# TECHNICAL MEMORANDUM #2: UPDATED SYSTEM INVENTORY

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|---|---|---|
| Date: | June 22, 2023 | Project #: 23021.032 |
| To: | Project Management Team | |
| From: | Kittelson & Associates, Inc. and MIG, Inc. | |
| Subject: | OR138E Design Concept Plan | |

## Purpose

The purpose of this technical memorandum is to document through maps and tabular format, the existing and planned system inventory data within the study area. The information included in this technical memorandum is a compilation of and references to land use and transportation inventory in the Study area. No new data has been generated by the Consultant in this task.

## Existing Land Uses

### Comprehensive Plan Designations

Roseburg's comprehensive plan designations outline the long-term vision and goals for the City. The comprehensive plan designation identifies different land uses, such as residential, commercial, industrial, and open space areas. Understanding existing comprehensive plan designations – along with zoning that implements them and described later in this report – will help inform appropriate and needed types of improvements in the OR 138 corridor.

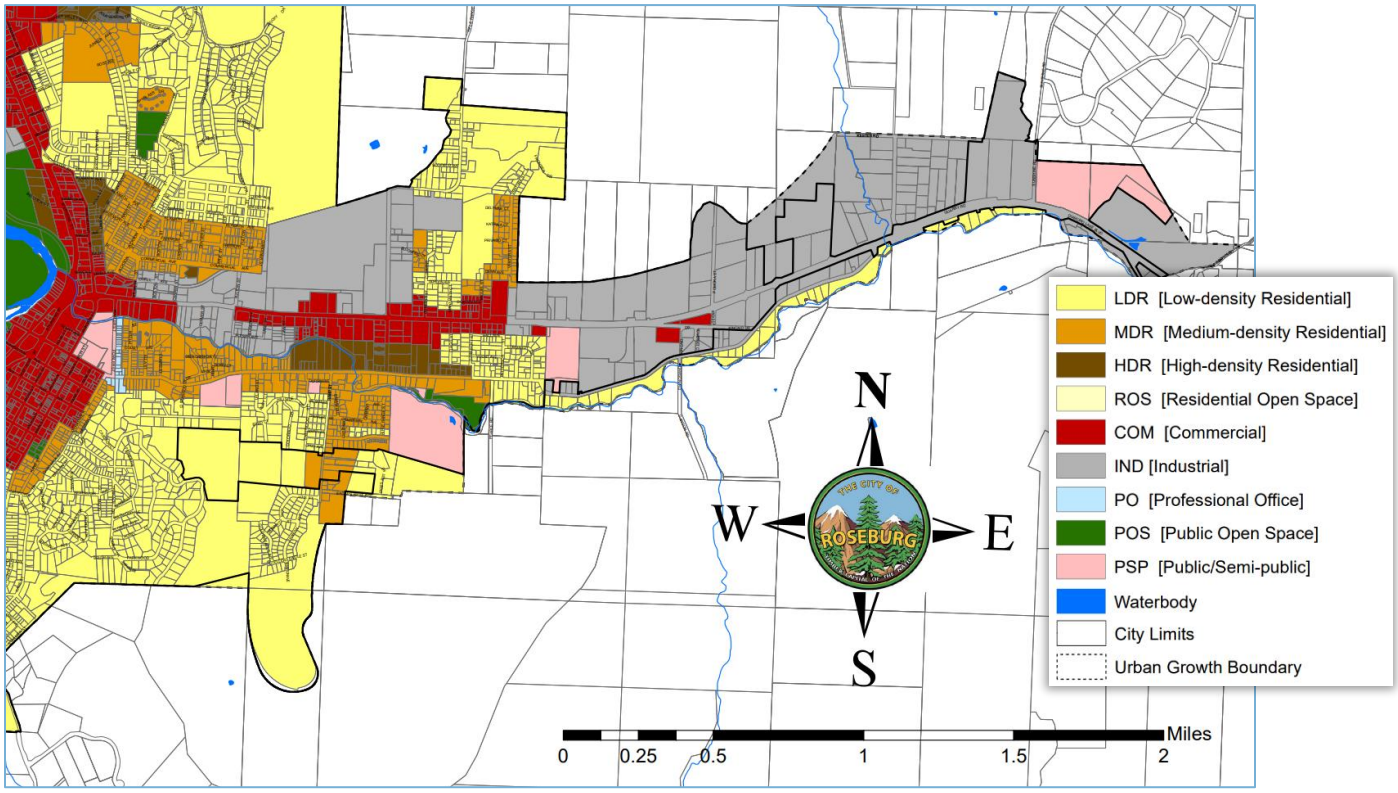
Table 1 provides a summary of Comprehensive Plan Designations present within the study area.

Figure 1 illustrates the location of Comprehensive Plan Designations within the study area.

*Table 1: Comprehensive Plan Designations*

| Comprehensive Plan Designation | Existing Condition Description |
|---|---|
| **Low-Density Residential (LDR)** | Some LDR designated areas are located within the Urban Renewal Area (URA). All of the areas within the URA are separated from OR 138/NE Diamond Lake Blvd by areas designated for commercial or industrial uses. None are located adjacent to OR 138/NE Diamond Lake Blvd. Most of the areas designated as LDR are centrally located along the corridor, generally between NE Cummins Street and Lombardy Drive. There is a smaller amount of LDR designated areas spread throughout the URA, mostly located near the URA boundary. There is a narrow strip of LDR designated areas extending eastward along Douglas Avenue, roughly parallel to OR 138/NE Diamond Lake Blvd and adjacent to OR 138E between Kester Road and Sunshine Road. |
| **Medium-Density Residential (MDR)** | MDR designated areas are the most prevalent residential designation within the URA. Most of the MDR designated areas are located south of OR 138/NE Diamond Lake Blvd and west of Pearce Road. Other MDR designated areas can be found north of OR 138/NE Diamond Lake Blvd, generally adjacent to LDR designated areas.<br><br>Like LDR designated areas, all the MDR designated areas are separated from OR 138/NE Diamond Lake Blvd by areas designated for commercial, industrial, or high-density residential uses. |
| **High-Density Residential (HDR)** | There is one HDR designated area located within the URA. The HDR designated area is located south of OR 138/NE Diamond Lake Blvd, generally between Ivan Street and Garrecht Street. Like the LDR and MDR designated areas, the HDR designated areas are separated from OR 138/NE Diamond Lake Blvd by areas designated for commercial or low-density residential uses. |
| **Commercial (COM)** | All COM designated areas within the URA are located adjacent to OR 138/NE Diamond Lake Blvd. Most of the COM designated areas are located between Fulton Street and Patterson Street. A smaller concentration of COM designated areas is present along the western portion of the URA and extends further along Stephens Street and the downtown core. Isolated areas with COM designations are also present along the eastern extent of the corridor. |
| **Industrial (IND)** | IND designated areas are the most prevalent Comprehensive Plan designation in the URA. With some exceptions, all IND designated areas are located adjacent to OR 138/NE Diamond Lake Blvd. |
| **Professional Office (PO)** | There is a small amount of PO designated areas located near the western boundary of the URA. The PO designated areas are not adjacent to OR 138/NE Diamond Lake Blvd. The PO designated areas are adjacent Fowler Street. |
| **Public Open Space (POS)** | There is one POS designated area within the URA. The POS designated area is not located adjacent to OR 138/NE Diamond Lake Blvd. |
| **Public/Semi-Public (PSP)** | There is a limited amount of PSP designated areas within the URA. One PSP designated area is located adjacent to OR 138/NE Diamond Lake Blvd, between LDR and IND designated areas. The remaining PSP designated areas are located south of NE Douglas, near the southern boundary of the URA. |

*Figure 1: City of Roseburg Comprehensive Plan Designations*[1]




## Zoning Designations

The City's zoning districts can be found on the zoning interactive web map.[2] Static maps of the City's zoning and the OR 138 corridor study area zoning is shown in Figure 2. Table 2 summarizes the zoning designations that are most prevalent in the corridor and discusses existing location of the zoning designations that are in the corridor area.

*Table 2: Zoning Descriptions*

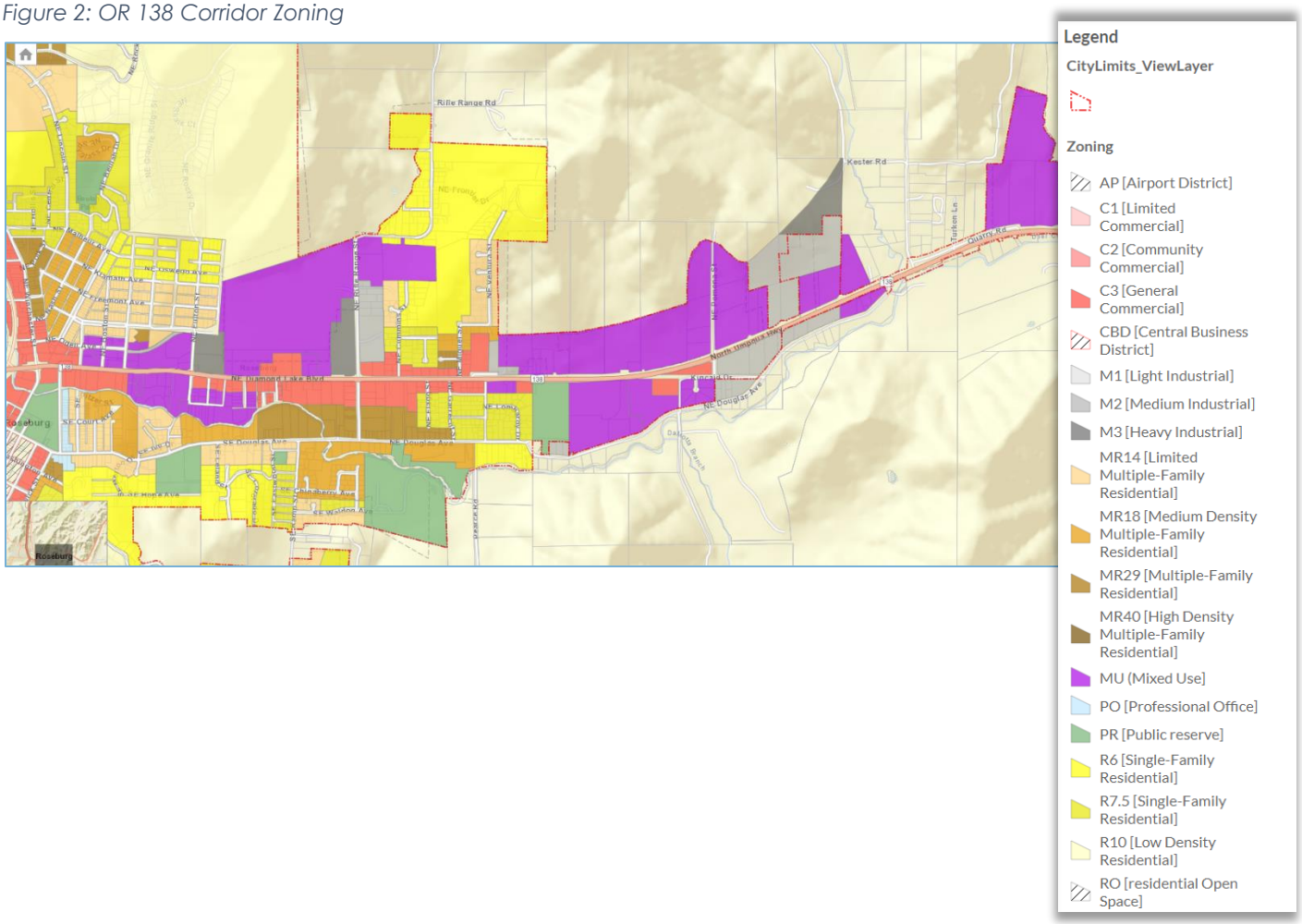
| Zoning District | Descriptions |
|---|---|
| **Single-family Residential (R6 and R7.5)** | The R6 and R7.5 zoning districts primarily allow for single-family and duplex residential uses. Accessory dwelling units (ADUs) are allowed in conjunction with a single-family dwelling. Townhouses are permitted as conditional uses in each district. Lot sizes in the district are generally 6,000 square feet minimum for R6 districts and 7,000 square feet minimum for R7.5 districts, but both can vary depending on the type of use.<br><br>There are some R6 and R7.5 districts present within the URA. Where present, the districts are generally separated from the OR 138 corridor by other residential districts and/or commercial districts. R6 zoning is located |

