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Technical Memorandum

April 30, 2024 Project# 28718.001

To: Jay Wilson, Molly Caggiano and Daniel Nibouar; Clackamas County Disaster Management Technical Advisory Committee (TAC)

From: Sutapa Banerjee and Marc Butorac, PE, PTOE, PMP

RE: Clackamas County Evacuation Planning Phase II

CLACKAMAS COUNTY EVACUATION PLANNING

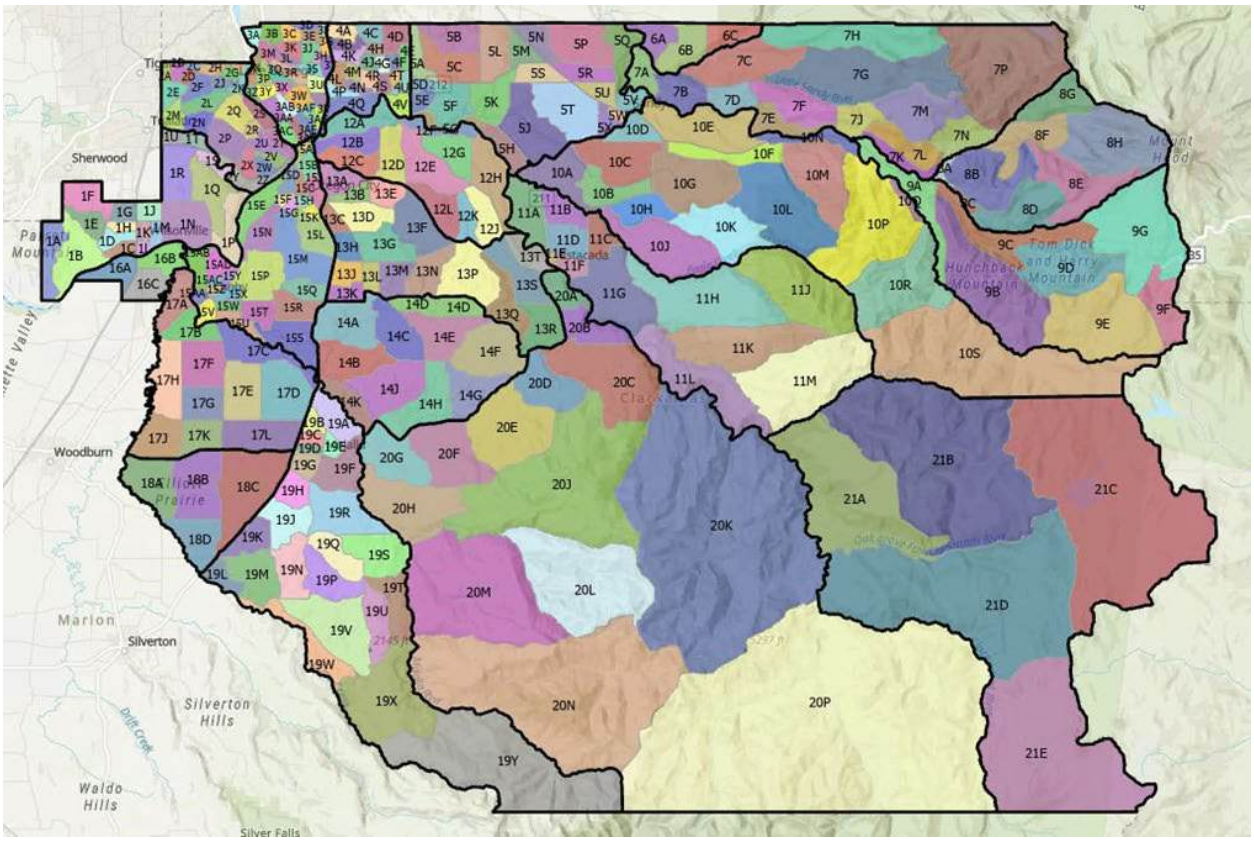
Clackamas County, OR has identified the need to conduct evacuation planning that considers the impact of multiple hazards on the community's transportation networks. Recent disasters have highlighted the need for predefined evacuation zones to be used in emergencies to quickly delineate and communicate evacuation levels, avoiding the need to define new evacuation level boundaries in reaction to an emergency. To respond to this need, the County is in the process of identifying and refining evacuation zones and routes as part of an all-hazard approach to evacuation planning. This is a multi-year project that involves a wide array of stakeholders and is divided into several phases. Phase I of the project, conducted in 2023, developed a methodology for creating evacuation zones and routes for the county for use in emergency evacuation situations. This technical memorandum outlines the approach used to further refine the draft zones and routes as Phase II of the project.

Background – Phase I

The first phase of the project, conducted in 2023, developed a GIS-based Risk Factory Inventory and identified draft evacuation zones and evacuation routes. The Risk Factory Inventory includes data relevant to evacuation planning, such as roadway data, land use, hazard data, demographic information, natural features, and key community uses.

Evacuation zones will be used in the event of an emergency to provide evacuation orders or other emergency communications to predefined areas throughout the County. The primary focus and expected application of these zones is wildfire evacuations, though all potential emergency hazards are being considered. The predefined evacuation zones are expected to be used in emergency situations to quickly delineate and communicate evacuation levels, avoiding the need to define new evacuation level boundaries in reaction to an emergency, as has been the current practice in the County. The County's 21 Disaster Response Zones (DRZs) were used as the basis for the evacuation zones. The DRZs reflect areas that could be isolated after a Cascadia Subduction Zone earthquake, with zones delineated by bridge and road infrastructure that would disconnect areas if destroyed, as well as natural boundaries. The evacuation zones were developed primarily based on key roadways, neighborhood and community areas, geographic features, and population. They were developed through an iterative process and involvement of a Technical Advisory Committee including internal County staff. Throughout Phase II of the project, the term "zone" was used to refer to the DRZ boundary and the term "subzone" to refer to the evacuation zones within the DRZ. Figure 1 shows the DRZs (zones) and draft evacuation zones (subzones) for the county identified in Phase I.

Figure 1. DRZs and Draft Evacuation Zones



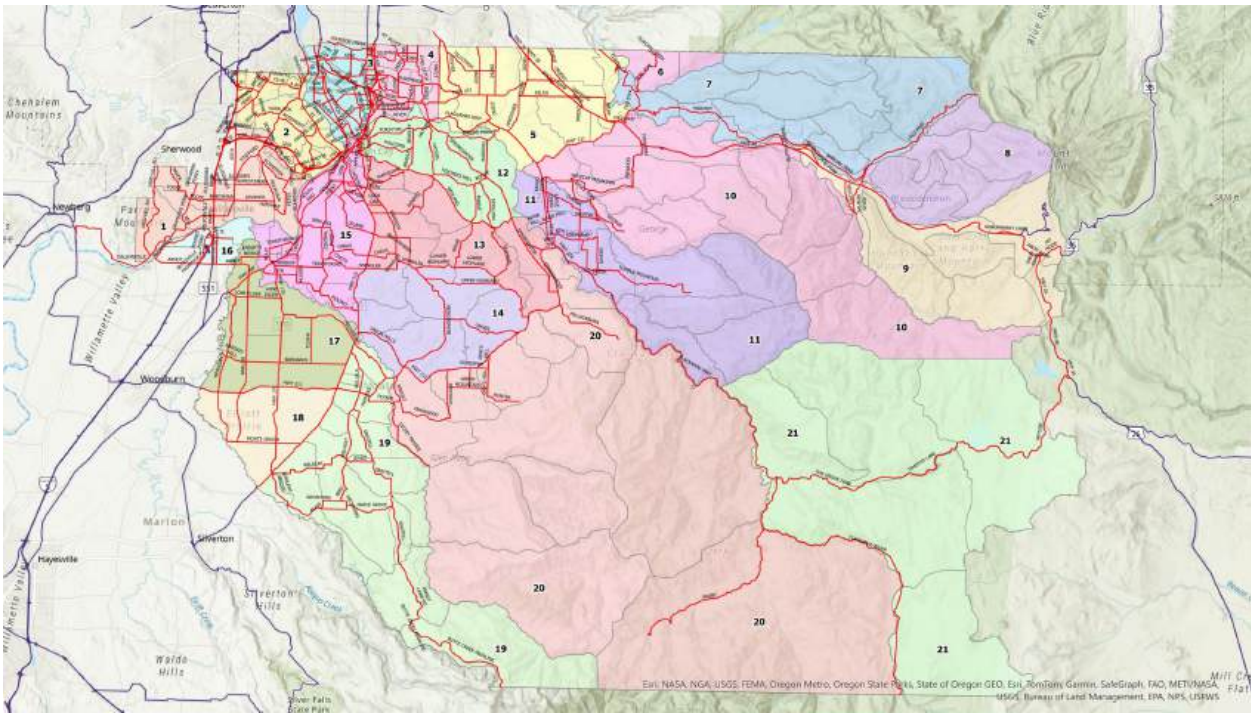
Note: DRZs are indicated by black solid lines. Evacuation subzones are named using a combination of the DRZ number and a letter (e.g. Zone 1A , 1B, 1C, 2A, 2B, 2C, etc.) The letters I and O were skipped in the assignment of evacuation zone names, given the potential for I or O to be confused with numbers.

Initial evacuation routes were also developed as part of Phase I. Evacuation routes serve as the primary roadways for evacuees to use and will be communicated to the public as recommended routes. Evacuation routes were selected based on the roadways that are expected to be accessible in the event of an emergency and that provide the most direct evacuation routes to major highways and potential capacity for evacuating traffic.

The draft evacuation routes were developed starting with the Regional Emergency Transportation Routes (RETRs), which were most recently updated in 2021 by the Regional Disaster Preparedness Organization (RDPO) and Metro, the Metropolitan Planning Organization for the Portland region. The RETRs cover the five-county Portland-Vancouver metropolitan region and are "travel routes that, in the case of a major regional emergency or natural disaster, would be prioritized for rapid damage assessment and debris-removal"[1]. The RETRs were supplemented with additional routes to fill gaps in the network and provide a route in, adjacent to, or near each evacuation zone. The draft evacuation routes are shown in Figure 2.

[1] Regional Emergency Transportation Routes Update for the Portland-Vancouver Metropolitan Region in Oregon and Washington. Prepared for RDPO and Metro. April 2, 2021.

Figure 2. Draft Evacuation Routes



Note: Evacuation Routes shown with red lines

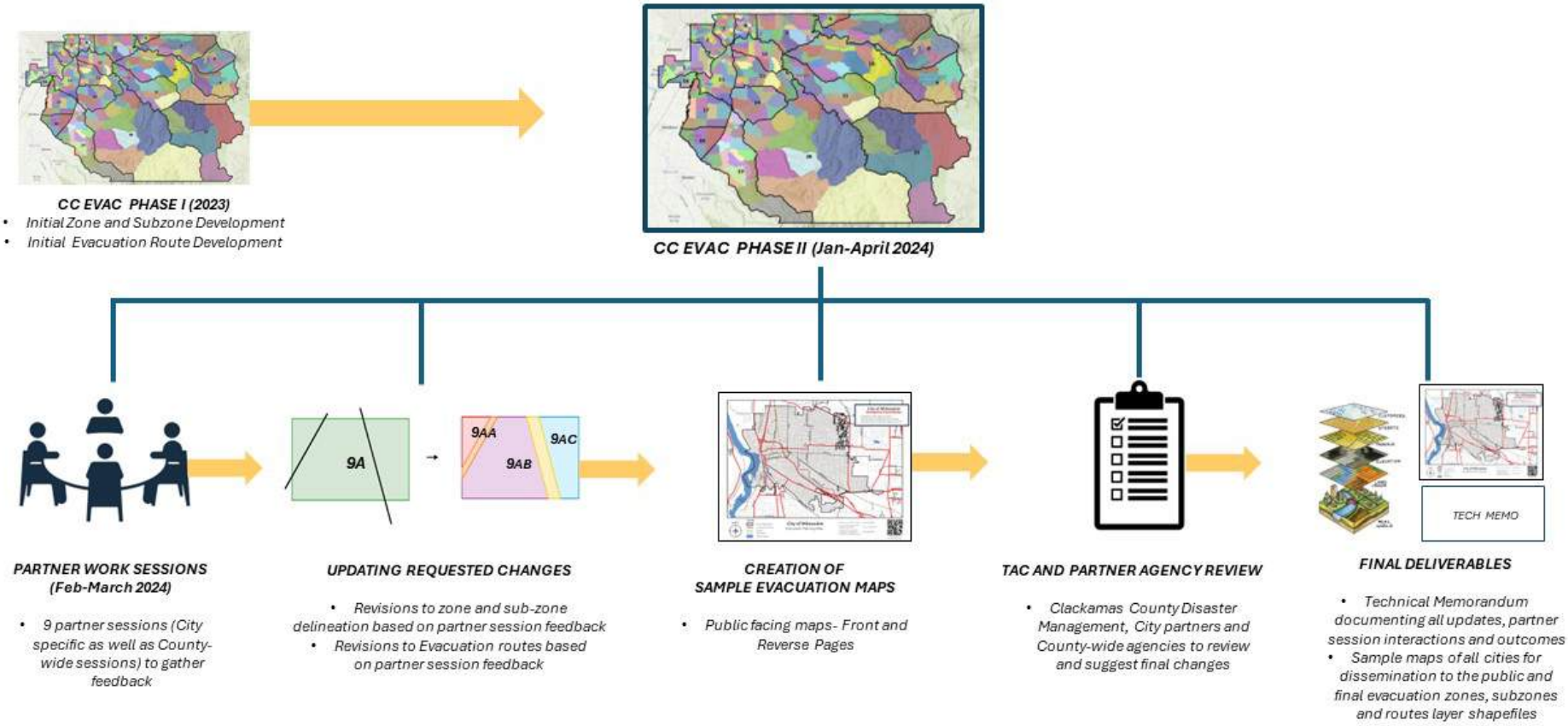
Clackamas County Evacuation Planning Phase II

Phase II of the Clackamas County Evacuation Planning Project sought engagement from local partners to validate and refine the evacuation zones and routes, and to inform strategies for introducing the zones and routes to the general public. It included work sessions with local public agencies and community partners. Specific objectives of Phase II included:

- Identifying and engaging key partners and ensuring local jurisdictions and subject-matter experts were included in the review process to provide guidance and direction on evacuation zone boundaries and routes.
- Creating a shared understanding between local, regional, and state agencies of the evacuation planning needs in Clackamas County and ensuring that evacuation protocols across jurisdictional boundaries are considered.
- Maintaining an awareness of historically underserved populations and the considerations needed during evacuations to ensure the impacts to communities at-risk are elevated and prioritized throughout public education and future evacuation planning.

Phase II is built from the work done in Phase I and ultimately produced updated evacuation zones and routes, based on feedback from the partner work sessions and a Technical Advisory Committee. Figure 3 illustrates the overall planning process for Phase I and Phase II.

Figure 3. Flowchart of Project Process



A Technical Advisory Committee (TAC) provided input and guidance throughout Phase II of the project. It included representation from Clackamas County Disaster Management (CCDM), the Clackamas County Sheriff's Office (CCSO), Clackamas County Transportation & Development and Clackamas County Technology Services. The TAC members are listed in Table 1.

Table 1. Phase II Technical Advisory Committee Members

Member	Department
Brenna Cruz	CCDM
Scott Grunewald	CCDM
Daniel Nibouar	CCDM
Jamie Poole	CCDM
Jay Wilson	CCDM
Molly Caggiano	CCDM
Stephanie Coleman	CCDM
Deputy Sheriff Kevin Bigler	CCSO
Sergeant Jeffery Juker	CCSO
Captain Brad O'Neil	CCSO
Shane Abbott	Transportation & Development
Mike Bezner	Transportation & Development
Joe Marek	Transportation & Development
Jon McDowell	Technology Services

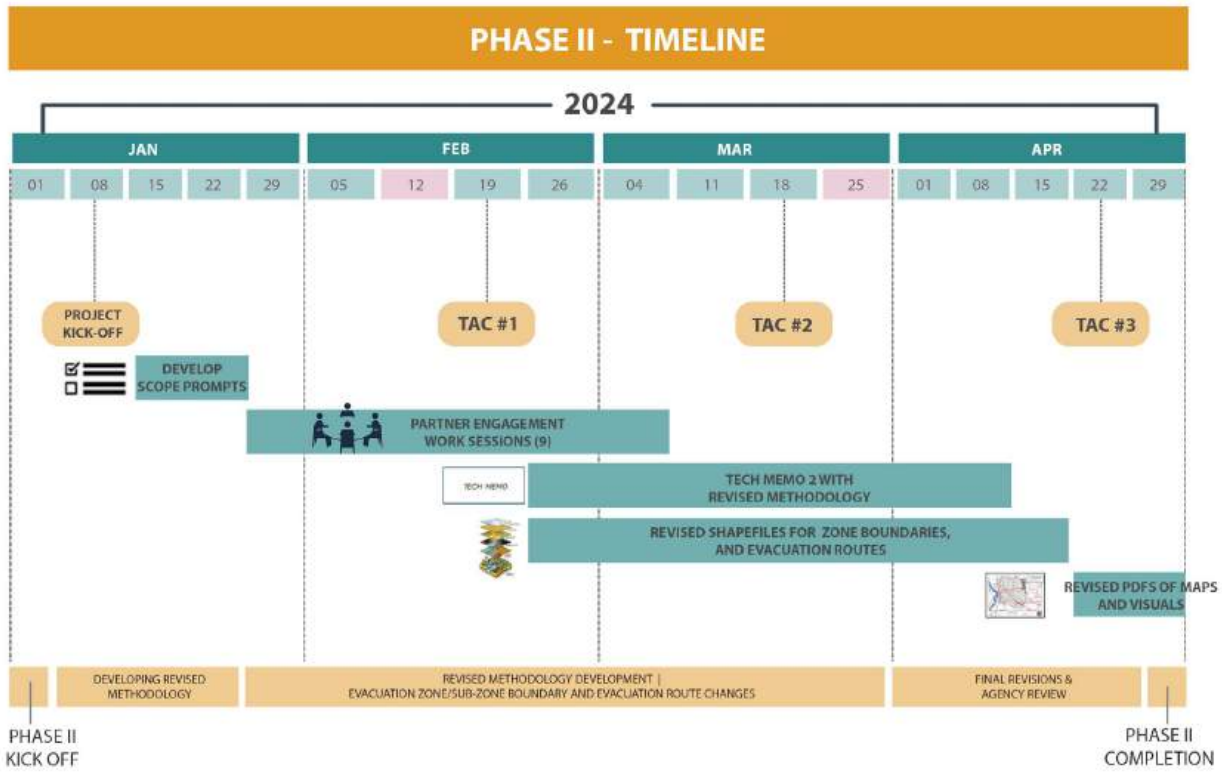
Timeline

Phase II was completed in a compressed timeline of four months between January and April 2024. It was divided into three major parts:

1. Developing an approach to Phase II of the project to refine the evacuation zones and routes and engage local agencies and partners;
2. Holding partner work sessions and revising evacuation zones and routes based on input received; and
3. Creating revised internal and external facing evacuation maps.

Figure 4 illustrates the project timeline.

Figure 4. Project Timeline



Phase II Approach

During Phase I, draft evacuation zones and routes were developed through an iterative process with several opportunities for feedback and discussion with members of the TAC. Phase II began with an initial kick-off meeting with the TAC to develop and confirm the overall vision for Phase II of the evacuation plan. During these initial meetings, the following guidance was agreed on:

1. Phase II would primarily focus on evacuation zone boundary changes and evacuation route changes based on partner session feedback. DRZ boundary changes would be considered only if determined essential by the TAC.
2. Partner work sessions would be held in-person with two partner cities/districts at a time.
3. Internal (Agency Coordination Map) and external (Public Evacuation Map) facing map typologies for the purposes of evacuation planning would be developed.

Partner Work Sessions

The County and consultant team scheduled and facilitated a total of nine work sessions with local agencies, partners, and subject matter experts to get feedback on the draft evacuation zones and routes. Participants in the work sessions included representatives from the Clackamas County Sheriff's Office (CCSO), Clackamas County Search & Rescue (CSAR), Clackamas Fire Districts, Oregon Department of Forestry (ODF), Oregon Department of Transportation (ODOT), local jurisdiction police/fire agencies, local transportation agencies, and emergency management professionals. Each meeting included an overview of the process used to develop the zones and routes. Each participant was provided with a map of the draft zones and routes to review and markup. Feedback and requested changes were recorded by the consultant team. The partner work session schedule is shown in Table 2.

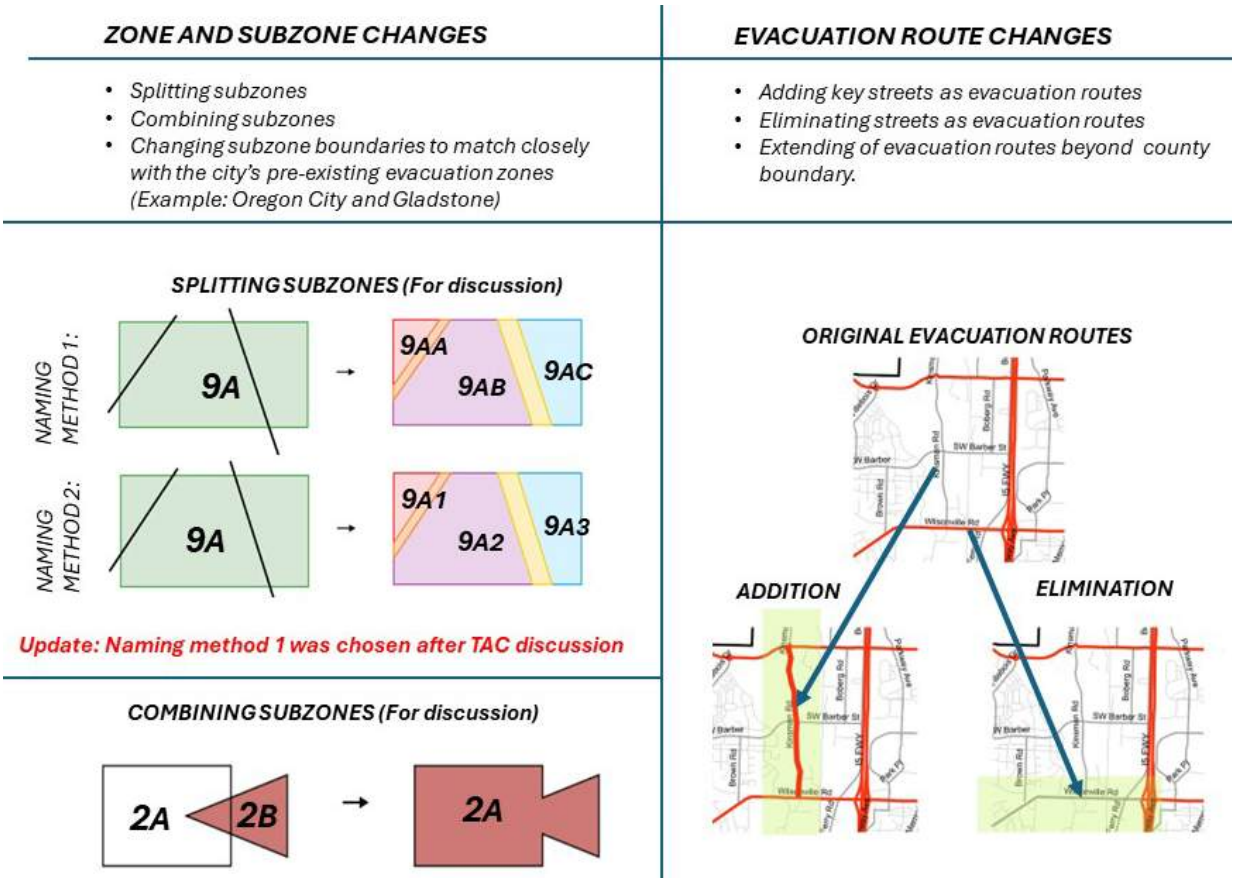
Table 2. Partner Work Session Schedule

ID	City/ District	Date
1	CCSO/CSAR	February 16, 2024
2	Milwaukie / Happy Valley	February 20, 2024
3	Estacada / Colton	February 22, 2024
4	Lake Oswego / West Linn	February 26, 2024
5	Wilsonville / Tualatin Valley Fire & Rescue (TVF&R)	February 26, 2024
6	Clackamas Fire District #1 / ODF	February 28, 2024
7	Oregon City / Gladstone	February 29, 2024
8	Sandy / Hoodland	March 7, 2024
9	Canby / Molalla	March 8, 2024

Partner Works Session Outcomes

The partner work sessions gave the County and the consultant team invaluable feedback on the work done in Phase I. The comments and feedback received are summarized in the following sections, grouped by zone and subzone changes and evacuation route changes. Figure 5 illustrates key themes from the feedback received.

Figure 5. Overview of Requested Changes



Zone and Subzone Changes

Phase I developed draft evacuation zones, using the county's 21 DRZs as a starting point. The evacuation zones were named with a number and letter, with the number indicating the DRZ they are located in. For example, the evacuation zones within DRZ 1 are labeled 1A, 1B, 1C, etc. The term "subzone" was used in Phase II to refer to the evacuation zones (e.g. 1A). Key input received on the evacuation zones is summarized below.

- **Splitting subzones:** One of the most requested changes was splitting subzones. The naming convention used when splitting the subzones was 'Naming Method 1' (see Figure 5). For example, if subzone 9A was split into two subzones, they were named subzone 9AA and subzone 9AB.

  The following justifications were used in splitting subzones:

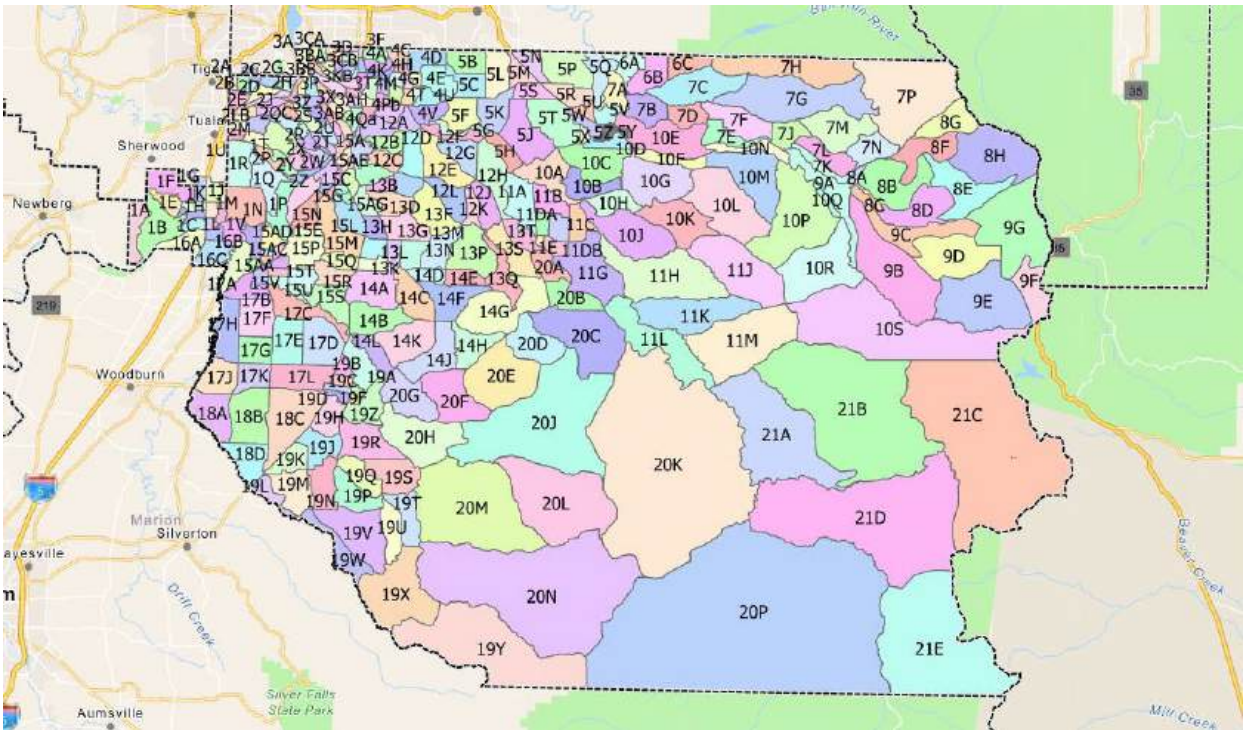
  - **Recent population growth in the area.** Phase I of the project used a cap of approximately 5,000 residents per subzone, based on the 2022 population estimate. A few subzones have experienced recent rapid population growth since the 2022 population estimate. This growth was taken into consideration to split subzones based on partner session input.
  - **Size of the subzone.** Larger subzones with dispersed residences will take longer for door-to-door patrol. Subzones were sized to be small enough to be covered by door-to-door knocking within a couple hours by patrol officers during emergency situations.
  - **Restructuring of subzone boundaries**. Restructuring of boundaries was done to better suit patrolling needs and to keep neighborhoods within a single subzone. In some cases, restructuring was done to include the urban growth boundary (UGB) extents instead of the city boundary.
  - **Areas with higher daytime employment population**. A few areas with industrial or commercial land uses have a higher daytime population as compared to the population estimate. Subzones were appropriately delineated to address this difference in population.
- **Combining subzones:** A few partner work sessions included requests to combine and restructure subzones so neighborhoods are not split over multiple subzones.
- **Incorporating city planning efforts:** During the partner work sessions with Oregon City and the City of Gladstone, the project team learned that the cities had already developed evacuation zones during earlier evacuation planning efforts. The maps and details of these zones were shared with the consultant team and used to refine the subzones.
- **Renumbering subzones to use the same zone number for all subzones in a city:** Phase I used the DRZs previously developed by the County as a starting point for the evacuation zones. A few cities extend into multiple DRZs, resulting in subzones with different zone numbers. For example, the City of Molalla includes subzones in zones 17, 18, and 19. Phase II of the project modified zone boundaries where needed so that all subzones in a city are in the same zone number. Table 3 shows the cities and districts where changes were made so that all subzones in the city/district are within one zone.
- **Expanding subzones to reflect city boundaries:** Some cities extend beyond the County boundary and requested including areas outside the County within the evacuation zones. Subzones were expanded or added to include these areas within the County evacuation zones. Table 3 notes where changes were made to modify subzones to reflect city boundaries outside the County.

Table 3. Zone and Subzone Changes

City/District	Phase I Zones	Phase II Zones	Changes Made
Happy Valley	4, 5	4	– Renumbered and adjusted subzone boundaries so all subzones in the city are within zone 4.
Lake Oswego	2	2	– Expanded subzones 2B and 2C to include portions of the city outside the County boundary within the evacuation zones.
Molalla	17,18,19	19	– Adjusted subzone boundaries so all subzones in the city are within zone 19. – Modified boundaries of subzones to more closely match city boundaries.
Oregon City	13, 15	15	– Renumbered and adjusted subzones boundaries so all subzones in the city are within zone 15.
Sandy	5,10	5	– Renumbered and adjusted subzones boundaries so all subzones in the city are within zone 5. – Modified boundaries of subzones to more closely match city boundaries.
Wilsonville	1	1	– Expanded subzones 1G and 1J and added subzone 1V to include portions of the city outside the County boundary within the evacuation zones.

The revised evacuation zones that reflect feedback from the partner work sessions and TAC are shown in Figure 6.

Figure 6. Revised Evacuation Subzones



A complete list of the final subzones with geographic descriptions is provided in Appendix B, along with a subzone summary map. The descriptions are intended to support evacuation efforts by describing the evacuation area to the public. As an example, the description for subzone 2M is: Subzone 2M is bounded by Boones Ferry Road in the north, the Tualatin River in the south, Canal Road in the east and the Tualatin River in the west.

Evacuation Route Changes

The draft evacuation routes created during Phase I of the project were presented during the partner work sessions. Partner work session participants provided local knowledge and first-hand information for their cities/districts used to finalize the routes. Key input received is summarized below.

