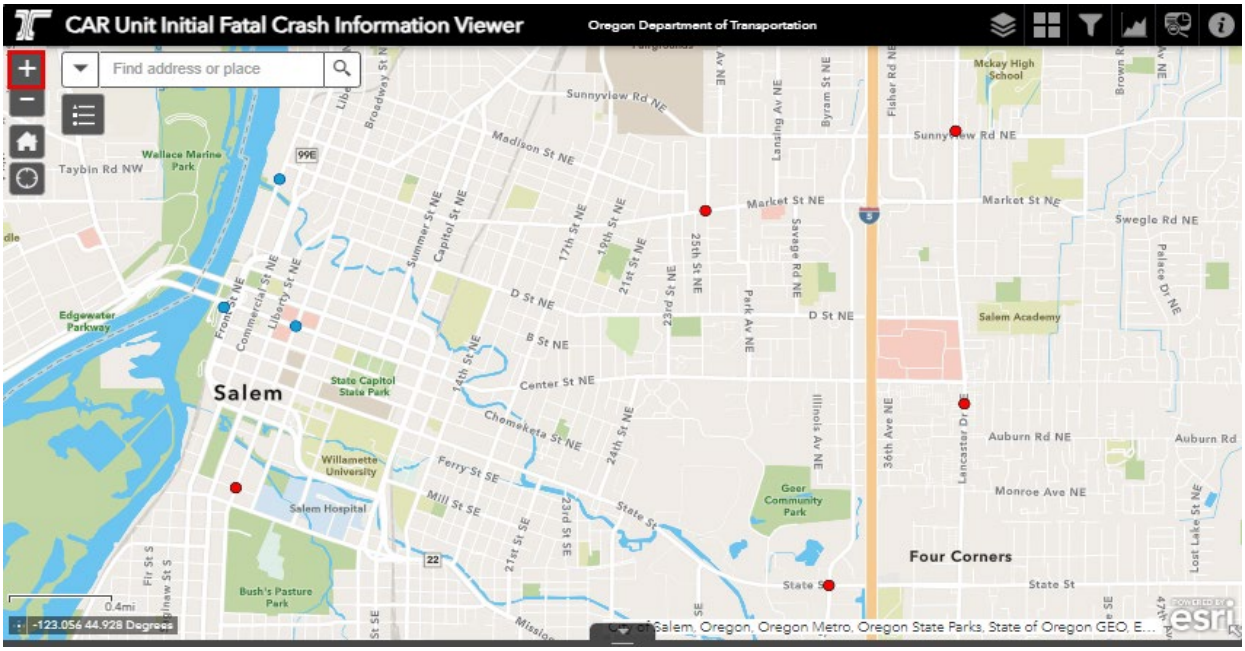


Figure 3 Zoom in Function for the CAR Unit Initial Crash Information Viewer

Zoom out

This function is designed to expand your perspective of the map, offering a bird's-eye view of a broader area. To activate the 'Zoom Out' feature, simply click on the minus sign (-) found within the zoom control tools on the left-hand side of the interface. Each click will incrementally widen your view, revealing a larger expanse of Oregon's geography.

Utilizing 'Zoom Out' is particularly beneficial when you need to analyze crash data across wider regions or discern patterns over multiple locales. As you step back from the detailed view, the map can offer insights into how crash sites are distributed in relation to larger geographic features such as city borders, road infrastructures, and natural features.

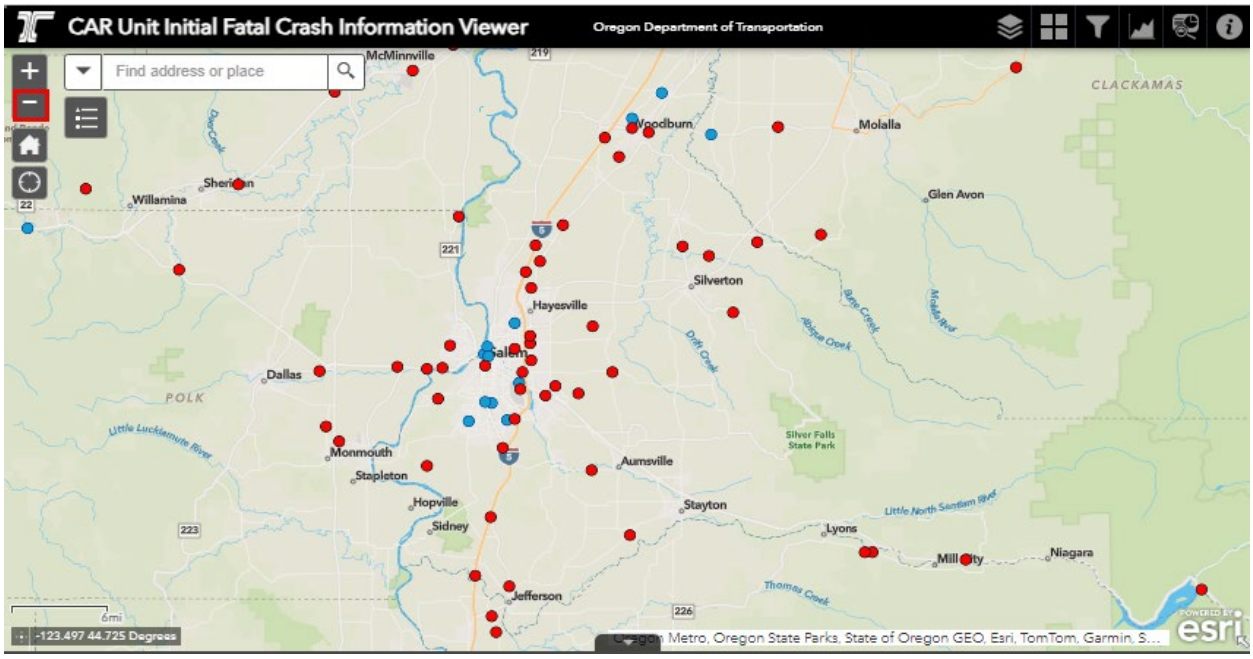


Figure 4 Zoom out Function for the CAR Unit Initial Crash Information Viewer

Default Extent

In the user guide section for map navigation, it's important to note the 'Default Extent' button located among the zoom and pan tools on the CAR Unit Initial Fatal Crash Information Viewer. If at any point during your analysis you wish to return to the original view of the map that includes the entire state of Oregon, you can click this button. It will reset the map to the default zoom level and center it on the standard starting view, providing a quick way to regain your bearings or to start a new search from the initial map perspective. This feature ensures that users can easily navigate back to the default setting after exploring specific areas or details within the map.

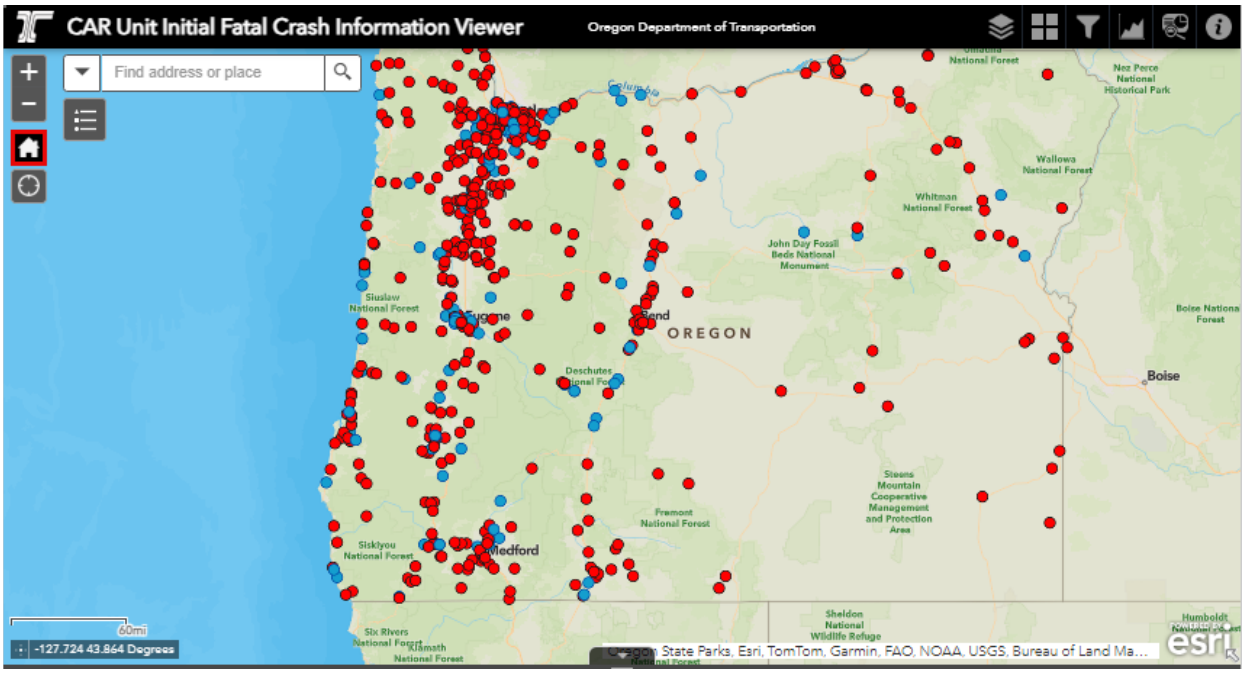


Figure 5 Default Extent Function for the CAR Unit Initial Crash Information Viewer

My Location

This handy tool allows users to center the map based on their current geographic location. Found next to the 'Default Extent' button, 'My Location' is symbolized by a crosshair icon. When clicked, the map will automatically zoom in and reposition to your real-time location, providing a localized view of fatal crash sites in your immediate vicinity. This is particularly useful for on-the-ground researchers, first responders, or local authorities who require an instant visual reference of crashes that have occurred near them. Using 'My Location' can aid in situational awareness, helping users to navigate to or assess the fatal crash sites relevant to their current geographic positioning.

Search In

This tool is critical for users who need to locate specific addresses or places within Oregon. Positioned prominently at the top-left of the interface, the 'Search' feature includes a dropdown menu that offers different criteria for conducting searches. Users can enter an address directly into the search bar, and the dropdown menu provides additional options such as selecting the Oregon address-specific search or utilizing the comprehensive ArcGIS World Geocoding Service for broader queries. Upon entering a search term and selecting the preferred criteria, the map will zoom in and pinpoint the location, assisting users in swiftly finding and visualizing fatal crash sites near the specified address or geographic point of interest. This search utility enhances the viewer's navigational efficiency, making it a vital component of the guide.

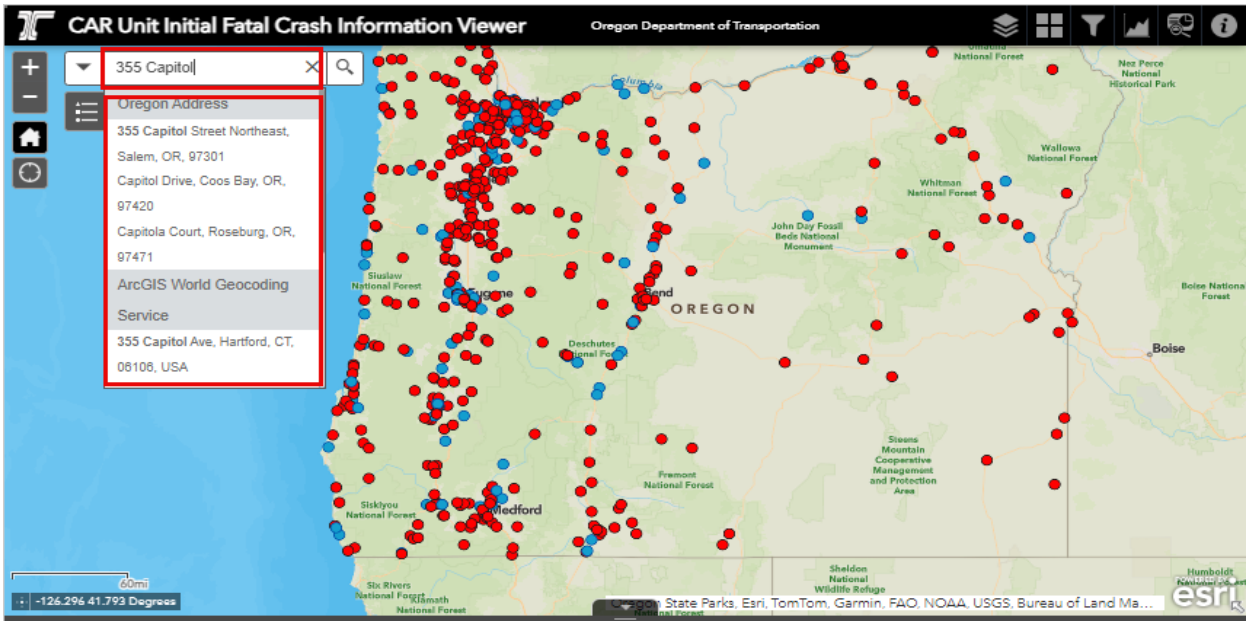


Figure 6 Search in Option for the CAR Unit Initial Fatal Crash Information Viewer

Layer List

The Layer List is a critical feature that enhances the user's ability to customize the map view to their specific needs. Located at the top right corner of the screen, the Layer List icon opens a panel displaying various data layers that can be toggled on or off. For example, users can choose to view 'Initial Fatal Crashes', 'Removed Initial Fatal Crashes', or 'Fatal Crashes 2016-2021', among others. There are also options to overlay city and county boundaries, ODOT maintenance districts, and even historical data on initial fatal fatalities. The default is set to the map with the selection of Initial Fatal Crashes. Each layer can be independently activated to provide a tailored view, allowing for a multi-faceted analysis of crash data across different parameters. By utilizing these layers, stakeholders can identify patterns, compare historical and current data, and gain a deeper understanding of crash locations in relation to the state's administrative and geographical divisions.

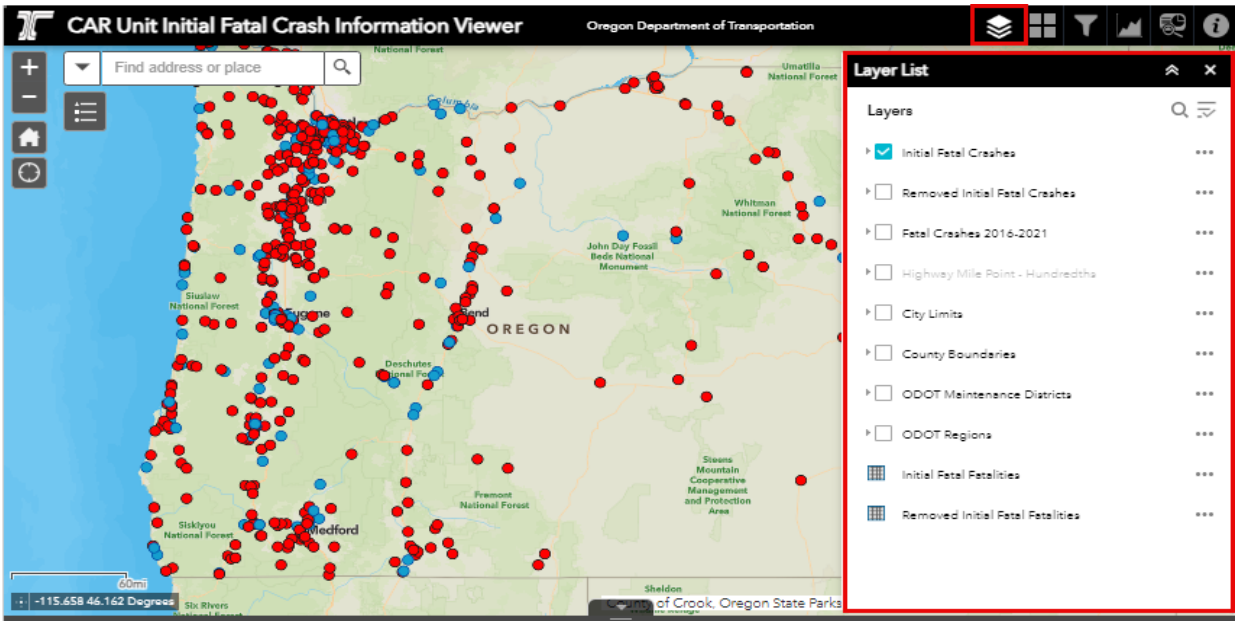


Figure 7 Layer List for the CAR Unit Initial Fatal Crash Information Viewer

Legend

The Legend feature, accessible via the top right corner of the map interface, serves as a key to decipher the data represented on the map. The 'Legend' provides a clear visual explanation of the map's symbols, differentiating crash data by year, as indicated by the color coding of the markers. For instance, the legend in the attached image distinguishes between crashes that occurred in 2023 and those in 2024. Recognizing these distinctions is crucial for users to quickly interpret the temporal distribution of fatal crashes across the state of Oregon.

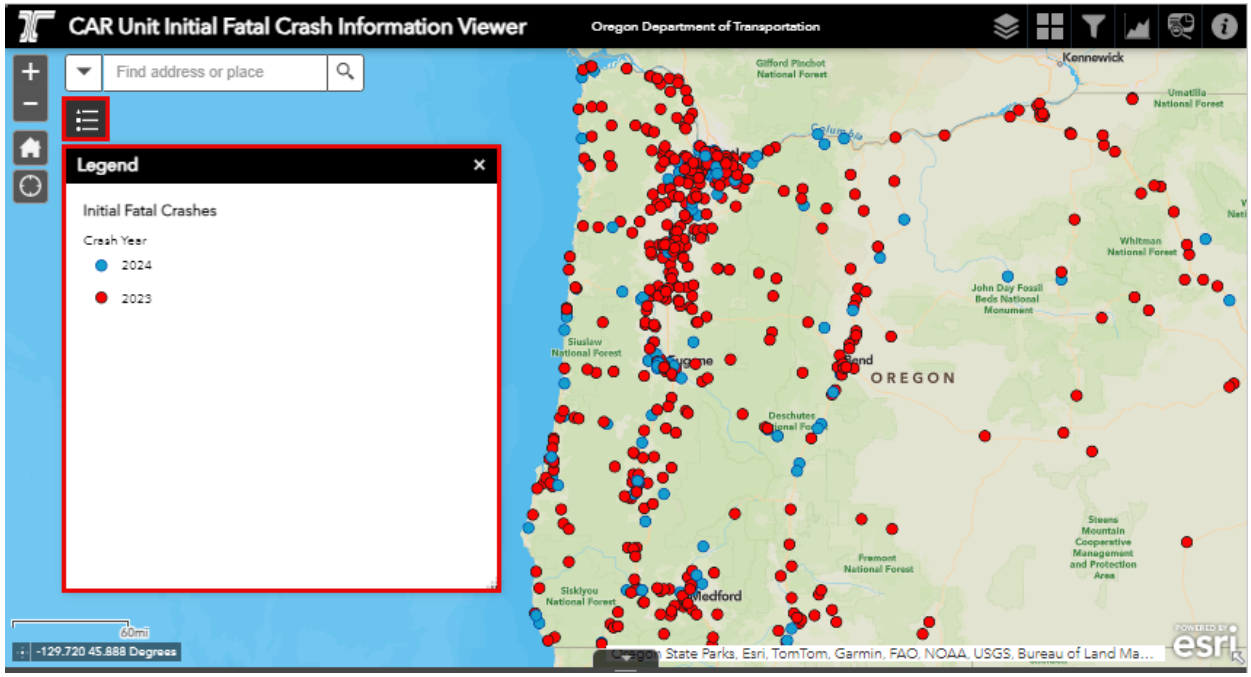


Figure 8 Legend for the CAR Unit Initial Fatal Crash Information Viewer

Basemap Gallery

The Basemap Gallery is a valuable feature within the CAR Unit Initial Fatal Crash Information Viewer that offers users a diverse selection of map styles and backgrounds, enhancing the visualization of data. Accessible from the top right corner of the application, the gallery icon opens a panel showcasing a variety of basemap options, ranging from simple designs like Blueprint or Dark Gray Canvas, to more visually rich styles such as Colored Pencil Map or Firefly Imagery Hybrid. Each basemap presents a unique way to view the underlying geographic information and can help to either simplify the background to highlight the crash data points or provide a more detailed landscape context. This choice of basemap can be particularly helpful when presenting the data to others or conducting a detailed analysis where certain geographic features are of interest.

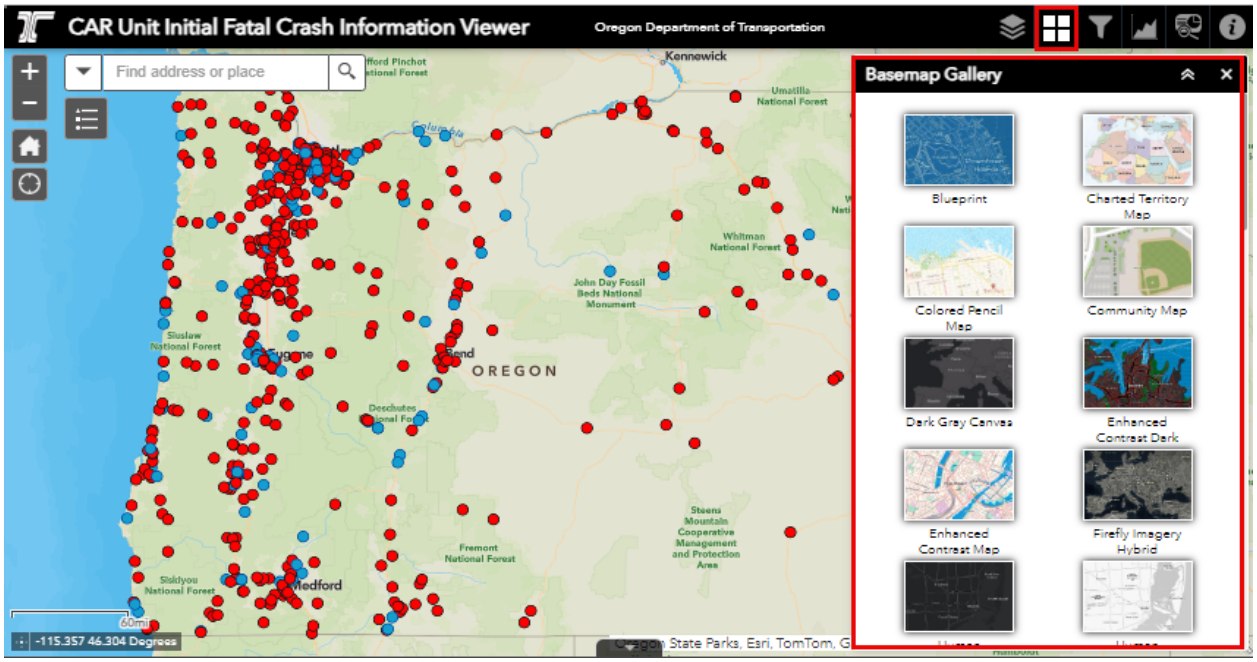


Figure 9 Basemap Gallery for the CAR Unit Initial Fatal Crash Information Viewer

Crash Filters

The Crash Filters feature in the CAR Unit Initial Fatal Crash Information Viewer is a dynamic tool that allows you to refine the crash data displayed on the map. You can access and utilize these filters to tailor the information to your specific research needs. Located in the top right corner, clicking on the Crash Filters icon reveals a menu with several options. You can opt to view crashes on the State Highway System only, or exclusively on Local Roads, by toggling these options. Additional filters include Crash Factors which may display crashes by cause or condition, Participant Fatality Information to show details on individuals involved, and Crash Location by Roadway or Boundary to narrow down the event by specific roads or areas. There is also an ID, Agency, Cases, and Reports filter for users who are looking for specific case references.

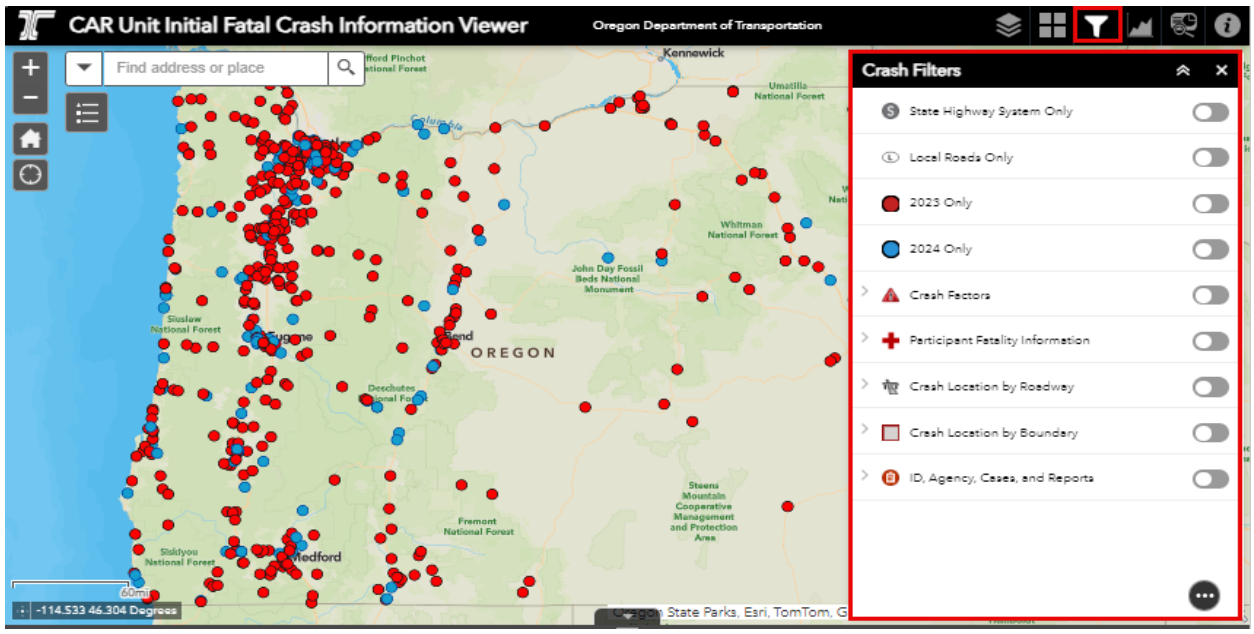


Figure 10 Crash Filters for the CAR Unit Initial Fatal Crash Information Viewer

Crash Charts

The Crash Charts feature is a powerful analytical tool guide for the CAR Unit Initial Fatal Crash Information Viewer. Located at the top right corner of the interface, the Crash Charts icon opens a menu with a list of different data points. You can generate visual representations of crash data based on various criteria such as Crash Date, Reporting Agency, ODOT Highway Number, Route, and whether the area is Rural or Urban. Additionally, you can create charts based on City, County, ODOT Maintenance District, or ODOT Region. Simply click on one of the items to execute a chart that will help you visualize patterns and trends within the crash data. This function allows you to transform the raw data into more understandable and actionable information, supporting your analysis of road safety in Oregon.

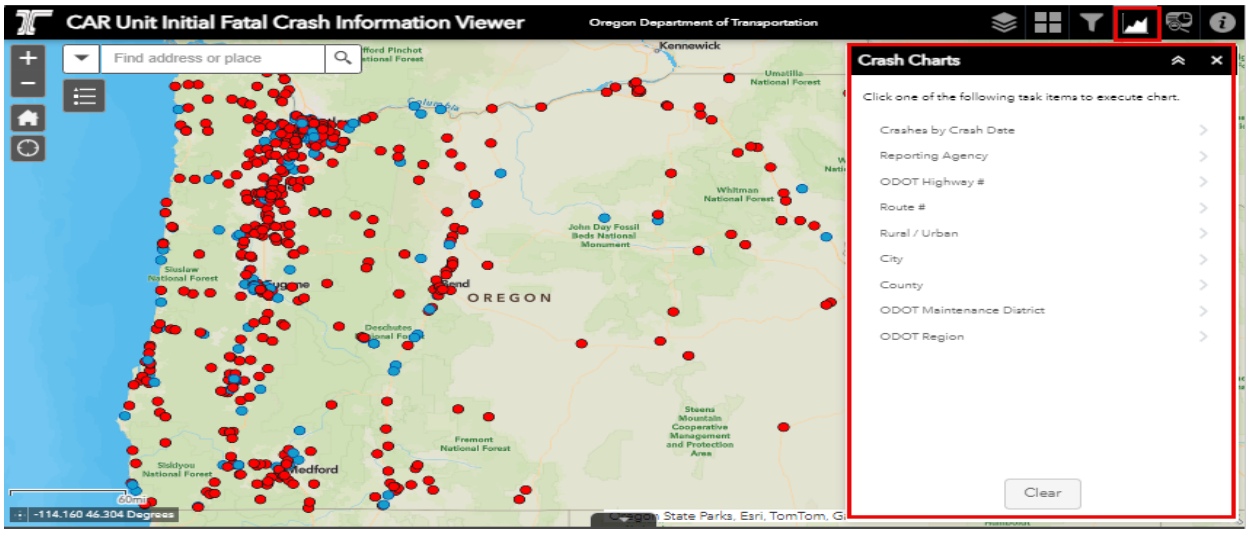


Figure 11 Crash Charts for the CAR Unit Initial Fatal Crash Information Viewer

More

The More option in the CAR Unit Initial Fatal Crash Information Viewer provides you with additional resources and information pertinent to the crash data. The More is symbolized by three stacked lines in the top right corner of the application. By clicking this icon, you will find access to Data Sources Information. If you click on it, you will find detailed information and sources that underpin the data presented in the viewer.

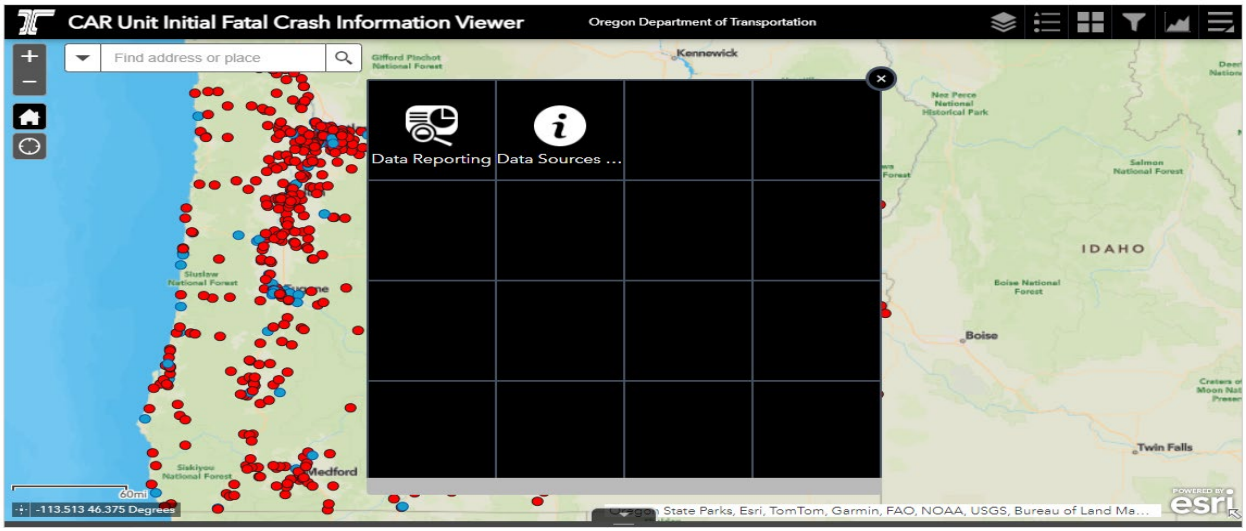


Figure 12 More option for CAR Unit Initial Fatal Crash Information Viewer

Initial Fatal Crashes Table

The Initial Fatal Crashes table in the CAR Unit Initial Fatal Crash Information Viewer is an essential tool for analyzing detailed crash data. It's crucial to understand how to navigate this feature. The table presents individual records of fatal crashes, including the unique CAR Fatal Crash number, crash date and time, and location details such as city, county, and whether the area is rural or urban. Additional columns provide data on ODOT maintenance districts, regions, and route numbers.

At the top right corner of the table, a '+' sign icon opens a menu listing all the available data features. Here, you can select or deselect information fields to tailor the table content to the specifics of your report or analysis needs. This customization allows you to focus on the most relevant data, aiding in more targeted research and streamlined reporting.

You'll notice the Options button at the top left of the table. Clicking this will reveal a dropdown menu with several useful functions: Show related records for viewing connected data points, Filters for narrowing down the displayed records, Show/Hide columns to customize the table view, and Export all to CSV to download the data for external analysis.

There are additional controls for data manipulation:

- **Filter by map extent** adjusts the table's data to match the current map view.
- **Zoom to** hones in on the geographic location of selected crashes within the map.
- **Clear selection** removes any active selections you've made in the table.
- **Refresh** reloads the table's contents to ensure you are working with the most current data.

In the table's lower segment, the total count of crash instances, labeled as **features**, is displayed along with the number of features you have selected. This information is particularly useful for tracking the volume of data you are analyzing and for maintaining a clear view of your **selected** entries. This combination of tools in the table empowers you to manage and scrutinize crash data effectively for comprehensive reporting and assessment.

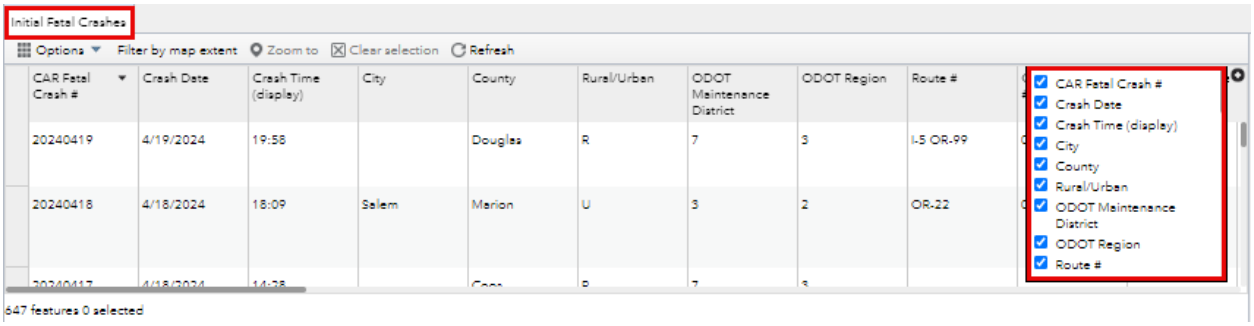


Figure 13 Initial Fatal Crashes Table in the CAR Unit Initial Fatal Crash Information Viewer

Selecting and Analyzing Crash Data Points in the Viewer

To select crash points within the CAR Unit Initial Fatal Crash Information Viewer, click on a specific row in the **Initial Fatal Crashes** table, such as CAR Fatal Crash # 20240418. This selection will cause the corresponding marker on the map to be highlighted, providing you with a visual cue to the location of the crash. If you need to select multiple crash instances for comparison or collective analysis, hold down the Ctrl key on your keyboard while clicking on additional rows within the table. Each selected crash point will be simultaneously highlighted on the map, allowing you to assess and compare multiple incidents with ease. The table's footer displays the total count of crash points, updating in real time to show how many entries you have selected, ensuring you have precise control over the data you are reviewing.

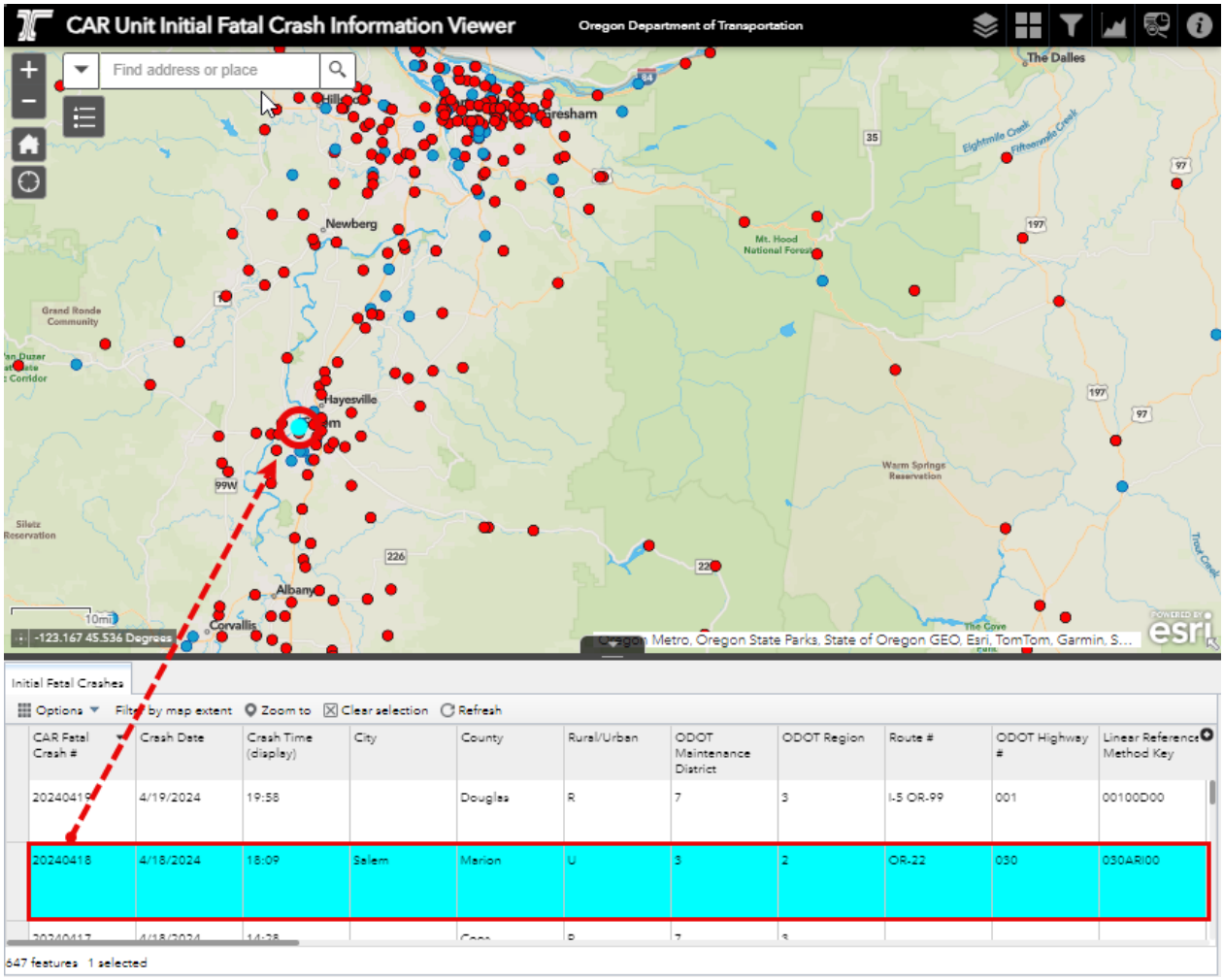


Figure 14 Selecting Crash Data Points in the Table of the CAR Unit Initial Fatal Crash Information Viewer

Selecting and Zooming in Crash Data Points in the Viewer

In the CAR Unit Initial Fatal Crash Information Viewer, the **Zoom to** feature in the table is an effective tool for focusing on a specific incident. After selecting a crash entry in the table, such as CAR Fatal Crash # 20231240, clicking **Zoom to** will immediately adjust the map to center on and closely highlight the location of that crash. This function effectively brings the chosen crash site into a close-up view, providing a detailed look at the surrounding area and enabling you to examine the crash context more closely. For example, as seen in the attachment, the map zooms in on a point near the Willamette River in Portland, offering a clear view of nearby streets, landmarks, and any geographical nuances that may be relevant to the crash analysis. By clicking on the crash point, you can further do an in-depth examination of individual crashes and their specific environments within the viewer.

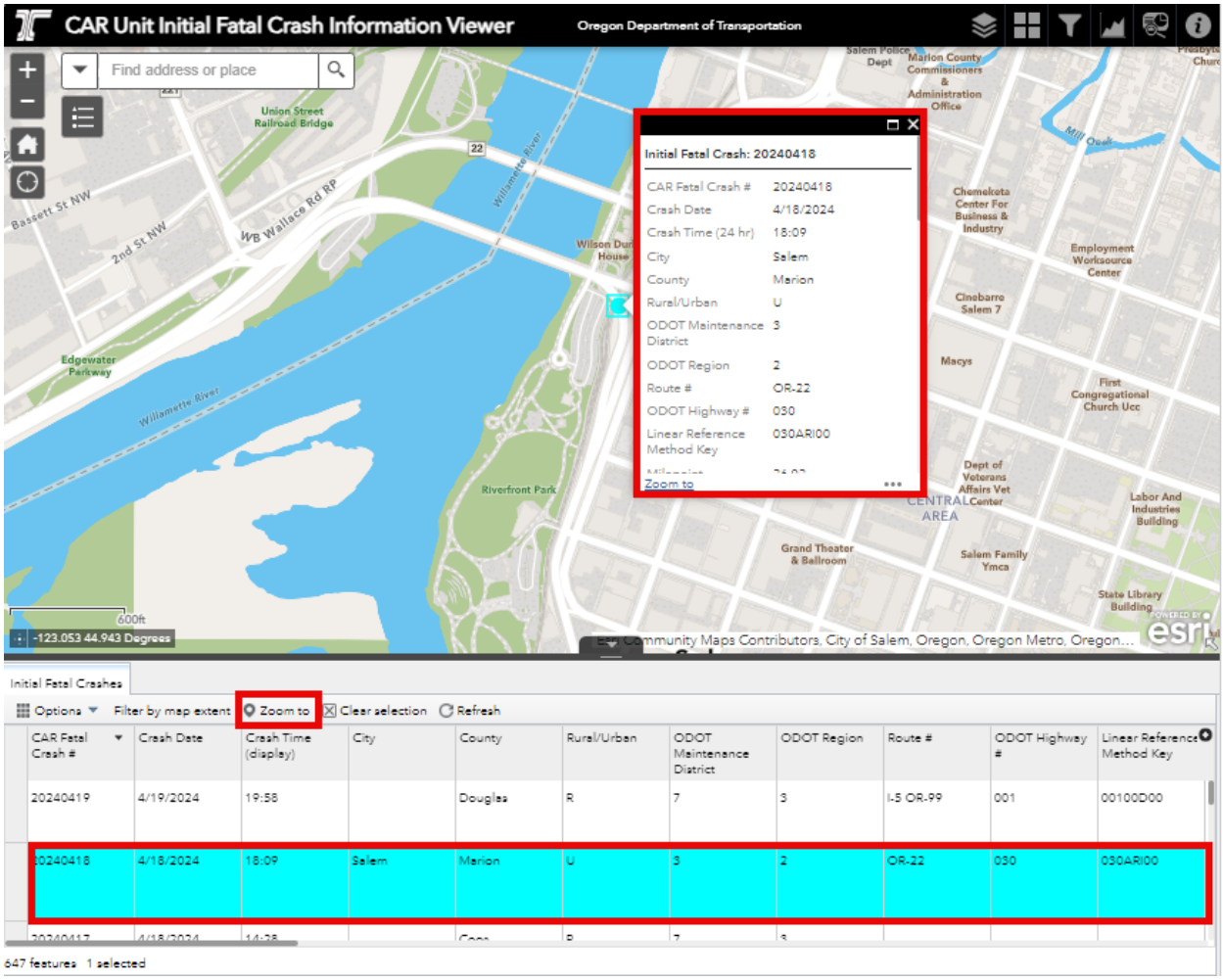


Figure 15 Zooming in to the Crash Data Points from Table to the in the CAR Unit Initial Fatal Crash Information Viewer

Crash Point Information Option

Upon selecting a specific crash point on the map within the CAR Unit Initial Fatal Crash Information Viewer, a pop-up information window appears, providing detailed data about the incident. Within this pop-up window, you have the option to further interact with the data point. By clicking **Zoom to**, the map will center and zoom in directly on the crash location, offering a close-up view of the surrounding area. This can be particularly useful for examining the crash environment in greater detail.

Additionally, the pop-up window features three dots at the bottom right corner. Clicking here reveals more options such as **Pan to**, which smoothly transitions the map's focus to the selected crash without changing the zoom level, **Add a marker**, which allows you to place a permanent marker on the map for reference, and **View in Attribute Table**, which highlights the corresponding record in the crash table. These tools provide you with multiple ways to navigate and mark the crash data for a comprehensive analysis or presentation.

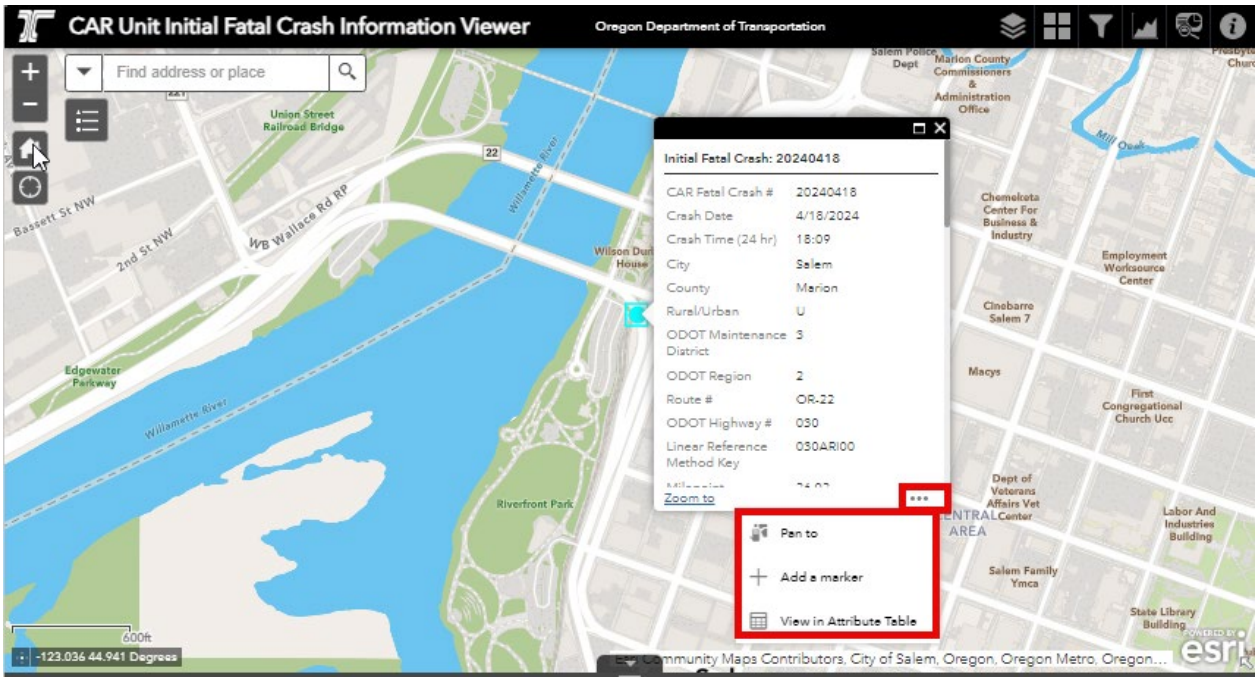


Figure 16 Crash Point Pop-up Information

Initial Fatal Fatalities

When a specific crash point on the map within the CAR Unit Initial Fatal Crash Information Viewer is selected, additional details are accessible via the attribute table's **Options**. Clicking on **Options** and then **Show related records** reveals associated datasets linked to the selected incident. In this case, when **Initial Fatal Fatalities** is chosen from the related records, the table expands to provide comprehensive information about the fatality associated with that crash. As shown in the attachment, this includes the CAR Fatal Crash number, Fatality number, and personal details such as gender and age of the deceased, along with information on the date of death, vehicle category, participant type, and any notable comments such as circumstances or actions at the time of the crash. This function is particularly valuable for an in-depth analysis of each incident, enabling a holistic view of the circumstances surrounding each fatal crash recorded in the viewer.

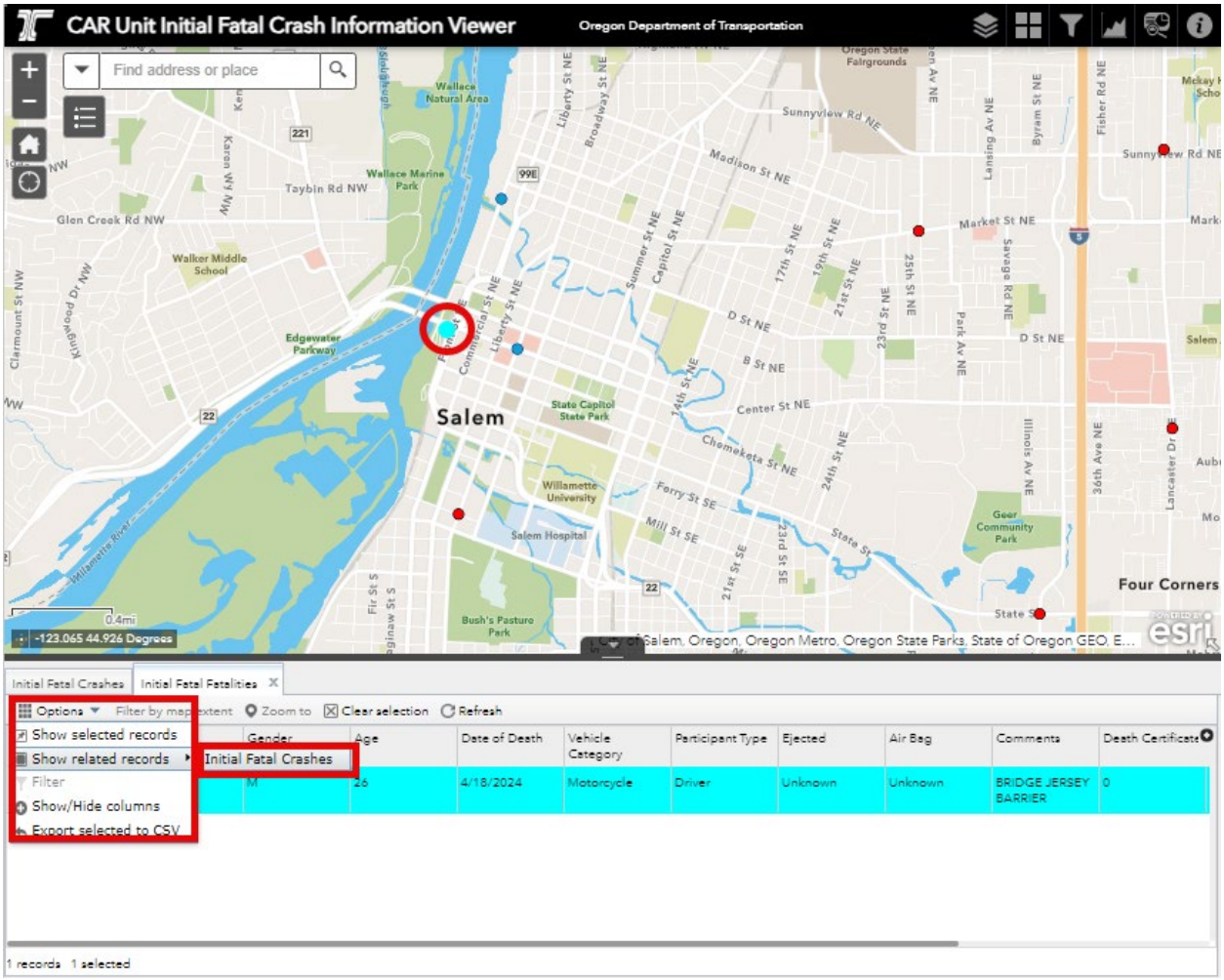


Figure 17 Related Records of Initial Fatal Fatalities of the Selected Crash Point

Layer List

The Layer List in the CAR Unit Initial Fatal Crash Information Viewer is a feature that provides a comprehensive overview of different data layers that can be toggled on and off to customize the map view. The default layer, **Initial Fatal Crashes**, presents the most recent crash data, including data from the previous year, giving an up-to-date picture of the crash sites.

Additionally, the Removed Initial Fatal Crashes layer includes data points that, while initially marked as fatal crashes, were later determined not to meet the criteria for inclusion - such as incidents occurring on private property. This adjustment allows for cleaner and more accurate data analysis. The **Fatal Crashes 2016-2021** layer provides historical context, showing crash data over a specified range of years, which is essential for identifying long-term trends and changes in crash occurrences. This historical data layer's year range is updated annually to include the most recent complete year of data.

Other layers, such as **City Limits** and **County Boundaries**, offer geographical context, helping to delineate crashes within specific administrative regions. The **ODOT Maintenance Districts** and **ODOT Regions** layers can provide insight into the crashes relative to maintenance responsibilities and regional divisions within the state's transportation system.

Lastly, the layer list includes two data table views, which likely offer tabulated data for detailed analysis. These might be **Initial Fatal Fatalities** and **Removed Initial Fatal Fatalities**, corresponding to the map layers, allowing researchers and analysts to delve into the specifics of each crash or fatality reported.

This layered approach to presenting data allows for a multidimensional analysis of crash information, providing vital insights for traffic safety officials, urban planners, and researchers focused on improving road safety.

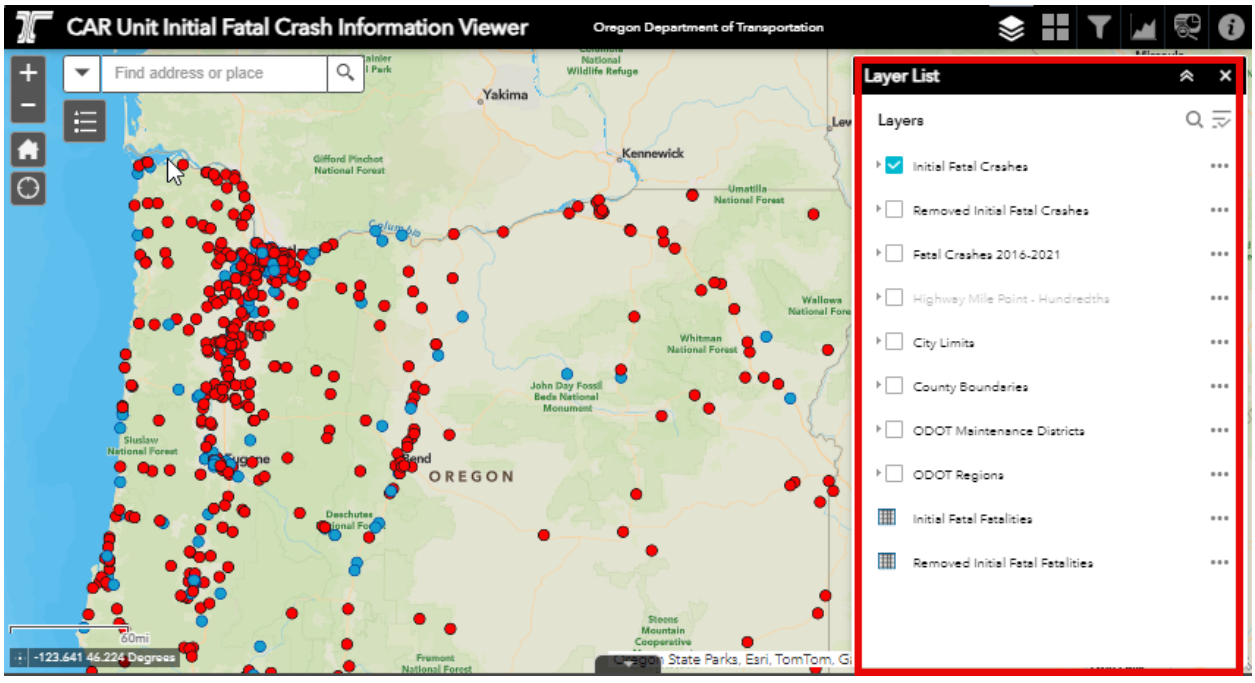


Figure 18 The Layer List in the CAR Unit Initial Fatal Crash Information Viewer

Initial Fatal Crashes

In the default view of the CAR Unit Initial Fatal Crash Information Viewer, you'll observe two distinct colors of points mapped across Oregon, representing different crash years. The most recent data for the current

year is denoted by blue-colored points, while the previous year's data is indicated by red points. Upon initial observation, you may notice that blue points appear less frequently than red ones. This is because the current year is still ongoing, and as such, the data for this period is incomplete and continually being updated. As the year progresses, you can expect to see the number of blue points increase, reflecting the accumulation of data on fatal crashes throughout the year. This temporal data representation allows you to quickly discern between the most recent and previous years' crash data at a glance.

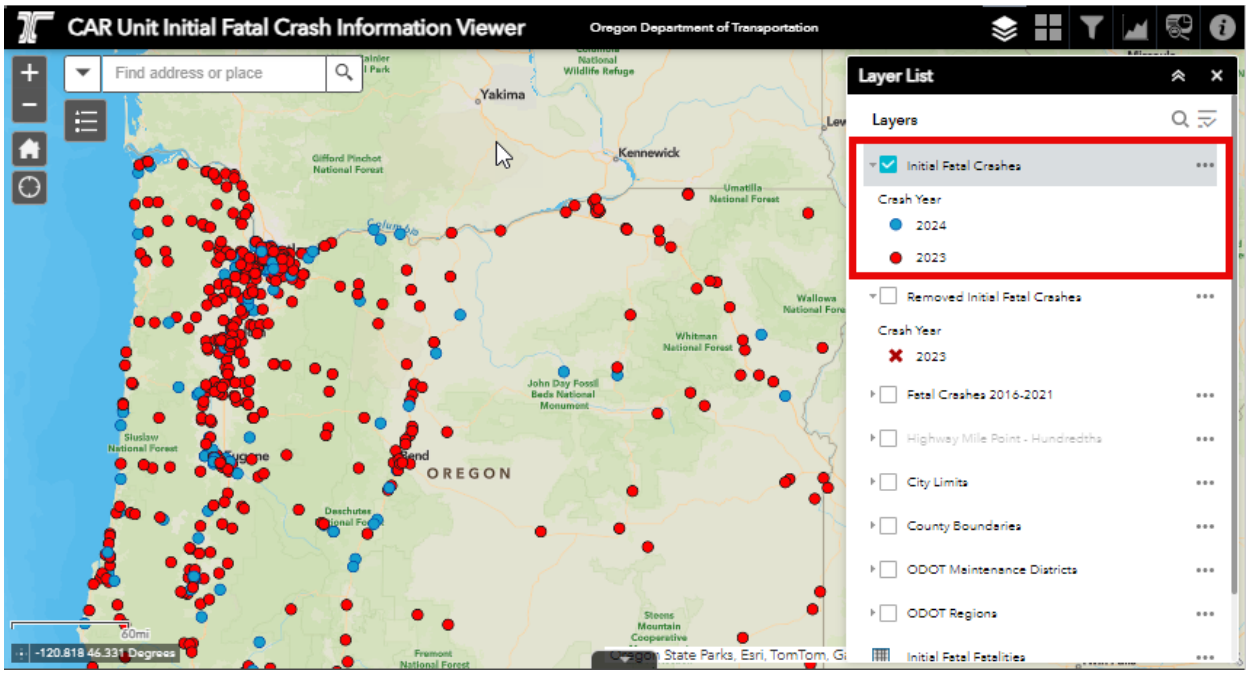


Figure 19 The Default View of the CAR Unit Initial Fatal Crash Information Viewer

Removed Initial Fatal Crashes

The Removed Initial Fatal Crashes layer indicates red and blue X marks signify the removal of crash data from previous and current years, respectively. By interacting with these marks, a pop-up window reveals detailed information about each removed crash instance. This includes whether the fatality was ejected from the vehicle, the crash date, the date the record was added, and Date Removed fields, which are accessible by scrolling within the pop-up window. This feature is pivotal for understanding the dynamics of the crash data, ensuring users are aware of the changes and the reasons behind them, maintaining the integrity and accuracy of the analysis.

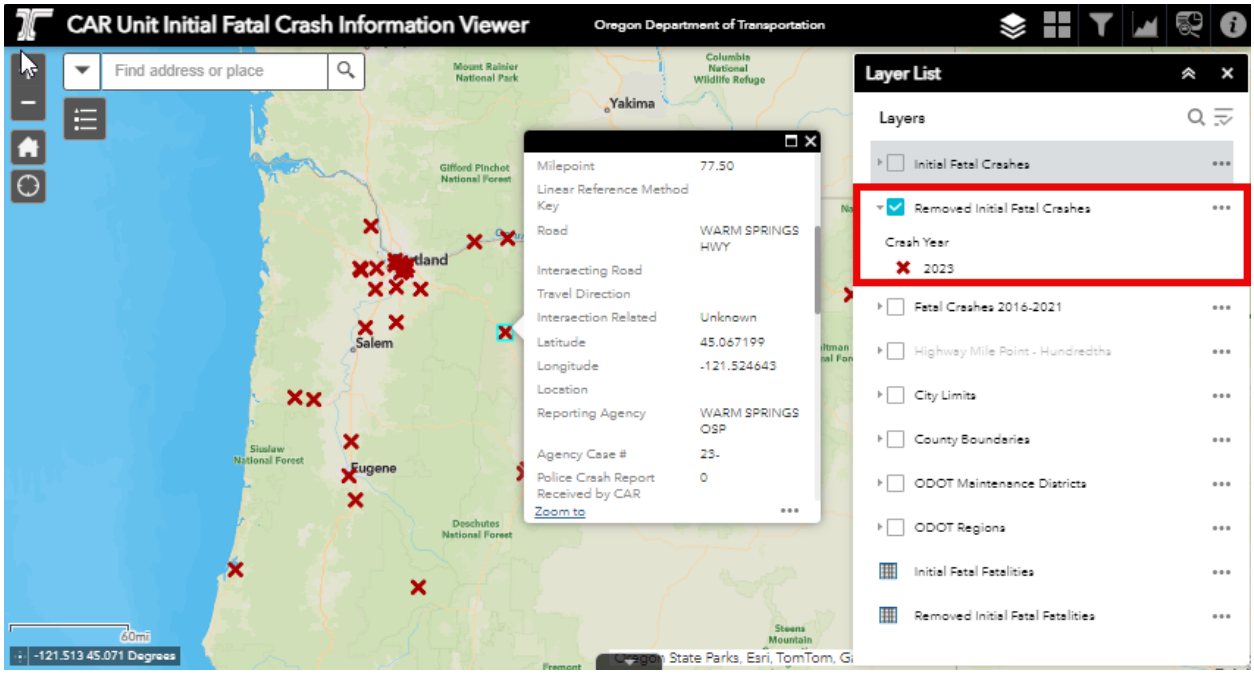


Figure 20 Removed Initial Fatal Crashes Layer in the CAR Unit Fatal Crash Information Viewer

Fatal Crashes 2016-2021 (Historical Fatal Crash Data)

The **Fatal Crashes 2016-2021** layer in the CAR Unit Initial Fatal Crash Information Viewer provides a historical view of crash data across Oregon over six years. Each year's data is color-coded for easy differentiation: 2021 is indicated by one color, 2020 by another, and so on, down to 2016. This multi-year data can be especially valuable for conducting year-over-year comparisons or for identifying long-term changes in crash occurrences within the state of Oregon.