[1] Roseburg Comprehensive Plan Map.
https://www.cityofroseburg.org/storage/app/media/ADM/Maps/CC_Comp_36x48_Jan2021.pdf
[2] Roseburg Zoning Map.
https://roseburg.maps.arcgis.com/apps/PublicInformation/index.html?appid=a6e10bfa99f14d32b01ed6cd31273a51
Title 12 Land Use Development Regulations
https://library.qcode.us/lib/roseburg_or/pub/municipal_code/item/title_12

| Zoning District | Descriptions |
|---|---|
| | within the URA and is separated from OR 138 by residential and commercial zones. There is no R6 zones located adjacent to OR 138. Most of the R6 zoning is centrally located along the corridor, generally between NE Cummins Street and NE Miguel Street. There is a smaller R6 zone located within the URA, adjacent to NE Douglas Avenue, which runs parallel to OR 138.<br><br>Like the R6 zone, R7.5 zoning is located within the URA and separated from OR 138 by commercial zones. |
| **General Commercial (C3)** | The General Commercial classification is intended to provide areas within which a variety of retail and wholesale business occurs. These areas serve general community-wide and regional commercial needs. This district allows some residential development as a conditional use and residential facilities and mobile home parks outright. It allows most commercial and public/civic uses outright, and a few commercial uses are allowed as a conditional use. The zone has few lot dimension standards and allows a maximum height of 80 feet.<br><br>A significant portion of OR 138/NE Diamond Lake Blvd is fronted by C3 properties in the western portion of the corridor. In addition, the intersection/interchange area between OR 138 and OR 99/NE Stephens St includes a concentration of C3 zoned properties. |
| **Medium-Density Residential (MR14 and MR18)** | The MR14 and MR18 zones allows all residential uses outright, and they allow most public/civic and commercial uses as a conditional use. The zone has a minimum lot size of 6,000 sf for single-family and duplex development, 2,400 square feet for townhouses, and 10,000 square feet or 3,000 or 2,350 square feet per unit for all other development types. MR14 has a maximum building height of 30 feet and MR18 has a max height of 45 feet.<br><br>There are no MR14 properties that directly front on OR 138/NE Diamond Lake Blvd. There is a cluster of MR14 properties to the north and south of the corridor in the western portion of the corridor, which are separated from OR 138 by C3 and MU properties.<br><br>There are no MR18 properties that directly front on OR 138/NE Diamond Lake Blvd. There is a cluster of MR18 properties north of OR 138/NE Diamond Lake Blvd in the western portion of the corridor, which are separated by C3 properties. |
| **Mixed Use (MU)** | The MU zone classification is intended to provide areas within which a variety of activity occurs. These areas serve community-wide and regional needs. Because of the potential for high-density uses, care is needed to ensure that uses are compatible with and do not adversely affect adjacent uses or the carrying capacity of public facilities. The proximity of other uses shall not be a reason for permitted uses to deviate from the standards established in other zones.<br><br>The MU zone allows dwellings above ground floor commercial uses and mobile home parks. The zone also allows most commercial uses. It has a maximum building height of 80 feet, no maximum lot coverage standard, and a minimum lot size of 10,000 square feet for multifamily housing.<br><br>There are several properties with MU zoning designations in the western portion of the corridor, both to the north and south of OR 138. Most of |

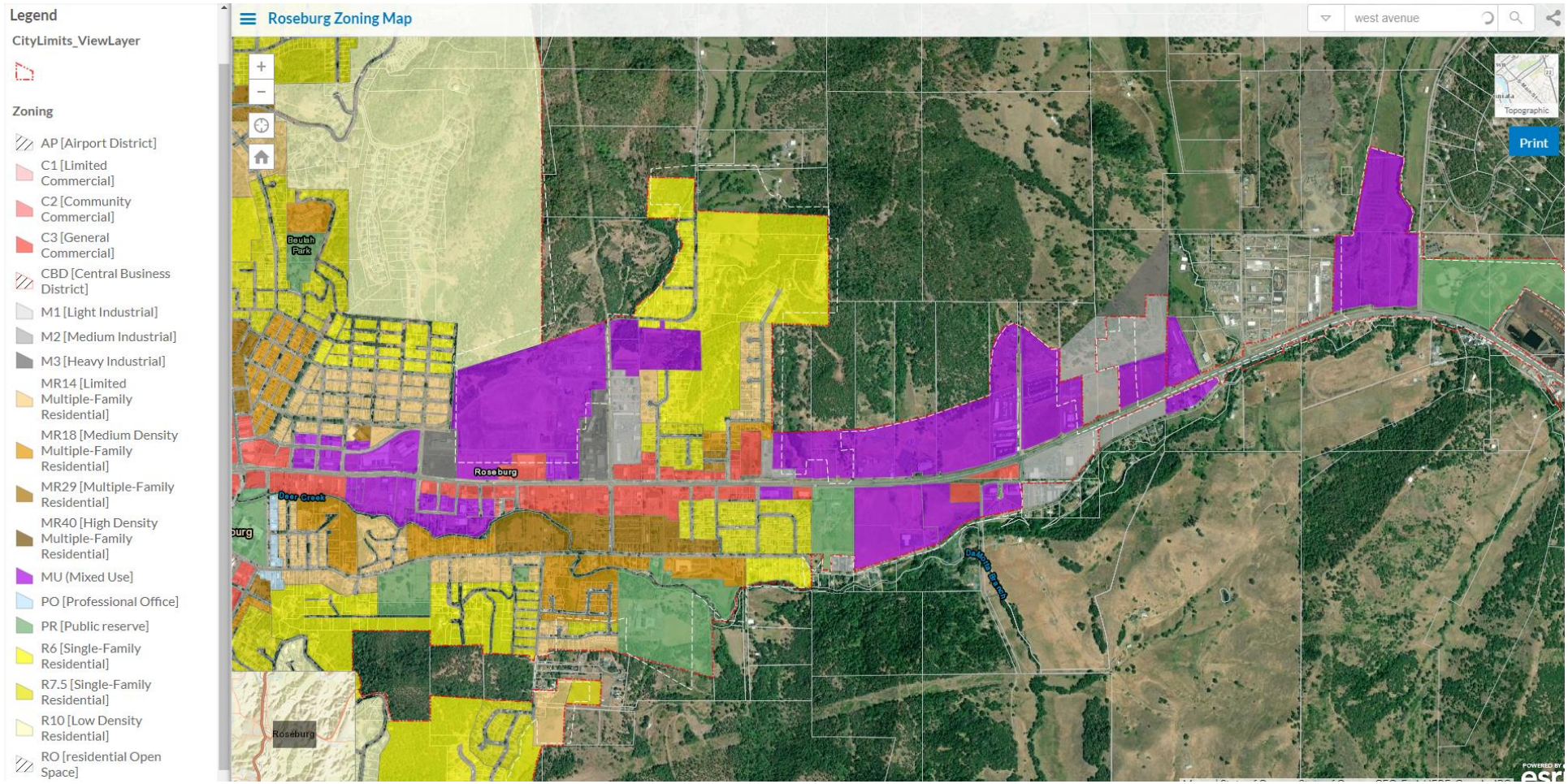
| Zoning District | Descriptions |
|---|---|
| | these MU properties front on OR 138/NE Diamond Lake Blvd, with some of the properties being separated by the C3 zone. A number of larger MU properties front on OR 138/NE Diamond Lake Blvd in the central and western portions of the corridor, near NE Pomona Street, Quarry Road, and Sunshine Road. |
| **Medium Industrial (M2)**<br>**Heavy Industrial (M3)** | The M2 zone is intended to create, preserve, and enhance areas containing a wide range of manufacturing and related establishments, and is typically appropriate to areas providing a wide variety of sites with good rail or highway access.<br>The M3 zone is intended to provide, protect, and recognize areas well suited for medium and heavy industrial development and uses free from conflict with commercial, residential, and other incompatible land uses. This district is intended to be applied generally to those areas which have available excellent highway, rail, or other transportation.<br>Neither zone allows any residential development, and both zones allow a range of industrial activity, such as wholesale shops, breweries, truck terminals, and a variety of manufacturing activities.<br>Several M2 properties front on OR 138/NE Diamond Lake Blvd in the eastern portion of the corridor, which are in between MU properties to the east and west. Some smaller M2 properties either front or are near OR 138 in the central portion of the corridor.<br>Some relatively smaller M3 properties front on OR 138/NE Diamond Lake Blvd in the western portion of the corridor near NE Fulton St. |
| **Public Reserve (PR)** | The Public Reserve (PR) zone is intended to establish areas which have unique characteristics which require unique regulations. Within the PR zone, a variety of public service activities may be conducted without interference from inappropriate levels of residential, commercial, or industrial activities. It is intended to be applied primarily, though not exclusively, to publicly owned lands. The PR zone allows nearly all public/civic uses outright, and it allows some commercial as a conditional use.<br>Some larger PR zoned properties front on OR 138 at the eastern end of the corridor. In addition, some PR properties front on the corridor in the central portion, and there are some PR areas near the western portion of the corridor that are separated by C2 properties. |

*Figure 2: OR 138 Corridor Zoning*




As shown in Figure 3 most of the areas that appear vacant from aerial imagery are zoned for mixed-use development. Therefore, most future development that occurs directly adjacent to the corridor is likely to be a mix of commercial, light industrial, and higher density/mixed use residential development. Most C3 properties are developed, with the exception of the C3 property by Kincaid Dr. The M2 properties in the eastern portion of the corridor are mostly undeveloped as well. Most nearby residential land is developed, with the exception of some large tracts of low-density residential (R6) to the north of the corridor. The PR zones in the corridor appear to be developed. See the City's zoning web map with aerial imagery to enable closer examination of the development status and zoning designation of each property in the corridor. See the Natural Resources and Environmental Barriers section of the memo for details on potential land use barriers and environmental considerations in the area.

*Figure 3: Buildable Land Assessment in the Corridor Area*



# Existing Street Network

The following section summarizes the existing street network within the study area based on available data. Data is summarized in consolidated, user-friendly, tabular formats, with inconsistencies identified for resolution by the City, County, and ODOT[3].

## Jurisdictional Ownership and Functional Classification

Jurisdictional ownership and functional classification information was provided by the City for the study area streets. Table 3 summarizes the jurisdictional ownership and functional classification for collector streets and above within the study area.

*Table 3: Jurisdiction Ownership and Functional Classification*

| Roadway | Jurisdictional Ownership | City Functional Classification | ODOT Classification | OHP Classification |
|---|---|---|---|---|
| **OR 138E** (Diamond Lake Blvd) | ODOT | Arterial | Principal Arterial | Regional |
| **Douglas Ave** | City | Collector | Major Collector | Null |
| **Fulton St** | City | Minor Collector | Major Collector | Null |
| **Rifle Range St** | City | Minor Collector | Major Collector | Null |
| **Stephens St** | City | Arterial | Principal Arterial | Null |
| **Winchester St** | City | Collector | Major Collector | Null |

## Freight Routes

Freight route-related designations for the OR 138E corridor, as documented by ODOT are summarized in Table 4. There are no city specific freight-related designations for any of the other study area roadways.

*Table 4: Freight Designations*

| Roadway | National Highway Freight Routes | OHP Freight Routes | High Clearance Routes | Reduction Review Routes |
|---|---|---|---|---|
| **OR 138E** (Diamond Lake Blvd) | No | No | No | ***Yes*** |

## Roadway Characteristics

Table 5 summarizes the roadway characteristics information for collector streets and above within the study area.