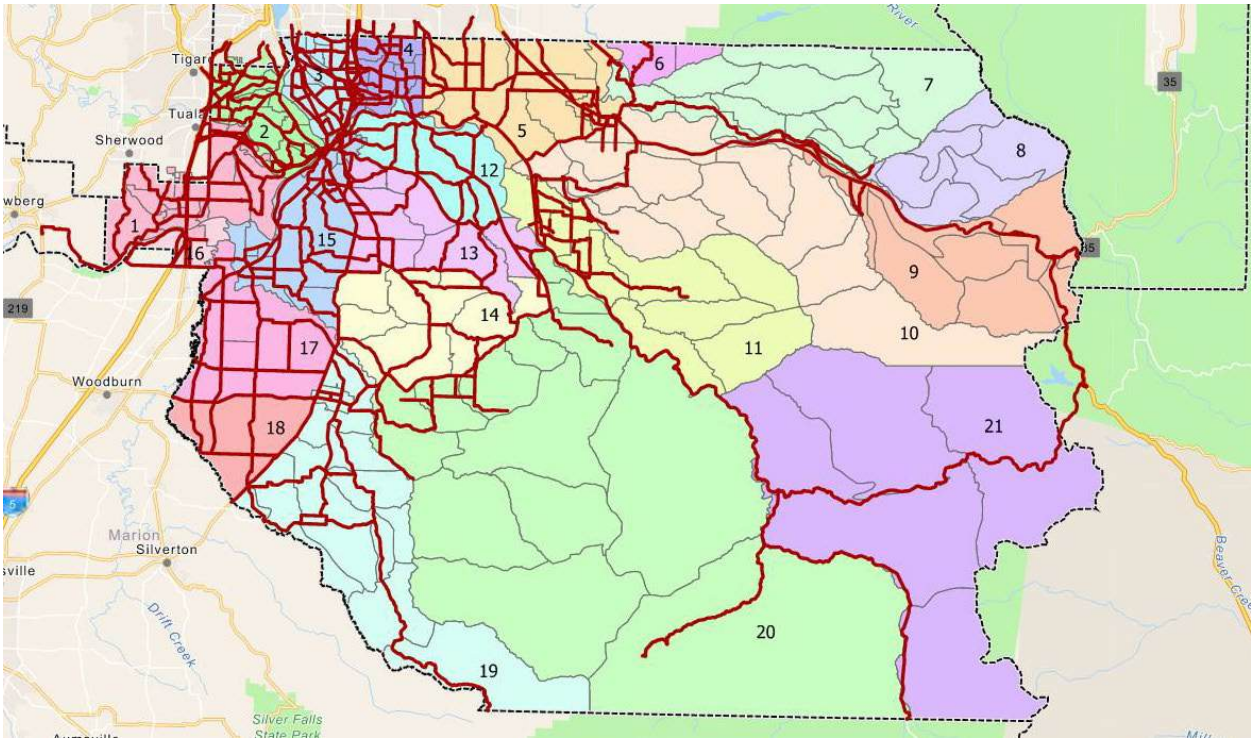
- **Addition of evacuation routes:** In some cases, additional roadways were added as evacuation routes, including:
  - A small part of Ivory St in Canby
  - A small part of Holly St in Canby
  - S Munson Road in Colton Fire District
  - Baurer Road in Colton Fire and Rescue District
  - NE Hillway in Estacada
  - Duss Road in Estacada
  - Cemetery Road in Estacada
  - Wade St in Estacada
  - SE Tolbert St Bridge in Happy Valley
  - Upper Drive and Iron Mt. in Lake Oswego
  - Jeans Road in the Lake Oswego
  - Childs Road in Lake Oswego
  - South shore Blvd in Lake Oswego
  - Lake Forest Blvd in Lake Oswego
  - Melrose Road in Lake Oswego
  - Fosberg Road in Lake Oswego
  - Westlake Drive in Lake Oswego
  - Toliver Road in Molalla
  - LeRoy Avenue in Molalla
  - Bell St in Sandy
  - Bluff Road in Sandy
  - 362nd Drive in Sandy
  - Ruben Lane in Sandy
  - Bornstedt Rd in Sandy
  - Langensand Rd in Sandy
  - Dubarko Rd in Sandy
  - Meinig Ave in Sandy
  - Jewelberry Ave in Sandy
  - Rosemont Rd and Sunset Ave in West Linn
  - SW Kinsman Road in Wilsonville
  - SW 95th Avenue in Wilsonville

- **Elimination of evacuation routes:** Select evacuation routes were also eliminated due to various reasons, including to better streamline the flow of traffic or remove roadways prone to being over capacity during evacuation events. The following roadways/ bridges were eliminated as an evacuation route:
  - 1st Avenue in Canby
  - A small part of Holly Street in Canby
  - E Lolo Pass Road in Hoodland Fire District
  - Oregon City Arch Bridge in West Linn

- **Extension of evacuation routes beyond County boundary:** The urban growth boundaries of a few cities in the County lie beyond the County boundary. These cities/districts requested that the routes extend to the UGB/district boundary:
  - Happy Valley
  - Lake Oswego
  - Milwaukie
  - Wilsonville

The revised evacuation routes that reflect feedback from the partner work sessions and TAC are shown in Figure 7.

Figure 7. Revised Evacuation Routes

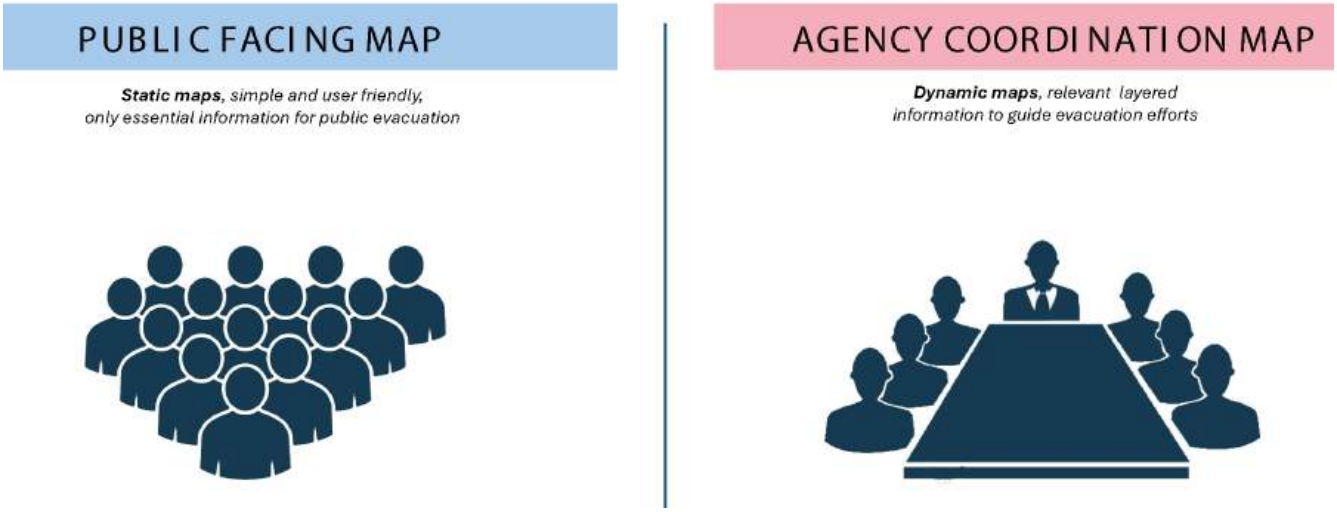


The consultant team recorded feedback provided during all the partner work sessions and the TAC meetings. Follow each partner work session, a packet with updated maps with the requested changes were distributed to confirm that the zone, subzone and evacuation route changes were properly incorporated. Appendix A includes a summary of the requested changes received during the partner work sessions, as well as maps illustrating the evacuation zones and routes before and after changes were made to reflect the feedback received.

Evacuation Maps

The initial TAC meetings identified the need for two types of maps to display the evacuation zones and routes: public facing maps and an agency coordination map. The purpose of each map is shown in Figure 8 and described further in the following sections.

Figure 8. Evacuation Map Typologies



Public Facing Maps

The public facing maps will be disseminated to the public and only include the important elements for directing the public during evacuation events. The maps will be simple and user-friendly for quick readability and understanding during stressful situations and emergency events. Participants in the partner work sessions provided feedback on the elements to include in the evacuation maps, using evacuation maps from several counties in California as examples. Table 4 lists the potential elements that were discussed during partner work sessions and notes whether it was determined to include them in the map based on discussion during TAC Meeting #2.

Table 4. Elements for Public Evacuation Maps

Element	Description	Include in Maps?
Evacuation routes	All routes to be labeled. Red in color if colored maps. Black in color if black and white maps. Thicker line weight.	YES
Streets	Only major streets will be labeled to keep maps legible.	YES
Railroads and crossings	All railroads and crossings to be labeled.	YES
Bridges	All bridges to be labeled.	YES
Water bodies	Lakes and streams to be labeled.	YES
North arrow (N) or compass (N,E,W,S)	Consensus was to include a Compass (N,E,W,S) since general public might not be familiar with just a simple north arrow.	YES
Directionality	Include labels indicating with a direction arrow and labels where major routes lead to help the public orient themselves during stressful evacuation situations.	YES
Emergency number	Provide a city emergency number when applicable. Most partners preferred the number reach a recorded message.	YES
Website	Link to evacuation planning page of the County website. In the future, consider a link to download an app like Avenza.	YES
QR code	QR code takes you to the evacuation planning page of the County website.	YES
City boundary or UGB	City boundary to be shown on maps.	YES
Dead ends	Indicate which roads lead to nowhere and which ones are not accessible beyond a certain point.	YES

Element	Description	Include in Maps?
Zone and subzone labels	If shown, evacuation maps need to be colored to differentiate between subzones and make sure maps are not crowded.	NO
Popular landmarks	Not all members of the public may be familiar with the area. Popular landmarks like fast food chains were discussed.	NO
Gas stations	Not all members of the public may be familiar with the area. Gas station locations could be useful information.	NO
Electric charging stations	Not all members of the public will be familiar with the area. Electric charging station locations could be useful information.	NO
Bridge weight and height capacities	Bridge weight and height capacity values.	NO
Assembly points	See next section for discussion on assembly points.	NO

As shown in the table, it was determined that the maps should only have the most essential elements that are needed during an evacuation event like evacuation routes, road names, water boundaries, city/ district boundaries, and resources for more information.

Assembly Points

The partner work sessions included extensive discussion about whether to include assembly points on the public facing map. Three types of assembly points were discussed, including:

- **Shelter Only:** Assembly points that are reinforced and protected from multiple disasters in addition to wildfires, like earthquakes or thunderstorms. These shelters would need to prepare for and store resources for the public before emergency evacuation events. These shelters would be limited in capacity, so updated information would need to be live streamed to the public to prevent overfilling.
- **Open Spaces:** Open spaces like large stretches of land which are non-flammable could be used as congregation points for the public. These areas could accommodate a large number of people along with their automobiles. Open spaces could also serve as central locations for explaining evacuation instructions to the public by officers.
- **Shelter with Space for Cattle:** Large expanses of areas that can accommodate people, automobiles, and livestock would be beneficial for rural or unincorporated communities with high populations of livestock.

Considerations discussed for including assembly points on evacuation maps are shown in Table 5.

Table 5. Considerations for Including Assembly Points on Public Facing Maps

Advantages	Disadvantages
– Provides the public with prior knowledge of the location of potential assembly points before facing emergency situations. – Helps orient individuals that are not familiar with the area.	– Requires preselected assembly points to be prepared with adequate resources and supplies for at least the population near its vicinity. – Requires adequate staging space to house vehicles and livestock in some cities. – May adversely impact evacuation travel behavior. Public living near known assembly points might choose to travel to the assembly point at the last minute when travel is not recommended.

During TAC Meeting #2, it was decided that assembly points would not be included in the public facing maps. However, potential assembly points will be included as a layer on the agency coordination map for reference and potential use during an evacuation effort.

Sample Public Facing Map

A sample map was created based on the outcome of the partner work sessions and refined based on discussion during TAC Meeting #2. The City of Milwaukie was chosen as a sample map due to its size and inclusion of multiple elements like railroads, water bodies, and the County boundary. Figure 9 and Figure 10 illustrate the sample map for the City of Milwaukie reflecting feedback received during the partner work sessions and TAC meetings. The figures note key elements on the map. Similar maps were created for the cities and districts that participated in the partner work sessions and are provided in Appendix C.

Figure 9. Sample Public Evacuation Map – Front Page (City of Milwaukie)

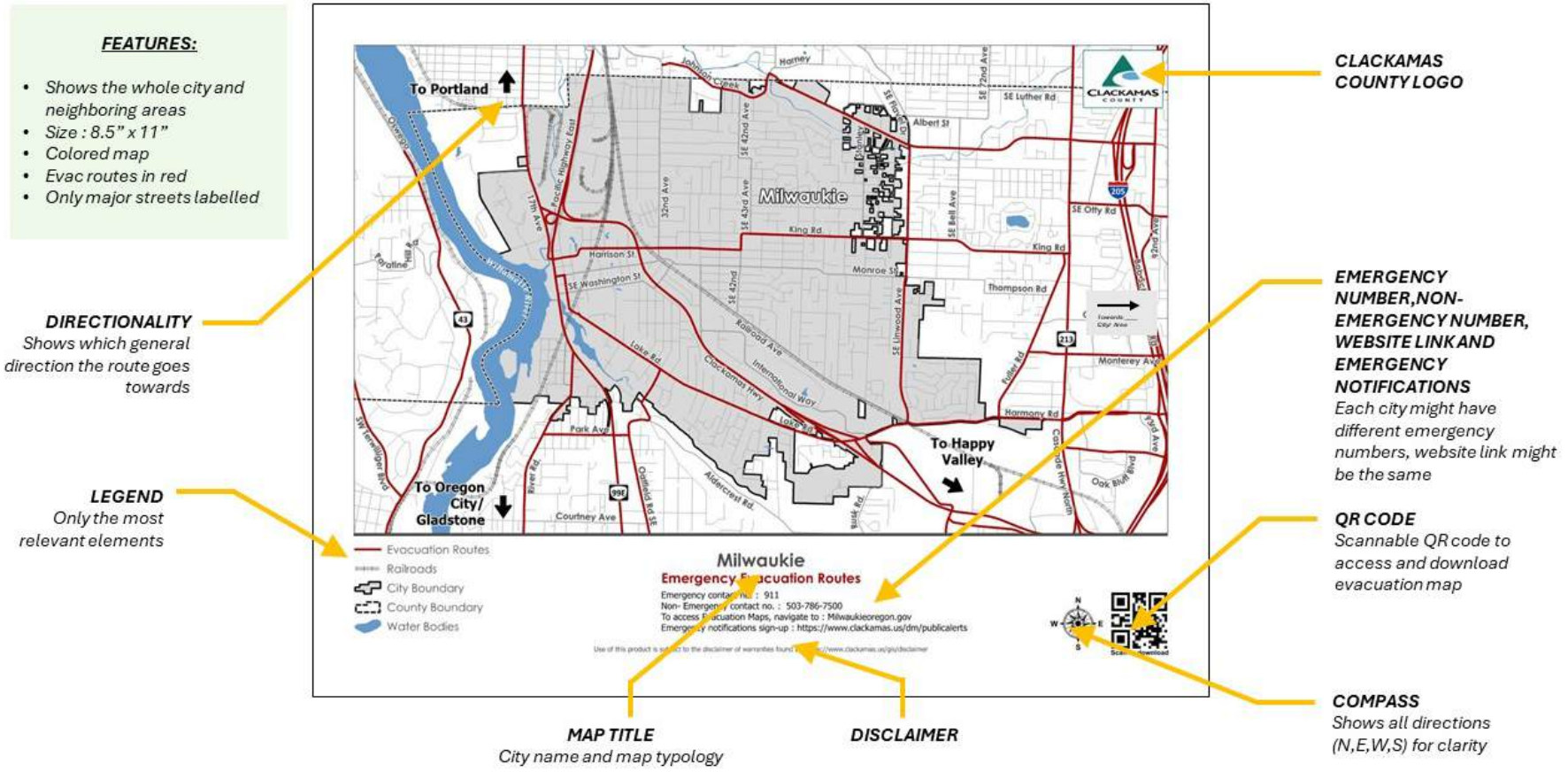
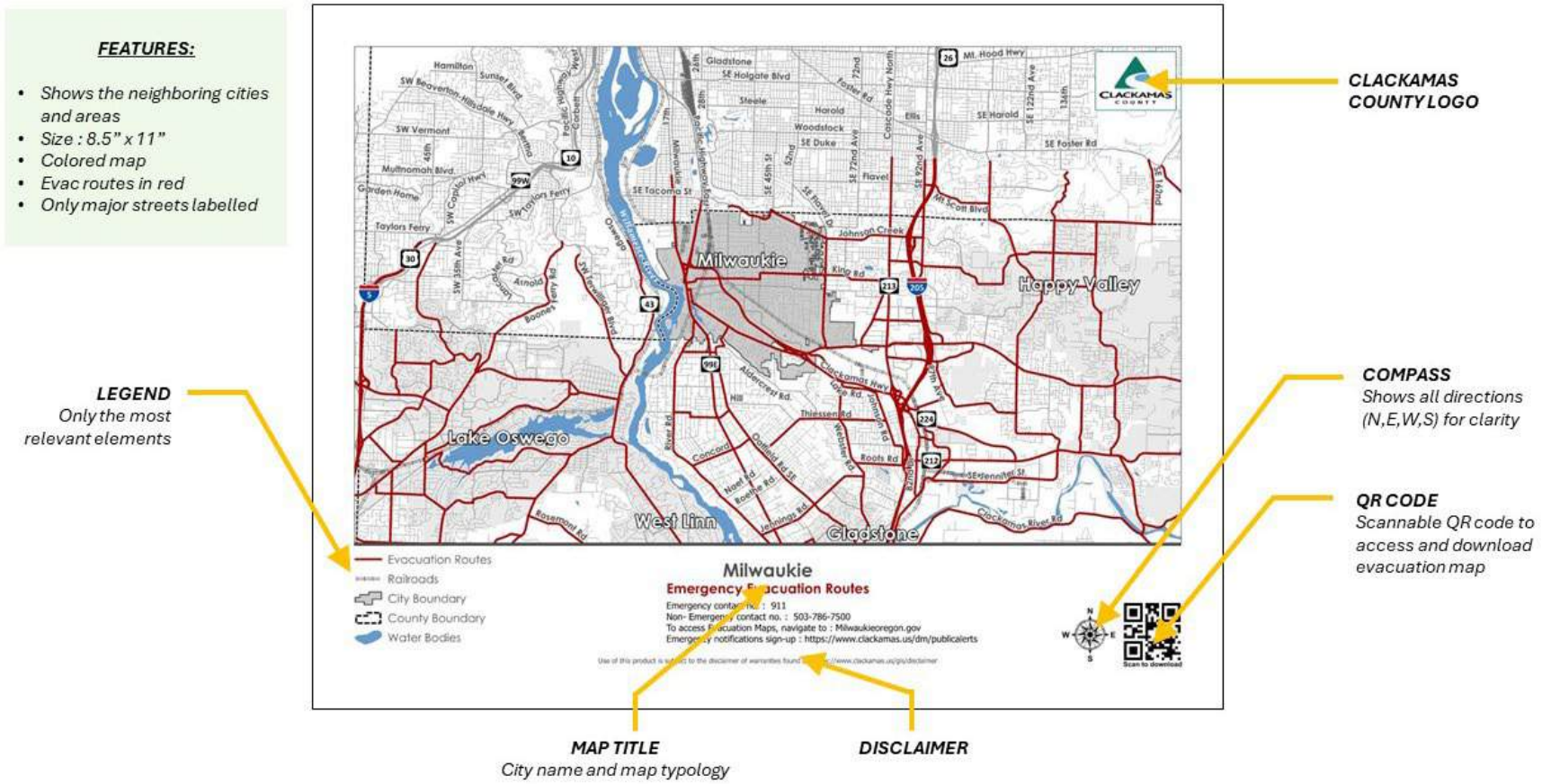


Figure 10. Sample Public Evacuation Map – Back Page (City of Milwaukie)



Accessibility of Public Facing Maps

The final evacuation maps that will be distributed to the public need to be accessible to individuals with colorblindness or color vision deficiency (CVD). This may include implementing the following changes:

- Using sufficient levels of color contrast.
- Choosing color combinations that provide adequate contrast between text and background.
- Not depending on color alone to convey meaning.
- Enabling toggle options for color blindness friendly color palettes on virtual maps.

Distribution of Public Facing Maps

Various distribution options were discussed during the partner work sessions, with the following identified as preferred options:

- **County website:** Evacuation maps for all cities will be uploaded to the County website.
- **Common areas of congregation:** Large print maps will be displayed in the most visited areas of the County to raise public awareness. QR codes could also be displayed at key locations to direct the public to a website to download the map.
- **Utility bills:** Utility services are commonplace in cities so print maps could be mailed in electricity and water bills to reach a majority of the public. However, distribution in unincorporated communities needs to be discussed more due to the lack of common utility services.
- **Phone apps like Avenza/others:** Evacuation maps could be uploaded to apps like Avenza and use the phone's location to open the relevant evacuation map.

Agency Coordination Map

The agency coordination map will house all the data expected to guide evacuation efforts and facilitate interagency coordination across partners of the County. It was created for various agencies that are involved in the evacuation effort during emergency situations. Table 6 lists the elements that were identified during partner work sessions as valuable to include on the agency coordination map. The agency coordination map includes a layer with all elements on the public facing map so it is easy to see what elements the public are familiar with when directing evacuation efforts.

Table 6. Elements for Agency Coordination Maps

Category	Element	Description
Public Facing Map layer	All layers from the public facing map	This layer is important to know what the public can see and has access to while directing evacuation efforts.
Evacuation zones	Zones and subzones	All Zones and subzones as a layer.
Demographic information	Population	Population within each subzone.
	Employment	Employment numbers within each subzone.
	Average cars per household	Useful for estimating how many cars are expected to be on roads during evacuation efforts.
	Daytime population	Some industrial and commercial spaces have a higher population during the daytime.
Transportation information	Functional classification	Knowledge of higher and lower functional classification roadways are helpful for choosing routes during an evacuation.

Category	Element	Description
	Number of lanes	Useful for directing people or officers for patrol.
	Road capacity	Useful measure for estimating which roads are likely to be over capacity to avoid congestion.
	Potential congestion points	Useful to know existing congestion points.
	Alternate routes	In case the evacuation routes are congested, identifying alternate routes ahead of time can be useful for access by police and fire patrol officers.
Essential facilities	Water treatment plants	Useful to know the location of water treatment plants to protect these services.
	Electrical sub-stations	Useful to know the location of electrical sub-stations to protect these services
	Airports	Useful to know the location of airports since they provide large non-flammable areas that can be used for congregation.
Hazard data	Relative wildfire risk map	Indicates areas that are most likely to catch fire.
	Hazmat	High risk areas for hazmat spills, contamination or spread.
Other	Vegetation layer	Vegetation layer is the most directly correlated with wildfire movement and may help predict movement.
	Contour lines	The topography/ grade of the land is useful when planning evacuation efforts
	Socially vulnerable populations	Useful to know which subzones have higher socially vulnerable populations to give more time for evacuation efforts.
	Potential assembly points	Useful to have potential assembly points already identified in this map even if not shown in public maps.
	Livestock locations	Useful to know livestock concentrations to prepare for potential evacuation of livestock.

As shown in the table, the agency coordination map has crucial information like demographics, functional classification, daytime population, hazard areas, vulnerable population concentrations, livestock concentrations, etc. Specific details about zones and subzones, like population and cars per household, can inform decisions quickly during emergency scenarios.

Map and Data Sharing

The intent of the agency coordination map is to facilitate a cohesive response to evacuations between the County and its partners. The partner work session participants discussed what platform(s) would be best suited for sharing information across all agencies. Phase II produced revised evacuation maps in GIS that were shared with the County via GIS shapefiles. The files can be converted by the County as necessary to support other applications. The following applications are currently used by different agencies at the County and could utilize the data from the agency coordination map:

- CAD Tritech Software systems
- Avenza
- Everbridge
- Interra

Final Revisions and Deliverables

The final deliverables for Phase II reflect the feedback received from the partner work sessions and TAC meetings. The deliverables include:

- **Partner Work Session Outcomes:** The consultant team recorded all the feedback and requested changes during the partner work sessions. They are recorded in Appendix A which shows before and after maps.
- **Subzone Descriptions:** The consultant team developed a table with geographic descriptions for the evacuation subzones, provided in Appendix B along with a subzone summary map.
- **GIS Shapefiles:** The consultant team provided updated GIS layer package files for the evacuation zones, subzones and evacuation routes to CCDM who will then distribute them amongst other agencies at the County.
- **Public Evacuation Maps:** The consultant team provided PDF files of the Public Evacuation Maps for the cities and fire districts who participated in the partner work sessions (See Appendix C).

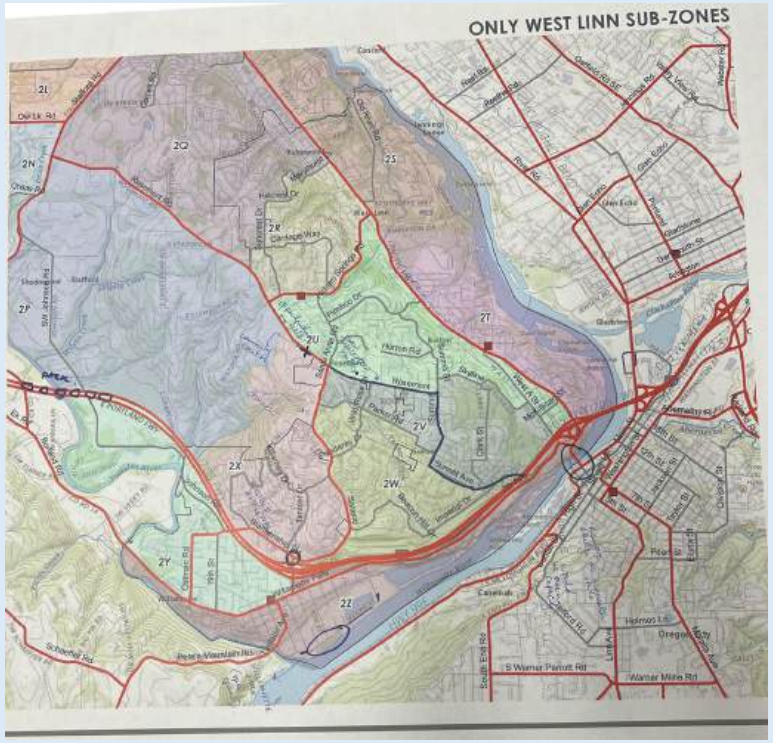
Appendices

A. Feedback from Partner Work Sessions and Before and After Maps
B. Subzone Summary Map and Descriptions
C. Public Evacuation Maps

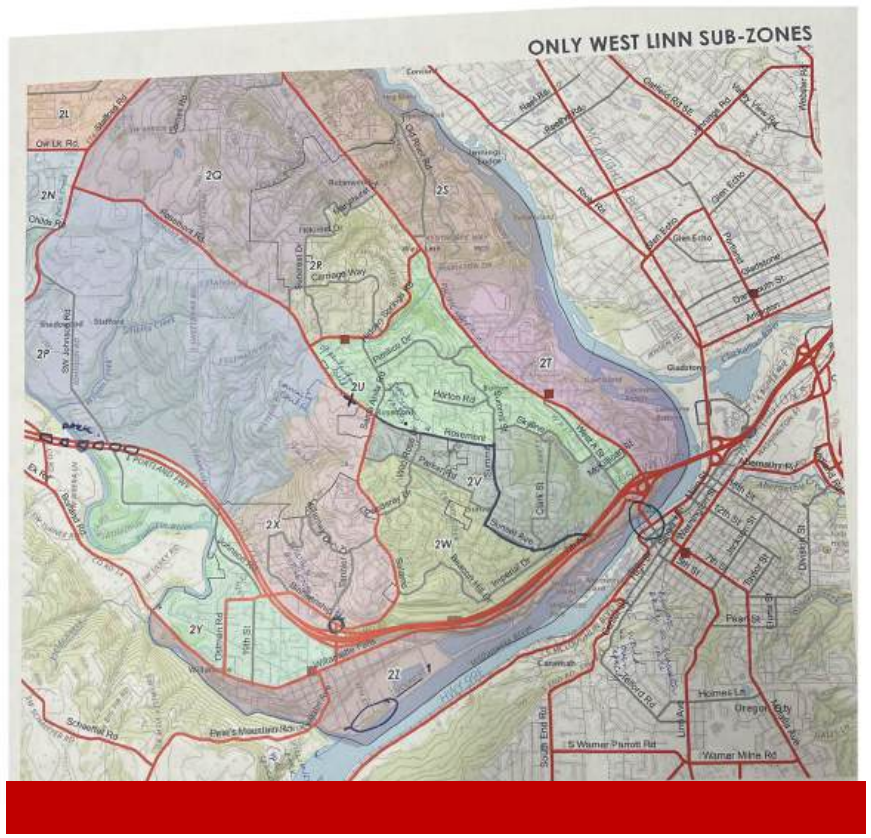
- City of Canby
- Colton Fire District
- City of Estacada
- City of Gladstone
- City of Happy Valley
- City of Lake Oswego
- City of Milwaukie
- City of Molalla
- City of Oregon City
- City of Sandy
- Tualatin Valley Fire and Rescue District
- City of West Linn
- City of Wilsonville
- Hoodland Fire District

Appendix A: Feedback from Partner Work Sessions and Before and After Maps

WEST LINN - PARTNER WORK SESSION OUTCOME

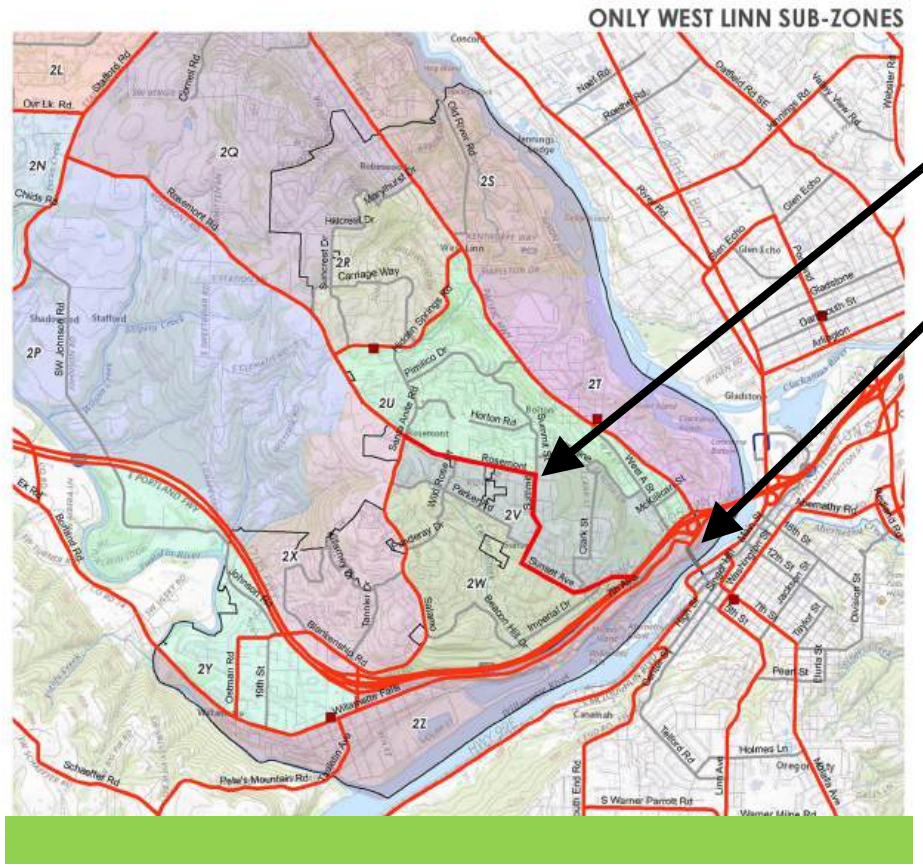
CITY	REFERENCE IMAGE	OVERALL DESCRIPTION	REQUESTED CHANGES	OTHER NOTES
West Linn		• No change in sub zone delineation • A few evacuation route changes (addition as well as elimination) • No significant commercial or industrial locations with large transient populations during the workday • No significant population growth within city limits	**EVACUATION ROUTE CHANGES:** • Continue evacuation route along Rosemont Road, continue along Sunset Ave and extend to 7th Avenue / 1205 Highway • Remove Oregon City Arch bridge from being considered as an evacuation route. • Highway 1205 will be the dark -highlighted evacuation route along the city. **POTENTIAL ASSEMBLY LOCATIONS:** • Adult community center • Oppenheimer Field • Willamette Park.	• Small city, will be best represented as 1 evacuation map with all subzones

WEST LINN - PARTNER WORK SESSION OUTCOME



MARKED UP MAP DURING PARTNER WORK SESSION

PHASE I
(BEFORE)