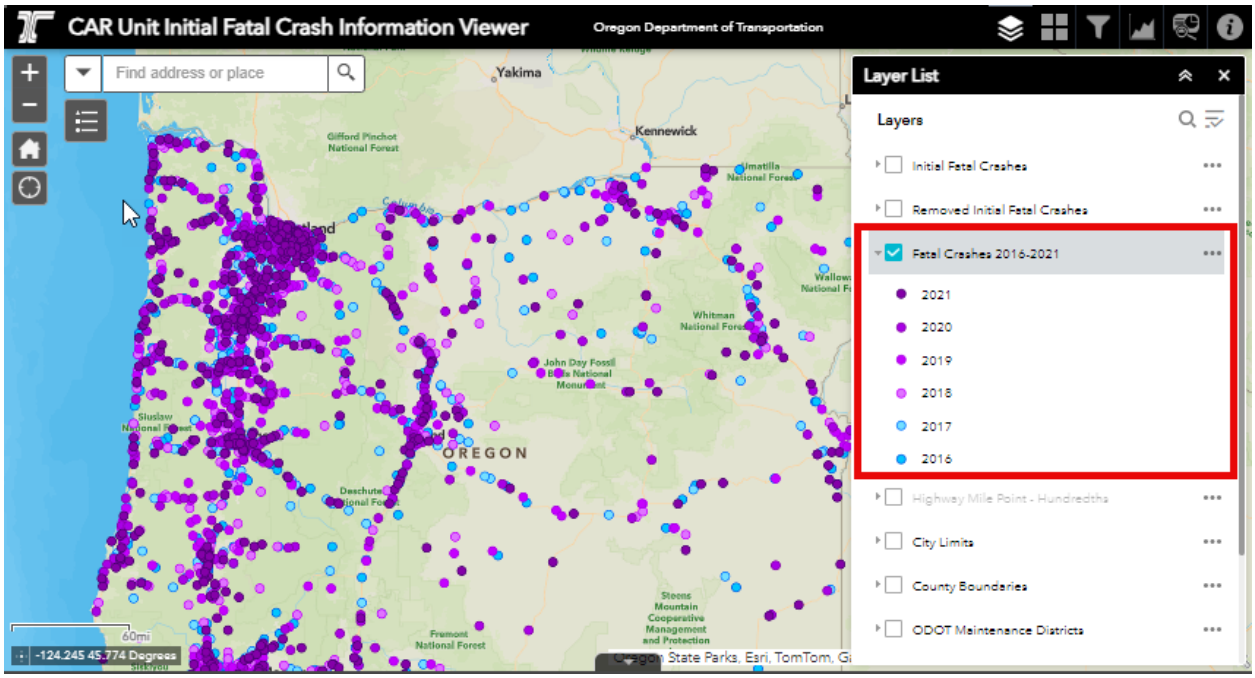


Figure 21 Fatal Crashes 2016-2021 Layer in the CAR Unit Initial Fatal Crash Information Viewer

City Limits

The **City Limits** layer allows for an immediate visual distinction between crashes occurring within municipal boundaries and those that occur outside these limits. The screenshot shows the City Limits layer activated, providing a clear view of the areas surrounding cities like Portland, Beaverton, and Wilsonville. Understanding where city boundaries lie in relation to fatal crashes offers critical insights for local authorities and planners aiming to improve traffic safety measures within and around urban areas.

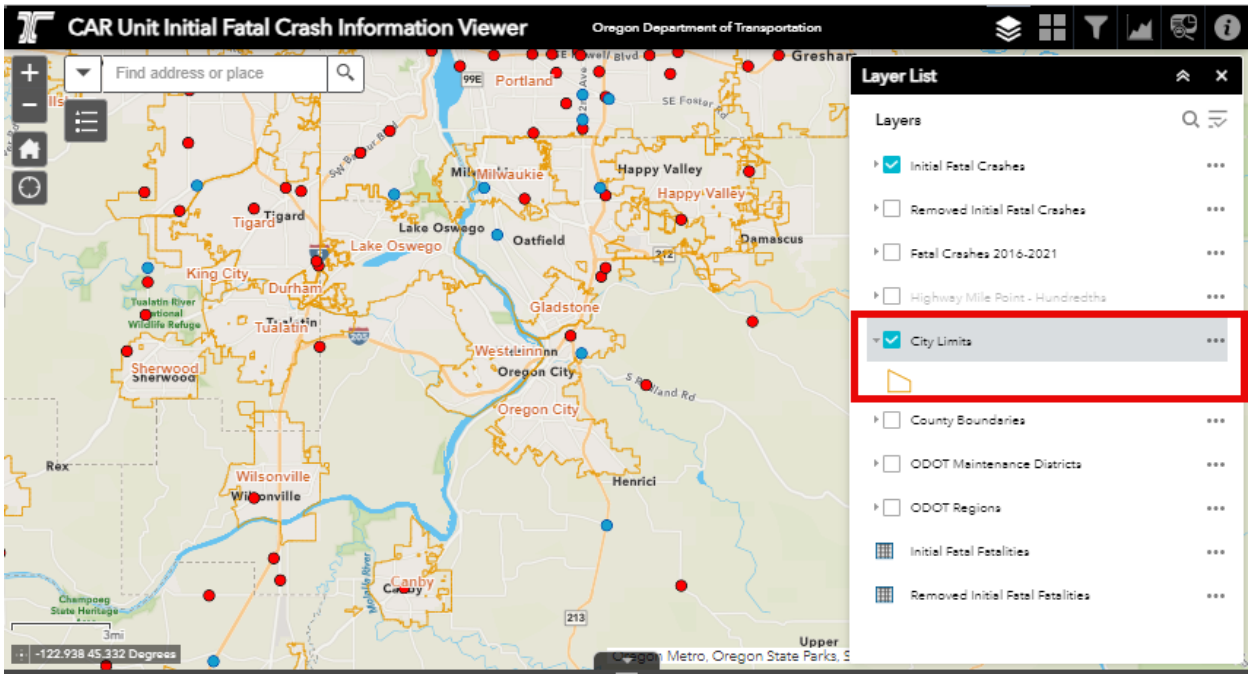


Figure 22 City Limits Layer in the CAR Unit Initial Fatal Crash Information Viewer

County Boundaries

The **County Boundaries** layer boundaries are crucial for understanding the distribution of fatal crashes across different administrative jurisdictions. As shown in the attachment, the county lines are clearly defined, separating areas like Tillamook County, Yamhill County, Polk County, and others. The red and blue dots, representing fatal crashes, are plotted against this backdrop, allowing for a quick assessment of how crash occurrences are distributed across the various counties. This can provide insights into regional patterns and may highlight areas that require increased traffic safety interventions. The ability to visualize crashes against county boundaries is particularly useful for state and local agencies responsible for managing road safety and for policymakers looking to allocate resources effectively to reduce fatalities.

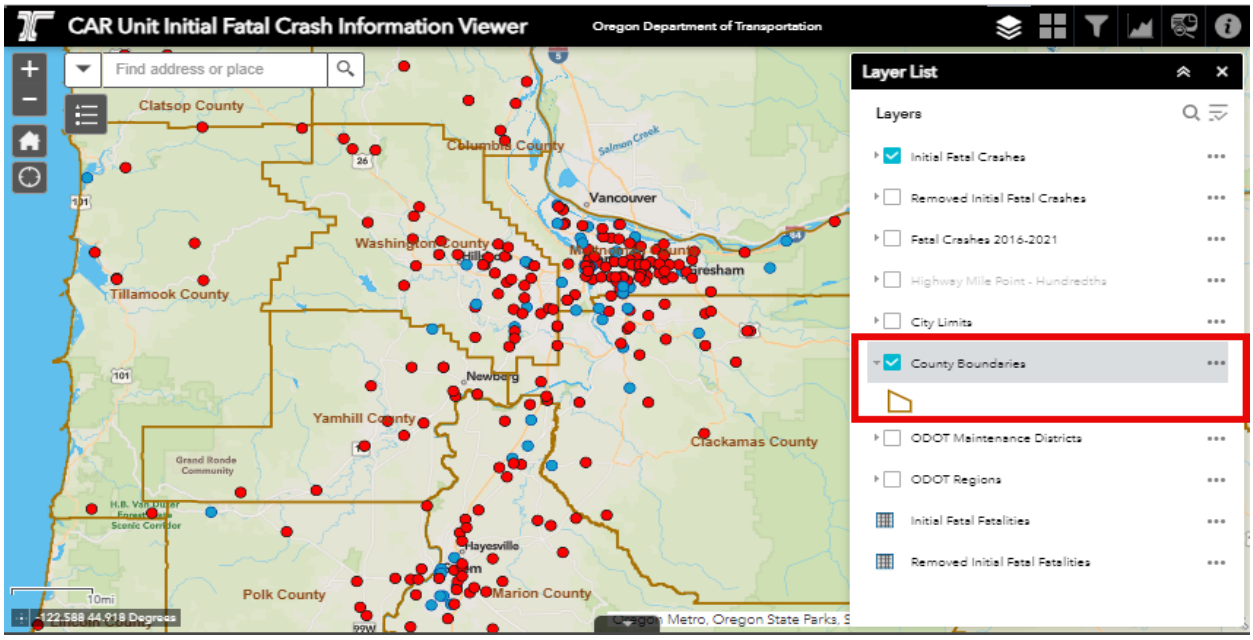


Figure 23 County Boundaries Layer in the CAR Unit Initial Fatal Crash Information Viewer

ODOT Maintenance District

The **ODOT Maintenance Districts** layer in the map illustrates maintenance districts, each marked by a numbered label, overlaying the geographical outline of Oregon. These districts are responsible for the maintenance and operational functions that affect road safety and conditions, factors that can influence crash occurrences. The dots, indicative of fatal crashes, are distributed across the districts, providing a visual correlation between the locations of these incidents and the respective maintenance areas. This data is instrumental for ODOT in identifying which districts might require more resources or interventions to improve road safety. For anyone analyzing the data, understanding the layout of ODOT Maintenance Districts is vital for formulating targeted strategies to reduce and respond to crashes within each specific district's jurisdiction.

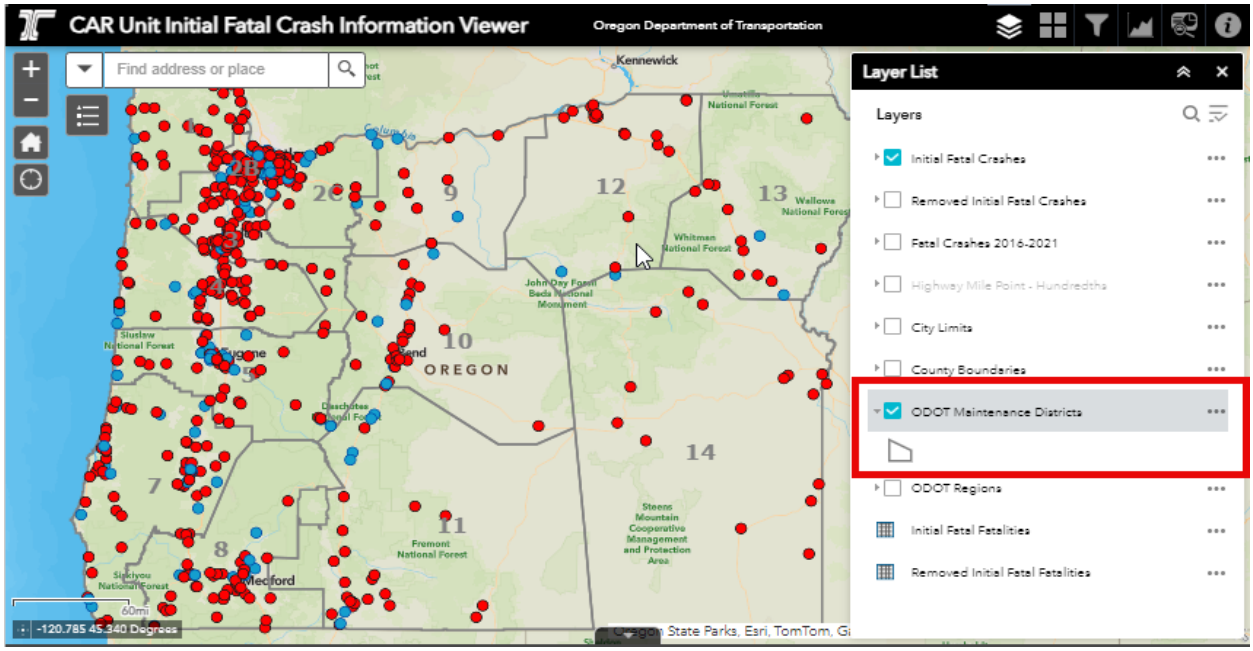


Figure 24 ODOT Maintenance Districts Layer in the CAR Unit Initial Fatal Crash Information Viewer

ODOT Regions

The **ODOT Regions** layer, as illustrated in the CAR Unit Initial Fatal Crash Information Viewer map, each ODOT Region is delineated, with numerical labels that correlate to specific administrative areas within the state. These regions are important for understanding the management of transportation infrastructure and the oversight of road safety programs. The viewer shows fatal crashes as dots scattered across the five numbered regions, indicating where incidents have occurred within the confines of each region's responsibility. This spatial distribution can be vital for regional ODOT offices in assessing the frequency and locations of fatal crashes, which in turn can inform the development of targeted safety improvements and intervention strategies. The ODOT Regions layer is a key feature for strategic planning, resource allocation, and enhancing the overall traffic safety across Oregon.

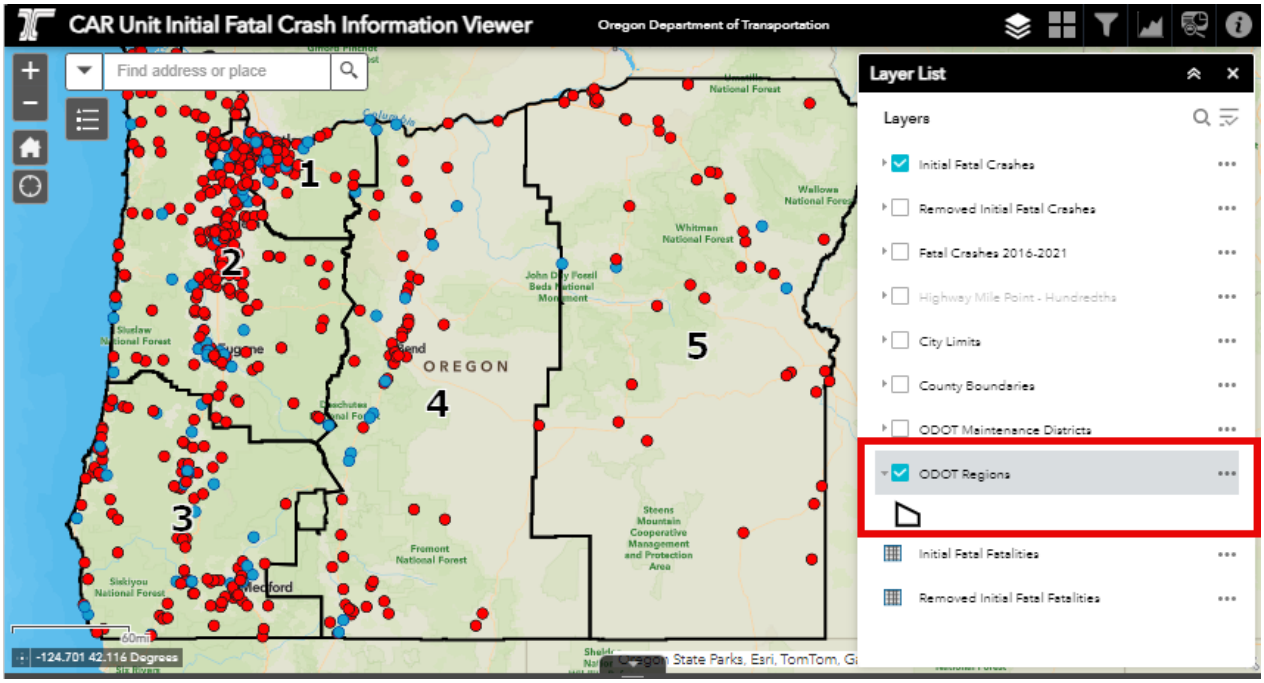


Figure 25 ODOT Regions Layer in the CAR Unit Initial Fatal Crash Information Viewer

Initial Fatal Fatalities

The **Initial Fatal Fatalities** layer in the CAR Unit Initial Fatal Crash Information Viewer is a detailed data set that records individual fatalities from crashes. This layer provides a more granular look at each incident, capturing demographic information, details about the crash, and specifics about the vehicle and participants involved. In the provided screenshot, clicking on the three dots next to the **Initial Fatal Fatalities** layer brings up options to further interact with this data. Selecting **View in Attribute Table** displays the data in a structured, tabular format, allowing for easy review and analysis of each fatality. Each row corresponds to a different fatality, complete with information such as gender, age, date of death, vehicle category, participant type, and other pertinent details.

Additionally, selecting **Description** from the same three-dot menu opens a new window providing metadata about the **Initial Fatal Fatalities**. This can include information on how the data was collected, definitions of various terms used in the table, and other relevant documentation that can aid in understanding the context and scope of the data presented.

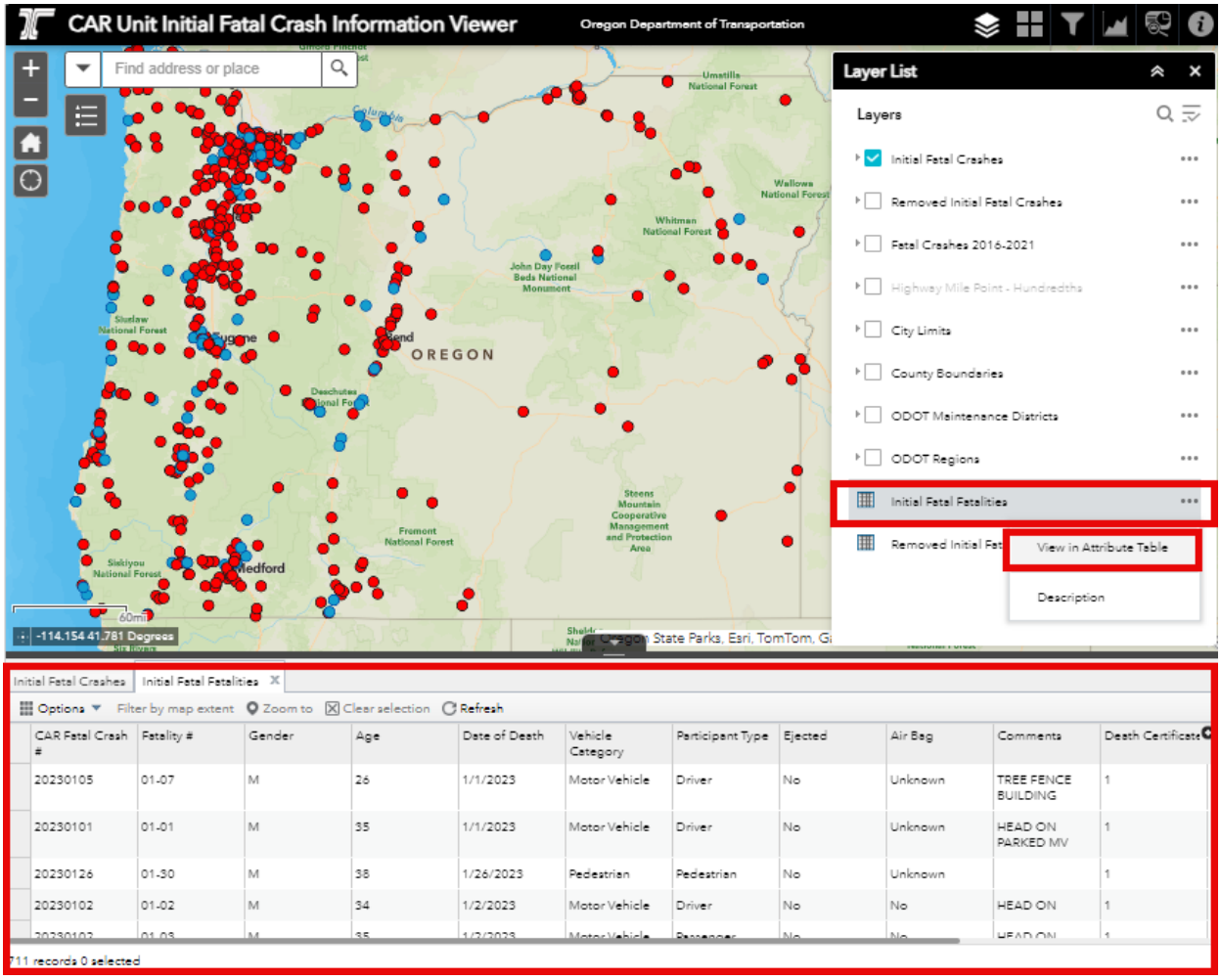


Figure 26 Initial Fatal Fatalities Layer in the CAR Unit Initial Fatal Crash Information Viewer

Removed Initial Fatal Fatalities

The **Removed Initial Fatal Fatalities** layer in the CAR Unit Initial Fatal Crash Information Viewer represents data for fatalities that were initially reported but subsequently removed from the current dataset. In the interface, clicking on the three dots adjacent to the **Removed Initial Fatal Fatalities** in the **Layer List** reveals a dropdown menu offering additional actions. By selecting **View in Attribute Table** from this menu, the data concerning the removed fatalities is displayed in a tabular format. This format lays out comprehensive details of each case, including fatality ID, gender, age, date of death, and associated vehicle and participant types.

Furthermore, if you click on **Description** within the same menu, a new window opens, providing metadata regarding the initial fatal fatalities.

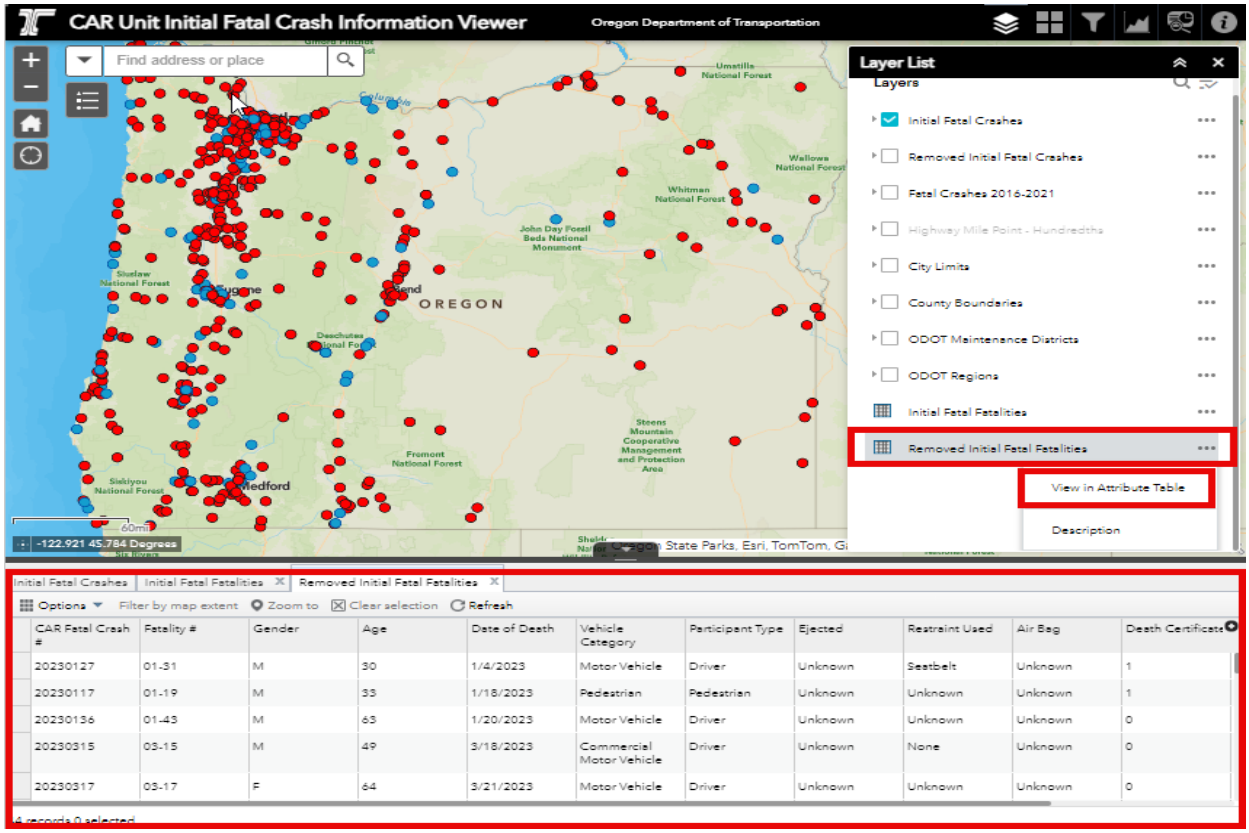


Figure 27 Removed Initial Fatal Fatalities layer in the CAR Unit Initial Fatal Crash Information Viewer

Multiple Selection Layers in the Layer List

The CAR Unit Initial Fatal Crash Information Viewer's Layer List is set to display selected data points. 'Initial Fatal Crashes' marks the initially reported fatal accidents, 'Removed Initial Fatal Crashes' indicates reports that were reclassified and do not meet inclusion criteria, and 'Fatal Crashes 2016-2021' shows fatal accidents recorded over the past five years. This multi-layer approach facilitates a more nuanced and precise analysis of fatal crash data within the mapped region.

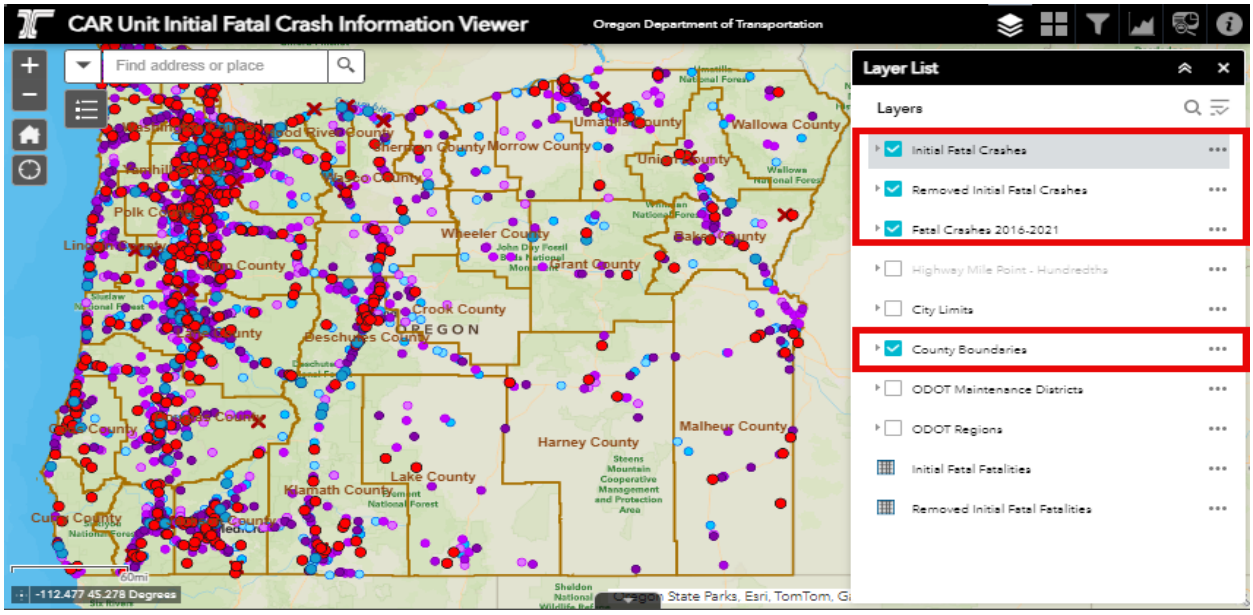


Figure 28 Multi Selected Layers in the Layer List of the CAR Unit Initial Fatal Crash Information Viewer

Legend

In the CAR Unit Initial Fatal Crash Information Viewer, the Legend plays a critical role in interpreting the map. It acts as a key to understanding the various symbols and colors representing data on the map, and it changes dynamically based on the layers you activate in the Layer List. As shown in the attachments, the Legend reflects the selections made from the Layer List. For this guide, the following layers have been highlighted:

- **Initial Fatal Crashes:** Dots on the map corresponding to this layer indicate locations of recent crashes. The color-coding in the legend differentiates crashes by the year they occurred, with each color representing a different year. For instance, the latest crash year may be shown in blue, while the previous year's crashes are shown in red.
- **Removed Initial Fatal Crashes:** This layer marks crashes that have been removed from the initial count, which is signified by 'X' marks. The legend categorizes them by year, similar to the initial crash data, aiding in understanding the adjustments made to the data over time.
- **Fatal Crashes 2016-2021:** This historical data set provides insight into fatal crashes over a span of several years, with each year assigned a unique color in the legend for clear visual distinction.
- **County Boundaries:** The Legend's inclusion of County Boundaries ensures precise geographic orientation of crashes for informed decision-making.

The legend's ability to adapt to the layers selected ensures that you can have a customized view that aligns with the specific data you are analyzing. This adaptability is essential for providing a focused analysis, whether you are looking at current data, historical trends, or investigating the specifics of data revisions. Understanding how to interpret the Legend is essential for anyone using the viewer to ensure accurate and insightful data analysis.

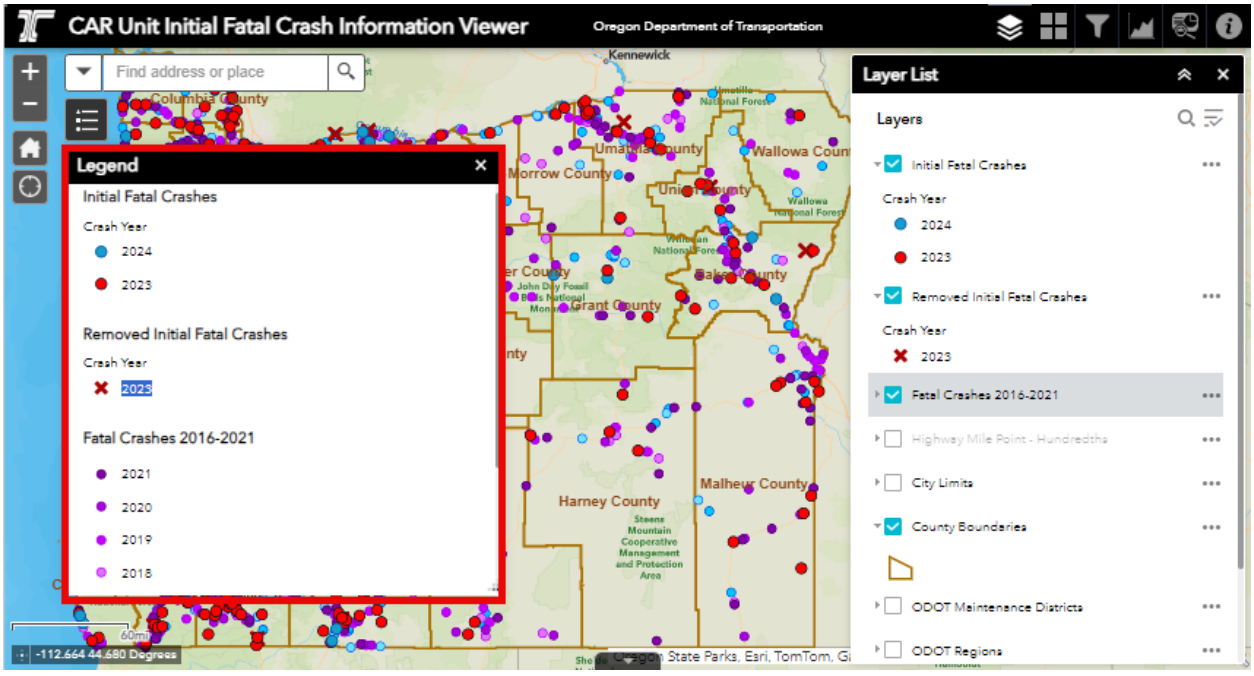


Figure 29 Legends Based on the Selected Layers in the Layer List of the CAR Unit Initial Fatal Crash Information Viewer

Basemap Gallery

The Basemap Gallery in the CAR Unit Initial Fatal Crash Information Viewer offers a variety of cartographic backgrounds, each lending a different visual context to the crash data. Users can scroll through and select from many options, depending on their preference or the specifics of their analysis. Selecting the right basemap can greatly enhance the readability of the data, suit the context of the analysis, and cater to personal preferences for visual style.

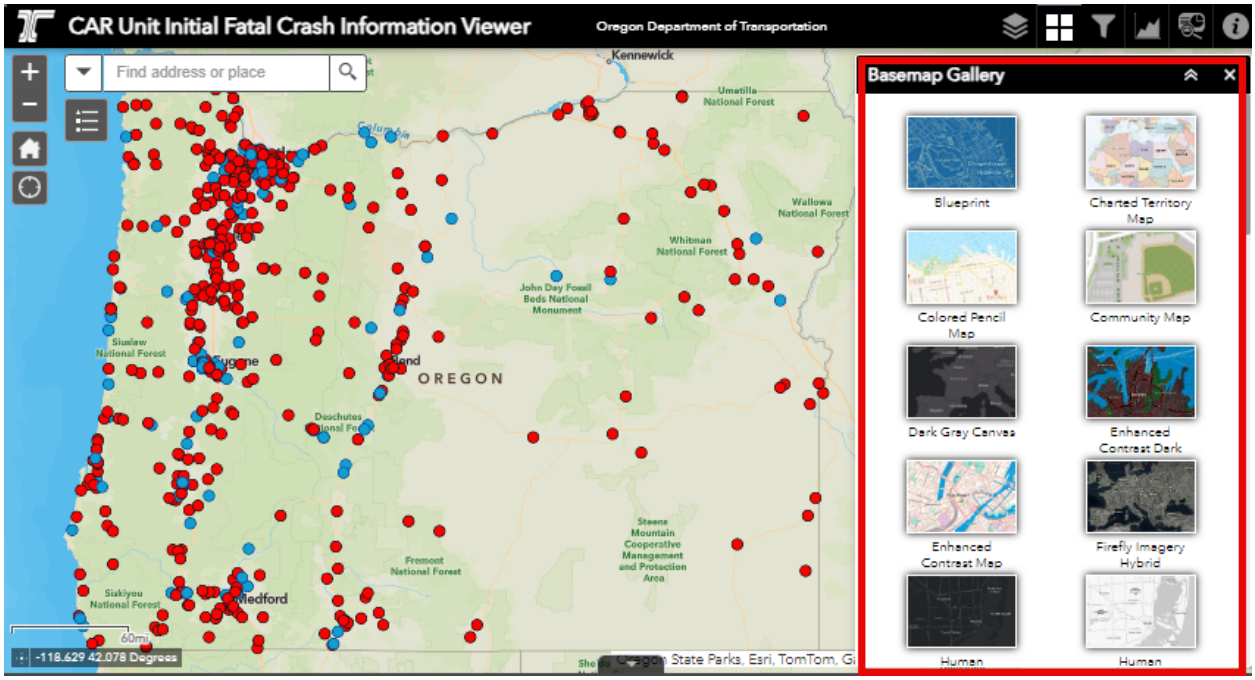
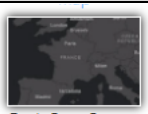
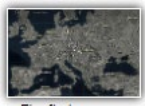
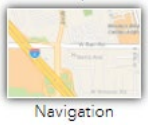
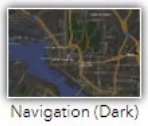
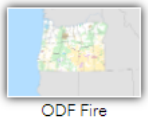
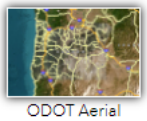


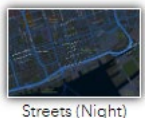
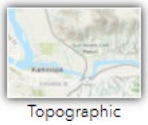
Figure 30 Basemap Gallery in the CAR Unit Initial Fatal Crash Information Viewer

Each basemap provides a different visual context:

Basemap Gallery	Description
 Blueprint	The Blueprint basemap provides a technical, schematic-style background, reminiscent of architectural blueprints, ideal for emphasizing data points without the distraction of geographic details.
 Charted Territory Map	The Charted Territory Map likely offers a classic, map-like appearance, with a focus on clear, traditional cartographic representations of terrain and road networks.
 Colored Pencil Map	The Colored Pencil Map option has a hand-drawn, artistic aesthetic, which could be useful for presentations or when a less formal map visualization is desired.
 Community Map	The Community Map offers detailed, community-contributed layout that can be especially valuable for urban planning or community-level analysis.

Basemap Gallery	Description
 Dark Gray Canvas	The Dark Gray Canvas offers a sleek, subdued backdrop that allows data points to stand out, perfect for a contemporary look and when working in low-light conditions.
 Enhanced Contrast Dark	The Enhanced Contrast Dark basemap provides a high-contrast, dark background, making it easier to distinguish varied colors and symbols, especially in brightly lit environments.
 Enhanced Contrast Map	The Enhanced Contrast Map basemap option offers a vivid and distinct color scheme to improve visibility and detail.
 Firefly Imagery Hybrid	The Firefly Imagery Hybrid may incorporate vibrant, glowing visual effects to represent data, suitable for capturing attention in presentations.
 Human Geography Dark	The Human Geography Dark basemap probably emphasizes human-made features and political boundaries, suitable for socio-economic studies and reports.
 Human Geography Map	The Human Geography Map basemap emphasizes human settlements and infrastructures, ideal for socio-economic analysis.
 Imagery	The Imagery basemap offers high-resolution satellite images, giving a real-world look of the terrain and built environments.
 Imagery Hybrid	The Imagery Hybrid basemaps combines satellite imagery with overlaid map information, such as streets and place names.
 Light Gray Canvas	The Light Gray Canvas basemaps provides a neutral, soft-toned background that emphasizes the data layers on top without distraction.
 Mid-Century Map	The Mid-Century Map basemap features a retro design aesthetic, reminiscent of mid-20th-century cartography, suitable for thematic storytelling.
 Modern Antique Map	The Modern Antique Map basemap merges old-world charm with modern geographic data for a classic yet updated map experience.

Basemap Gallery	Description
 National Geographic Style	The National Geographic Style basemap is likely mirrors the traditional National Geographic maps, known for their detailed and aesthetically pleasing cartographic designs.
 Navigation	The Navigation basemap is designed to highlight roads and navigation paths, this basemap is ideal for transportation-focused projects.
 Navigation (Dark)	The Navigation (Dark) basemap is similar to the Navigation basemap but with a dark background, this is easier on the eyes in low-light conditions and makes colorful data points pop.
 Newspaper Map	The Newspaper Map basemap mimics the look of a map printed in a newspaper, offering a grayscale, texturized background that can make colorful data points stand out.
 Nova Map	The Nova Map basemap likely to offer a star-studded, space-themed backdrop for a striking visual effect.
 Oceans	The Oceans basemap focuses on maritime areas, which could be useful for coastal data analysis.
 ODF Fire Protection	The ODF Fire Protection basemap specialized map detailing regions under the Oregon Department of Forestry's fire protection.
 ODOT Aerial Hybrid	The ODOT Aerial Hybrid basemap combines high-resolution aerial imagery with mapped streets for a detailed view of the terrain.
 ODOT Aerial Hybrid Vector Tile	The ODOT Aerial Hybrid Vector Tile basemap layers detailed street information over high-resolution aerial imagery for a comprehensive view of the landscape.
 ODOT Streets	The ODOT Streets basemap showcases detailed street maps, which could be ideal for urban area crash analysis.
 ODOT Streets Grayscale Vector	The ODOT Streets Grayscale Vector basemap presents a monochrome view of street layouts, offering a classic and distraction-free mapping environment.
 ODOT Streets Vector Tile	The ODOT Streets Vector Tile basemap emphasizes road networks and infrastructure with vector graphics for crisp, scalable detail.

Basemap Gallery	Description
 ODOT Terrain	The ODOT Terrain basemap highlights natural landforms like hills and valleys, aiding in geographically diverse areas.
 ODOT Terrain Hybrid	The ODOT Terrain Hybrid basemap offers a blend of topographical shading and aerial imagery, ideal for detailed geographic analysis.
 ODOT Terrain Hybrid Vector Tile	The ODOT Terrain Hybrid Vector Tile basemap merges detailed terrain data with vector overlays for a clear and scalable mapping experience.
 ODOT Transportation	The ODOT Transportation basemap provides a clear and focused layout of transportation networks.
 OpenStreetMap	The OpenStreetMap basemap provides a user-generated map that can be very detailed and up-to-date.
 Streets	The Streets basemap provides a detailed view of urban road layouts and intersections.
 Streets (Night)	The Streets (Night) basemap could be useful for highlighting brightly colored data points.
 Terrain with Labels	The Terrain with Labels basemap combines topographical details with place names for easy orientation and landscape understanding.
 Topographic	The Topographic basemap illustrates elevation and landforms with contour lines, perfect for understanding the geographical influences on crash sites.

Crash Filters

In the CAR Unit Initial Fatal Crash Information Viewer, the Crash Filters panel serves as a powerful tool to refine the crash data displayed on the map. You can toggle various filters to activate or deactivate them according to your data needs. Options include filtering by State Highway System Only, Local Roads Only, and specific Crash Factors. You can also delve into Participant Fatality Information and focus on crash locations by roadway or boundary. For targeted inquiries, there's a filter for ID, Agency, Cases, and Reports which allows for a more granular data search. Adjusting these filters will dynamically update the map to display only the crashes that meet your chosen criteria, streamlining the analysis process.

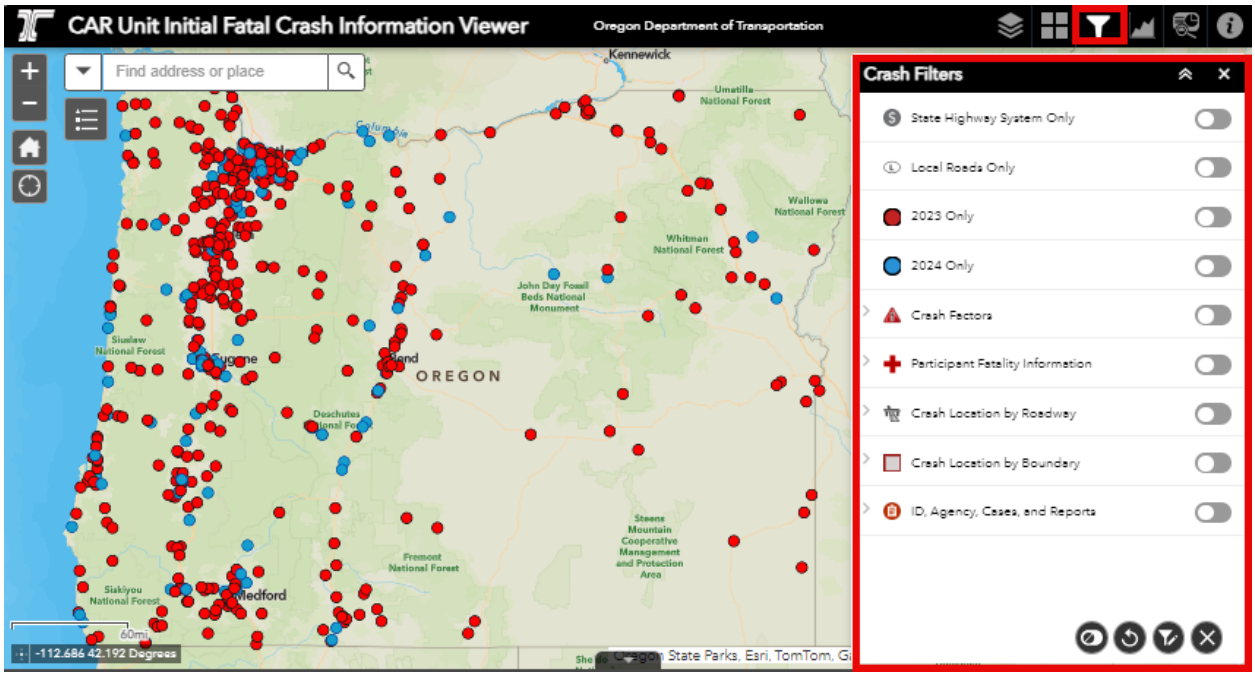


Figure 31 Crash Filters for the CAR Unit Initial Fatal Crash Information Viewer

State Highway System Only

In the CAR Unit Initial Fatal Crash Information Viewer, activating the **State Highway System Only** filter in the Crash Filters menu focuses the map on crashes that occurred solely on state highways. You engage this filter by clicking the toggle button, which turns green upon activation. As illustrated in the provided figure, this filter has narrowed down the crash points to a total of 305. Keep in mind that this number is subject to change, as the data within the system is updated continuously to reflect new reports and information. This specific filter is particularly useful when you need to analyze crash patterns or concerns on state-maintained roads, isolating them from other road types for clearer and more targeted data analysis.

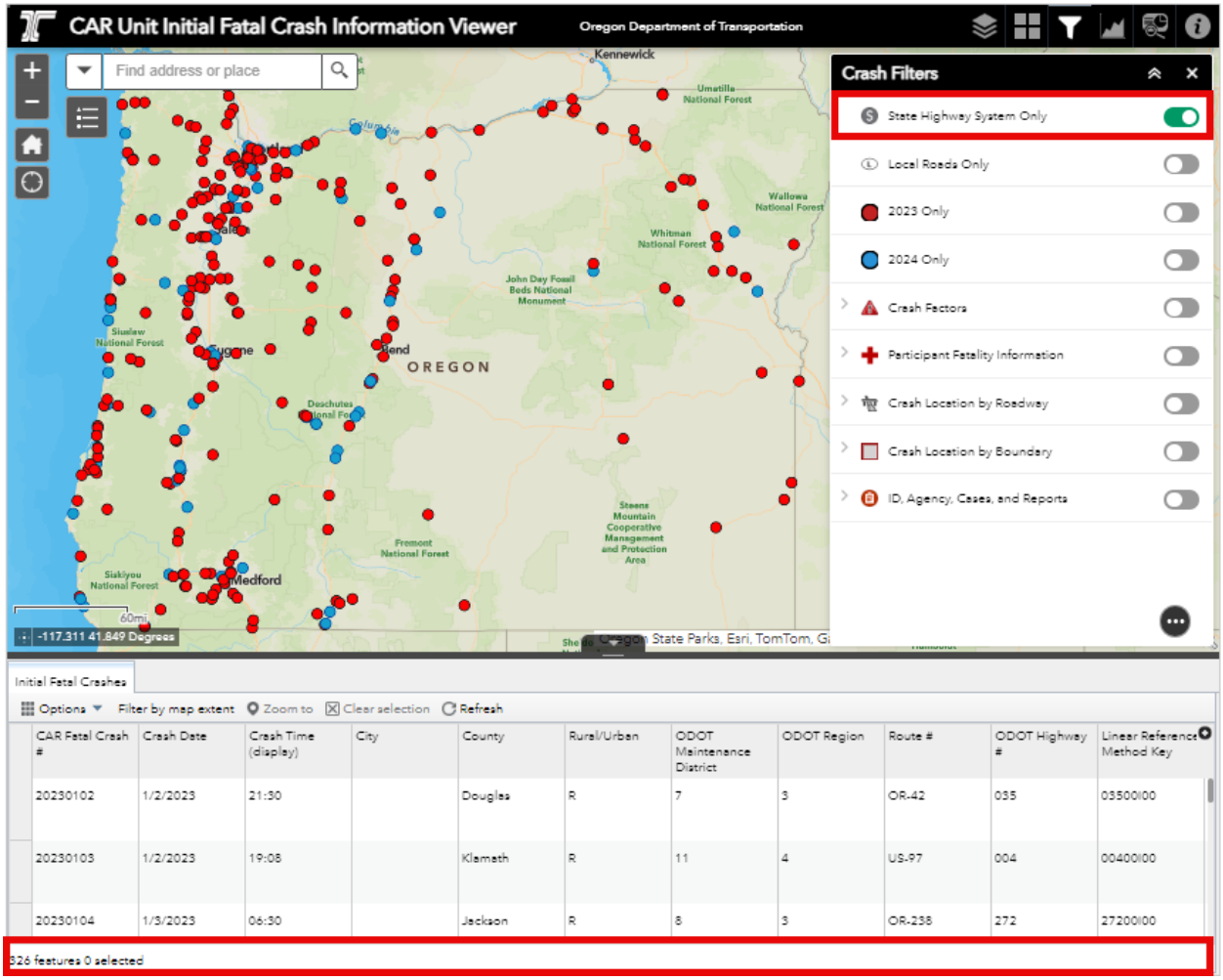


Figure 32 The State Highway System Only filter in the Crash Filters of the CAR Unit Initial Fatal Crash Information Viewer

Local Road Only

The **Local Roads Only** filter in the CAR Unit Initial Fatal Crash Information Viewer is designed to show crash data exclusively from non-state highways, such as city streets or rural roads. By toggling this option, you activate the filter, as indicated by the button turning green. This focused view has currently filtered out 289 crash points. It's important to remember that this figure may alter over time since the database is dynamic and regularly updated with the latest crash data and reports. This ensures that you are working with the most current information available for local roadways.

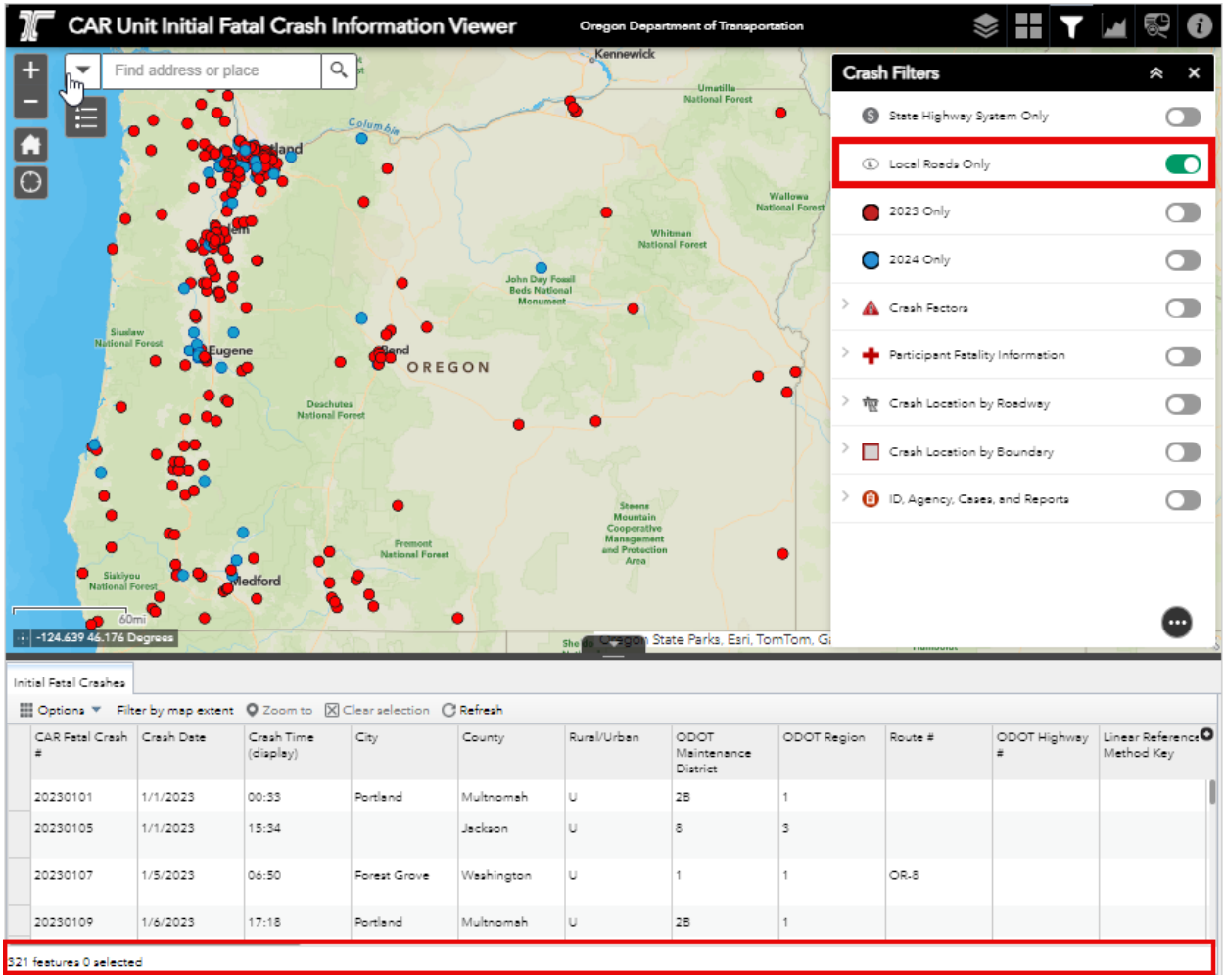


Figure 33 The Local Roads Only filter in the Crash Filters of the CAR Unit Initial Fatal Crash Information Viewer

2023 Only

The map displaying the **2023 Only** filter indicates a total of 533 initial fatal crashes in Oregon for that year, marked as red dots. Engaging this setting will turn the button green, signaling that the filter is now active. This substantial figure underscores the significance of road safety and the need for ongoing evaluation and improvement strategies within the state's transportation infrastructure. The distribution of crash sites, densely populated around urban centers like Portland and more scattered in rural areas, suggests varied contributing factors and potentially different risk profiles in different parts of the state. Such data is instrumental for traffic safety authorities to target interventions effectively and allocate resources where they are needed most.

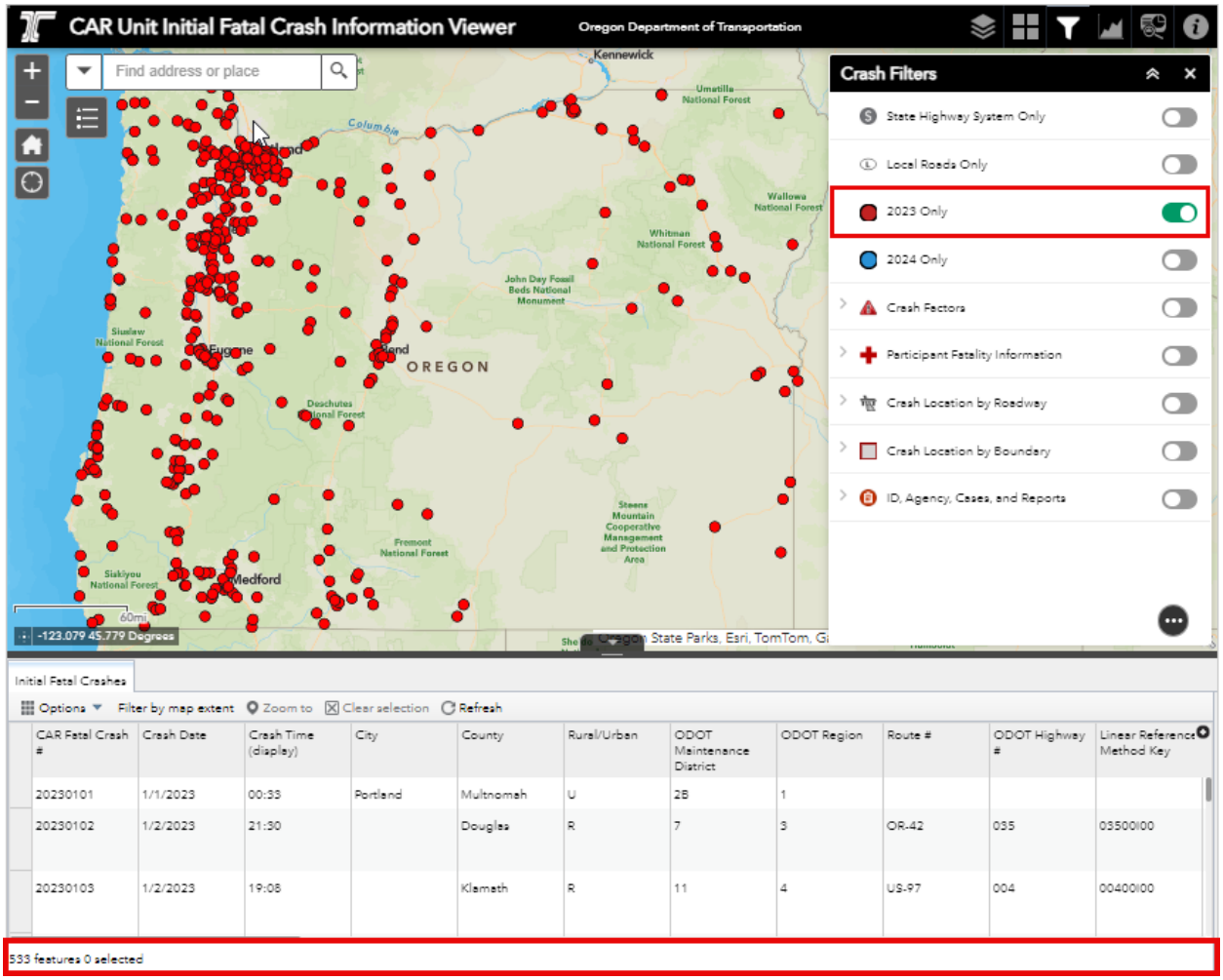


Figure 34 2023 Only filter in the Crash Filters of the CAR Unit Initial Fatal Crash Information Viewer

2024 Only

The **2024 Only** filter on the CAR Unit Initial Fatal Crash Information Viewer marks a significant point in analyzing crash data for Oregon. By toggling this option, you activate the filter, as indicated by the button turning green. In 2024, the application shows 83 initial fatal crashes. These are visually represented as blue dots across the state, with the data reflecting incidents captured up to March of that year. This early data suggests an upward trend that could increase by year's end. The geographical spread of the incidents, as depicted on the map, highlights the need for continued monitoring and potential safety interventions.

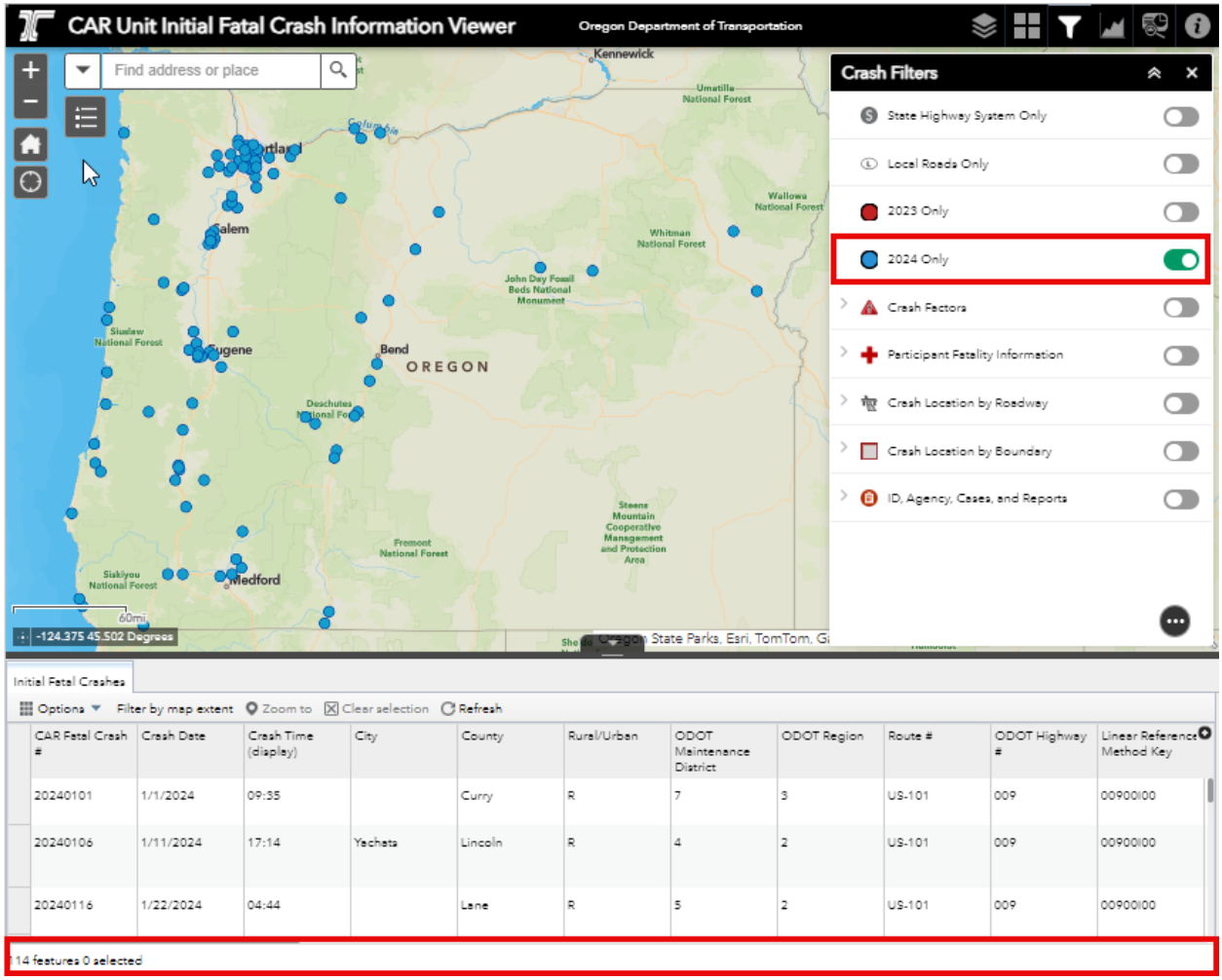


Figure 35 2024 Only filter in the Crash Filters of the CAR Unit Initial Fatal Crash Information Viewer

Crash Factors

When you activate the **Crash Factors** filter in the CAR Unit Initial Fatal Crash Information Viewer, you can further refine your search criteria to include specific conditions under which crashes have occurred. The filter presents you with several options to specify the parameters of the crash data you are interested in. For instance, you can define a date range using the Crash Date is Between function or select a specific time frame with the Crash Time (24 hr) is between option, to focus on crashes that occurred during certain hours of the day.