*Table 5: Roadway Characteristics*

| Roadway | Number of Lanes | Posted Speed |
|---|---|---|
| **OR 138E** (Diamond Lake Blvd) | 5 | 35 (west study boundary to Rifle Range St)<br>45 mph (Rifle Range St to Phoenix Charter School)<br>55 mph (Phoenix Charter School to east study boundary) |
| **Douglas Ave** | 2-3 | 20 – 35mph |
| **Fulton St** | 2 | 25 mph |
| **Rifle Range St** | 2 | 25 |

[3] Datasets identified in the scope that were not made available, are unavailable or do not exist have been flagged.

| | | |
|---|---|---|
| **Stephens St** | 1-5 | 25 – 45mph |
| **Winchester St** | 1-4 | 35mph |

## Miscellaneous Datasets

Several miscellaneous datasets were provided by the City and ODOT. These datasets are better summarized visually through maps as they are location specific with varying attributes. Miscellaneous datasets include:

- Pavement type and condition (OR 138E only)
- Traffic signals
- Culverts
- Rail crossings

The miscellaneous datasets summarized above are illustrated in Figure 4.

### Unavailable Roadway Characteristics Data

The following datasets were requested by the consultant team, but it was determined that there is no succinctly summarized data set that could easily be reproduced in this tech memo.

However, much of the information below is available along the OR 138E corridor via ODOT's TransGIS platform (https://gis.odot.state.or.us/transgis/). Where critical to the project, some of the inventory data sets will be picked up during future field visits to the Roseburg area.

- Right-of-Way widths
- Pavement and shoulder widths
- Lane widths
- Location of medians
- On-street parking locations
- Stop control devices
- Bridges and condition
- Average Daily Traffic (ADT)

## Access information

Official project access list (OPAL) information was provided by ODOT in tabular format for the study area segment of OR 138E. The information includes but is not limited to existing approaches inventory, access control report (ACR), and existing approaches statues report (EASR). The existing approach inventory includes surface type and existing width (ft) data as well as property use and property address information.

*Appendix "A" includes the OPAL spreadsheet.*

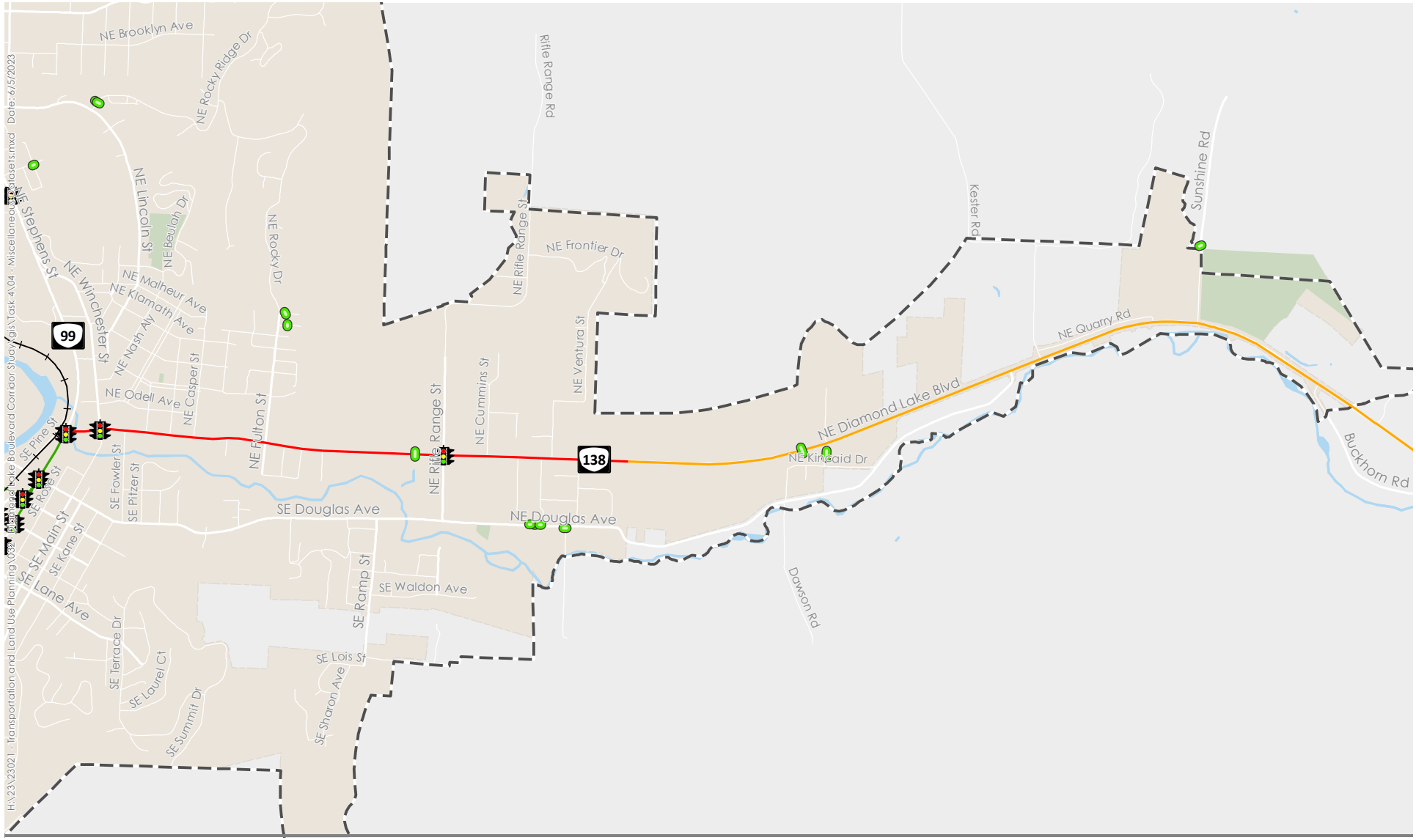
## National Highway System Facilities

National Highway System (NHS) 2016 facility data was provided by the City for state and nonstate facilities. NHS facility data includes NHS designation. OR 138E is designated as "NHS"; all other streets within the study area are designated as "NHS Nonstate".

### Unavailable National Highway System Facilities

The following datasets were requested by the consultant team but were determined unavailable.

- Access management & medians—use in coordination with crossing analysis
- Street trees/planter strips/stormwater swales
- Lighting (pedestrian) analysis




Culverts

Roseburg City Boundary

Urban Growth Boundary

**Pavement Condition**

Good

Fair

Poor

Rail Crossings

Traffic Signals

0 2,250 Feet

Figure 4

KITTELSON & ASSOCIATES

**Miscellaneous Datasets**

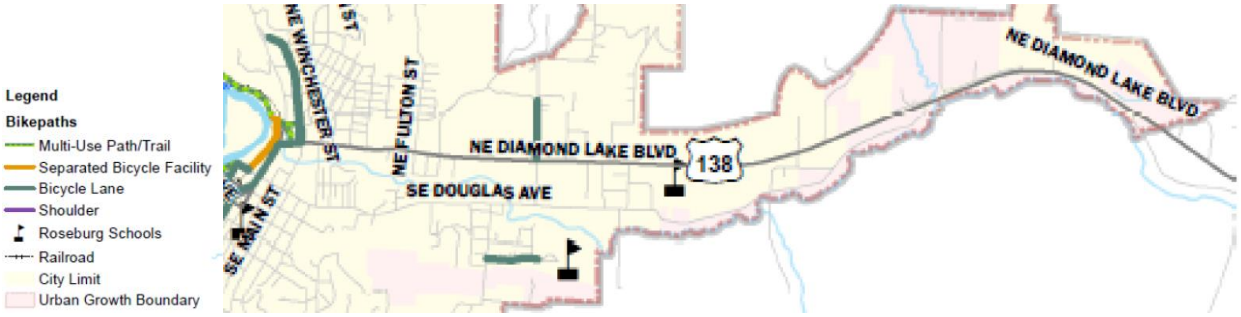
# Existing Bicycle & Pedestrian Network

The following section summarizes and illustrates the existing bicycle and pedestrian network within the study area based on available data. Data is summarized in consolidated, user-friendly, tabular formats, with inconsistencies identified for resolution by the City, County, and ODOT[4].

## Existing Bicycle Facilities

Figure 5 illustrates the existing bicycle facilities within the study area. Figure 5 is extracted from the City's Transportation System Plan (TSP).

*Figure 5: Existing Bicycle Facilities*




As shown, no dedicated bicycle facilities are provided along OR138 Diamond Lake Blvd or Douglas Avenue.

## Existing Bicycle Level of Traffic Stress

Figure 6 illustrates the existing bicycle level of traffic stress (BLTS) within the study area. Figure 6 is extracted from the City's Transportation System Plan (TSP).

*Figure 6: Bicycle Level of Traffic Stress*

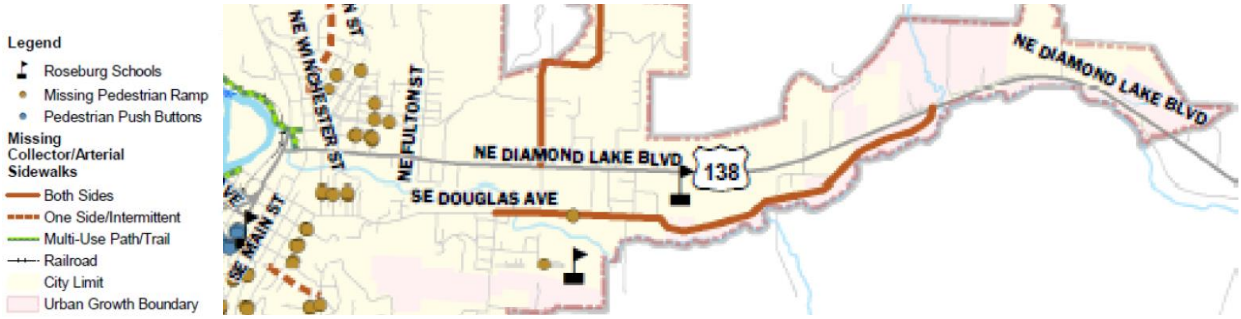

As shown, OR138 Diamond Lake Boulevard ranges from a BLTS 3-4. Douglas Avenue is primarily BLTS 4 with the western extents identified as BLTS2.

[4] Datasets identified in the scope of work that were not made available, are unavailable or do not exists have been flagged.

## Pedestrian Facilities

Figure 7 illustrates the existing pedestrian facilities within the study area. Figure 7 is extracted from the City's Transportation System Plan (TSP).

*Figure 7: Existing Pedestrian Facilities*




## Unavailable Bicycle and Pedestrian Facility Data

The following datasets were requested by the consultant team, but it was determined that there is no succinctly summarized data set that could easily be reproduced in this tech memo.

However, much of the information below is available along the OR 138E corridor via ODOT's TransGIS platform (https://gis.odot.state.or.us/transgis/). Where critical to the project, some of the inventory data sets will be picked up during future field visits to the Roseburg area.