UPDATED MAP SHOWING REQUESTED CHANGES

PHASE II
(AFTER)

REQUESTED CHANGES:

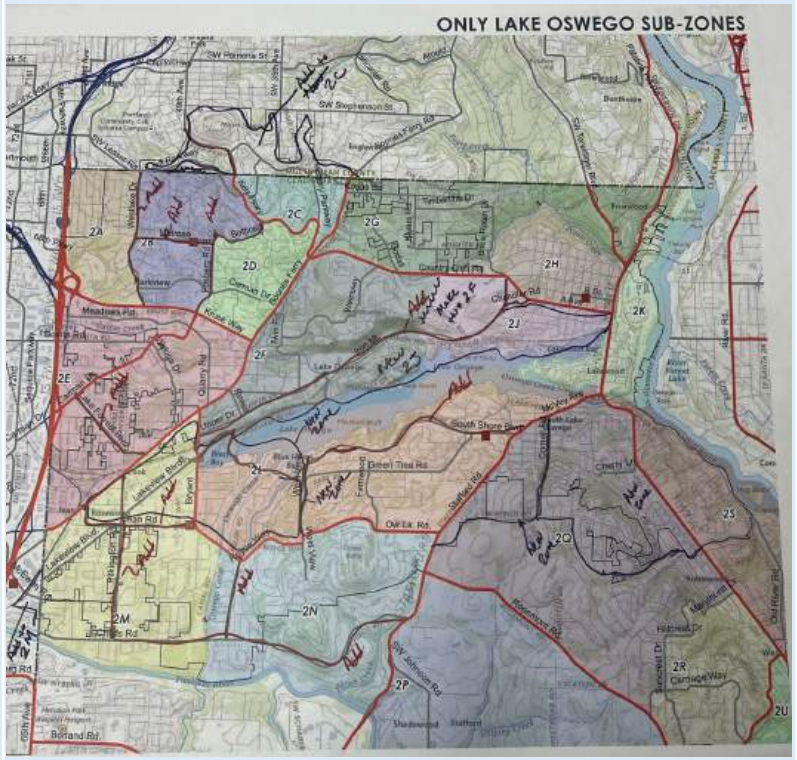
EVACUATION ROUTE CHANGES:

- *Continue evacuation route along Rosemont Road, continue along Sunset Ave and extend to 7th Avenue / 1205 Highway*
- *Remove Oregon City Arch bridge from being considered as an evacuation route.*
- *I-205 will be the dark -highlighted evacuation route along the city. (Will make this change in the next step)*

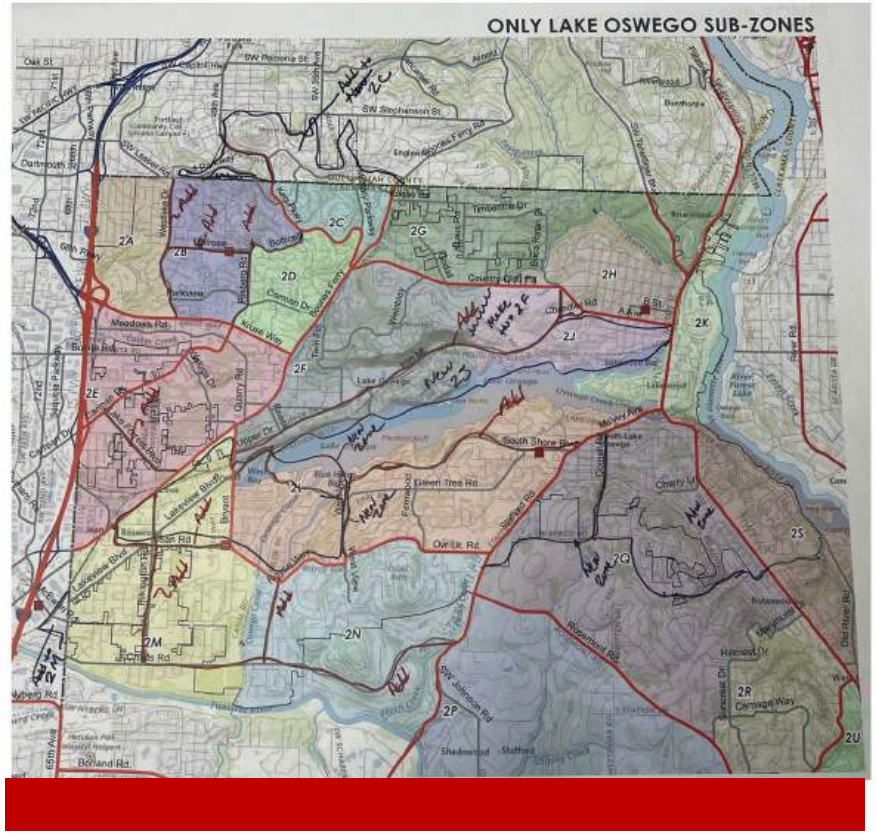
POTENTIAL ASSEMBLY LOCATIONS:

- *Adult community center*
- *Oppenheimer Field*
- *Willamette Park*

LAKE OSWEGO- PARTNER WORK SESSION OUTCOME

CITY	REFERENCE IMAGE	OVERALL DESCRIPTION	REQUESTED CHANGES	OTHER NOTES
Lake Oswego		• 4 changes to sub zone delineation • A few evacuation route changes (additions only) • No significant commercial or industrial locations with large daytime populations	**SUBZONE CHANGES:** • Break zone 2Q into 3 separate zones (use Cornell Road, SW Bergis Road and ___ Road as boundaries) – see map • Remove the west chunk of 2J and include it in 2F (see map). • Break up 2L into 2 zones named 2LA and 2LB along West view road. • Add a small part of land to 2M (outside county boundary) • Add the northern tip of Lake Oswego to subzone 2C (see map) **EVACUATION ROUTE CHANGES:** • Add new evacuation route along Upper Drive and Iron Mt. in subzone 2F (Connection between Bryant Road to Chandier Road) • Add evacuation routes along Jeans Road and Childs Road in 2M and 2N. • Add evacuation route along South shore Blvd in 2L. • Add evacuation route along Lake Forest Blvd in 2E. • Add evacuation route along Melrose Road and Fosberg Road and Westlake Drive in 2B.	

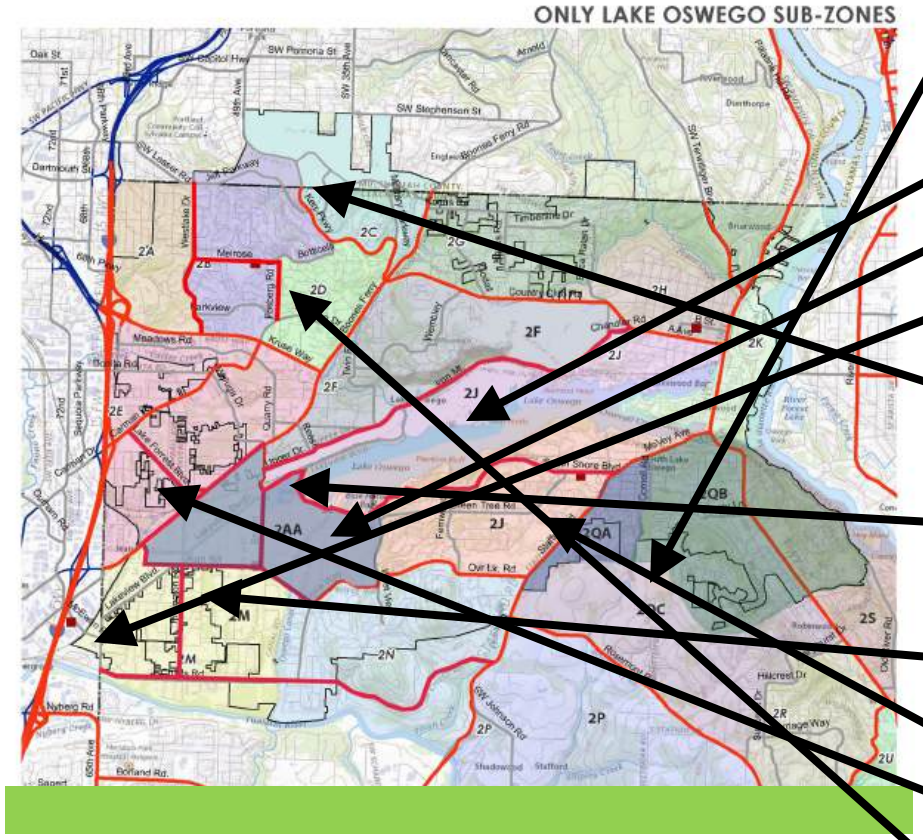
LAKE OSWEGO- PARTNER WORK SESSION OUTCOME



MARKED UP MAP DURING PARTNER WORK SESSION

PHASE I

(BEFORE)



UPDATED MAP SHOWING REQUESTED CHANGES

PHASE II

(AFTER)

REQUESTED CHANGES:

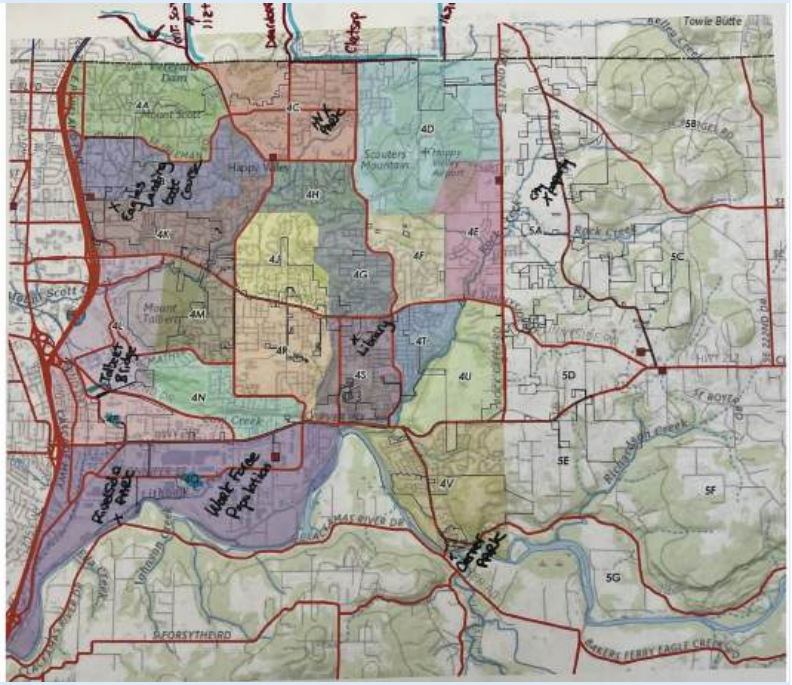
SUBZONE CHANGES:

- *Break zone 2Q into 3 separate zones (use Cornell Road, SW Bergis Road and UGB as boundaries)*
- *Remove the west chunk of 2J and include it in 2F*
- *Break up 2L into 2 zones named 2LA and 2LB along West view road.*
- *Add a small part of land to 2M (outside county boundary)*
- *Add the northern tip of Lake Oswego to subzone 2C*

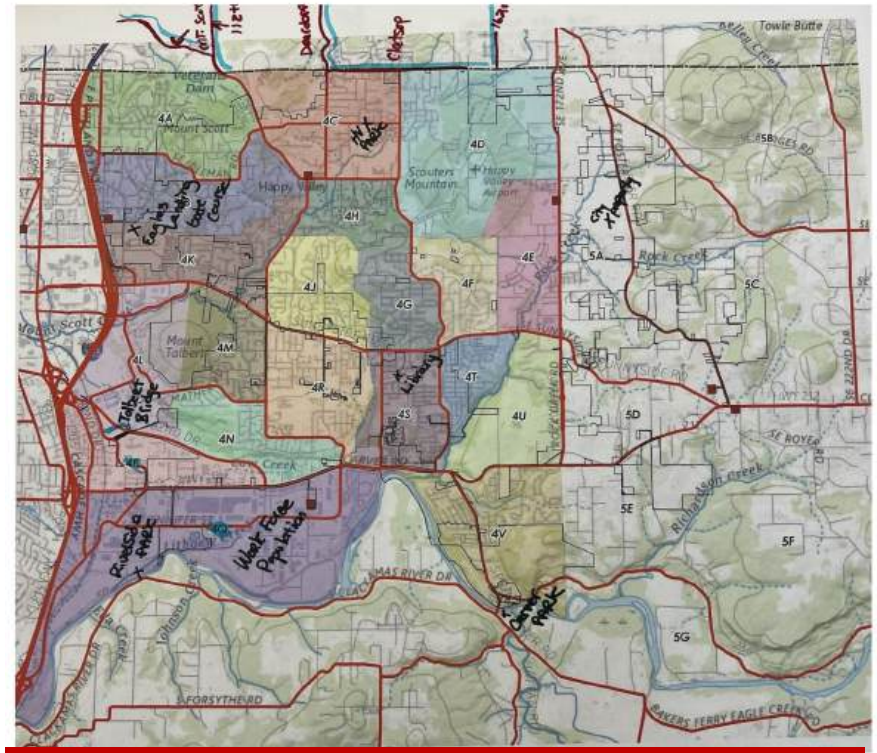
EVACUATION ROUTE CHANGES:

- *Add new evacuation route along Upper Drive and Iron Mt. in subzone 2F (Connection between Bryant Road to Chandier Road)*
- *Add evacuation routes along Jeans Road and Childs Road in 2M and 2N.*
- *Add evacuation route along South shore Blvd in 2L.*
- *Add evacuation route along Lake Forest Blvd in 2E.*
- *Add evacuation route along Melrose Road and Fosberg Road and Westlake Drive in 2B.*

HAPPY VALLEY- PARTNER WORK SESSION OUTCOME

CITY	REFERENCE IMAGE	OVERALL DESCRIPTION	REQUESTED CHANGES	OTHER NOTES
Happy Valley		• 2 changes to sub zone delineation • A few evacuation route changes (additions only) • Large industrial and commercial daytime population in 4P and 4Q.	**SUBZONE CHANGES:** • Break zone 4P into 2 subzones- 4PA and 4PB. North-south line along SE 102 Nd Avenue. • Break up subzone 4Q into 2 subzones- 4QA and 4QB. North-south zig zag line along SE 106th Avenue and SE Robert Avenue **EVACUATION ROUTE CHANGES:** • Extend evacuation routes in the north over the county boundary. Label the different roads mentioned on map – SE Deardorff Rd, SE Clatsop Rd, 162nd Rd, Mt. Scott Blvd, 112th Avenue. • Add SE Tolbert St Bridge as an evacuation route. **POTENTIAL ASSEMBLY LOCATIONS:** • Riverside Park • Library • Carrier Park	

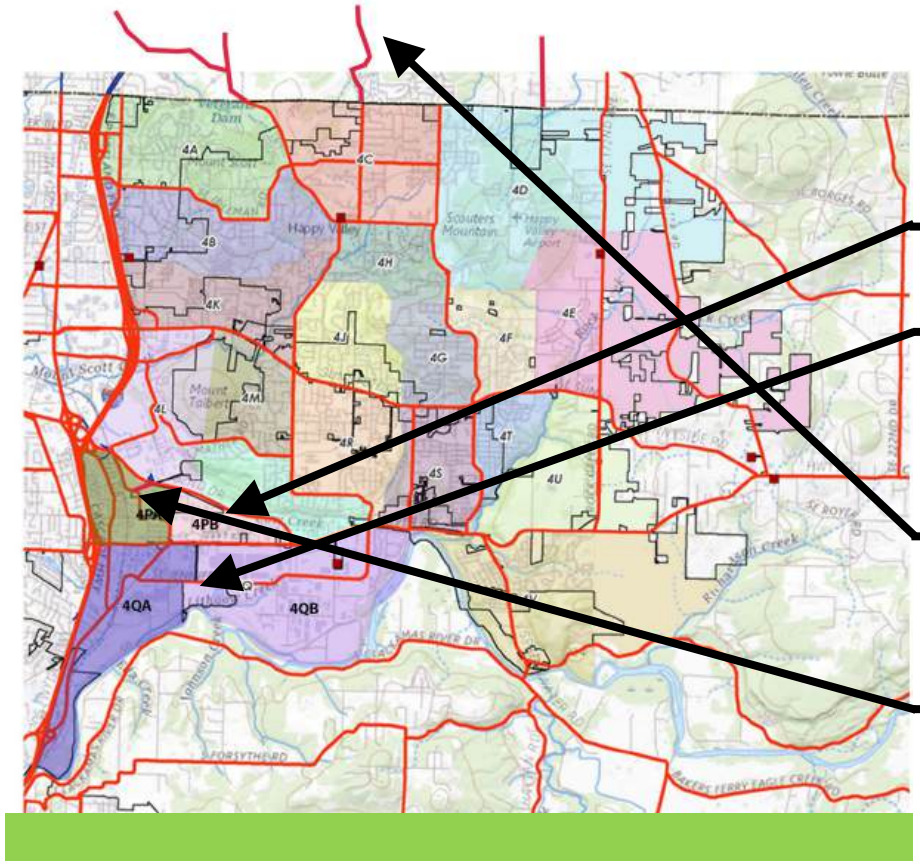
HAPPY VALLEY- PARTNER WORK SESSION OUTCOME



MARKED UP MAP DURING PARTNER WORK SESSION

PHASE I

(BEFORE)



UPDATED MAP SHOWING REQUESTED CHANGES

PHASE II

(AFTER)

REQUESTED CHANGES:

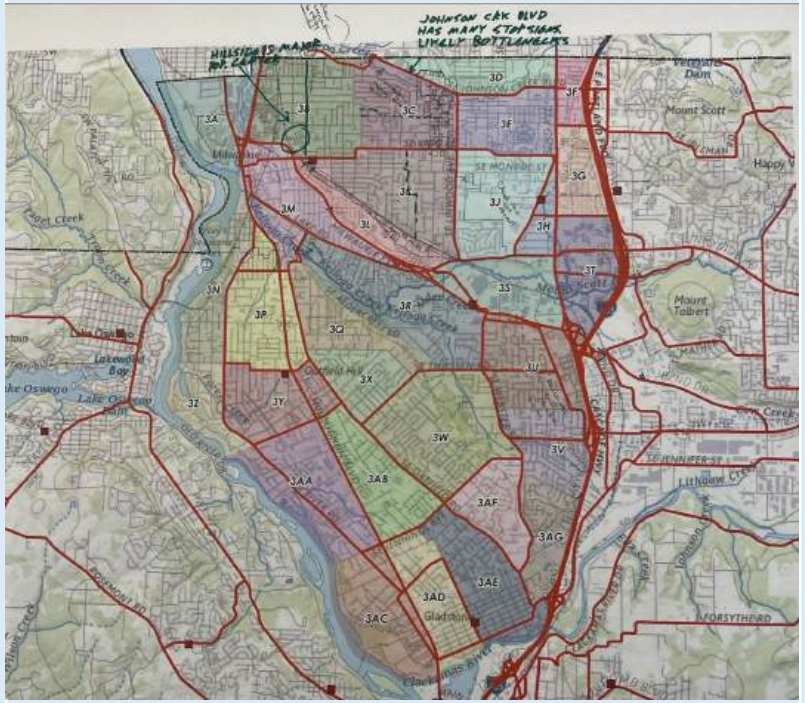
SUBZONE CHANGES:

- *Break zone 4P into 2 subzones- 4PA and 4PB. North-south line along SE 102 Nd Avenue.*
- *Break up subzone 4Q into 2 subzones- 4QA and 4QB. North-south zig zag line along SE 106th Avenue and SE Robert Avenue*

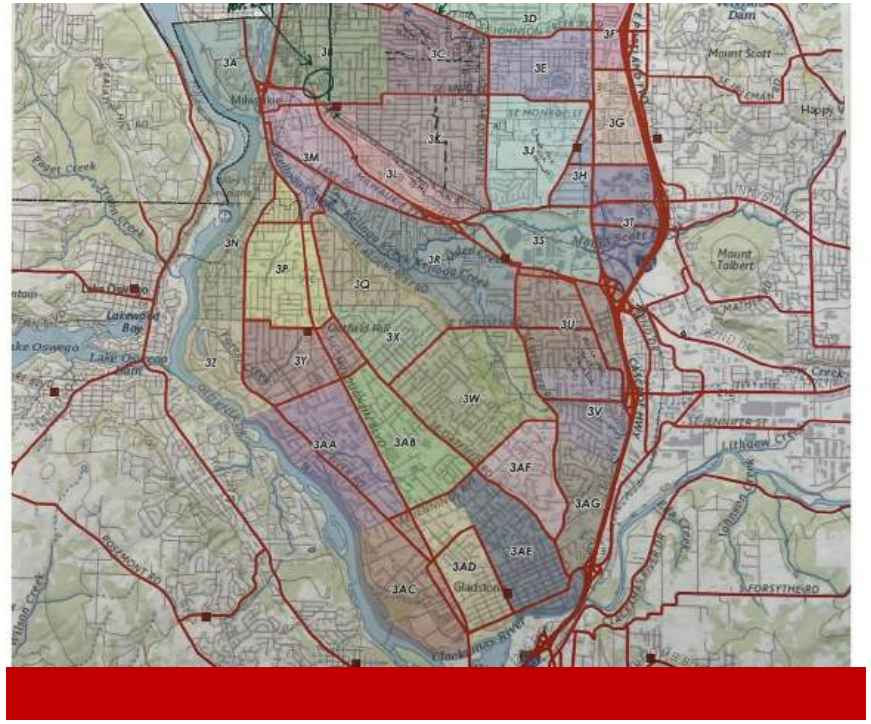
EVACUATION ROUTE CHANGES:

- *Extend evacuation routes in the north over the county boundary. Label the different roads mentioned on map – SE Deardorff Rd, SE Clatsop Rd, 162nd Rd, Mt. Scott Blvd, 112th Avenue.*
- *Add SE Tolbert St Bridge as an evacuation route.*

MILWAUKIE- PARTNER WORK SESSION OUTCOME

CITY	REFERENCE IMAGE	OVERALL DESCRIPTION	REQUESTED CHANGES	OTHER NOTES
Milwaukie		• 5 changes to sub zone delineation (splits as well as combination) • A few evacuation route changes (additions only) and change in page extents setup to show connection to OR 99. • Major daytime population center in 3B (Hillside) •	**SUBZONE CHANGES:** • Break up 3B into 3BA and 3BB. North-south line along 32nd Avenue. • Break up 3C into 3CA and 3CB. East-west line along • Break up 3K into 3KA and 3KB. North-south along SE Wood Ave, SE Park St zig zag and SE Beckham Ave • Disconnect the south triangular piece of 3M and add this piece to subzone 3R. • Combine the lower part of 3U and upper part of 3V and make it into a new zone called 3AH. **EVACUATION ROUTE CHANGES:** • Extend evacuation lines along county boundary. Show connection to OR 99 on map extents. • Show railway line on map	

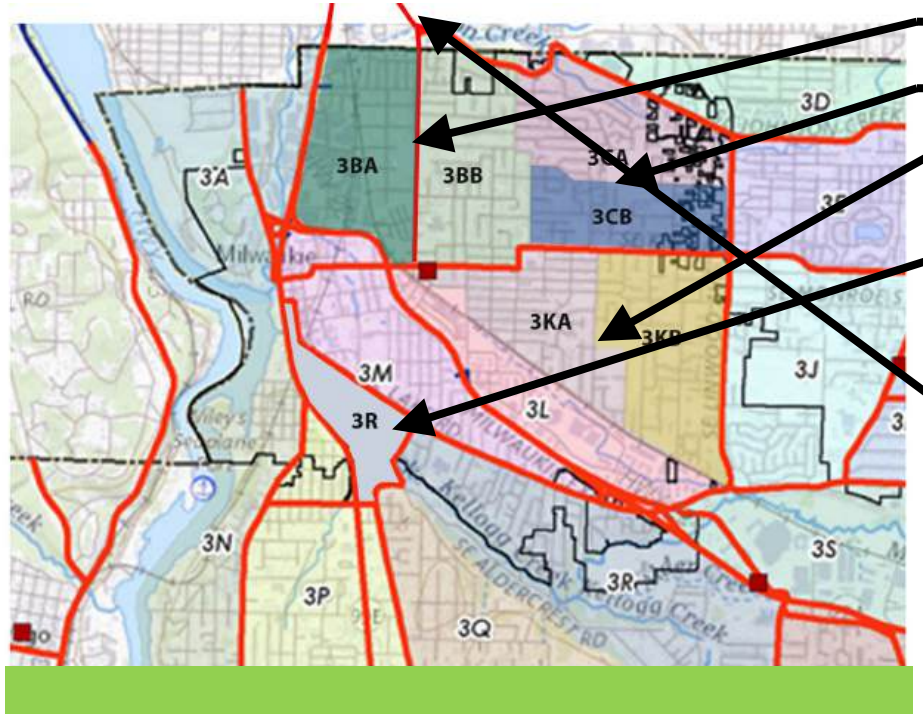
MILWAUKIE- PARTNER WORK SESSION OUTCOME



MARKED UP MAP DURING PARTNER WORK SESSION

PHASE I

(BEFORE)



UPDATED MAP SHOWING REQUESTED CHANGES

PHASE II

(AFTER)

REQUESTED CHANGES:

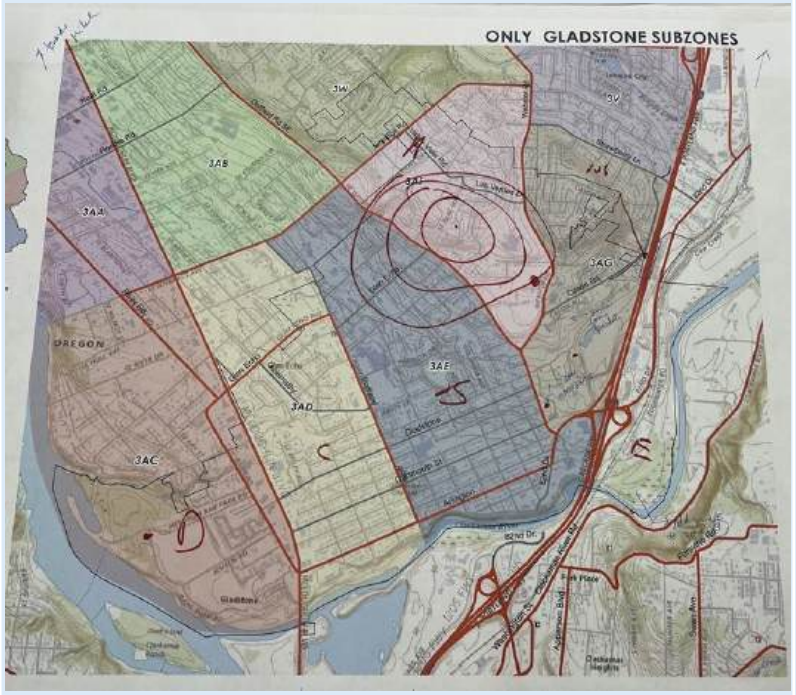
SUBZONE CHANGES:

- *Break up 3B into 3BA and 3BB. North-south line along 32nd Avenue.*
- *Break up 3C into 3CA and 3CB. East-west line along*
- *Break up 3K into 3KA and 3KB. North-south along SE Wood Ave, SE Park St zig zag and SE Beckham Ave*
- *Disconnect the south triangular piece of 3M and add this piece to subzone 3R.*

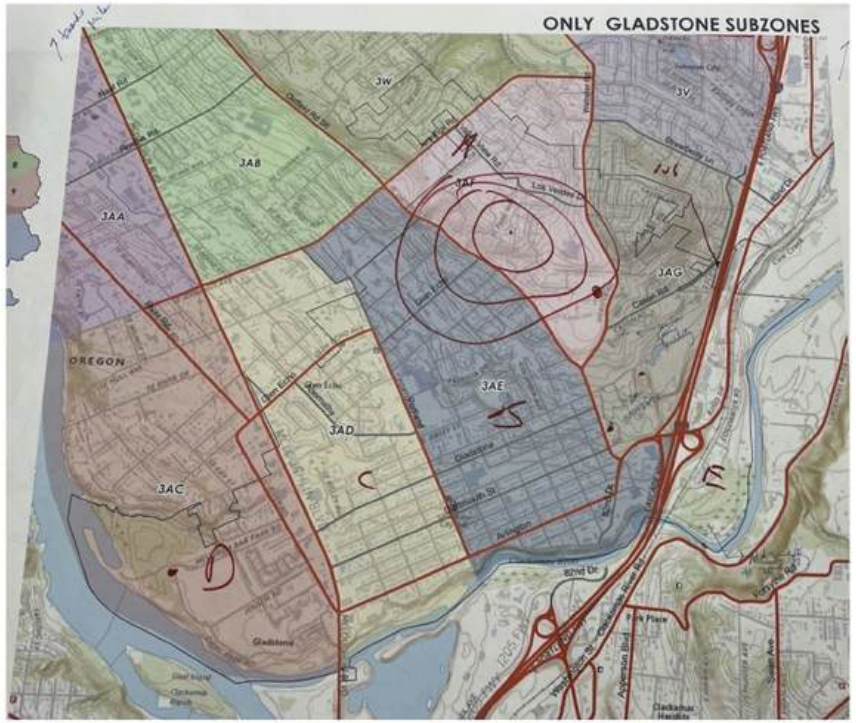
EVACUATION ROUTE CHANGES:

- *Extend evacuation lines along county boundary. Show connection to OR 99 on map extents.*
- *Show railway line on map*

GLADSTONE- PARTNER WORK SESSION OUTCOME

CITY	REFERENCE IMAGE	OVERALL DESCRIPTION	REQUESTED CHANGES	OTHER NOTES
Gladstone		• 2 changes in sub zone delineation • No changes to evacuation routes	**SUBZONE CHANGES:** • Change the east section of Gladstone that lies beyond the 1205 highway as zone 3AH. (Currently, it is a part of zone 4) • Extend zone 3V south till the city outline (as shown in the map)	

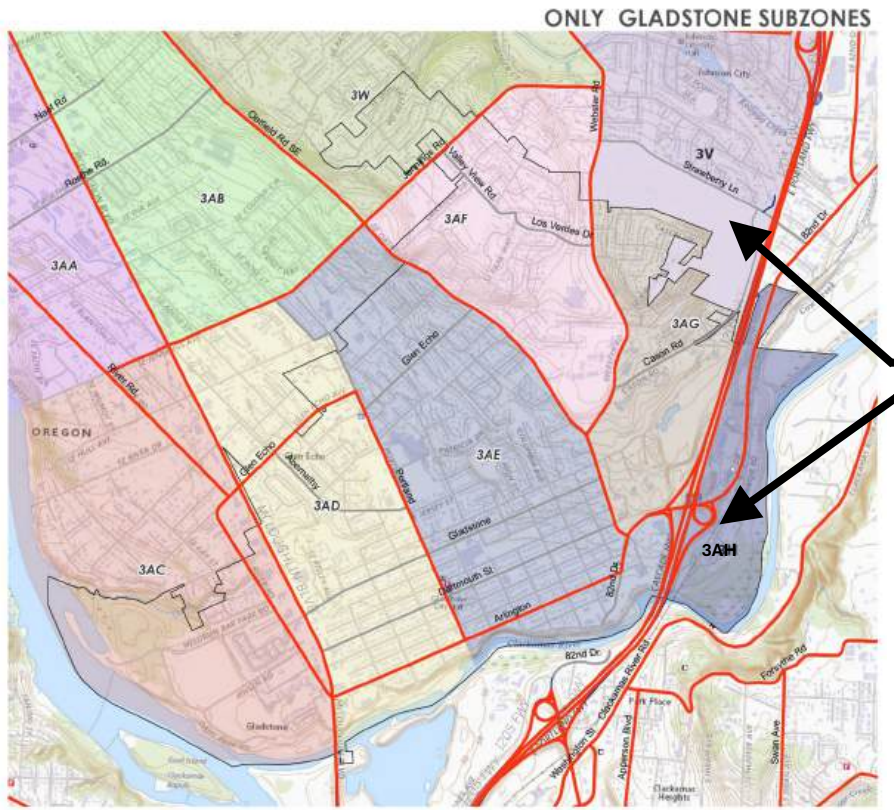
GLADSTONE- PARTNER WORK SESSION OUTCOME



MARKED UP MAP DURING PARTNER WORK SESSION

PHASE I

(BEFORE)