Additionally, you have checkboxes for occurrences within work zones or school zones, enabling you to identify crashes that happened in these sensitive areas. As you explore further, the Crash Factors filter extends to categories such as driver distractions, involvement of drugs or alcohol, and the presence of commercial motor vehicles. It also includes incident-specific conditions like intersection-related crashes, collisions with trees, rollovers, head-on impacts, departures from the roadway into a ditch, and hit-and-run incidents.

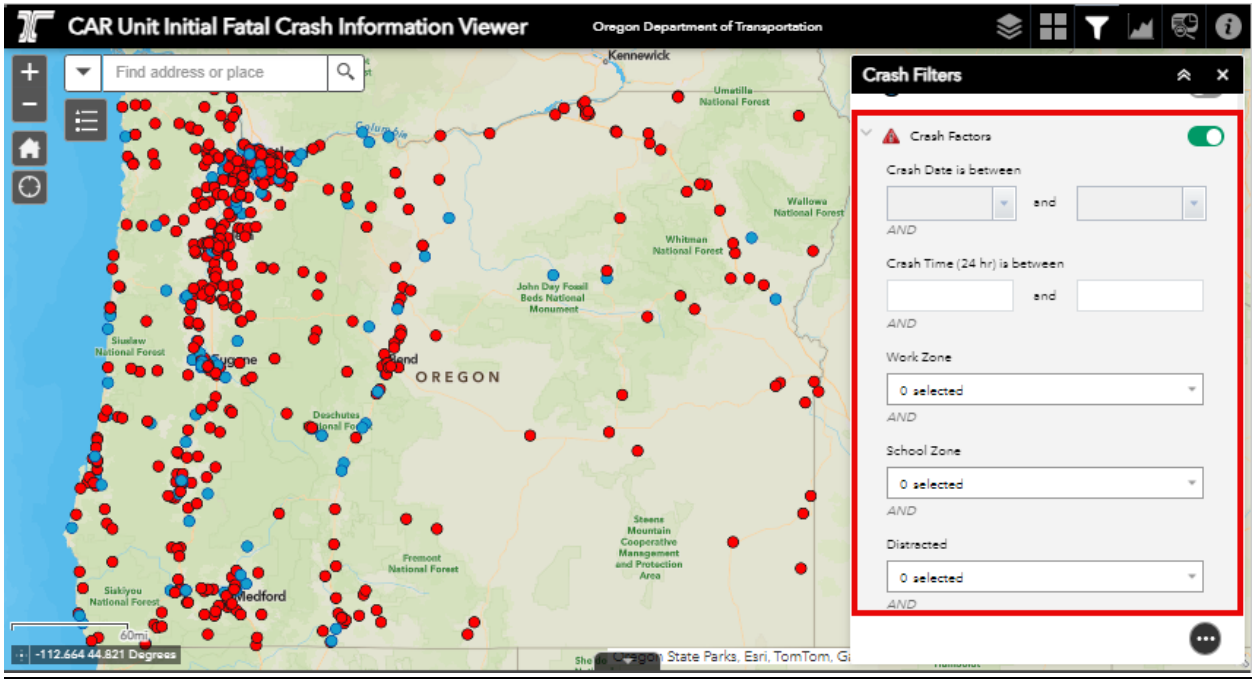


Figure 36 The Crash Factors filter in the CAR Unit Initial Fatal Crash Information Viewer

Crash Date is Between

The **Crash Date is Between** filter in the Crash Factors section of the CAR Unit Initial Fatal Crash Information Viewer is a precise tool to narrow down crash incidents to a specific period. This filter offers dropdown options for selecting Today and Yesterday, as well as the flexibility to enter a custom date range of your choice. When setting your custom dates, as you have done, you specify the start and end date, effectively filtering the data to show only the crashes that occurred within this timeframe.

In the current view, you've set a range from February 1, 2024, to February 29, 2024, which has returned a list of 37 crash points. These points represent the fatal crashes reported during that period. It's essential to note that the total number of crash points is dynamic; as the database receives updates with new reports and additional information, the count of crash points for any given date range can change. This ensures that your analysis is based on the most current and comprehensive data available.

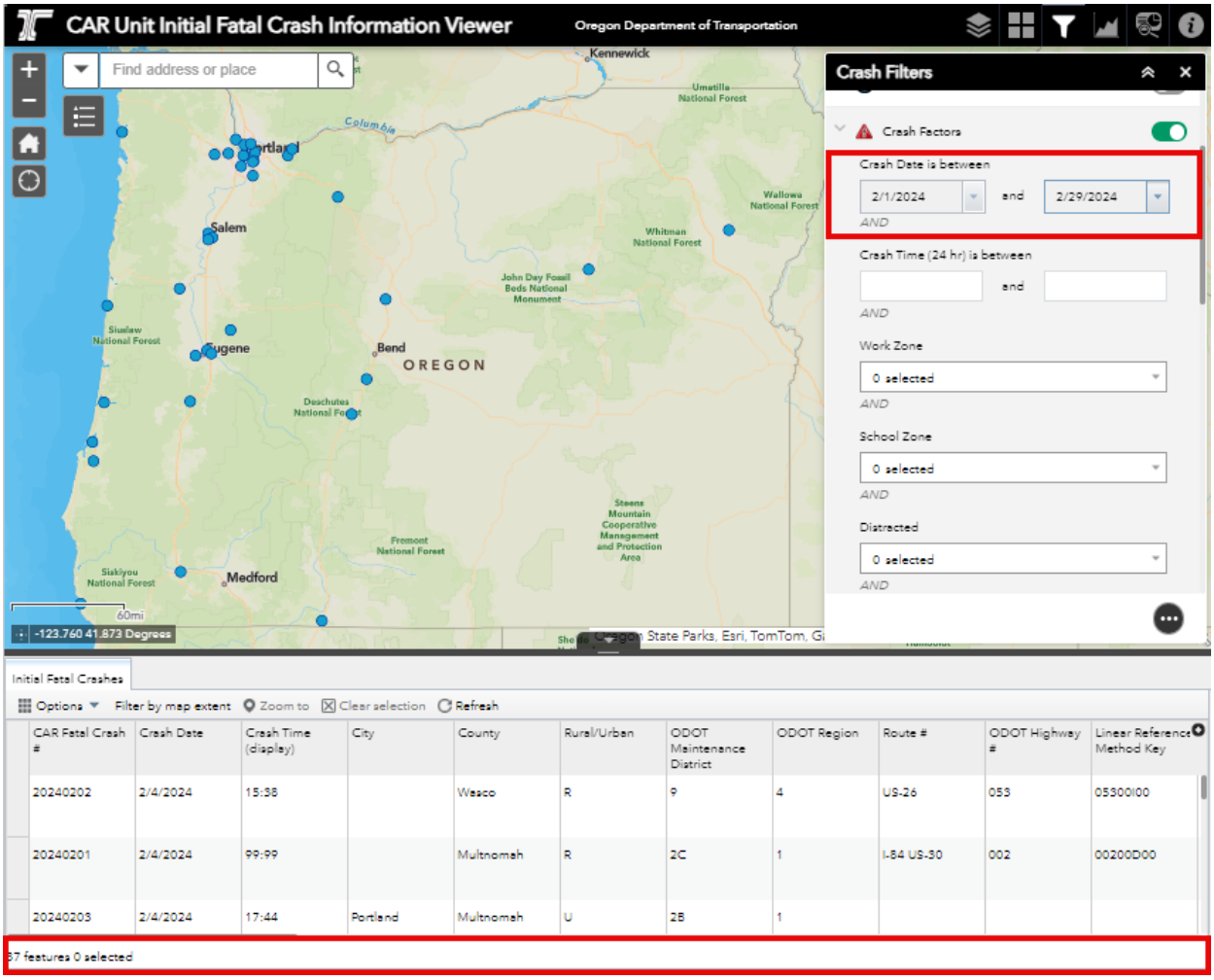


Figure 37 The Crash Date is Between filter in the Crash Factors of the CAR Unit Initial Fatal Crash Information Viewer

Crash Time (24 hr) is between

The "Crash Time (24hr) is Between" filter in the CAR Unit Initial Fatal Crash Information Viewer specifies a time range to analyze crashes. With the parameters set between 6 PM (1800) and 9 PM (2100), the filter indicates that there were 104 fatal crashes during this time frame in Oregon. The concentration of red dots on the map suggests higher incidence clusters, particularly around the Portland area, with scattered instances throughout the state, which may point to increased risks or factors contributing to fatalities during evening hours. This data could be crucial for targeted safety interventions and policy planning.

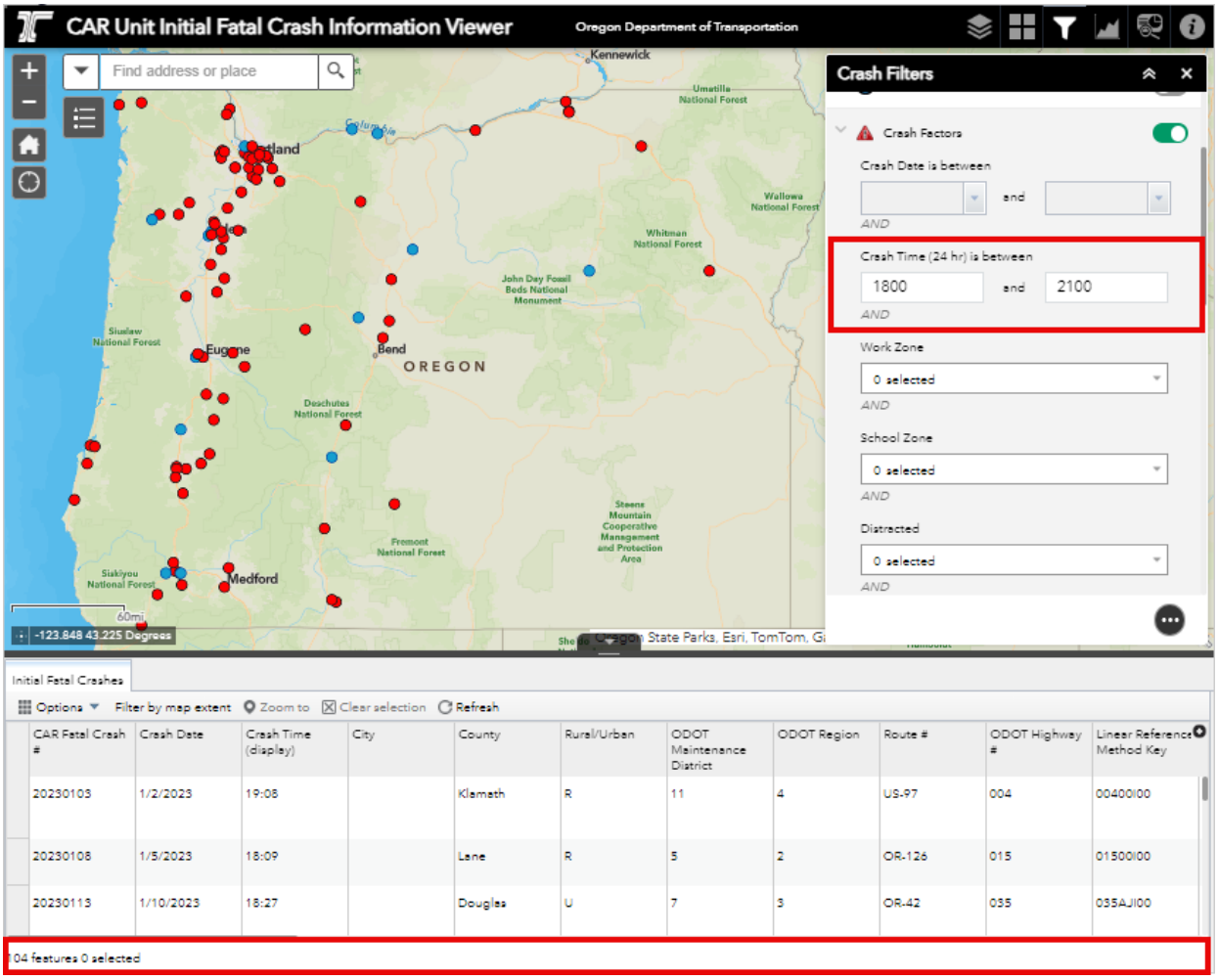


Figure 38 The Crash Time (24hr) is Between filter in the Crash Factors of the CAR Unit Initial Fatal Crash Information Viewer

Work Zone

The **Work Zone** filter within the Crash Factors of the CAR Unit Initial Fatal Crash Information Viewer is a key element for analyzing crashes that occurred in areas where road work was taking place. This filter presents three options that you can select from: “No,” “Unknown,” and “Yes,” allowing you to refine your search based on the presence of work zones during the incidents. By selecting Yes, as demonstrated in the current filter settings, the map and corresponding table are updated to display only those crashes that occurred within designated work zones.

In the visual provided, the “Yes” option is selected, and the map indicates that there have been 10 instances where fatal crashes have occurred in work zones. The table below the map lists these occurrences, providing you with details such as the crash date, time, location, and other relevant data. This focused view can be particularly valuable for identifying patterns or safety concerns in work zones, which can be used to inform future road safety and construction planning strategies.

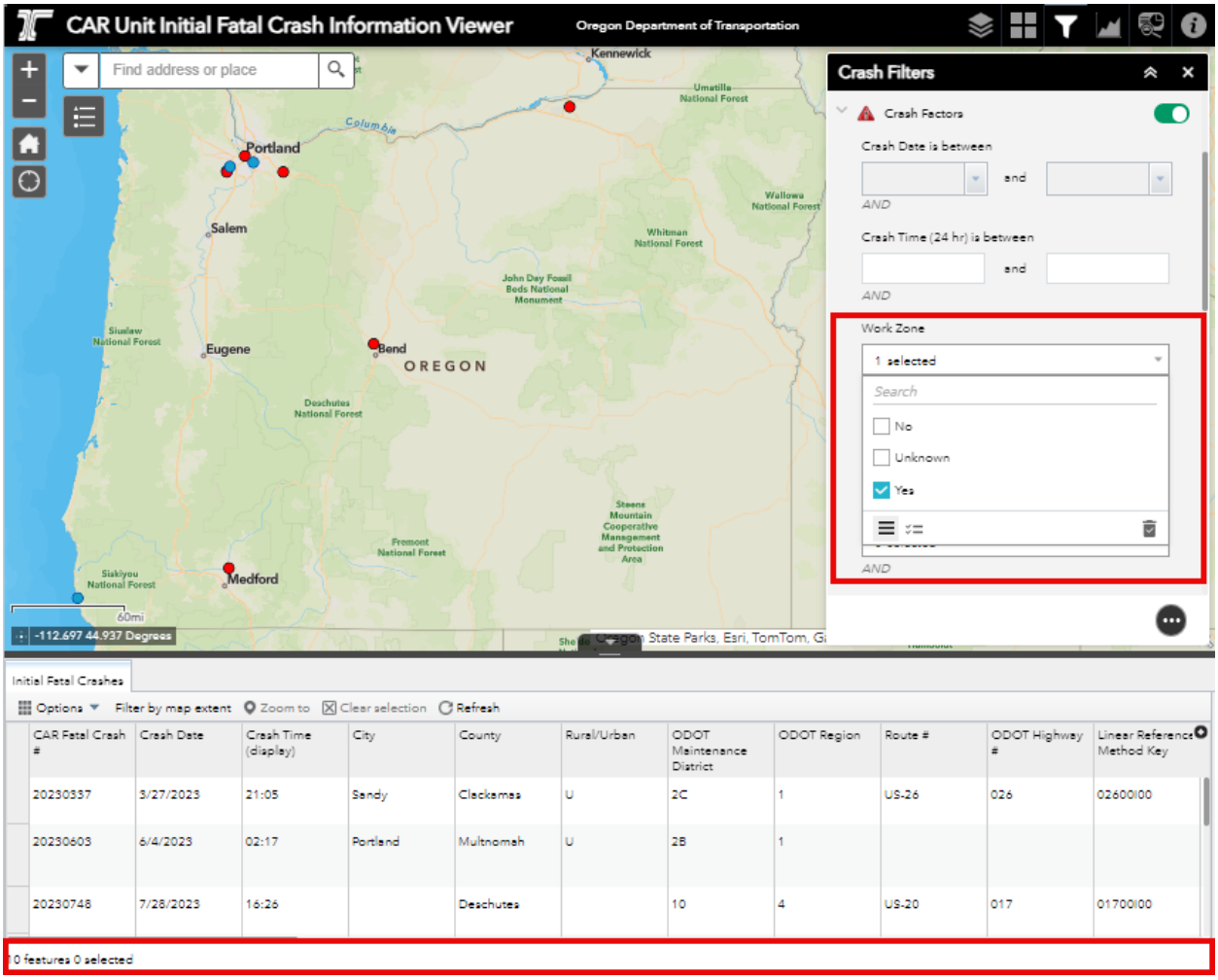


Figure 39 The Work Zone filter within the Crash Factors of the CAR Unit Initial Fatal Crash Information Viewer

School Zone

The **School Zone** filter within the **Crash Factors** section of the Crash Information Viewer is a multi-selection dropdown list that allows users to refine crash data based on its relation to school zones. The options available are “No,” “Unknown,” and “Yes,” enabling users to include or exclude crash incidents that occurred within school zones. Selecting “Yes” filters the data to display only those crashes that happened within school zones, which can be crucial for analyzing risks to pedestrians and students in these areas. The viewer updates the map and table to reflect the number of occurrences under this filter, enhancing the ability to target safety improvements and implement preventative measures in school vicinity areas. In the table under the map, we see the data displayed in rows with details such as CAR Fatal Crash, Crash Date, Crash Time, and other relevant information, aiding in a detailed analysis of such crashes.

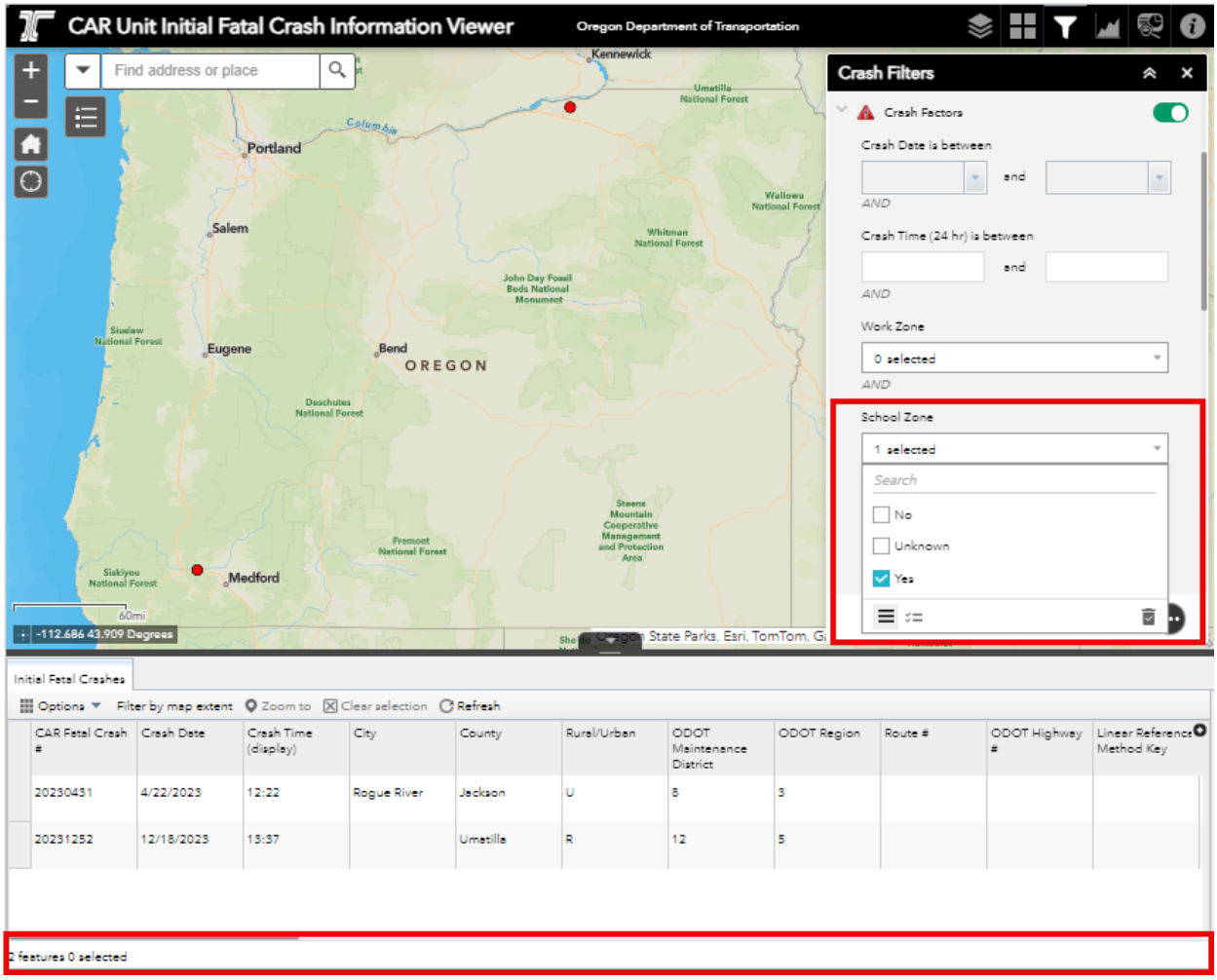


Figure 40 The School Zone filter within the Crash Factors of the CAR Initial Fatal Crash Information Viewer

Distracted

The **Distracted** filter in the **Crash Factors** menu of the CAR Unit Initial Fatal Crash Information Viewer is a multi-selection tool that aids in the investigation of crashes related to driver distraction. With options "No," "Unknown," and "Yes," users can sort crash data to focus on incidents where distraction was reported as a factor. When "Yes" is selected, the map is populated with crash points that indicate where distracted driving has been identified as a contributory factor in fatal crashes. This visualization is instrumental in highlighting areas where driver attention may be particularly compromised, and when paired with the accompanying table, it provides a detailed account of each incident, including the date, time, location, and other pertinent details. This can be an invaluable resource for traffic safety analysts, policymakers, and law enforcement agencies focusing on reducing distracted driving incidents.

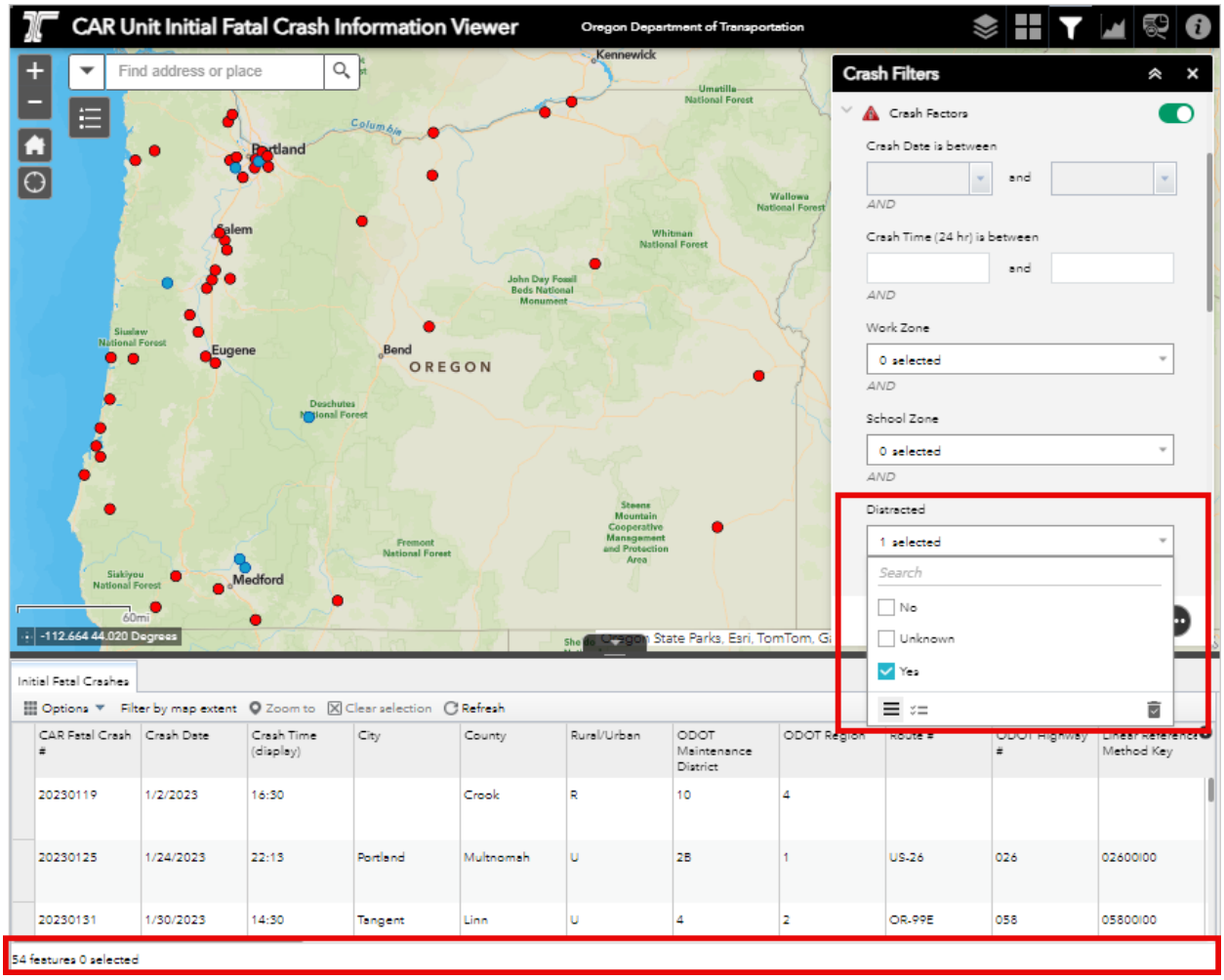


Figure 41 The Distracted Filter within the Crash Factors of the CAR Unit Initial Fatal Crash Information Viewer

Drugs / Alcohol

The **Drugs / Alcohol** filter in the **Crash Factors** section on the CAR Unit Initial Fatal Crash Information Viewer provides a dropdown list with three options: “No,” “Unknown,” and “Yes.” This filter allows users to sift through the crash data to identify incidents where drugs or alcohol were implicated. Selecting “Yes” highlights on the map the crash points where substance influence was a reported factor. This feature is especially significant for traffic safety analysis, as it helps to pinpoint hotspots where drugs or alcohol have contributed to road fatalities. The associated table is automatically updated to reflect these filtered results showing the number of occurrences along with other vital information such as crash date, time, and location. Such data is critical for understanding patterns related to impaired driving and for developing targeted interventions to improve road safety.

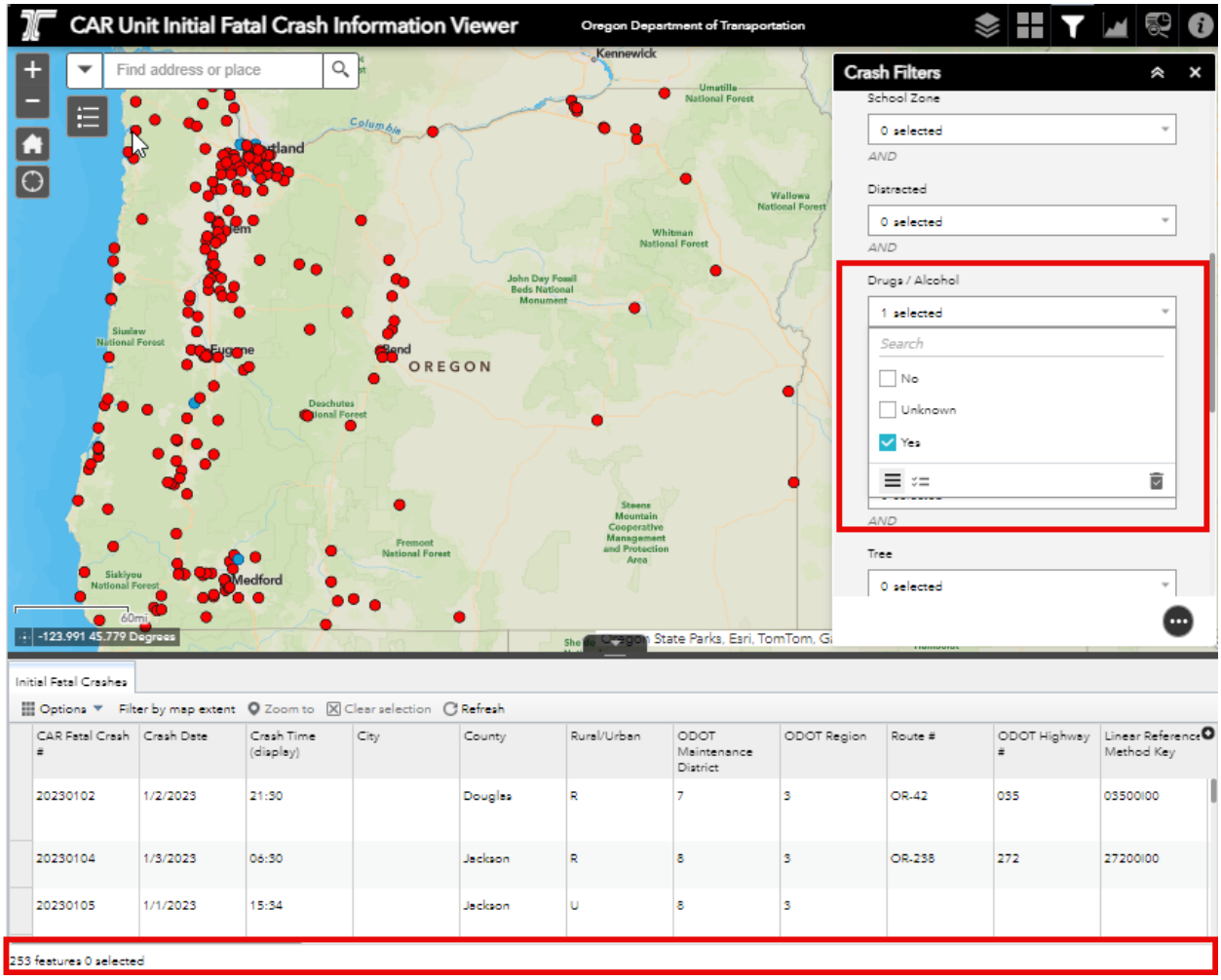


Figure 42 The Drugs / Alcohol Filter within the Crash Factors on the CAR Unit Initial Fatal Crash Information Viewer

Commercial Motor Vehicle

The **Commercial Motor Vehicle** filter within the **Crash Factors** category of the CAR Unit Initial Fatal Crash Information Viewer is designed to streamline the search for accidents involving commercial vehicles. Users can refine the crash data by selecting from the multi-selection dropdown list, with the options “No,” “Unknown,” and “Yes.” When “Yes” is selected, the map displays crash points that involve commercial motor vehicles, offering an immediate visual reference to the distribution and frequency of such accidents. The corresponding table lists these occurrences, providing details such as the date and time of the crash, along with location specifics. This filter is critical for stakeholders in traffic safety and commercial transportation to identify patterns, assess high-risk areas, and develop strategies to enhance road safety for commercial vehicle operations.

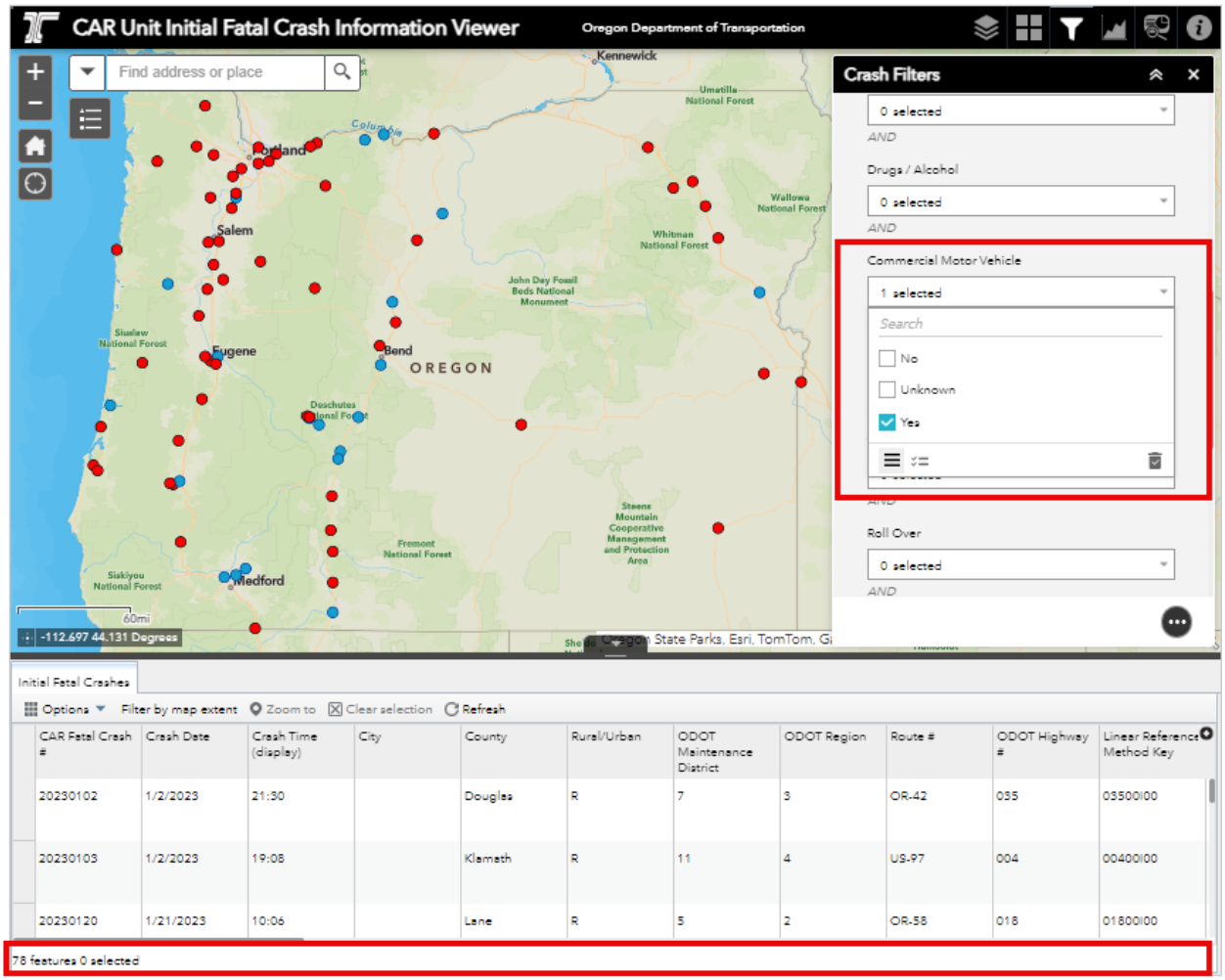


Figure 43 The Commercial Motor Vehicle filter within the Crash Factors of the CAR Unit Initial Fatal Crash Information Viewer

Intersection Related

The **Intersection Related** filter within the **Crash Factors** section of the CAR Unit Initial Fatal Crash Information Viewer provides a way to sort data based on whether crashes occurred in areas related to intersections. The filter has three options: “No,” “Unknown,” and “Yes.” Selecting “Yes” activates the filter to display on the map all the crash points that have occurred at or near intersections. This visual aid is supplemented by a table that enumerates the occurrences, detailing each event with additional information such as the date, time, and specific location of the crash. This filter is vital for traffic safety analysis, enabling users to identify potentially dangerous intersections and focus on improving safety measures in these high-risk areas.

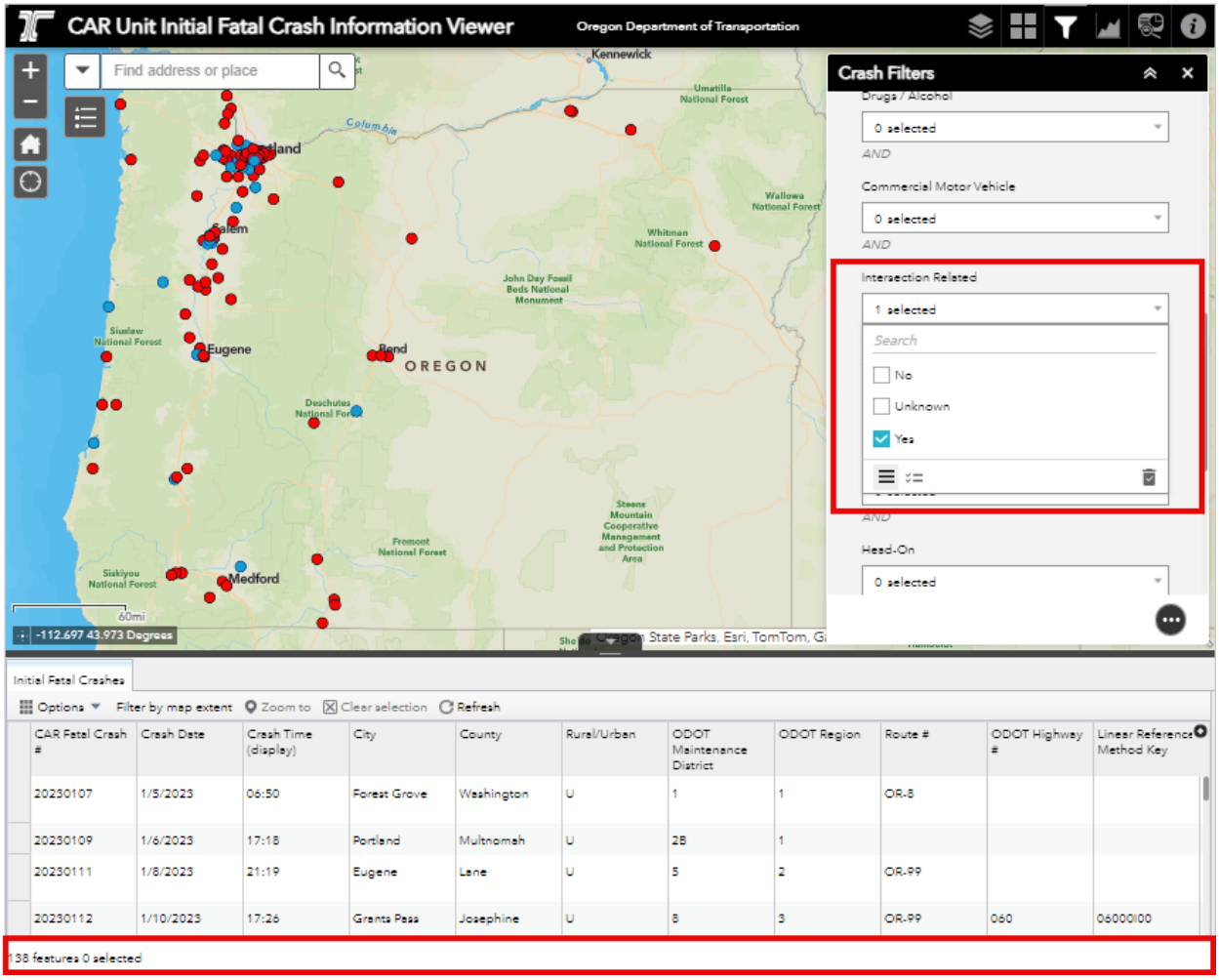


Figure 44 The Intersection Related Filter within the Crash Factors of the CAR Unit Initial Fatal Crash Information Viewer

Tree

The **Tree** filter within the **Crash Factors** section of the CAR Unit Initial Fatal Crash Information Viewer allows users to filter the crash data based on whether a tree was involved in the accident. This filter offers three selections: “No,” “Unknown,” and “Yes.” By selecting “Yes,” users can isolate and examine incidents where a crash involved a tree. The map then updates to illustrate these specific points, highlighting the locations where such crashes occurred. Additionally, the table below the map presents a detailed list of these occurrences, including pertinent information such as the crash date, time, and exact location, along with other relevant data. This filter is especially useful for understanding the circumstances and prevalence of tree-related accidents, which can be crucial for urban planning, road safety assessments, and the development of strategies to mitigate such incidents.

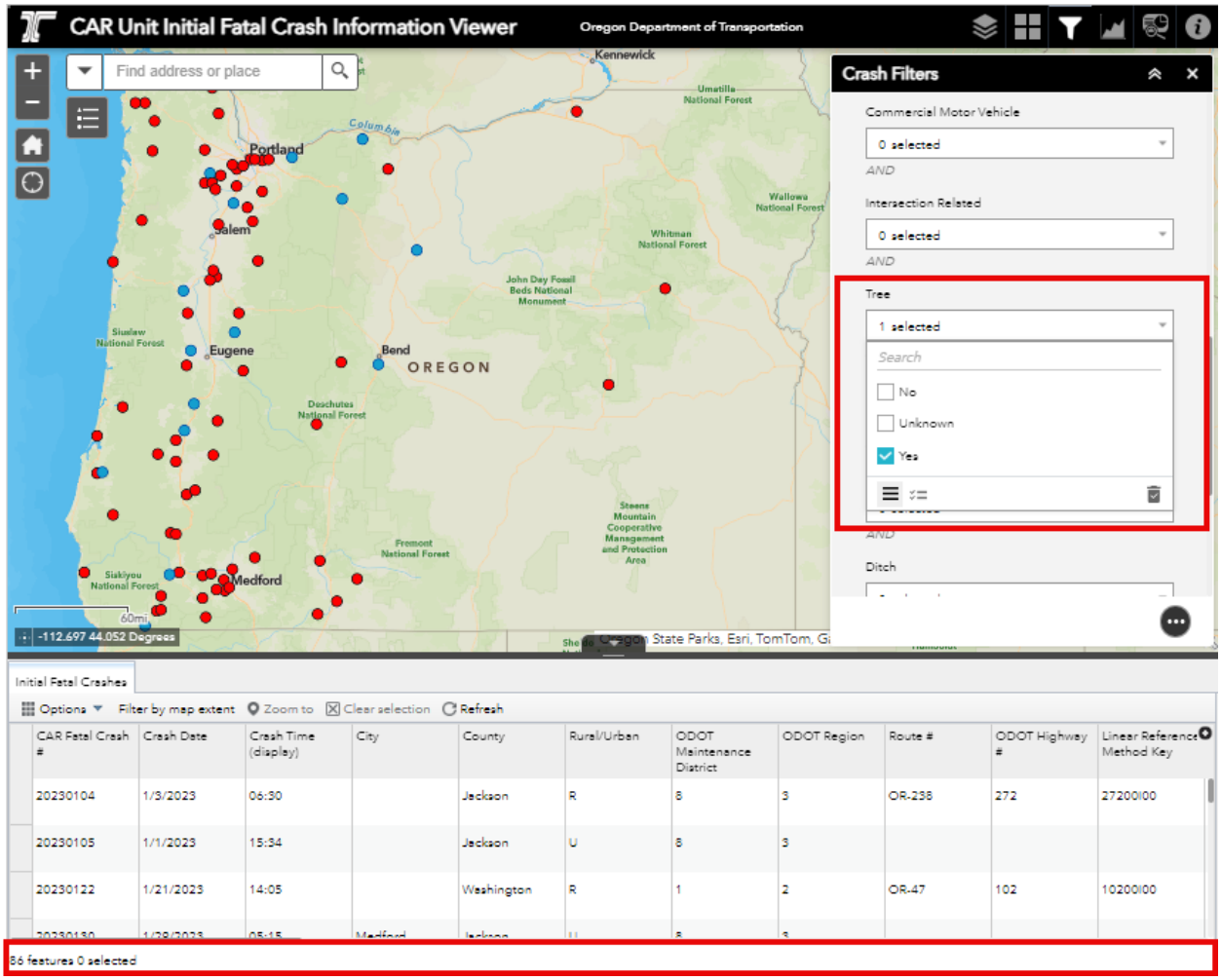


Figure 45 The Tree Filter within the Crash Factors of the CAR Unit Initial Fatal Crash Information Viewer

Roll Over

The **Roll Over** filter in the **Crash Factors** section of the CAR Unit Initial Fatal Crash Information Viewer is designed to identify crashes involving vehicles that have rolled over. This filter includes a multi-selection dropdown list with options “No,” “Unknown,” and “Yes,” which allows users to select and view data pertaining to roll over incidents specifically. When “Yes” is chosen, the map updates to pinpoint the locations where roll over crashes have occurred, illustrated by the crash points. The accompanying table provides a summary of these incidents, with details such as the CAR Fatal Crash number, Crash Date, Crash Time, and location information, categorized by city, county, and whether it occurred in a rural or urban setting. This information is valuable for traffic safety analysts and road safety enforcement agencies aiming to analyze patterns and causes of roll over crashes to enhance vehicular safety and prevent such accidents in the future.

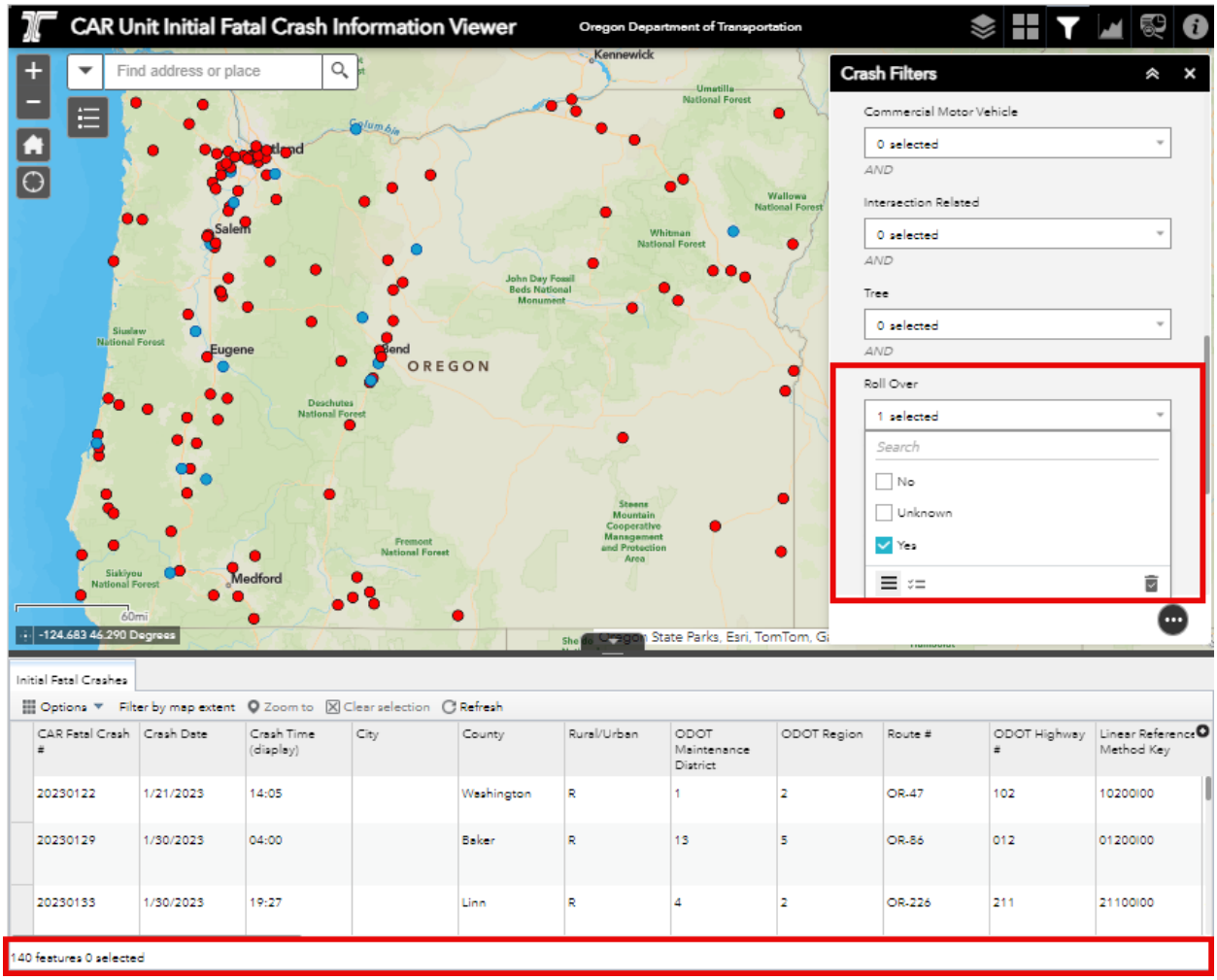


Figure 46 The Roll Over Filter in the Crash Factors of the CAR Unit Initial Fatal Crash Information Viewer

Head-On

The **Head-On** filter found in the **Crash Factors** section of the CAR Unit Initial Fatal Crash Information Viewer is designed to help users investigate head-on collisions. This filter provides three options within a multi-selection dropdown: “No,” “Unknown,” and “Yes.” When “Yes” is selected, the map displays crash points indicating the locations of head-on crashes. The filter’s application visually represents these severe incidents, emphasizing their spread and frequency across the region. Below the map, a table enumerates the occurrences, detailing each crash with information such as the CAR Fatal Crash identification number, date, time, and precise location data, including city, county, and whether it is categorized as rural or urban. This targeted filter is vital for analyzing the risk and impact of head-on collisions, enabling safety authorities and policymakers to strategize interventions for improving road safety and preventing future occurrences of such accidents.

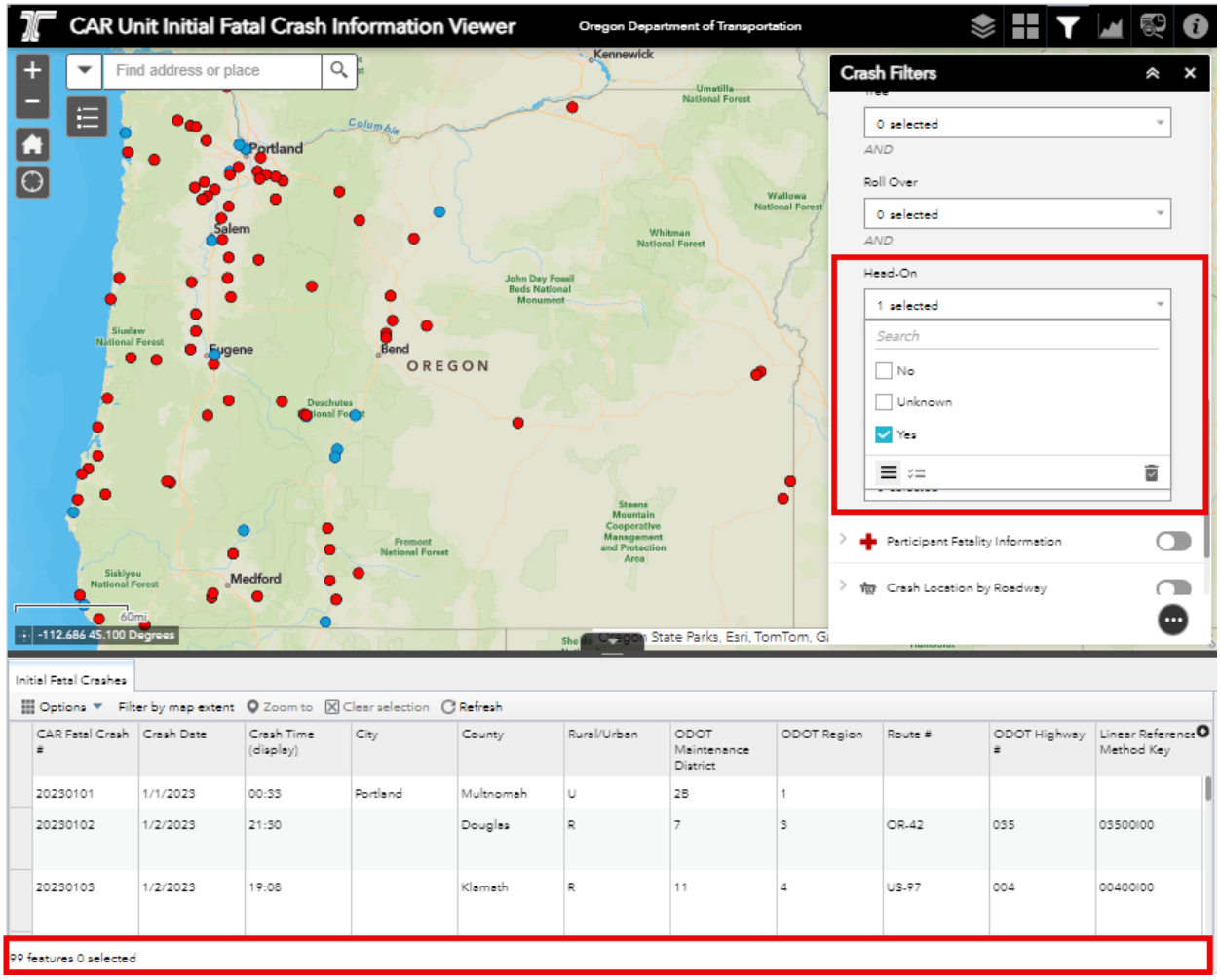


Figure 47 The Head-On Filter within the Crash Factors of the CAR Unit Initial Fatal Crash Information Viewer

Ditch

The **Ditch** filter within the **Crash Factors** section of the CAR Unit Initial Fatal Crash Information Viewer allows users to sift through crash data with the specific lens of identifying incidents that involved a vehicle ending up in a ditch. The filter presents three multi-selection options: “No,” “Unknown,” and “Yes.” When the “Yes” option is selected, the viewer displays on the map all the crash points where a ditch was involved in the crash. This data, reflected in the corresponding table, is crucial for safety analysts who are studying crash patterns and looking for specific environmental factors contributing to road accidents. The table provides a breakdown of each occurrence, listing detailed information like the CAR Fatal Crash number, crash date, and time, as well as location specifics such as city and county. This kind of information is integral to developing road safety measures and infrastructure improvements aimed at preventing such incidents in the future.

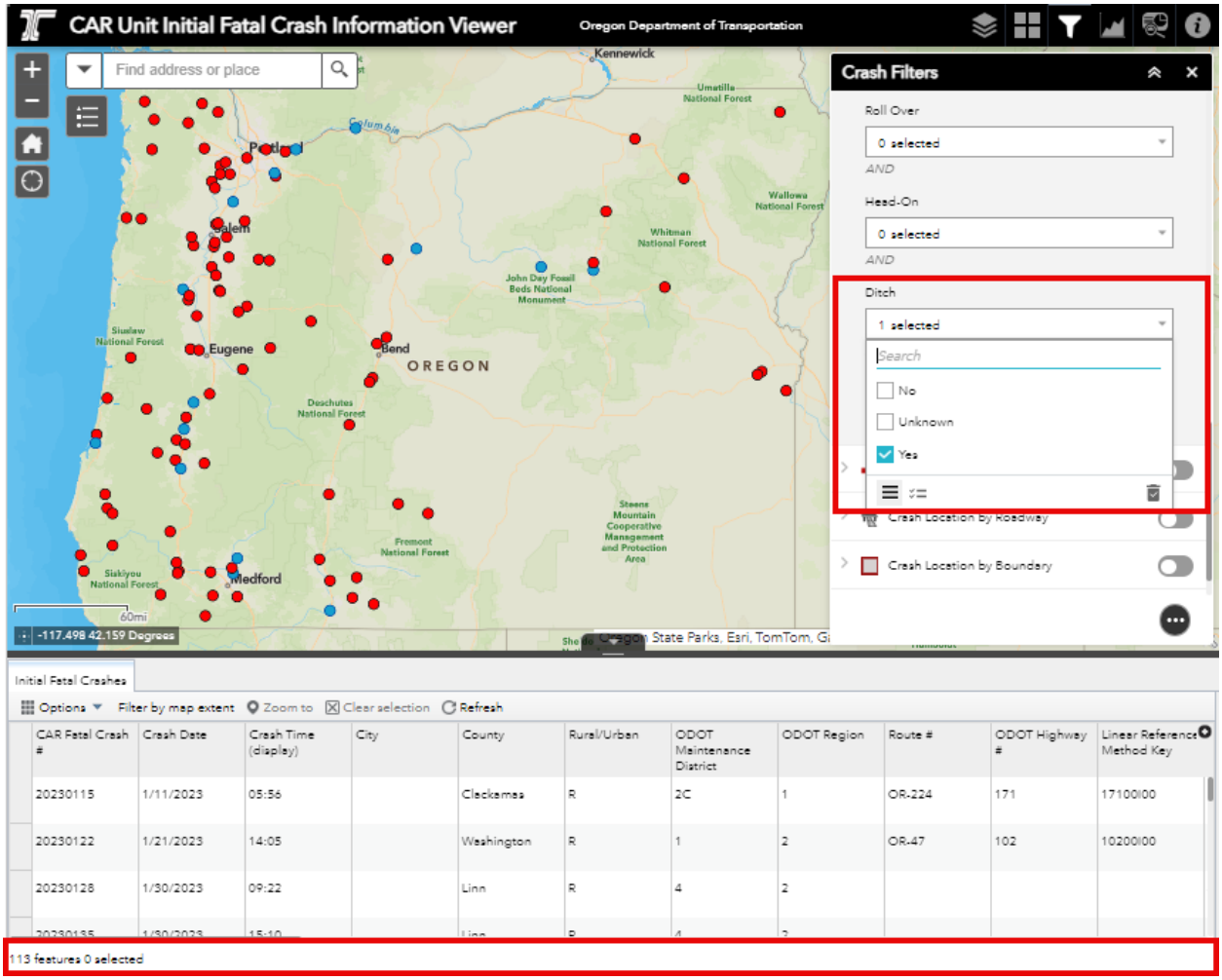


Figure 48 The Ditch Filter within the Crash Factors of the CAR Unit Initial Fatal Crash Information Viewer

Hit & Run

The **Hit & Run** filter within the **Crash Factors** section of the CAR Unit Initial Fatal Crash Information Viewer is crucial for analyzing accidents where a driver has fled the scene. This filter provides options "No," "Unknown," and "Yes" to distinguish crashes based on this criterion. When "Yes" is selected, the map visibly marks the locations where hit-and-run crashes have occurred. The table below the map offers a breakdown of these incidents, listing specific occurrences with additional details such as the date, time, location, and other relevant attributes for each crash. This filtered data is invaluable for law enforcement and safety analysts who are tracking patterns of hit-and-run incidents to implement targeted prevention strategies and improve overall road safety.