- Bicycle facilities width, surface type, geometry, and conditions, including paved shoulders at least 4' in width
- Pedestrian facility width, geometry, conditions, including paved shoulders at least 4 feet in width
- Striped Crosswalk locations and conditions including any enhanced crossing infrastructure such as Rectangular Rapid Flashing Beacons, Pedestrian Hybrid Beacons, warning signage, etc.
- ADA accessible public sidewalk conformance impediments (e.g., light poles, mailboxes, junction boxes, signal cabinets, fire hydrants), as currently identified by the City and mapped in GIS
- Activity centers likely to draw bicyclists and pedestrians, such as schools, employment centers, parks, and commercial centers

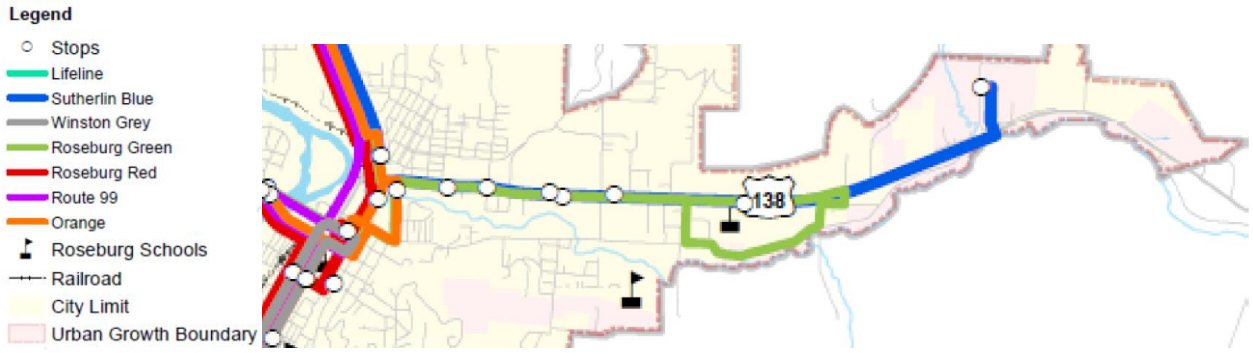
# Existing Public Transit Services Inventory

The following section summarizes and illustrates the existing transit network within the study area based on available data. Data is summarized in consolidated, user-friendly, tabular formats, with inconsistencies identified for resolution by the City, County, and ODOT[5].

## Existing Transit Network

Figure 8 illustrates the existing transit network within the study area. Figure 8 is extracted from the City's Transportation System Plan (TSP).

*Figure 8: Existing Public Transit Services Inventory*




## Existing Transit Stop Locations and Transit Stop Infrastructure

Transit stop locations information was provided by the City including stop location, stop names, and routes within the study area.

Two transit services are provided within the study area including the Roseburg Red Line and the Roseburg Green Line, operated by Umpqua Public Transit District (UPTD). The Roseburg Red Line has 4 transit stops and the Roseburg Green Line has 19 transit stops within the study area. Table 6 summarizes the transit stop names by route.

*Table 6: Transit Stop Information*

| Transit Route | Transit Stop Name |
|---|---|
| Red Line | Kohlhagen Apartments - Lane St |
| Red Line | Washington & Rose |
| Red Line | Library - Jackson St. |
| Red Line | Dairy Queen - Across |
| Green Line | Dairy Queen - Winchester St. |
| Green Line | 76 Gas Station - Diamond Lake Blvd |
| Green Line | Ten Down Bowling - Across |
| Green Line | Phoenix School |
| Green Line | Kowloons Restaurant |
| Green Line | Ten Down Bowling |
| Green Line | Fulton St. & Diamond Lake Blvd |
| Green Line | Library - Fowler St. |
| Green Line | Washington & Rose |

[5] Datasets identified in the scope of work that were not made available, are unavailable or do not exists have been flagged.

| | |
|---|---|
| Green Line | Dairy Queen - Winchester St. |
| Green Line | 76 Gas Station - Diamond Lake Blvd |
| Green Line | 76 Gas Station - Diamond Lake Blvd |
| Green Line | Ten Down Bowling - Across |
| Green Line | Phoenix School |
| Green Line | 3825 Kincaid Dr, Roseburg, OR 97470, USA |
| Green Line | Kowloons Restaurant |
| Green Line | Fulton St. & Diamond Lake Blvd |
| Green Line | Library - Fowler St. |
| Green Line | Washington & Rose |

## Unavailable Transit Stop Locations and Transit Stop Infrastructure Data

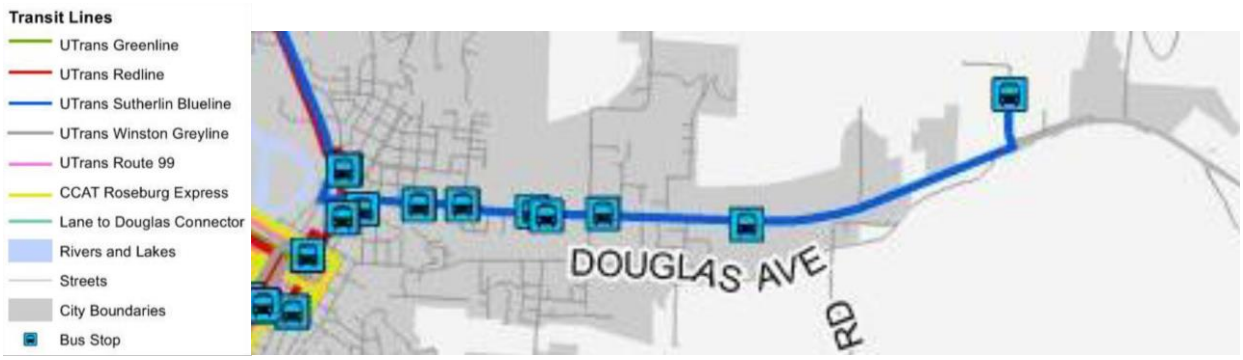
The following datasets were requested by the consultant team but were determined unavailable.

- Transit stop infrastructure (e.g., shelters, passenger information)
- Transit analysis/coordination- stop needs (wider sidewalks/amenities), crossings

## Umpqua Public Transportation District

Figure 9 illustrates the existing Umpqua Public Transportation District (UPTD) Roseburg Service within the study area. Figure 9 is extracted from the Umpqua Public Transportation District (UPTD) Transit Master Plan 2022.

*Figure 9: UPTD Roseburg Service*




## Unavailable Public Transit Services Inventory

The following datasets were requested by the consultant team, but it was determined that there is no succinctly summarized data set that could easily be reproduced in this tech memo.

However, much of the information below is available along the OR 138E corridor via ODOT's TransGIS platform (https://gis.odot.state.or.us/transgis/). Where critical to the project, some of the inventory data sets will be picked up during future field visits to the Roseburg area.

- Transit stop infrastructure
- Limitations to service, including service to other communities or problems with accessing the services
- Planned transit improvements to service and transit infrastructure within the planning horizon of this Project

# Existing Air, Water, Rail and Pipeline Inventories

The following section summarizes the existing air, water, rail, and pipeline inventories within the study area. Data is summarized in consolidated, user-friendly, tabular formats, with inconsistencies identified for resolution by the City, County, and ODOT[6].

### Existing Air Facilities

No air facilities are identified within the study area.

### Existing Water Facilities

No water facilities are identified within the study area.

### Existing Rail Facilities

According to the TSP, "one railroad line passes through Roseburg. The Central Oregon and Pacific Railroad (CORP) is a short line railroad. Currently, the railroad line is exclusively for freight, with 90% percent of its delivery consisting of forest products."

The railroad is located west of SE Stephens Street and runs parallel to the South Umpqua River.

### Existing Pipeline Facilities

No pipeline facilities are identified within the study area.

[6] Datasets identified in the scope of work that were not made available, are unavailable or do not exists have been flagged.

# Natural Resources and Environmental Barriers

The following section documents the natural resources and environmental barriers found in the study corridor. The majority of the information in this section is sourced from the 2019 Roseburg TSP, which inventoried the same environmental resources and barriers that are examined in this section.

## Goal 5 Resources

### Wildlife Habitats

Wildlife habitats are areas that wild animals depend on to meet their requirements for food, water, shelter, and reproduction. Roseburg is in a unique geographic location where parts of the City and the surrounding areas can accommodate a wide range of wildlife. Parts of the City, such as Stewart Park and portions of the South Umpqua River incorporate wildlife habitat. Roseburg completed an inventory of wildlife as part of their 1984 Comprehensive Plan. However, wildlife habitats were not mapped at that time.

#### *Fish Habitat*

Fish habitat constitutes an important part of Roseburg's wildlife population. Two major rivers, the North Umpqua River and the South Umpqua River, contain migration, rearing, and spawning habitat to a variety of native fish species.

Figure 10 illustrates the known or probable presence of all wild, natural, and/or hatchery fish populations within rivers where fish, such as salmon may migrate to. Areas labeled Fish Habitat (ODFW and StreamNet) have been identified by the State of Oregon and other sources as fish-bearing rivers and streams. The maps show the approximate location of the inventoried streams.. Deer Creek, which is an ODFW identified Fish Habitat runs along OR 138 in Roseburg.

#### *Wildlife Linkages*

Wildlife linkages are key movement areas for wildlife, with an emphasis on areas that cross paved roads. Linkage areas are inclusive of a variety of species, including big game mammals, small mammals, amphibians, and reptiles. Areas within Roseburg will need additional surveys or on-site assessment to assess the appropriate level of remedial action needed to improve habitat connectivity and wildlife passages across State highways.

Figure 11 shows areas that are prioritized, based on a combination of various data and qualities, including ODOT's Wildlife Collision Hotspots, areas in close proximity to public lands; areas with the several species present; and more. A higher priority indicates that the area is critical for providing safe wildlife crossings. Most of the study corridor is in Priority 5-6 Wildlife Linkage. Improvements to transportation facilities in these areas should consider, and mitigate to the extent feasible, impacts to nearby wildlife.