UPDATED MAP SHOWING REQUESTED CHANGES

PHASE II

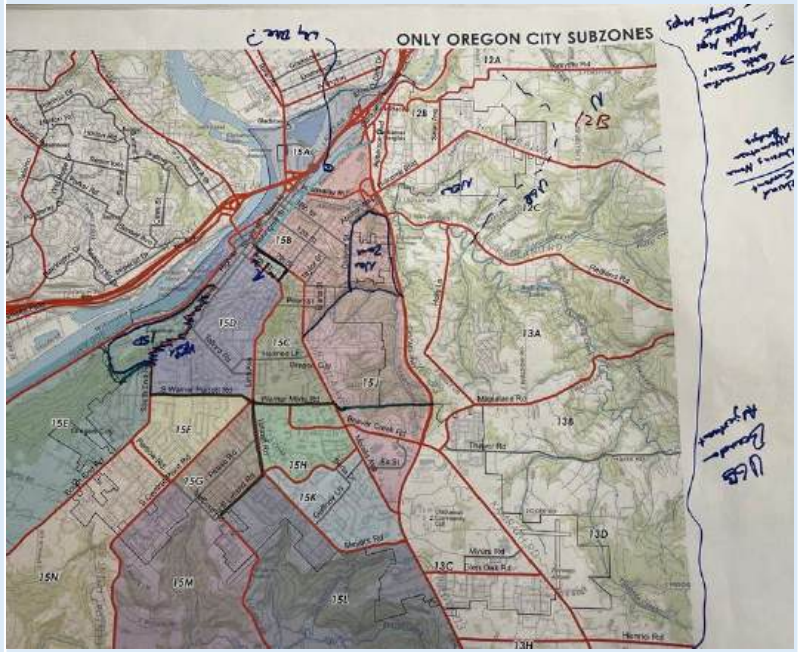
(AFTER)

REQUESTED CHANGES:

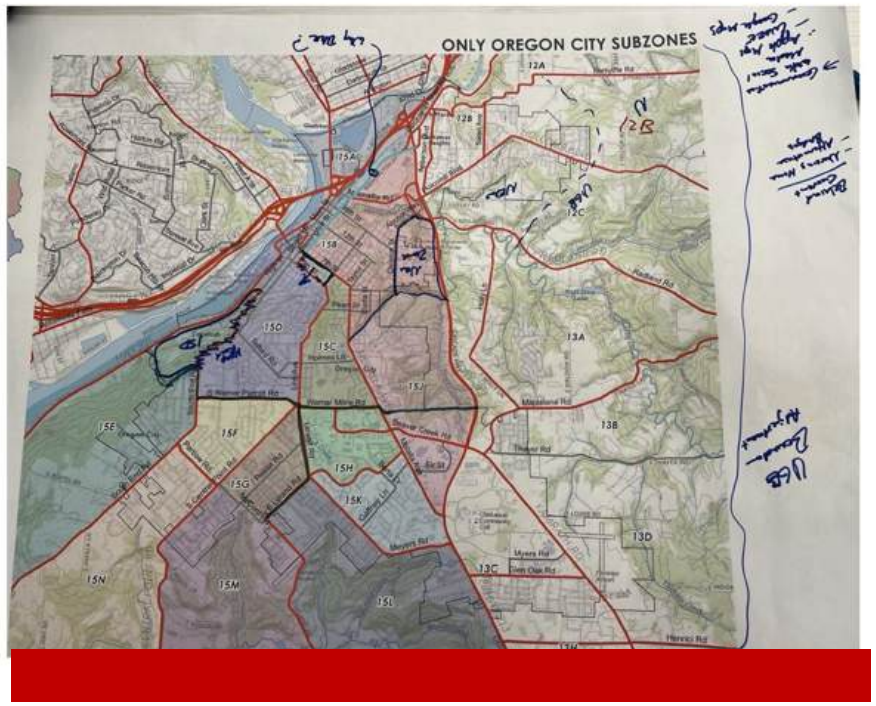
SUBZONE CHANGES:

- *Extend zone 3V south to the City UGB*
- *Change the east section of Gladstone that lies beyond I-205 as zone 3AH. (Currently, it is a part of zone 4P)*

OREGON CITY- PARTNER WORK SESSION OUTCOME

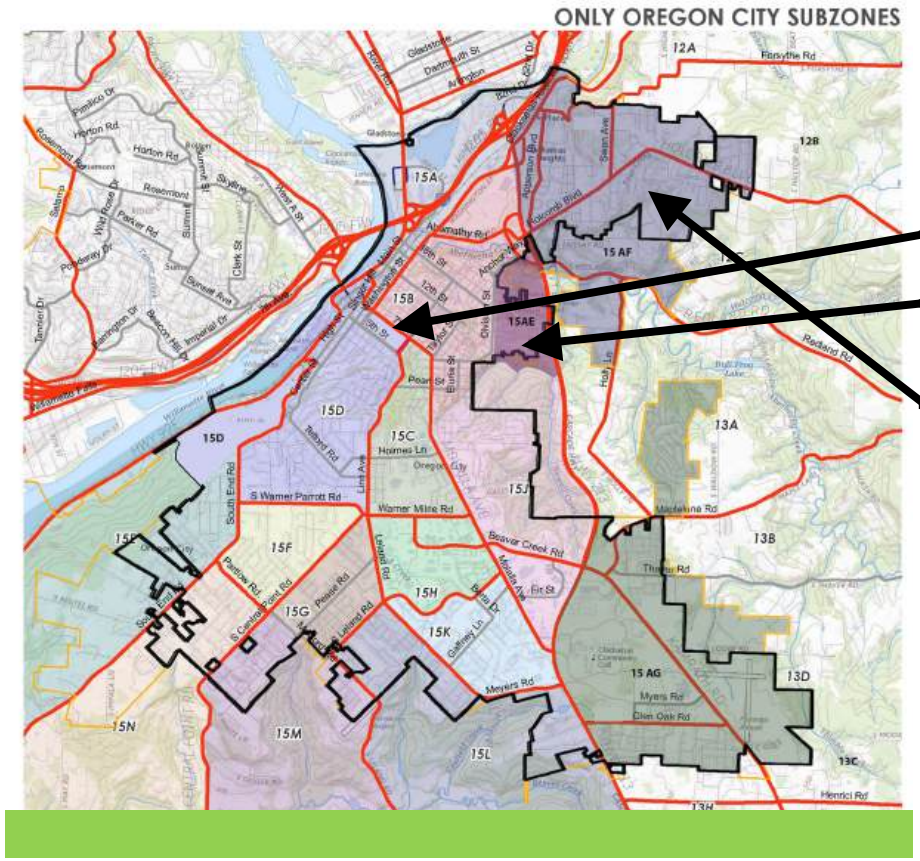
CITY	REFERENCE IMAGE	OVERALL DESCRIPTION	REQUESTED CHANGES	OTHER NOTES
Oregon City		• Multiple changes to subzone delineation • No changes to evacuation routes	**SUBZONE CHANGES:** • Include the north tip of subzone 15C to 15D (see map) • Include the northern tip of subzone 15E to 15D (see map) • Split 15B into subzone 15BA and 15BB along Division street and Anchor way (see map) • Split 15J using city boundary into 15JA and 15JB. • Remove areas that fall under Oregon city boundary from 12B and 12C and create a new zone for Oregon City (called subzone 15ADE)	

OREGON CITY- PARTNER WORK SESSION OUTCOME



MARKED UP MAP DURING PARTNER WORK SESSION

PHASE I
(BEFORE)



UPDATED MAP SHOWING REQUESTED CHANGES

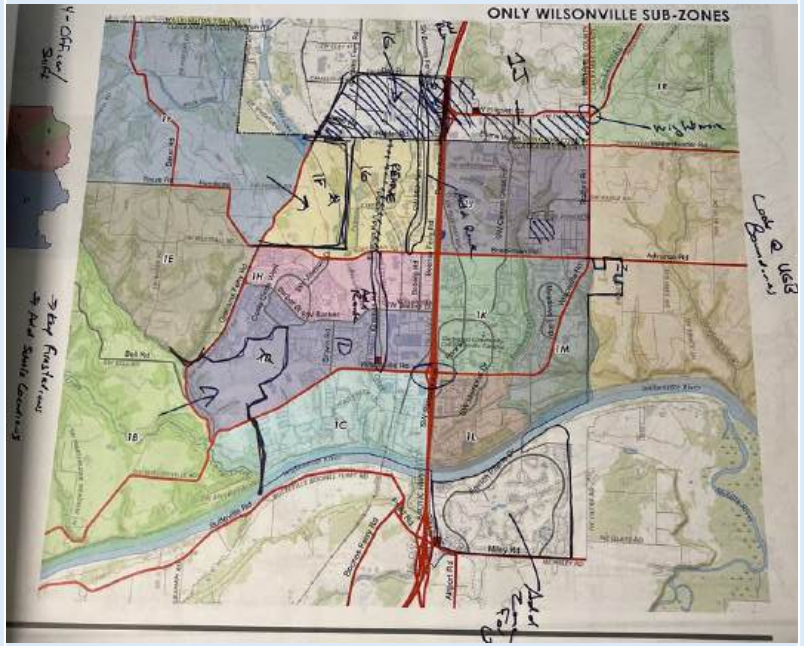
PHASE II
(AFTER)

REQUESTED CHANGES:

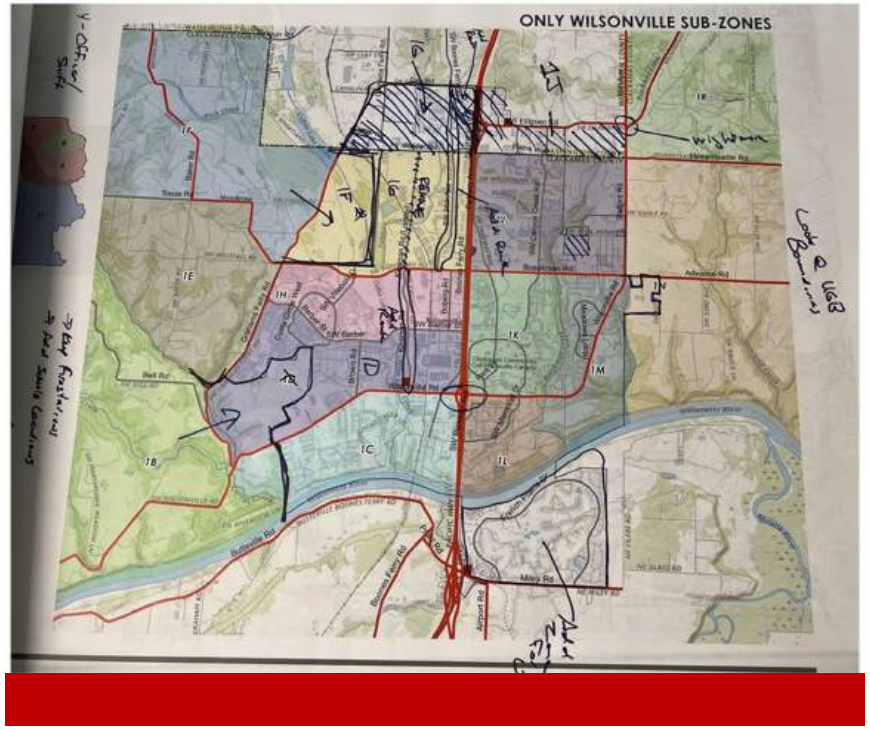
SUBZONE CHANGES:

- *Include the north tip of subzone 15C to 15D*
- *Create a new subzone in subzone 15B along Division street and Anchor Way for hospital*
- *Remove areas that fall outside Oregon City UGB from 12B and 12C and create a new zone for Oregon City (called subzone 15AF)*

WILSONVILLE- PARTNER WORK SESSION OUTCOME

CITY	REFERENCE IMAGE	OVERALL DESCRIPTION	REQUESTED CHANGES	OTHER NOTES
Wilsonville		• 5 changes to subzone delineation • 2 changes to evacuation routes	**SUBZONE CHANGES:** • Remove the part of land in subzone 16B that falls within Wilsonville city and add it as a new subzone called 1V. • Detach the small part of subzone 1D that lies outside the Wilsonville city extents and include it with subzone 1B. • Include the north city extents above Ridder Road as a continuation of subzone 1G (see image) • Include the north city extents above Burns way as a continuation of subzone 1J (see image) • Detach the part of subzone 1F that does not fall inside the city boundary and add it to subzone 1F. **EVACUATION ROUTE CHANGES:** • Add SW Kinsman Road as an evacuation route only between Wilsonville Road and SW Barber Street (not complete street) • Add SW 95th Avenue as an evacuation route.	

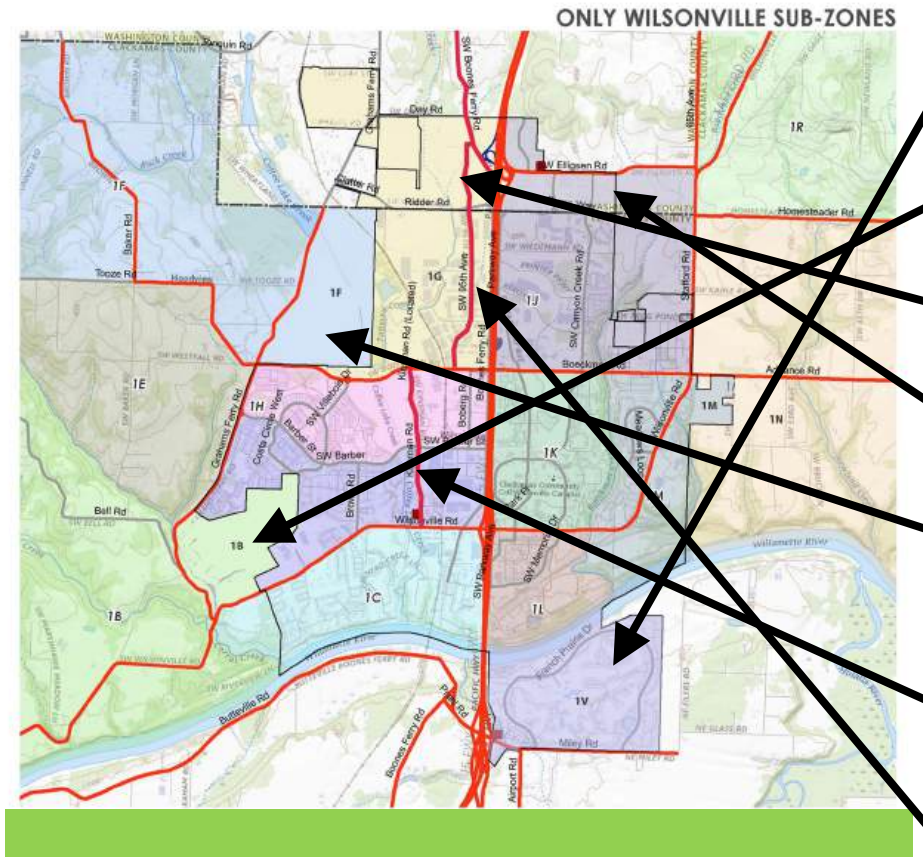
WILSONVILLE- PARTNER WORK SESSION OUTCOME



MARKED UP MAP DURING PARTNER WORK SESSION

PHASE I

(BEFORE)



UPDATED MAP SHOWING REQUESTED CHANGES

PHASE II

(AFTER)

REQUESTED CHANGES:

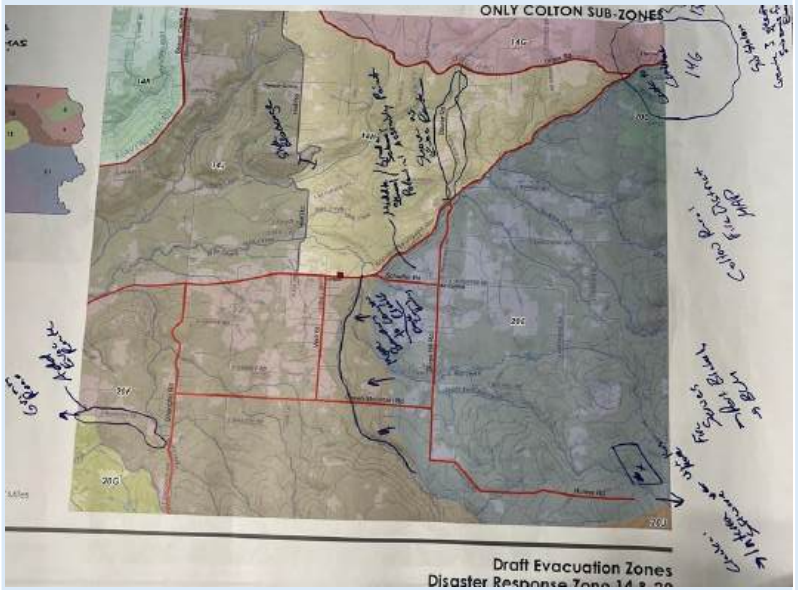
SUBZONE CHANGES:

- *Remove the part of land in subzone 16B that falls within Wilsonville city and add it as a new subzone called 1V.*
- *Detach the small part of subzone 1D that lies outside the Wilsonville UGB and include it with subzone 1B.*
- *Include the north city extents above Ridder Road as a continuation of subzone 1G*
- *Include the north city extents above Burns way as a continuation of subzone 1J (see image)*
- *Detach the part of subzone 1F that does not fall inside the city boundary and add it to subzone 1F.*

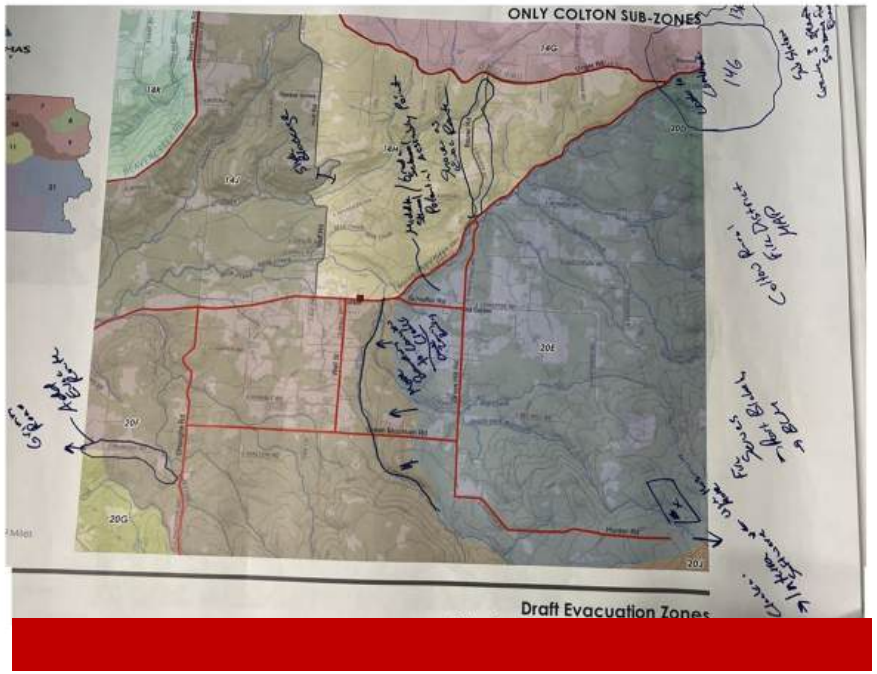
EVACUATION ROUTE CHANGES:

- *Add SW Kinsman Road as an evacuation route only between Wilsonville Road and SW Barber Street (not complete street)*
- *Add SW 95th Avenue as an evacuation route.*

COLTON - PARTNER WORK SESSION OUTCOME

CITY	REFERENCE IMAGE	OVERALL DESCRIPTION	REQUESTED CHANGES	OTHER NOTES
Colton		• 2 changes to subzone delineation • 2 changes to evacuation routes	**SUBZONE CHANGES:** • Move zone boundary of subzone 20E to Canyon creek (as shown in map) • Combine zone 14G and 13R **EVACUATION ROUTE CHANGES:** • Add S Munson Road as an evacuation route. • Show Baurer Road in 14H as evacuation route **POTENTIAL ASSEMBLY LOCATIONS:** • Middle school / High school	

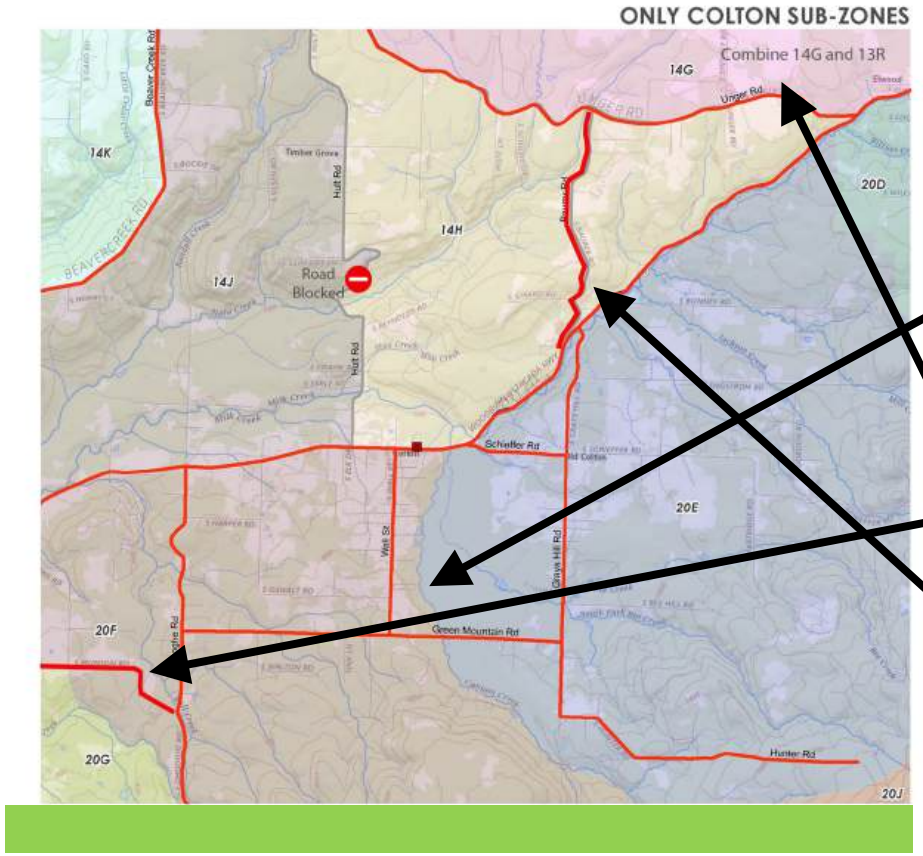
COLTON - PARTNER WORK SESSION OUTCOME



MARKED UP MAP DURING PARTNER WORK SESSION

PHASE I

(BEFORE)



UPDATED MAP SHOWING REQUESTED CHANGES

PHASE II

(AFTER)

REQUESTED CHANGES:

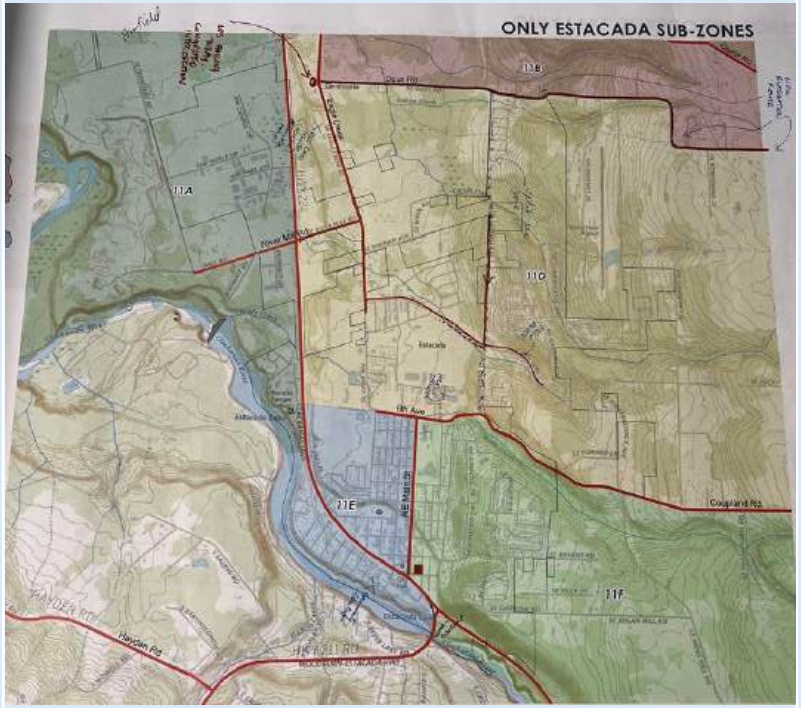
SUBZONE CHANGES:

- *Move zone boundary of subzone 20E to Canyon creek (as shown in map)*
- *Combine zone 14G and 13R*

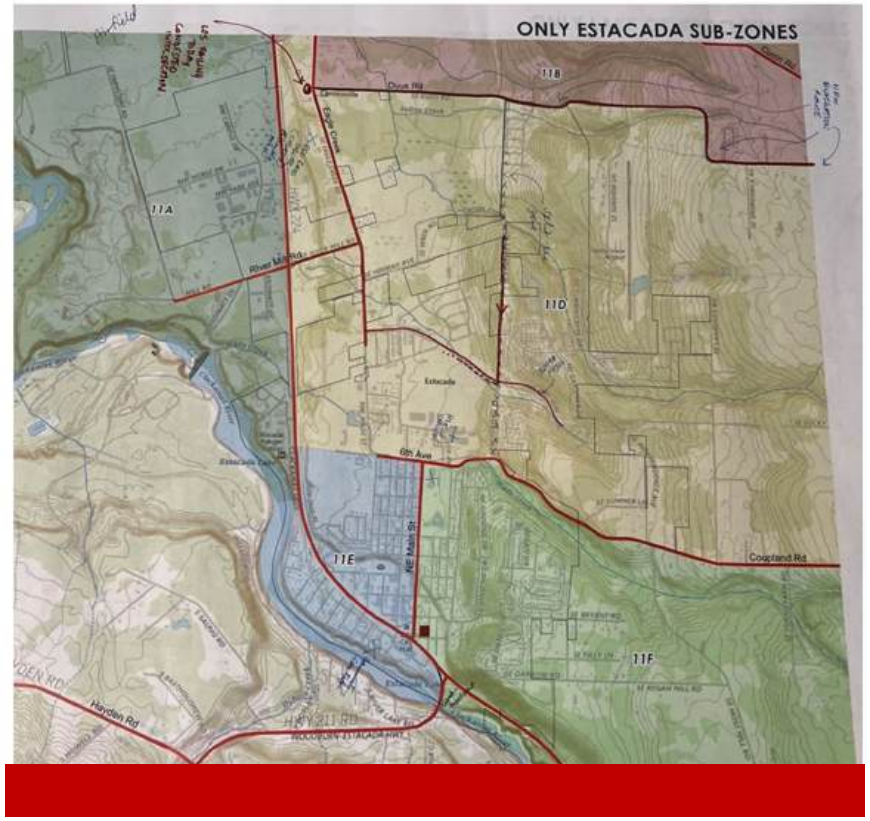
EVACUATION ROUTE CHANGES:

- *Add S Munson Road as an evacuation route.*
- *Show Baurer Road in 14H as evacuation route*

ESTACADA- PARTNER WORK SESSION OUTCOME

CITY	REFERENCE IMAGE	OVERALL DESCRIPTION	REQUESTED CHANGES	OTHER NOTES
Estacada		• 1 change to subzone delineation • 2 changes to evacuation routes	**SUBZONE CHANGES:** • Break up zone 11D into 11DA and 11DB north south using SE Cemetery Road. (Due to recent increase in population in zone 11D) **EVACUATION ROUTE CHANGES:** • Make NE Hill way an evacuation route and connect it to the existing evacuation route along Eagle Creek Road • Add Duss Road as an evacuation route. **POTENTIAL ASSEMBLY LOCATIONS:** • Red cross church • High school • Airfield	

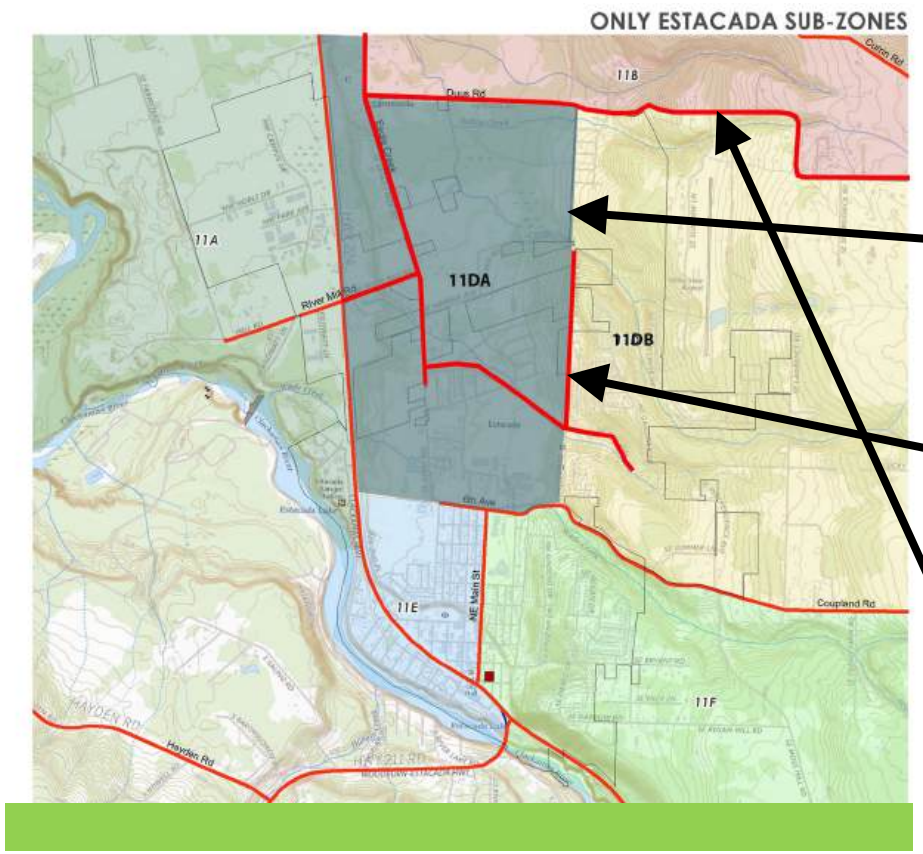
ESTACADA- PARTNER WORK SESSION OUTCOME



MARKED UP MAP DURING PARTNER WORK SESSION

PHASE I

(BEFORE)



UPDATED MAP SHOWING REQUESTED CHANGES

PHASE II

(AFTER)

REQUESTED CHANGES:

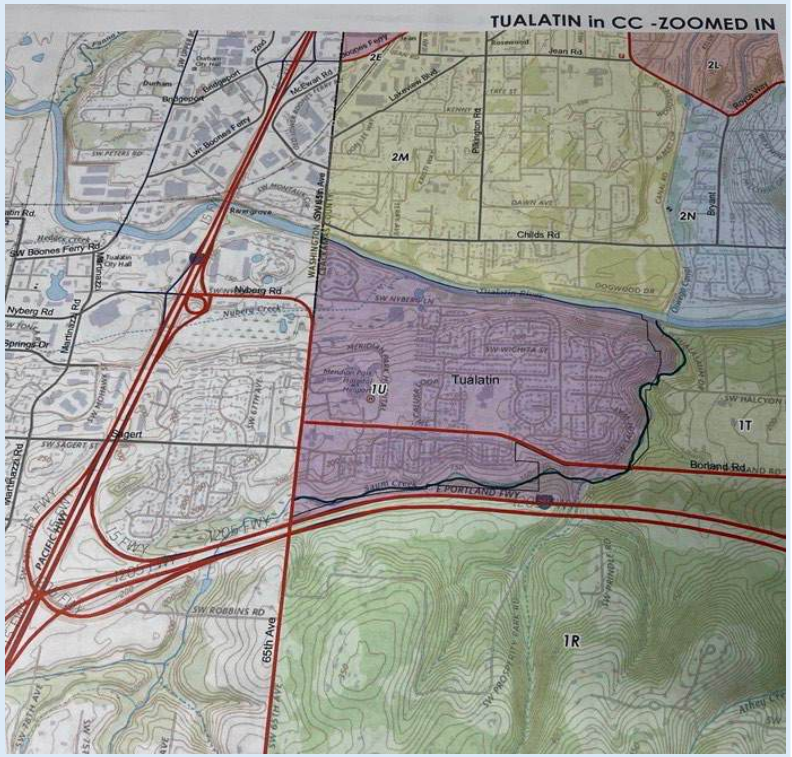
SUBZONE CHANGES:

- *Break up zone 11D into 11DA and 11DB north south using SE Cemetery Road. (Due to recent increase in population in zone 11D)*

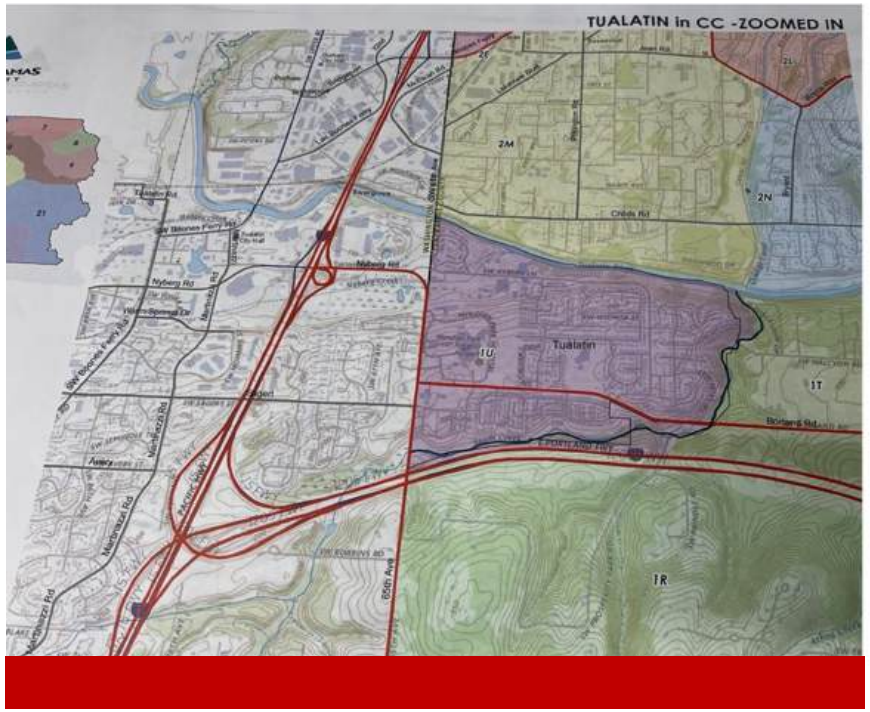
EVACUATION ROUTE CHANGES:

- *Make NE Hill way an evacuation route and connect it to the existing evacuation route along Eagle Creek Road*
- *Add Duss Road as an evacuation route.*

TVF & R - PARTNER WORK SESSION OUTCOME

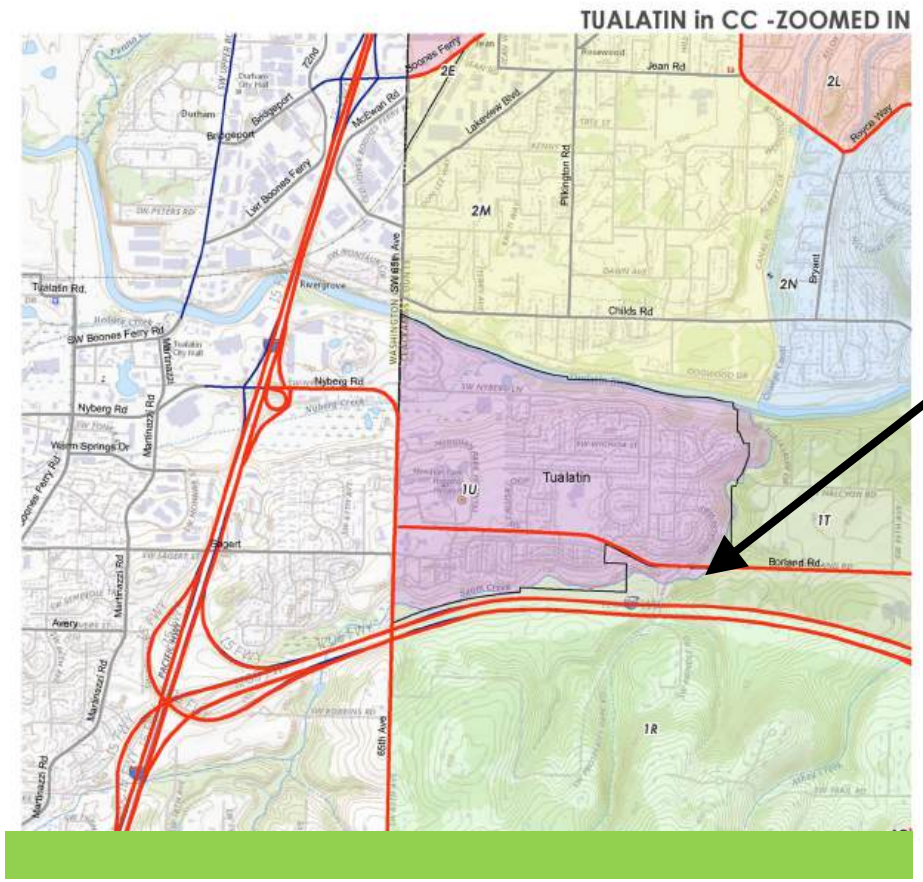
CITY	REFERENCE IMAGE	OVERALL DESCRIPTION	REQUESTED CHANGES	OTHER NOTES
TVF & R		• 1 change to subzone delineation	**SUBZONE CHANGES:** • Change the boundary of Tualatin to follow the creek instead of current guideline (See map)	

TVF & R - PARTNER WORK SESSION OUTCOME



MARKED UP MAP DURING PARTNER WORK SESSION

PHASE I
(BEFORE)



UPDATED MAP SHOWING REQUESTED CHANGES

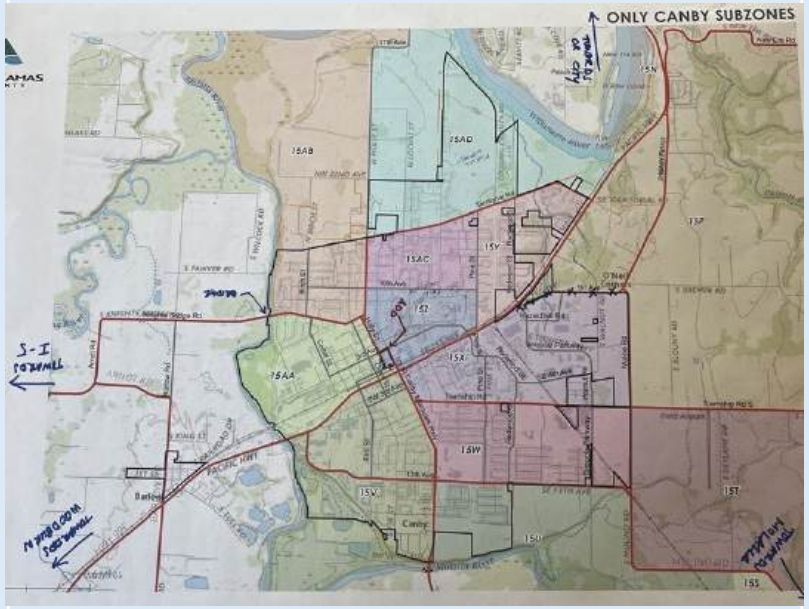
PHASE II
(AFTER)

REQUESTED CHANGES:

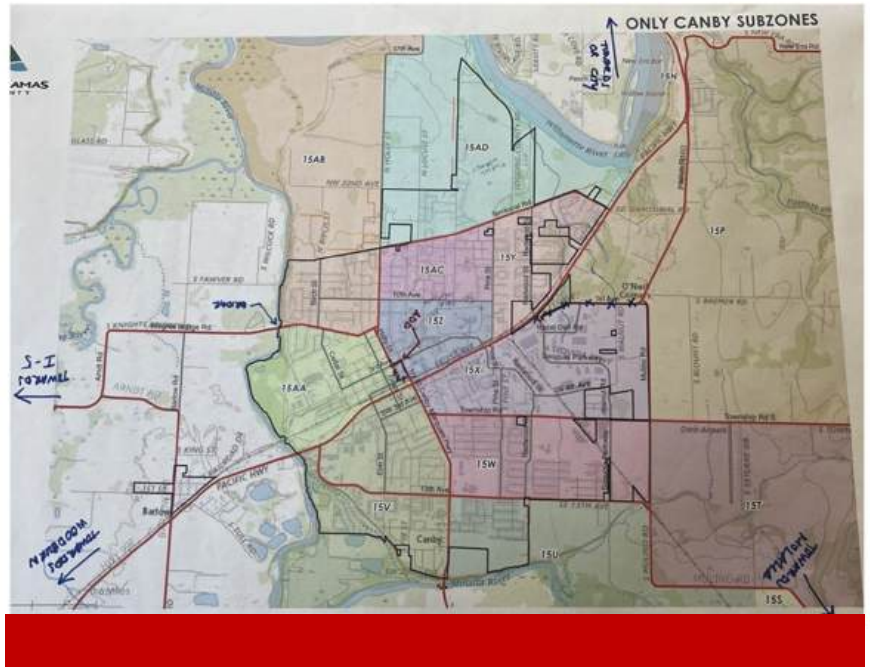
SUBZONE CHANGES:

- *Change the boundary of Tualatin section in Clackamas county to follow the creek instead of current guideline (See map)*

CANBY - PARTNER WORK SESSION OUTCOME

CITY	REFERENCE IMAGE	OVERALL DESCRIPTION	REQUESTED CHANGES	OTHER NOTES
Canby		• No changes to subzone delineation • 3 changes to evacuation routes (addition as well as elimination)	**EVACUATION ROUTE CHANGES:** • Remove 1st Avenue as an evacuation route. • Remove a small L shaped part of Holly St as an evacuation route. • Add a small L shaped part of Holly St and Ivory St as an evacuation route in subzone 15Z (see map)	

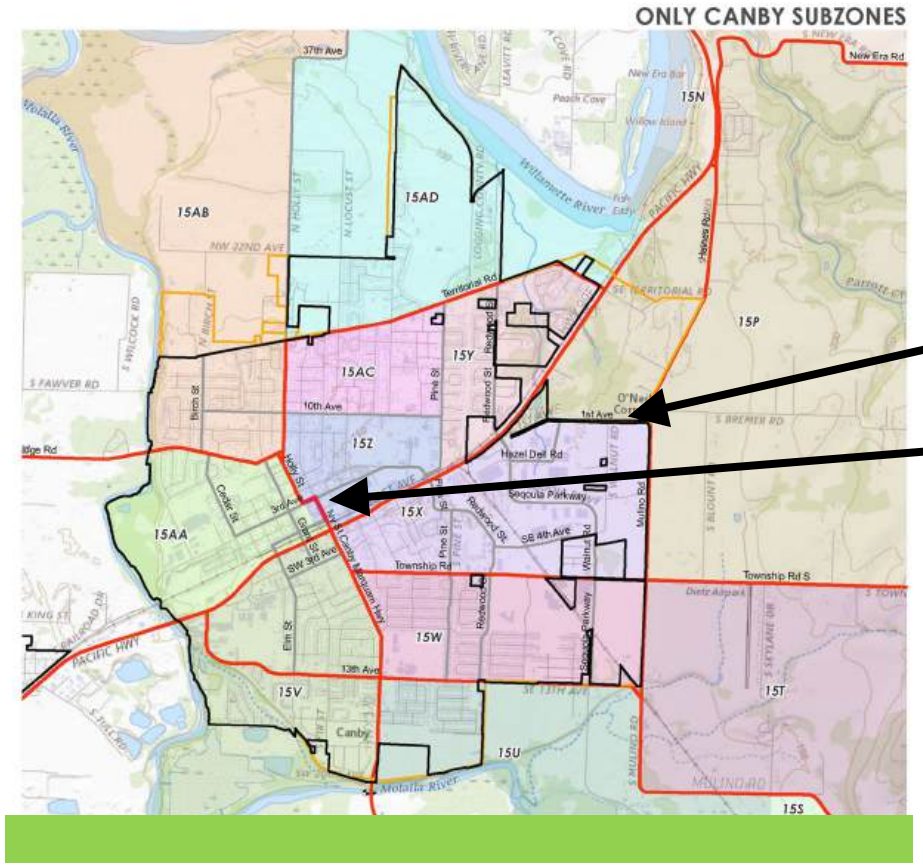
CANBY- PARTNER WORK SESSION OUTCOME



MARKED UP MAP DURING PARTNER WORK SESSION

PHASE I

(BEFORE)



UPDATED MAP SHOWING REQUESTED CHANGES

PHASE II

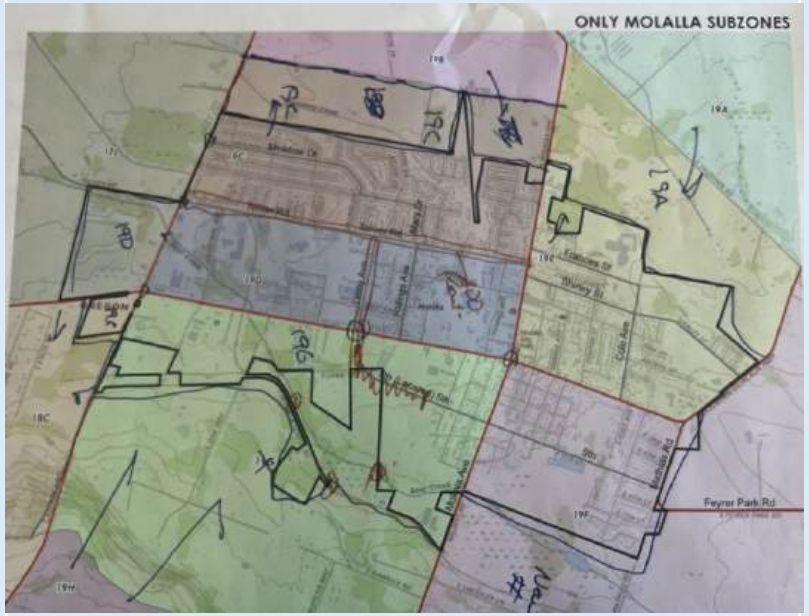
(AFTER)

REQUESTED CHANGES:

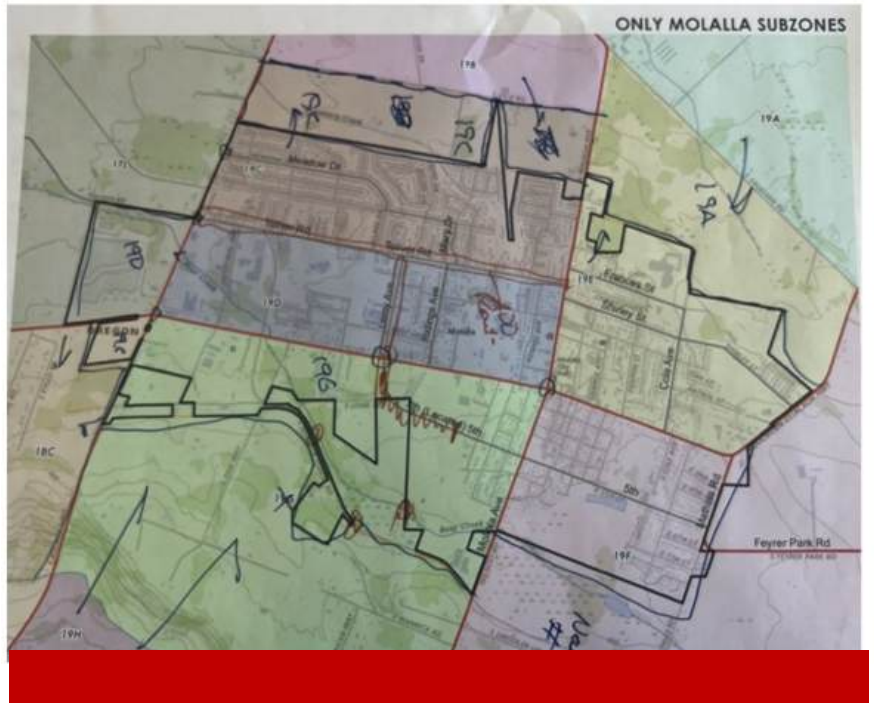
EVACUATION ROUTE CHANGES:

- *Remove 1st Avenue as an evacuation route.*
- *Remove a small L shaped part of Holly St as an evacuation route.*
- *Add a small L shaped part of Holly St and Ivory St as an evacuation route in subzone 15Z (see map)*

MOLALLA - PARTNER WORK SESSION OUTCOME

CITY	REFERENCE IMAGE	OVERALL DESCRIPTION	REQUESTED CHANGES	OTHER NOTES
Molalla		• Changes to subzone delineation so that all areas of the city falls under the same zone number. • Multiple changes to subzone extents • 2 changes to evacuation routes	**SUBZONE CHANGES:** • Include the area within the city limits of Molalla that falls under 17L into subzone 19D. • Include the area within the city limits of Molalla that falls under 18C into subzone 19C. • In subzone 19G, the area outside the city limits of Molalla will change to 19H and the area inside the city limits will be 19G • Include the area within the UGB of Molalla that falls under 19C, rest that lies beyond, include it in subzone 19B. • Area within city limits of subzone 19F and the area beyond city limits will be a new zone number. • Area within city limits of subzone 19E and the area beyond city limits will be 19A. • Include a small part of 19B that lies beyond city limits but within UGB limits into subzone 19 E **EVACUATION ROUTE CHANGES:** • Add Toliver Road as an evacuation route between Cascade Highway and N Molalla Ave • Add LeRoy Avenue as an evacuation route	

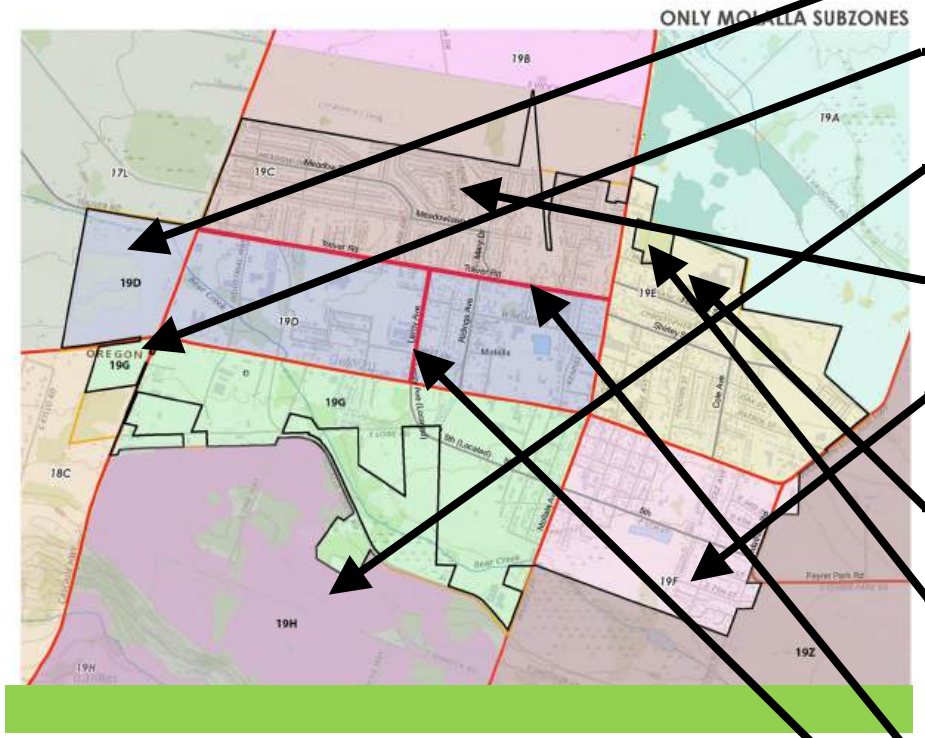
MOLALLA - PARTNER WORK SESSION OUTCOME



MARKED UP MAP DURING PARTNER WORK SESSION

PHASE I

(BEFORE)



UPDATED MAP SHOWING REQUESTED CHANGES

PHASE II

(AFTER)

REQUESTED CHANGES:

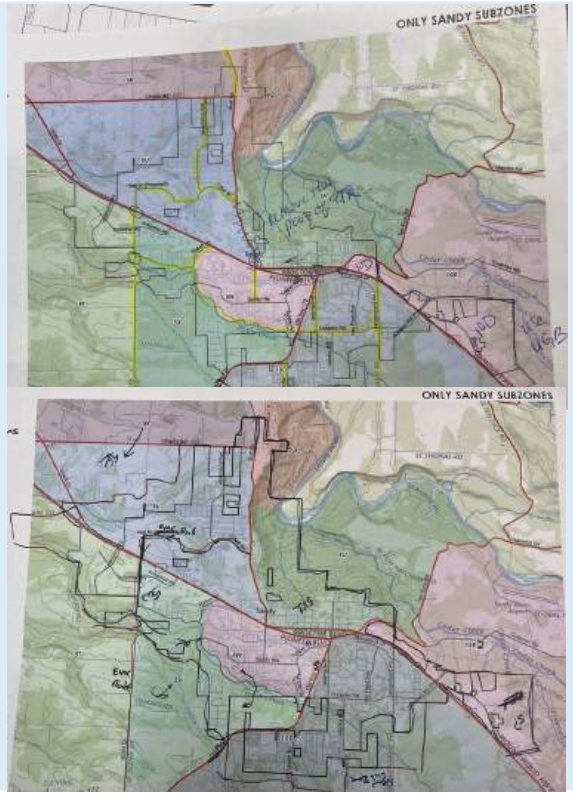
SUBZONE CHANGES:

- *Include the area within the Molalla UGB that falls under 17L into subzone 19D.*
- *Include the area within the Molalla UGB that falls under 18C into subzone 19C.*
- *In subzone 19G, the area outside the Molalla UGB will change to 19H and the area inside the city limits will be 19G*
- *Include the area within the Molalla UGB that falls under 19C, rest that lies beyond, include it in subzone 19B.*
- *Area within UGB of subzone 19F and the area beyond the UGB will be a new zone number.*
- *Area within UGB of subzone 19E and the area beyond the UGB will be 19A.*
- *Include a small part of 19B that lies beyond city limits but within UGB limits into subzone 19 E*

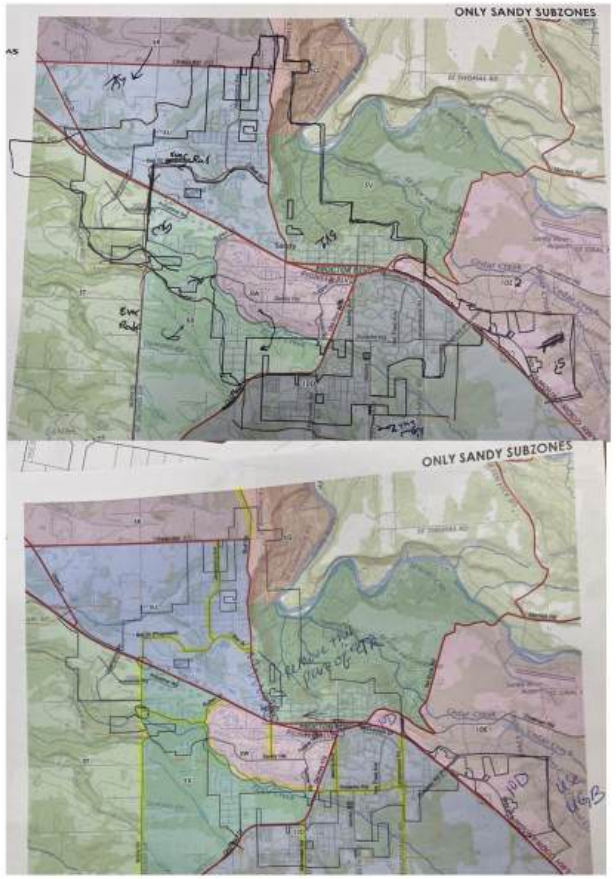
EVACUATION ROUTE CHANGES:

- *Add Toliver Road as an evacuation route between Cascade Highway and N Molalla Ave*
- *Add LeRoy Avenue as an evacuation route*

SANDY - PARTNER WORK SESSION OUTCOME

CITY	REFERENCE IMAGE	OVERALL DESCRIPTION	REQUESTED CHANGES	OTHER NOTES
Sandy		• 3 changes to subzone delineation • Multiple changes to evacuation routes	**SUBZONE CHANGES:** • Extent subzone 5W to stretch till the city boundary limits • Extend subzone 5R to stretch to city boundary limits • Extend subzone 5U to stretch to Urban growth boundary limits. **EVACUATION ROUTE CHANGES:** • Add Bell St as an evacuation route in subzone 5U • Remove a small section of Bell St as an evacuation route • Extend the section of Bluff Road as an evacuation route in the north as well as south. • Add 362nd Drive as an evacuation route in subzone 5T • Add Ruben Lane as an evacuation route in subzone 5W • Add Bornstedt Rd as an evacuation route in subzone 10D • Add Langensand Rd, Dubarko Rd and Meinig Ave as an evacuation route. • Add Jewelberry Ave as an evacuation route in subzone 5U.	

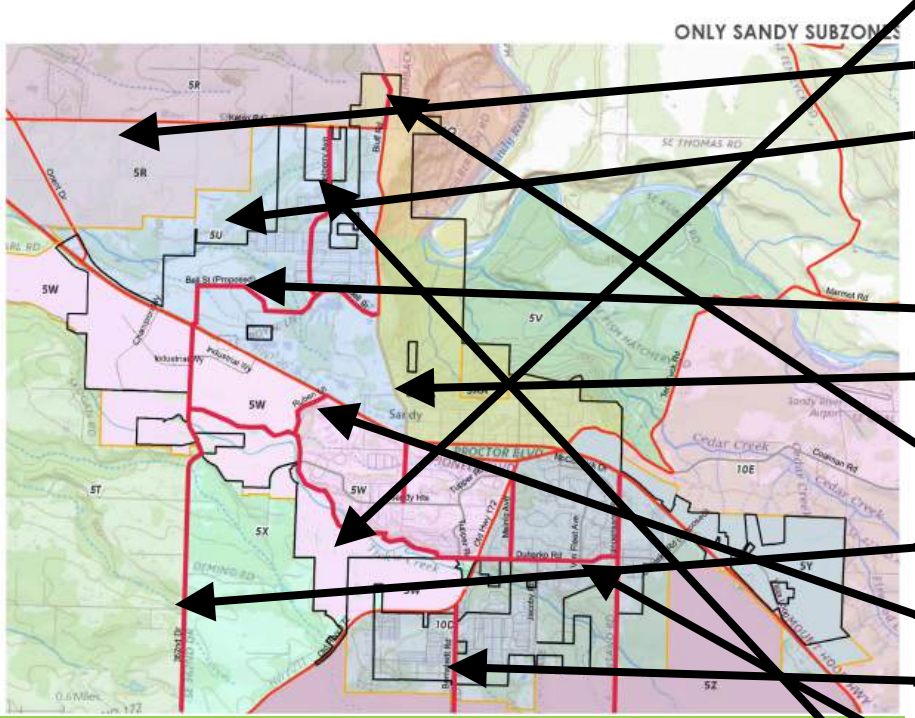
SANDY - PARTNER WORK SESSION OUTCOME



MARKED UP MAP DURING PARTNER WORK SESSION

PHASE I

(BEFORE)



UPDATED MAP SHOWING REQUESTED CHANGES

PHASE II

(AFTER)

REQUESTED CHANGES:

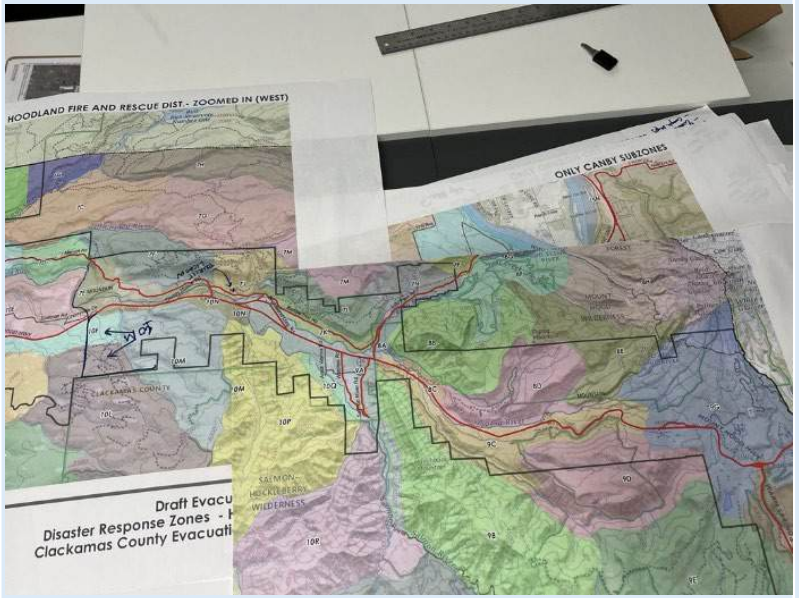
SUBZONE CHANGES:

- *Extent subzone 5W to stretch till the city boundary limits*
- *Extend subzone 5R to stretch to city boundary limits*
- *Extend subzone 5U to stretch to Urban growth boundary limits.*

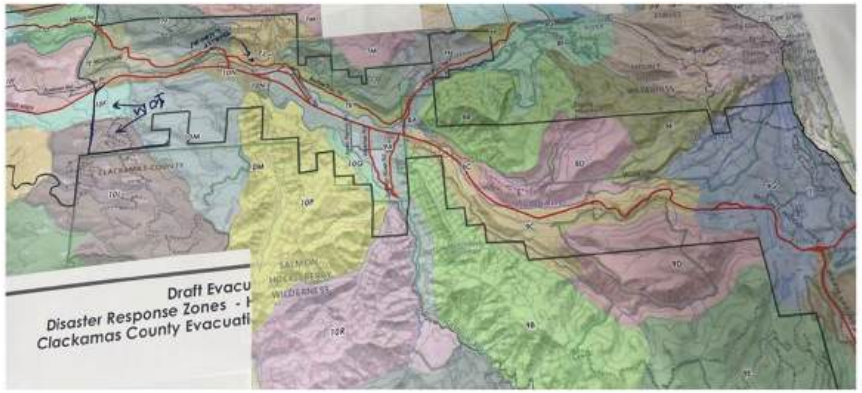
EVACUATION ROUTE CHANGES:

- *Add Bell St as an evacuation route in subzone 5U*
- *Remove a small section of Bell St as an evacuation route*
- *Extend the section of Bluff Road as an evacuation route in the north as well as south.*
- *Add 362nd Drive as an evacuation route in subzone 5T*
- *Add Ruben Lane as an evacuation route in subzone 5W*
- *Add Bornstedt Rd as an evacuation route in subzone 10D*
- *Add Langensand Rd, Dubarko Rd and Meinig Ave as an evacuation route.*
- *Add Jewelberry Ave as an evacuation route in subzone 5U.*

HOODLAND F&R Dist. - PARTNER WORK SESSION OUTCOME

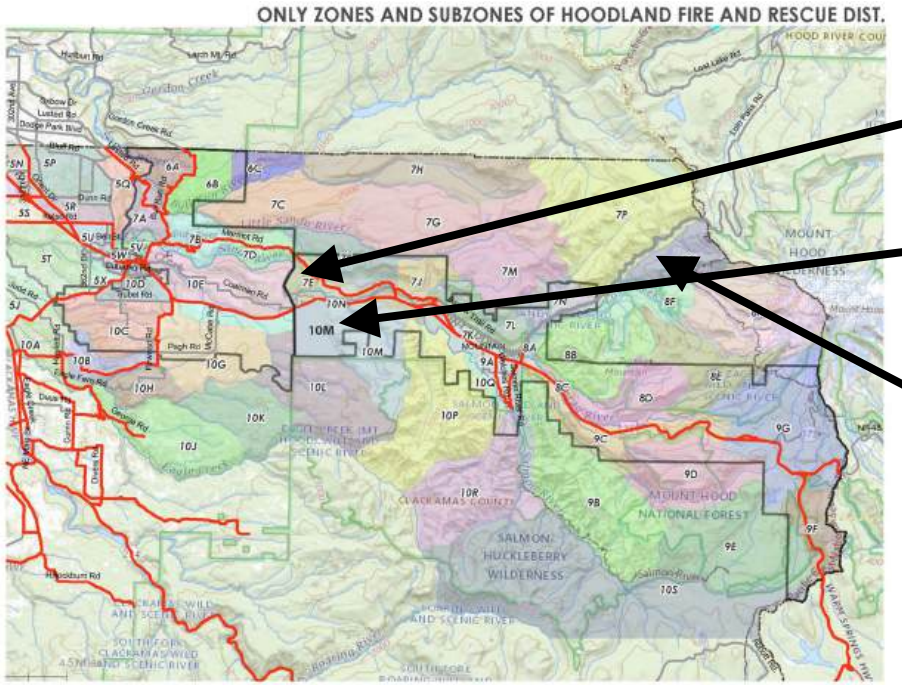
CITY	REFERENCE IMAGE	OVERALL DESCRIPTION	REQUESTED CHANGES	OTHER NOTES
Hoodland F&R Dist.		• 1 subzone change • 1 change to evacuation routes	***General change:*** *Boundary of Hoodland F&R District is smaller (See updated map)* **SUBZONE CHANGES:** • Extend subzone 10M till Hoodland district boundary. **EVACUATION ROUTE CHANGES:** • Eliminate Lolo Pass as an evacuation route	