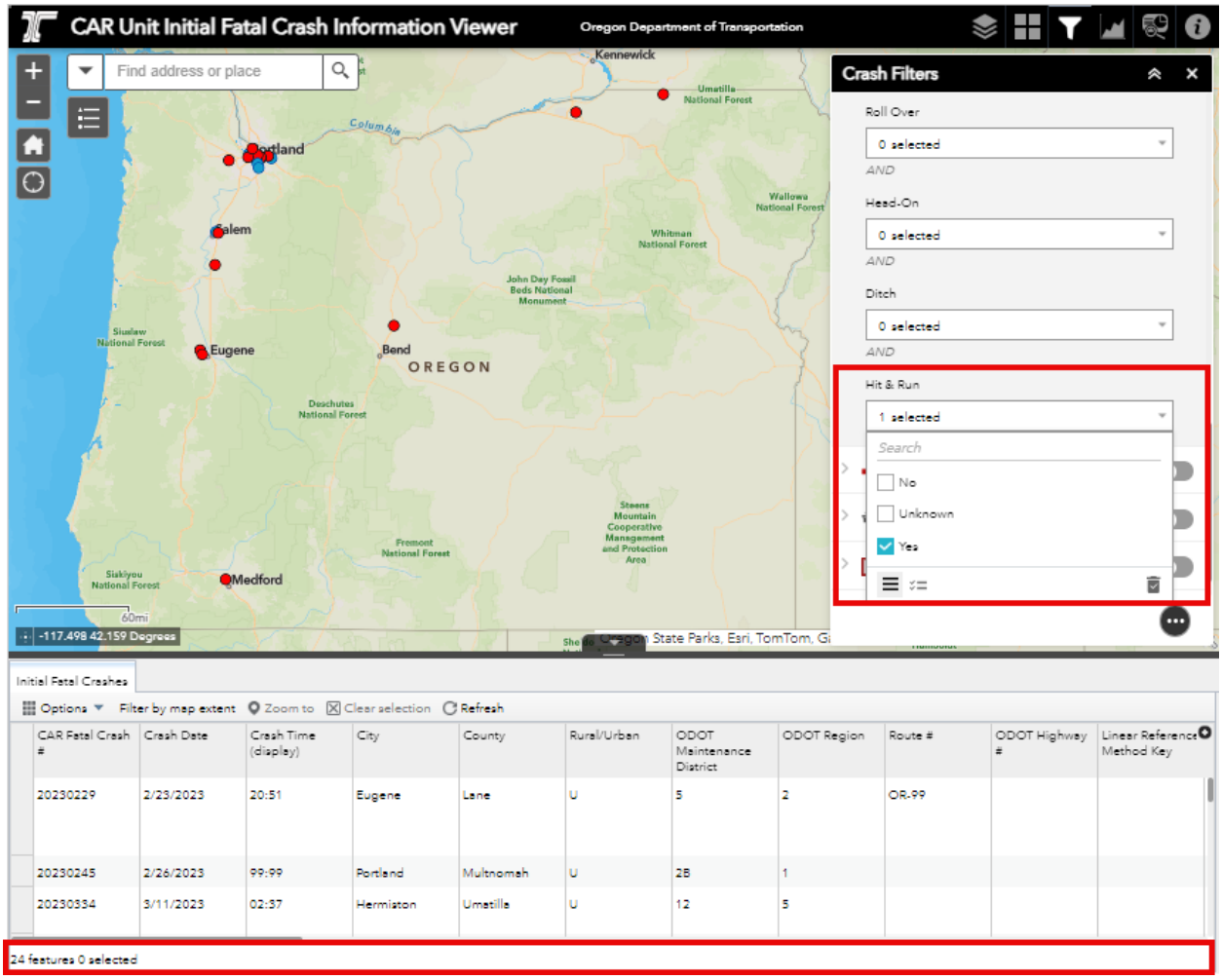


Figure 49 The Hit & Run Filter within the Crash Factors of the CAR Unit Initial Fatal Crash Information Viewer

Multi-Filters Application: Drug/Alcohol, Intersection Related, and Roll Over

In the provided image of the CAR Unit Initial Fatal Crash Information Viewer, we see a multi-filter application within the Crash Factors section that includes Drug/Alcohol, Intersection Related, and Roll Over categories, each with a selection dropdown of "No," "Unknown," and "Yes." When "Yes" is selected for all three filters, the viewer focuses on incidents that occurred under the influence of drugs/alcohol, at intersections, and involved a vehicle roll over. The crash points displayed on the map represent the specific locations where each of these factors was a contributing element to the crash. The table below the map compiles these instances, providing a detailed record including the date, time, city, county, and whether the area is classified as rural or urban. This data is critical for understanding the confluence of these factors in fatal crashes and can be invaluable for crafting targeted safety campaigns and interventions.

The Crash Filters feature of the CAR Unit Initial Fatal Crash Information Viewer offers a robust and customizable approach to data analysis, accommodating a wide range of research needs. Beyond the specific combination of Drug/Alcohol, Intersection Related, and Roll Over filters, researchers have the flexibility to select from various other criteria such as Commercial Motor Vehicle involvement, Distracted Driving, School Zone, Head-On collisions, and more. Each category comes with a "No," "Unknown," and "Yes" selection to either include or exclude data points based on the chosen filter. By selecting different criteria, users can tailor the dataset to their specific research questions, whether that's understanding the impact of road conditions on accidents, the role of human factors in traffic incidents, or the frequency of

certain types of crashes in various regions. This nuanced level of analysis aids in forming a comprehensive understanding of crash dynamics, which can be instrumental in developing effective road safety policies and interventions.

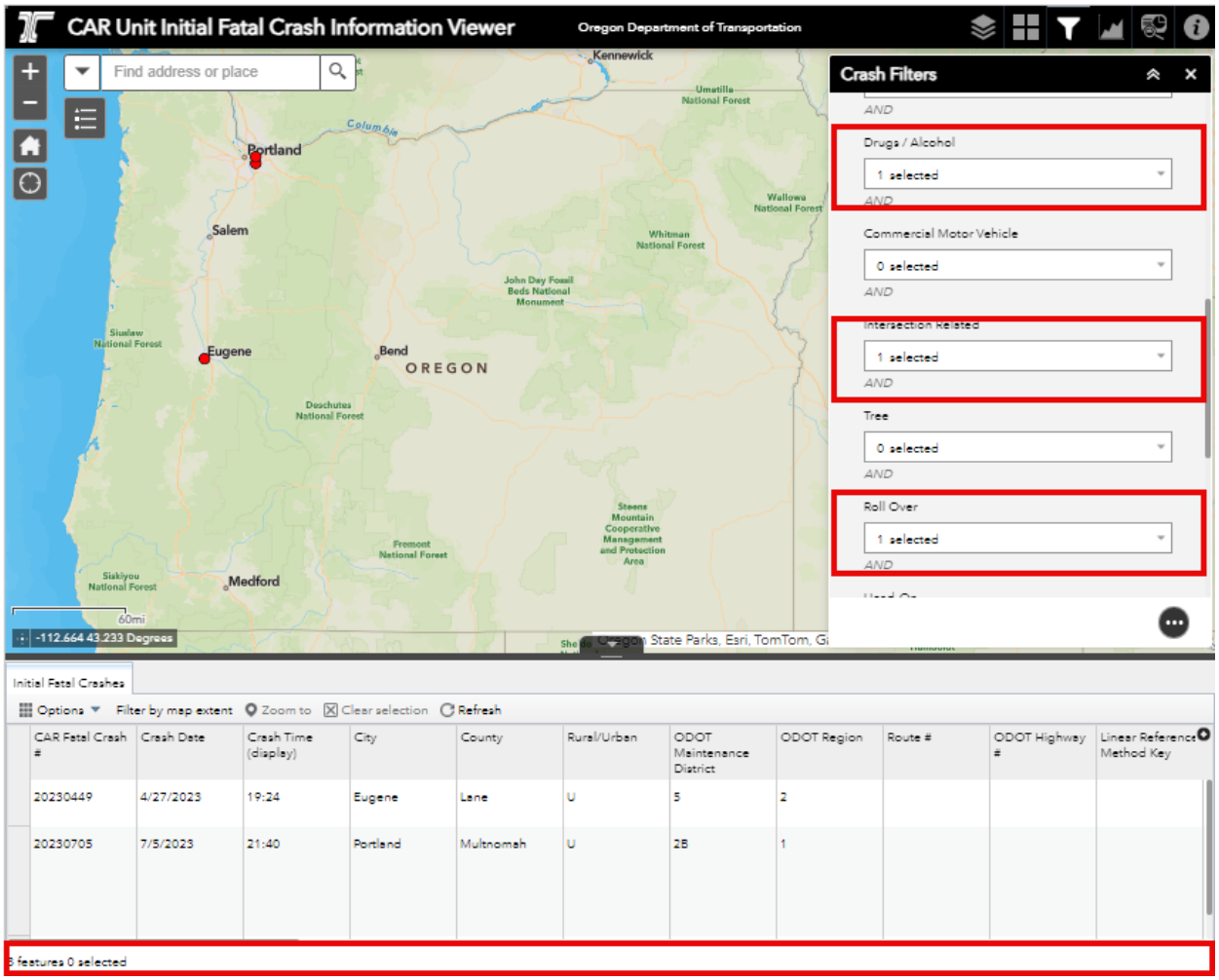


Figure 50 Multi-Filters Selection with Drug/Alcohol, Intersection Related, and Roll Over within the Crash Factors of the CAR Unit Initial Fatal Crash Information Viewer

Participant Fatality Information

The **Participant Fatality Information** section in the Crash Filters of the CAR Unit Initial Fatal Crash Information Viewer provides a detailed and multidimensional approach to analyzing crash data. It's essential to note that to access and utilize these filters effectively, you must first activate the feature. This is done by toggling the button to the right of the **Participant Fatality Information header** within the **Crash Filters** pane. The filter options available within this section allow users to delve into the specifics of each crash by examining the types of participants involved, the categories of vehicles they were in, and the usage of personal safety equipment at the time of the incident. Other filterable criteria include whether the airbag was deployed, if any individuals were ejected from the vehicle during the crash, and demographic information such as gender and age range. By utilizing these options individually or in concert, researchers can conduct a granular analysis of fatality incidents to identify patterns and risk factors. For instance, by examining age range and safety equipment usage together, insights can be gained into which demographic groups are more likely to be involved in fatal crashes and whether they were using safety devices properly. This level of detail is invaluable for targeting educational campaigns, designing safety features, and improving emergency response protocols to reduce fatalities on the road.

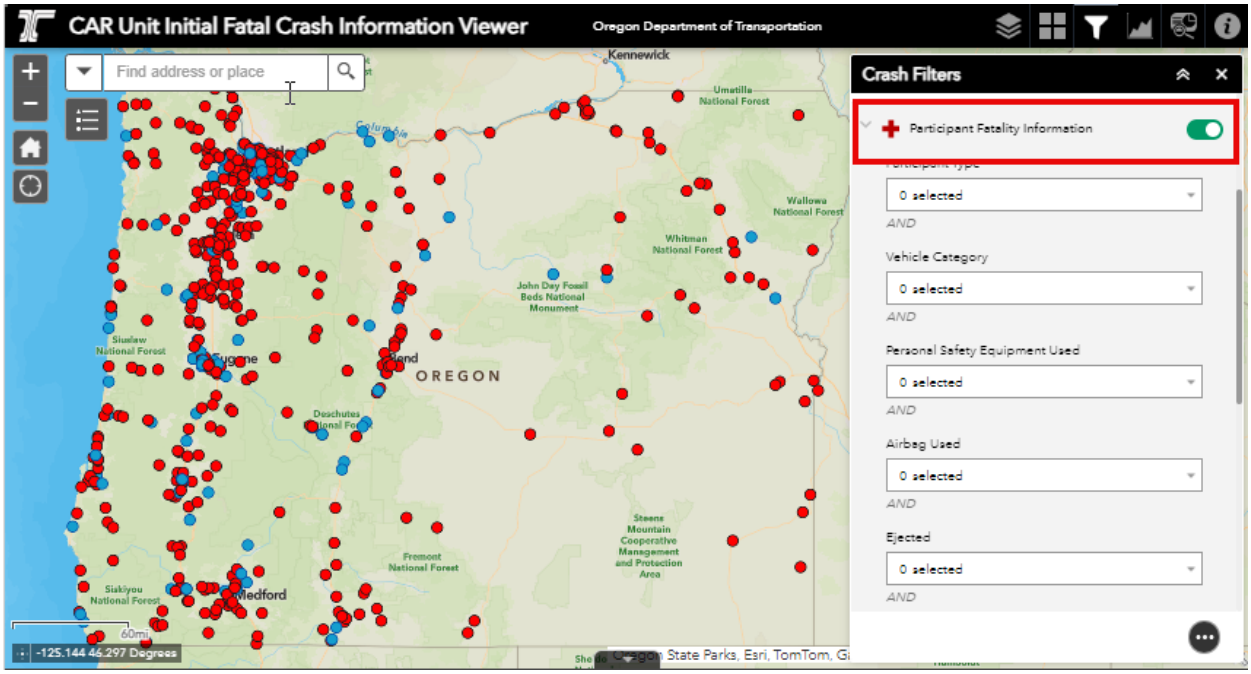


Figure 51 The Participant Fatality Information in the Crash Filters of the CAR Unit Initial Fatal Crash Information Viewer

Participant Type

The **Participant Type** category within the **Participant Fatality Information** of the CAR Unit Initial Fatal Crash Information Viewer offers a comprehensive set of multi-selection options to refine crash data based on the types of individuals involved. The options available include "Pedestrian," "Pedalcyclist," "Driver," "Passenger," "Other," and "Unknown." By selecting any of these individually, or in combination, the viewer adjusts the displayed crash metrics to reflect only those incidents that involved the chosen participant types. For instance, selecting Pedestrian will filter the map to show only those fatal crashes where a pedestrian was involved, providing valuable insights into pedestrian safety and the locations where these incidents are most frequent. This feature is particularly useful for stakeholders interested in

specific aspects of road safety related to different road users, from analyzing pedestrian crosswalk areas to evaluating risks faced by cyclists on public roads.

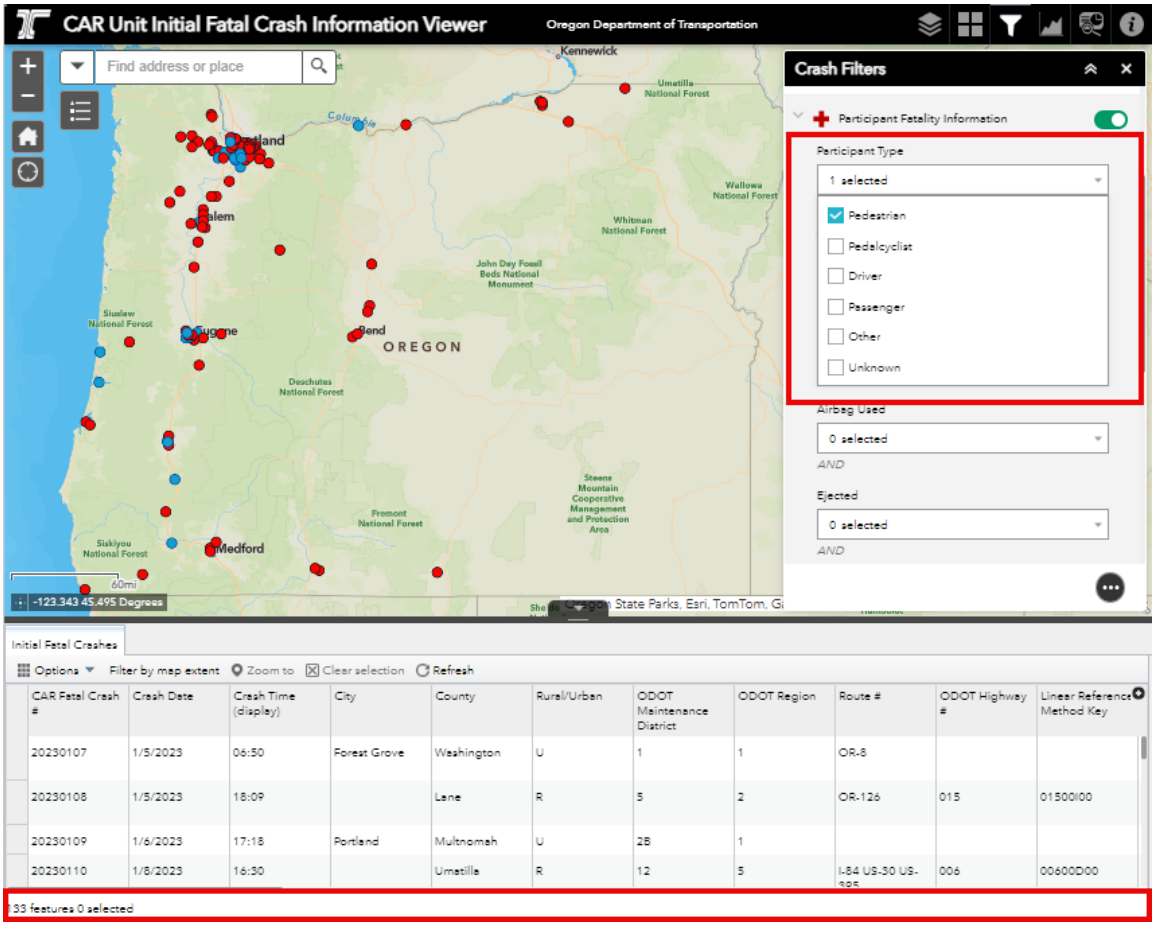


Figure 52 The Participant Type category within the Participant Fatality Information of the CAR Unit Initial Fatal Crash Information Viewer

Vehicle Category

Within the Participant Fatality Information of the CAR Unit Initial Fatal Crash Information Viewer, the Vehicle Category filter provides an array of options for users to examine the crash data through the lens of vehicle involvement. This filter includes categories such as Motorcycle, All Terrain Vehicle, Motor Vehicle, Commercial Motor Vehicle, and Unknown. Researchers and analysts can refine their search to a singular category, or they can combine multiple categories to broaden their analysis and gain insights into the crash metrics associated with various vehicle types. For instance, selecting the Motorcycle category will adjust the map to display only the crash points that involved motorcycle, thereby enabling a focused study on motorcycle-related fatalities. This targeted approach allows for a detailed assessment of risks and patterns specific to different vehicle categories, which is crucial for informing safety regulations, designing protective gear, and planning safer road infrastructure.

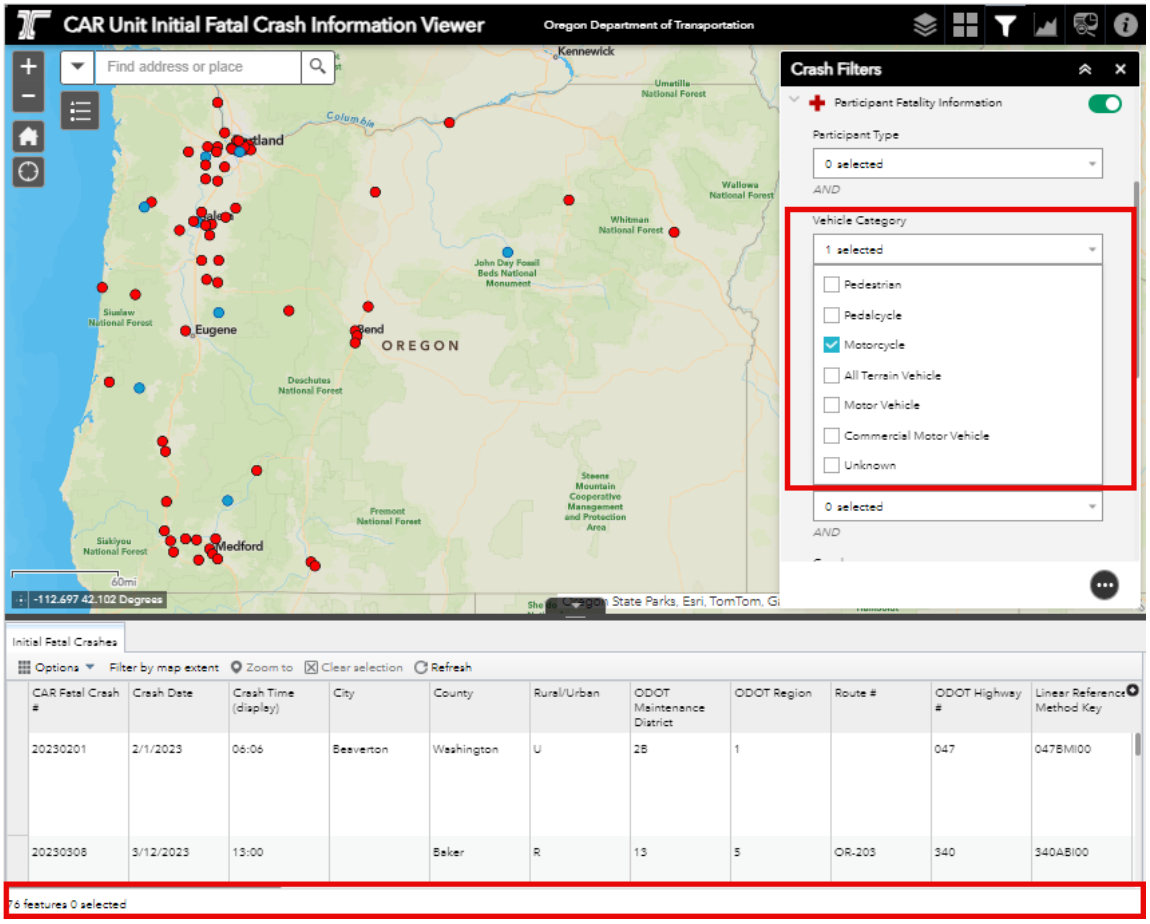


Figure 53 The Vehicle Category filter within the Participant Fatality Information of the CAR Unit Initial Fatal Crash Information Viewer

Personal Safety Equipment Used

Within the Participant Fatality Information of the CAR Unit Initial Fatal Crash Information Viewer, the Personal Safety Equipment Used filter is a pivotal feature for dissecting the circumstances surrounding fatal crashes. This filter offers several choices, including “Helmet,” “Seatbelt,” “None,” and “Unknown,” each providing valuable insights when selected. These options can be used singularly or in combination to refine the search results. For instance, if you were to select “Seatbelt,” the interactive map would reveal crash points specifically where seatbelt use was recorded, offering a clear visual of the distribution of such incidents across the region. This information is particularly significant for evaluating the prevalence and effectiveness of safety equipment usage in crash scenarios. Furthermore, the corresponding data points in the table below the map include additional context, such as crash date, time, and location, thereby giving a comprehensive perspective on seatbelt-related fatality incidents. This data can ultimately guide improvements in vehicle safety design, enforce seatbelt usage laws, and inform public safety campaigns.

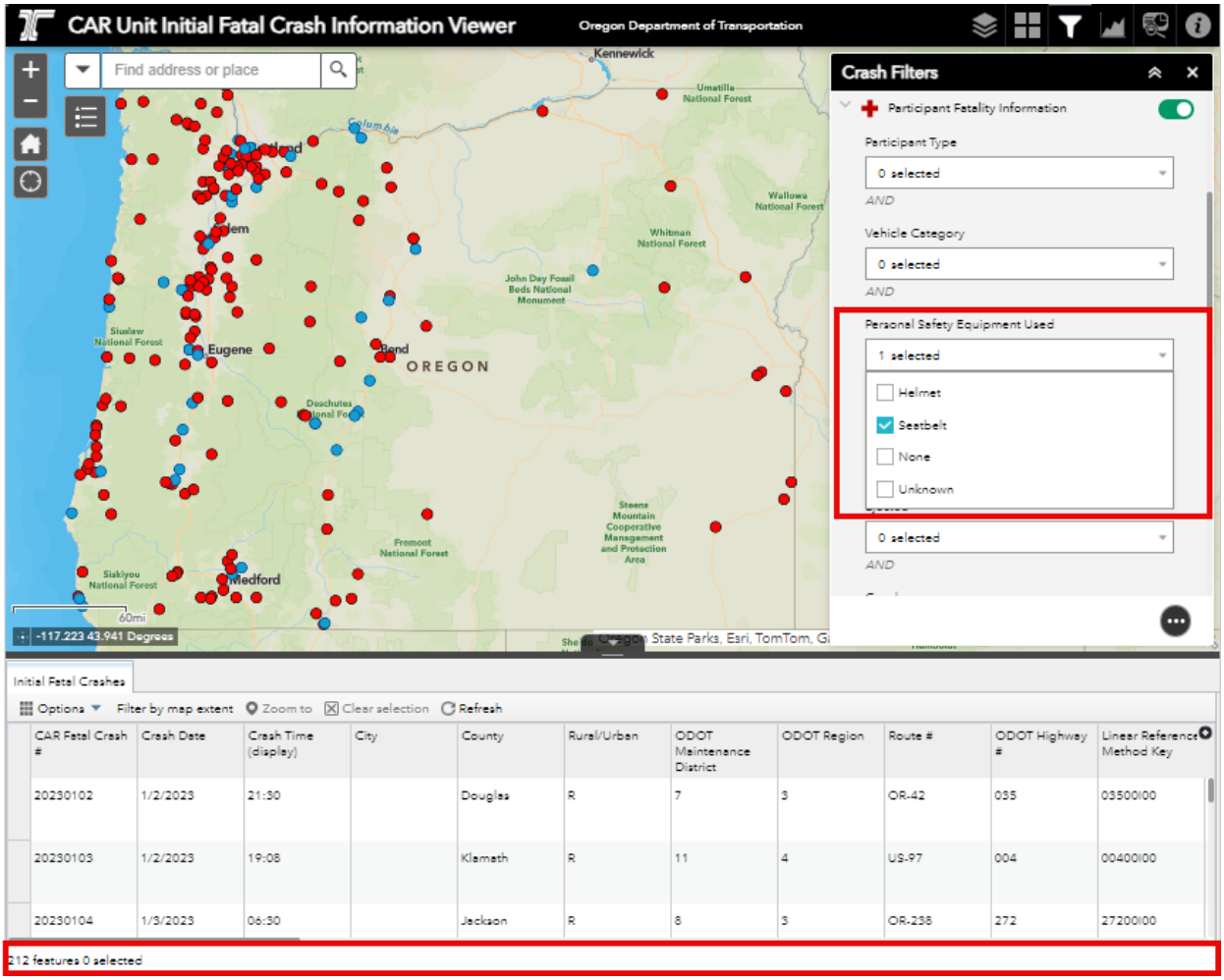


Figure 54 The Personal Safety Equipment Used Within the Participant Fatality Information of the CAR Unit Initial Fatal Crash Information Viewer

Airbag Used

The **Airbag Used** filter within the Participant Fatality Information section of the CAR Unit Initial Fatal Crash Information Viewer allows for a nuanced exploration of crashes in relation to airbag deployment. This filter offers options “Yes,” “No,” and “Unknown,” enabling researchers to segment the data according to whether airbags were deployed at the time of the crash. By selecting “Yes,” the map will specifically highlight those incidents where airbags were used, showcasing the geographical spread and frequency of such events. This visualization provides critical insights into the prevalence and impact of airbag deployment in protecting vehicle occupants during crashes. The ability to select these options individually or in combination with other filters enriches the analysis, helping to paint a more detailed picture of the circumstances surrounding vehicle accidents and the effectiveness of airbags in reducing fatality rates.

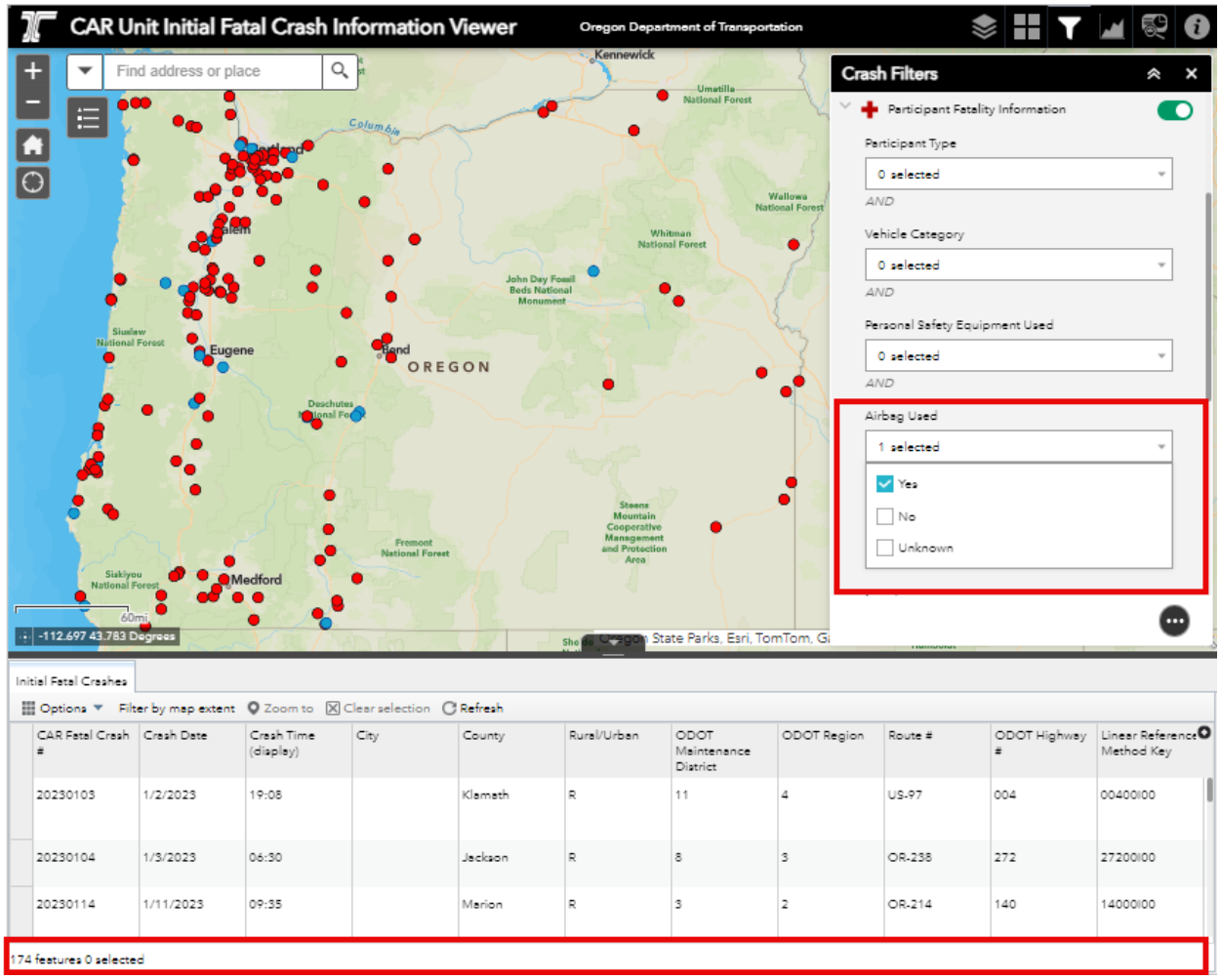


Figure 55 The Airbag Used filter within the Participant Fatality Information of the CAR Unit Initial Fatal Crash Information Viewer

Ejected

The **Ejected** filter under the Participant Fatality Information in the Crash Filters is a critical tool in the CAR Unit Initial Fatal Crash Information Viewer for analyzing accidents where individuals were ejected from a vehicle. This option is presented with “Yes,” “No,” and “Unknown” multi-selection choices, which can be applied singly or in combination to tailor the crash data visibility. Choosing “Yes” would filter the dataset to display only those accidents where at least one individual was ejected from the vehicle, providing a focused view of the most severe and potentially fatal crash types. This kind of data is essential for safety assessments and can inform both vehicle design improvements, such as the effectiveness of seat belts or the structural integrity of the vehicle, and policy regulations to enhance passenger safety.

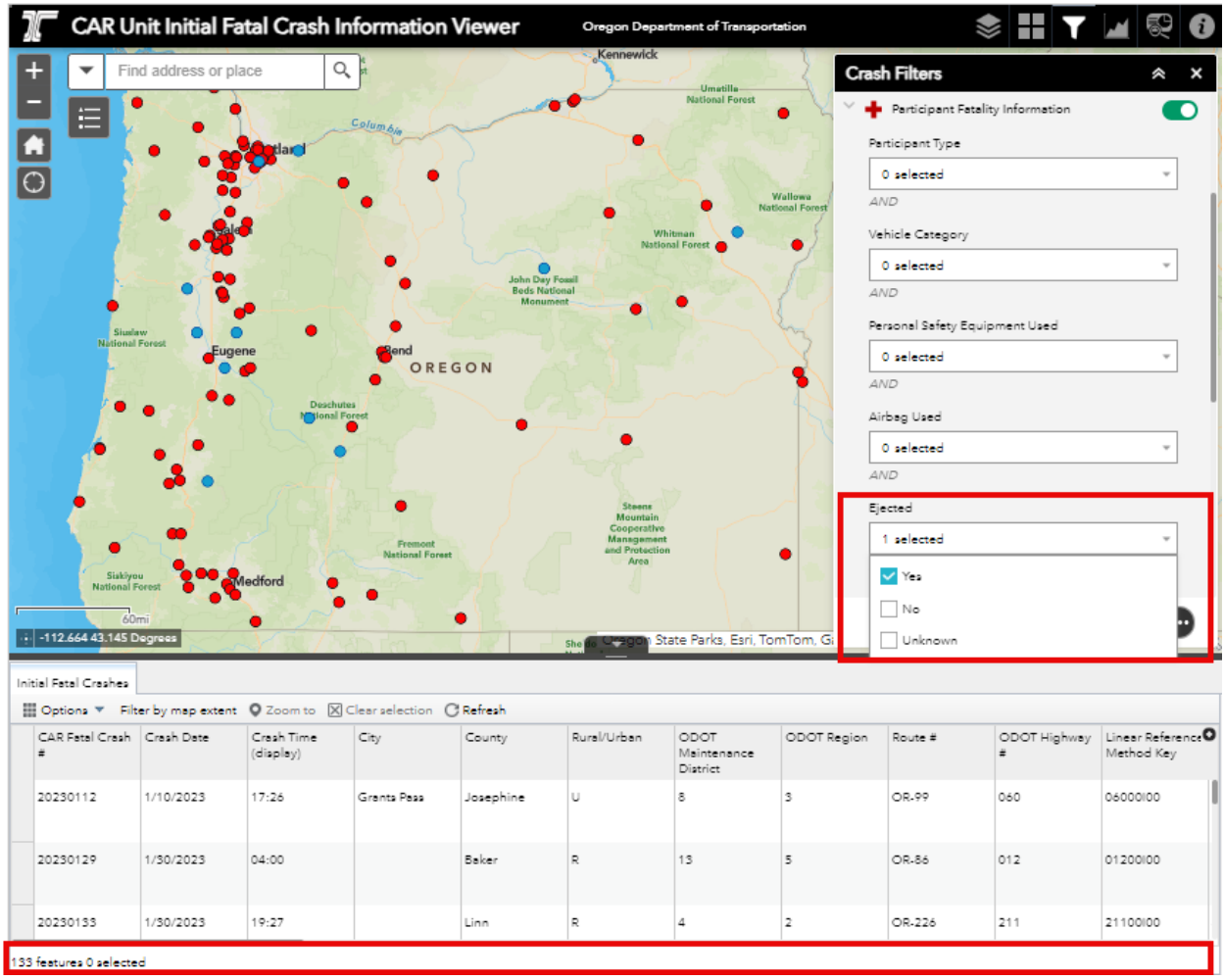


Figure 56 The Ejected filter under the Participant Fatality Information in the Crash Filters of the CAR Unit Initial Fatal Crash Information Viewer

Gender

The **Gender** filter within the Participant Fatality Information in the Crash Filters provides a categorical breakdown of crash data based on the gender of individuals involved. The options available for selection are “Female,” “Male,” and “Unknown,” and these can be used either individually or in various combinations to refine the displayed crash metrics. For instance, if “Male” is selected, the interactive map will display crash points that specifically involved male participants. This gender-based filtering is crucial for analyzing and understanding the distribution and characteristics of fatal crashes across different gender groups. It can yield insights into which gender may be more frequently involved in certain types of accidents or under specific circumstances, guiding targeted safety measures and educational initiatives to reduce fatalities and enhance road safety for all users.

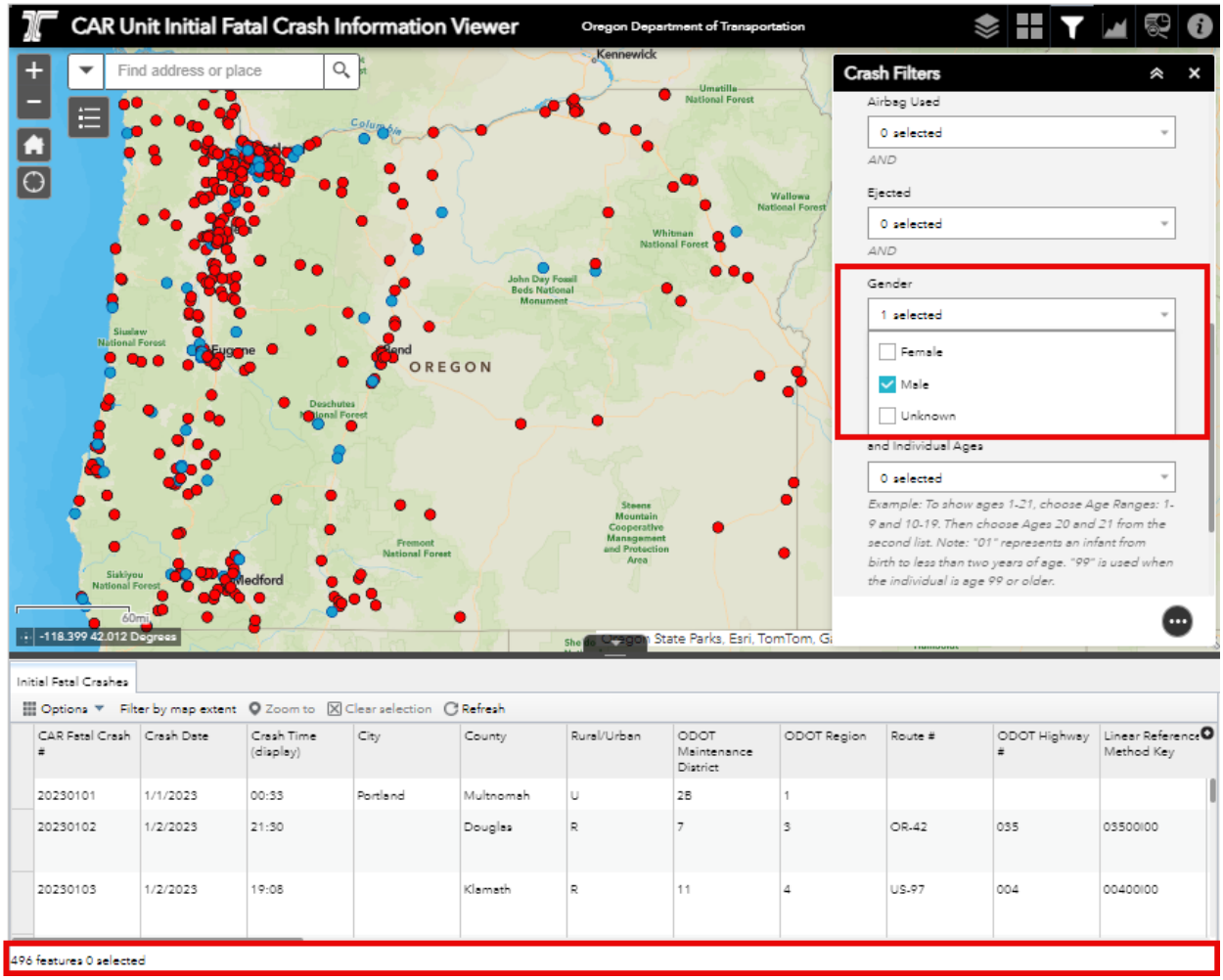


Figure 57 The Gender filter within the Participant Fatality Information in the Crash Filters of the CAR Unit Initial Fatal Crash Information Viewer

Age - Select a combination of Age Ranges

The **Age - Select a combination of Age Ranges** filter within the Participant Fatality Information of the Crash Filters allows for detailed analysis of fatal crashes by age group. The age ranges are segmented into ten-year intervals, from 0 to 99 years old, providing a broad spectrum for demographic study. Researchers can select individual age brackets or combine multiple to refine their dataset. For example, by selecting the 0-9 age range, the viewer can display fatal crash points specifically involving infants and young children. This focus can highlight patterns or trends in fatalities among the youngest occupants, such as the types of collisions they are involved in or the locations where these incidents are most prevalent. Understanding these aspects can guide the development of targeted safety measures and child protection policies in traffic management systems.

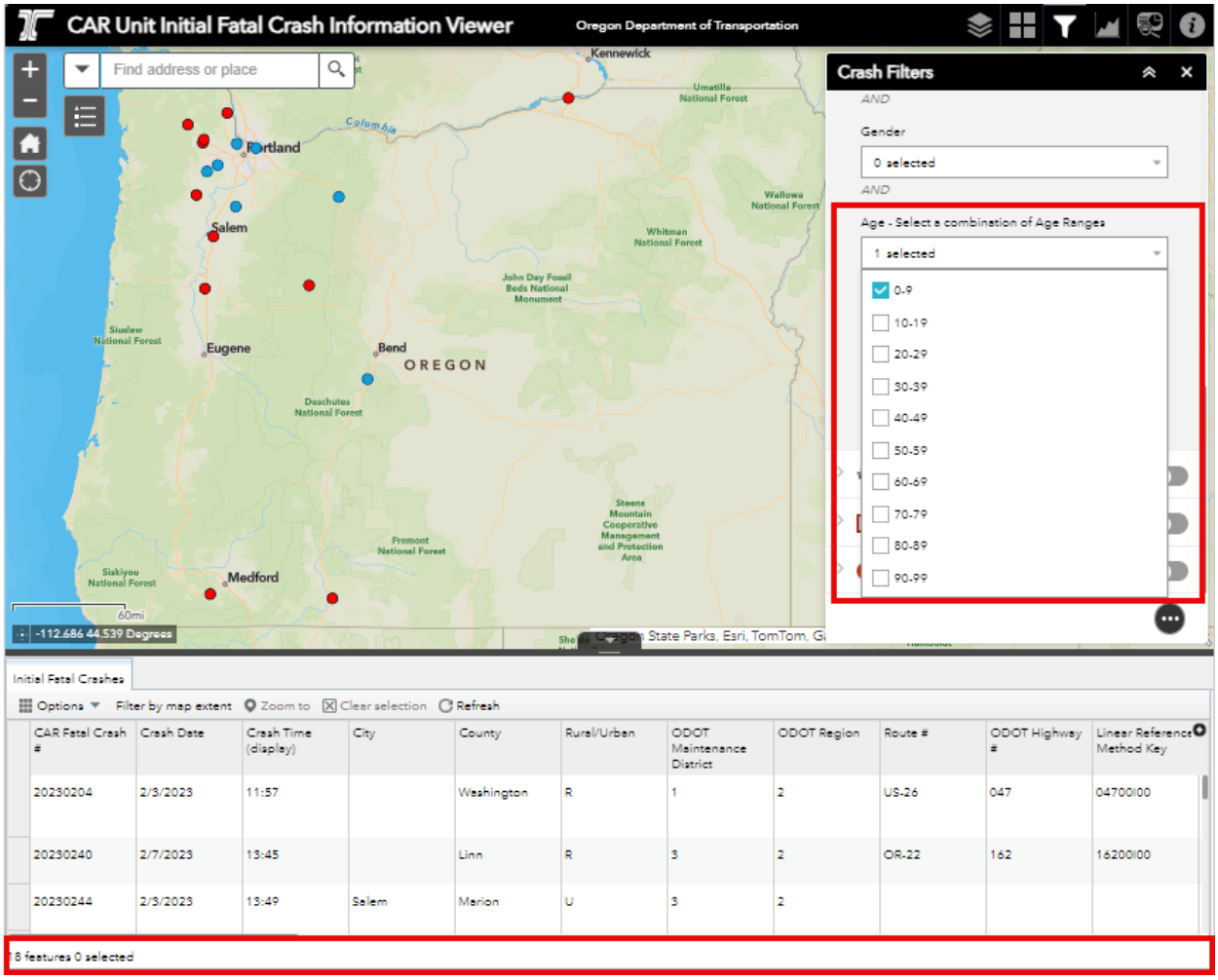


Figure 58 The Age - Select a combination of Age Ranges Filter within the Participant Fatality Information of the Crash Filters

Individual Ages

The **Individual Ages** feature in the Participant Fatality Information section of the Crash Filters on the CAR Unit Initial Fatal Crash Information Viewer provides an extremely granular look at crash data by age. It lists every age from 1 to 99, allowing for year-by-year analysis. This filter is particularly useful when the age of individuals involved in crashes is a critical factor in the research. For instance, by selecting the age 50, the map would update to show only those fatal crashes that involved individuals of that specific age. This could reveal age-specific trends or areas where certain age groups are more prone to be involved in fatal crashes. The ability to focus on specific age groups is valuable for researchers and policy makers interested in designing targeted interventions for road safety and can aid in understanding the risk profiles of drivers at different stages of life.

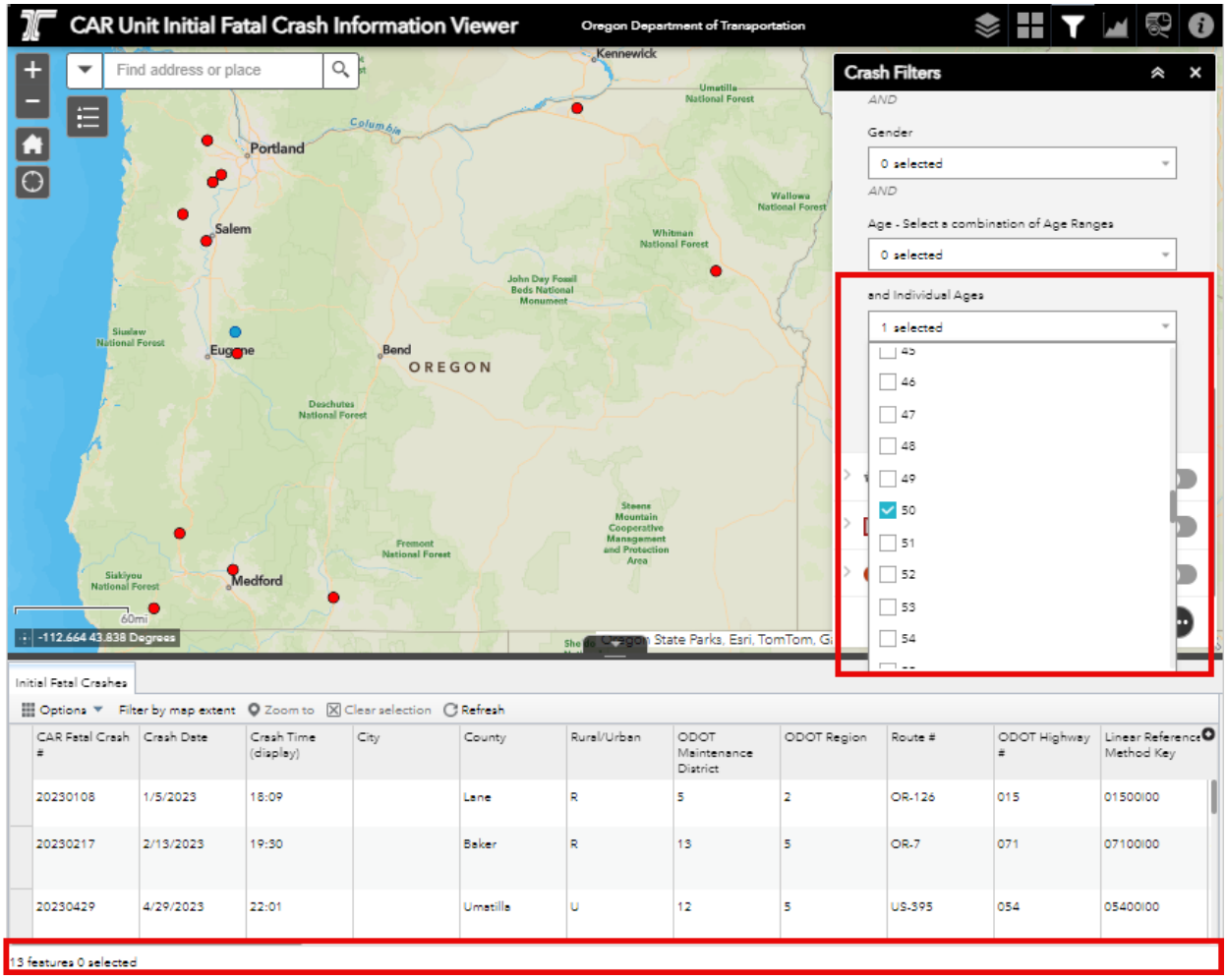


Figure 59 The Individual Ages Feature in the Participant Fatality Information Section of the Crash Filters

Crash Location by Roadway

The **Crash Location by Roadway** filter in the CAR Unit Initial Fatal Crash Information Viewer is a crucial feature for analyzing crash data across various roadway parameters. To activate this filter, you need to toggle the button on the right. This feature allows you to refine the crash data displayed on the map based on specific roadway-related criteria. You can filter crashes by Route number, despite potential duplicate milepoints, to gain insights into crashes on particular road segments. Similarly, you can use the ODOT Highway number filter to explore data related to mainlines, frontage roads, and associated ramps. With the ODOT's Linear Reference Method (LRM) ID, you can delve into an even more technical level, pinpointing crashes along specific sections of a mainline, frontage road, or a highway's connections.

Moreover, you can specify a range of milepoints, focusing your analysis on crashes that occurred between two distinct points along a route. While not shown in the screenshot, advanced filters like Road Name, Intersecting Road Name, Travel Direction, and Intersection Related status are typically available to further sharpen your data exploration. These options allow for a comprehensive breakdown of crash locations, helping to identify high-risk zones and understand patterns in fatal traffic incidents.

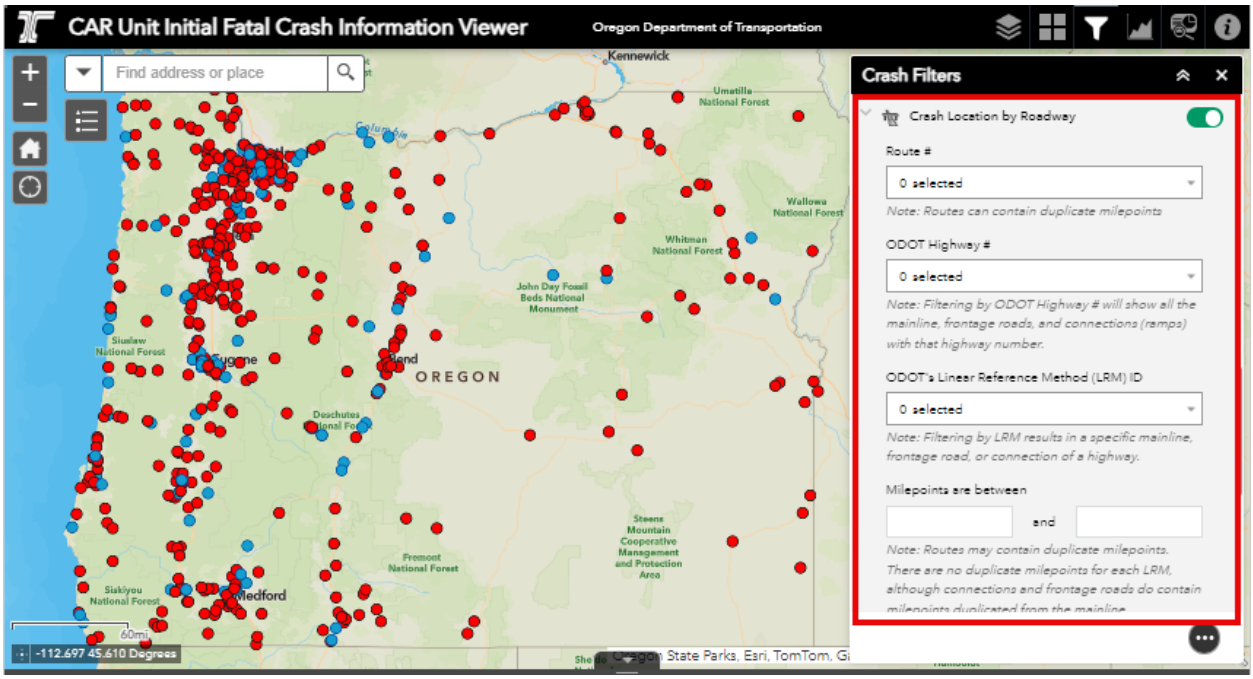


Figure 60 The Crash Location by Roadway Filter in the CAR Unit Initial Fatal Crash Information Viewer

Route

Within the **Crash Location by Roadway** filter of the CAR Unit Initial Fatal Crash Information Viewer, the **Route #** sub-filter is an insightful tool that allows for a detailed analysis of crashes based on their route numbers. This sub-filter offers a multitude of options, enabling you to select either a single route or multiple routes to suit the specific requirements of your research. By using this feature, you can efficiently isolate crash data to a particular highway or series of highways.

In the example provided by the screenshot, route I-5 has been selected. This filtering action narrows down the map to display only the fatal crashes that have occurred along Interstate 5. As a result, the map clearly marks the crash points along this route, each indicated by a dot, and presents corresponding details in the information panel below. It's important to note that routes may contain duplicate milepoints, which can be a crucial factor when considering the concentration of crashes along a particular stretch of road. By

analyzing this data, you can identify patterns or problematic areas that may require further investigation or intervention.

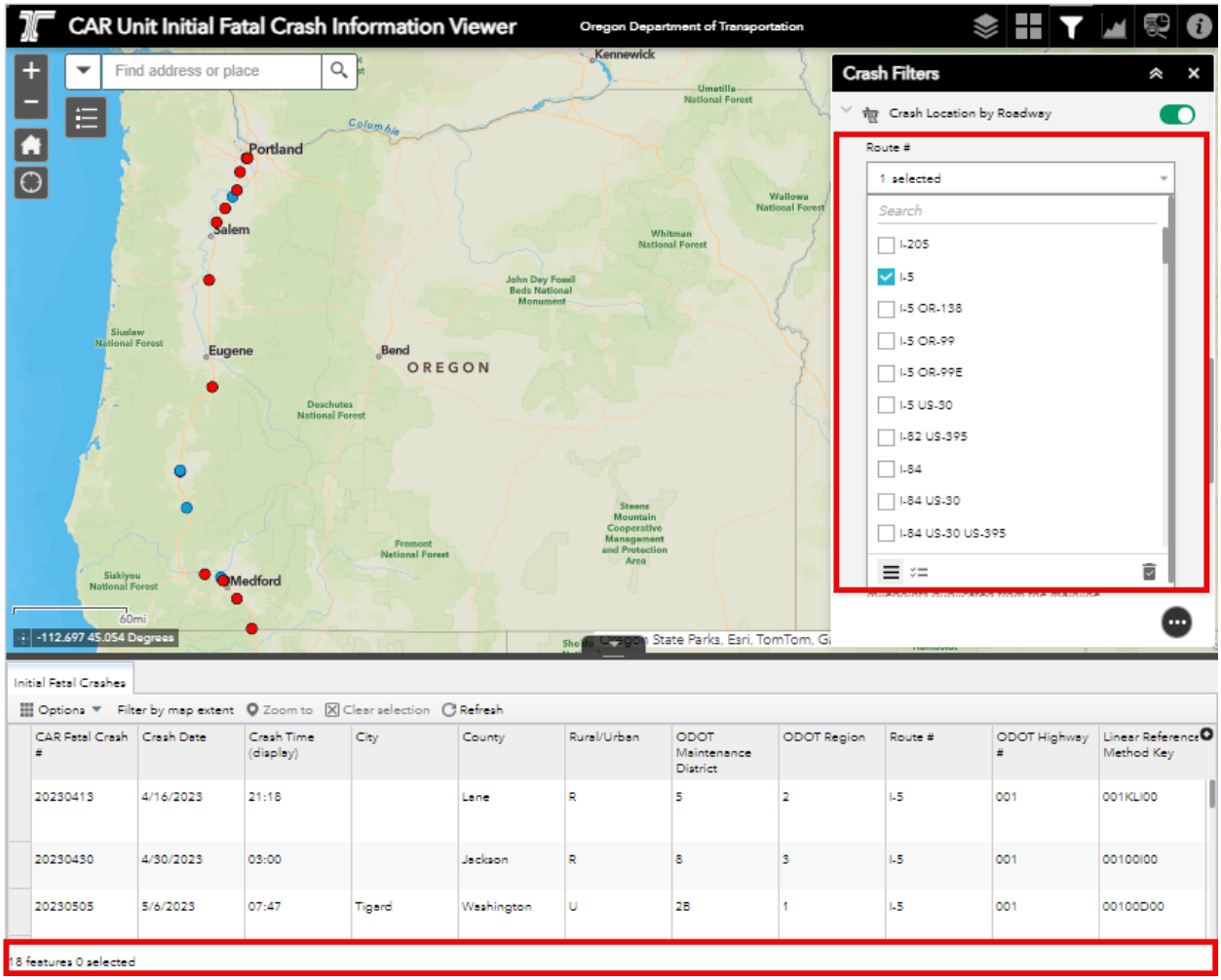


Figure 61 The Route Number Filter within the Crash Location by Roadway filter of the CAR Unit Initial Fatal Crash Information Viewer

ODOT Highway

The **ODOT Highway #** sub-filter under the **Crash Location by Roadway** filter in the CAR Unit Initial Fatal Crash Information Viewer offers a granular level of detail for analyzing crash data by specific highway numbers. This powerful tool provides you with the flexibility to select and view data for a singular highway or aggregate data across multiple highways, depending on the breadth or focus of your research inquiry.

Using this sub-filter, you can comprehensively examine the occurrences of fatal crashes along the selected highway's mainline, as well as its frontage roads and any associated ramps, providing a holistic view of the safety of that highway system. If you were to choose, for instance, highway number 002, the map would update to reveal the crash points associated with this highway. Each point represents a location where a fatal crash has occurred, and the details of these crashes are displayed in a list format below the map, including the date, time, and specific location. It emphasizes that selecting a highway number will yield a comprehensive dataset of all crashes related to the entire highway corridor, offering a detailed perspective that can inform traffic safety studies and potentially guide infrastructure improvements.

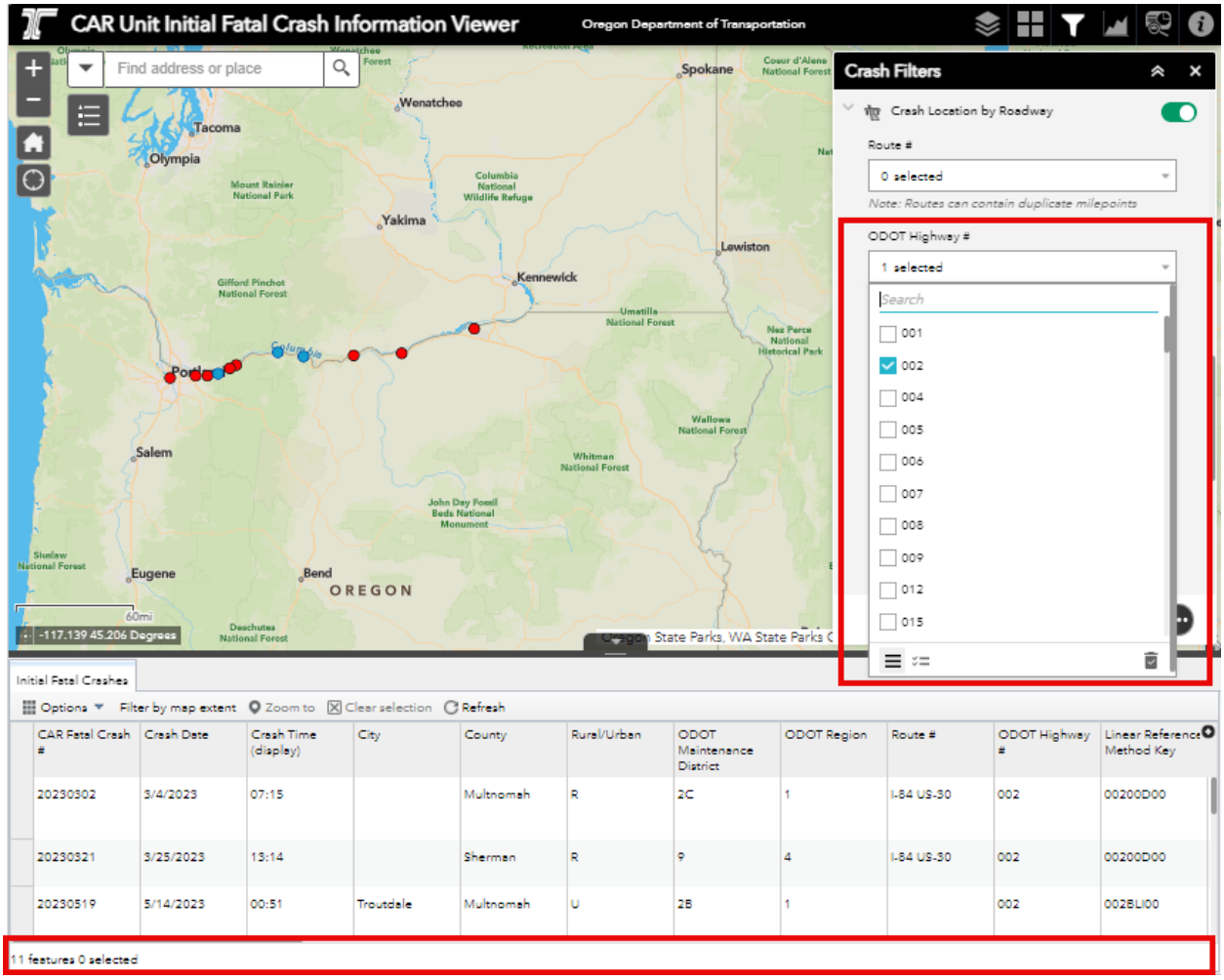


Figure 62 The ODOT Highway # Filter under the Crash Location by Roadway filter in the CAR Unit Initial Fatal Crash Information Viewer

By ODOT's Linear Reference Method (LRM) ID

The CAR Unit Initial Fatal Crash Information Viewer employs the **ODOT's Linear Reference Method (LRM) ID** as a sub-filter under the **Crash Location by Roadway** category to provide an advanced level of precision in crash data analysis. This method uses LRM IDs that correspond to specific segments of mainline roads, frontage roads, or highway connections, enabling you to perform a focused analysis of crashes on sections of Oregon's road network.

The LRM ID filter offers multiple selection options, which allows you to either concentrate on a single ID or combine multiple IDs for a broader data set, depending on the depth and scope required for your research. In the case of the provided screenshot, the LRM ID "00100I00" has been selected. The viewer responds by highlighting the relevant crash points on the map that are associated with this LRM ID, each marked by a dot, and displays detailed information such as crash date, time, and location in a table below the map.

The note clarifies that using the LRM filter isolates the crash data to a particular segment, whether it be a mainline, frontage road, or a highway connection, thus providing a very targeted look at where crashes are happening within the state highway system. This specific filtering can be instrumental in identifying high-risk areas, understanding crash patterns, and implementing targeted safety improvements on Oregon roads.