*Figure 10: Fish Habitat*

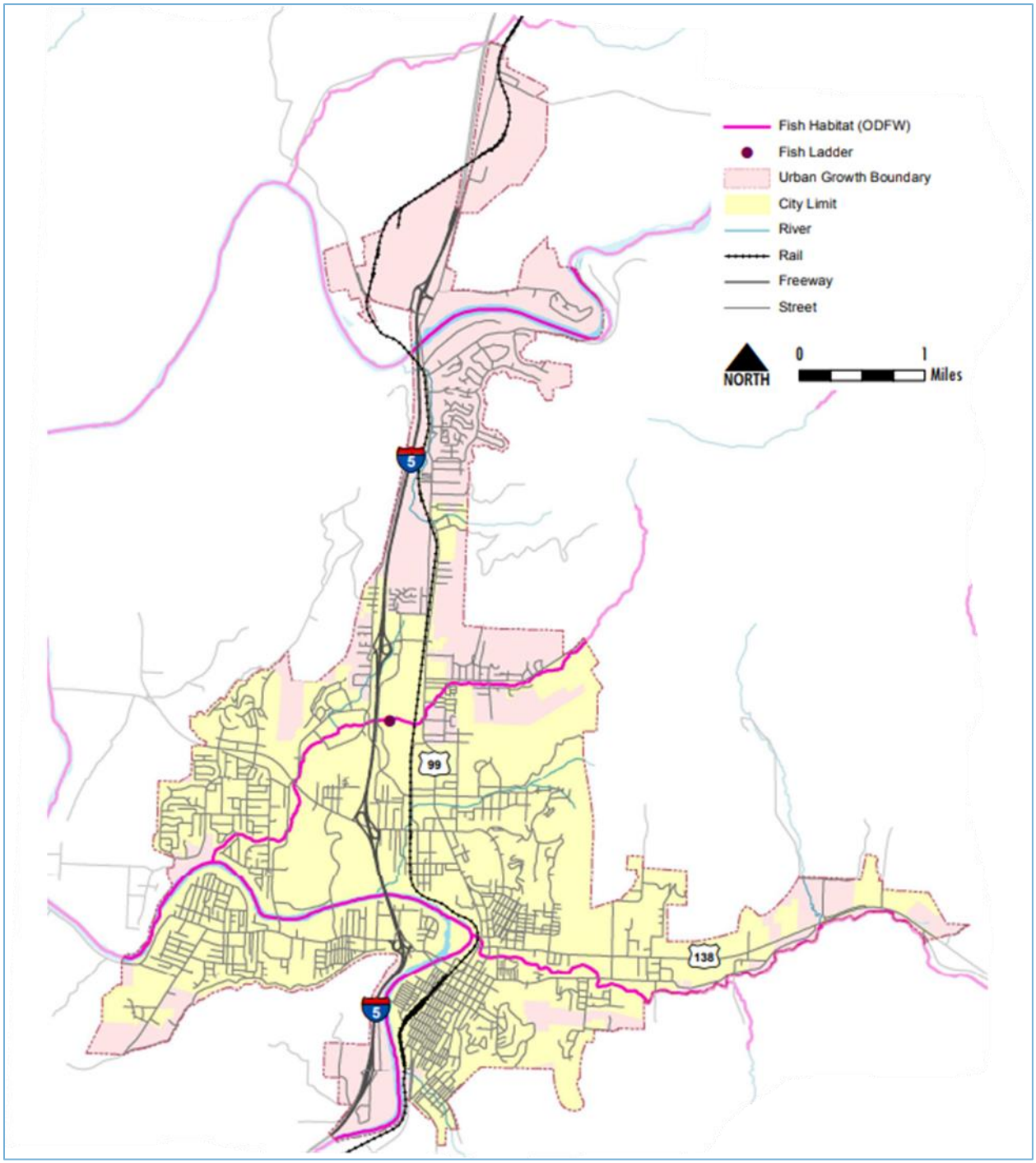
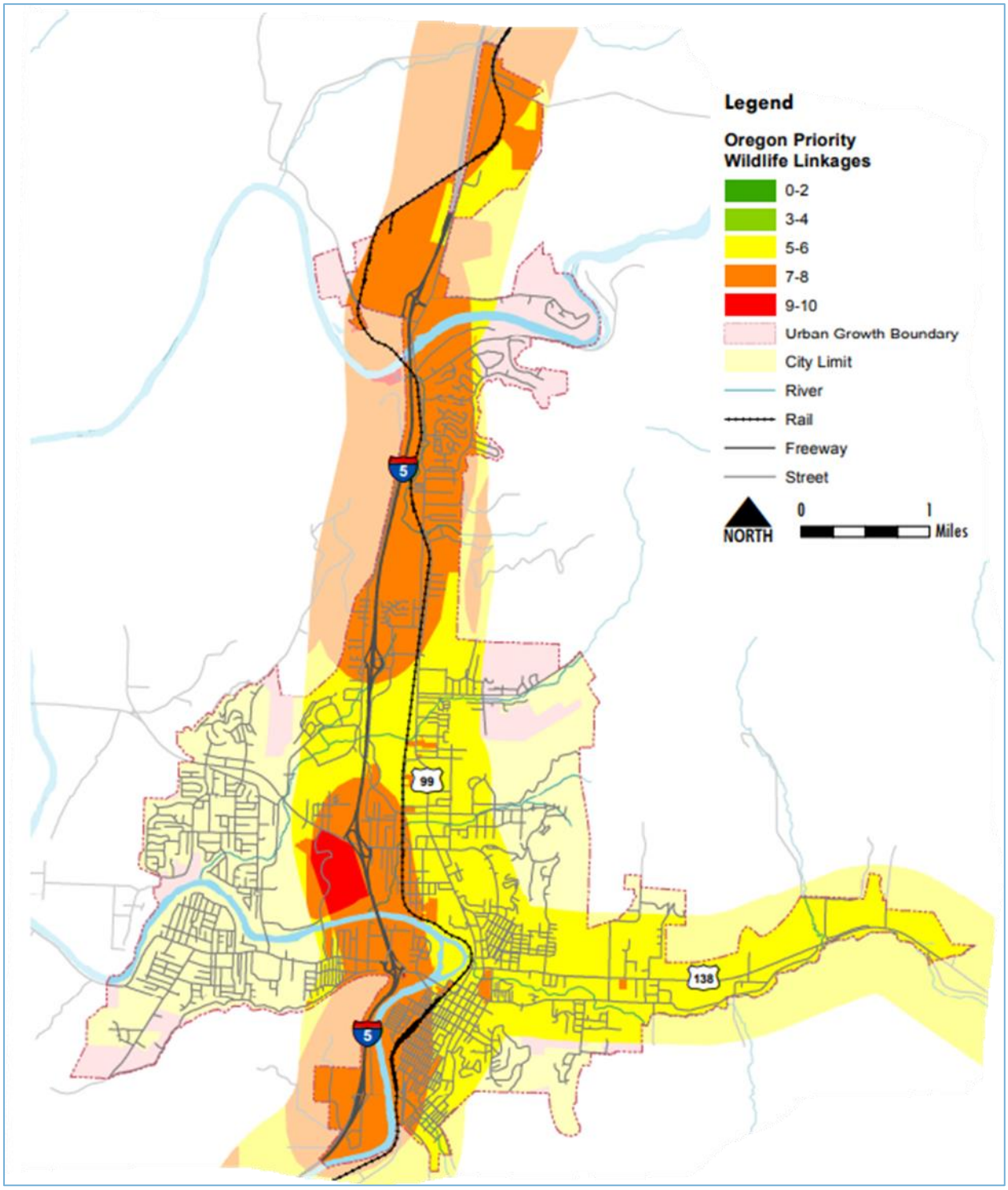


*Figure 11: Wildlife Linkages*



## Federal Emergency Management Agency (FEMA) Floodplains

Congress enacted the National Flood Insurance Program in 1968 to encourage local governments to adopt sound floodplain management programs and to provide subsidized flood insurance in flood hazard areas. Flood hazard areas are identified in the Flood Insurance Rate Map (FIRM) and can be considered high-risk areas. There is a 1% chance in any given year that a flood can occur in these areas.

There are two large rivers and two creeks in Roseburg that contribute to potential flood zones. The large rivers include the North Umpqua River and the South Umpqua River. The contributing creeks include Newton Creek and Deer Creek, each connecting to the South Umpqua River. Parts of the Deer Creek floodplain overlap with the study corridor, particularly in the western portion of the study area.

Figure 12 illustrates the flood hazard areas that have been identified and mapped by FEMA. The 100-year flood is the area that has 1% chance of being equaled or exceeded in any single year. The 500-year flood is the area that has 0.2% chance of being equaled or exceeded in any single year. For more information on the City's floodplain program, see the Floodplain Information page that includes a detailed webmap of Roseburg's floodplain resources.[7]

## Known hazardous materials spill locations

The Oregon Department of Environmental Quality (DEQ) databases for Environmental Cleanup Site Information (ESCI)[8] and Leaking Underground Storage Tank (LUST)[9] cleanup sites were used to show the general location of hazardous material locations within Roseburg. These figures identify all existing locations (per current DEQ databases) that are current hazardous waste site/generators, have leaking underground storage tanks (where cleanup has not been completed), and are/were environmental cleanup sites. An assessment of each permit would be necessary to determine future impacts on transportation project development; such a review would indicate if an identified hazard location is in good standing, has completed cleanups where an issue was previously identified, is in the process of completing a cleanup, or if no further action is required to address the noted issue.

As shown in Figure 13, there is a cluster of hazardous waste sites in the eastern portion of the OR 138 Corridor, and there are a few cleanup locations near the western end of the corridor.

## Threatened and Endangered listed species

A detailed list of the Threatened and Endangered (T&E) species within the UGB was not available. A comprehensive list of T&E species for the state of Oregon is available through ODFW.[10]

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[7] Floodplain Information. https://www.cityofroseburg.org/departments/community-development/floodplain-information

[8] DEQ Environmental Cleanup Site Information Database https://www.oregon.gov/deq/hazards-and-cleanup/env-cleanup/pages/ecsi.aspx

[9] DEQ Leaking Underground Storage Tank Database https://www.deq.state.or.us/lq/tanks/lust/LustPublicLookup.asp

[10] ODFW Threatened and Endangered Species. https://www.dfw.state.or.us/wildlife/diversity/species/threatened_endangered_candidate_list.asp

*Figure 12: FEMA Flood Zones*

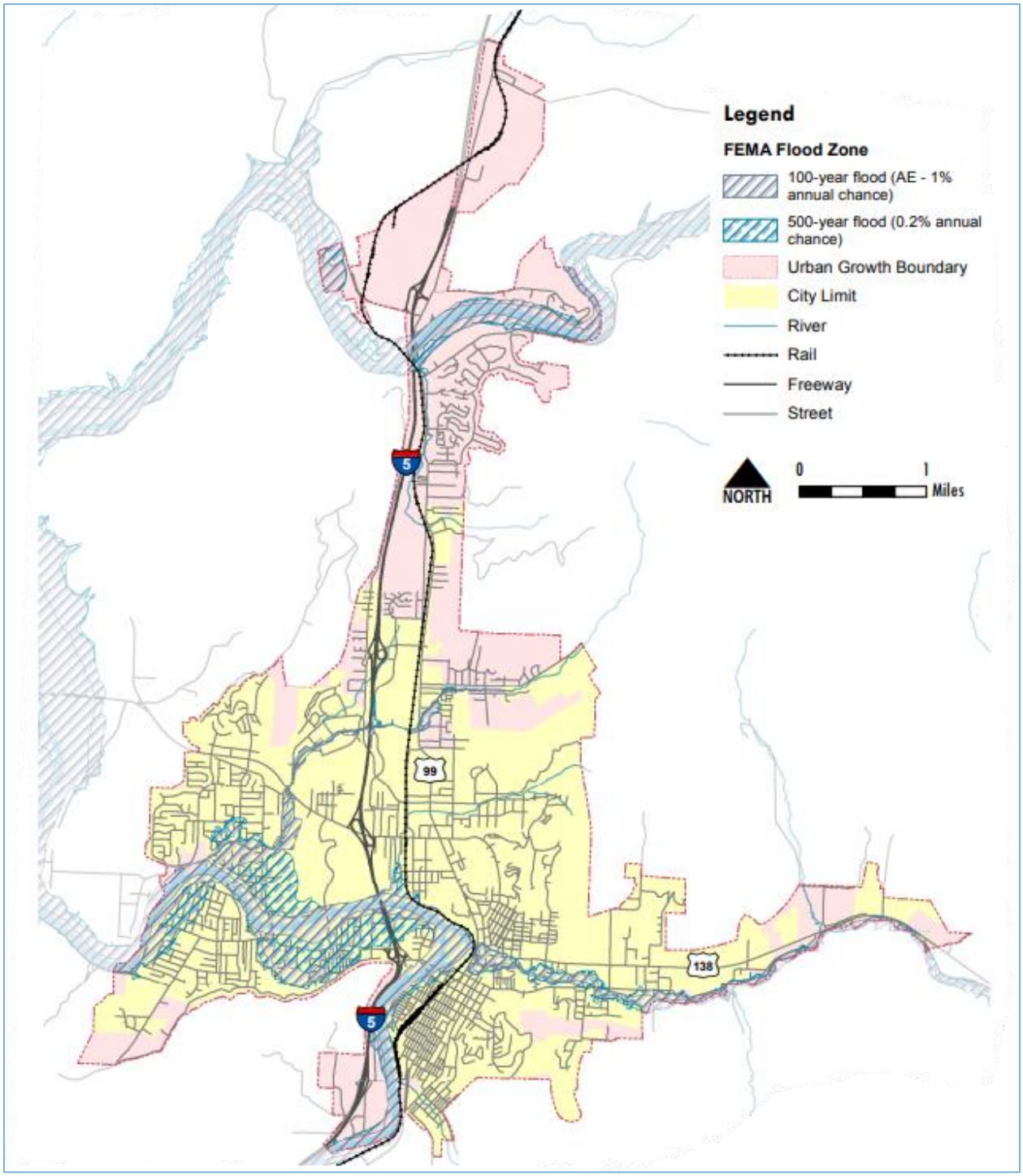
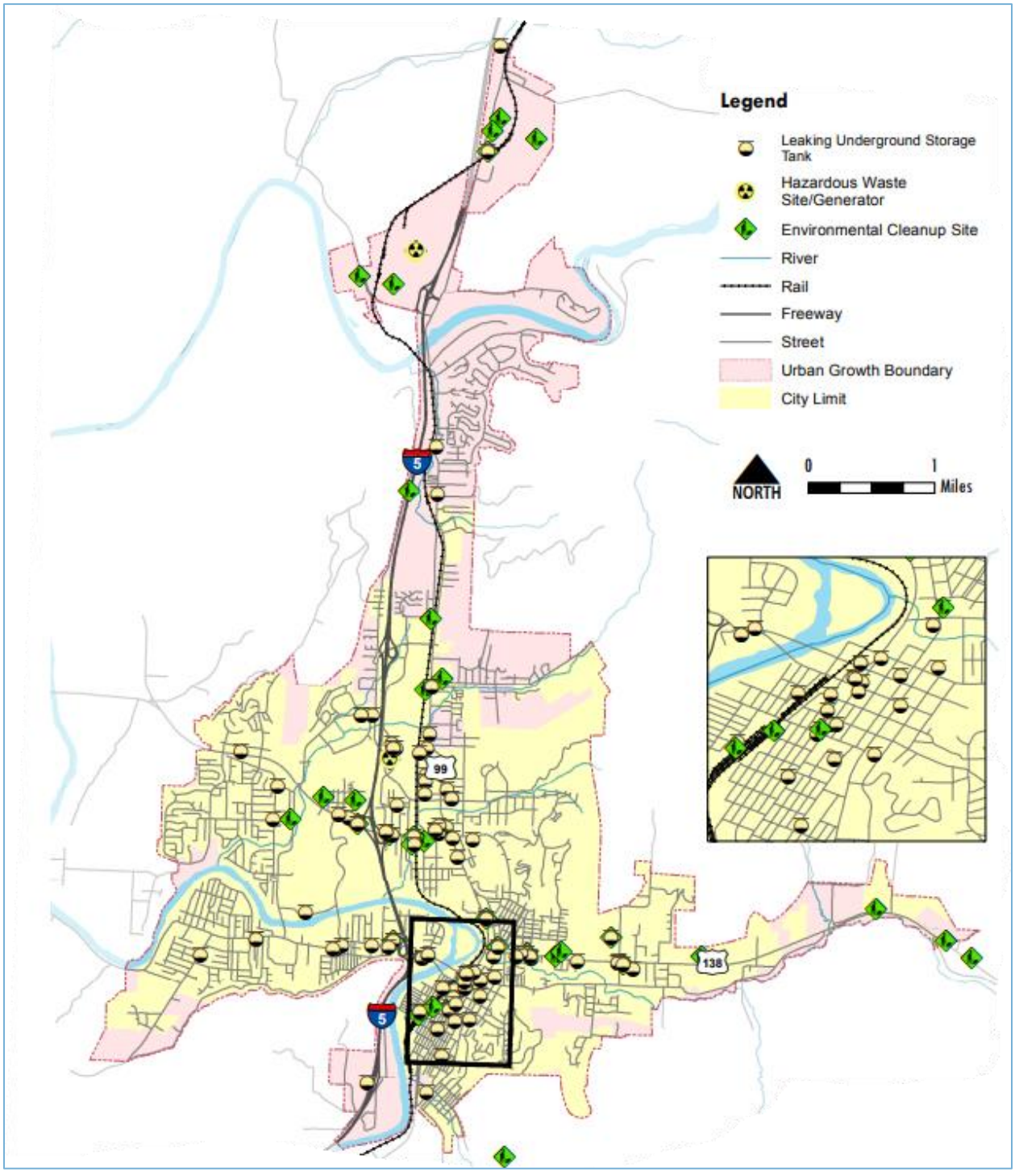