HOODLAND F&R Dist. - PARTNER WORK SESSION OUTCOME



MARKED UP MAP DURING PARTNER WORK SESSION

PHASE I
(BEFORE)



UPDATED MAP SHOWING REQUESTED CHANGES

PHASE II
(AFTER)

REQUESTED CHANGES:

General change: *Boundary of Hoodland F&R District is smaller (See updated map)*

SUBZONE CHANGES:

- *Extend subzone 10M to Hoodland district boundary.*

EVACUATION ROUTE CHANGES:

- *Eliminate Lolo Pass as an evacuation route*

Appendix B: Subzone Summary Map and Descriptions

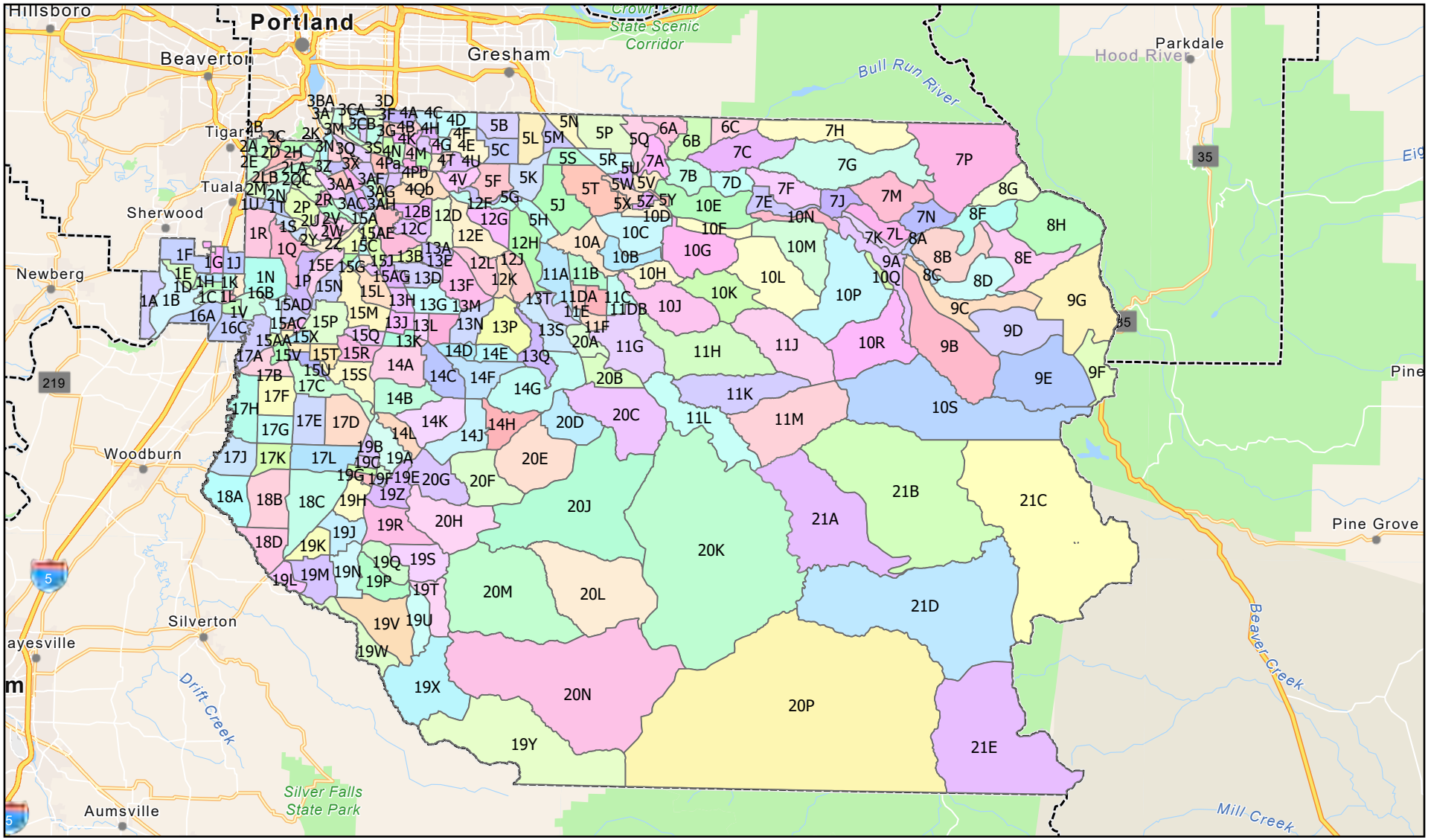


Figure 11

KITTELSON & ASSOCIATES

Phase II Subzones
Clackamas County Evacuation Planning - Phase II

CLACKAMAS COUNTY EVACUATION PLANNING - PHASE II

Evacuation Zone/Subzones	Phase II Subzone descriptions	Area_SqMi	Buildings	Population_2023	Households_2023
1					
1A	Subzone 1A is bounded by the Bell Road in the north, Wilsonville Road in the south, Parrett Road in the west and Ladd Hill Road in the east.	3.356911	368	395	143
1B	Subzone 1B is bounded by Mill Creekin the north; the Willamette River in the south; and Ladd Hill Road in the west and Bell Rd in the east	6.282445	585	790	292
1C	Subzone 1C is bounded by Wilsonville Road in the north, the Willamette River in the south, Interstate 5 in the east, and Corral Creek in the west.	0.985649	814	2993	1055
1D	Subzone 1D is bounded by Barber Street in the north, Wilsonville Road in the south, Interstate 5 in the east, and the Graham Oaks Nature Park in the west.	0.883133	1311	4327	1653
1E	Subzone 1E is bounded by Pleasant Hill Rd, McConnell Road, and Tooze Road in the north; Mill Creek in the southwest; and Grahams Ferry Road in the east.	1.841821	325	194	73
1F	Subzone 1F is bounded by Highpoint Drive in the north, Pleasant Hill Road and Tooze Road in the south, 1500 feet west from Kinsman Road in the east, and the Ladd Hill Road in the west.	3.811072	714	666	255
1G	Subzone 1G is bounded by Day Road in the north, Boeckman Road in the south, Interstate 5 in the east, and 1500 feet east from the Kinsman Road in the west.	1.344448	55	1566	1
1H	Subzone 1H is bounded by Boeckman Road in the north, Barber Street in the south, Interstate 5 in the east, and Grahams Ferry Road in the west.	0.74197	912	3539	1369
1J	Subzone 1J is bounded by the Elligsen Road in the north, Boeckman Road in the south, Stafford Road in the east, and Interstate 5 in the west.	1.685928	462	2504	1086
1K	Subzone 1K is bounded by Boeckman Road in the north, Wilsonville Road in the south, Boeckman Creek in the east, and Interstate 5 in the west.	0.74649	627	3709	1659
1L	Subzone 1L is bounded by Wilsonville Road in the north, the Willamette River in the south, Boeckman Creek in the east, and Interstate 5 in the west.	0.490741	386	1891	758
1M	Subzone 1M is bounded by Boeckman Road in the north, the Willamette River in the south, and Boeckman Creek in the west. The eastern boundary is 800 feet west of Wilsonville Road.	0.735022	929	4472	1707
1N	Subzone 1N is bounded by Homesteader Road in the north, the Willamette River in the south, and Mountain Road in the east. The western boundary is 800 feet west of Wilsonville Road.	5.397963	546	472	172
1P	Subzone 1P is bounded by Petes Mountain Road in the north; the Willamette River in the south and east; and Petes Mountain and Mountain Road in the west.	3.426053	460	571	194

1Q	Subzone 1Q is bounded by the treeline between Schaeffer Road and County Road 14 in the north; Homesteader Road, Mountain Road, and Hoffman Road in the south; and the Tualatin River and Petes Mountain Road in the east. The western boundary is Stafford Road and 700 feet west of Mountain Road.	4.522251	641	970	341
1R	Subzone 1R is bounded by Saum Creek in the north, Homesteader Road in the south and 65th Ave in the west. The eastern boundary is 800 feet east of Stafford Road.	4.458941	1042	1399	485
1S	Subzone 1S is bounded by Highway 205 in the north; the treeline between Schaeffer Road and County Road 14 in the south; the Tualatin River in the east; and Stafford Road in the west.	1.181502	364	416	139
1T	Subzone 1T is bounded by the Tualatin River in the northeast, Interstate 205 in the south, and Saum Creek in the west.	0.99228	261	222	76
1U	Subzone 1U is bounded by the Tualatin River in the north, Saum Creek in the southeast, and 65th Ave in the west.	0.688422	970	3160	1231
1V	Subzone 1V is bounded by the Willamette River in the north, Miley Road in the south, and Interstate 5 in the west. The eastern boundary is 300 feet west of Eilers Road.	0.819326	1072	2645	1613
2					
2A	Subzone 2A is bounded by Kruse Ridge Drive in the north, Kruse Way in the south, Westlake Drive in the east, and Interstate 5 in the west.	0.484023	857	2243	735
2B	Subzone 2B is bounded by Portlnd Community College in the north; Kruse Way in the south; Kerr Parkway, Touchstone Drive, Botticelli Street, and Fosberg Road East in the east; and Westlake Drive in the west.	0.751828	1346	5244	2259
2C	Subzone 2C is bounded by Stephenson Street in the north; Kerr Parkway in the southwest; and Boones Ferry Road in the east.	0.629616	440	3970	2156
2D	Subzone 2D is bounded by Kerr Parkway Drive in the north; Kruse Way in the south; Boones Ferry in the east; and Fosberg Road East, Botticelli Street, and Touchstone Drive in the west.	0.423548	698	3083	1226
2E	Subzone 2E is bounded by Kruse Way in the north, Boones Ferry Road in the southeast, and Interstate 5 in the west.	1.332548	1911	4347	1923
2F	Subzone 2F is bounded by Lake Oswego Country Club Road in the north; Iron Mountain Boulevard and Upper Drive in the south; Chandler Road in the east; and Boones Ferry Road in the west.	1.139035	1124	2426	944
2G	Subzone 2G is bounded by Englewood Drive and Rockinghorse Lane in the north; Lake Oswego Country Club Road and Tyron Creek in the south; Highway 43 in the east; and Boones Ferry Road in the west.	1.109309	943	2230	771
2H	Subzone 2H is bounded by Tyron Creek in the northwest; Lake Oswego Country Club Road and A Avenue in the south; and Highway 43 in the east.	0.509616	1008	2044	916
2J	Subzone 2J is bounded by A Avenue in the north; Lake Oswego in the south; Lakewood Bay in the east; and Iron Mountain Road and Upper Drive in the west.	0.956503	1172	2636	1180
2K	Subzone 2K is bounded by the Elk Rock Road in the north; Oswego Creek in the south; the Willamette River in the east; and Highway 43 in the west.	0.635443	802	1865	988
2LA	Subzone 2LA is bounded by Lake Oswego in the north, Royce Way in the south, Stafford Road in the east and Westview Road in the west.	1.408181	1701	3735	1367

2LB	Subzone 2LB is bounded by Lake Oswego in the north, Jean Road and Royce Way in the south, and Westview Road in the east and Boones Ferry Road in the west.	0.820935	1611	3355	1286
2M	Subzone 2M is bounded by Jean Road in the north; the Tualatin River in the south; Canal Road in the east; the railroad in the west.	1.087155	1540	3426	1302
2N	Subzone 2N is bounded by Royce Way and Overlook Drive in the north; the Tualatin River in the south; Stafford Road in the east; and Canal Road in the west.	1.378496	1218	2955	1049
2P	Subzone 2P is bounded by Rosemont Road in the north; Interstate 205 in the south; and Stafford Road and the Tualatin River in the west. The eastern boundary is 500 feet east of Woodbine Road.	2.937055	610	755	279
2QA	Subzone 2QA is bounded by Bergis Road in the northwest, Rosemont Road in the south, Suncrest Dr, Hillcrest Drive and Maryhurst Drive in the east and and Stafford Road in the west.	1.265366	778	1521	533
2QB	Subzone 2QB is bounded by McVey Avenue in the north, Bergis Road in the south, Highway 43 in the east, and Cornell in the west.	0.751948	916	2187	804
2QC	Subzone 2QC is bounded by Stafford Road in the north; Bergis Road in the south; Cornell Road in the east; and Stafford Road in the west.	0.26985	372	888	303
2R	Subzone 2R is bounded by Marylhurst Drive and Highway 43 in the north; Hidden Springs Road in the southeast; and Hillcrest Drive, Suncrest Drive, Carriage Way, and Rosemont Road in the west.	0.619426	975	2616	889
2S	Subzone 2S is bounded by the Willamette River in the northeast and Highway 43 in the west. The southern boundary is 500 feet south of Mapleton Drive.	1.345316	1198	2953	1502
2T	Subzone 2T is bounded by Interstate 205 in the south, the Willamette River in the east, and Highway 43 in the west. The northern boundary is 500 feet north of Mapleton Drive.	0.964124	914	1971	743
2U	Subzone 2U is bounded by Hidden Springs Road in the north, Skyline Drive and Interstate 205 in the south, Highway 43 in the east, and Rosemont Road in the west.	1.088765	1817	4827	1903
2V	Subzone 2V is bounded by Rosemont Road and Skyline Drive in the north; Parker Road and Sunset Avenue in the south; Interstate 205 in the east; and Salamo Road in the west.	0.736769	1124	3211	1144
2W	Subzone 2W is bounded by Parker Road and Sunset Avenue in the north; Interstate 205 in the southeast; and Salamo Road in the west.	0.881567	1258	3618	1199
2X	Subzone 2X is bounded by Rosemont Road in the north, Interstate 205 in the south, and Salamo Road in the east. The western boundary is 500 feet east of Woodbine Road.	1.115452	1077	4508	1863
2Y	Subzone 2Y is bounded by Interstate 205 in the north, Willamette Falls Drive in the south, 10th Street in the east, and the Tualatin River in the west.	1.075972	1284	2609	981
2Z	Subzone 2Z is bounded by Interstate 205 in the north, the Willamette River in the southeast, and Tualatin Avenue in the west.	1.200766	853	1476	514
3					
3A	Subzone 3A is bounded by the rail line in the north, Johnson Creek in the south, McLoughlin Boulevard in the East, and the Willamette River in the west.	0.739211	331	942	495
3BA	Subzone 3BA is bounded by the Springwater corridor in the north; Harrison Street and Highway 224 in the south; 32nd Avenue in the east; and McLoughlin Boulevard in the west.	0.480432	684	1513	668
3BB	Subzone 3BB is bounded by Sherrett St n the north; Harrison Street in the south; 42nd Avenue and 43rd Avenue in the east; and 32nd Avenue in the west.	0.52304	1406	3036	1246

3CA	Subzone 3CA is bounded by Johnson Creek Boulevard in the north; Rockwood Street and Willow St in the south; Linwood Avenue in the east; and 42nd Avenue in the west.	0.449544	1022	2240	910
3CB	Subzone 3CB is bounded by Rockwood Street and Willow St in the north; King Road in the south; Linwood Avenue in the east; and 43rd Avenue in the west.	0.318458	695	1706	689
3D	Subzone 3D is bounded by Clatsop St in the north, Johnson Creek Boulevard in the southwest, and Highway 213 in the east.	0.495505	782	1707	722
3E	Subzone 3E is bounded by Johnson Creek Boulevard in the north, King Road in the south, Highway 213 in the east, and Linwood Avenue in the west.	0.599699	1628	5226	2117
3F	Subzone 3F is bounded by Clatsop St in the north, Otty Road in the south, Interstate 205 in the east, and Highway 213 in the west.	0.230801	341	601	273
3G	Subzone 3G is bounded by Otty Road in the north, Monterey Avenue in the south, Interstate 205 in the east, and Highway 213 in the west.	0.401594	592	5295	2421
3H	Subzone 3H is bounded by King Road in the north, Harmony Road in the south, Highway 213 in the east, and Fuller Road in the west.	0.200665	307	1058	402
3J	Subzone 3J is bounded by King Road in the north, Harmony Road in the south, Fuller Road in the east, and Linwood Avenue in the west.	0.818678	1466	3944	1550
3KA	Subzone 3KA is bounded by King Road and Harrison Street in the north; Railroad Avenue in the south; Wood Avenue, Park Street, and Beckham Avenue in the east; and 37th Avenue in the west.	0.476607	1240	2862	1186
3KB	Subzone 3KB is bounded by King Road in the north; Railroad Avenue in the south; Linwood Avenue in the east; and Wood Avenue, Park Street, and Beckham Avenue in the west.	0.425709	916	2163	906
3L	Subzone 3L is bounded by Harrison Street in the north, Highway 224 in the southwest, and Railroad Avenue in the east.	0.448049	137	114	47
3M	Subzone 3M is bounded by Highway 224 in the northeast, Lake Road in the south; and McLoughlin Boulevard and Monroe Street in the west.	0.610413	1033	3446	1574
3N	Subzone 3N is bounded by Johnson Creek in the north, Oak Grove Boulevard in the south, River Road in the east, and the Willamette River in the west.	0.725383	743	2608	1317
3P	Subzone 3P is bounded by McLoughlin Boulevard in the northeast, Oak Grove Boulevard in the south, and River Road in the northwest.	0.805265	1766	4511	1996
3Q	Subzone 3Q is bounded by Hill Road and Thiessen Road in the south and Oatfield Road in the west. The northeast boundary is 250 feet south of Aldercrest Road.	0.536585	839	1998	736
3R	Subzone 3R is bounded by Lake Road in the north; Thiessen Road in the south; and Webster Road in the east. The western boundary is McLoughlin Boulevard and 250 feet south of Aldercrest Road.	1.325475	1593	4417	1952
3S	Subzone 3S is bounded by Harmony Road in the north, Highway 224 in the southwest, 82nd Avenue in the east.	0.64662	107	219	102
3T	Subzone 3T is bounded by Monterey Avenue in the north, Highway 224 in the south, Interstate 205 in the east, and Highway 213 in the west.	0.642619	82	23	1
3U	Subzone 3U is bounded by Highway 224 in the north, Roots Road in the south, Interstate 205 in the east, and Webster Road in the west.	1.036819	1912	5219	1977
3V	Subzone 3V is bound by Roots Road in the north, Cason Lane in the south, Interstate 205 in the east, and Webster Road in the west.	0.43638	944	2056	861

3W	Subzone 3W is bound by Thiessen Road in the north, Jennings Road in the south, Webster Road in the east, and Oatfield Road in the west.	1.176286	1896	4577	1738
3X	Subzone 3X is bound by Hill Road in the north, Thiessen Road in the east, and Oatfield Road in the west.	0.449195	825	2064	714
3Y	Subzone 3Y is bound by Oak Grove Boulevard in the north, Concord Road in the south, Oatfield Road in the east, River Road in the west.	0.663755	1270	3028	1228
3Z	Subzone 3Z is bound by Oak Grove Boulevard in the north, Concord Road in the south, River Road in the east, and the Willamette River in the west.	0.466038	564	1137	440
3AA	Subzone 3AA is bound by Concord Road in the north, Jennings Avenue in the south, McLoughlin Boulevard in the east, and the Willamette River in the west.	0.995812	1390	3171	1307
3AB	Subzone 3AB is bound by Concord road in the north, Jennings Road in the south, Oatfield Road in the east, and McLoughlin Boulevard in the west.	0.69495	1283	4314	1842
3AC	Subzone 3AC is bound by Jennings Avenue in the north, the Clackamas River in the south, McLoughlin Boulevard in the east, and the Willamette River in the west.	0.844457	1042	3237	1525
3AD	Subzone 3AD is bound by Jennings Road in the north, the Clackamas River in the south, Portland Avenue in the east, and McLoughlin Boulevard in the west.	0.602494	1295	3423	1408
3AE	Subzone 3AE is bound by Jennings Road in the north, the Clackamas River in the south, Oatfield Road in the east, and Portland Avenue in the west.	0.774087	1727	4348	1614
3AF	Subzone 3AF is bound by Jennings Road in the northwest, Oatfield Road in the southwest, and Webster Road in the east.	0.469103	750	2285	878
3AG	Subzone 3AG is bound by Cason Lane in the north; 82nd Drive in the south; Interstate 205 in the east; and Oatfield Road and Webster Road in the west.	0.346227	402	1518	550
3AH	Subzone 3AH is bounded by Hanson Courtin the north; the Clackamas River in the southeast; and Interstate 205 in the west.	0.219001	1072	2340	920
4					
4A	Subzone 4A is bound by Clatsop St in the north, Idleman Road in the south, Mount Scott Boulevard in the east, and Interstate 205 in the west.	1.21447	1206	3600	1461
4B	Subzone 4B is bound by Idleman Road in the north, William Otty Road in the south, Mount Scott Boulevard in the east, and Interstate 205 in the west.	1.062107	1112	3340	1085
4C	Subzone 4C is bound by Clatsop Rd in the north, King Road in the south, 145th Avenue in the east, and Mount Scott Boulevard in the west.	1.201183	1004	2965	894
4D	Subzone 4D is bound by Clatsop Rd in the north; Hemrich Road in the south, 190th Drive in the east; and 145th Avenue in the west.	2.79895	1138	4207	1332
4E	Subzone 4E is bound by Hemrick Road in the north, Sunnyside Road in the south, 100 feet east of Wiese Road in the east, and 162nd Avenue in the west.	3.314728	1292	3300	1097
4F	Subzone 4F is bound by 1000 feet north of Monner Rd in the north, Sunnyside Road in the south, 162nd Avenue in the east, and 147th Avenue in the west.	0.524442	589	2395	755
4G	Subzone 4G is bound by Viola Vineyard Drive in the north; Sunnyside Road in the south; 152nd Avenue in the east; and 140th Ave and Mountain Ridge Avenue and in the west.	0.522326	739	2604	859

4H	Subzone 4H is bound by King Road in the north, 145th Avenue in the east, and 129th Avenue in the west. The southern boundary is Mountain Gate Road and 100 feet north of Monner Road.	0.504899	698	1966	590
4J	Subzone 4J is bound by Mountain Gate Road in the north, Sunnyside Road in the south, Mountain Ridge Avenue and 140th Ave in the east, and 129th Avenue in the west.	0.698146	997	3240	1047
4K	Subzone 4K is bound by William Otty Road in the north, Sunnyside Road in the south, 129th Avenue in the east, and Interstate 205 in the west.	0.903927	1078	3986	1594
4L	Subzone 4L is bound by Sunnyside Road in the north, Highway 224 in the south, Interstate 205 in the west. The eastern boundary is Mount Talbert Nature Park.	0.951682	386	2199	980
4M	Subzone 4M is bound by Sunnyside Road in the north; Mather Road and Summers Lane in the south; 122nd Avenue in the east; and Mount Talbert Nature Park in the west.	0.597285	718	3211	1107
4N	Subzone 4N is bound by Summers Land and Mather Road in the north; Highway 212 in the south; and Hummard Road in the east. The western boundary is near 98th Ct.	0.649843	703	2269	827
4PA	Subzone 4PA is bound by Highway 224 in the north, Highway 212 in the south, 102nd Avenue in the east, and Interstate 205 in the west.	0.445271	328	634	235
4PB	Subzone 4PB is bound by Highway 224 in the northeast, Highway 212 in the south, and 102nd Avenue in the west.	0.300266	330	539	203
4QA	Subzone 4QA is bound by Highway 212 in the north; the Clackamas River in the south; 106th Avenue and Robert Avenue in the east; and Interstate 205 in the west.	0.758921	426	1228	556
4QB	Subzone 4QB is bound by Highway 212 in the north; the Clackamas River in the southeast; and 106th Avenue and Robert Avenue in the west.	1.503147	659	1306	491
4R	Subzone 4R is bound by Sunnyside Road in the north; Hubbard Road and Highway 212 in the south; and 122nd Avenue in the west. The eastern boundary 200 feet west of Alimaria Drive.	0.812965	1416	4430	1484
4S	Subzone 4S is bound by Sunnyside Road in the north, Highway 212 in the south, and 152nd Avenue in the east. The western boundary is 200 feet west of Alimaria Drive.	0.691878	1080	3275	1212
4T	Subzone 4T is bound by Sunnyside Road in the north, Rock Creek in the southeast, and 152nd Avenue in the west.	0.405405	833	3761	1228
4U	Subzone 4U is bound by Sunnyside Road in the north, Highway 212 in the south and Rock Creek in the west.	1.533964	583	1615	515
4V	Subzone 4V is bound by Highway 212 in the north, the Clackamas River in the southwest, and Richardson Creek in the east.	2.351432	1745	4995	1633
5					
5B	Subzone 5B is bounded by Cheldelin Road in the north, Tillstrom Road in the south, 242nd Avenue in the east, and Foster Road in the west.	3.439603	831	940	325
5C	Subzone 5C is bounded by Tillstrom Road in the north, Highway 212 in the south, 242nd Avenue in the east, and Wiese Road in the west.	3.147949	1153	1972	675
5F	Subzone 5F is bounded by Highway 212, Highway 224 in the south, and 232nd Drive in the east. The western boundary is Richardson Creek and Anderson Road.	3.922158	1169	1839	636
5G	Subzone 5G is bounded by Highway 224 in the north, the Clackamas River in the south, and Bakers Ferry Road in the east. The western boundary is a vertical line south from 172nd Avenue.	1.241102	155	237	91

5H	Subzone 5H is bounded by Bakers Ferry in the north, Dowty Road in the south, Highway 224 in the east, and the Clackamas River in the west.	2.539424	269	264	95
5J	Subzone 5J is bounded by Kelso Road in the north; Highway 224 in the south; Tickle Creek Road and Highway 211 in the east; and Amisigger Road in the west.	7.541824	1322	1552	558
5K	Subzone 5K is bounded by Highway 212 in the north; Highway 224 in the south; Amisigger Road and Richey Road in the east; and 232nd Drive in the west.	4.175856	607	723	243
5L	Subzone 5L is bounded by the county boundary in the north; Highway 212 in the south; 272nd Avenue and Telford Road in the east; and 242nd Avenue in the east.	4.13057	1179	1815	656
5M	Subzone 5M is bounded by Stone Road in the north; Highway 212 in the south; Highway 26 in the east; and 272nd Avenue and Telford Road in the west.	2.027885	843	1016	343
5N	Subzone 5N is bounded by Stone Road in the north; Compton Road in the south; Mount Hood Loop and Orient Drive in the east; and Highway 26 in the west.	2.275565	738	861	288
5P	Subzone 5P is bounded by Johnson Creek in the north; Compton Road and Dunn Road in the south; Dodge Park Boulevard, Proctor Road, and Bluff Road in the east; and Orient Drive in the west.	6.070543	1514	1950	680
5Q	Subzone 5Q is bounded by Dodge Park Boulevard in the north; the Sandy River in the east; and Dodge Park Boulevard, Proctor Road, and Bluff Road in the west. The southern boundary is a horizontal line drawn east of Olson Street.	3.554614	615	657	258
5R	Subzone 5R is bounded by Compton Road in the north; Kelso Road and 2000 feet from Kelso Road in the south; Bluff Road in the east; and Highway 26 in the west.	3.019977	896	1106	393
5S	Subzone 5S is bounded by Highway 212 in the north, Kelso Road in the south, Highway 26 in the east, and Richey Road in the west.	2.171093	837	950	369
5T	Subzone 5T is bounded by Kelso Road in the north; Highway 211 in the south; 362nd Drive in the east; and Tickle Creek Road in the west.	6.887525	1073	1193	415
5U	Subzone 5U is bounded by Kelso Road and the UGB limit in the north; Highway 26 in the southwest; and Bluff Road in the east.	1.130306	710	1857	591
5V	Subzone 5V is bounded by the Sandy River in the north, Highway 26 in the south, Ten Eyck Road in the east, and Bluff Road in the west.	1.565567	621	1280	501
5W	Subzone 5W is bounded by Highway 26 in the north, Tickle Creek Park and Hamilton Ridge Park in the southwest, and Highway 211 in the east.	1.488896	1637	4772	1807
5X	Subzone 5X is bounded by Tickle Creek Park and Hamilton Ridge Park in the in the northeast, Highway 211 in the south, and 362nd Drive in the west.	0.594648	119	159	63
5Y	Subzone 5Y is bounded by Coalman Road in the north, 2Highway 26 in the southwest and 422nd Avenue in the east.	0.381969	88	430	120
5Z	Subzone 5Z is bounded by Highway 211 in the north, 200 feet north of Trubel Rd in the south, Highway 26 in the east and Arletha Ct in the west.	0.870254	1455	5210	1855
6					
6A	Subzone 6A is bounded by Gordon Creek Road in the north; Gordon Creek Road and Bull Run Road in the southeast; and the Bull Run River and the Sandy River in the west.	2.802623	120	121	40
6B	Subzone 6B is bounded by Walker Creek in the north; the Bull Run River in the south; and Gordon Creek Road and Bull Run Road in the west. The eastern boundary NFD Road 1010.	4.420083	164	188	67

6C	Subzone 6C is bounded by NFD Road 1010 in the north and the Bull Run River in the southeast.	2.891027	3	14	4
7					
7A	Subzone 7A is bounded by the Bull Run River in the north; the Sandy River in the southwest; and Ten Eyck Road and Bull Run Road in the east.	2.769337	322	254	115
7B	Subzone 7B is bounded by the Bull Run River and the Little Sandy River in the north; the Sandy River in the south; and Bull Run Road and Ten Eyck Road in the west. The eastern boundary 1.5 miles east of the intersection of Herrick Road and Marmont Road.	4.12549	189	184	80
7C	Subzone 7C is bounded by the Bull Run River and the South Fork Bull Run River in the north; the Little Sandy River in the southwest; and Arrow Creek in the east.	9.067925	0	0	0
7D	Subzone 7D is bounded by the Little Sandy River in the north and the Sandy River in the south. The eastern boundary is where the Sandy River runs north-south near Mount Hood Village. The western boundary is 1.5 miles east of Herrick Road and Marmot Road.	3.063355	33	25	11
7E	Subzone 7E is bounded by the Sandy River in the northwest; the Sandy River in the south; and the beginning of Little Joe Creek in the east.	3.249514	100	97	48
7F	Subzone 7F is bounded by the Little Sandy River in the north, 2000 feet from Marmot Road in the south, Portland sancuary in the west and Barlow Wayside Park in the east.	5.846884	2	8	2
7G	Subzone 7G is bounded by the South Fork Bull Run River in the north; the Little Sandy River in the south; Hickman Creek and Hickman Lane in the east; and Arrow Creek in the west.	19.059529	0	4	2
7H	Subzone 7H is bounded by the county boundary in the north, the South Fork Bull Run River in the south, and the Bull Run River in the west. The eastern boundary is the end of Nanny Creek.	12.135716	0	0	0
7J	Subzone 7J is bounded by the Little Sandy river in the north, the Sandy River in the south, and North Boulder Creek in the east. The western boundary is the northern end of Little Joe Creek in the west.	3.041573	4	22	5
7K	Subzone 7K is bounded by the Sandy River in the southeast and North Boulder Creek in the west. The northern boundary is 3,000 feet north of the Sandy River.	2.116789	680	999	432
7L	Subzone 7L is bounded by North Boulder Creek in the northwest and Minikahda Creek and Clear Creek in the east. The southern boundary is 3,000 feet north of the Sandy River.	3.915476	0	47	25
7M	Subzone 7M is bounded by the Little Sandy River in the north; 4000 feet south from North Boulder Creek in the south; Clear Creek in the east. The western boundary is Little Sandy River.	8.160801	0	0	0
7N	Subzone 7N is bounded by Aschoff Road in the north; the Sandy River in the south; south of Hickman Butte in the east; and Minikahda Creek in the west.	4.238102	290	264	126
7P	Subzone 7P is bounded by Bull Run River and Fir Creek in the north, ; the Sandy River and Clear Fork in the southeast; and Hickman Butte in the west.	23.980915	0	16	8
8					
8A	Subzone 8A is bound by the Sandy River in the northwest and the Zigzag River in the south.	0.672318	106	122	54
8B	Subzone 8B is bound by the Sandy River and Horseshoe Creek in the north and the Cast Creek in the east. The southern boundary is 100 feet north of Henry Creek.	9.503059	0	29	24
8C	Subzone 8C is bound by Road 19 in the northeast and the Zigzag River in the southwest.	0.547424	120	95	42
8D	Subzone 8D is bound by Devil Canyon and the Zigzag River in the south and Lady Creek in the east. The northern boundary is 500 feet north of Henry Creek. The western boundary is 800 feet south of Highway 26.	7.590197	0	13	6