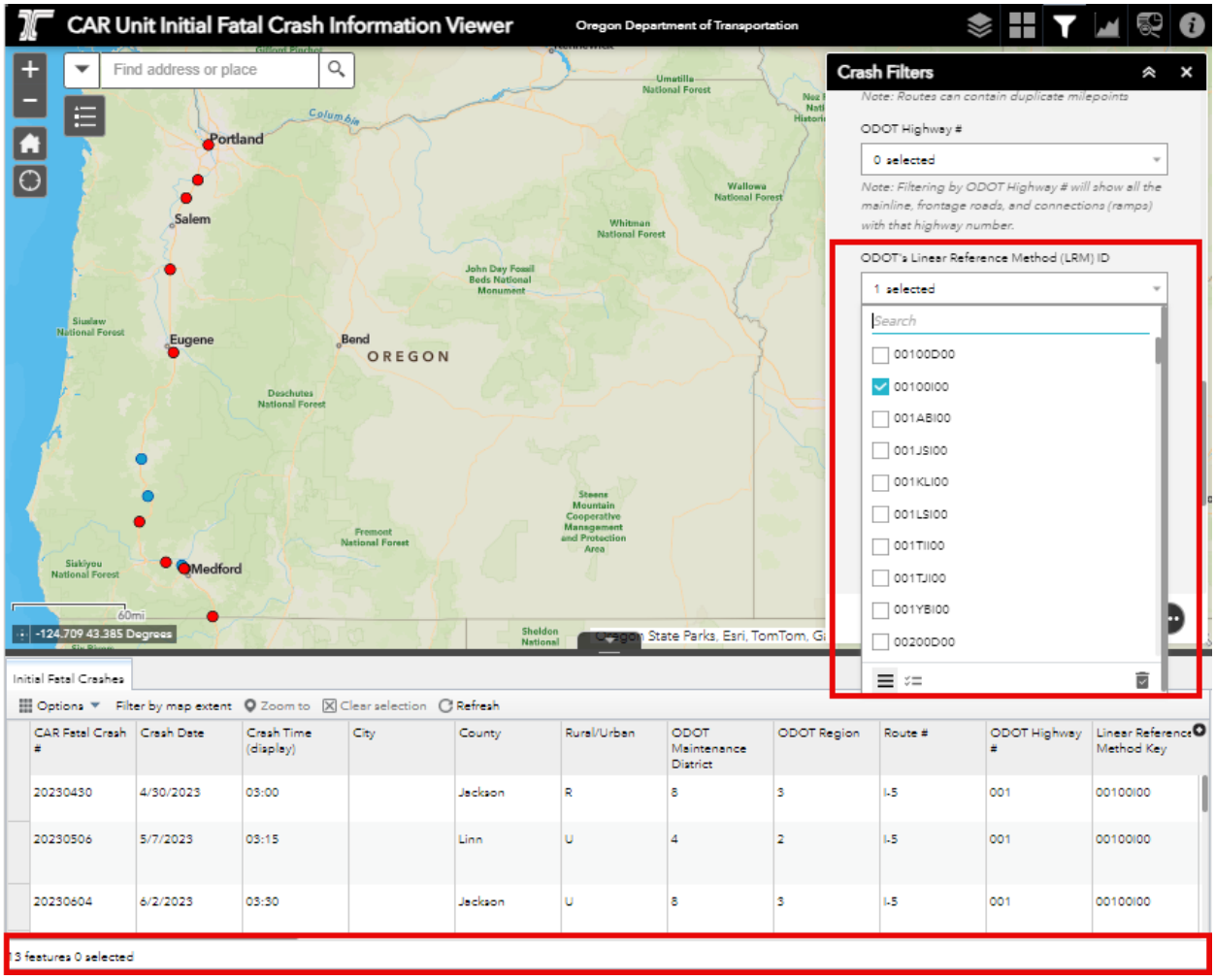


Figure 63 The ODOT's Linear Reference Method (LRM) ID filter under the Crash Location by Roadway category in the CAR Unit Initial Fatal Crash Information Viewer

Milepoints are between

The **Milepoints are between** sub-filter within the **Crash Location by Roadway** filter on the CAR Unit Initial Fatal Crash Information Viewer is a targeted tool that enables you to analyze crashes that occur within a specific range along a roadway. By inputting a starting and ending milepoint, you can isolate crash data to a precise segment of the road, facilitating focused studies on areas of particular interest or concern.

In the example from the screenshot, milepoints between 1 and 5 have been chosen. The system processes this range and updates the map to display only those crashes that have occurred within this defined stretch of road. The resulting display shows the location of each crash along with details such as crash date, time, and location, as listed in the table below the map.

It's important to note that while routes can have duplicate milepoints, there are no duplicates within each unique LRM ID; however, connections and frontage roads might have milepoints that are duplicated from the mainline. This distinction is crucial for accurate data analysis, ensuring that the crash locations you are reviewing are unique to the specific mainline or connected roadways within the defined milepoint range. This precise filtering can be invaluable in identifying trends, assessing road safety, or prioritizing areas for potential road improvements.

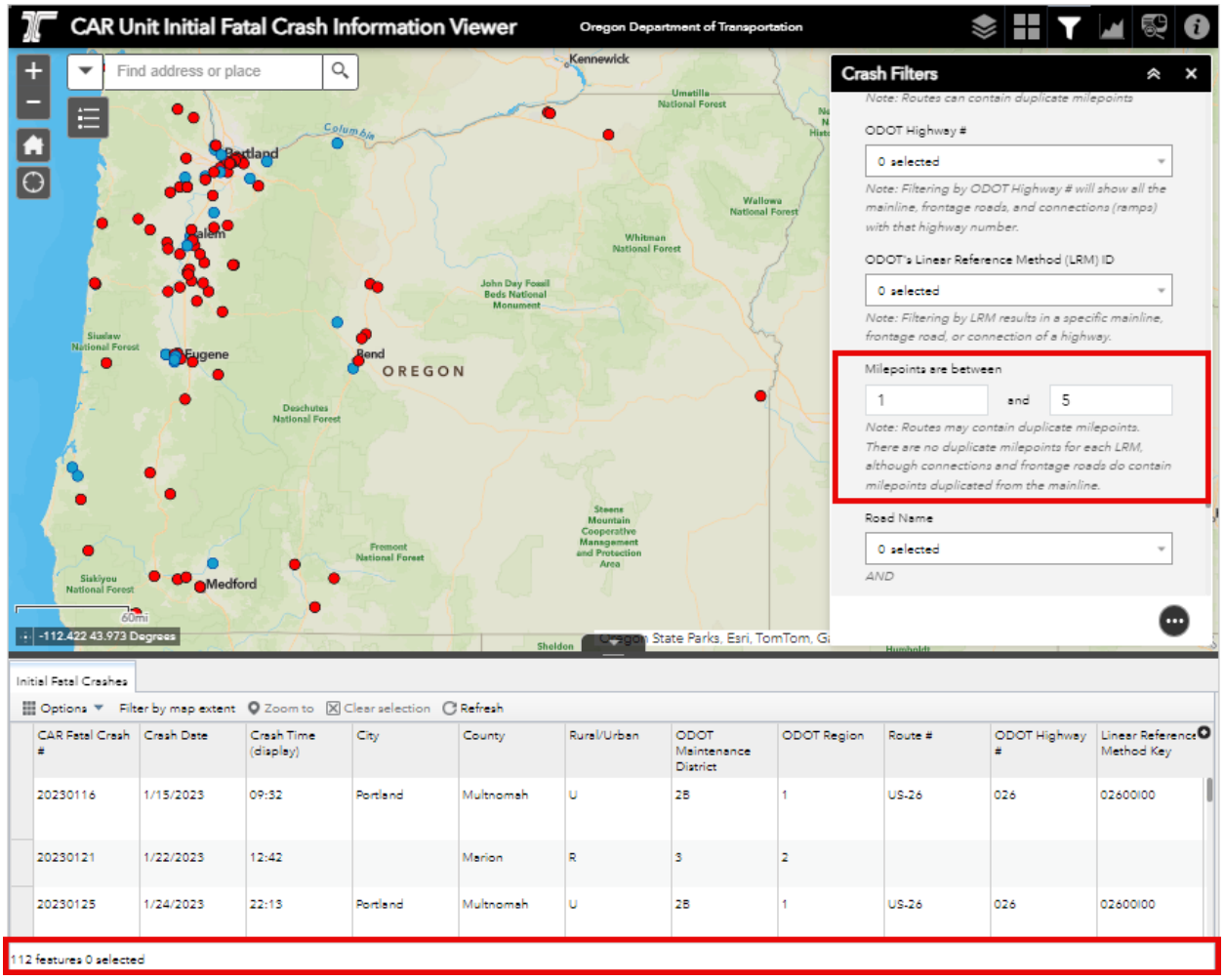


Figure 64 The Milepoints are between Filter within the Crash Location by Roadway Filter on the CAR Unit Initial Fatal Crash Information Viewer

Road Name

The **Road Name** sub-filter within the **Crash Location by Roadway** filter in the CAR Unit Initial Fatal Crash Information Viewer offers an intuitive way to sift through crash data based on specific road names. This filtering capability allows you to narrow down the crash incidents to particular roadways that you are interested in examining. By clicking on the dropdown menu, you can select from an extensive list of road names, choosing one or multiple according to the needs of your analysis.

In the example provided by the screenshot, we selected three different road names. Upon making these selections, the map refreshes to reveal only the crash points that occurred on these specified roads. This visualization is then complemented by a detailed breakdown of each crash incident in the list below, including information such as crash date, time, city, and county, offering you a focused view of where and when these incidents have taken place.

This level of specificity is invaluable for transportation safety analysis, urban planning, or for any research that requires a granular look at road-specific crash data. It enables you to identify potentially dangerous stretches of road, observe trends in road safety, and gather detailed information that could support infrastructure improvements or policy changes.

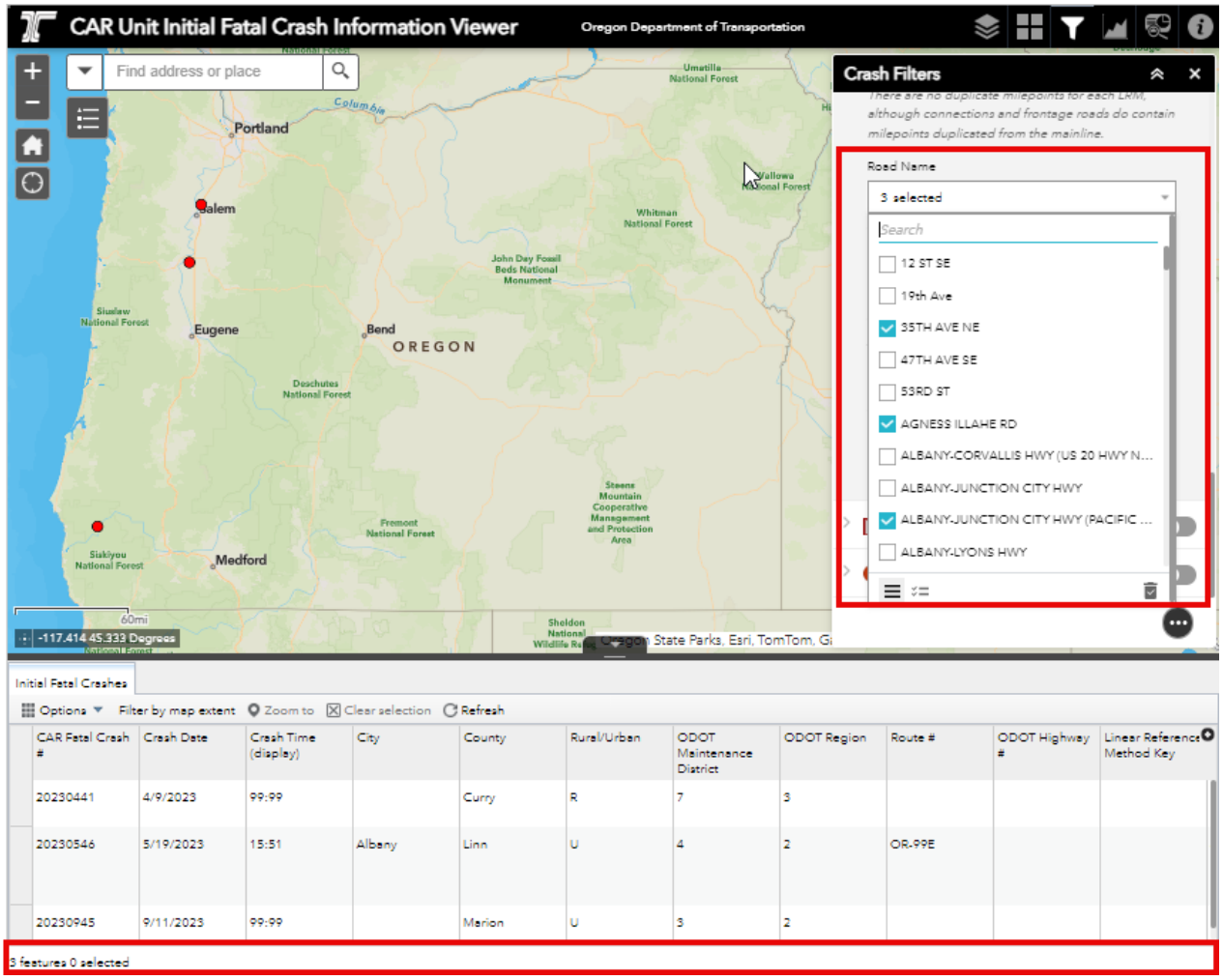


Figure 65 The Road Name Filter within the Crash Location by Roadway Filter in the CAR Unit Initial Fatal Crash Information Viewer

Intersecting Road Name

The **Intersecting Road Name** sub-filter in the **Crash Location by Roadway** filter of the CAR Unit Initial Fatal Crash Information Viewer provides a precise mechanism for investigating crash incidents at roadway intersections. This feature enables you to focus on the cross-sections where roads meet, which are often hotspots for traffic collisions. By clicking on the dropdown list, you have the option to narrow down the incidents to just one or to examine several intersecting road names concurrently, tailoring the crash data to meet your specific criteria.

In the example shown in the screenshot, “75th PL SE” has been chosen as the Intersecting Road Name. Once this selection is made, the viewer updates to display only the crashes that have taken place at the intersections involving 75th PL SE. The result is a singular crash point appearing on the map, which correlates to a specific incident detailed in the table below, including the date, time, and location, alongside other pertinent details.

Focusing on intersections in this way is particularly useful for identifying dangerous intersections and understanding the dynamics of crashes that occur in these complex environments. The data obtained through this filter could be used for traffic safety assessments, urban planning, and for the implementation of measures aimed at reducing intersection-related incidents.

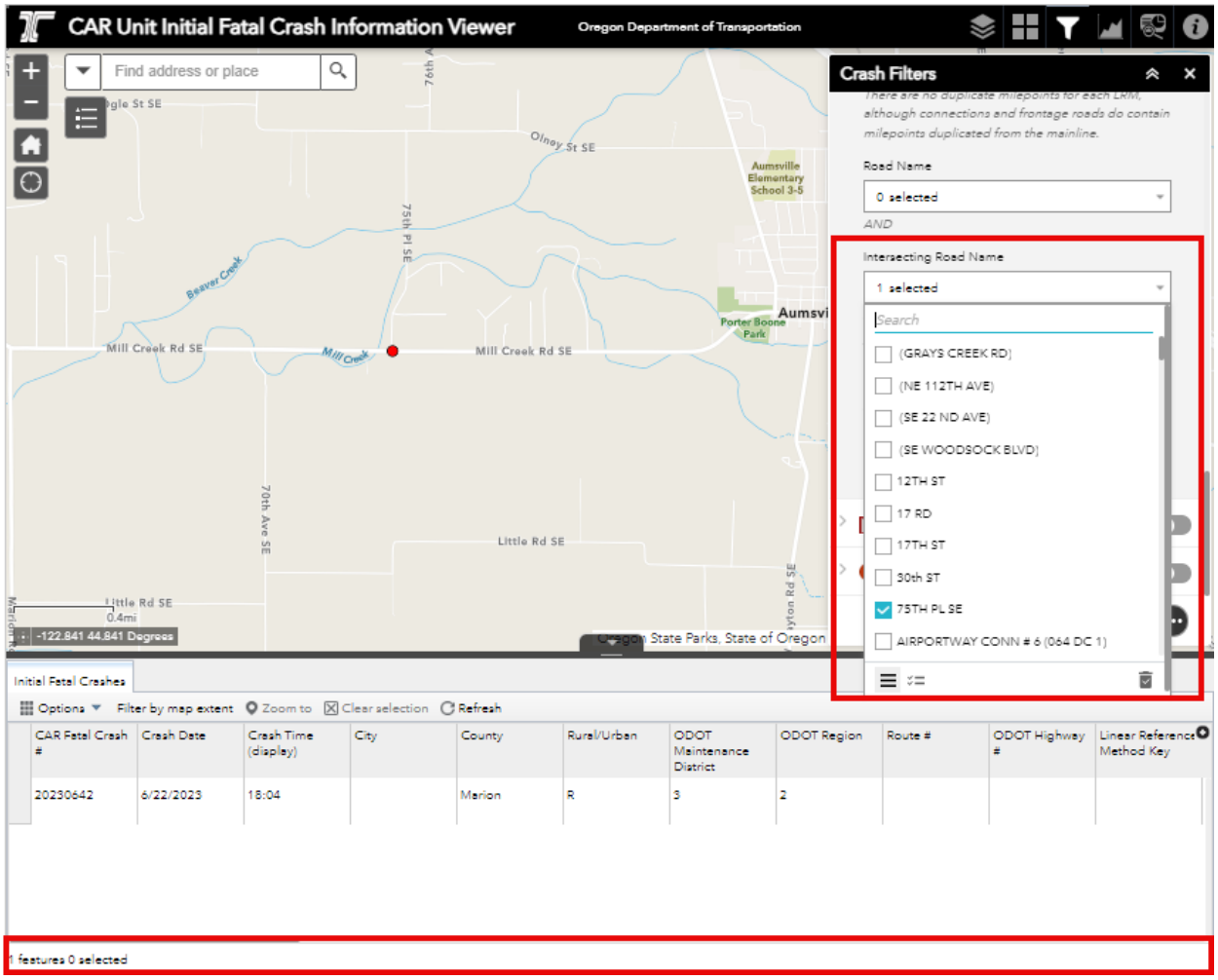


Figure 66 The Intersecting Road Name Filter in the Crash Location by Roadway Filter of the CAR Unit Initial Fatal Crash Information Viewer

Travel Direction

The **Travel Direction** sub-filter in the **Crash Location by Roadway** filter of the CAR Unit Initial Fatal Crash Information Viewer allows for the analysis of crashes based on the direction of travel. This filter can be particularly insightful for studies looking at directional patterns in crash occurrences. By using the dropdown menu, you can select a specific travel direction, such as eastbound, westbound, northbound, or southbound, enabling you to examine crashes in the context of travel flow on roadways.

In the scenario depicted in the screenshot, “Westbound” has been selected as the travel direction of interest. After making this choice, the system displays only those crashes that occurred in the westbound lanes of travel. The map showcases these incidents as dots, providing a clear visual representation of where westbound crashes are concentrated. Below the map, a detailed list appears, giving you information such as crash date, time, and exact location for each westbound crash event.

This type of filtering is crucial for identifying trends that may be specific to certain directions of travel, which could be influenced by factors such as time of day, lighting conditions, traffic patterns, or roadway design. The insights gained from this data could be instrumental for traffic engineers, safety analysts, and policy makers in developing targeted interventions to improve road safety for all travelers.

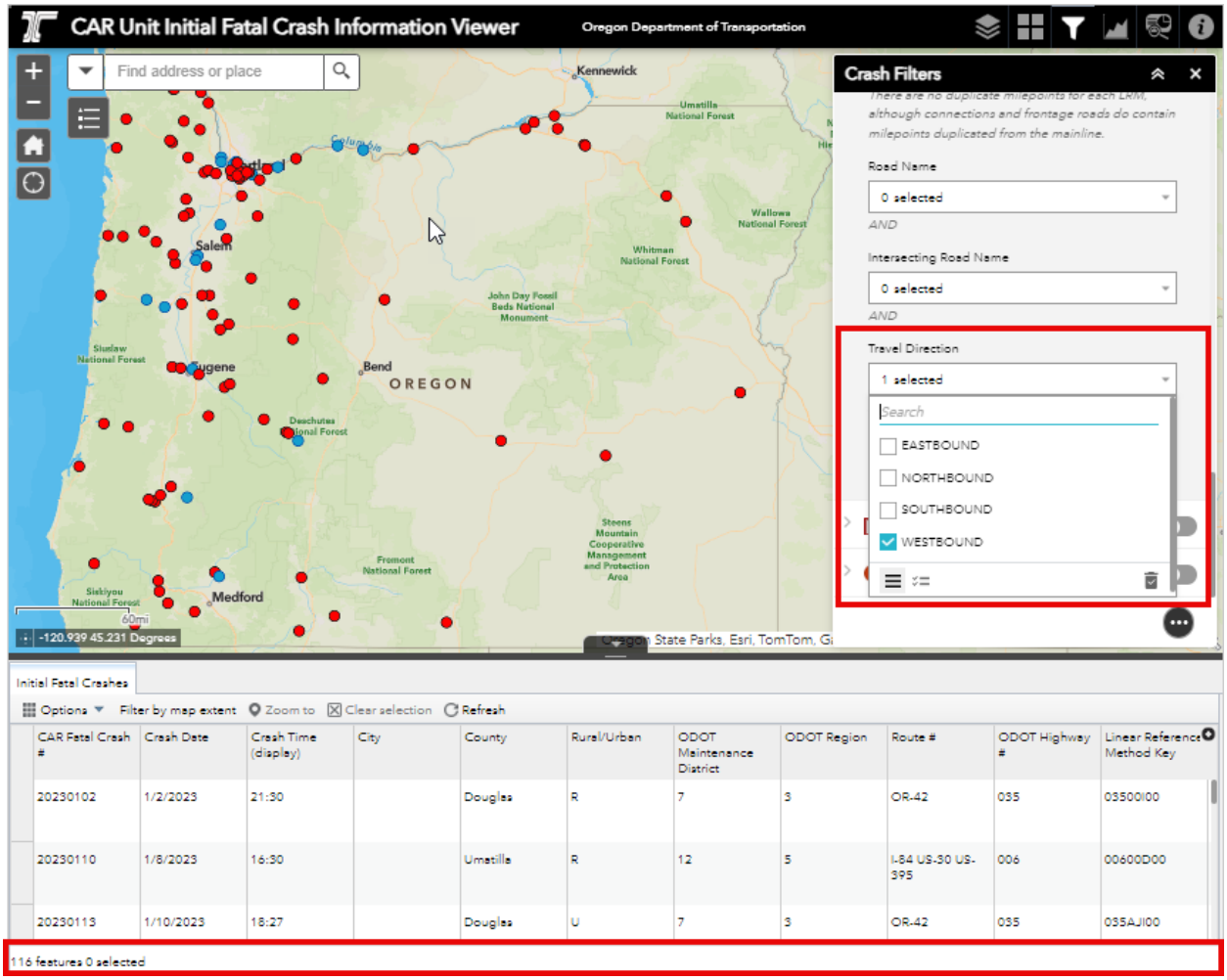


Figure 67 The Travel Direction Filter in the Crash Location by Roadway Filter of the CAR Unit Initial Fatal Crash Information Viewer

Intersection Related is any of

The **Intersection Related is any of** sub-filter within the **Crash Location by Roadway** filter in the CAR Unit Initial Fatal Crash Information Viewer allows for an in-depth analysis of crash incidents to determine whether they are associated with intersections. This functionality is crucial for understanding the dynamics and safety of intersections, which are common sites for traffic collisions. You can specify whether you want to see crashes that are known to be intersection-related, not related to intersections, or those for which the relationship to an intersection is unknown. This categorization helps in assessing the safety and risk factors present at intersections.

In the provided screenshot, the “Yes” option has been selected, indicating a desire to view only those crashes that are confirmed to be intersection related. After selection, the map updates to show only the fatal crashes that occurred at or near intersections. The interface then presents these specific incidents as dots scattered across the map, providing a visual representation of intersection-related crash locations. The corresponding crash details are displayed in a list below the map, with data including the crash date, time, and the city or county, offering you targeted information for analysis.

By focusing on intersection-related crashes, you can identify problematic intersections that may require engineering, signage, or signal timing changes to improve safety. The filter is particularly useful for

transportation planners, traffic engineers, and safety analysts who are working towards reducing the number of intersection-related incidents and enhancing overall traffic safety.

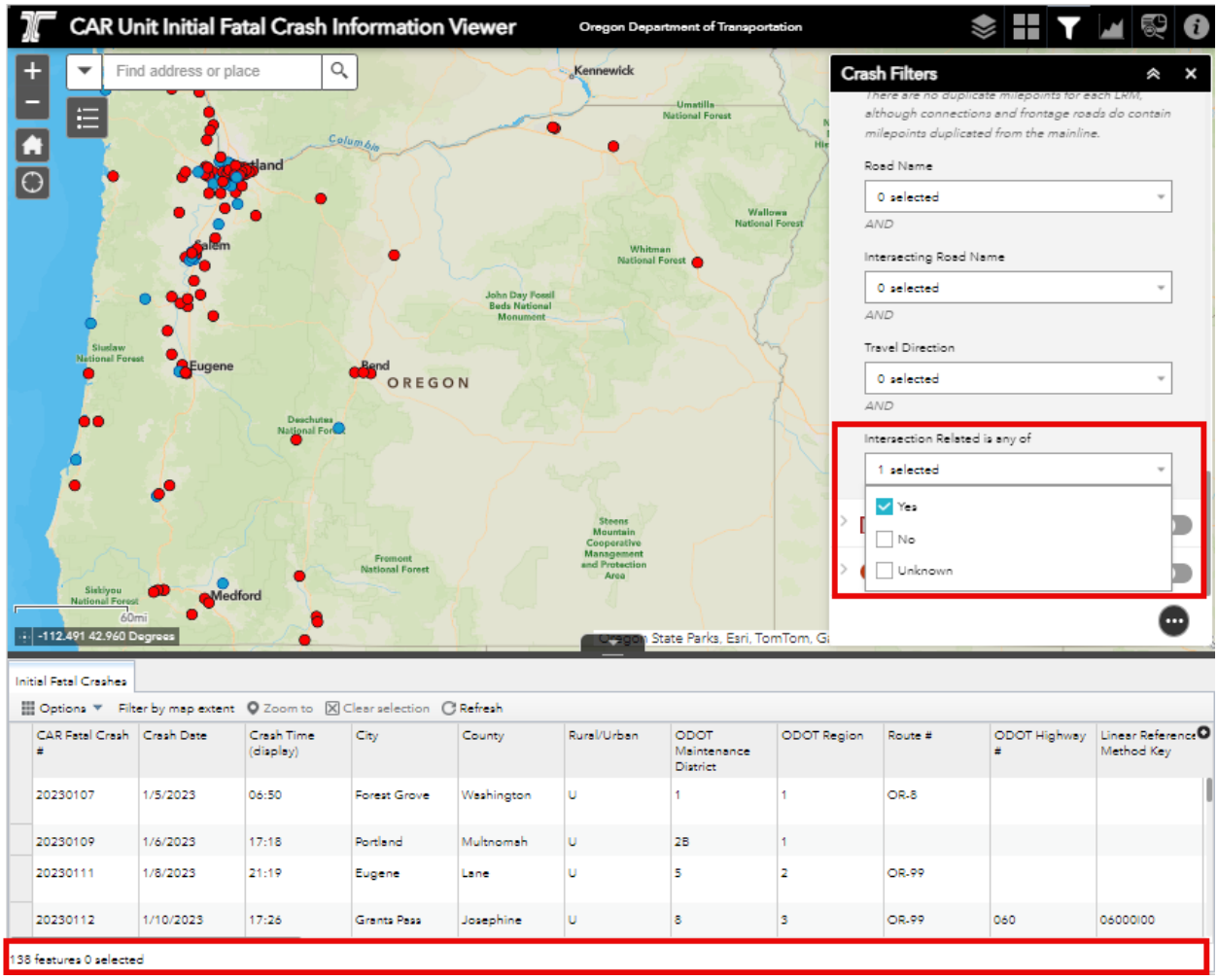


Figure 68 The Intersection Related is any of Filter within the Crash Location by Roadway Filter in the CAR Unit Initial Fatal Crash Information Viewer

Crash Location by Boundary

The **Crash Location by Boundary** filter in the CAR Unit Initial Fatal Crash Information Viewer is a comprehensive tool designed to refine crash data geographically within various administrative and regional boundaries. By toggling the button on the right, you activate the filter, which then allows you to segment the crash data based on several criteria.

The options within this filter include:

1. **City**: This allows you to filter crash data by individual cities. You can select one or multiple cities from the dropdown list to focus your research on specific urban areas.
2. **Rural or Urban**: This categorization enables you to differentiate crash points based on whether they occurred in rural or urban settings, allowing for analysis of environmental factors on crash incidences.
3. **County**: With this filter, you can narrow view to the county level, selecting from the list to examine crash data in particular counties.
4. **ODOT Maintenance District**: This filter is particularly useful for state-level analysis, as it provides data segmentation based on maintenance districts, which can correlate with operational aspects of road safety.
5. **ODOT Region**: Broader than the maintenance districts, this filter allows for the examination of crashes by ODOT's administrative regions.

Each filter category is equipped with a dropdown menu filled with selectable options to tailor your analysis. By offering the ability to select individual or multiple options, the CAR Unit Initial Fatal Crash Information Viewer affords a flexible and powerful approach to analyzing spatial patterns and trends in fatal crash data across Oregon. This data can be critical for public safety officials, urban planners, and researchers in understanding the distribution of crashes and targeting interventions effectively.

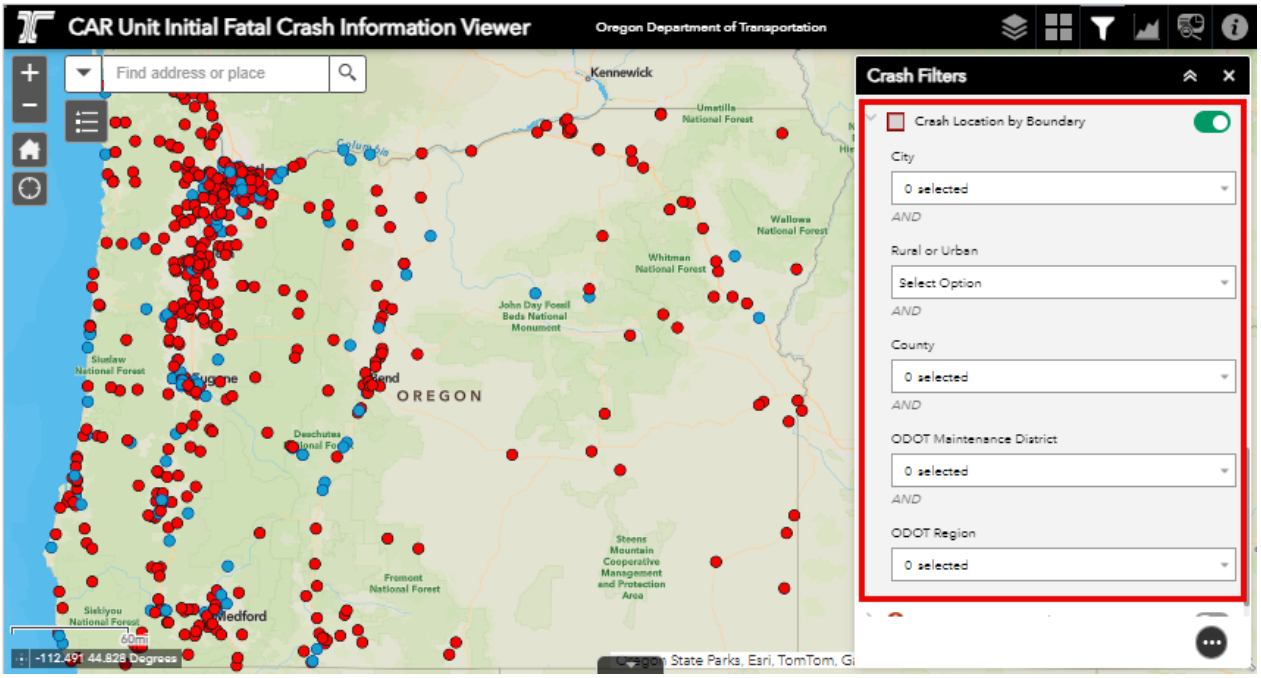


Figure 69 The Crash Location by Boundary Filter in the CAR Unit Initial Fatal Crash Information Viewer

City

The **City** filter under the Crash Location by Boundary filter in the CAR Unit Initial Fatal Crash Information Viewer allows for targeted analysis of crash data within specific city limits in Oregon. To utilize this filter, you can either scroll through the dropdown list or start typing in the search box to quickly find the city you are interested in. This search functionality is designed for ease of use, enabling you to pinpoint a single city or select multiple cities to tailor the crash data to your area of interest or research scope.

In the example presented in the screenshot, Albany has been selected. By choosing Albany, the map displays only the fatal crash points that have occurred within the city's boundaries. These are clearly marked on the map, and the corresponding details of each crash, including date, time, city, and other relevant information, are itemized below the map. This focused approach is particularly useful for local authorities, researchers, or urban planners who need to analyze crash data in relation to city infrastructure, traffic management, and urban development planning.

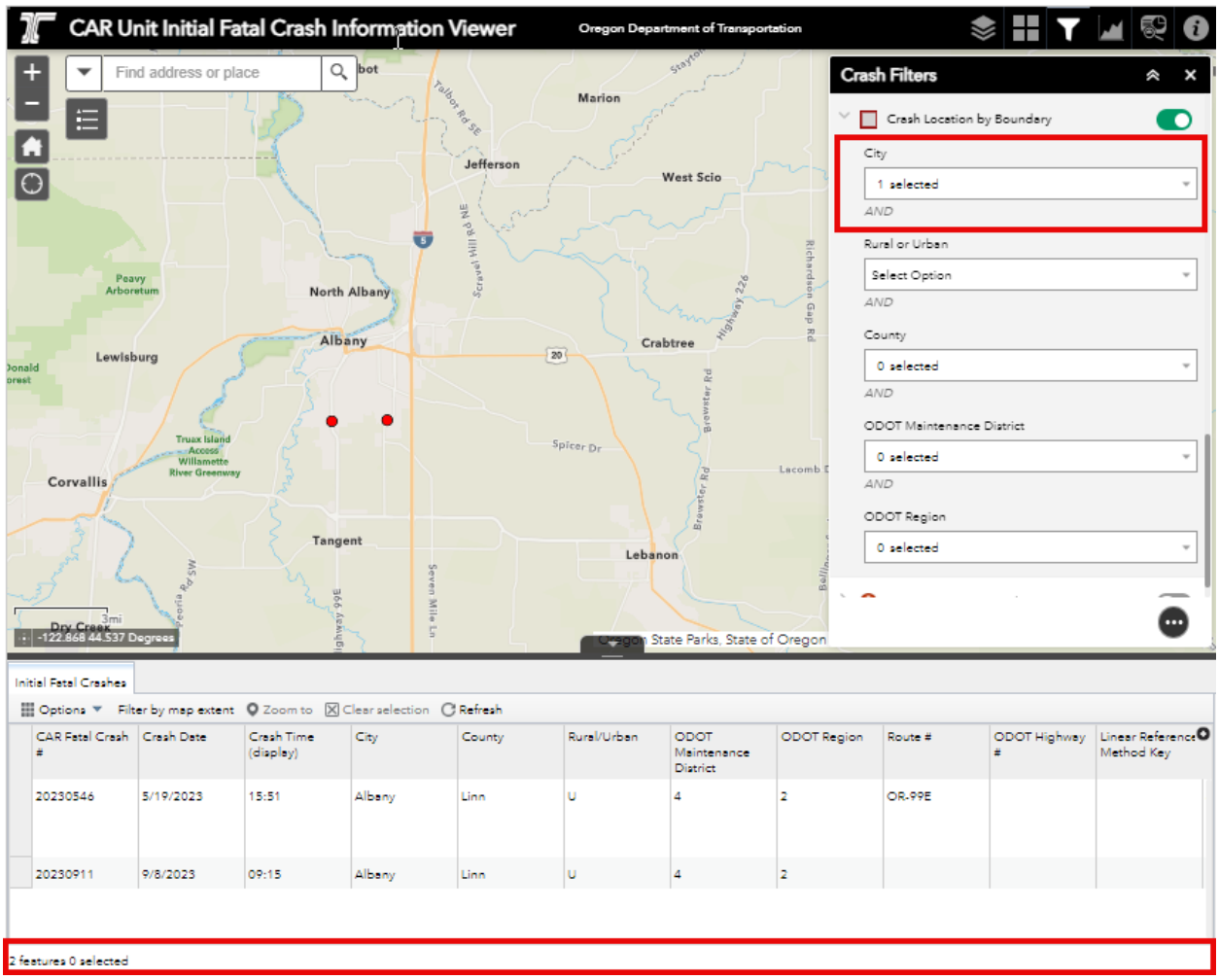


Figure 70 The City Filter under the Crash Location by Boundary Filter in the CAR Unit Initial Fatal Crash Information Viewer

Rural or Urban

The **Rural or Urban** filter within the **Crash Location by Boundary** section of the Crash Filters in the CAR Unit Initial Fatal Crash Information Viewer provides a categorical distinction that is vital for analyzing the distribution of fatal crashes across different environments. This filter is straightforward, offering just two options in the dropdown: Rural or Urban.

- **Rural**

By selecting the **Rural** option, you can filter out the crash data to view only those incidents that have occurred in less densely populated and non-urban areas. This distinction is crucial for identifying and understanding the unique factors contributing to road safety in rural areas, such as road design, speed limits, and access to emergency services, which can differ significantly from urban settings.

In the example shown, after selecting **Rural**, the map is updated to show only the crash points that have occurred in rural areas, illustrated by the dots. The listed information below the map provides additional details about each crash, such as the date, time, and specific location, offering a focused perspective on the pattern and frequency of rural crashes. This data is essential for stakeholders interested in rural road safety, including transportation authorities, policy makers, and safety advocates, allowing for targeted strategies to improve safety and reduce fatalities on rural roads.

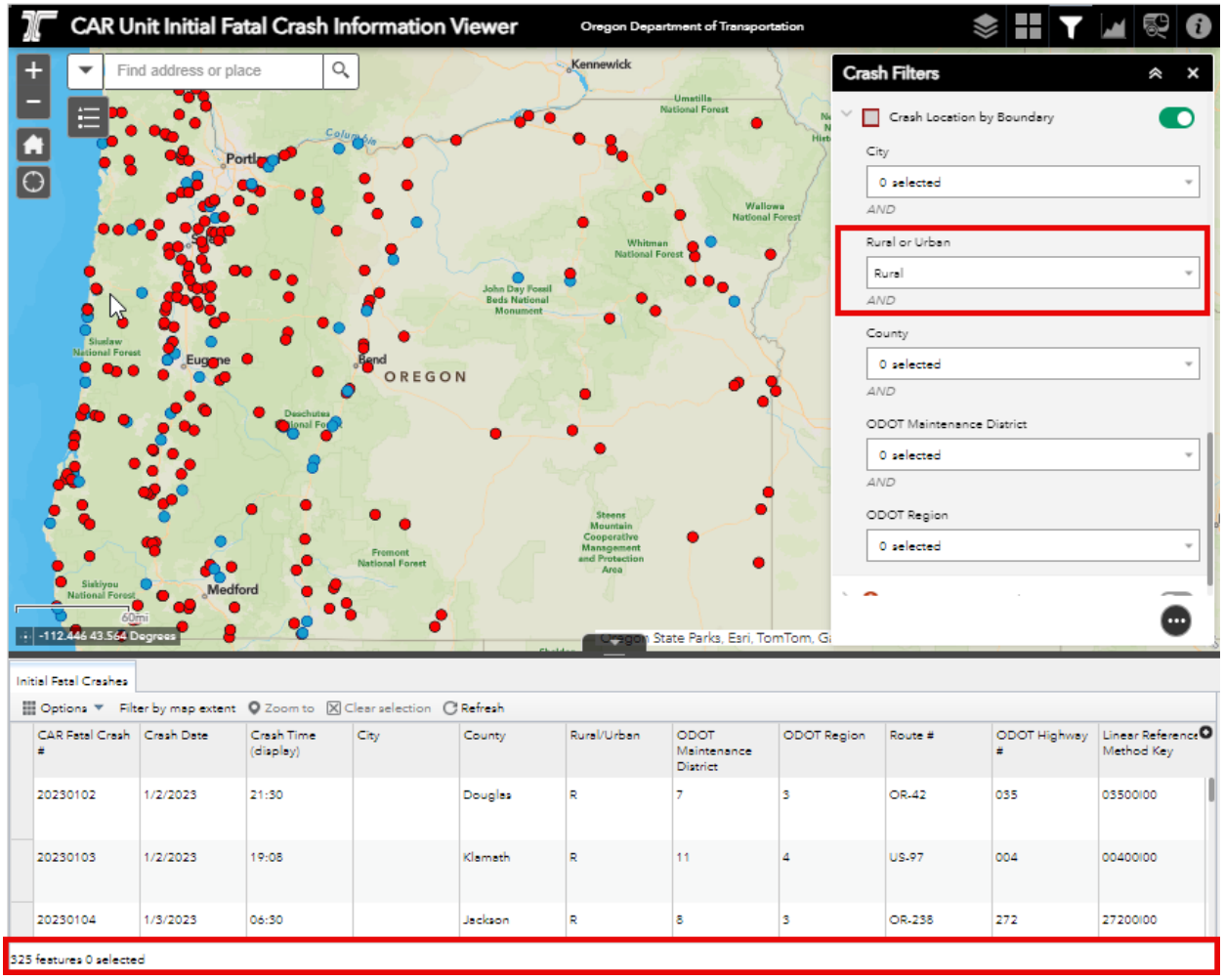


Figure 71 The Rural Filter within the Crash Location by Boundary in the CAR Unit Initial Fatal Crash Information Viewer

- **Urban**

After activating the **Urban** option, the map refreshes to present only the crashes that took place in densely populated or metropolitan regions. The map displays dots, each representing a fatal crash in an urban setting. The information listed below the map gives further details about these incidents, such as crash date, time, and specific urban locations such as Portland and Forest Grove, among others. This data is instrumental for urban planners, traffic safety analysts, and local government officials in identifying

patterns, hotspots, and potential areas for safety improvements within city environments. Understanding urban crash data is essential for developing targeted measures to enhance road safety, improve traffic flow, and ultimately protect the well-being of the urban populace.

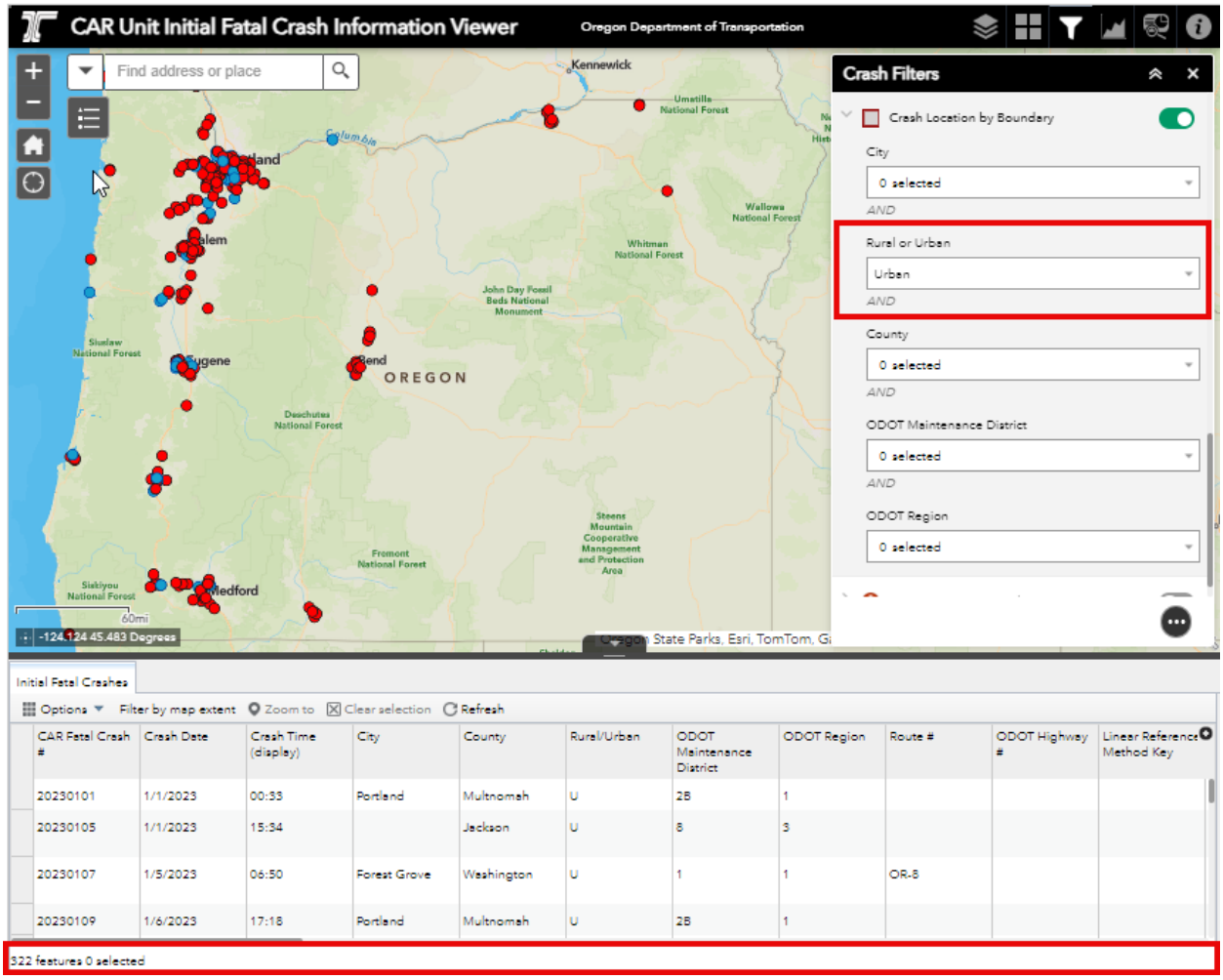


Figure 72 The Urban Filter within the Crash Location by Boundary in the CAR Unit Initial Fatal Crash Information Viewer

County

The **County** filter under the **Crash Location by Boundary** section in the CAR Unit Initial Fatal Crash Information Viewer is a detailed tool for isolating crash data by county within Oregon. You can utilize this filter by selecting from the dropdown menu, which displays a list of Oregon counties, or by typing the name of a county into the search box for a quicker navigation.

In this example, Multnomah has been selected as the county of interest. Once this selection is made, the viewer updates the display to show only the fatal crash points that have occurred within Multnomah County's boundaries, denoted by the dots scattered across the map.

The resulting visualization provides a concentrated view of crash sites within the chosen county, and the information pane at the bottom list specifics about each crash, such as the date, time, and exact location, all within the context of Multnomah County. This filtering option is especially useful for county officials, local safety analysts, and researchers who are focusing on crash patterns, road safety issues, or public health concerns related to vehicular accidents in a specific county. The ability to select multiple counties

would further enable comparative analysis across different regions within the state, contributing to a broader understanding of statewide traffic safety concerns.

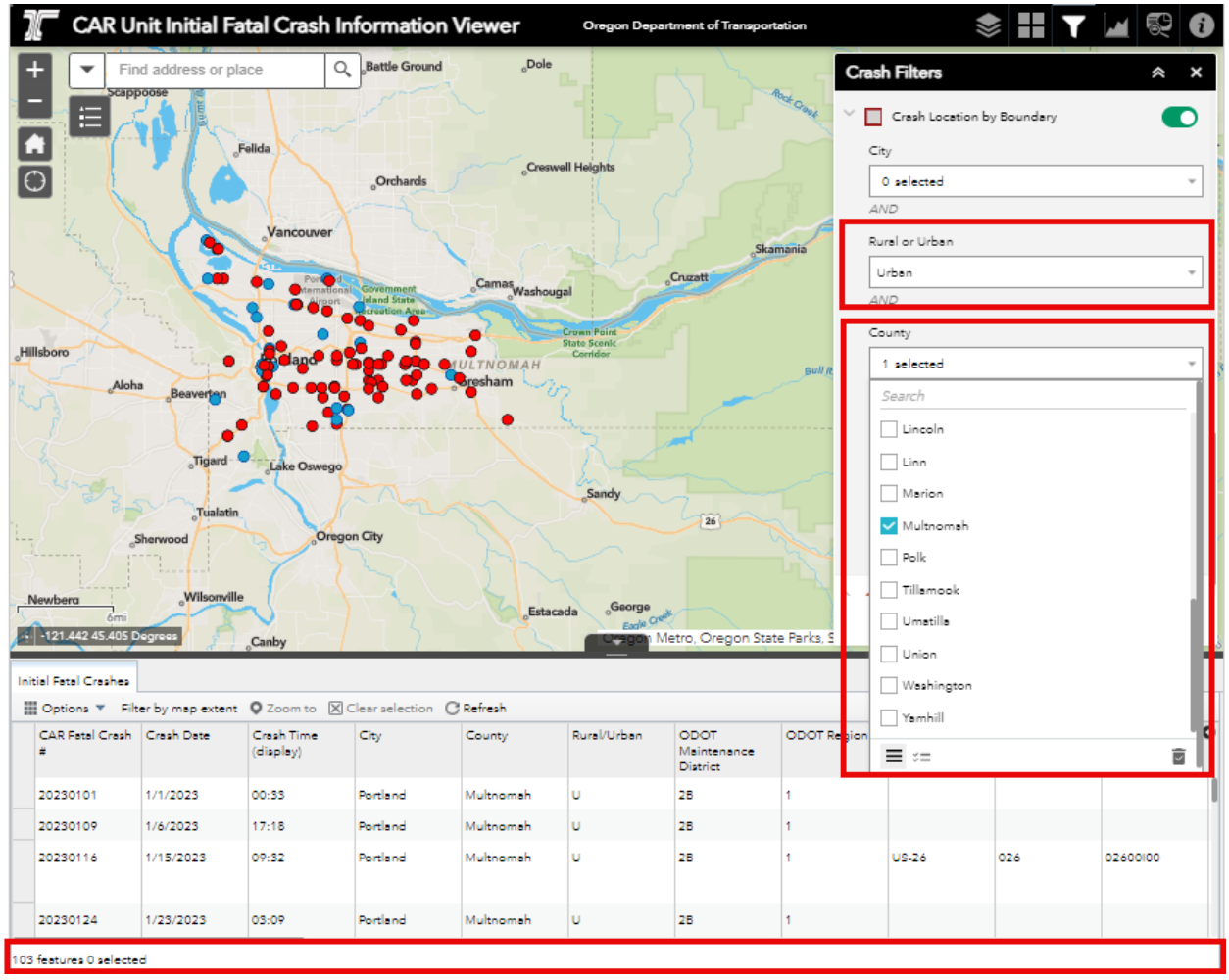


Figure 73 The County Filter within the Crash Location by Boundary in the CAR Unit Initial Fatal Crash Information Viewer

ODOT Maintenance District

The **ODOT Maintenance District** filter under the **Crash Location by Boundary** in the CAR Unit Initial Fatal Crash Information Viewer is designed to allow a focused analysis of crashes within the distinct maintenance districts across Oregon. With a total of 14 maintenance districts available in the dropdown menu, you can select a specific district or multiple districts to tailor the crash data visualization to your study requirements.

In the provided screenshot, Maintenance District 10 has been selected. After applying this filter, the viewer displays fatal crashes that have occurred within the jurisdiction of District 10. The dots on the map represent each individual crash within this district, providing a visual representation of where fatalities have occurred.

Below the map, detailed information regarding each crash in the selected maintenance district is listed, including the date, time, county, and whether the location is rural or urban. This targeted data is crucial for ODOT Maintenance District 10's operations, allowing for an assessment of crash patterns, the identification of high-risk areas, and informing necessary improvements or interventions in road maintenance and safety within the district's purview. The option to select multiple districts can also

enable comparative analysis, offering insights into the effectiveness of road safety measures across different regions.

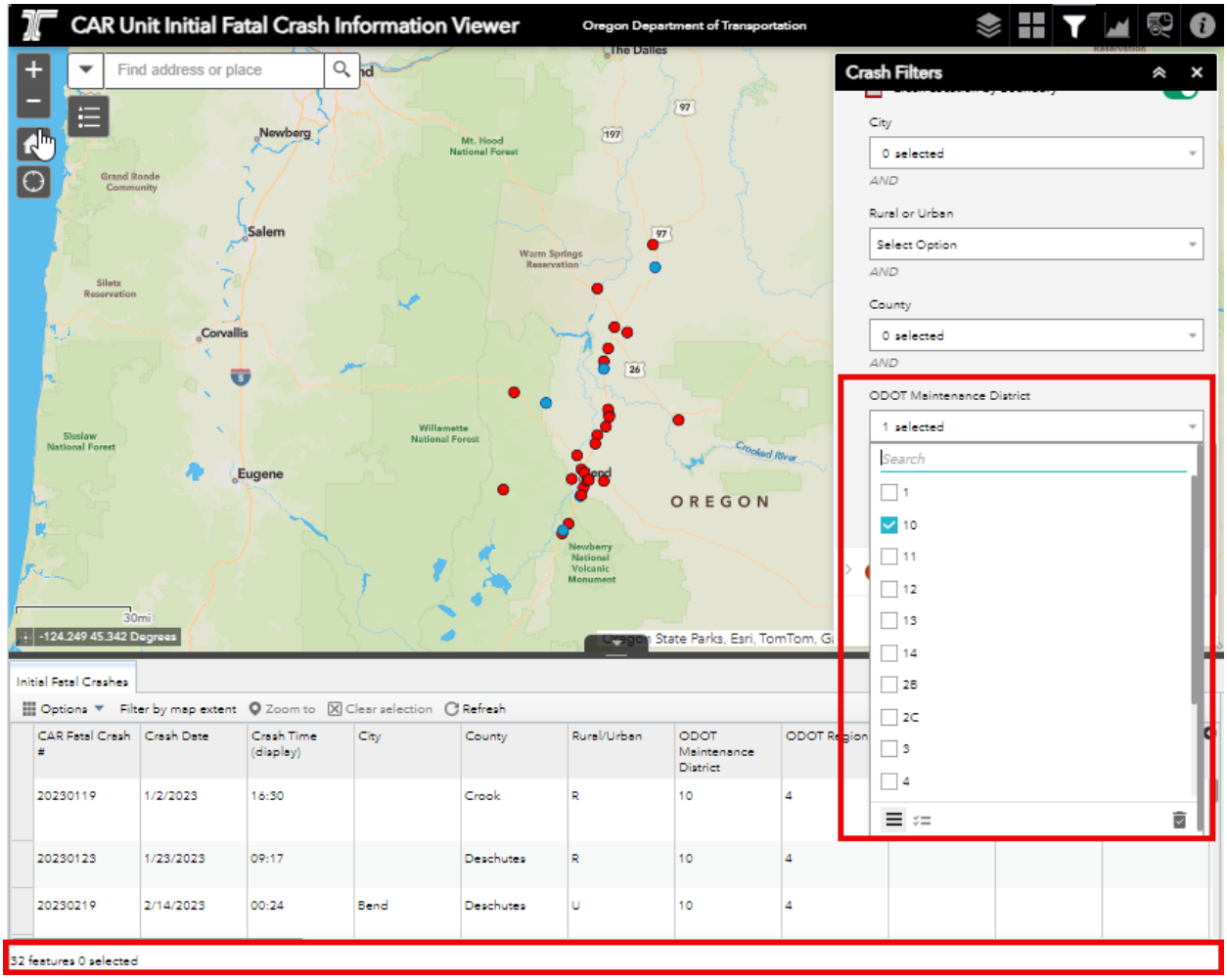


Figure 74 The ODOT Maintenance District Filter within the Crash Location by Boundary in the CAR Unit Initial Fatal Crash Information Viewer

By ODOT Region

The **ODOT Region** filter under the **Crash Location by Boundary** in the CAR Unit Initial Fatal Crash Information Viewer allows you to segment the crash data based on the five administrative regions defined by the Oregon Department of Transportation. Through a dropdown menu, you can select from regions numbered 1 to 5, each corresponding to a specific geographical area of the state. This filter enables you to either focus your analysis on a single region or to compare data across multiple regions, depending on the objectives of your research.

In the provided screenshot, region 3 has been selected. Upon activation of this filter, the map updates to show only the fatal crashes that occurred within the boundaries of ODOT Region 3. This is visualized by the dots on the map. The detailed list below the map includes information such as the crash date, time, city, and county for each incident within this region.

This regional filter is particularly valuable for regional planners, ODOT officials, and traffic safety analysts who need to analyze crash data for resource allocation, road safety assessments, and infrastructure planning specific to ODOT Region 3. It is a critical tool for understanding the regional nuances of road safety and for developing targeted interventions to reduce fatal crashes.

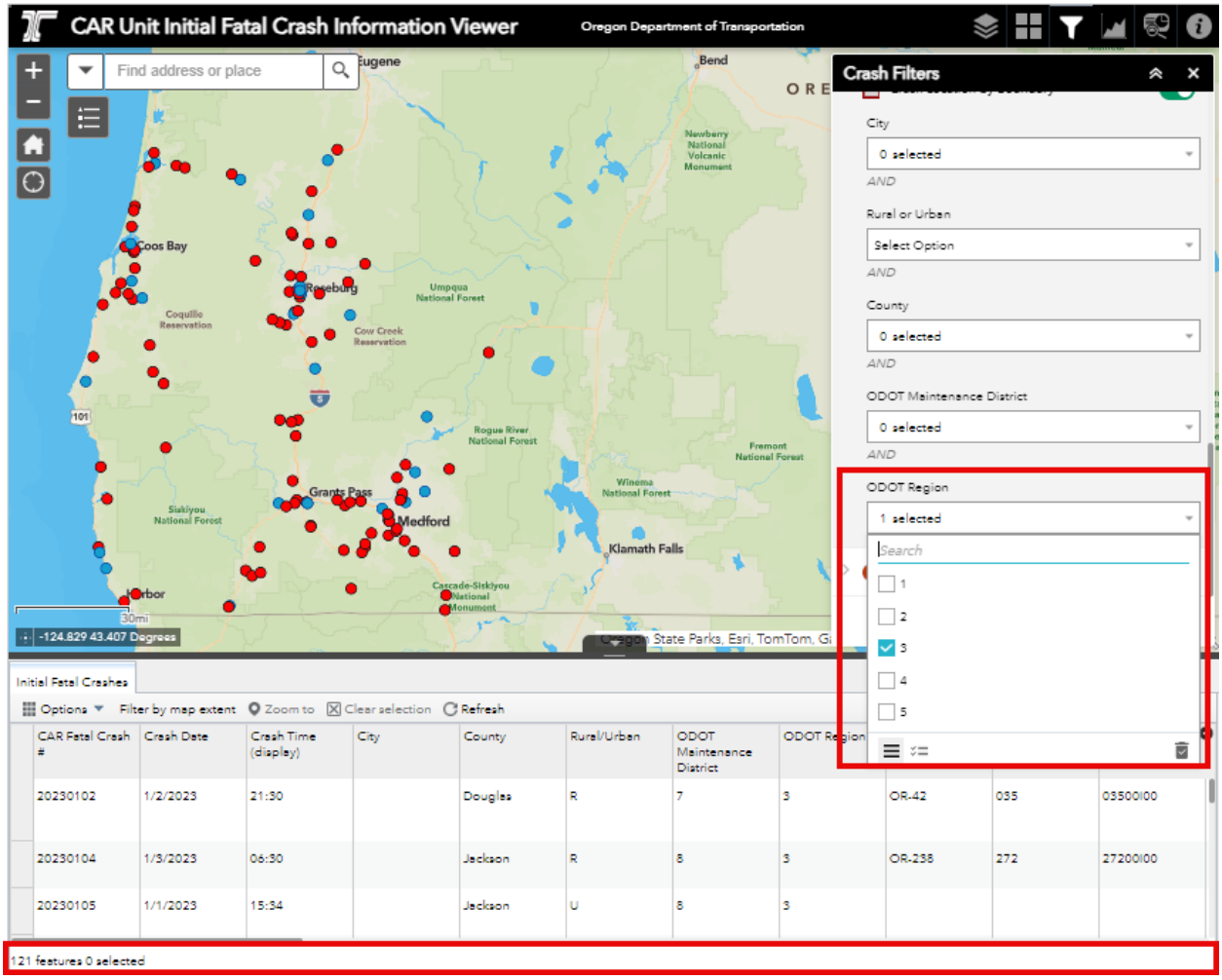


Figure 75 The ODOT Region Filter within the Crash Location by Boundary in the CAR Unit Initial Fatal Crash Information Viewer

ID, Agency, Cases and Reports

The **ID, Agency, Cases, and Reports** of the Crash Filters in the CAR Unit Initial Fatal Crash Information Viewer provide detailed options for sifting through crash data. To activate this filter, you need to toggle the button on the right. With these filters, one can narrow down searches based on specific identifiers and reporting agencies involved in fatal crashes. The CAR Fatal Crash # filter allows users to search for crashes using the unique number assigned to each incident. Reporting Agency can be used to view crashes reported by law enforcement agencies. For further specificity, Agency Case # gives the option to input or select the case number as assigned by the reporting agency. Moreover, there is a filter for Police Crash Report Received by CAR to see which reports have been formally logged in the system, and the DMV # filter refers to a reference number assigned by the Department of Motor Vehicles. These filters are designed to allow both individual and multiple selections, enhancing the tool's flexibility and making it easier for users to find the exact information they need.