*Figure 13: Hazardous Site*



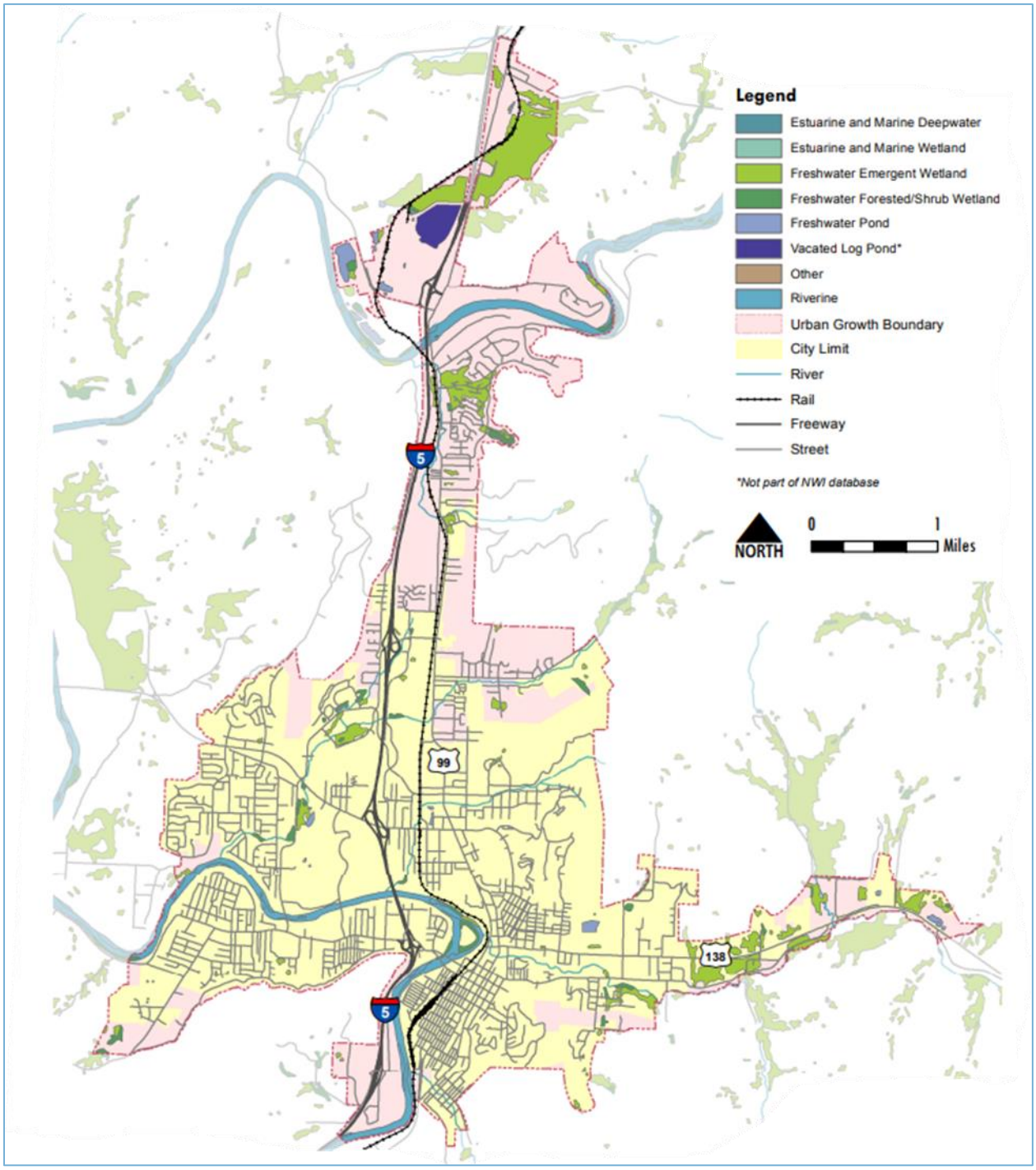
## Potential wetlands

Wetlands, including swamps, bogs, fens, marshes, and estuaries, perform important natural functions, such as controlling floodwater and cleaning and storing water. Wetlands also play a crucial role in a healthy ecosystem by providing essential habitat for waterfowl, fish, amphibians, and many other animal and plant species. The State defines a wetland as an area that is inundated or saturated by surface water or groundwater at a frequency and duration sufficient to support, and that under normal circumstances does support, a prevalence of vegetation typically adapted for life in saturated soil conditions (Oregon Administrative Rule (OAR) 660-023-0100).

The City of Roseburg has not conducted a Local Wetlands Inventory (LWI). As such, wetland information was gathered from the National Wetland Inventory (NWI) developed by the U.S. Fish and Wildlife Service. The NWI relies on high-altitude aerial photos, supplemented with limited field work.

Figure 14 illustrates the extent, approximate location, and type wetlands and deepwater habitats in the Roseburg area. As shown in the figure, the OR 138 Corridor includes some of the highest concentration of wetlands in the Roseburg area. Improvements along the corridor should consider the presence of these wetlands and take measures to avoid and mitigate any impacts on the wetland resources.

*Figure 14: Wetlands*



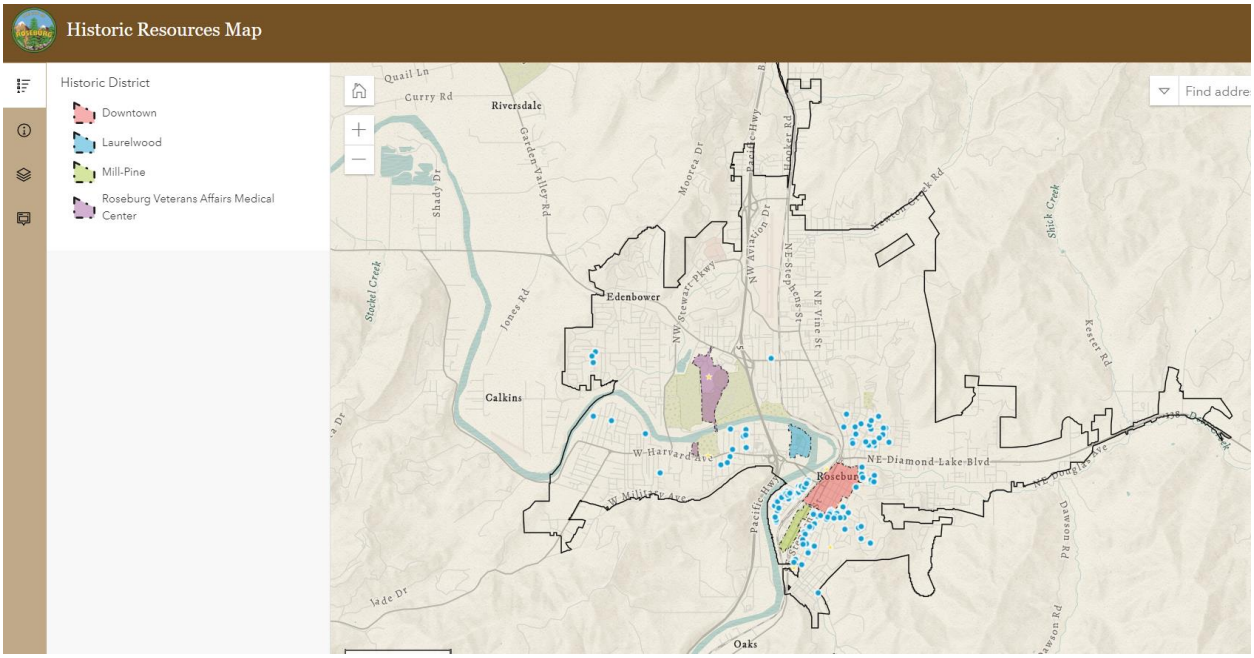
## Historic resources

Under Section 106 of the National Historic Preservation Act of 1966, federal agencies, and the state and local agencies to which the federal agency has delegated responsibility, are directed to avoid undertakings that adversely affect properties that are included in or are eligible for inclusion in the National Register of Historic Places (NRHP). The NRHP identifies and documents (in partnership with state, federal, and tribal preservation programs) districts, sites, buildings, structures, and objects that are significant in American history, architecture, archaeology, engineering, and culture. This section summarizes NRHP resources in the study area as well as other historic, prehistoric, and cultural resources. The State Historic Preservation Office (SHPO) database was consulted to identify any historical resources located within the interchange study area. There are four registered historic districts:

- Laurelwood Historic District – a residential neighborhood located east of Roseburg High School
- Roseburg Downtown Historic District – downtown commercial historic district listed in 2003
- Mill-Pine Neighborhood Historic District – a residential neighborhood located south of the Roseburg Downtown Historic District
- Roseburg Veterans Administration Historic District

The City maintains an online inventory and map of historic resources, as shown in Figure 15.[11] The Downtown Historic District is near the eastern end of the OR 138 Corridor, along with several other inventoried historic places. Improvements on the corridor should account for and protect these historic resources.