8E	Subzone 8E is bound by Lost Creek in the north, the Zigzag River in the southeast, and Cast Creek in the west.	8.972737	0	0	0
8F	Subzone 8F is bound by Muddy Fork in the north, Horseshoe Creek in the south, and the Sandy River in the west. The eastern boundary is between Mount Hood National Forest.	6.055274	0	0	0
8G	Subzone 8G is bound by Clear Fork in the northwest, Muddy Fork in the south, and the county boundary in the east.	5.365658	0	0	0
8H	Subzone 8H is bound by the county boundary in the northeast, Lost Creek in the southwest.	14.882933	0	0	0
9					
9A	Subzone 9A is bound by the Zigzag River in the north and the Salmon River in the southwest. The eastern boundary is a 0.5 miles east of Salmon River Road.	6.54208	1631	2448	1112
9B	Subzone 9B is bound by the Salmon River in the south. The western boundary is a vertical line drawn 0.5 miles east of Salmon River Road. The northeastern boundary is 0.5 miles south of Still Creek.	19.544847	0	9	4
9C	Subzone 9C is bound by Still Creek Road in the north. The southern boundary is 0.5 miles south of Still Creek. The eastern boundary is through Enid Lake. The western boundary is a vertical line 0.5 miles east of Salmon River Road.	8.293732	188	283	125
9D	Subzone 9D is bound by Still Creek in the southwest. The northern boundary is 0.5 miles south of Camp Creek. The eastern boundary is a vertical line drawn from from the east side of Trillium Lake.	11.186962	1	2	1
9E	Subzone 9E is bound by the Salmon River in the south, the Salmon River in the east, and Wolf Creek in the west. The northern boundary is 0.5 miles south of Still Creek.	17.951819	1	8	4
9F	Subzone 9F is bound by the East Fork Salmon River in the north, the county boundary in the southeast, and the Salmon River in the west.	5.562793	33	14	6
9G	Subzone 9G is bound by the Zigzag River in the north, the East Fork Salmon River in the south, and the county boundary in the east. The western boundary is through Enid Lake and along the west side of Trillium Lake.	19.020729	467	248	89
10					
10A	Subzone 10A is bounded by Highway 211 in the north, Eagle Creek River in the south, and Dowty Road in the west. The eastern boundary is 100 feet east of Deep Creek and 100 feet west of Crane Road.	5.89151	1052	1254	448
10B	Subzone 10B is bounded by Deep Creek in the north, Bear Creek in the south, and Firwood Road in the east. The western boundary is 100 feet west of Crane Road.	3.786041	284	355	122
10C	Subzone 10C is bounded by Highway 211 and Trubel Road in the north, Deep Creek in the south, and Firwood Road in the east. The western boundary is 100 feet east of Deep Creek.	7.39112	891	1166	406
10D	Subzone 10D is bounded by Highway 26 in the northeast, Highway 172 in the northwest, and Trubel Road in the south.	1.798807	342	411	134
10E	Subzone 10E is bounded by the Sandy River in the north, Highway 26 in the south, Whisky Creek in the east, and Ten Eyck Road in the west.	9.87537	1026	1193	451
10F	Subzone 10F is bounded by Highway 26 in the north and Mill Pond Lane in the east. The southern boundary is a horizontal line drawn 50 feet north of Dowling Road. The western boundary is a horizontal line drawn south of Veneer Lane.	2.744182	283	288	120

10G	Subzone 10G is bounded by Fork Eagle Creek in the south, Cedar Creek in the east, and Firwood Road in the west. The northern boundary a horizontal line drawn 50 feet north of Dowling Road.	10.361535	1007	1436	543
10H	Subzone 10H is bounded by Bear Creek in the northwest and North Fork Eagle Creek in the south. The eastern boundary is 200 feet east of Kleinsmith Road.	3.560929	195	193	72
10J	Subzone 10J is bounded by North Fork Eagle Creek in the north, Eagle Creek in the southwest, and Little Eagle Creek in the east.	11.210044	349	447	126
10K	Subzone 10K is bounded by North Fork Eagle Creek in the northeast, Eagle Creek in the south, and Little Eagle Creek in the west.	8.248018	0	0	0
10L	Subzone 10L is bounded by Eagle Creek in the south, Mill Pond Lane in the east, and Cedar Creek in the west. The northern boundary is a horizontal line drawn 50 feet north of Dowling Road.	14.767768	0	9	3
10M	Subzone 10M is bounded by Alder Creek in the southwest, McIntyre Ridge in the east, and the Mill Pond Lane in the west. The northern boundary is 50 feet south of Mount Hood Highway.	10.790992	51	310	114
10N	Subzone 10N is bounded by the Sandy River in the northeast and Whisky Creek in the west. The southern boundary is 50 feet south of Mount Hood Highway.	2.532182	702	905	382
10P	Subzone 10P is bounded by the Salmon River in the north, Eagle Creek in the south, the Cheeney Creek in the east, and Alder Creek in the west.	18.92739	0	134	63
10Q	Subzone 10Q is bounded by the Salmon River in the northeast. The southern boundary is 50 feet north of Little Cheney Creek, and the western boundary is 200 feet southwest of the Salmon River.	0.972702	139	49	21
10R	Subzone 10R is bounded by Cheeney Creek in the north, the South Fork Salmon River in the south, the Salmon River in the east, and Eagle Creek in the west.	14.33472	0	0	0
10S	Subzone 10S is bounded by the South Fork Salmon River and the Salmon River in the north; the Roaring River in the south; the county boundary in the east; and Plaza Creek in the west.	39.214304	0	0	0
11					
11A	Subzone 11A is bounded by Eagle Creek in the north, the Clackamas River in the southwest, and Highway 211 in the east.	5.358942	513	976	363
11B	Subzone 11B is bounded by Eagle Creek in the north, Duus Road in the south, Currin Road in the east, and Highway 211 in the west.	3.056075	520	1007	365
11C	Subzone 11C is bounded by Eagle Creek in the northeast, Coupland Road in the south, and Currin Road in the west.	2.61799	467	458	166
11DA	Subzone 11DA is bounded by Duus Road in the north, 6th Avenue Road in the south, Cemetery Road in the east, and Highway 211 in the west.	1.179407	315	1027	425
11DB	Subzone 11DB is bounded by Duus Road in the north, Coupland Road in the south, Currin Road in the east, and Cemetery Road in the west.	2.006217	416	1793	659
11E	Subzone 11E is bounded by 6th Avenue in the north, Estacada Lake in the southwest, and Main Street in the east.	0.338935	410	1000	354
11F	Subzone 11F is bounded by 6th Avenue and Coupland Road in the north; Linglebeck Creek in the south; and Main Street and the Clackamas River in the west. The eastern boundary is along Linglebeck Creek.	1.407311	606	2103	710

11G	Subzone 11G is bounded by Coupland Road in the north; the Clackamas River and North Fork Clackamas River in the south; Delph Creek in the east; and the Clackamas River and Linglebeck Creek in the west.	10.936945	1109	1368	525
11H	Subzone 11H is bounded by Eagle Creek in the north, Bee Creek in the south, South Fork Eagle Creek in the east, and Delph Creek in the west.	17.531547	293	312	120
11J	Subzone 11J is bounded by Eagle Creek in the northeast and South Fork Eagle Creek in the southwest.	15.095257	0	0	0
11K	Subzone 11K is bounded by Bee Creek in the north; Whisky Creek and the North Fork Clackamas River in the southwest; and the South Fork Eagle River in the east.	12.748995	0	19	5
11L	Subzone 11L is bounded by the North Fork Clackamas River in the north; the Clackamas River in the southwest; and Winslow Creek and the Roaring River in the east.	12.548117	6	138	85
11M	Subzone 11M is bounded by the North Fork Clackamas River in the north, the Roaring River in the south, Plaza Creek in the east, and Winslow Creek in the west.	19.922339	0	0	0
12					
12A	Subzone 12A is bounded by the Clackamas River in the north, Forsythe Road in the south, Clear Creek in the east, and Highway 213 in the west.	3.710978	806	1072	385
12B	Subzone 12B is bounded by Forsythe Road in the north, Holcomb Boulevard in the south, Bradley Road in the east, and Winston Drive in the west.	2.207704	664	910	325
12C	Subzone 12C is bounded by Holcomb Boulevard in the north, Redland Road in the south, Bradley Road in the east, and Kraeft Road in the west.	2.224473	720	1113	383
12D	Subzone 12D is bounded by Forsythe Road in the north, Redland Road in the south, Hattan Road in the east, and Bradley Road in the west.	3.467329	1075	1355	512
12E	Subzone 12E is bounded by Springwater Road in the northeast, Fischers Mill Road in the south, and Hattan Road in the west.	5.716188	676	628	223
12F	Subzone 12F is bounded by the Clackamas River in the north; Bakers Ferry Eagle Creek Road in the south; Harding Mill Road in the east; and Springwater Road in the west.	1.815291	180	228	74
12G	Subzone 12G is bounded by Bakers Ferry Eagle Creek Road in the north, Springwater Road in the southwest, and Harding Road in the east.	3.735661	474	471	163
12H	Subzone 12H is bounded by Harding Mill Road in the north, Springwater Road in the south, the Clackamas River in the east, and Logan Road in the west.	5.722202	553	517	189
12J	Subzone 12J is bounded by Fischers Mill Road in the north; Redland Road and Jubb Road in the south; Springwater Road in the east; and Mattoon Road in the west.	3.177365	322	321	115
12K	Subzone 12K is bounded by Fischers Mill Road in the north; Redland Road in the south; Mattoon Road in the east; and Ridge Road and Funk Road in the west.	1.938784	330	477	177
12L	Subzone 12L is bounded by Fischers Mill Road in the north, Redland Road in the southwest, and Funk Road in the east.	3.777663	442	427	162
13					
13A	Subzone 13A is bounded by Redland Road in the north, Maple Lane Road in the south, Ferguson Road in the east, and Highway 213 in the west.	2.607627	1825	2111	828

13B	Subzone 13B is bounded by Maple Lane Road in the northwest, Thayer Road in the south, and Ferguson Road in the east.	1.228036	396	496	224
13D	Subzone 13D is bounded by Thayer Road and Abernethy Creek in the north; Henrici Road in the southeast; and Beavercreek Road in the west.	3.009224	1057	1339	492
13E	Subzone 13E is bounded by Redland Road in the north, Abernethy Creek in the south, Henrici Road in the east, and Ferguson Road in the west.	2.098581	832	1047	393
13F	Subzone 13F is bounded by Redland Road in the east and Henrici Road and Abernethy Creek in the west. The southern boundary is a horizontal line 3,000 feet north of Mosier Road.	5.523808	828	873	335
13G	Subzone 13G is bounded by Henrici Road in the north, Steiner Road in the south, Abernethy Creek in the east, and Beavercreek Road in the west.	4.133144	993	1157	428
13H	Subzone 13H is bounded by Henrici Road in the north, Leland Road in the south, Beavercreek Road in the east, and Highway 213 in the west.	1.710788	626	874	299
13J	Subzone 13J is bounded by Leland Road in the north; Carus Road and Holman Fisher Road in the south; Kamrath Road in the east, and Highway 213 in the west.	1.851845	513	656	238
13K	Subzone 13K is bounded by Carus Road and Holman Fisher Road in the north; Spangler Road in the south; Kamrath Road and Shubel Road in the east; and Highway 213 in the west.	1.589173	256	236	100
13L	Subzone 13L is bounded by Beavercreek Road in the north, Shubel Road in the south, Beavercreek Road in the east, and Kamrath Road in the west.	1.287324	488	460	158
13M	Subzone 13M is bounded by Steiner Road in the north, Lower Highland Road in the south, Abernethy Creek in the east, and Beavercreek Road in the west.	2.614487	271	235	89
13N	Subzone 13N is bounded by Lower Highland Road in the south, Ridge Road in the east, and Abernethy Creek in the west. The northern boundary is a horizontal line drawn 3,000 feet north of Mosier Road.	3.757785	174	114	32
13P	Subzone 13P is bounded by Redland Road in the north, Lower Highland Road in the south, Fellows Road in the east, and Ridge Road in the west.	6.826099	340	510	181
13Q	Subzone 13Q is bounded by Redland Road in the north, Upper Highland Road in the south, Clear Creek in the east, and Fellows Road in the west.	4.056586	142	214	67
13S	Subzone 13S is bounded by Redland Road in the north; Springwater Road, Hayden Road, and Highway 211 in the east; and Clear Creek in the west. The southern boundary is along Ester Court.	4.672256	408	406	152
13T	Subzone 13T is bounded by Hayden Road and Highway 211 in the south; the Clackamas River in the east; and Springwater Road in the west. The northern boundary is near Howard Court.	2.580317	316	518	196
14					
14A	Subzone 14A is bounded by Sprangler Road in the north and Highway 213 in the west. The southern boundary is 100 feet north of Milk Creek. The eastern boundary is Hopkins Restoration Forest and Beaver Creek.	6.792563	736	775	283
14B	Subzone 14B is bounded by Union Mills Road and Clear Creek in the south and Highway 213 in the west. The eastern boundary is 250 feet east of Howards Mill Road. The northern boundary is a horizontal line drawn 100 feet north of Milk Creek.	5.787253	726	778	281
14C	Subzone 14C is bounded by Beavercreek Road in the northeast and Unger Road in the south. The western boundary is a vertical line drawn north from Howards Mill Road.	5.256444	503	647	222

14D	Subzone 14D is bounded by Lower Highland Road in the north, Upper Highland Road in the south, Ridge Road in the east, and Beavercreek Road in the west.	1.833119	300	402	147
14E	Subzone 14E is bounded by Lower Highland Road in the northeast, Upper Highland Road in the south, and Ridge Road in the west.	2.277985	245	259	92
14F	Subzone 14F is bounded by Upper Highland Road in the north; Unger Road in the south; Beeson Road and Lewellen Road in the east; and Beavercreek Road in the west.	5.735021	617	678	250
14G	Subzone 14G is bounded by Upper Highland Road, Lewellen Road, Clear Creek, and Windy Hill Road in the north; Linger Road in the south; Highway 211 in the east; and Beeson Road in the west.	12.188149	651	637	253
14H	Subzone 14H is bounded by Unger Road in the north, Highway 211 in the southeast, and Hult Road in the west.	4.833068	379	443	156
14J	Subzone 14J is bounded by Unger Road in the north, Highway 211 in the south, Hult Road in the east, and Beavercreek Road in the west.	6.778589	672	818	255
14K	Subzone 14K is bounded by Unger Road in the south, Cedar Creek in the north, Beavercreek Road in the southeast, and Union Mills Road in the west.	7.406031	710	822	303
14L	Subzone 14L is bounded by Union Mills Road in the northeast, Highway 211 in the south, the Molalla River in the west.	2.861263	425	501	188
15					
15A	Subzone 15A is bounded by the Clackamas River and Interstate 205 in the north; Singer Hill in the south; Washington Street in the east; and the Willamette River in the west.	0.713473	261	594	284
15B	Subzone 15B is bounded by Washington Street in the north; 7th St in the south and Division Street in the east.	0.830005	1677	2809	1146
15C	Subzone 15C is bounded by Terrace Avenue in the north; Warner Milne Road in the south; Molalla Avenue in the east; and 5th Street and Linn Avenue in the west.	0.467207	1018	2165	857
15D	Subzone 15D is bounded by the Willamette River in the north; Warner Parrott Road in the south; Singer Hill, Terrace Avenue, 5th Street, and Linn Avenue in the east; and 2nd Street, High Street, and End Road in the west.	1.41364	2845	4584	1833
15E	Subzone 15E is bounded by the Willamette River in the northwest, End Road in the southeast, and High Street in the east.	2.785052	1815	2232	819
15F	Subzone 15F is bounded by Warner Parrott Road in the north, Partlow Road in the south, Central Point Road in the east, and End Road in the west.	0.413501	1321	2152	818
15G	Subzone 15G is bounded by Central Point Road in the north, Clairmont Way in the south, Leland Road in the east, and McCord Road in the west.	0.370935	1304	2654	894
15H	Subzone 15H is bounded by Warner Milne Road in the north, Clairmont Way in the south, Molalla Avenue in the east, and Leland Road in the west.	0.428321	742	2122	675
15J	Subzone 15J is bounded by Singer Creek in the north, Molalla Avenue in the southwest, and Highway 213 in the east.	1.196567	739	2315	910
15K	Subzone 15K is bounded by Clairmont Way in the north, Meyers Road in the southwest, and Highway 213 in the east.	0.499468	1349	2926	1204
15L	Subzone 15L is bounded by Clairmont Way and Meyers Road in the north; Leland Road in the southwest and Highway 213 in the east.	3.199101	1825	3327	1201

15M	Subzone 15M is bounded by McCord Road and Leland Road in the north; Beaver Creek Canby Road in the south; Long Road and Highway 213 in the east; and Central Point Road and Foster Road in the west.	5.907044	1784	2367	823
15N	Subzone 15N is bounded by Partlow Road in the north; Foster Road and New Era Road in the south; Central Point Road in the east; End Road and the Willamette River in the west.	2.786948	1506	2052	736
15P	Subzone 15P is bounded by New Era Road in the north; 1st Avenue, Mulino Road, and Township Road in the south; Foster Road and Beaver Creek Canby Road in the east; and the Willamette River and Highway 99 in the west.	5.297226	962	1082	376
15Q	Subzone 15Q is bounded by Beaver Creek Canby Road in the northwest; Casto Road and Spangler Road in the south; and Highway 213 in the east.	1.946999	347	450	176
15R	Subzone 15R is bounded by Beaver Creek Canby Road, Casto Road, and Spangler Road in the north; Union Hall Road in the south; Highway 213 in the east; and Central Point Road in the west.	2.728812	311	275	92
15S	Subzone 15S is bounded by Union Hall Road and Mulino Road in the north; Molalla River in the south; Highway 213 in the east; and the Railroad in the west.	4.684097	723	673	230
15T	Subzone 15T is bounded by Township Road in the north, Mulino Road in the southwest, and Central Point Road in the east.	2.014619	280	296	109
15U	Subzone 15U is bounded by 13th Avenue, the Molalla River in the south, the Southern Pacific Railroad in the east, and in the west.	1.417032	365	980	293
15V	Subzone 15V is bounded by Highway 99 in the north; the Molalla River in the southwest; and Ivy Street and the Canby-Marquam Highway in the east.	1.058611	1157	3293	1301
15W	Subzone 15W is bounded by Township Road in the north, 13th Avenue in the south, Mulino Road in the east, and Ivy Street in the west.	0.661018	843	2469	844
15X	Subzone 15X is bounded by 1st Avenue in the north, Township Road in the south, Mulino Road in the east, and Ivy Street in the west.	0.842321	670	2887	1048
15Y	Subzone 15Y is bounded by Territorial Road in the north, 4th Avenue in the south, Highway 99 in the east, and Pine Street in the west.	0.436537	611	2299	875
15Z	Subzone 15Z is bounded by 10th Avenue in the north; 1st Avenue in the south; Pine Street and 4th Avenue in the east; and Holly Street and Ivy Street in the west.	0.315552	485	1417	504
15AA	Subzone 15AA is bounded by Knights Bridge Road in the north, Highway 99E in the south, Holly Street in the east, and the Molalla River in the west.	0.540066	566	1655	610
15AB	Subzone 15AB is bounded by the Willamette River in the north; Knights Bridge Road in the south; Holly Street and Ferry Road in the east; and the Molalla River in the west.	1.885274	788	1639	616
15AC	Subzone 15AC is bounded by Territorial Road in the north, 10th Avenue in the south, Pine Street in the east, and Holly Street in the west.	0.322877	624	1753	657
15AD	Subzone 15AD is bounded by the Willamette River in the north; Territorial Road in the south; Highway 99 in the east; and Holly Road and Ferry Road in the west.	1.537422	512	1301	470
15AE	Subzone 15AE is bounded by Anchor Way in the north, Singer Creek in the south, Highway 213 in the east, and Division Street in the west.	0.275549	242	746	257
15AF	Subzone 15AF is bounded by the Forsythe Road, Ames St and Thurman St in the north, 1300 feet south of Donovan Road in the south, Edenwild Lane in the east and Highway 213 in the west.	1.751459	2279	3879	1363

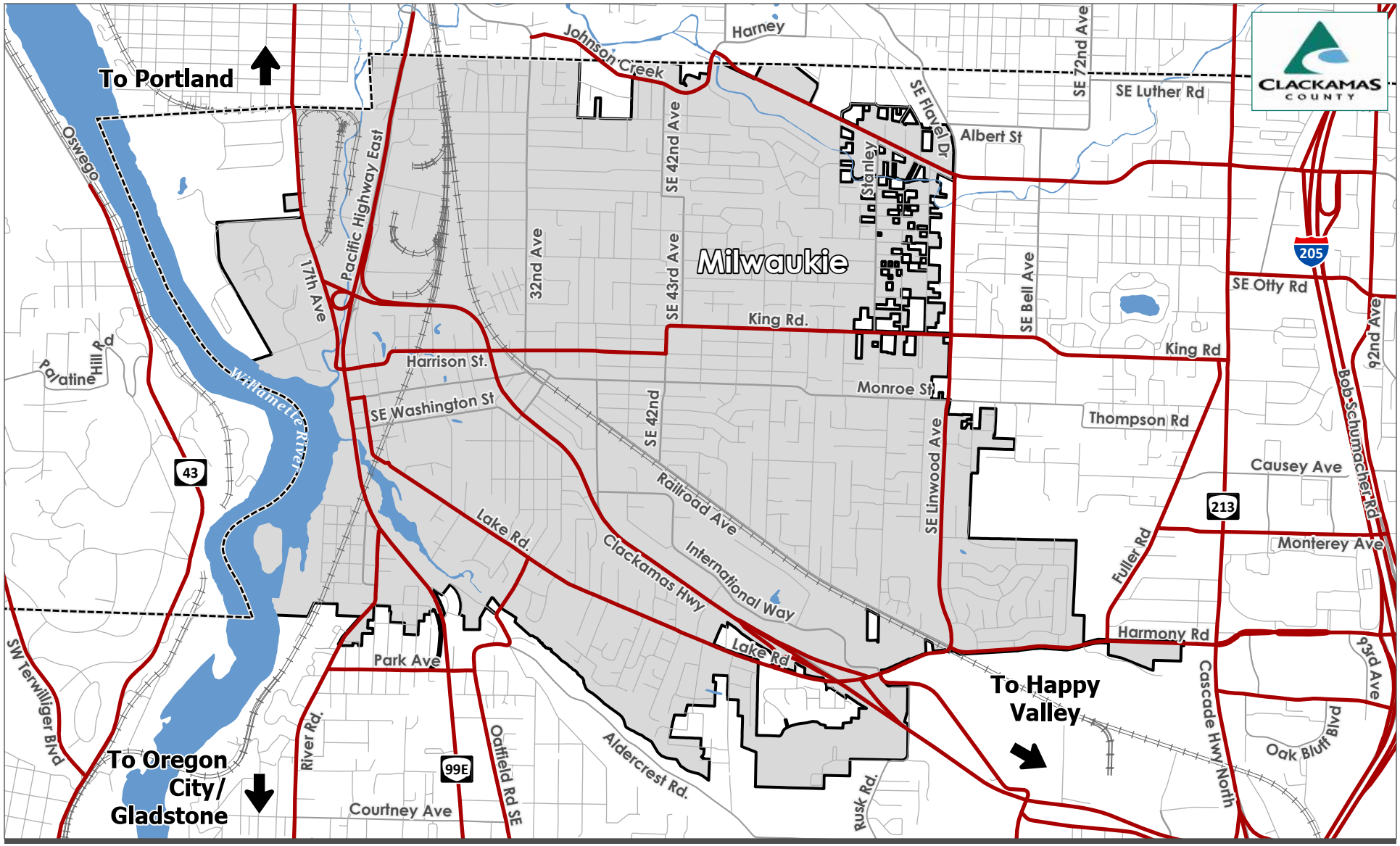
15AG	Subzone 15AG is bound by Maple Lane Road in the north, Henriei Road in the south, Oregon Golf Club in the east and Highway 213 in the west.	1.917017	2385	5360	1926
16					
16A	Subzone 16A is bounded by the Willamette River in the northwest, Denbrook Road in the south, and Interstate 5 in the east.	2.83069	342	370	128
16B	Subzone 16B is bounded by the Willamette River in the north and the Molalla River in the east. The southern boundary is 2,000 feet south of Miley Road, and the western boundary is 300 feet west of Eilers Road.	2.025555	226	311	135
16C	Subzone 16C is bounded by Miley Road in the north, the county boundary in the south, the Pudding River in the east, and Interstate 5 in the west.	3.040305	252	122	42
17					
17A	Subzone 17A is bounded by the Molalla River in the northeast, the Pudding River in the northwest, and Highway 99 in the south.	3.749507	391	295	148
17B	Subzone 17B is bounded by Highway 99 in the northwest, the Molalla River in the northeast, Lone Elder Road in the south, and the Canby-Marquam Highway in the east.	3.00935	289	247	107
17C	Subzone 17C is bounded by the Molalla River in the north, Macksburg Road in the south, Highway 213 in the east, and the Canby-Marquam Highway in the west.	5.165879	561	598	217
17D	Subzone 17D is bounded by Macksburg Road in the north, Pudding River-Barnards Road in the south, Highway 213 in the east, and Elisha Riggs Road in the west.	6.792994	685	563	212
17E	Subzone 17E is bounded by Macksburg Road in the north, Pudding River-Barnards Road in the south, Elisha Riggs Road in the east, and the Canby-Marquam Highway in the west.	5.467739	526	442	165
17F	Subzone 17F is bounded by Lone Elder Road in the north, Zimmerman Road in the south, the Canby-Marquam Highway in the east, and Barlow-Monitor Road in the west.	5.019958	669	789	271
17G	Subzone 17G is bounded by Zimmerman Road in the north, Pudding River-Barnards Road in the south, the Canby-Marquam Highway in the east, and Barlow-Monitor Road in the west.	3.499094	414	383	137
17H	Subzone 17H is bounded by Lone Elder Road in the north, Whiskey Hill Road in the south, Barlow-Monitor Road in the east, and the county boundary in the west.	5.674973	497	481	160
17J	Subzone 17J is bounded by Whiskey Hill Road in the north, the Woodburn-Estacada Highway in the south, Barlow Road in the east, and the county boundary in the west.	4.783105	393	387	136
17K	Subzone 17H is bounded by Whiskey Hill Road in the north, Highway 211 in the south, the Canby-Marquam Highway in the east, and Barlow Road in the west.	3.356433	437	419	133
17L	Subzone 17L is bounded by Pudding River-Barnards Road in the north; the Woodburn-Estacada Highway in the south; Highway 213 in the east; and the Canby-Marquam Highway in the west.	5.885293	538	471	177
18					
18A	Subzone 18A is bounded by Highway 211 in the north, Monte Cristo Road in the south, Barlow Road in the east, and the county boundary in the west.	6.177576	607	690	212
18B	Subzone 18B is bounded by Highway 211 in the north, Monte Cristo Road in the south, Kropf Road in the east, and Barlow Road in the west.	7.862664	390	456	130
18C	Subzone 18C is bounded by Highway 211 in the north; Highway 213 in the southeast; and Kropf Road in the west.	11.256235	695	569	197

18D	Subzone 18D is bounded by Monte Cristo Road in the north, Highway 213 in the south, Kropf Road in the east, and the county boundary in the west.	4.923418	311	241	87
19					
19A	Subzone 19A is bounded by the Molalla River in the northeast; Highway 211 in the south; and Highway 213, Molalla Avenue in the west.	4.142479	493	492	168
19B	Subzone 19B is bounded by Molalla Avenue in the north, Vick Road in the south, Molalla Avenue in the east, and Highway 213 in the west.	1.000612	117	143	53
19C	Subzone 19C is bounded by Vick Road in the north, Toliver Road in the south, Molalla Avenue in the east, and Highway 213 in the west.	0.827607	1273	4182	1407
19D	Subzone 19D is bounded by Toliver Road in the north, Highway 211 in the south, Molalla Avenue in the east, and 2000 feet west of Highway 213 in the west.	0.676817	590	1865	660
19E	Subzone 19E is bounded by Molalla Aquatic Center, Clark Park and Bolander Field in the northeast, Molalla Avenue in the northwest, and Highway 211 in the south.	0.483241	605	1827	662
19F	Subzone 19F is bounded by Highway 211 in the north, Bear Creek in the south, Mathias Road in the east, and Wilhoit Road in the west.	0.36769	577	1382	460
19G	Subzone 19G is bounded by Highway 211 in the north, the Molalla Forest Road in the south, Molalla Avenue in the east, and Highway 213 in the west.	0.705278	355	1202	483
19H	Subzone 19H is bounded by the Molalla Forest Road in the north, Rock Creek in the south, Wilhoit Road in the east, and Highway 213 in the west.	3.551806	340	328	128
19J	Subzone 19J is bounded by Rock Creek in the north, Wildcat Road in the south, Wilhoit Road in the east, and Highway 213 in the west.	4.211326	210	337	138
19K	Subzone 19K is bounded by Highway 213 in the northwest and Wildcat Road in the south. The eastern boundary is 100 feet east of Comer Creek Drive.	3.126946	499	442	140
19L	Subzone 19L is bounded by the county boundary in the south and Highway 213 in the west. The northeast boundary is 50 feet northeast of Marquam Creek.	1.991361	112	83	26
19M	Subzone 19M is bounded by Wildcat Road in the north, Scotts Mills Maple Grove Road in the south, and Blair Road in the east. The western boundary is 50 feet northeast of Marquam Creek.	5.497882	191	199	75
19N	Subzone 19N is bounded by Wildcat Road in the north; Scotts Mills Maple Grove Road in the south; Bird Road and Wilhoit Road in the east; and Blair Road in the west.	4.473002	183	214	64
19P	Subzone 19P is bounded by Cotton Creek in the north; Scotts Mills Maple Grove Road in the south; Sawtell Road in the east; and Bird Road and Wilhoit Road in the west.	4.652466	93	86	24
19Q	Subzone 19Q is bounded by Cotton Creek in the south, Sawtell Road in the east, and Rock Creek in the west. The northern boundary is 500 feet north of Leabo Road.	3.623029	267	258	109
19R	Subzone 19R is bounded by Kaiser Creek in the north, the Molalla River in the east, and Wilhoit Road in the west. The southern boundary is 500 feet north of Leabo Road.	6.941339	432	602	207
19S	Subzone 19S is bounded by the Molalla River in the east and Sawtell Road in the west. The northern boundary is 250 feet north of Pierce Road, and the southern boundary is 500 feet south of Novak Road.	5.892424	191	219	77