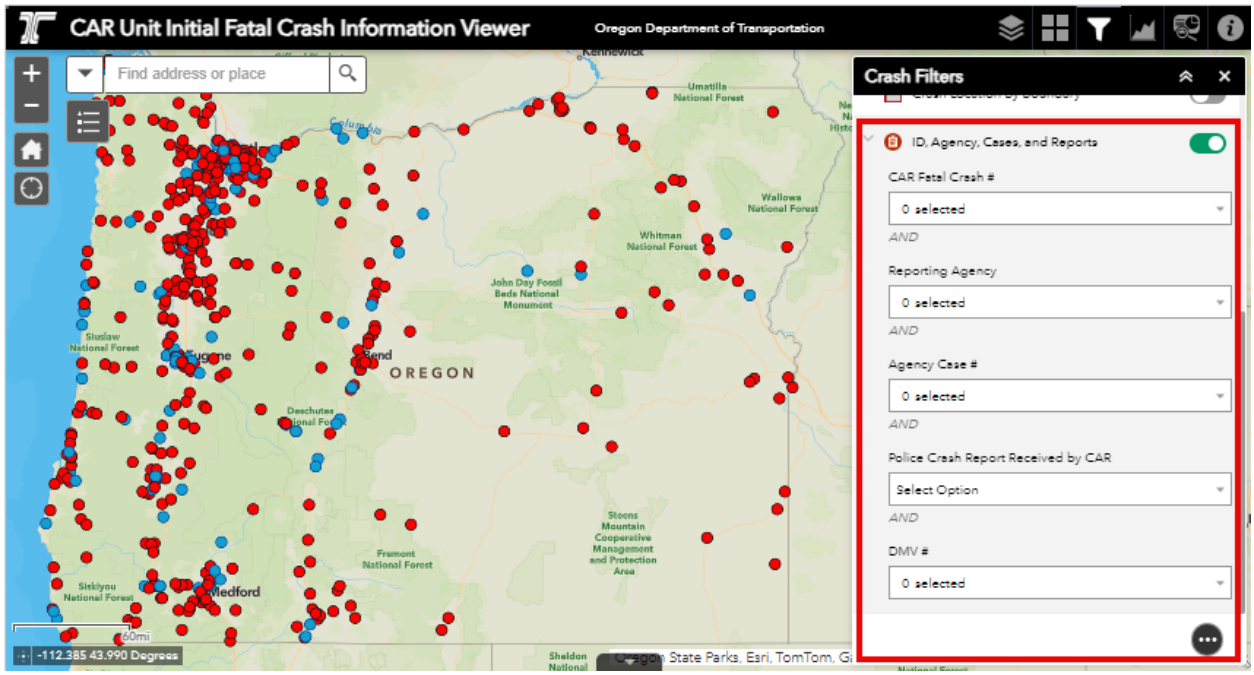


Figure 76 The ID, Agency, Cases, and Reports of the Crash Filters in the CAR Unit Initial Fatal Crash Information Viewer

CAR Fatal Crash

The **CAR Fatal Crash #** filter within the **ID, Agency, Cases, and Reports** section of the Crash Filters in the CAR Unit Initial Fatal Crash Information Viewer allows users to select from a dropdown menu specific fatal crash incidents to view in more detail. Each entry in the dropdown corresponds to a unique identification number assigned to a fatal crash. For instance, in the provided screenshot, the CAR Fatal Crash number 20230101 has been selected. This selection process enables users to filter and display only the data related to a particular crash, making it easier to analyze or report on individual incidents within the larger set of crash data collected by the system. The tool appears to provide a detailed and focused approach to reviewing and managing crash reports in the viewer.

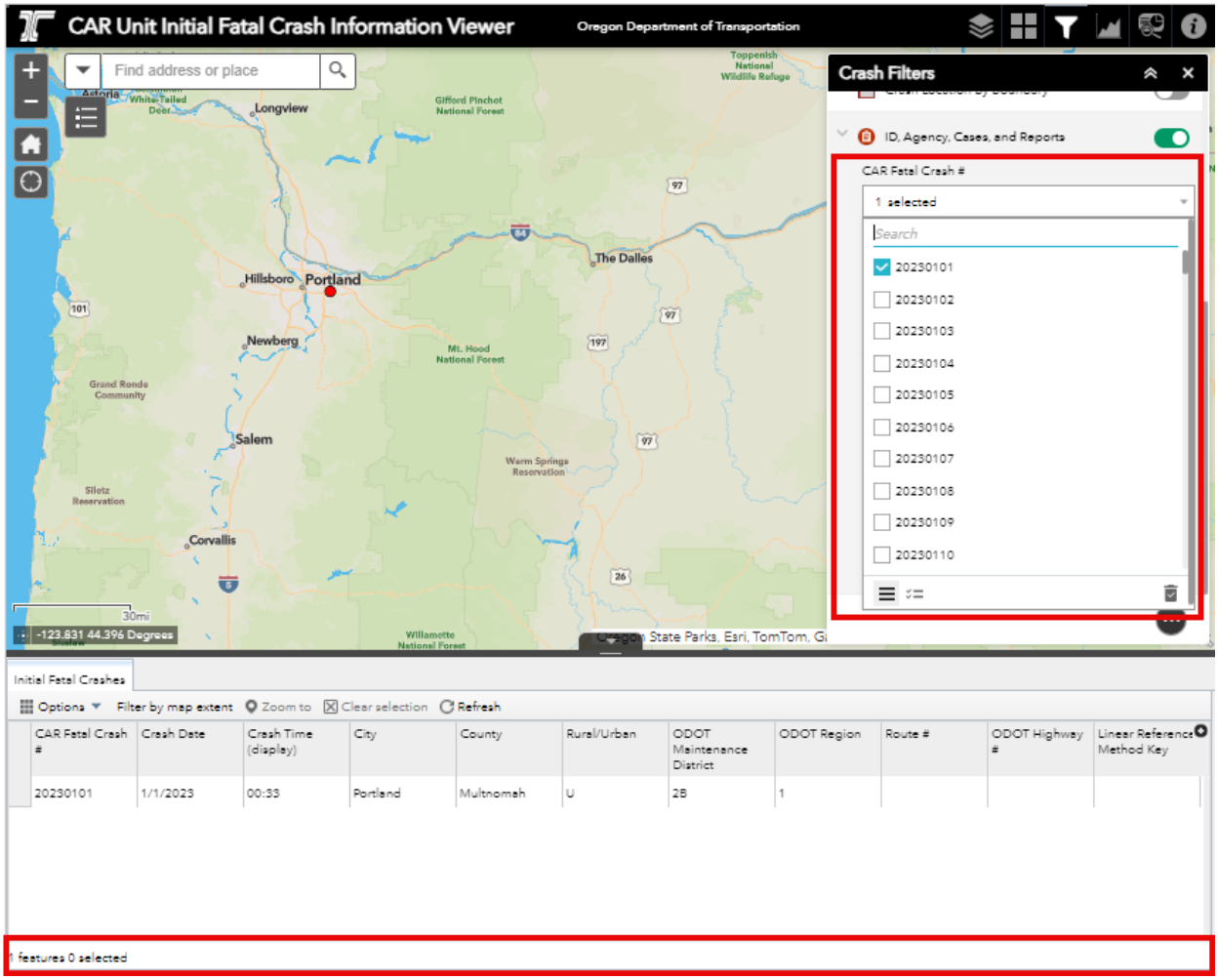


Figure 77 The CAR Fatal Crash # Filter within the ID, Agency, Cases, and Reports section of the Crash Filters in the CAR Unit Initial Fatal Crash Information Viewer

Reporting Agency

The **Reporting Agency** filter under the **ID, Agency, Cases, and Reports** section of the CAR Unit Initial Fatal Crash Information Viewer is a tool that allows users to refine their search for crash data based on the agency that reported the incident. The dropdown list includes various reporting agencies in Oregon, and users can select one or multiple agencies according to their information needs. In the provided screenshot, the "ALBANY OSP" agency has been selected as the reporting body. Consequently, the data displayed corresponds to the fatal crashes reported by the Albany Office of State Police. The results filtered by these criteria show details such as the CAR Fatal Crash number, the date and time of the crash, along with location information including the city, county, and whether the area is classified as rural or urban.

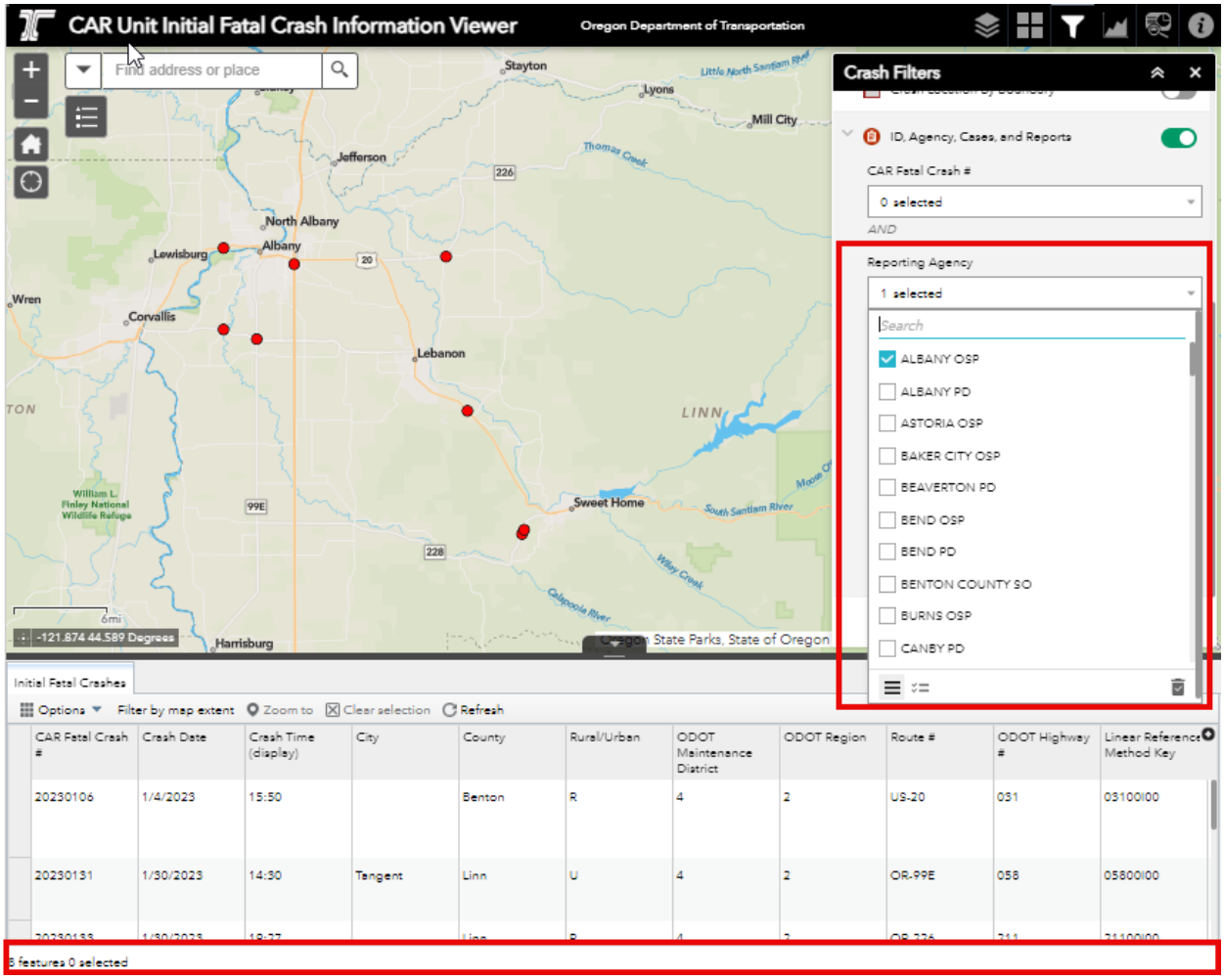


Figure 78 The Reporting Agency Filter under the ID, Agency, Cases, and Reports of the CAR Unit Initial Fatal Crash Information Viewer

Agency Case

The **Agency Case #** section under **ID, Agency, Cases, and Reports** in the CAR Unit Initial Fatal Crash Information Viewer is a search filter that allows users to look up specific fatal crash incidents based on the case numbers assigned by reporting agencies. The dropdown menu provides a list of unique case numbers, from which a user can select one or more to obtain detailed information about crashes. In the screenshot provided, the case number “23-21198” has been selected. After applying this filter, the tool displays the relevant information for the chosen case number, which includes details such as the CAR Fatal Crash number, the crash date and time, and location details like the county and whether the area is designated as rural or urban. The example shows the crash occurred in Clackamas County and is categorized as urban within the maintenance district 2B of ODOT Region 1.

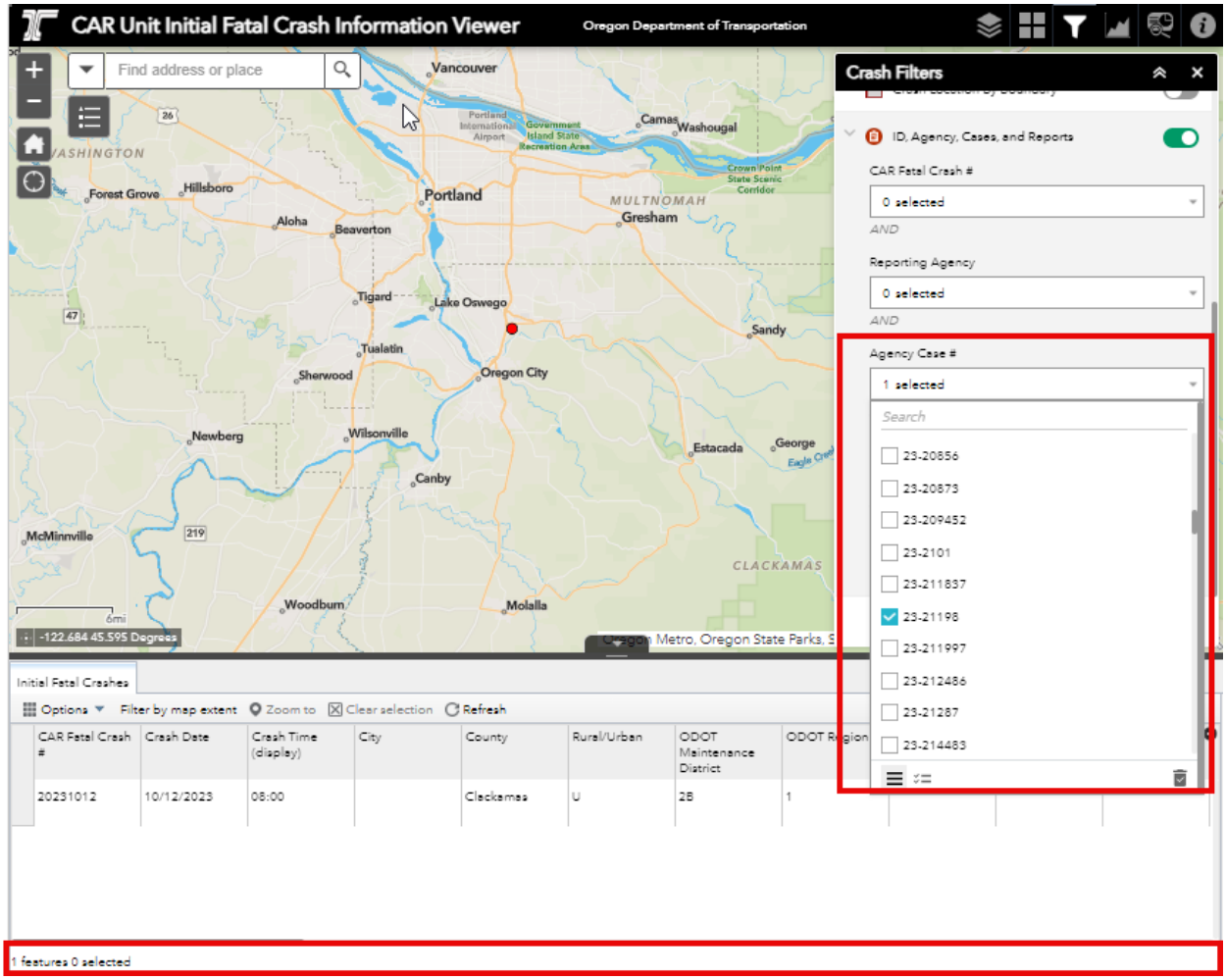


Figure 79 The Agency Case # section under ID, Agency, Cases, and Reports in the CAR Unit Initial Fatal Crash Information Viewer

Police Crash Report Received by CAR

In the **ID, Agency, Cases, and Reports** section of the CAR Unit Initial Fatal Crash Information Viewer, the **Police Crash Report Received by CAR** filter provides options to refine search results based on the status of the crash report's reception by the Crash Analysis Reporting Unit. The dropdown list offers two options: 'Received' and 'Not Received.' This allows users to filter the crash data according to whether the CAR Unit has or has not received a report from the police for a specific crash.

Selecting 'Not Received' will show all the fatal crashes for which the CAR Unit has yet to obtain a police report. This feature is particularly useful for identifying cases that are pending documentation or for follow-ups required in the reporting process.

In the example provided, the filter "Not Received" was selected for Police Crash Report Received by CAR. The resulting display shows all the initial fatal crash locations that lack a police report in the CAR system, as depicted by the points on the map. These data points are crucial for administrative and analytical purposes, allowing for the tracking of reporting completeness and identifying any gaps in the crash data collection process.

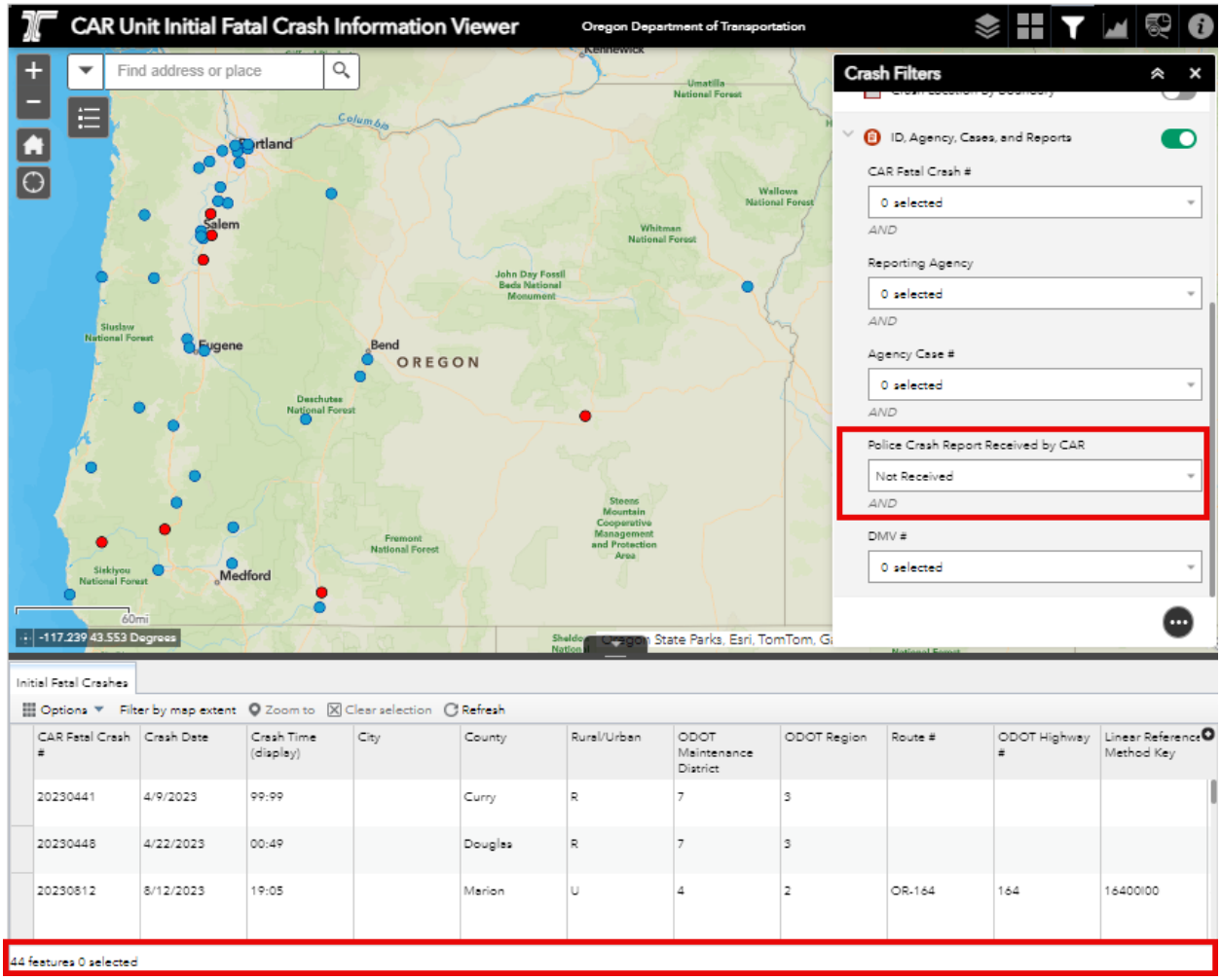


Figure 80 The Police Crash Report Received by CAR Filter under the ID, Agency, Cases, and Reports of the CAR Unit Initial Fatal Crash Information Viewer

DMV#

The **DMV #** filter under the **ID, Agency, Cases, and Reports** category in the CAR Unit Initial Fatal Crash Information Viewer provides a mechanism to query fatal crash data using the Department of Motor Vehicles (DMV) number associated with each incident. The dropdown menu allows users to select from a comprehensive list of DMV numbers, enabling them to focus on specific cases or examine multiple cases simultaneously, depending on their research requirements. In the example provided in the screenshot, the DMV number “02-00001” has been chosen. The selection returns corresponding crash details, which include the CAR Fatal Crash number, along with the date, time, and location of the crash, providing critical data for further analysis or reporting purposes.

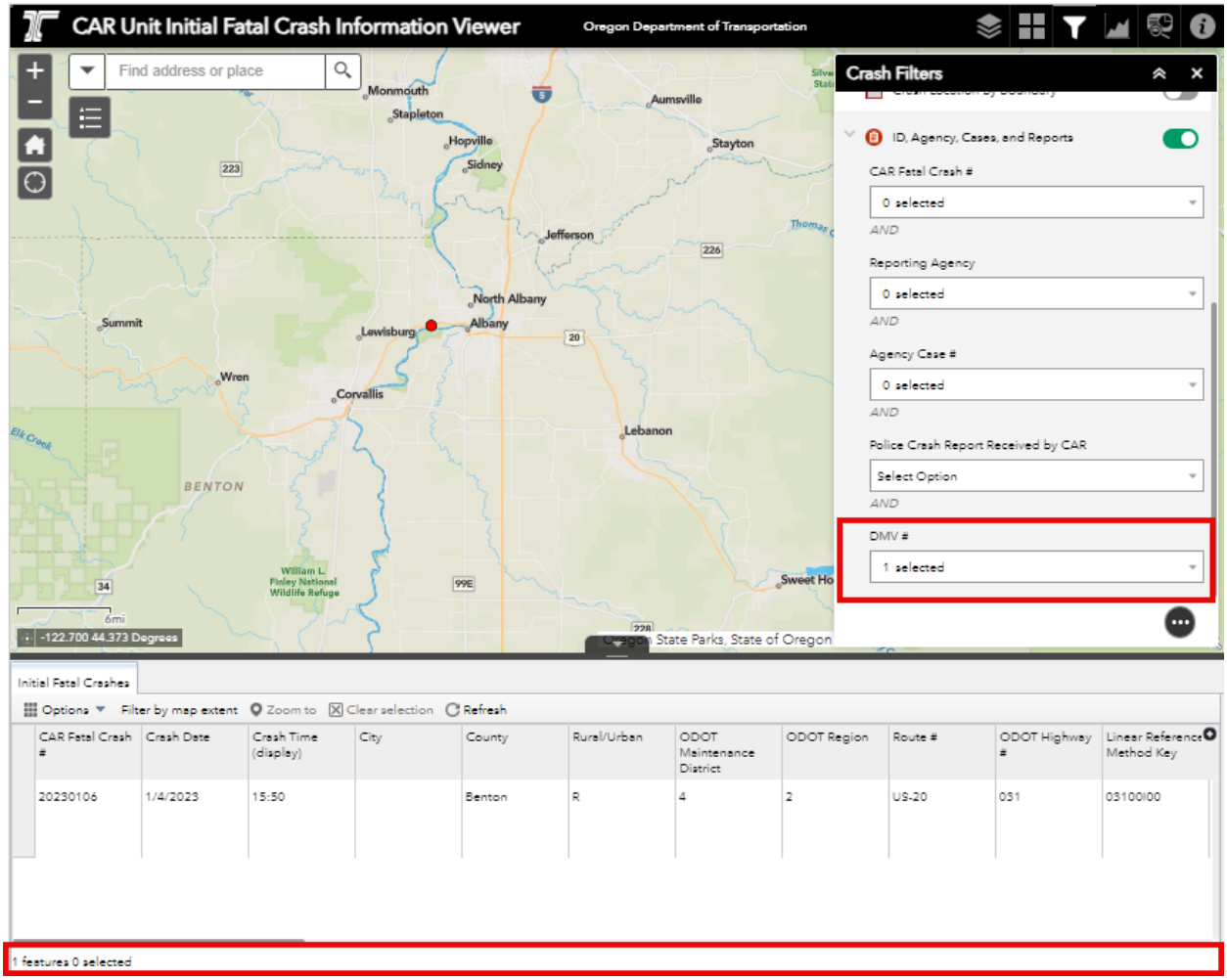


Figure 81 The DMV # Filter under the ID, Agency, Cases, and Reports category in the CAR Unit Initial Fatal Crash Information Viewer

Crash Chart

The Crash Charts feature in the CAR Unit Initial Fatal Crash Information Viewer offers a dynamic way for you to explore crash data through a variety of filters. You can generate detailed charts by selecting options like Crashes by Crash Date, Reporting Agency, ODOT Highway #, Route #, Rural/Urban, City, County, ODOT Maintenance District, or ODOT Region.

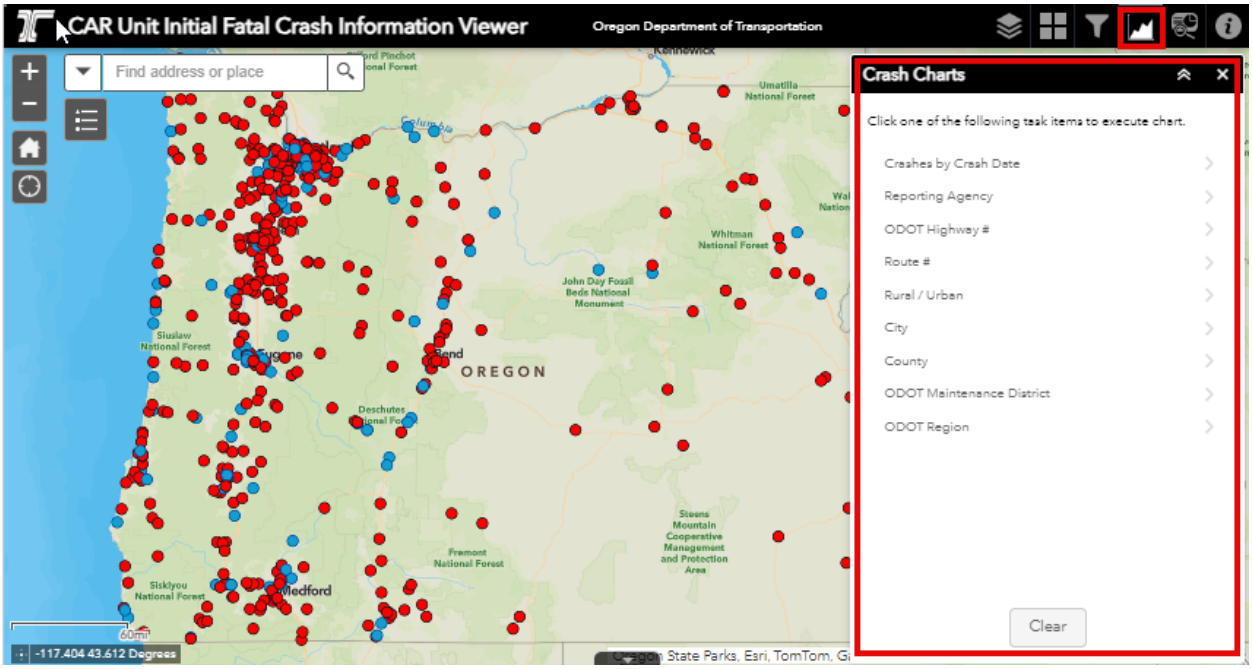


Figure 82 The Interface for Crash Charts Features in the CAR Unit Initial Fatal Crash Information Viewer

Moreover, the Crash Charts function includes spatial filtering options to refine the data according to geographical parameters. The **Use spatial filter to limit features** checkbox, when activated, enables two radio button options:

Only features intersecting the current map area: This option restricts the chart to show data from crashes that occurred within the area currently displayed on your map. It allows you to focus on a specific geographical segment without the need for defining its perimeters manually.

Only features intersecting a user-defined area: This option within the Crash Charts allows you to draw and define a specific area on the map for which you want to analyze crash data. Here's what each tool does:

- **Point:** You can mark a specific location on the map.
- **Line:** This allows you to draw straight lines between two points.
- **Polyline:** With this tool, you can create a connected series of line segments.
- **Freehand Polyline:** This gives you the freedom to draw lines in any shape or direction by clicking and dragging your cursor.
- **Triangle:** You can create a triangular shaped area with three sides.
- **Extent:** This tool lets you draw a rectangular area by defining its extent.
- **Circle:** You can draw a circular area centered around a point that you choose.
- **Ellipse:** This tool allows you to create an elliptical shaped area.
- **Polygon:** With the polygon tool, you can construct a multi-sided shape that can have any number of sides.

- **Freehand Polygon:** This gives you the flexibility to draw a polygon in any shape freely by clicking and dragging your cursor.

There's a clear option, represented by a Recycle Bin symbol, to reset the selection you've made with any of these tools. Additionally, there's a "Clear" button at the bottom which clears all selections, allowing you to start over from scratch. These tools provide a robust set of options for customizing the spatial parameters of your crash data analysis.

These spatial filtering features enhance your ability to perform concentrated analyses based on location criteria that you define, enabling a precise understanding of crash trends and patterns, vital for targeted planning, safety assessments, and policymaking.

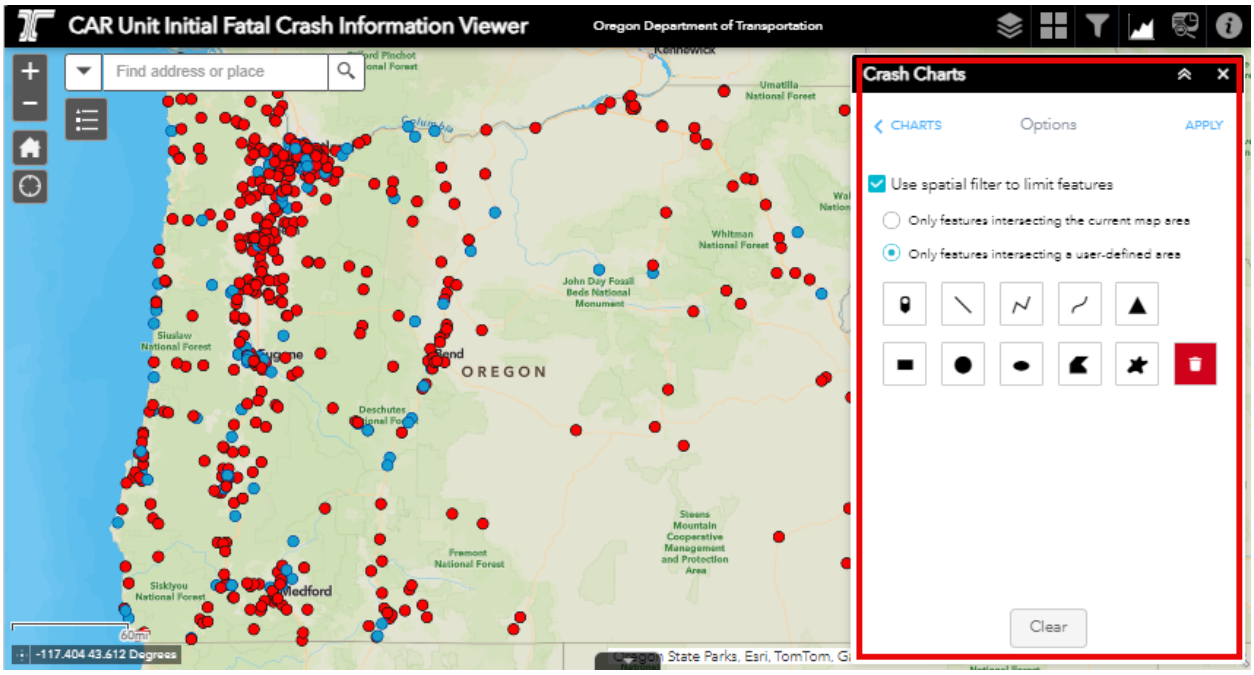


Figure 83 The Selection Options for Initial Fatal Crash Charts by Different Selection Tools using Features Intersecting a User Defined Area

Crashes by Crash Date

- **Only features intersecting the current map area:**

In the CAR Unit Initial Fatal Crash Information Viewer, the **Crashes by Crash Date** feature under **Crash Chart** provides a detailed temporal analysis of crash incidents. To start, you can use the Map Extent to zoom out and view the entire state of Oregon or zoom in to focus on a specific area of interest. The **Crashes by Crash Date** feature includes the "Use spatial filter to limit features" checkbox. When you select this checkbox, it unveils two radio button options. By choosing "Only features intersecting the current map area" and clicking the APPLY button, the map highlights all the crash points within the area you are viewing. Concurrently, a bar chart appears on the right side of the screen.

This bar chart visualizes the timeline of initial fatal crashes along the x-axis and the number of crashes on each date along the y-axis. There is a slicer on top of the chart, which you can slide left or right to adjust the date range and focus on a shorter or longer time-period. This interactivity allows you to dissect the crash data within the confines of the selected map area, offering an immediate and visual representation of crash frequency over time within the defined region.

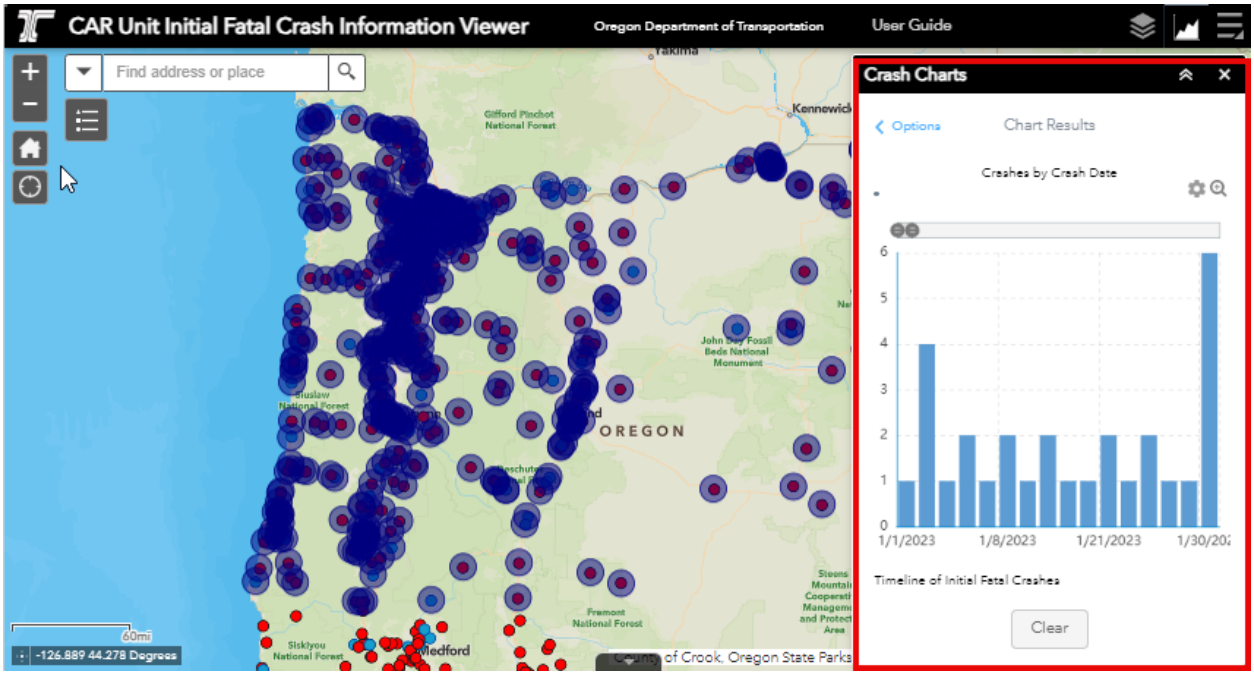


Figure 84 The Timeline of Initial Fatal Crashes in Chart by Crash Date with Features Intersecting the Current Map Area

The Chart Results for **Crashes by Crash Date** come with features such as Setting and Enlarge. You can expand the chart to a full view by clicking on the magnifying glass icon located on the right side. Once enlarged, the chart maintains the same functionalities, including the slicer and settings.

Using the Settings option, you can customize the chart's display. It allows you to toggle the Horizontal axis and Vertical axis on or off, depending on your preference for data representation. Additionally, you have the choice to colorize the chart, selecting from a palette to differentiate the data visually.

When you hover your mouse over each bar on the chart, a tooltip appears, providing the exact number of crashes and the corresponding date. This feature makes it easy to identify specific data points without having to consult the underlying dataset directly.

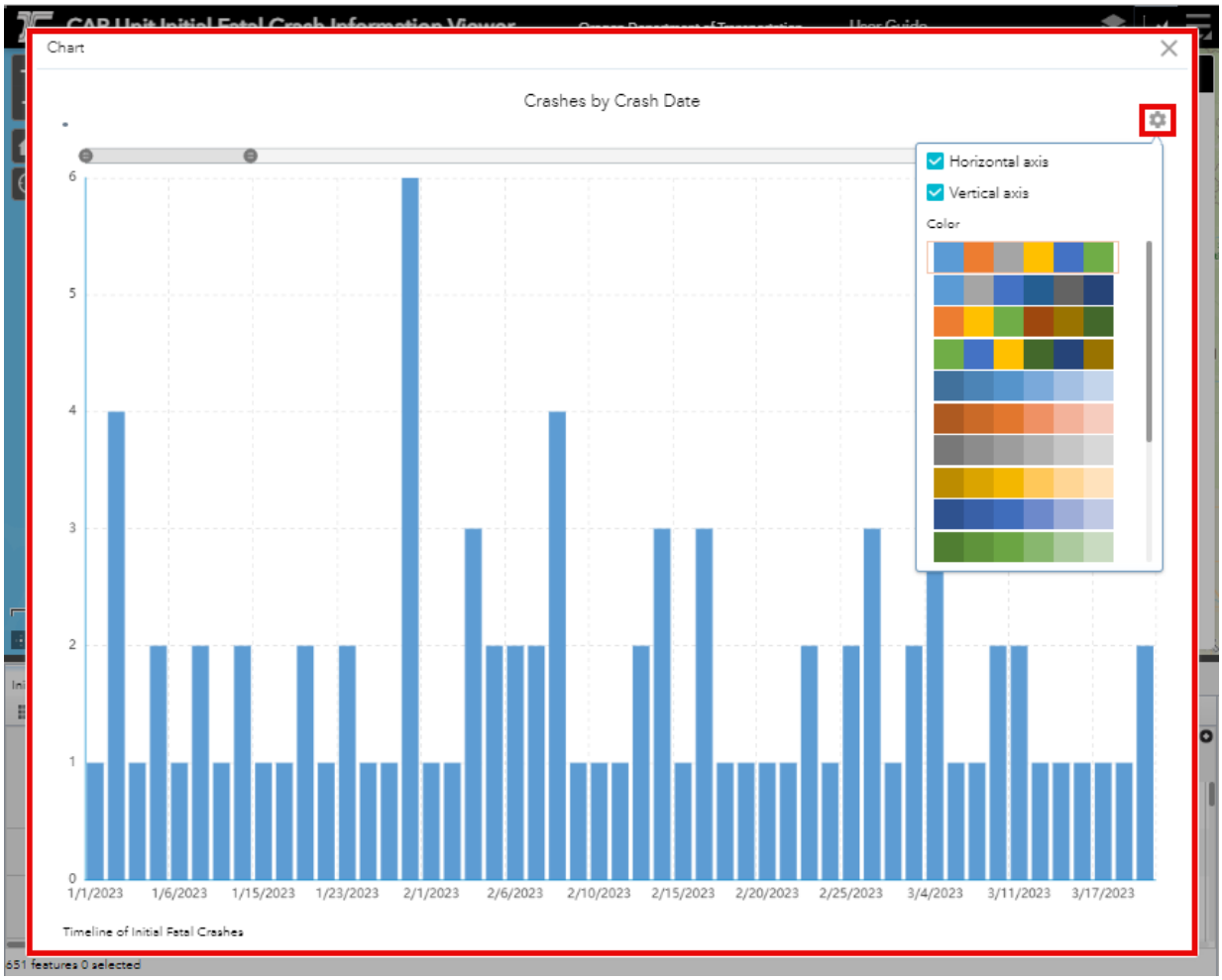


Figure 85 The Timeline of Initial Fatal Crashes in Chart by Crash Date Shown in Enlarged View with Features Intersecting the Current Map Area

- **Only features intersecting a user-defined area:**

In the attached screenshot, the Polygon tool has been utilized to define a specific search area within the CAR Unit Initial Fatal Crash Information Viewer. This tool is instrumental for conducting spatially focused crash data analysis within the polygonal area drawn on the map.

To use the Polygon tool in the crash viewer, first, you would click on the icon that depicts a multi-sided shape. Once selected, the cursor changes to indicate that you can begin drawing on the map. By clicking to plot points on the map, you can outline the specific area encompassing the crash points you wish to analyze. To complete the shape and define your area, a double-click will solidify the polygon's perimeter.

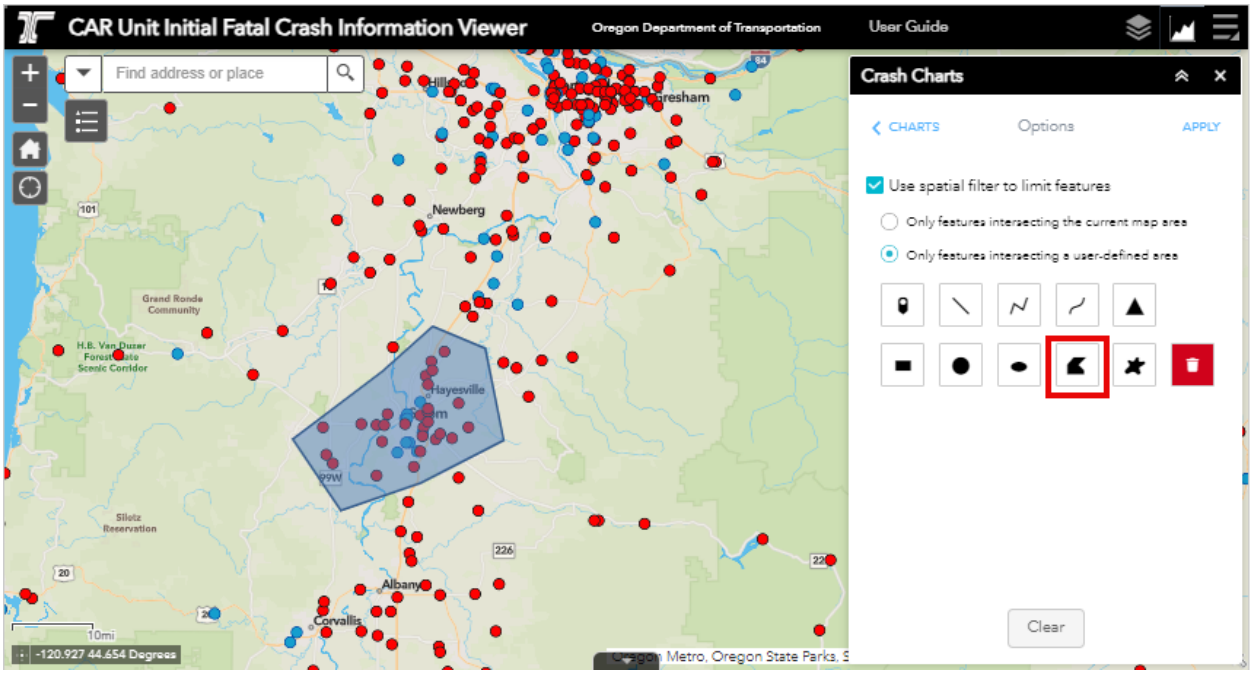


Figure 86 The Selection of Initial Fatal Crashes by Polygon Tool in Features Intersecting a User Defined Area

If the selection does not accurately capture the desired area, you can easily reset and start anew by clicking the recycle bin symbol, which clears the current selection. When satisfied with the defined polygon, clicking “APPLY” will execute the filter, and the system will generate a chart reflecting crash points highlighted by circular markers within the parameters of the user-defined polygonal area. On the right side of the screen, there is a bar chart titled “Crashes by Crash Date,” which visualizes the frequency of crashes over time.

As you hover the cursor over each bar in the chart, a tooltip appears, showing the exact number of crashes and the corresponding date. This interactive element provides an immediate connection between the data presented in the chart and the events on the map. When you hover over a bar, the crash points associated with that date are visually emphasized on the map with a square bounding box, allowing for easy cross-reference between the chart and the map locations.

The chart includes additional interactive features, such as the ability to enlarge the view for better visibility and to change the color of the chart elements for a personalized visual experience. These tools enhance the usability of the crash data, making it more accessible and easier to analyze specific trends and patterns.

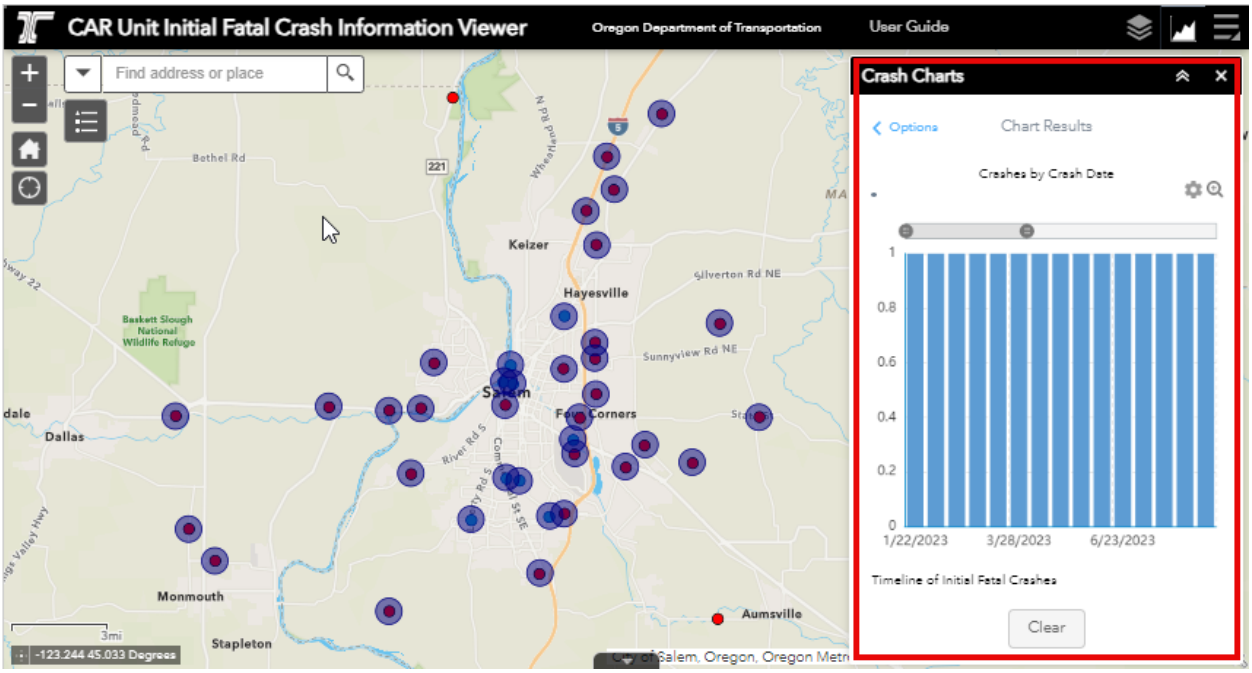


Figure 87 The Timeline of Initial Fatal Crashes in Chart by Crash Date with Features Intersecting with Features Intersecting a User Defined Area

Reporting Agency

- **Only features intersecting the current map area:**

Under the **Crash Charts** section of the CAR Unit Initial Fatal Crash Information Viewer, the **Reporting Agency** feature offers an insightful perspective into the data based on the agencies that have reported the crashes. By using the "Only features intersecting the current map area" option, the viewer filters the data to show only those crashes that have been documented by agencies within the current map view.

In this map extent, the analysis utilized the "Use spatial filter to limit features" option, with "Only features intersecting the current map area" selected. The map displays several crash points across the Salem area, each marked by a circular icon. To the right, a bar chart provides a visual comparison of the number of initial fatal crashes reported by different agencies, with bars representing entities such as Salem PD and Keizer PD. This visualization not only aids in identifying potential hotspots or patterns of incidents but also serves as an indicator of where resources might be needed most or how response strategies could be optimized. With such detailed reporting, stakeholders are equipped to make more informed decisions on enhancing traffic safety and resource allocation.

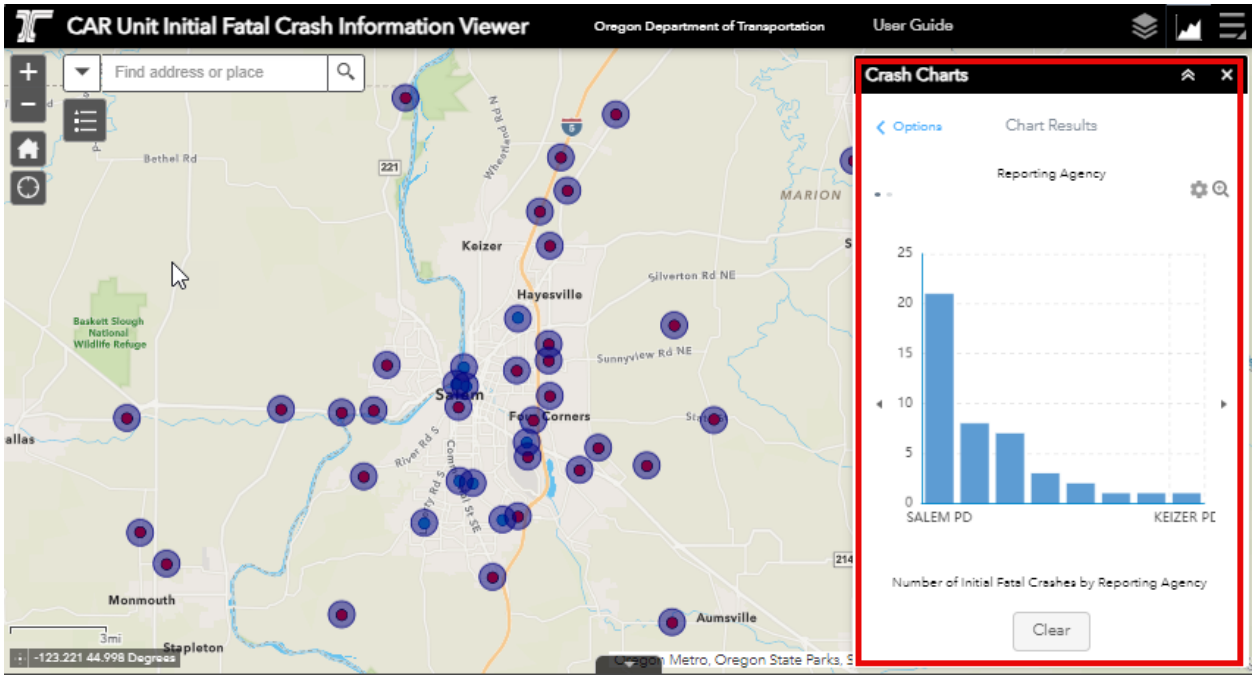


Figure 88 The Number of Initial Fatal Crashes Chart by Reporting Agency with Features Intersecting with Features Intersecting the Current Map Area

In the screenshot, the CAR Unit Initial Fatal Crash Information Viewer presents crash data through a pie chart, giving a clear and immediate visual representation of the proportion of fatal crashes reported by different agencies within the current map area. This pie chart, which can be viewed by navigating through the chart options, illustrates the distribution of reporting responsibility among agencies such as Salem PD, which, in this case, has reported a significant 60% of the crashes.

The pie chart is a particularly effective way to understand the data at a glance, with different colors representing each reporting agency, and the size of each pie slice correlating to the number and percentage of crashes they have reported. This not only highlights which agencies are most frequently dealing with fatal crashes but also helps to understand the relative workload and potential areas of focus for each agency. By enabling the “Only features intersecting the current map area” feature, the chart ensures that the analysis is specifically tailored to the visible area on the map, offering localized insights into crash reporting patterns.

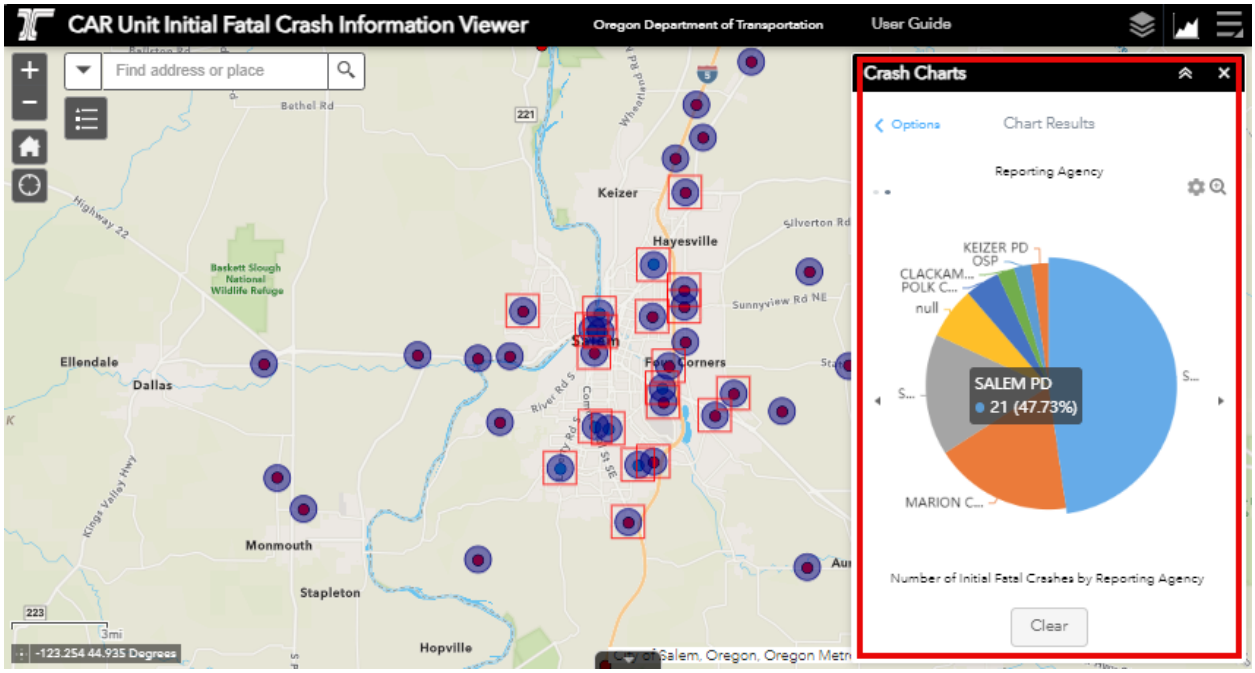


Figure 89 The Number of Initial Fatal Crashes by Reporting Agency in a Pie Chart with Features Intersecting with Features Intersecting the Current Map Area

To analyze specific crash data points by Agency Reporting within a certain area on the CAR Unit Initial Fatal Crash Information Viewer, you can utilize the spatial filter feature. Here's how it works:

1. Click on "Use spatial filter to limit features" to activate the filtering options.
2. Select "Only features intersecting a user-defined area" to enable the drawing tools.
3. Among the drawing tools that appear, click on the Circle icon.
4. Move to the map area where you want to focus your research on crash points. The interface will prompt you with "Click to add a shape and press down to start and let go to finish."
5. Create your circular selection by clicking and holding down where you want the center of the circle, then dragging outwards to the desired radius, and finally, releasing to complete the shape.
6. Click the "APPLY" button to filter the crash data points within your defined circular area.

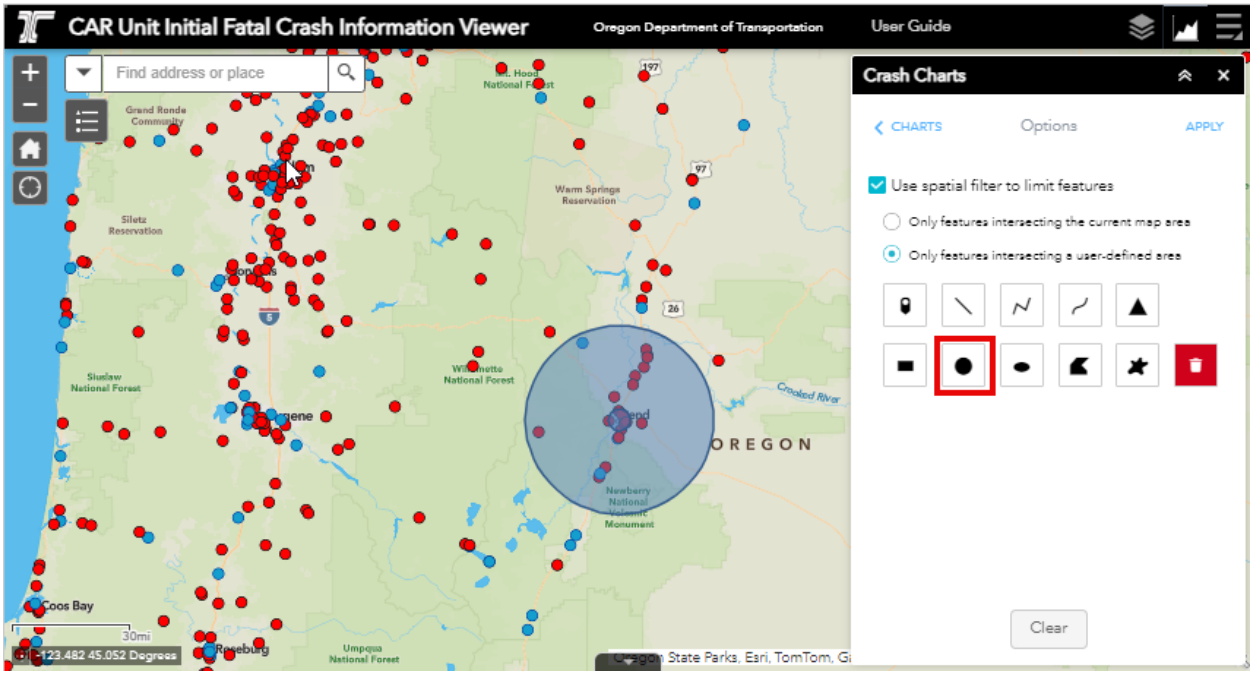


Figure 90 Selecting Area with Circle Tool for Reporting Agency Specific Crash with Features Intersecting a User-Defined Area

Upon applying the filter, as depicted in the below image, the data points that intersect your defined circular area are highlighted. The Crash Charts panel updates to display bar chart with the relevant statistics for the selected region.

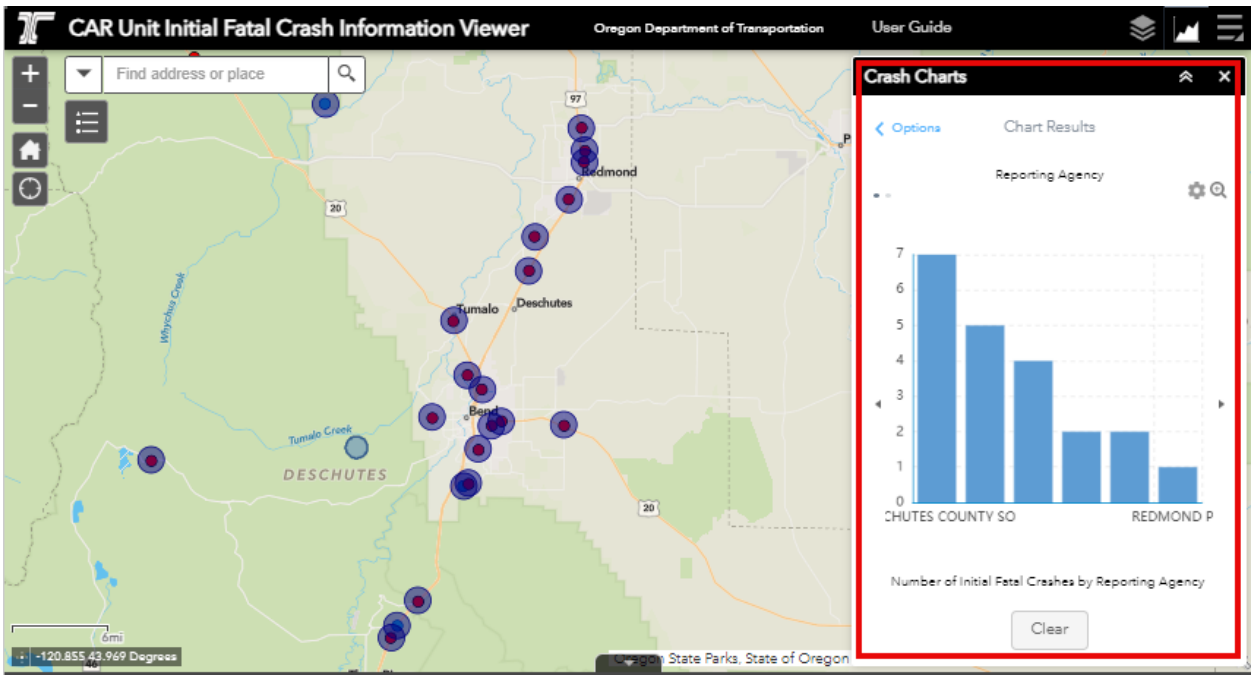


Figure 91 The Number of Initial Fatal Crashes Chart by Reporting Agency using Circle Selection Tool with Features Intersecting the User Defined Map Area

If you click on the Magnifying glass icon, you'll see the chart in a larger view, which is shown in the third image. This chart provides a visual representation of the number of initial fatal crashes by reporting agency. You can customize the appearance of the chart by selecting different colors from the provided

color panel. Hovering over each bar in the chart reveals the specific number of fatal crashes attributed to that agency.