*Figure 15: Historic Resources*




[11] Roseburg Historic Database. https://www.cityofroseburg.org/departments/community-development/about/historic-database

## Section 4(f) (Federal Department of Transportation Act) and 6(f) (Federal Land and Water Conservation Fund Act) resources

Section 4(f) refers to the original section within the U.S. Department of Transportation Act of 1966 which established a formal requirement that certain land uses be carefully considered and protected during the planning and construction of federally funded transportation improvement projects. Section 4(f) resources typically fall into the following categories:

- Recreational areas and parks (publicly owned and open to the public) of national, state, or local significance
- Wildlife and waterfowl refuges (publicly owned) of national, state, or local significance
- Historic sites (in public or private ownership) of national, state, or local significance

Under these definitions, potential 4(f) resources within Roseburg include:

- All historic resource sites listed in the Laurelwood Historic District, Roseburg Downtown Historic District, Mill-Pine Neighborhood Historic District, and the Roseburg Veterans Administration Historic District.
- Riverside Park
- Stewart Park
- Riverfront Park
- Gaddis Park
- Deer Creek Park
- Templin Beach Park
- Roseburg Municipal Golf Course

In 1965, the Land and Water Conservation Fund Act was formed to assist local, state, and federal agencies in meeting the demand for outdoor recreation sites. Section 6(f) of this act states that once a city, county, or agency has used funds for this purpose, either the land or the park cannot be eliminated or acquired without coordination with the National Park Service (NPS) and mitigation that replaces the eliminated items. There are no known lands created through this funding act within Roseburg.

# Demographic Data

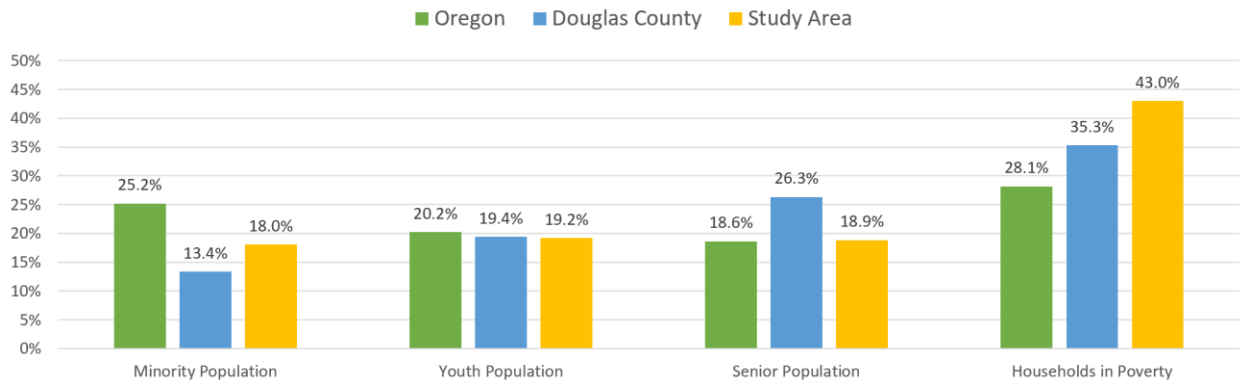
Understanding specific demographic distribution and needs is vital to evaluating the current needs of the community served by the OR 138 corridor. This section presents the composition of demographics for the community nearest to the corridor and the planning considerations to meet their needs.

The study area uses the most recent available American Community Survey (ACS) 2021 5-year data. Information on community demographics is provided at the census block group, the smallest geographic unit for which ACS data is available.

The section describes four demographic groups who may have unique transportation needs.

- **People of an Ethnic/Racial Minority** – may live in neighborhoods that have suffered systemic disinvestment and other barriers to transportation.
- **Youth** – individuals 18 years of age have limited access or ability to drive a vehicle.
- **Seniors** – individuals aged 65 and older may become less comfortable driving as they age or are no longer physically able to operate a vehicle.
- **People experiencing poverty** – individuals who live within a set of income thresholds established by the US Census Bureau and that vary by family size and composition. Low-income households tend to rely on public transportation as it is less expensive than owning and operating a vehicle.

*Figure 16 Demographic Summary*



## Minority Populations

There is often a correlation between areas with a concentration of people of an ethnic or racial minority and neighborhoods that have suffered systemic disinvestment and may be experiencing other barriers to transportation. Understanding where minority populations live is a step towards equitably implementing transportation improvements that serve their needs.

Information on minority groups includes a combination of Hispanic or Latino origins as well as race at the Census Block geographic levels. Origin can be viewed as the heritage, nationality group, lineage, or country of birth of the person or the persons parents or ancestors before their arrival in the US. People who identify their origin as Hispanic or Latino may be any race. Race is based on racial classifications issued by the Office of Management and Budget (white, black or African American, American Indian or Alaska Native, Asian, Native Hawaiian or Other Pacific Islander, and Some Other Race). Respondents can select two or more races.

For the purposes of showing minority groups in this analysis, minority groups are considered a combination of the following individual classifications:

- Not Hispanic or Latino: Black or African American alone
- Not Hispanic or Latino: American Indian and Alaska Native alone
- Not Hispanic or Latino: Asian alone
- Not Hispanic or Latino: Native Hawaiian and Other Pacific Islander alone
- Not Hispanic or Latino: Some Other Race alone
- Not Hispanic or Latino: Two or More Races
- Hispanic or Latino

Table 7 shows the percentage of population that is considered a minority for the State of Oregon, Douglas County, and the study area. Compared to the state, Douglas County has an overall lower share of minority groups; approximately 25 percent of the overall state is of a minority race or ethnicity, compared to around 14 percent of the county. The study area has a higher share of minority groups than the county overall, with about 18 percent, but still has a lesser share than the state.

*Table 7: Race and Minority Populations*

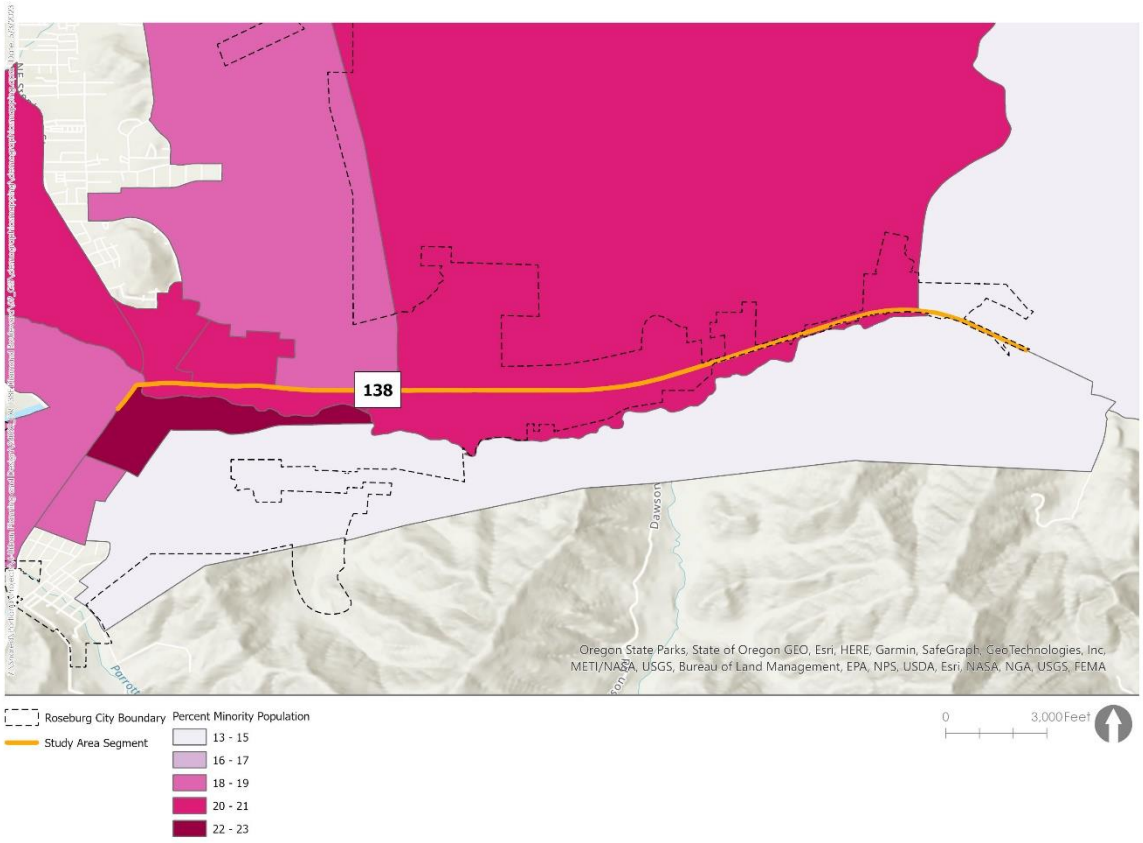
| Race (Grouping) | Oregon | | Douglas County | | Study Area | |
|---|---|---|---|---|---|---|
| Total Minority Population | -- | 25.21% | -- | 13.36% | -- | 18.04% |
| Population of one race: | 3,793,917 | 89.54% | 101,896 | 91.63% | 9,650 | 91.81% |
| White alone | 3,169,096 | 74.79% | 96,048 | 86.37% | 8,947 | 85.12% |
| Black or African American alone | 82,655 | 1.95% | 400 | 0.36% | 60 | 0.57% |
| American Indian and Alaska Native alone | 62,993 | 1.49% | 1,950 | 1.75% | 196 | 1.86% |
| Asian alone | 194,538 | 4.59% | 1,231 | 1.11% | 126 | 1.20% |
| Native Hawaiian and Other Pacific Islander alone | 19,204 | 0.45% | 164 | 0.15% | 19 | 0.18% |
| Some Other Race alone | 265,431 | 6.26% | 2,103 | 1.89% | 302 | 2.87% |
| Population of two or more races: | 443,339 | 10.46% | 9,305 | 8.37% | 861 | 8.19% |
| Total Population (of any race): | 4,237,256 | -- | 111,201 | -- | 10,511 | -- |

*Source: 2020 Decennial Census, Table P1*

Figure 17 shows the percentage of minority populations in each block group near the study area. The largest concentration of minority populations is located along the southwest portion of

the study area. However, most of the OR138 corridor passes through block groups with a minority population of 20% or greater.

*Figure 17: Percent Minority Population*




## Age

Analyzing an area's age composition helps decision-makers understand the potential need for increased transportation options. As people age, they typically begin to drive less and require alternative modes of transportation. Children are unable to operate a vehicle at least until they are 16 years old and must rely on family, friends, or alternative transportation modes for travel.

Data on age is derived from a two-part census question (age and date of birth). Both age and date of birth is used in combination to determine the most accurate age as of the census reference date. Age data are tabulated in age groupings including populations 65 and older (Seniors) and populations 17 and younger (Youth).

As summarized in Table 8, youth populations comprise approximately 20 percent of the overall county population and the study area population. The portion of youth populations in the study area and Douglas County are slightly less than the overall portion of youth in the state. Douglas County has a higher portion of senior population, 26 percent, compared to the state as a whole with about 19 percent. The study area has about the same portion of senior population as the state with about 19 percent, which is lower than the overall county senior population portion at 26 percent.

*Table 8: Age Demographics*

| | Oregon | Douglas County | Study Area |
|---|---|---|---|
| 17 years and Younger | 20.20% | 19.40% | 19.19% |
| 65 years and Older | 18.60% | 26.30% | 18.85% |
| Median Age (years) | 40.1 | 46.7 | 39 |

*Source: 2021 ACS; Table 10101 – State & County data, Table B0101 – Block Group data*

Figure 18 shows the percentage of youth living in block groups near the study area, and Figure 19 shows the percentage of seniors. The largest concentration of youth population is encompasses a central portion of OR 138 and extends north, with nearly 1/3 of the population being under 18. South of OR138 the population is approximately 40% seniors.