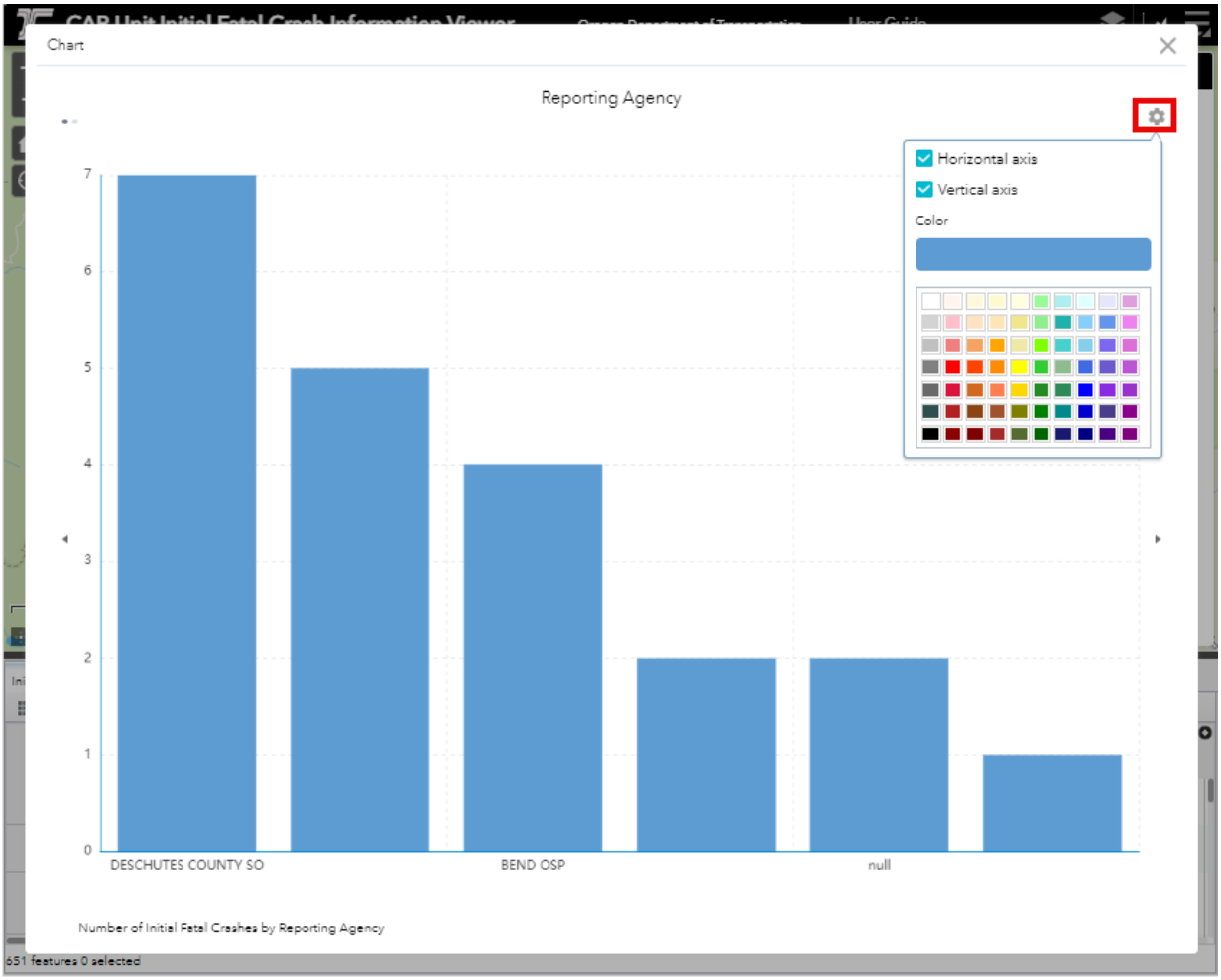


Figure 92 The Number of Initial Fatal Crashes by Reporting Agency in Bar Chart Shown in Enlarged Crash Chart View

Further analysis can be done by navigating through another chart format, which is the pie chart shown in the below image. To bring up the legend, which assists in identifying each agency by color, click on the gear icon on the chart and then check the legend box. By hovering over each segment of the pie, you can see the exact number of crashes for each reporting agency.

Once you have completed your analysis, you can exit the report by clicking on the “X” mark in the Crash Charts panel. This action will close the chart and take you back to the main interface of the CAR Initial Fatal Crash Information Viewer.

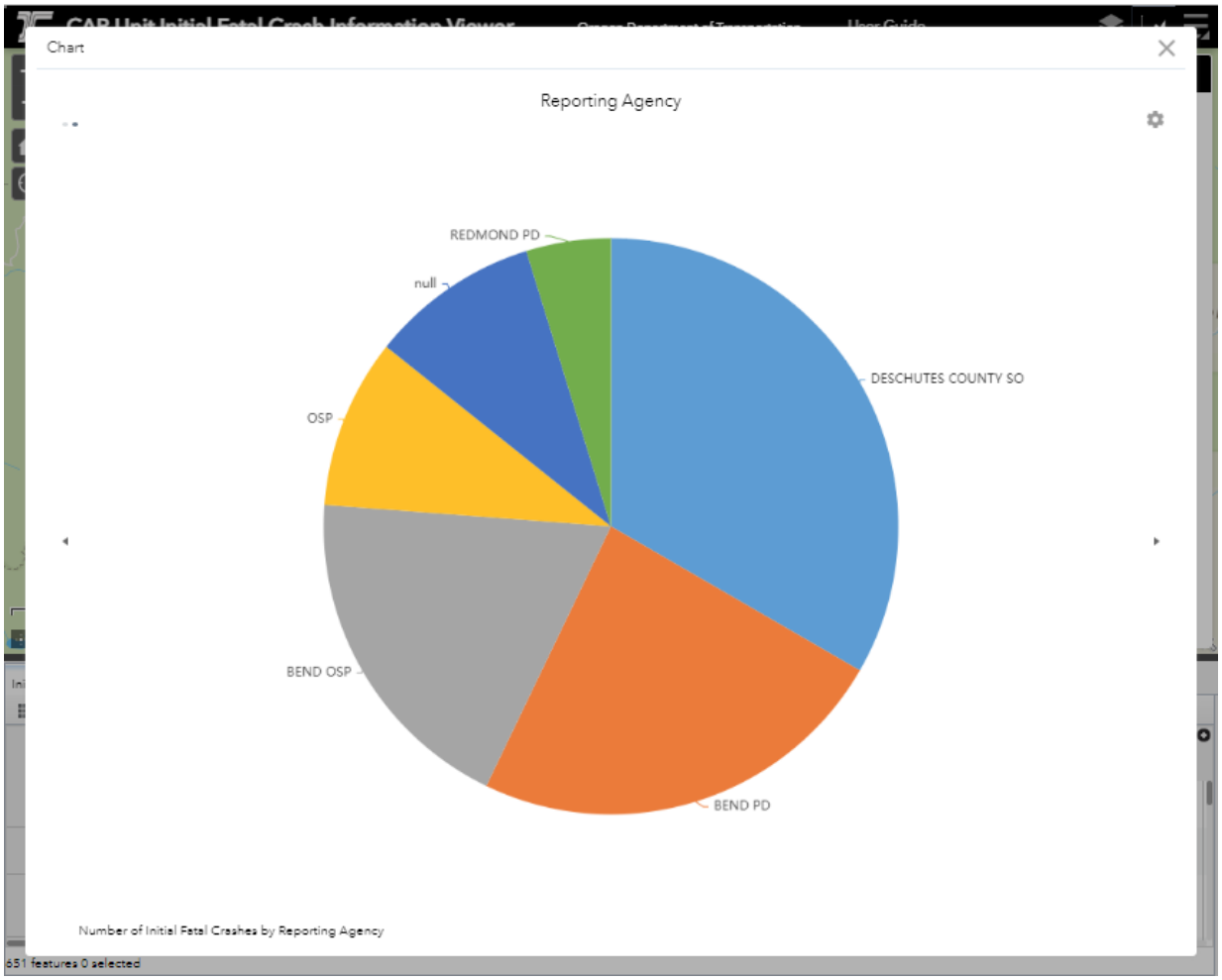


Figure 93 The Number of Initial Fatal Crashes by Reporting Agency in Pie Chart Shown in Enlarged Crash Chart View

ODOT Highway

- **Only features intersecting the current map area:**

To produce a crash chart based on the ODOT Highway numbers, follow these steps:

1. In the Crash Charts panel, begin by clicking on “ODOT Highway #”. This allows the data to be organized according to the highway numbers where the crashes occurred.
2. Activate the spatial filter by selecting the checkbox next to “Use spatial filter to limit features”.
3. Choose the option “Only features intersecting the current map area” to ensure that the data corresponds to the visible area on the map.
4. Adjust the map view by zooming in or out until your area of interest is in view. This step is crucial for focusing the report on a specific location.
5. Click “APPLY” to generate the crash data for the visible area of the map.

After applying the filter, the map will update to display only the crash points that are within the current map area. Simultaneously, the Crash Charts panel will populate with a bar chart correlating to the filtered data. In the example provided, the bar chart shows the number of initial fatal crashes associated with each ODOT Highway number that falls within the selected map area. This visual representation in the form

of a bar chart helps to quickly ascertain which highway numbers have a higher frequency of fatal crashes, with the height of each bar indicating the count of incidents. The numerical values atop each bar give a clear indication of the exact number of fatal crashes for each specific highway, providing a straightforward means to compare and analyze the crash data spatially and numerically.

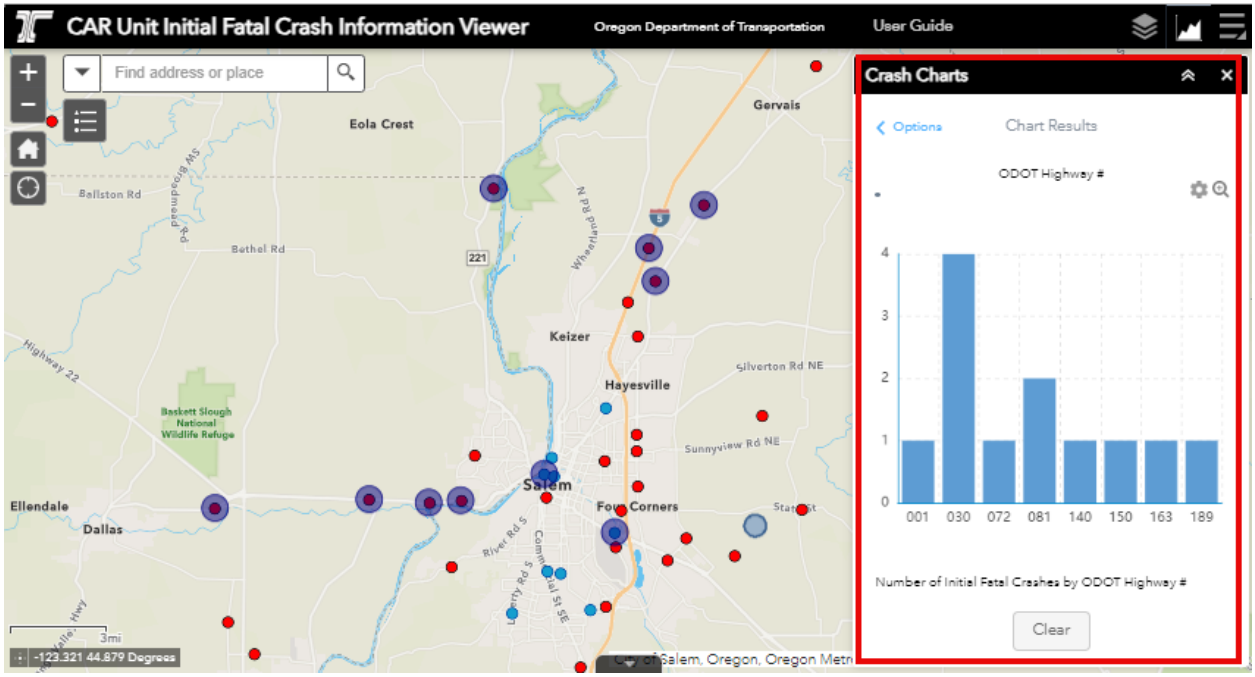


Figure 94 The Number of Initial Fatal Crashes Chart by ODOT Highway Number with Features Intersecting the Current Map Area

- **Only features intersecting a user-defined area:**

To generate a crash chart based on specific Oregon Department of Transportation (ODOT) highway numbers, follow these steps:

1. In the Crash Charts section of the CAR Unit Initial Fatal Crash Information Viewer, click on “ODOT Highway #.”
2. Activate the spatial filter by selecting the checkbox for “Use spatial filter to limit features.”
3. To focus on crashes that you are interested to see, select “Only features intersecting a user-defined area.”
4. Adjust the map to your desired location by zooming in or out to capture the area of interest for your research.
5. Click on the “Extent Tool,” which is one of the feature selection tools available. When you bring the cursor to the map area, it will prompt with “Press down to start and let go to finish.”
6. Use the Extent Tool to draw a box around the area you are interested in by pressing down to start the selection and letting go to finish.
7. Once your area is selected, click “APPLY.”

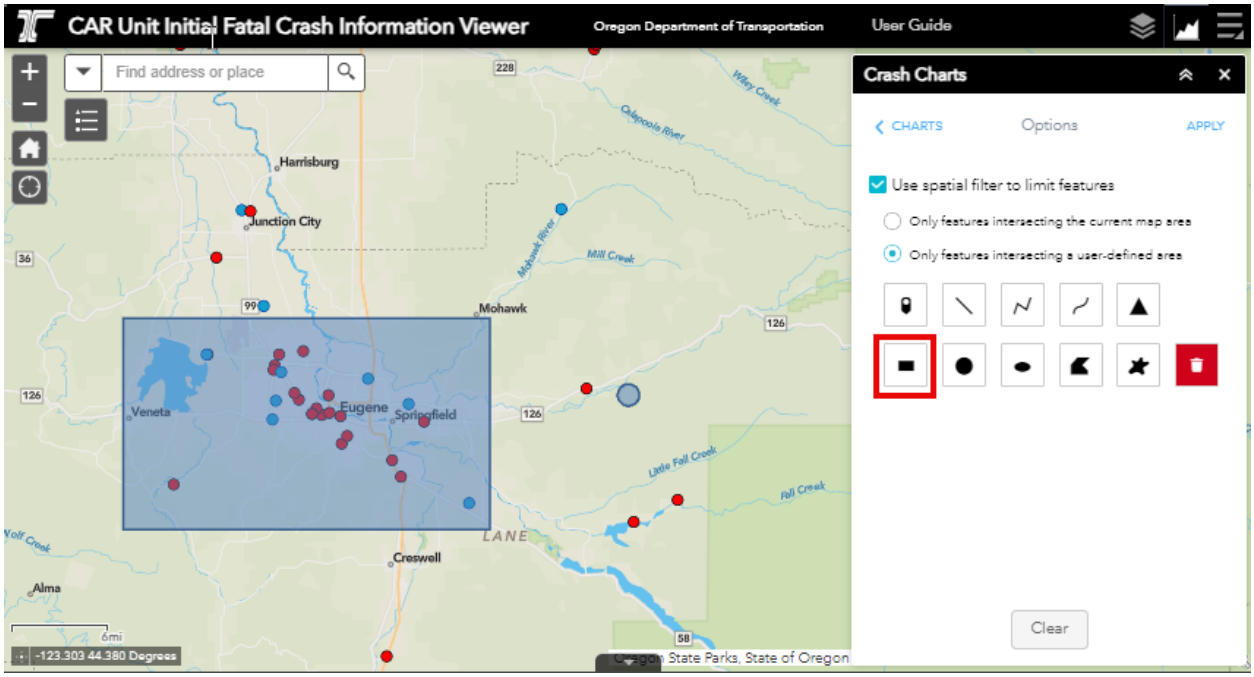


Figure 95 Selecting Area with Extent Tool for ODOT Highway Number Specific Crash with Features Intersecting a User-Defined Area

After clicking the "APPLY" button, the image below will be populated with crash points within the selected area. The bar chart adjacent to the map will display the number of initial fatal crashes categorized by ODOT highway numbers. This chart visualizes the data points on the map, providing a clear and concise representation of where crashes are occurring along specific highway stretches. The chart also allows for easy comparison between different highways within your chosen area.

In this way, the viewer can analyze spatial patterns and trends associated with fatal crashes on ODOT highways, which is essential for traffic safety assessments, planning, and decision-making processes.

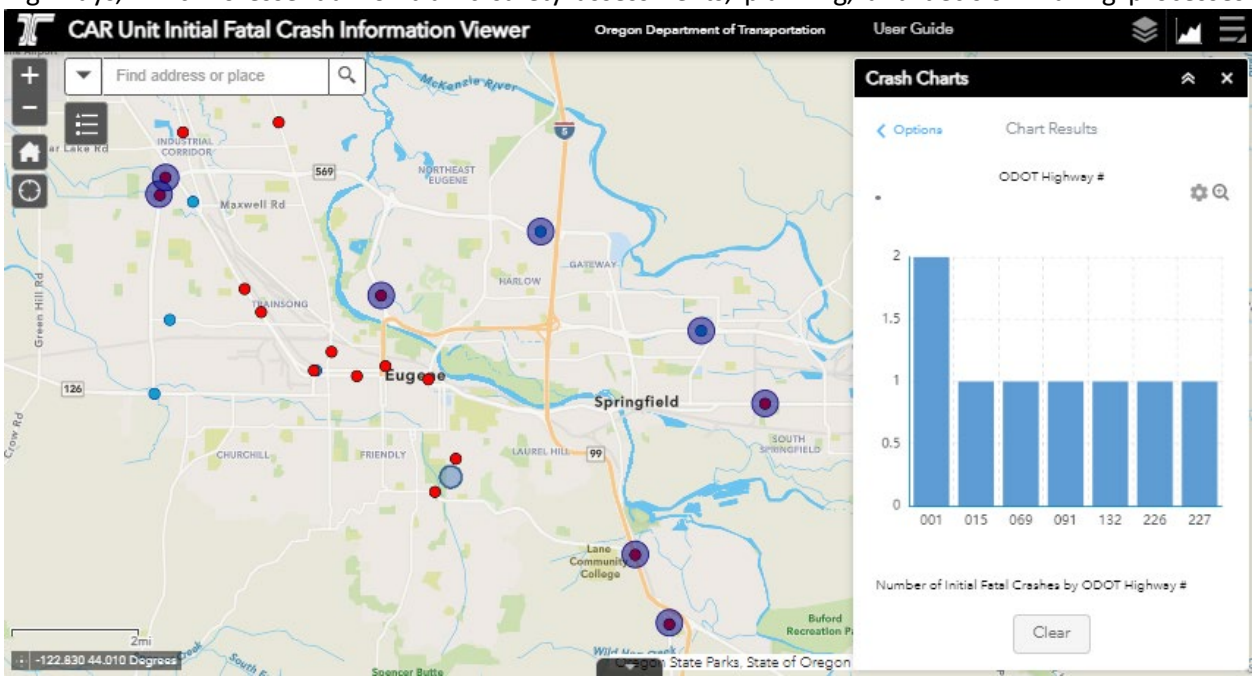


Figure 96 The Number of Initial Fatal Crashes Chart by ODOT Highway with Features Intersecting a User-Defined Area

Route

- **Only features intersecting the current map area:**

To visualize and understand the distribution of initial fatal crashes by specific routes using the CAR Unit Initial Fatal Crash Information Viewer, you can generate a Route-specific crash chart by following these steps:

1. Begin by clicking on “Route #” in the Crash Charts menu to initiate the route-based analysis.
2. Enable the spatial filtering feature by checking the “Use spatial filter to limit features” box.
3. Choose the “Only features intersecting the current map area” option to ensure that the chart reflects crashes within the visible map section.
4. Adjust the map to your area of interest by zooming in or out accordingly.
5. Once the map is set, click “APPLY” to filter the crash data based on the visible routes.

Clicking “APPLY” filters and selects crash points that correspond to the ODOT Route numbers shown on the current map view and generates a corresponding bar chart. This chart reflects the number of initial fatal crashes by route number, allowing for a focused analysis on specific routes.

When you click on a particular route number within the bar chart, the map will automatically zoom in to the crash points related to that route, outlined by a red bounding box, enhancing the visual emphasis on these areas. If you need a closer look at the data, click on the magnifying glass to enlarge the bar chart for better clarity.

To remove the selection and start over or adjust your focus, simply click the “Clear” button at the bottom of the Crash Charts panel. Once you have completed your analysis, you can exit the Crash Charts by clicking the “X” on the top right corner, which will take you back to the main interface of the viewer.

This feature is particularly valuable for traffic safety analysis, allowing for a detailed examination of crash hotspots along specific transportation routes and enabling transportation planners and safety analysts to pinpoint areas that may require safety enhancements or further investigation.

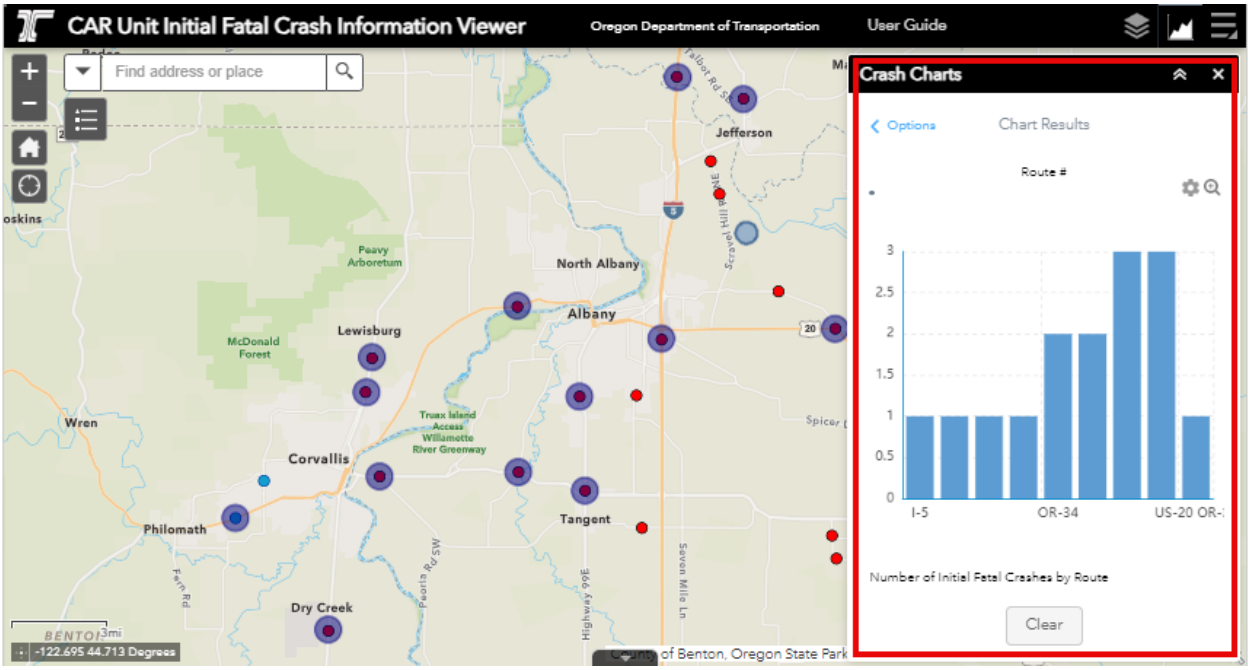


Figure 97 The Crash Point Analysis on Route Number with Crash Charts on Features Intersecting the Current Map Area

- **Only features intersecting a user-defined area:**

Creating a Route-specific crash chart in the CAR Unit Initial Fatal Crash Information Viewer involves a few detailed steps for spatial analysis:

1. In the Crash Charts panel, begin by selecting “Route #” to set the focus of the chart on specific routes.
2. To enable spatial filtering, check the box labeled “Use spatial filter to limit features.”
3. Choose “Only features intersecting a user-defined area” to ensure the chart will display data for the area you define.
4. Adjust your view of the map by zooming in or out to encompass the area you wish to analyze.
5. Select the Freehand Polygon Tool from the selection tools provided. When you hover over the map, the cursor will prompt you with “Press down to start and let go to finish.”
6. Draw a freehand polygon around your area of interest by clicking and holding down the mouse button, moving the cursor to draw the desired shape, and releasing to finish.
7. If the polygon does not cover the desired area, you can click the delete button next to the selection tool to undo the last action and redraw your selection.
8. Once you are satisfied with your selected area, click “APPLY” to filter the crash points.

The crash points that fall within your freehand polygon selection will be filtered and displayed on the map. These points represent the initial fatal crashes along the specific ODOT routes that intersect with the area you have defined. This filtered view allows for a targeted analysis of crashes within a uniquely specified geographic area, offering valuable insights into crash patterns and potential safety concerns associated with those routes.

By utilizing these tools, researchers and analysts can delve into specific route-related crash data with a high level of precision, informing the development of safety measures and interventions tailored to the unique characteristics of each route segment.

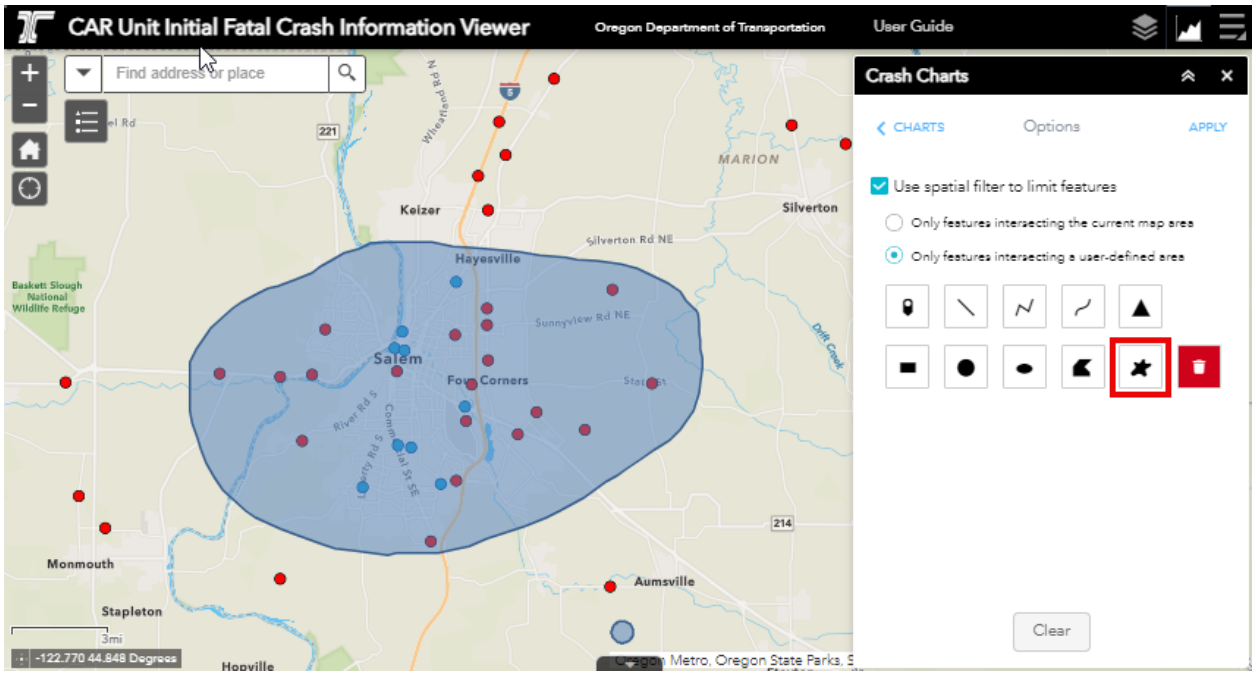


Figure 98 The Crash Point Analysis on Route Number with Crash Charts with Freehand Polygon Tool on Features Intersecting a User Defined Area

The displayed image reflects the results obtained from the CAR Unit Initial Fatal Crash Information Viewer after using the Freehand Polygon tool to define a specific area around Salem, Oregon, and then clicking the “APPLY” button. The resulting bar chart and highlighted crash points are the outcomes of this spatial analysis.

Upon application, the system has identified six crash points that fall within the selected routes, OR-213 and OR-22 or OR-99EB, as indicated by the bar chart. This chart provides a comparison of initial fatal crashes by route within the defined area.

When a bar representing a specific route is clicked, the map zooms in, and the corresponding crash points are encapsulated within red bounding boxes, thus granting a detailed geographical context for the data. The magnifying glass feature allows for the enlargement of the chart for a more comprehensive view of the crash data.

If the user wishes to remove the selected crash points and start over, the “Clear” button at the bottom of the Crash Charts panel will reset the selection. To make further adjustments to the selection or filter, one can click “Options,” or to exit the chart, the “X” mark at the top right corner will close the panel, reverting to the main interface of the viewer. This level of interactivity ensures that the user can perform an in-depth and precise analysis of the fatal crash data for informed decision-making regarding traffic safety in the area.

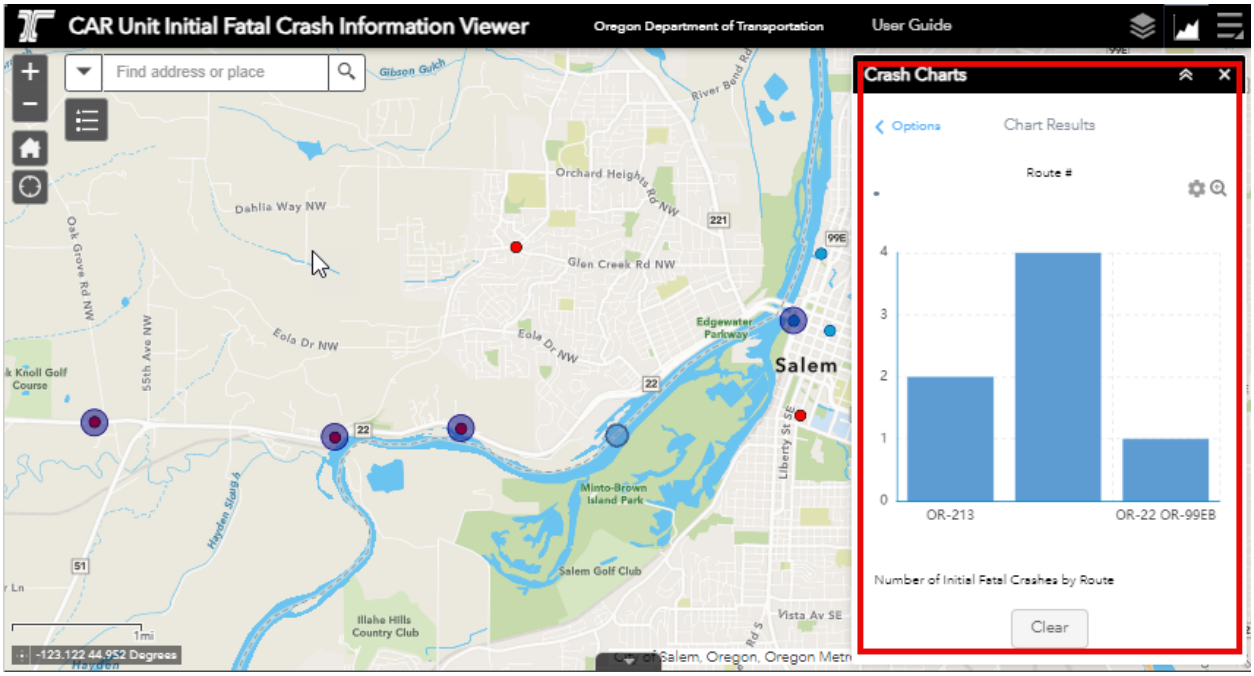


Figure 99 The Crash Point Analysis with Bar Chart on Route Number with User Defined Selection on Features Intersecting a User Defined Area

Rural/Urban

- **Only features intersecting the current map area:**

The image below showcases the CAR Unit Initial Fatal Crash Information Viewer's functionality for analyzing crash data based on the classification of the area as rural or urban. To produce this analysis:

1. Select "Rural/Urban" from the Crash Charts menu to differentiate crash data by these area types.
2. Enable spatial filtering by checking "Use spatial filter to limit features."
3. Opt for "Only features intersecting the current map area" to focus the analysis on the map's visible section.
4. Adjust the map view to your desired location by zooming in or out.
5. Click "APPLY" to generate the crash data selection for the visible area.

Upon applying these settings, a pie chart appears, representing the distribution of crashes in rural versus urban areas within the selected map view. Hovering over the pie chart reveals the number and percentage of crashes for each area type. Simultaneously, crash points on the map corresponding to the urban or rural classification are highlighted with a red bounding box, which visually reinforces the data displayed in the pie chart.

For a closer inspection, the magnifying glass icon allows you to enlarge the pie chart. If a new selection is desired or if the current selection needs to be reset, clicking the "Clear" button will remove all highlighted data points. To exit the pie chart, simply click the "X" mark. If further adjustments or a different selection are needed, you can return to the previous menu by clicking "Options." This feature provides a user-friendly and efficient way to visually dissect and understand the spatial distribution of fatal crashes within a specified area, categorizing them into urban or rural settings for targeted analysis and insights.

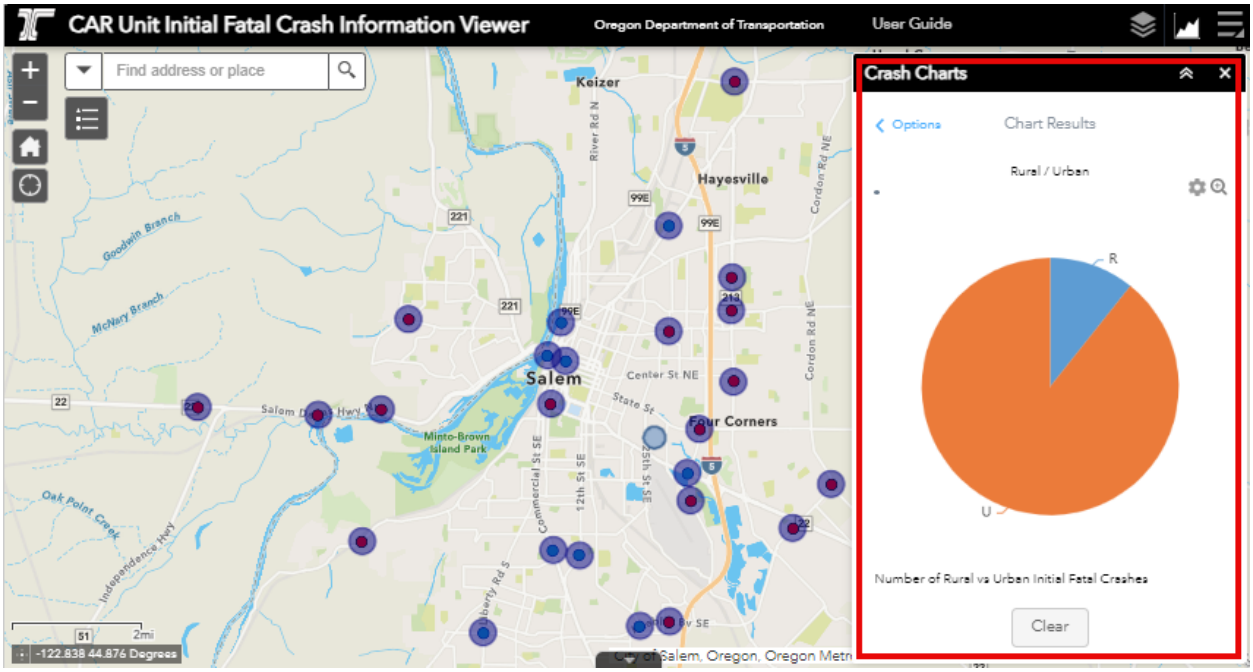


Figure 100 The Number of Rural vs Urban Initial Fatal Crashes by Pie Chart with Features Intersecting the Current Map Area

- **Only features intersecting a user-defined area:**

The image below illustrates the process of using the CAR Unit Initial Fatal Crash Information Viewer to differentiate between rural and urban initial fatal crash points in a user-defined area. To perform this analysis:

1. Click on the “Rural / Urban” classification within the Crash Charts panel to prepare for sorting crash data based on these geographical categories.
2. Activate the spatial filter by selecting the checkbox for “Use spatial filter to limit features.”
3. To only include crashes within a specific area, choose “Only features intersecting a user-defined area.”
4. Zoom in or out to position the map to your area of interest where you wish to analyze crash data.
5. Click on the Triangle Tool from the selection toolbox. The cursor will change to indicate “Click to add a shape or press down to start and let go to finish.”
6. Click and drag on the map to create a triangular area that covers your intended research location. Release the mouse button to complete the selection.
7. If the drawn triangle does not meet your requirements or an error occurs, use the delete button adjacent to the selection tools to undo the triangle and redraw your selection.
8. After confirming your area of interest with the triangle, click “APPLY” to filter the crash data accordingly.

With this selection, the map will display the crash points that fall within the triangular area, categorized as occurring in either rural or urban settings. This targeted approach to data analysis can be instrumental for studies focused on understanding the distribution of crashes and potential contributing factors

associated with different environments. It enables researchers and policymakers to formulate specific interventions and safety measures relevant to the characteristics of each type of area.

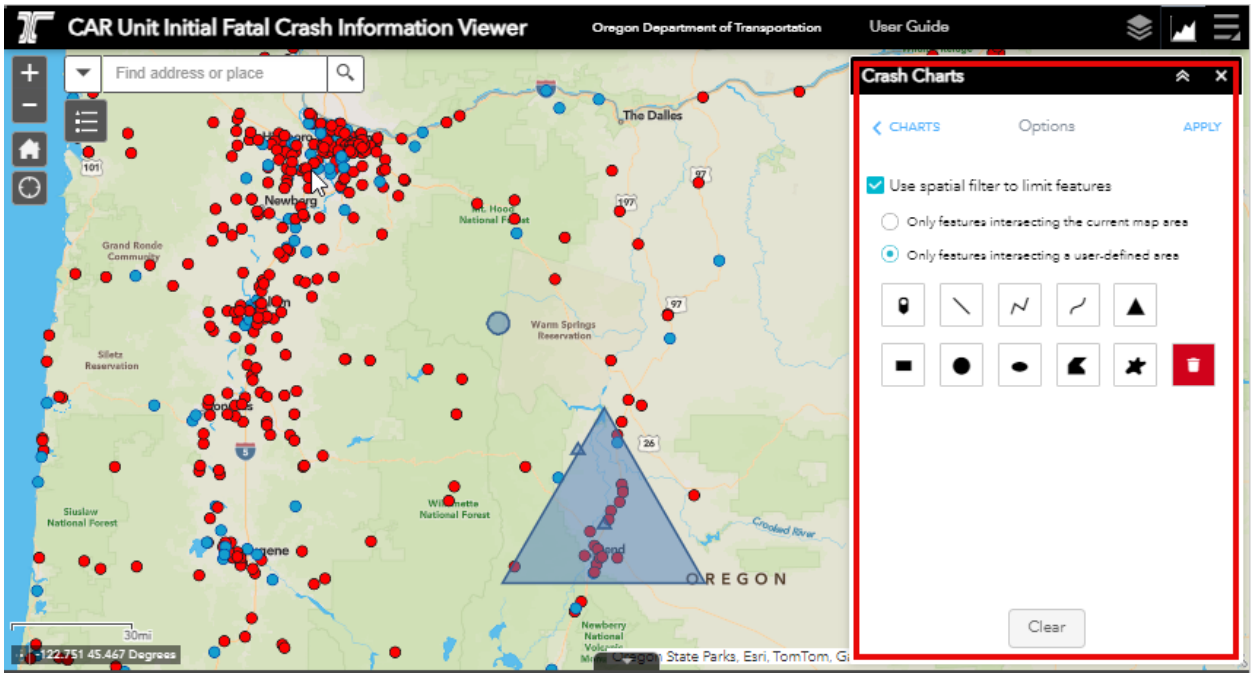


Figure 101 The Selection of Rural and Urban Initial Fatal Crash Points by Triangle Tool in a User-Defined Area

The image provided is a view from the CAR Unit Initial Fatal Crash Information Viewer, which includes a pie chart analyzing the distribution of initial fatal crashes between rural (R), urban (U), and unspecified (null) areas within a selected geographic area. The pie chart segments show the proportion of crashes in each category, with different colors representing each segment for clarity.

By clicking on a segment of the pie, the viewer can zoom in on the map to the crash points that fall within the selected category. These points are then highlighted with red bounding boxes, allowing for an immediate visual focus and in-depth analysis of specific areas.

The magnifying glass icon offers the functionality to enlarge the pie chart, making it easier to view the proportions and read the accompanying data labels. If the user needs to reset their analysis or remove the current selection of crash points, the “Clear” button at the bottom of the Crash Charts panel provides this capability.

Once the analysis is complete, or if further selection refinement is needed, clicking on “Options” allows the user to return to the selection window to adjust the filters or selection criteria. Alternatively, to close the pie chart and return to the main map view, one can simply click the “X” mark in the corner of the Crash Charts panel. This interactive tool is integral for traffic safety analysts and policymakers to understand the spatial distribution of road incidents and to tailor safety measures appropriately.

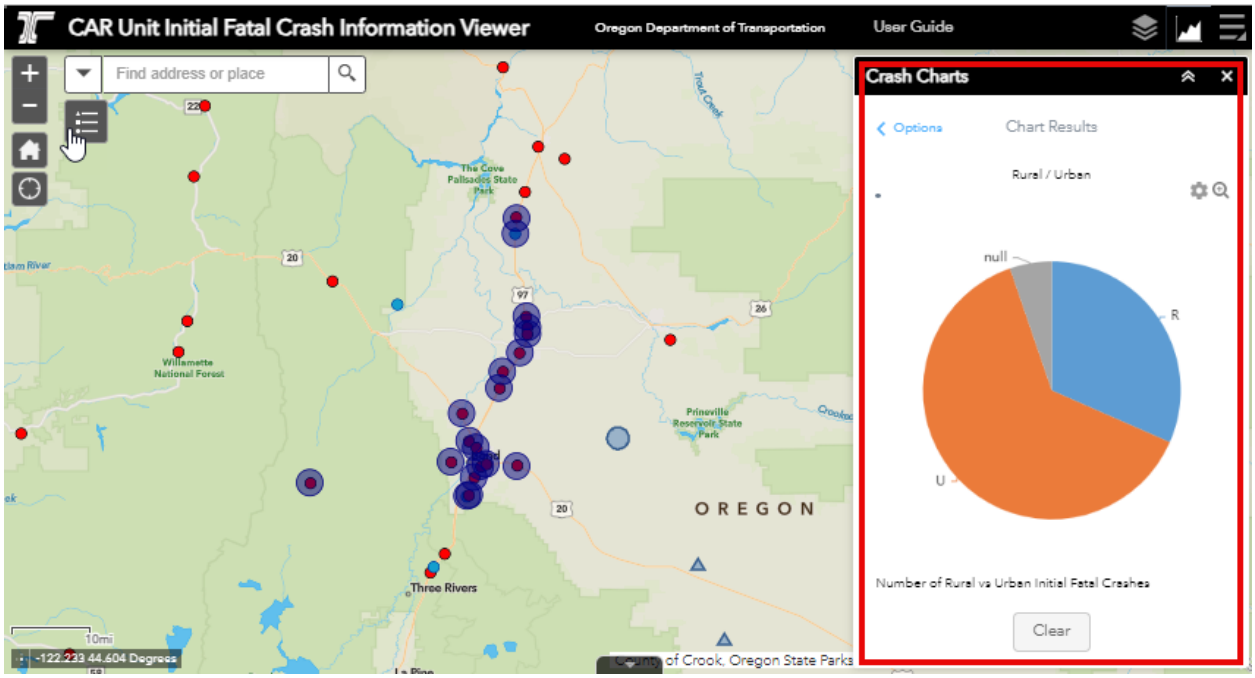


Figure 102 The Number of Rural vs Urban Initial Fatal Crashes by Pie Chart with Features Intersecting the User Defined Area

City

- **Only features intersecting the current map area:**

The image below illustrates the use of the CAR Unit Initial Fatal Crash Information Viewer to visualize and analyze initial fatal crashes by city within a specified map area. Here's the step-by-step process to generate the "Number of Initial Fatal Crashes by City" chart:

1. Within the Crash Charts panel, start by selecting "City" to categorize crash data by city boundaries.
2. Check the "Use spatial filter to limit features" box to apply spatial restrictions to the crash data.
3. Select "Only features intersecting the current map area" to ensure the analysis is confined to the visible area on the map.
4. Adjust the map's view to encompass the desired location for your report by zooming in or out.
5. Click "APPLY" to generate the crash data selection based on the current map view.

Following these steps, the map displays the selected crash points that are situated within the city areas of interest. These points are then correspondingly represented in a bar chart titled "Number of Initial Fatal Crashes by City," which details the count of crashes per city within the visible map area.

Interacting with the bar chart allows users to focus on a specific city. Clicking on a city's name in the bar chart prompts the map to zoom in and highlight that city with a red bounding box, facilitating a more detailed examination of the crash points in that locality.

For an expanded view of the chart for easier data interpretation, you can click on the magnifying glass icon. Should you need to reset the analysis or remove the current selections, the "Clear" button at the bottom of the panel is available. After completing the analysis or if you wish to exit the Crash Charts panel, simply click the "X" mark in the top right corner. This feature is a crucial analytical tool for urban planners,

traffic safety analysts, and decision-makers, offering significant insights into urban crash patterns and helping in the development of targeted safety measures.

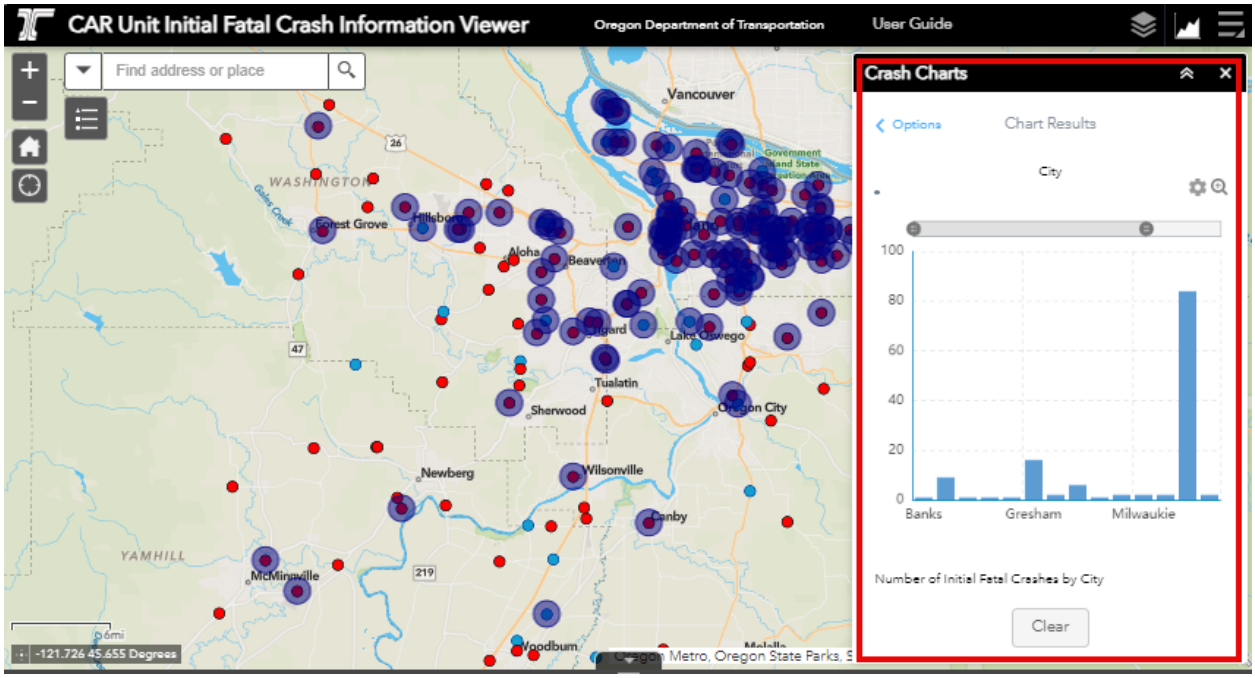


Figure 103 The Number of Initial Fatal Crashes by City with Features Intersecting the Current Map Area

- **Only features intersecting a user-defined area**

The image below showcases a functional capability of the CAR Unit Initial Fatal Crash Information Viewer, emphasizing the use of the Ellipse Tool for spatial selection. Here is the process for generating a city-based crash chart:

1. Begin by clicking on “City” within the Crash Charts menu to set up the crash data according to city jurisdiction.
2. To activate the spatial filter, check the “Use spatial filter to limit features” box.
3. Select the option “Only features intersecting a user-defined area” to specify that only crash points within your chosen ellipse will be analyzed.
4. Adjust the map’s scale to encompass your area of interest, whether that involves zooming in for a close-up of a small section or zooming out to include a larger region.
5. Select the Ellipse Tool, which is indicated by the cursor’s prompt: “Click to add a shape or press down to start and let go to finish.”
6. Draw an ellipse on the map by clicking and holding the mouse button, then dragging to create the desired shape and size. Releasing the mouse button finalizes the selection.
7. If the ellipse does not accurately cover your intended area, you have the option to click the delete button located next to the selection tool to remove the ellipse. You can then re-draw your ellipse as needed.

8. After delineating your desired research area with the Ellipse Tool, click “APPLY” to filter and display the crash data.

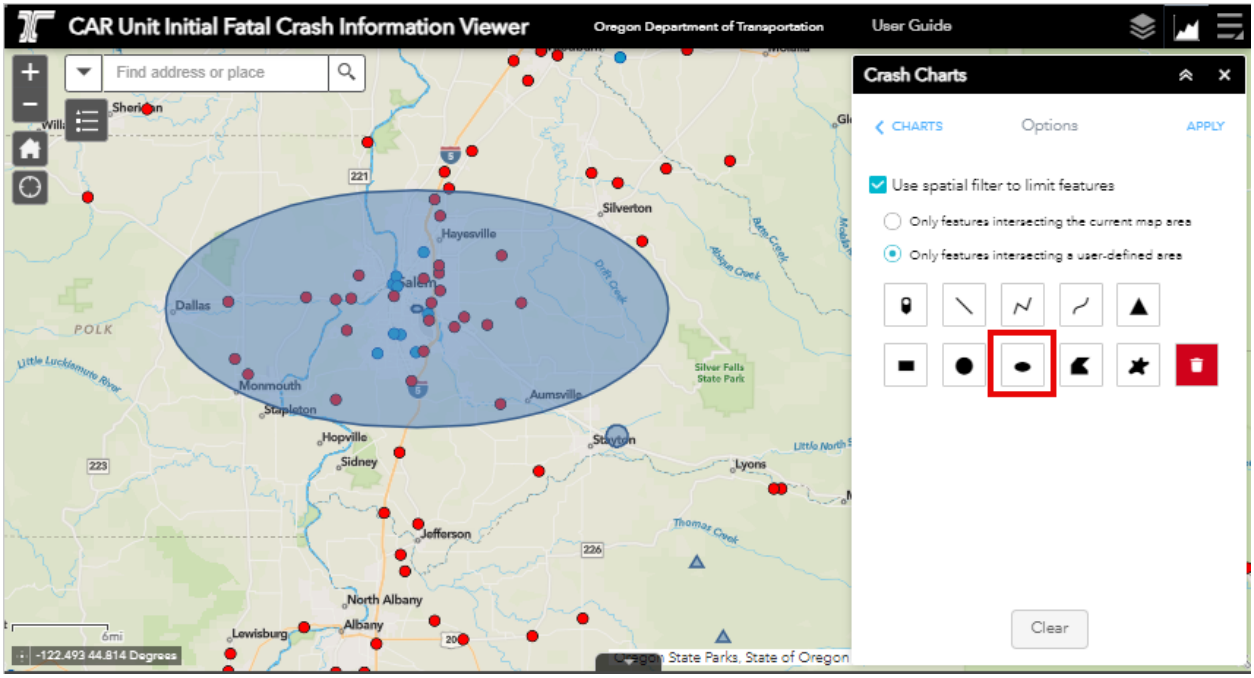


Figure 104 The Selection of Initial Fatal Crash Points within City by Ellipse Tool in a User-Defined Area

In the provided image, the CAR Unit Initial Fatal Crash Information Viewer displays a bar chart that indicates the number of initial fatal crashes within the city of Salem. This data is the result of a spatial analysis performed using the Ellipse selection tool. The chart shows that there have been 15 initial fatal crashes in Salem, based on the user-defined parameters.

On the map, the crash points within the ellipse are clearly marked, and by clicking on the city name in the bar chart, the map zooms in and highlights these points with red bounding boxes. This feature provides a focused view on the exact locations of the crashes, facilitating a more detailed examination.

For an expanded view of the chart, which can offer better visibility of the data, clicking the magnifying glass icon enlarges the chart. If the analyst wishes to remove the current selections and analyze a different set of data, the “Clear” button at the bottom of the Crash Charts panel will reset the selection. After the analysis is complete, one can either navigate back to further refine the analysis by clicking “Options,” or exit the Crash Charts panel entirely by clicking the “X” mark. This interactivity allows for efficient and targeted data review, which is crucial for urban planning and traffic safety assessments.

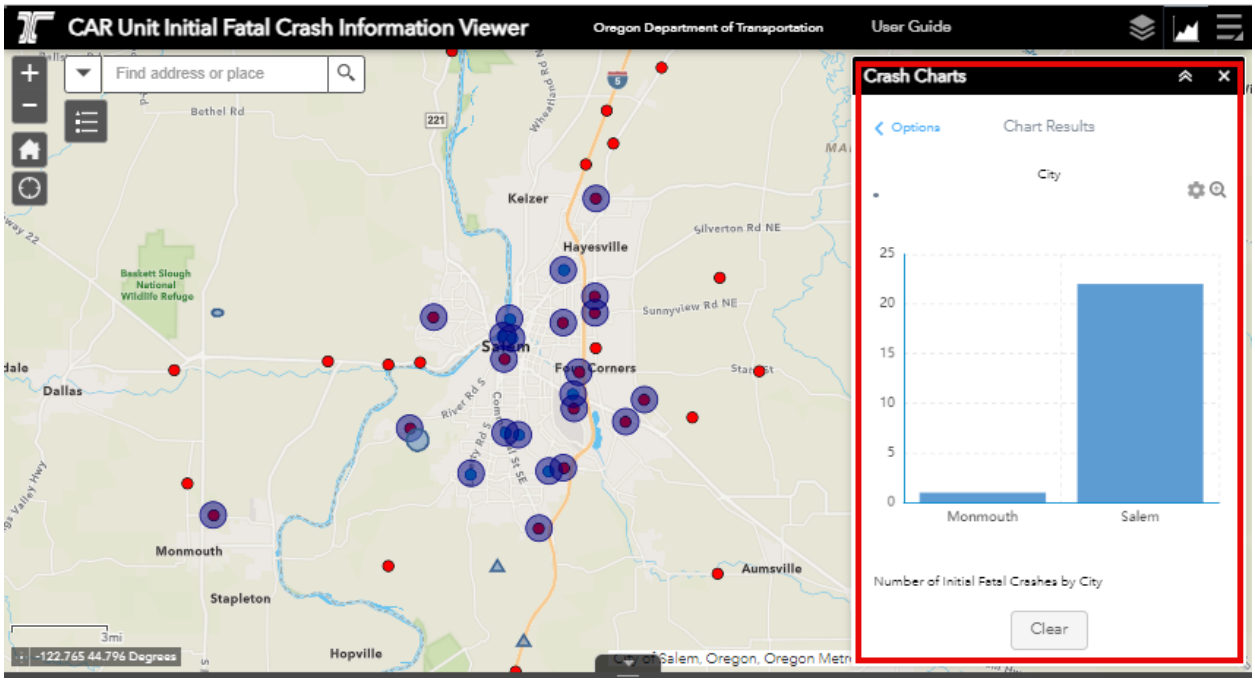


Figure 105 The Number of Initial Fatal Crashes by City with Features Intersecting the User Defined Area

County

The image displays the CAR Unit Initial Fatal Crash Information Viewer with a bar chart indicating the number of initial fatal crashes by county, based on a filtered selection from the map of Oregon. Here's the process to generate such a crash chart:

1. To start, click on "County" in the Crash Charts menu to categorize crash data by county jurisdiction.
2. Enable spatial filtering by ticking the "Use spatial filter to limit features" checkbox.
3. Choose the "Only features intersecting the current map area" option to focus the analysis on the visible portion of the map.
4. Adjust the map view by zooming in or out to define your location of interest for the report.
5. Click "APPLY" to execute the filtering process and generate the selection of crashes within the map.

The application of this filter isolates the crash points that are situated within the boundaries of the county areas shown on the map and constructs a corresponding bar chart. This chart identifies seven county areas, displaying the number of crashes in each on bar. By selecting a specific county within the bar chart, the map will zoom into that area, and crash points will be emphasized with a red bounding box, offering a localized perspective of the crash data.

For more detailed scrutiny, the magnifying glass icon allows users to enlarge the bar chart, providing an expanded view for easier data interpretation. If adjustments to the selection are necessary or to remove the current highlighted points, the "Clear" button at the bottom of the panel can be used. To close the chart and return to the main interface, clicking the "X" mark in the top right corner will exit the Crash Charts panel.

This functionality serves a crucial role in visualizing and understanding the distribution and frequency of fatal crashes, enabling traffic safety analysts and decision-makers to target specific counties for further analysis, safety assessments, and preventive measures.

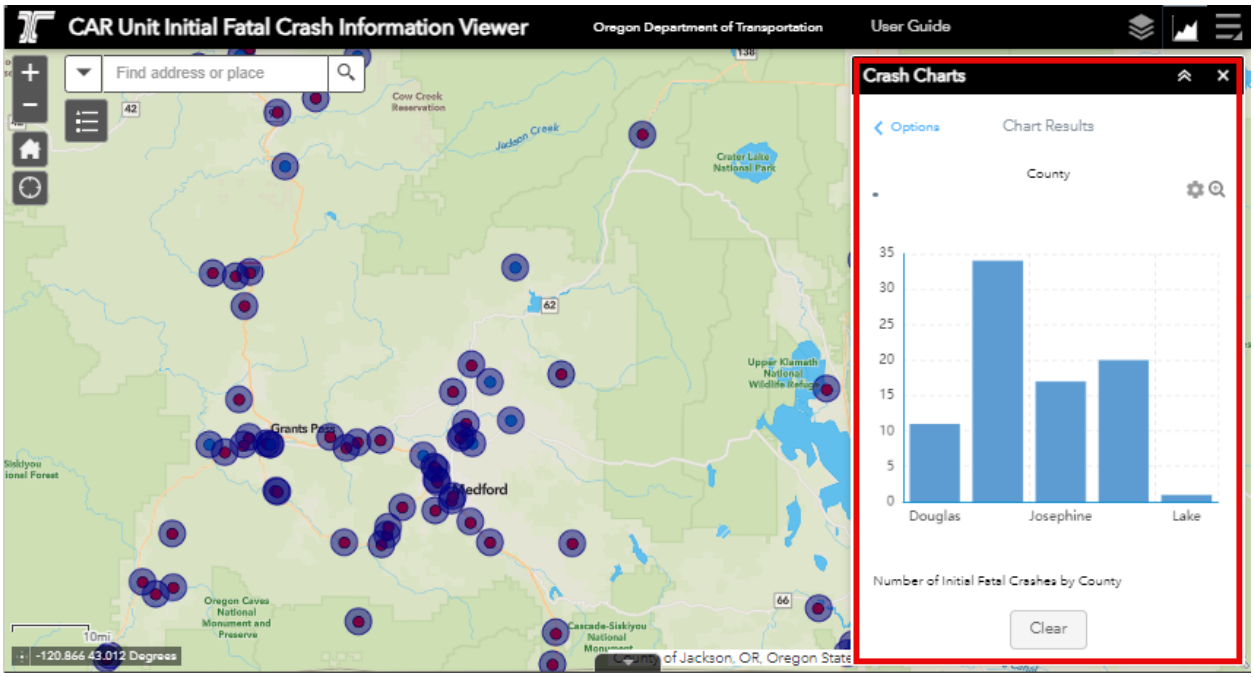


Figure 106 The Number of Initial Fatal Crashes by County with Features Intersecting the Current Map Area

- **Only features intersecting a user-defined area:**

In the image below from the CAR Unit Initial Fatal Crash Information Viewer, the ellipse tool has been used to select a specific area on the map, likely to analyze crash data within a particular geographic contour. The selection process is as follows:

1. Begin by selecting “County” from the Crash Charts panel to categorize the crash data by county.
2. Check the “Use spatial filter to limit features” option to enable spatial filtering of crash data.
3. Select “Only features intersecting a user-defined area” to ensure that the data analyzed is within the elliptical area drawn.
4. Adjust the map’s view by zooming in or out as needed to identify the location of interest for your analysis.
5. Use the Ellipse Tool by bringing the cursor to the map area, which will prompt with “Click to add a shape or press down to start and let go to finish.” Click and drag to draw the desired ellipse.
6. If the initial ellipse does not meet the requirements, click the delete button next to the selection tool to clear the selection and redraw the ellipse.
7. Once satisfied with the selection, click “APPLY” to filter crash data within the ellipse.