*Figure 18: Youth Population, Percent Under 18 years old*

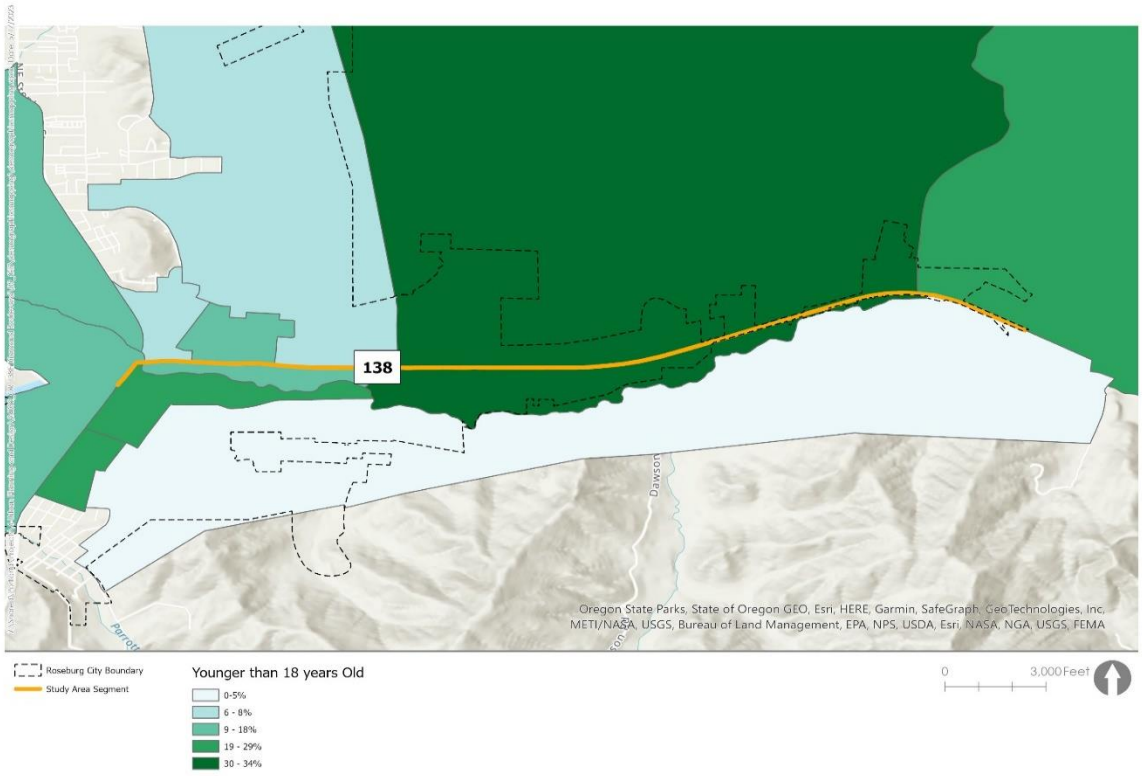
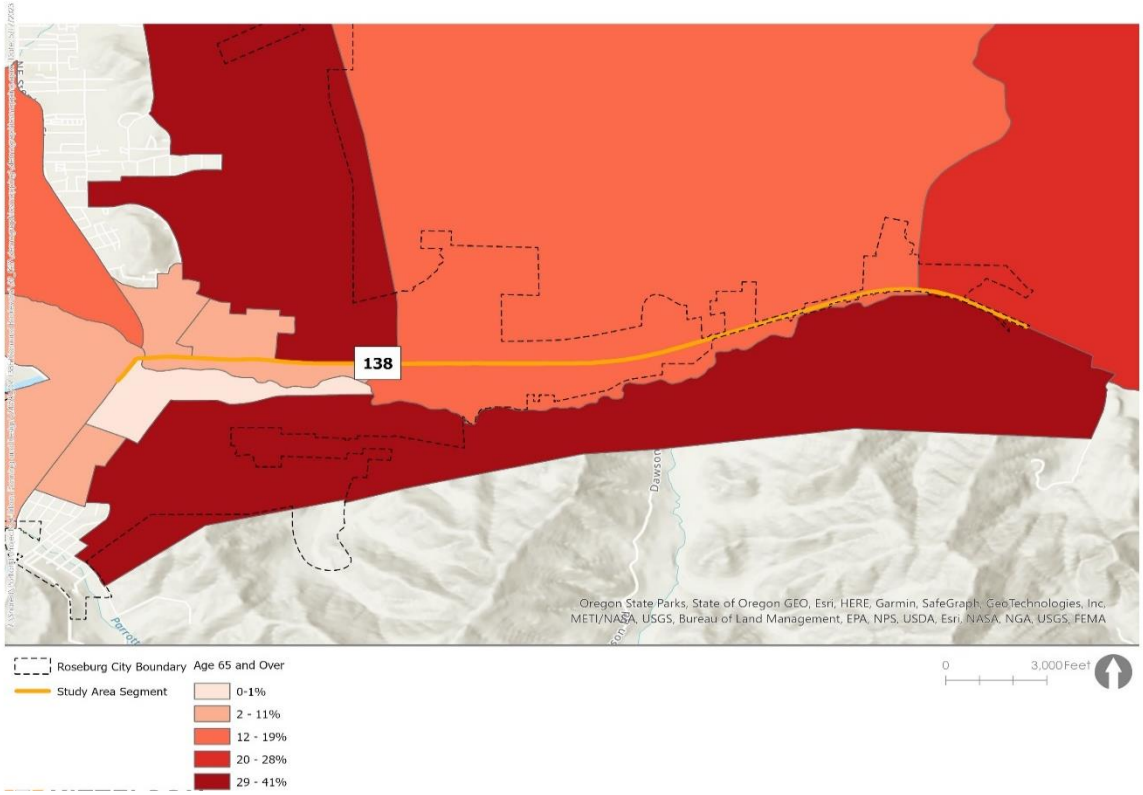


*Figure 19: Senior Population, Percent Age 65 and Over*



## Low-Income Populations

Low-income populations are individuals that live within a set of income thresholds established by the US Census Bureau, and that vary by family size and composition. Historically, people experiencing poverty may rely on active and public transportation to a greater degree than the general population. Recognition of where people experiencing poverty is concentrated can help determine transportation needs and identify needed improvements.

The federal poverty threshold is calculated by the size of the household and is adjusted annually. In 2023, the threshold for an individual is $14,580 in annual earnings, and $30,000 for a household of four.[12] The US Census Bureau measures poverty by looking at the ratio between a household's income and the household's poverty threshold, called the Ratio of Income to Poverty. Households with an Income to Poverty Ratio below 1 are eligible for federal assistance programs; however, households with a ratio between 1 and 2 still experience the impacts of poverty and may be eligible for other benefits, such as the Supplemental Nutrition Assistance Program (SNAP, formerly known as Food Stamps.

*Table 9: Ratio of Income To Poverty*

| | Oregon | | Douglas County | | Study Area | |
|---|---|---|---|---|---|---|
| **Total** | 4,166,362 | -- | 110,600 | -- | 9,530 | -- |
| **Less than 2.00** | **1,172,428** | **28.14%** | **39,007** | **35.27%** | **4,097** | **42.99%** |
| Under .50 | 235,662 | 5.66% | 7,557 | 6.83% | 656 | 6.88% |
| .50 to .99 | 272,167 | 6.53% | 11,804 | 10.67% | 772 | 8.10% |
| 1.00 to 1.49 | 332,033 | 7.97% | 9,549 | 8.63% | 853 | 8.95% |
| 1.50 to 1.99 | 332,566 | 7.98% | 10,097 | 9.13% | 1,816 | 19.06% |
| **2.00 and over** | **2,993,934** | **71.86%** | **71,593** | **64.73%** | **5,433** | **57.01%** |

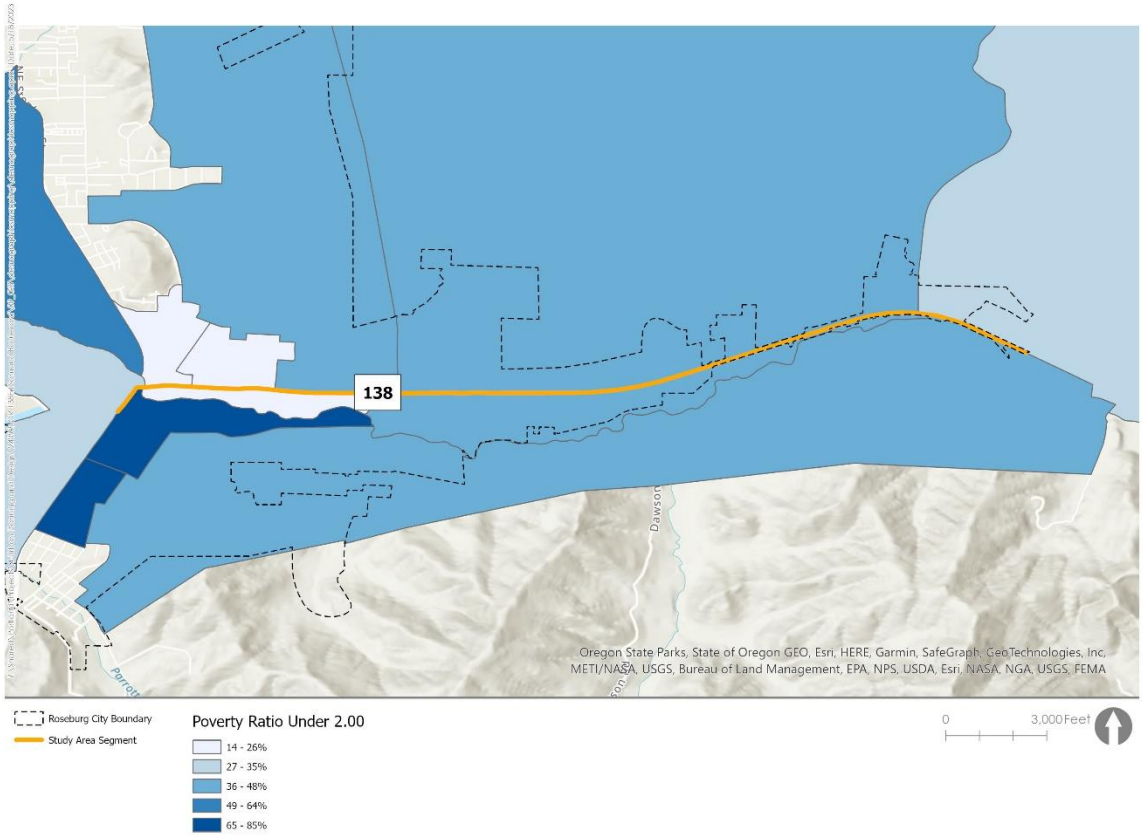
*Source: 2021 ACS, Table B17002 – State & County Data, Table C17002 – Block Group Data*

Table 9 compares the poverty ratio of the study area to the State of Oregon and Douglas County. In 2021 the threshold for an individual was $12,880 in annual earnings, and $26,500 for a household of four.[13] (Table 9 shows data from 2021, the most recent ACS data available.) As shown in Table 9, the study area has a higher portion of the population living in poverty than Douglas County as a whole. Additionally, households experiencing poverty is approximately fifty percent higher in the study area population compared to the overall population of Oregon.

Figure 20 shows the portion of each block group near the study area with a poverty ratio of 2.00 or below. The block groups with the largest portion of the population with a poverty ratio of less than 2.00 are located on the southwest edge of the study area and corresponds to the block group with the highest minority population; more than 65% of the population in this area experiencing poverty. In most block groups near the study area, about 30-40% of the population has a poverty ratio of less than 2.00.

[12] https://www.healthcare.gov/glossary/federal-poverty-level-fpl/
[13] https://www.healthcare.gov/glossary/federal-poverty-level-fpl/

*Figure 20: Poverty Ratio Below 2.00*




## Next Steps

The Draft TM2 Definitions and Background will be reviewed by the project management team (PMT) and updated to produce the Final TM2 Updated Inventory.

The consultant team will have the opportunity to update and verify the data summarized in this memorandum during the project team site visit scheduled for June 20, 2023.

# Appendix A: *OPAL Spreadsheet*