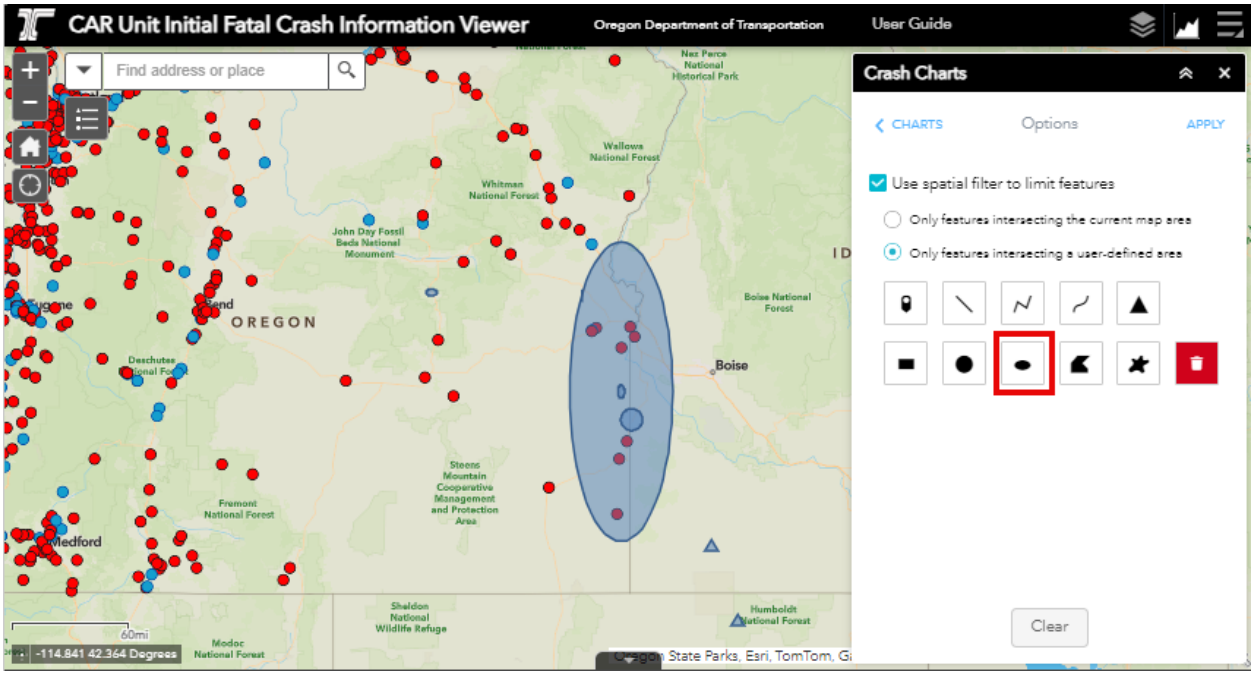


Figure 107 The Selection of Initial Fatal Crash Points with County by Ellipse Tool in a User-Defined Area

To analyze initial fatal crashes by county within the CAR Unit Initial Fatal Crash Information Viewer, follow these steps:

1. Begin by selecting “County” from the Crash Charts menu to categorize the data accordingly.
2. Check the “Use spatial filter to limit features” box to activate spatial filtering.
3. Choose “Only features intersecting the current map area” to ensure the data corresponds to the visible part of the map.
4. Use the Ellipse Tool by clicking and dragging on the map to create an elliptical selection area over your area of interest. If the cursor says, “Click to add a shape or press down to start and let go to finish,” you are in the right spot.
5. If the ellipse doesn’t cover the right area, click the delete button next to the selection tool to discard the current selection and start again.
6. Once you are content with the drawn ellipse, click “APPLY” to filter the crash data and generate the visual representation on the map and the corresponding bar chart.

After applying the ellipse selection, the chart titled “Number of Initial Fatal Crashes by County” displays the data within your selected area, such as showing 9 initial fatal crashes for Malheur County.

For more detail:

- Click directly on the county bar in the chart to zoom into the selected area on the map, where the relevant crash points will be outlined with a red bounding box.
- Use the magnifying glass icon to enlarge the bar chart for better visibility.
- If you need to reset your selection, use the “Clear” button at the bottom of the panel.

- When finished, you can close the Crash Charts panel by clicking the “X” mark, or if you wish to make a different selection, click “Options” to return to the previous menu.

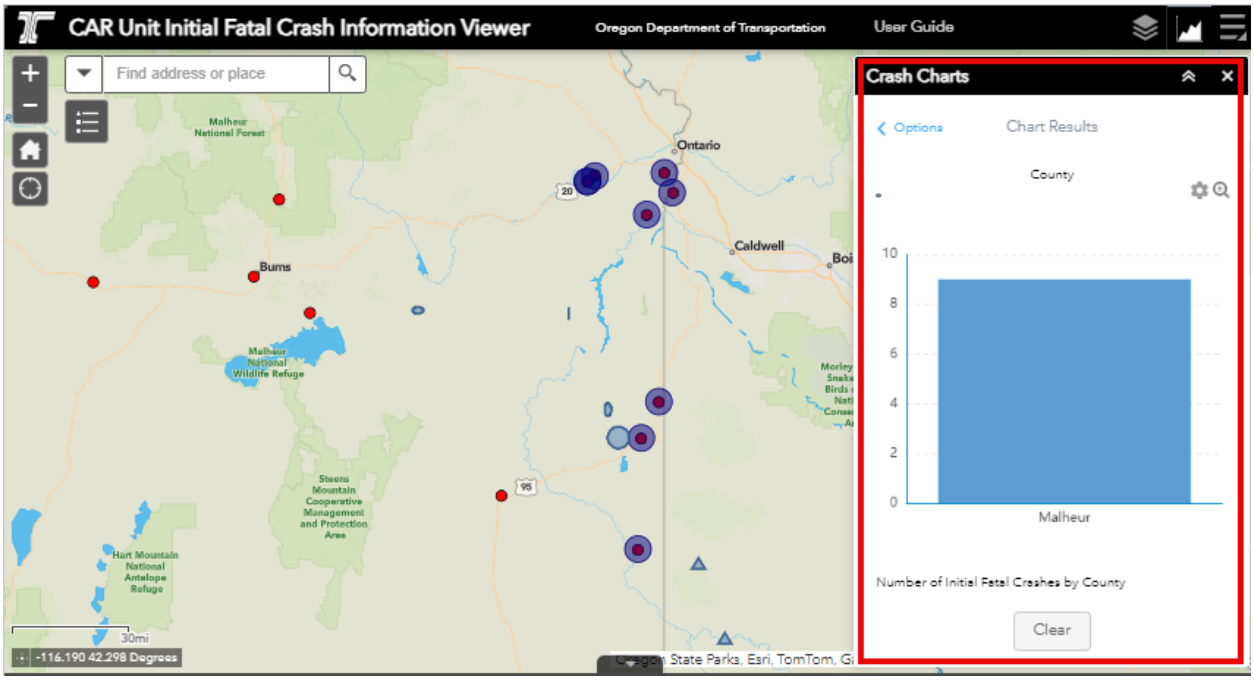


Figure 108 The Number of Initial Fatal Crashes by County with Features Intersecting the User Defined Area

ODOT Maintenance District

- **Only features intersecting the current map area:**

To visualize the distribution of initial fatal crashes within specific ODOT Maintenance Districts using the CAR Unit Initial Fatal Crash Information Viewer, follow these steps:

1. Click on “ODOT Maintenance District” in the Crash Charts menu to initiate the district-based analysis.
2. Check the “Use spatial filter to limit features” box to enable spatial filtering of the crash data.
3. Select “Only features intersecting the current map area” to ensure that the data is relevant to the area currently in view on the map.
4. Zoom in or out to focus on the desired location where you want the crash data to be displayed.
5. Click “APPLY” to filter the crash data based on the visible map area.

Upon clicking “APPLY,” the map will reflect the selected crash data points that are located within the ODOT Maintenance District areas. A bar chart titled “Number of Initial Fatal Crashes by ODOT Maintenance District” will appear, illustrating the count of crashes in each of the three displayed districts.

For a closer examination, you can click on a specific ODOT Maintenance District bar in the chart. This action will zoom into the selected district on the map, and the related crash points will be emphasized with a red bounding box, enhancing their visibility for detailed analysis.

If you wish to have a larger view of the chart, click on the magnifying glass icon. To reset the selection and remove highlighted points, simply click the “Clear” button. Once you have completed your analysis, or if you need to close the chart, click the “X” mark in the top right corner. To modify your selection or adjust

filter settings, click “Options” to return to the previous menu. This tool provides a systematic approach to analyzing crash data, which is essential for traffic safety management and planning.

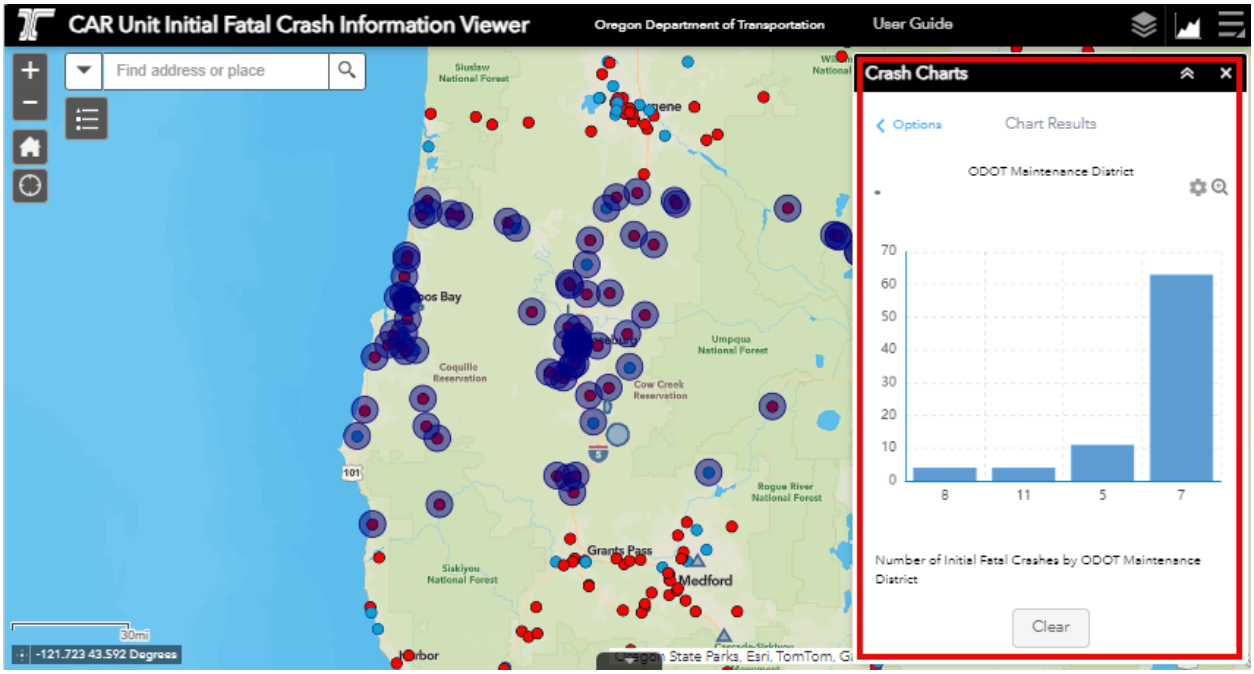


Figure 109 The Number of Initial Fatal Crashes by ODOT Maintenance District with Features Intersecting the Current Map Area

- **Only features intersecting a user-defined area:**

To analyze initial fatal crashes within a particular ODOT Maintenance District, you can utilize the Circle Tool for a precise selection on the CAR Unit Initial Fatal Crash Information Viewer. Here are the steps to perform this analysis:

1. Click on the “ODOT Maintenance District” in the Crash Charts menu to prepare for the district-based crash data analysis.
2. To enable spatial filtering, check the “Use spatial filter to limit features” box.
3. Select “Only features intersecting a user-defined area” to focus the analysis on a specific region that you will define.
4. Adjust the map by zooming in or out to locate the desired area where you want to investigate crash data.
5. Activate the Circle Tool, which prompts you with “Click to add a shape or press down to start and let go to finish.”
6. Use the Circle Tool to draw on the map by clicking, holding, and dragging the cursor to create a circular area covering your area of interest.
7. If you are dissatisfied with your initial circle, click the delete button next to the selection tool to remove it and redraw as needed.
8. Once you’ve finalized your circular selection, click “APPLY” to process the selection and update the displayed crash data.

The map will then highlight the crash points within your specified area. These data points correlate to the initial fatal crashes that have occurred within the defined ODOT Maintenance District area. If you wish to start over or adjust your analysis, you have the option to click “Clear” and reset your selection. Once your analysis is complete, simply click the “X” mark to exit the Crash Charts panel or click “Options” to further refine your selection criteria. This methodical approach enables you to gather specific insights into crash patterns and frequencies within the ODOT Maintenance District, which is vital for traffic safety assessment and planning initiatives.

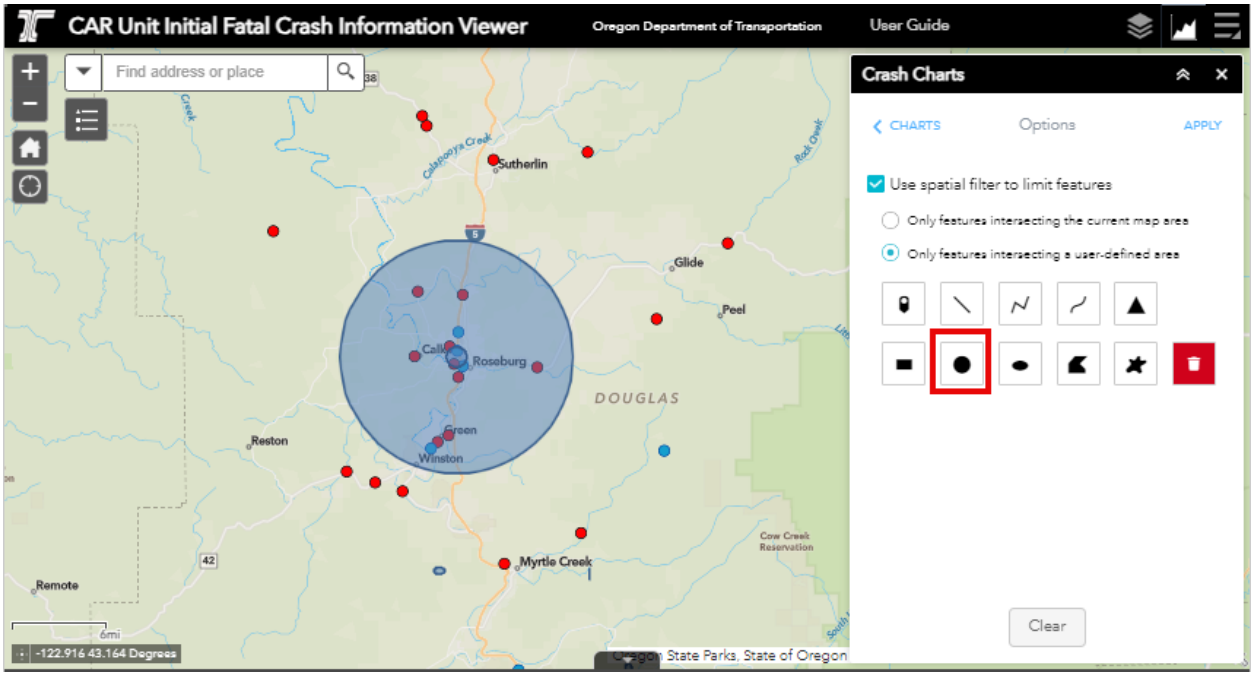


Figure 110 The Selection of Initial Fatal Crash Points with ODOT Maintenance District by Circle Tool in a User-Defined Area

To conduct a focused analysis of initial fatal crashes within an ODOT Maintenance District using the CAR Unit Initial Fatal Crash Information Viewer, follow these steps:

1. Click “ODOT Maintenance District” on the Crash Charts menu to begin sorting the data by maintenance district.
2. Check the “Use spatial filter to limit features” option to enable the spatial filtering of the crash data.
3. Select “Only features intersecting the current map area” to ensure the analysis is constrained to the map view.
4. Zoom in or out to adjust the map to your preferred location where you want to review the crash data.
5. Activate the Circle Tool, indicated by the cursor’s message: “Click to add a shape or press down to start and let go to finish.”
6. Create a circular selection on the map that encompasses the area of your investigation.
7. If the circle does not cover the desired area, you have the option to delete it by clicking the delete button next to the selection tool and then redrawing your circle.

8. After you have made the circular selection, click “APPLY” to filter the crash data within the chosen area.

The map will highlight the crash points inside your circle, specifically within the ODOT Maintenance District you are examining. In this example, selecting the ODOT Maintenance District reveals 23 initial fatal crashes.

For a detailed view, you can enlarge the chart by clicking on the magnifying glass icon. To deselect the crash points and start anew, use the “Clear” button. After you have completed your analysis, you can exit the Crash Charts panel by clicking the “X” mark, or you can click “Options” to modify your analysis criteria. This procedure allows you to efficiently analyze traffic safety data within specific maintenance districts.

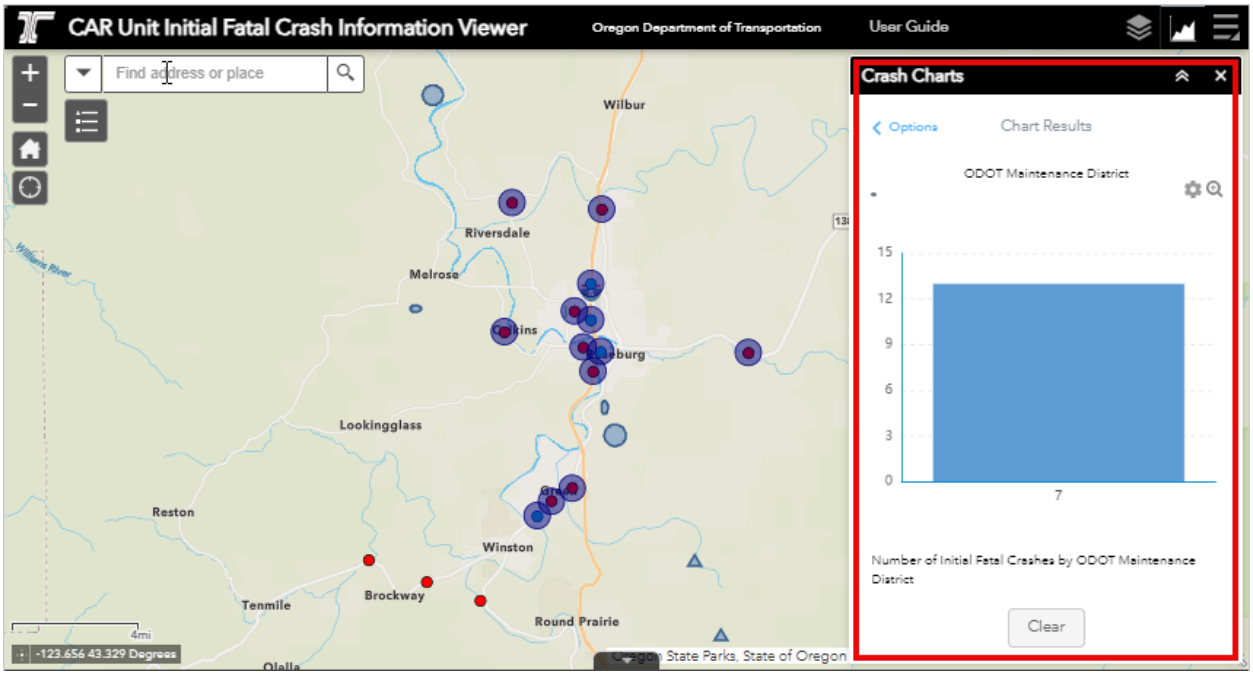


Figure 111 The Number of Initial Fatal Crashes by ODOT Maintenance District with Features Intersecting the User Defined Area

ODOT Region

- **Only features intersecting the current map area:**

To evaluate the number of initial fatal crashes by ODOT Region using the CAR Unit Initial Fatal Crash Information Viewer, follow these steps to create and analyze a region-specific crash chart:

1. Navigate to the “ODOT Region” option in the Crash Charts menu to begin sorting crash data by region.
2. Enable the spatial filter by selecting the “Use spatial filter to limit features” checkbox.
3. Choose the “Only features intersecting the current map area” option to concentrate the analysis on the visible area of the map.
4. Zoom the map in or out to adjust the view to your targeted location for the analysis.
5. Click “APPLY” to generate the crash data selection for the visible map area.

After applying the filter, the map will display only the crash points located within the ODOT Region shown in the current map view. Simultaneously, a bar chart titled “Number of Initial Fatal Crashes by ODOT Region” will appear, presenting the total count of crashes for the region, which in this case shows 39.

For an enhanced view of the data, you can enlarge the bar chart by clicking on the magnifying glass icon. To reset or clear your current selection, simply click the “Clear” button at the bottom of the panel. When you have finished your analysis, or if you wish to exit the Crash Charts panel, click the “X” mark in the top right corner. If you need to modify your selection or filter settings, click “Options” to revisit the selection menu. This method enables you to systematically analyze traffic crash data within the specified ODOT Region, which is essential for developing targeted traffic safety strategies and interventions.

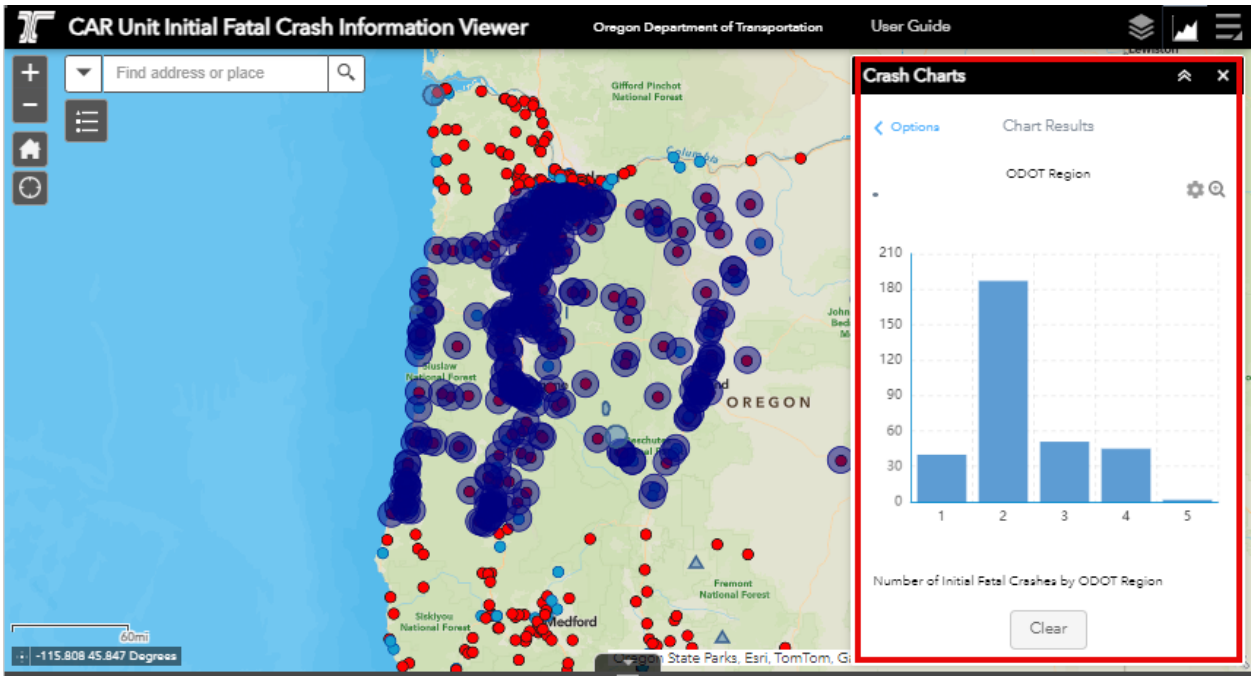


Figure 112 The Number of Initial Fatal Crashes by ODOT Region with Features Intersecting the Current Map Area

- **Only features intersecting a user-defined area:**

To assess initial fatal crash data within a specific ODOT Region using the CAR Unit Initial Fatal Crash Information Viewer, here’s a step-by-step guide:

1. Click on the “ODOT Region” within the Crash Charts to categorize the data by ODOT regions.
2. Enable spatial filtering by ticking the “Use spatial filter to limit features” checkbox.
3. Opt for “Only features intersecting a user-defined area” to analyze crashes within a precise area of your choosing.
4. Adjust your view of the map to the area you want to investigate by zooming in or out.
5. Select the Polygon Tool from the toolbar. The cursor will instruct you with “Click to start drawing.” Click on the map to set the initial point of your polygon.
6. Continue clicking to add additional points to your polygon shape. The cursor will update to say “Click to continue drawing.”
7. Double-click to complete your polygon. This finalizes the shape and defines your area of interest.

8. If the polygon does not meet your requirements, use the delete button to remove your selection and redraw as necessary.
9. After drawing the polygon to your satisfaction, click “APPLY” to update the map with crash data from the selected ODOT Region.

The map will display the crash points within your polygon, representing the initial fatal crashes in the defined ODOT Region. This selection method allows you to conduct a targeted analysis for specific geographical boundaries within an ODOT Region.

If you wish to amend your selection or make a new one, you can clear your current selection by clicking the “Clear” button. When your analysis is complete, or if you wish to exit the Crash Charts, click the “X” mark at the top right corner of the panel. To return to the selection options, simply click “Options.” This detailed procedure helps in creating a thorough and focused analysis of crash data for traffic safety evaluations and planning.

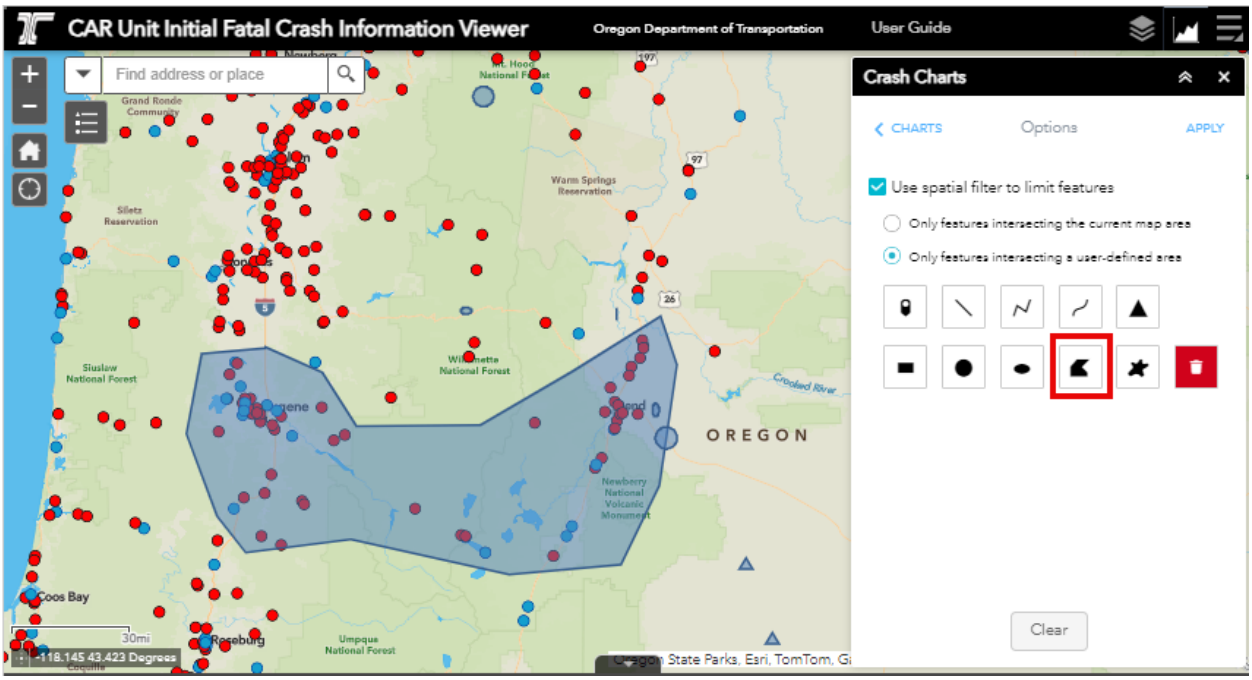


Figure 113 The Selection of Initial Fatal Crash Points with ODOT Region by Polygon Tool in a User-Defined Area

Upon application, the map highlights crash points in the selected ODOT Region, which, in this instance, is Region 2. The corresponding bar chart on the right-side updates to show a total of 82 initial fatal crashes within this region.

To get a better view of the bar chart, click on the magnifying glass icon. If you wish to deselect the current selection and start over, click on the “Clear” button located at the bottom of the panel. When you have completed your analysis, you can either return to the selection window to adjust your parameters by clicking “Options,” or you can exit the Crash Charts panel by clicking on the “X” mark. These steps provide a methodical approach to analyzing the crash data efficiently within the selected ODOT Region.

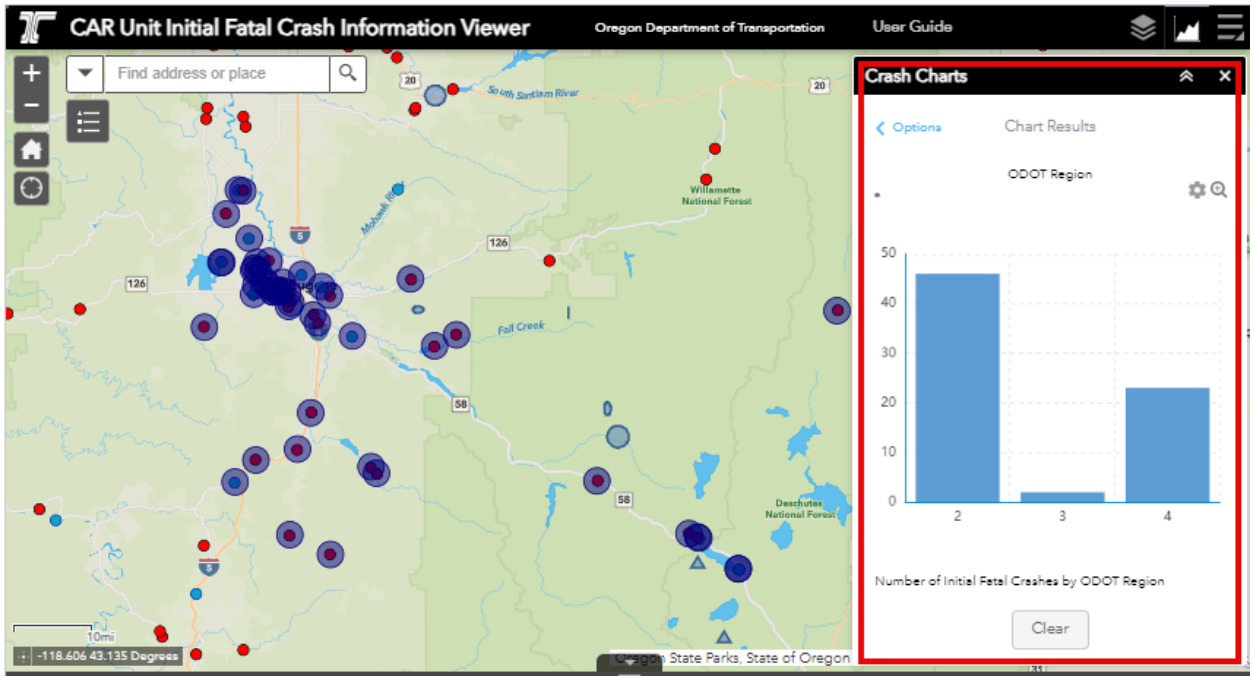


Figure 114 The Number of Initial Fatal Crashes by ODOT Region with Features Intersecting the User Defined Area

Data Reporting

The Data Reporting feature in the CAR Unit Initial Fatal Crash Information Viewer provides users with access to detailed crash data reports. These reports are crucial for understanding crash trends and formulating traffic safety measures. They typically include comprehensive information on crash locations, severity, time, and potentially contributing factors, enabling transportation analysts and policymakers to derive actionable insights.

To activate the Data Reporting feature, follow these steps:

1. Look for the symbol consisting of three horizontal lines and a triangle, located in the top right corner of the viewer.
2. Click on this symbol, which is labeled “More.”
3. A pop-up window, displaying a grid-like structure, will appear.
4. Within this window, click on the “Data Reporting” option to proceed with accessing the reports.

By navigating these steps, you can tap into a wealth of data that the CAR Unit Initial Fatal Crash Information Viewer aggregates, helping to support a data-driven approach to road safety.

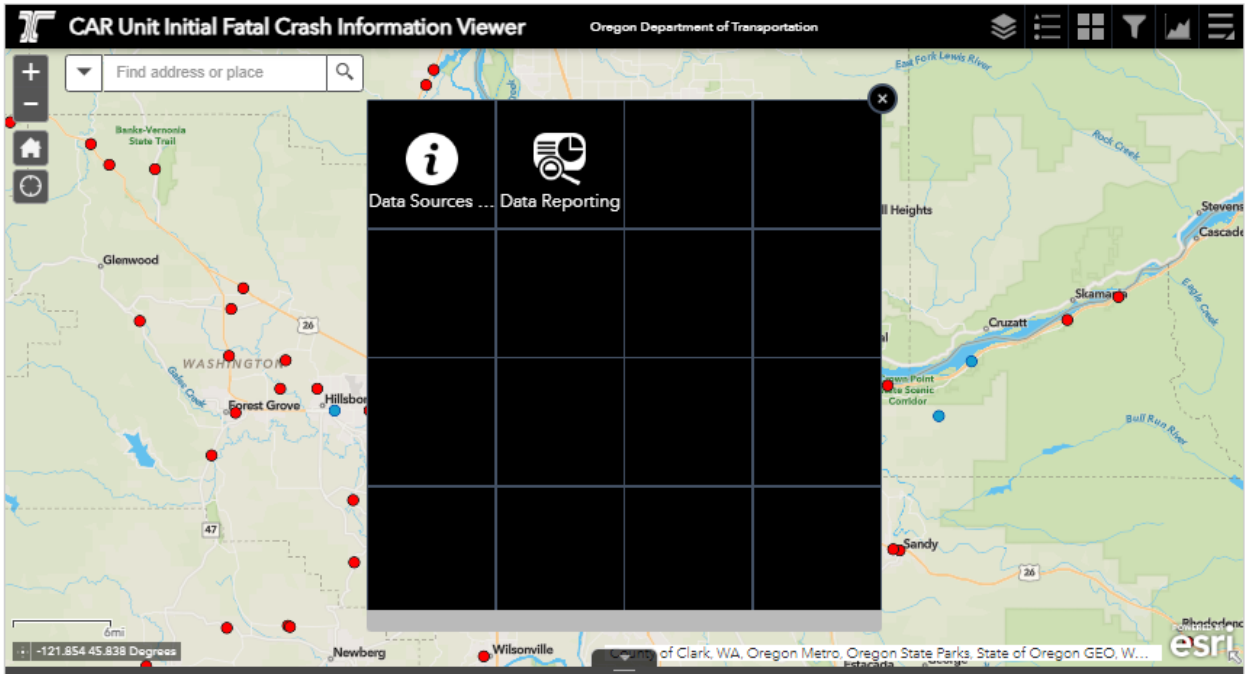


Figure 115 Accessing Data Reporting Module in the CAR Unit Initial Fatal Crash Information Viewer

The Data Reporting feature within the CAR Unit Initial Fatal Crash Information Viewer offers a robust set of drawing tools to define the area of interest (AOI) for crash data analysis. Users have the flexibility to delineate their AOI using various draw modes including Point, Polyline, Extent, Circle, Polygon, and Select by Rectangle. Additionally, the feature is equipped with an optional buffer distance setting, allowing users to expand their search area beyond the drawn shape. This buffer can be specified in a range of units such as miles, kilometers, feet, or meters, providing versatility to cater to different scales of analysis and ensuring a comprehensive coverage of the area surrounding the specified AOI.

To generate a Data Reporting for crash points using the Circle tool in the CAR Unit Initial Fatal Crash Information Viewer, follow these steps:

1. Click on the “Data Reporting” icon or tab in the viewer.
2. In the Data Reporting panel, select the Circle tool from the available drawing modes.
3. Position the cursor over the map where you want to center your circle.
4. Click and hold down to start the circle, then drag to expand the circle to the desired radius.
5. Release the mouse button to complete the drawing of the circle.
6. (Optional) If you wish to include an area outside the circle, specify a buffer distance by entering a value in the “Show results within” field, choosing from miles, kilometers, feet, or meters.
7. Click the “Report” button to generate a report based on the selected area.
8. If you want to start over, click the “Start Over” button to clear the current selection and make a new one.

In this example, the circle has been drawn around Salem, capturing crash points within its radius without setting an optional buffer distance.

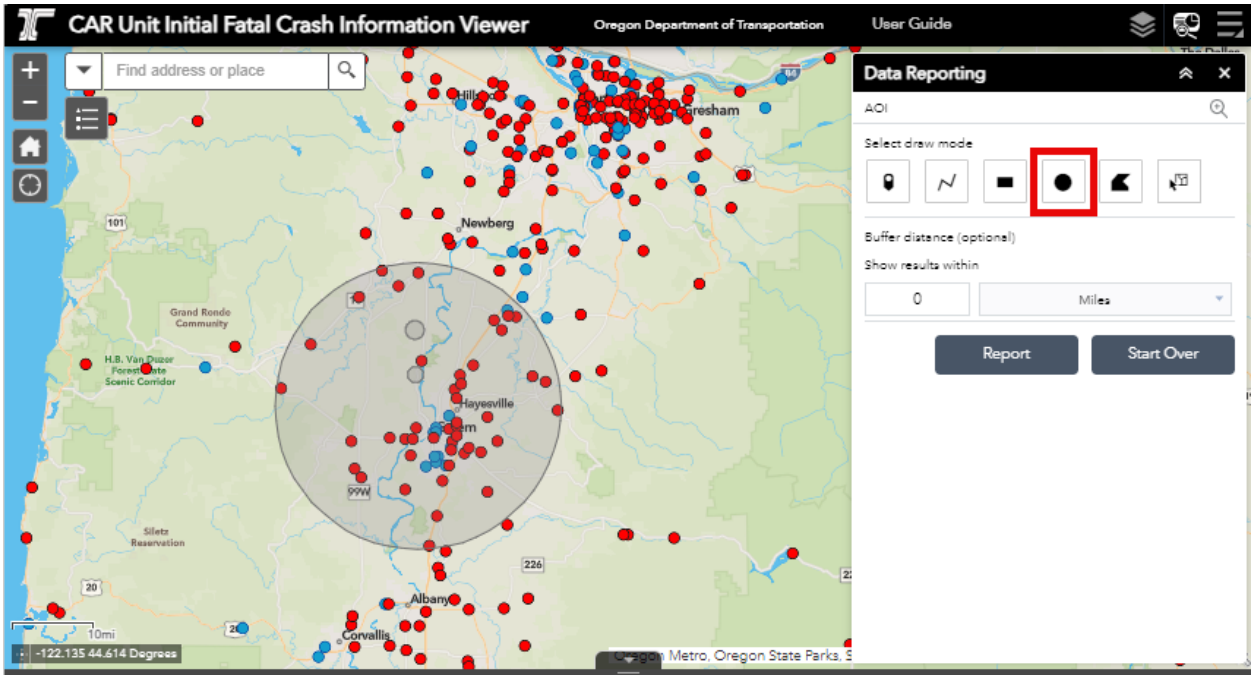


Figure 116 Generating Crash Data Reports by Selecting Area with Circle Tool in the CAR Unit Initial Fatal Crash Information Viewer

Buffer Distance (Optional)

The buffer area feature in the Data Reporting section of the CAR Unit Initial Fatal Crash Information Viewer is a useful tool for expanding your analysis beyond the precise boundaries of your selected shape. By applying a buffer, you include additional surrounding areas in your report, which can be crucial for comprehensive crash data analysis, particularly in studies of spill-over effects or when considering the broader impact zone of crashes.

In this specific instance, a buffer of 5 miles has been set. Here’s how it enhances the report:

- After selecting the Circle tool and drawing your area of interest on the map, you have the option to enter a buffer distance in the “Show results within” field.

- By entering “5” and selecting “Miles” from the dropdown, you effectively instruct the system to include all crash data within a 5-mile radius beyond the drawn circle.
- This action ensures that your report is not limited to just the crashes inside the circle but also captures relevant data in the surrounding vicinity.
- Utilizing this buffer zone is particularly advantageous when the geographical spread of crashes or their proximity to the selected area could influence or provide additional insights into traffic patterns and safety concerns.

Using the buffer area option allows for a more nuanced and expansive analysis, which is critical for forming a complete understanding of crash trends and potential risk factors within and around a specified location.

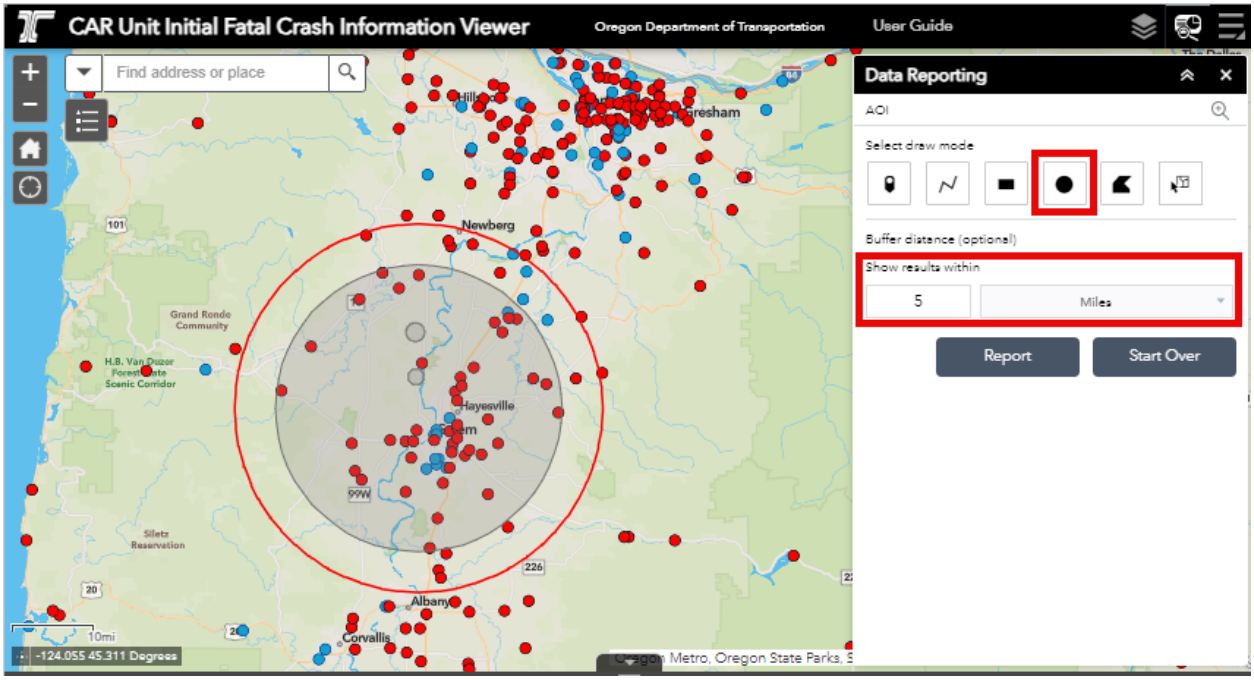


Figure 117 Generating Crash Data Reports by Selecting Area with Circle Tool Buffering 5 Miles in the CAR Unit Initial Fatal Crash Information Viewer

Generate Data Reporting

In the CAR Unit Initial Fatal Crash Information Viewer, after defining a selection area with the Circle tool, you can generate a detailed report of Initial Fatal Crashes within that area. To view this report:

1. After drawing the circle on the map to encompass your area of interest, click the “Report” button within the Data Reporting panel.
2. The report that appears on the right side will summarize the total number of crashes, in this case, 35.
3. To expand and view the individual crash details, click on the “+” sign next to “Initial Fatal Crashes.”
4. The list will extend to display the full report, where you can scroll through to review each crash’s specific data, including date, time, location, and other relevant details.

This functionality allows for an in-depth analysis of crash incidents, facilitating a comprehensive understanding of patterns and circumstances surrounding fatal crashes in the selected area.

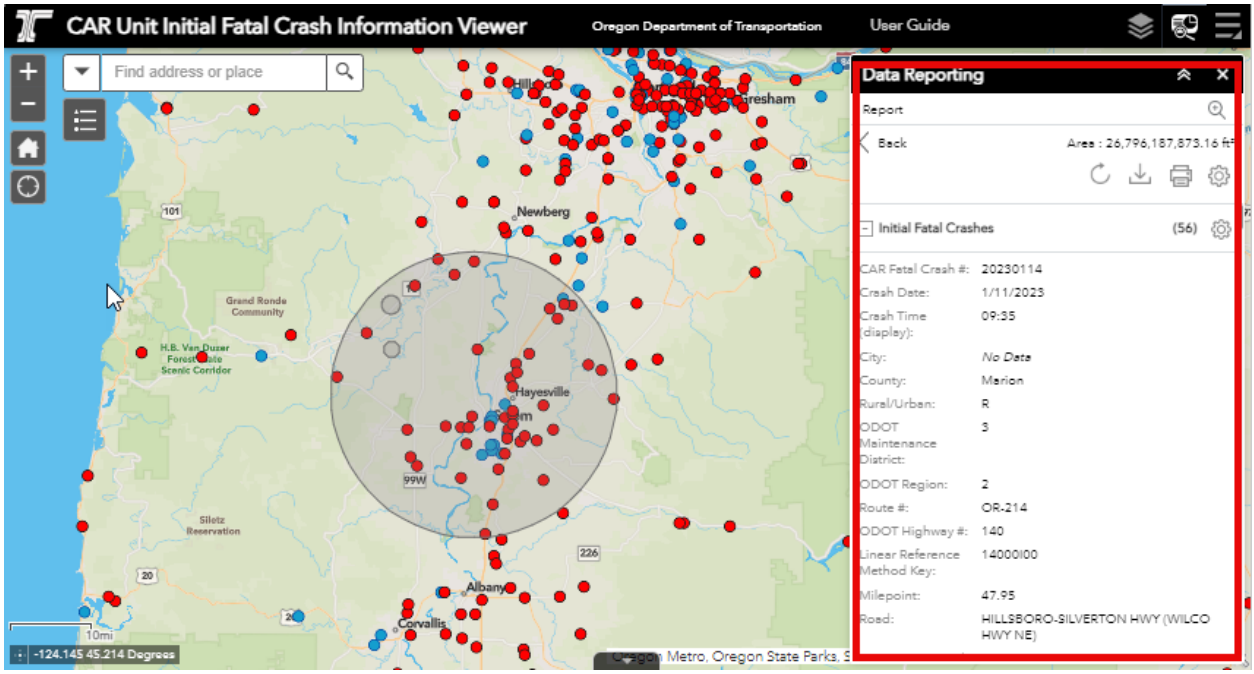


Figure 118 Generate Data Reporting of Initial Fatal Crash within a Selected Area by Circle Tool on the CAR Unit Viewer

Customizing Data Reporting

To customize the Initial Fatal Crashes report in the CAR Unit Initial Fatal Crash Information Viewer, follow these steps:

1. Locate the number indicating the total of initial fatal crashes (35 in this case) on the Data Reporting panel.
2. Click on the gear icon next to this number to open the report customization options.
3. A pop-up window will appear with a list of selectable fields.
4. Check or uncheck the boxes next to each field to include or exclude them in your report according to your requirements.
5. After selecting the desired fields for your report, click the “OK” button to apply these preferences and generate your customized report.

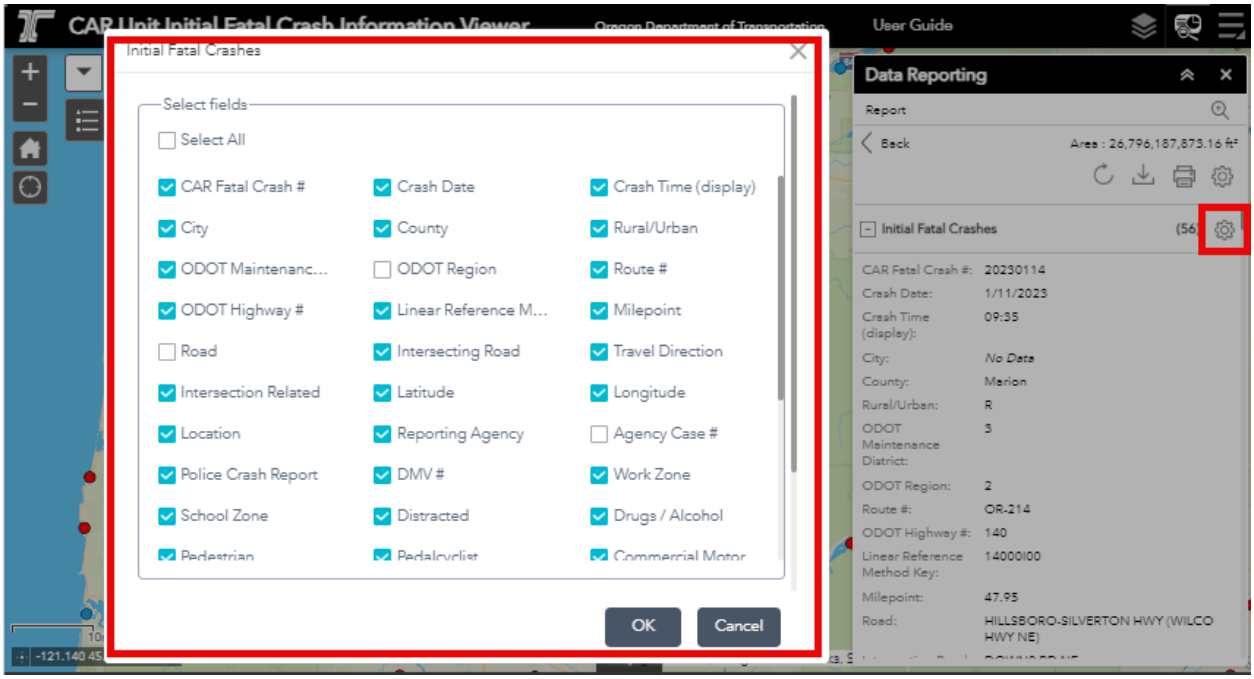


Figure 119 Customizing the Initial Fatal Crashes Data Reporting in the CAR Unit Initial Fatal Crash Information Viewer

Choosing Data Reporting Options

The Data Reporting feature in the CAR Unit Initial Fatal Crash Information Viewer offers several tools for analyzing crash data, including options to refresh the report, download, print, and customize the units of analysis to suit your research needs.

To adjust the units of analysis for your report, follow these steps:

1. Navigate to the Data Reporting section on the panel.
2. Locate and click on the gear icon labeled "Choose units for Analysis" to set your desired measurement units.
3. In the "Choose units for analysis" pop-up, select your preferred unit of measurement for area and length. The options for area include square feet, acres, square meters, square kilometers, hectares, and square miles. For length, the options are feet, meters, miles, and kilometers.
4. For this example, select "Square Miles" for the area and "Miles" for the length from the dropdown menus to match the reporting requirements.
5. Once you have made your selections, click the "Close" button.
6. Observe that the Area in the report now reflects the chosen unit, in this case, square miles.

By customizing the units, you ensure that the report's data is displayed in a format that is most relevant and useful for your specific analysis, making the interpretation of crash data more intuitive and meaningful.

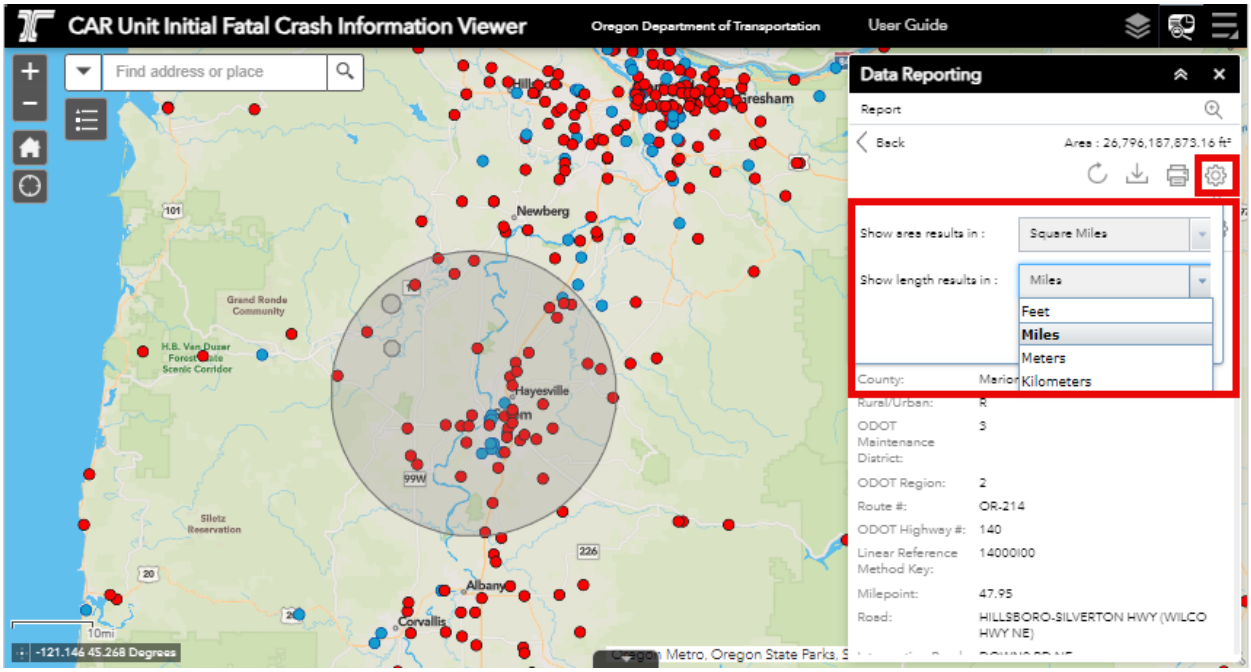


Figure 120 Choosing Options for the Initial Fatal Crashes Data Reporting in the CAR Unit Initial Fatal Crash Information Viewer

Downloading Data Reporting

To download the Initial Fatal Crashes report from the CAR Unit Initial Fatal Crash Information Viewer, follow these steps:

1. Within the Data Reporting panel, click on the “Download” button.
2. A pop-up window will appear with a “Select Format” dropdown menu; “CSV” is typically the available format option.
3. Choose “CSV” (or another available format if provided) as the file format for the download.
4. Click the “Download” button in the pop-up window.
5. A confirmation window will prompt you to confirm the download.
6. Click “Yes” to proceed with downloading the report or “No” if you wish to cancel the download.
7. Upon confirming with “Yes,” the file named “Initial Fatal Crashes.csv” will be downloaded automatically to the Downloads folder on your computer.

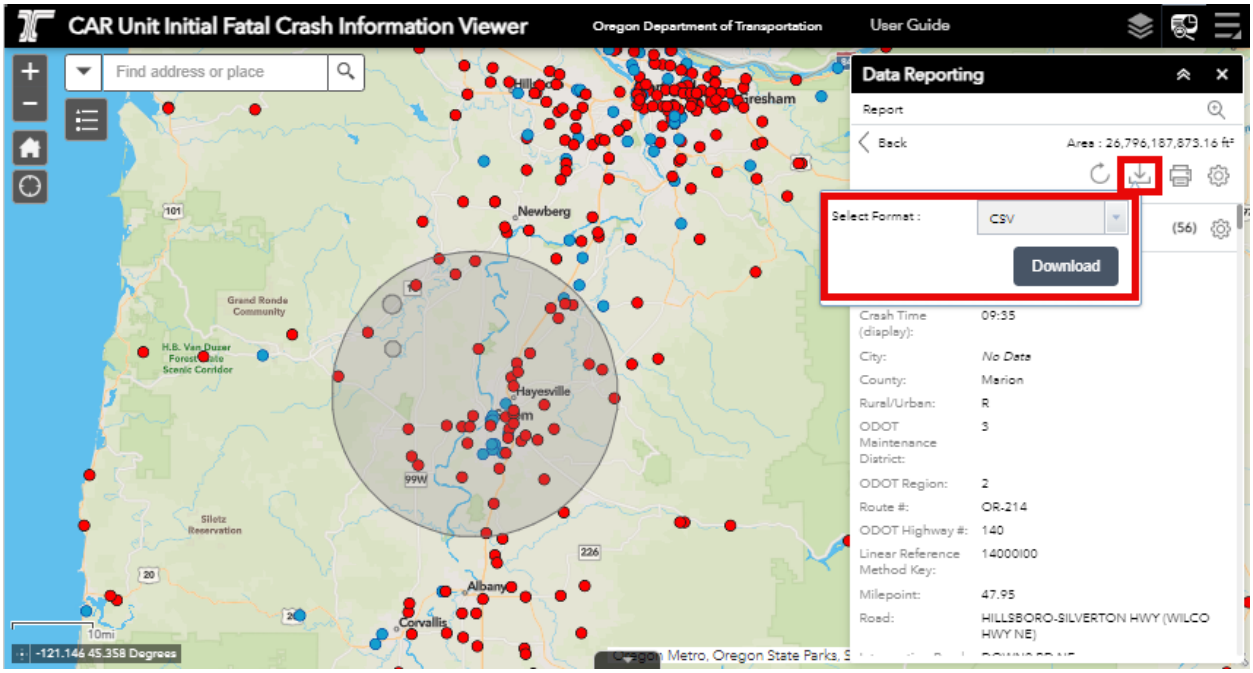


Figure 121 Downloading the Initial Fatal Crashes Data Reporting in the CAR Unit Initial Fatal Crash Information Viewer

Data Sources and Information

The Data Sources and Information section within the CAR Unit Initial Fatal Crash Information Viewer for the Oregon Department of Transportation is a critical resource for users. It details the layers of data provided, such as Initial Fatal Crashes and Fatalities Layers, sourced from the Crash Analysis and Reporting (CAR) Unit. This section also contains important disclaimers, highlighting that the information on fatal crashes is preliminary and subject to change as more data becomes available and evaluated. Users are informed that some data may be removed if they do not meet reporting criteria, and updates may occur over time. Links to comprehensive documents like Crash Data Tools and Products, as well as code manuals and disclaimers, provide users with additional context and support for understanding the crash data presented.

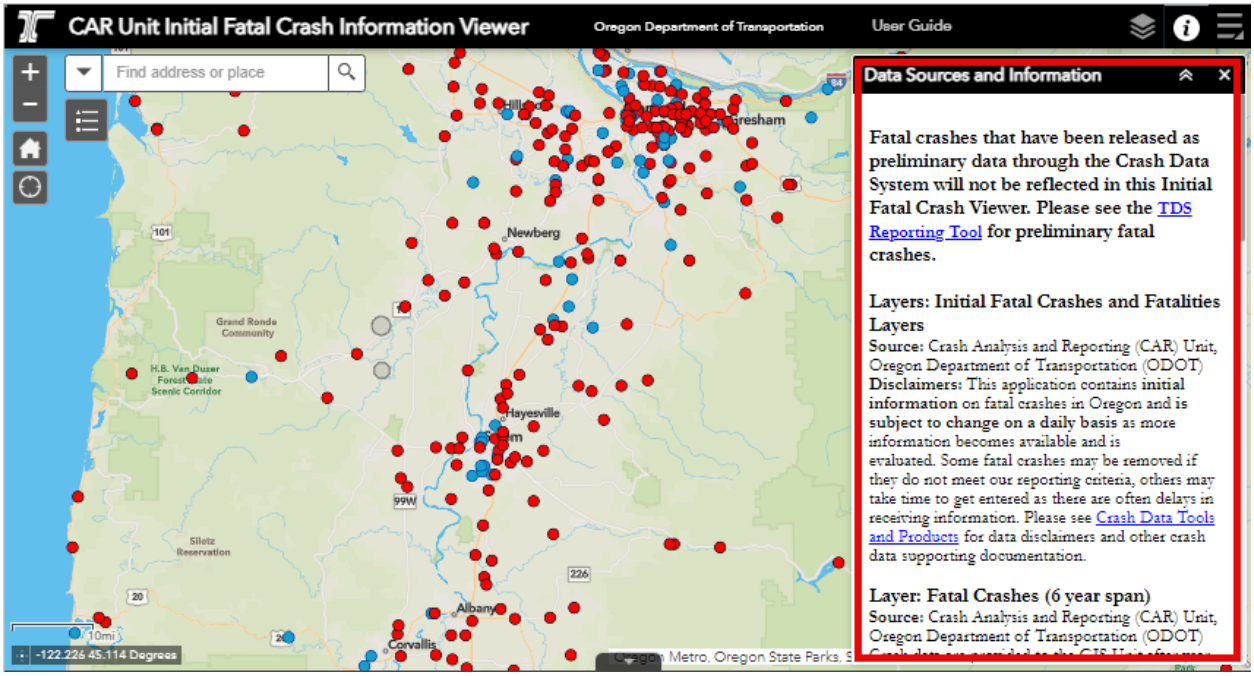


Figure 122 The Data Sources and Information within the CAR Unit Initial Fatal Crash Information Viewer