19T	Subzone 19T is bounded by the Molalla River in the east. The northern boundary is 500 feet south of Novak Road. The southern boundary is 50 feet south of Shotgun Creek. The western boundary is a vertical line drawn 50 feet west of the west end of Hardy Road.	4.339028	64	29	9
19U	Subzone 19U is bounded by Cedar Creek in the north, Hardy Road in the east and Rock Creek in the west.	3.939385	75	62	23
19V	Subzone 19V is bounded by Scotts Mills Maple Grove Road in the north. The southern boundary is a diagonal line drawn along County Road 72005. The eastern boundary is a vertical line drawn along Rock Creek. The western boundary is 50 feet northeast of Coal Creek.	10.249761	83	91	43
19W	Subzone 19W is bounded by Scotts Mills Maple Grove Road in the north and the county boundary in the southwest. The eastern boundary is 50 feet northeast of Coal Creek.	5.045609	128	111	37
19X	Subzone 19X is bounded by Copperhead Creek and Looney Creek in the south; the Molalla River in the east; and the county boundary in the west. The northern boundary is a diagonal line drawn along County Road 72005.	15.82201	37	34	10
19Y	Subzone 19Y is bounded by the Molalla River in the northeast; the county boundary in the south; and Copperhead Creek and Looney Creek in the west.	34.130916	0	0	0
19Z	Subzone 19Z is bounded by Highway 211 in the north; Kaiser Creek in the south; the Molalla River in the east; and Wilhoit Road in the west.	4.388796	350	381	143
20					
20A	Subzone 20A is bounded by the Clackamas River in the northeast and Highway 211 in the west. The southern boundary is 1,200 feet north of Wallens Road.	2.827538	344	555	206
20B	Subzone 20B is bounded by Little Cedar Creek in the south, the Clackamas River in the east, and Highway 211 in the west. The northern boundary is 1,200 feet north of Wallens Road.	4.355465	224	222	81
20C	Subzone 20C is bounded by Little Cedar Creek in the north; the Clackamas River and the South Fork Clackamas River in the east; and Highway 211 and Clear Creek in the west. The southern boundary is 0.75 miles north of Jackson Creek.	15.871381	404	451	166
20D	Subzone 20D is bounded by Clear Creek in the northeast and Highway 211 in the northwest. The southern boundary is a horizontal line drawn at the south end of Cox Road.	6.652773	392	498	181
20E	Subzone 20E is bounded by Highway 211 in the north and Canyon Creek in the southwest. The eastern boundary is 100 feet east of Jackson Creek Road.	13.791829	750	731	279
20F	Subzone 20F is bounded by Highway 211 in the north; Canyon Creek in the east; and Hancock Creek and Short Fellows Road in the west. The southern boundary is 100 feet south of Hancock Creek.	9.025091	992	1123	397
20G	Subzone 20G is bounded by Highway 211 in the north; Wright Road and Fernwood Road in the south; Hancock Creek in the east; and the Molalla River in the west.	6.988695	513	615	226
20H	Subzone 20H is bounded by Wright Road, Fernwood Road, and Callaman Road in the north and the Molalla River in the west. The southern boundary is 50 feet south of the North Fork Molalla River. The eastern boundary is 50 feet northeast of Redhouse Road.	12.097513	639	672	251
20J	Subzone 20J is bounded by Dead Horse Canyon Creek in the south and the South Fork Clackamas River in the east. The northern boundary is 100 feet east of Jackson Creek Road, and the western boundary is 50 feet northeast of Redhouse Road.	41.73529	5	72	23
20K	Subzone 20K is bounded by the Clackamas River in the northeast, Trout Creek in the south, and the South Fork Clackamas River in the west.	99.845755	0	0	0

20L	Subzone 20L is bounded by Dead Horse Canyon Creek in the north and the North Fork Molalla River in the southwest. The eastern boundary is 100 feet east of Lukens Creek.	25.499459	0	0	0
20M	Subzone 20M is bounded by the North Fork Molalla River in the north, Pine Creek in the south, the North Fork Molalla River in the east, and the Molalla River in the west.	33.846479	25	64	21
20N	Subzone 20N is bounded by Pine Creek and the North Fork Molalla River in the north and the Molalla River in the southwest. The eastern boundary is 50 feet northeast of Lost Creek.	66.104713	1	0	0
20P	Subzone 20P is bounded by the Clackamas River in the northeast and the county boundary in the south. The northwest boundary is Trout Creek and 100 feet east of Table Rock Fork.	153.316985	0	0	0
21					
21A	Subzone 21A is bounded by the Roaring River in the north; Dry Creek in the south; the valley west of South Fork Roaring River and Cot Creek in the east; and the Clackamas River in the west.	30.60758	114	88	20
21B	Subzone 21B is bounded by the Roaring River in the north; the Oak Grove Fork Clackamas River in the south; Linney Creek and Anvil Creek in the east; and the valley west of South Fork Roaring River and Cot Creek in the west.	59.915586	0	0	0
21C	Subzone 21C is bounded by the county boundary in the southeast and Linney Creek, Anvil Creek, and Stone Creek in the west. The northern boundary is a horizontal line from the end of the Roaring River.	70.604614	6	0	0
21D	Subzone 21D is bounded by Dry Creek and the Oak Grove Fork Clackamas River in the north; Bonner Creek in the south; Stone Creek in the east; and the Clackamas River in the west.	61.626164	0	0	0
21E	Subzone 21E is bounded by Bonner Creek in the north, the county boundary in the southeast, and the Clackamas River in the west.	44.751399	1	0	0

Appendix C: Public Evacuation Maps



Evacuation Routes
Railroads
City Boundary
County Boundary
Water Bodies

Milwaukie

Emergency Evacuation Routes

Emergency contact no. : 911
Non- Emergency contact no. : 503-786-7500
To access Evacuation Maps, navigate to : Milwaukieoregon.gov
Emergency notifications sign-up : https://www.clackamas.us/dm/publicalerts

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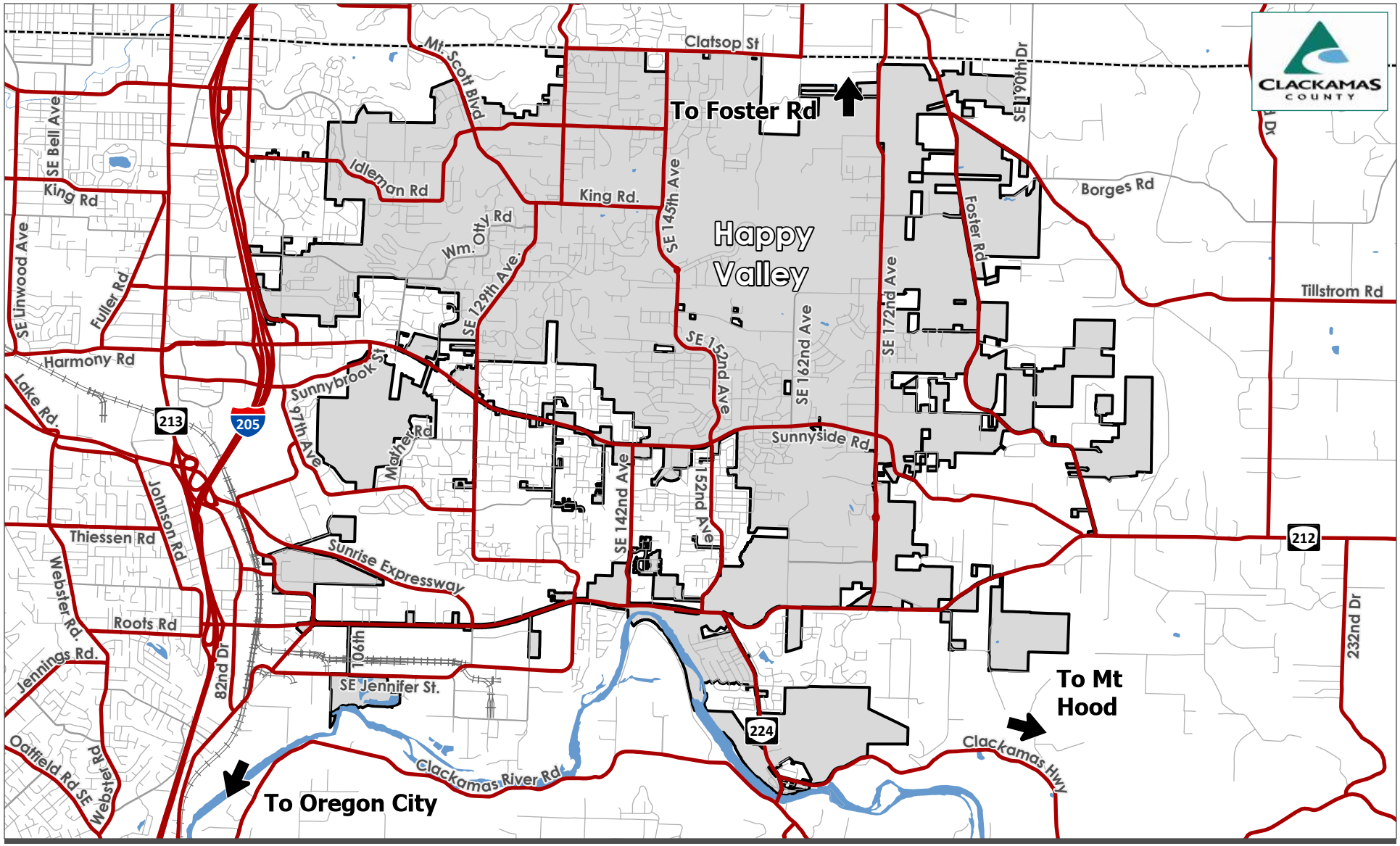

Evacuation Routes
Railroads
City Boundary
County Boundary
Water Bodies

Happy Valley

Emergency Evacuation Routes

Emergency contact no. : 911
Non- Emergency contact no. : 971-563-4641
To access Evacuation Maps, navigate to : www.happyvalleyor.gov
Emergency notifications sign-up : https://www.happyvalleyor.gov/signup-for-notifications/

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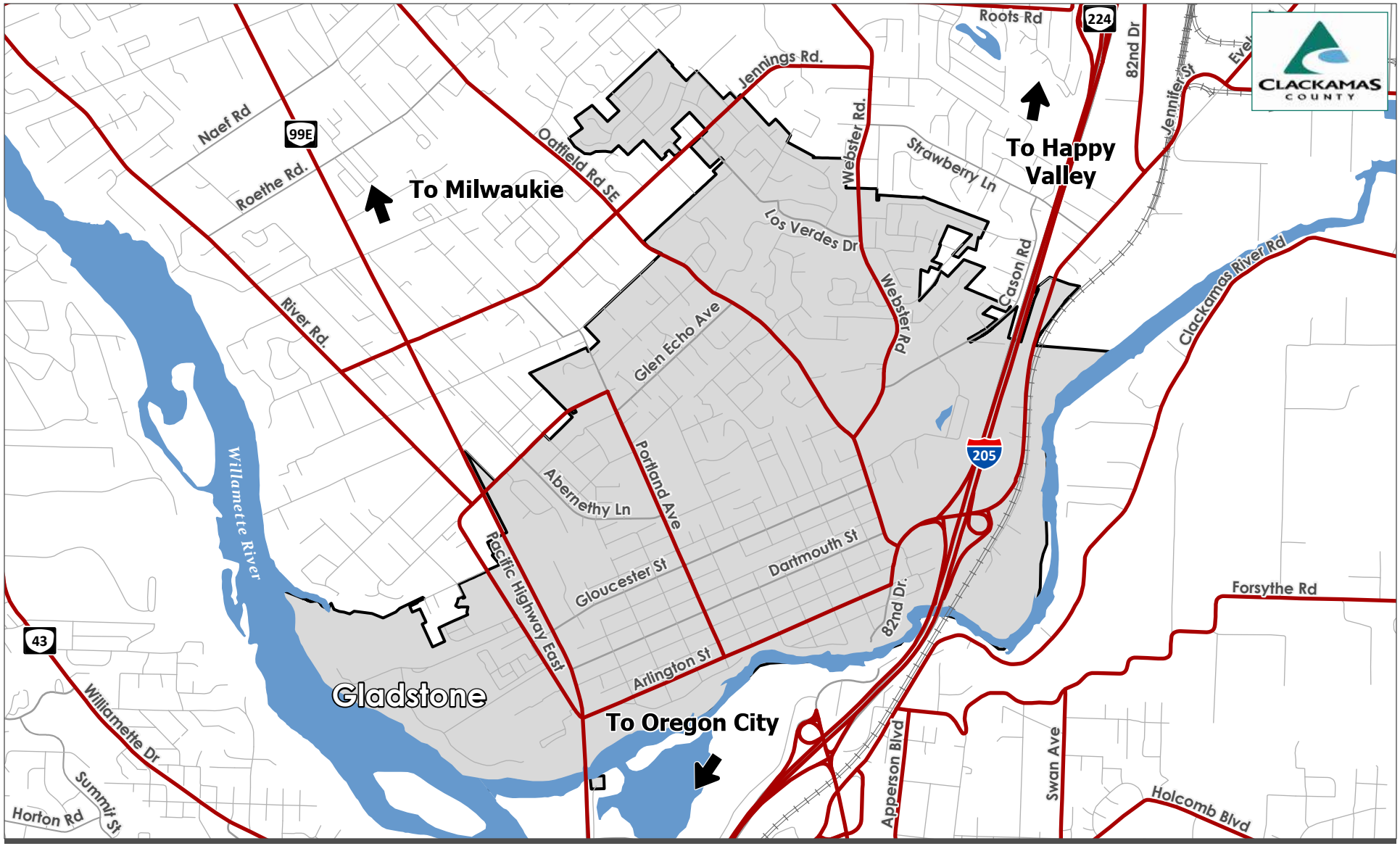

Evacuation Routes
Railroads
City Boundary
County Boundary
Water Bodies

Gladstone

Emergency Evacuation Routes

Emergency contact no. : 911
Non- Emergency contact no. :
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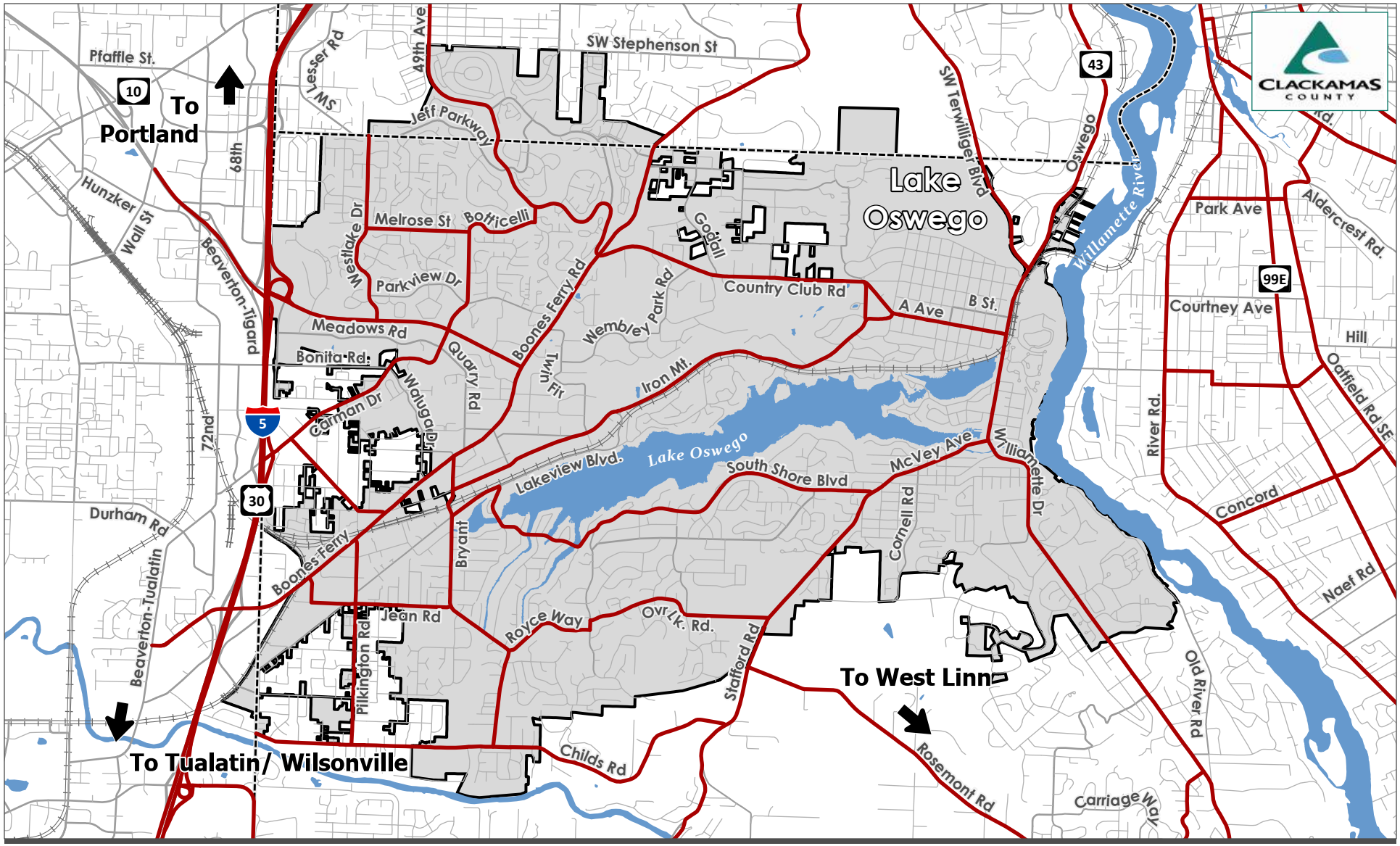

Evacuation Routes
Railroads
City Boundary
County Boundary
Water Bodies

Lake Oswego

Emergency Evacuation Routes

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Non- Emergency contact no. :
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Emergency notifications sign-up :

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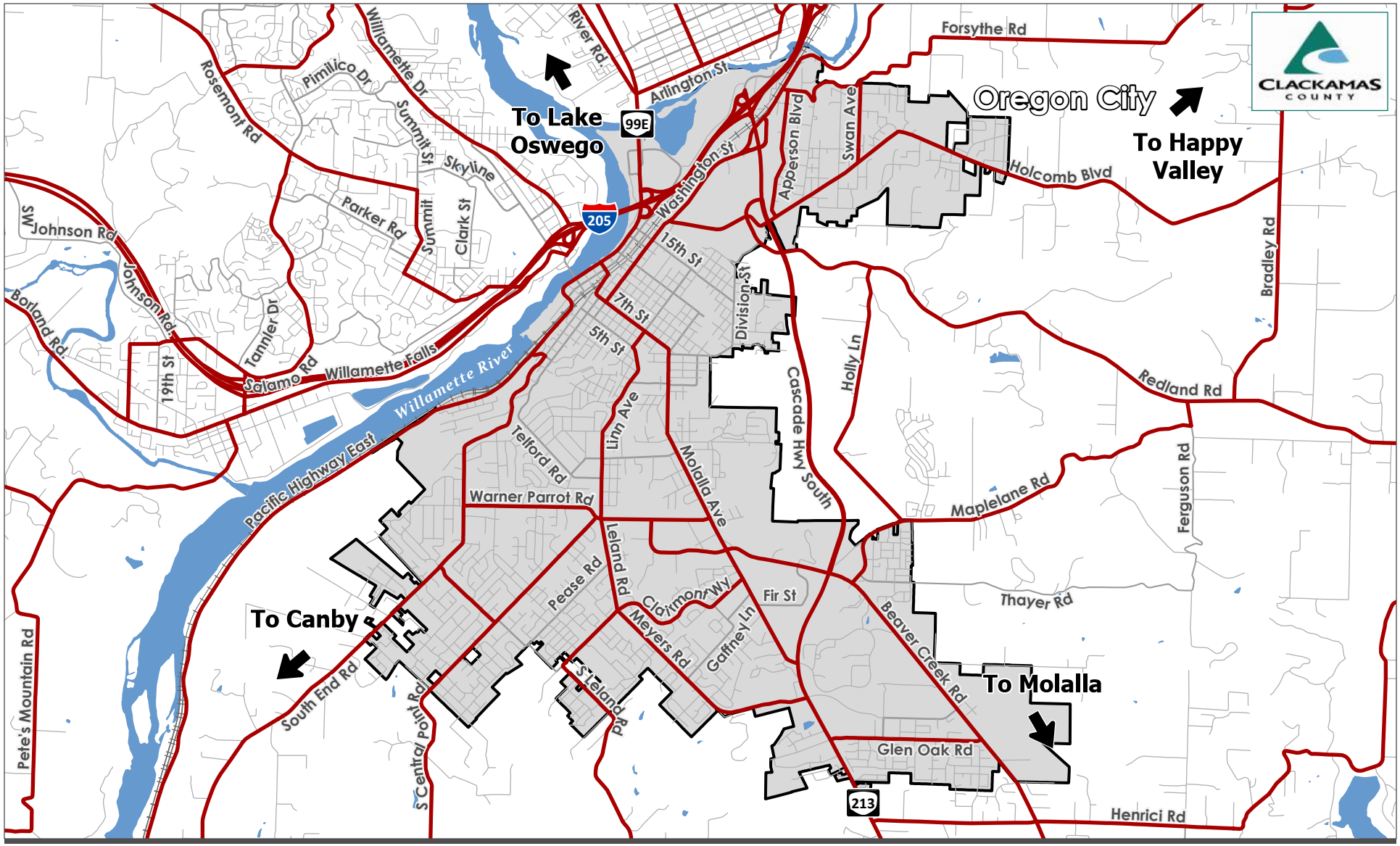

Evacuation Routes
Railroads
City Boundary
County Boundary
Water Bodies

Oregon City

Emergency Evacuation Routes

Emergency contact no. : 911
Non- Emergency contact no. : 503-657-3063
To access Evacuation Maps, navigate to : www.orcity.org/emergencies
Emergency notifications sign-up : N/A

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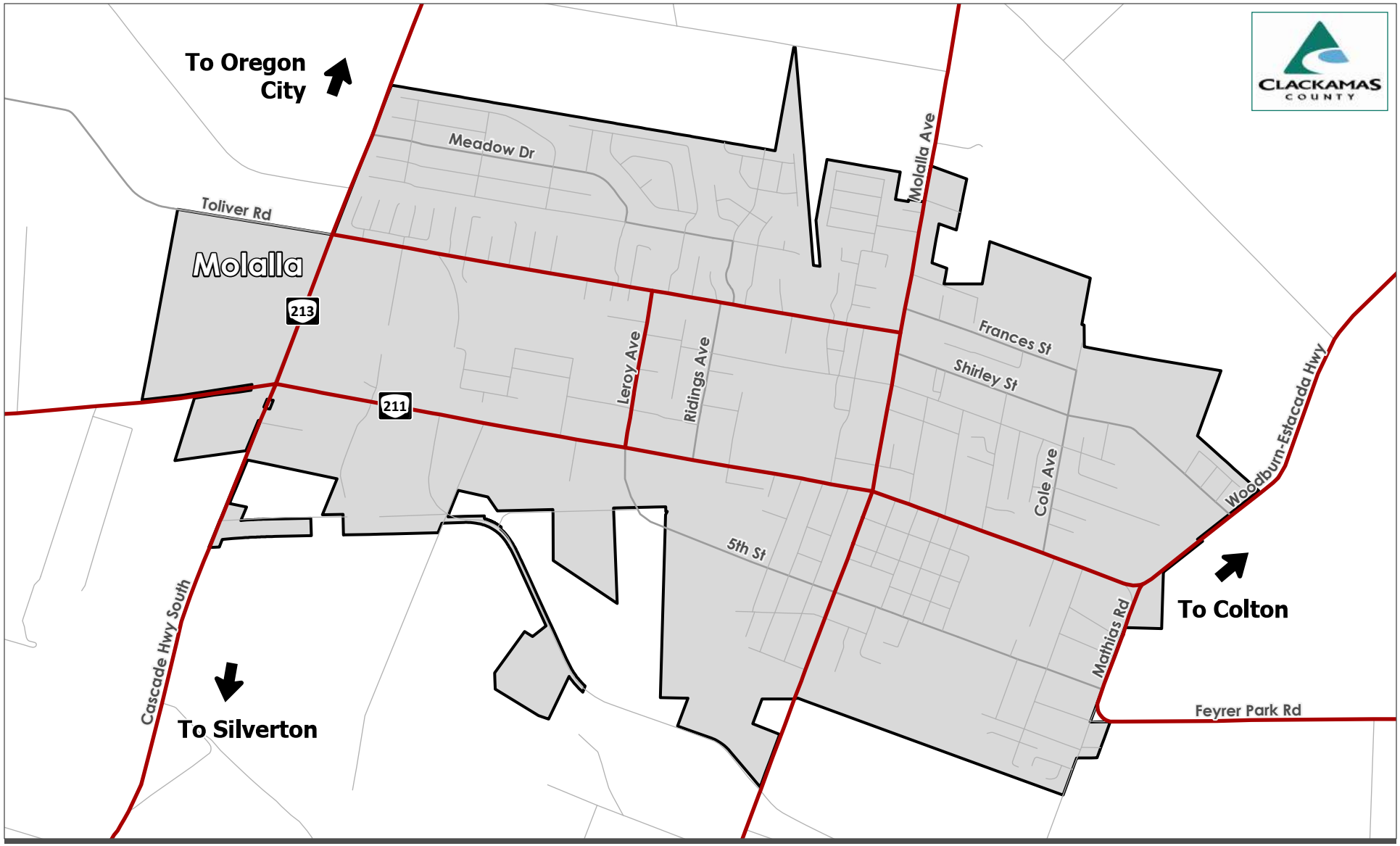

Evacuation Routes
City Boundary
County Boundary

Molalla

Emergency Evacuation Routes

Emergency contact no. : 911
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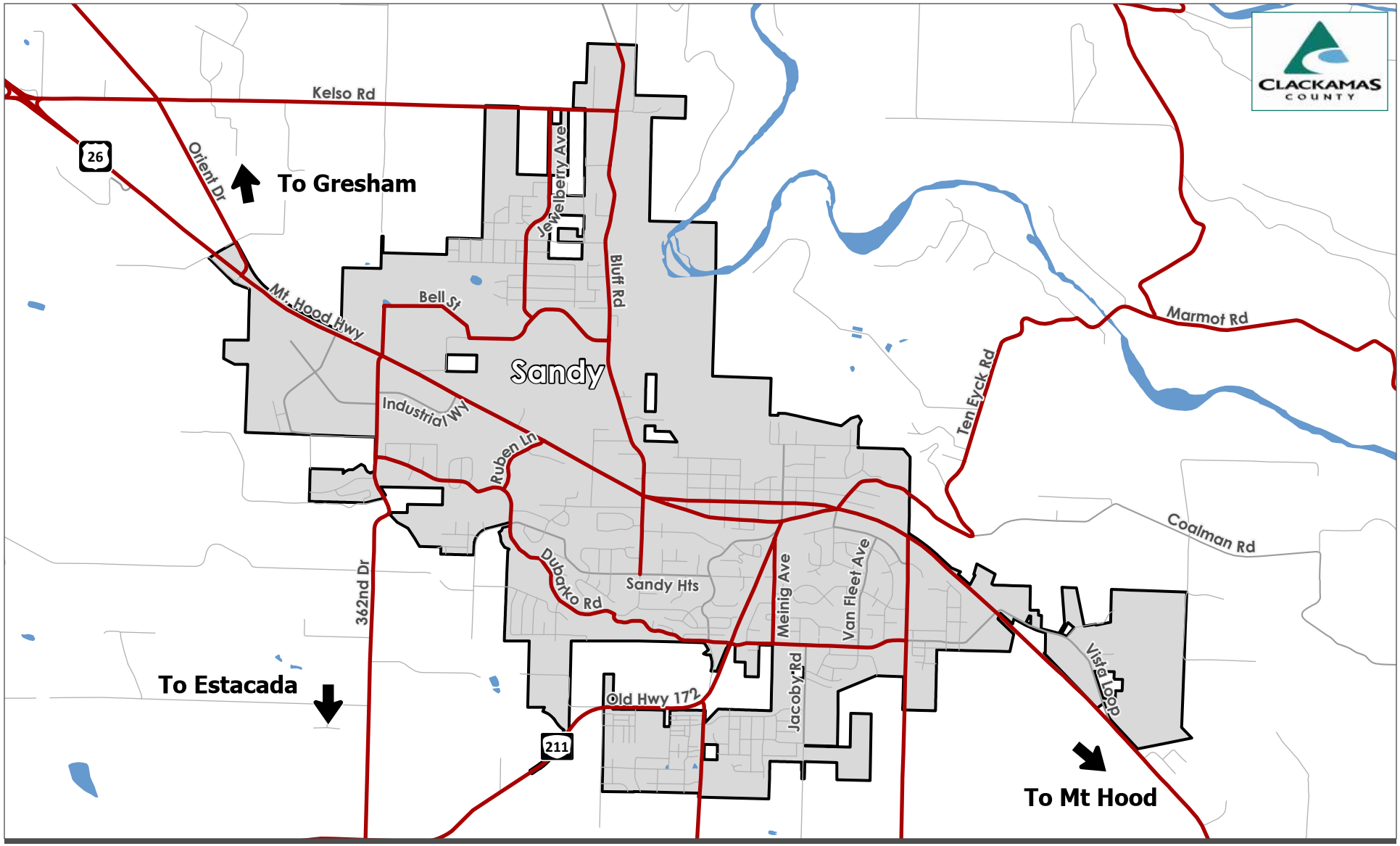

Evacuation Routes
City Boundary
County Boundary
Water Bodies

Sandy

Emergency Evacuation Routes

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Non- Emergency contact no. :
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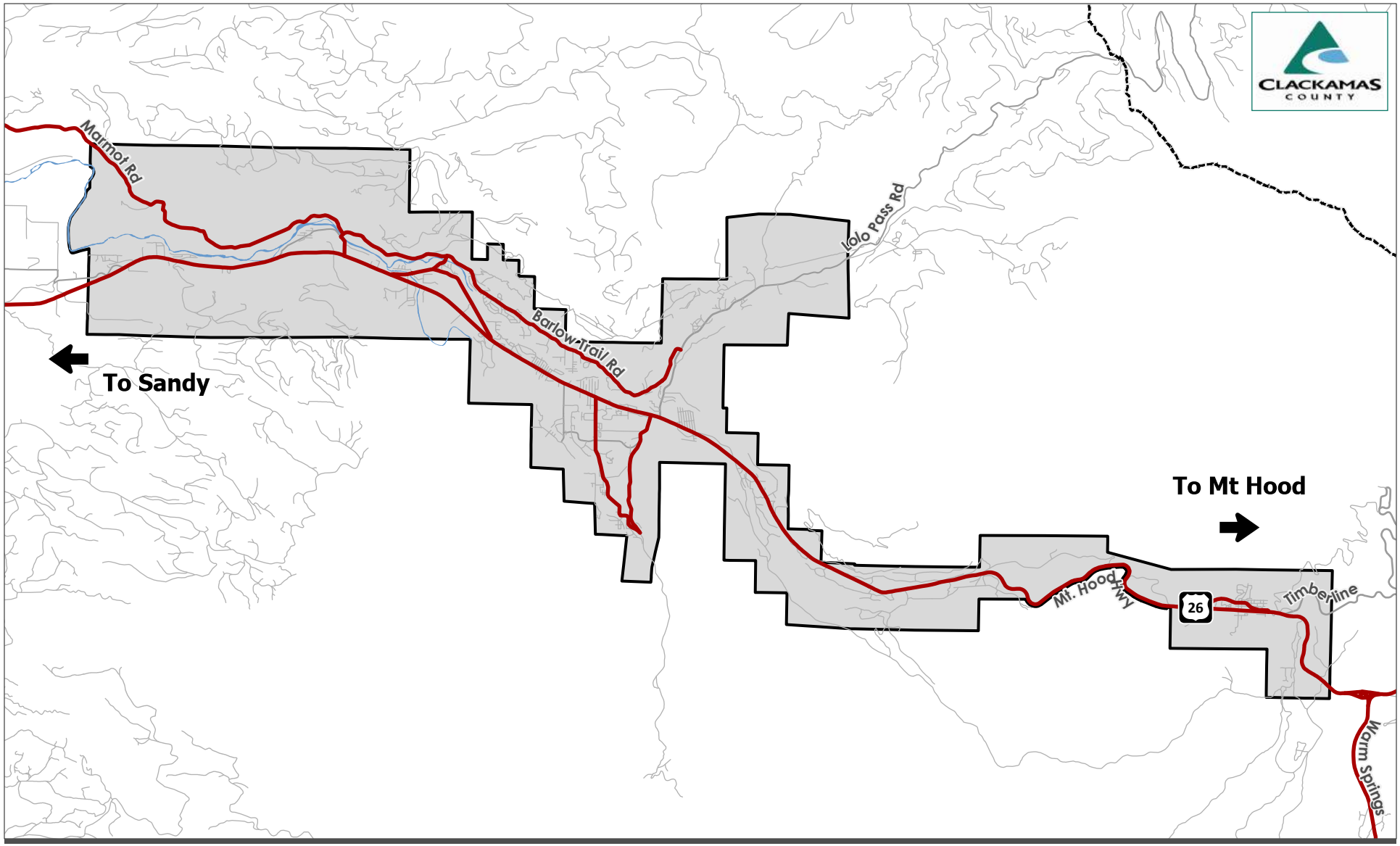

Evacuation Routes
District Boundary
County Boundary
Water Bodies

Hoodland Fire District

Emergency Evacuation Routes

Emergency contact no. : 911
Non- Emergency contact no. : 503-622-3256
To access Evacuation Maps, navigate to : www.hoodlandfire.us
Emergency notifications sign-up : www.hoodlandfire.us/page name

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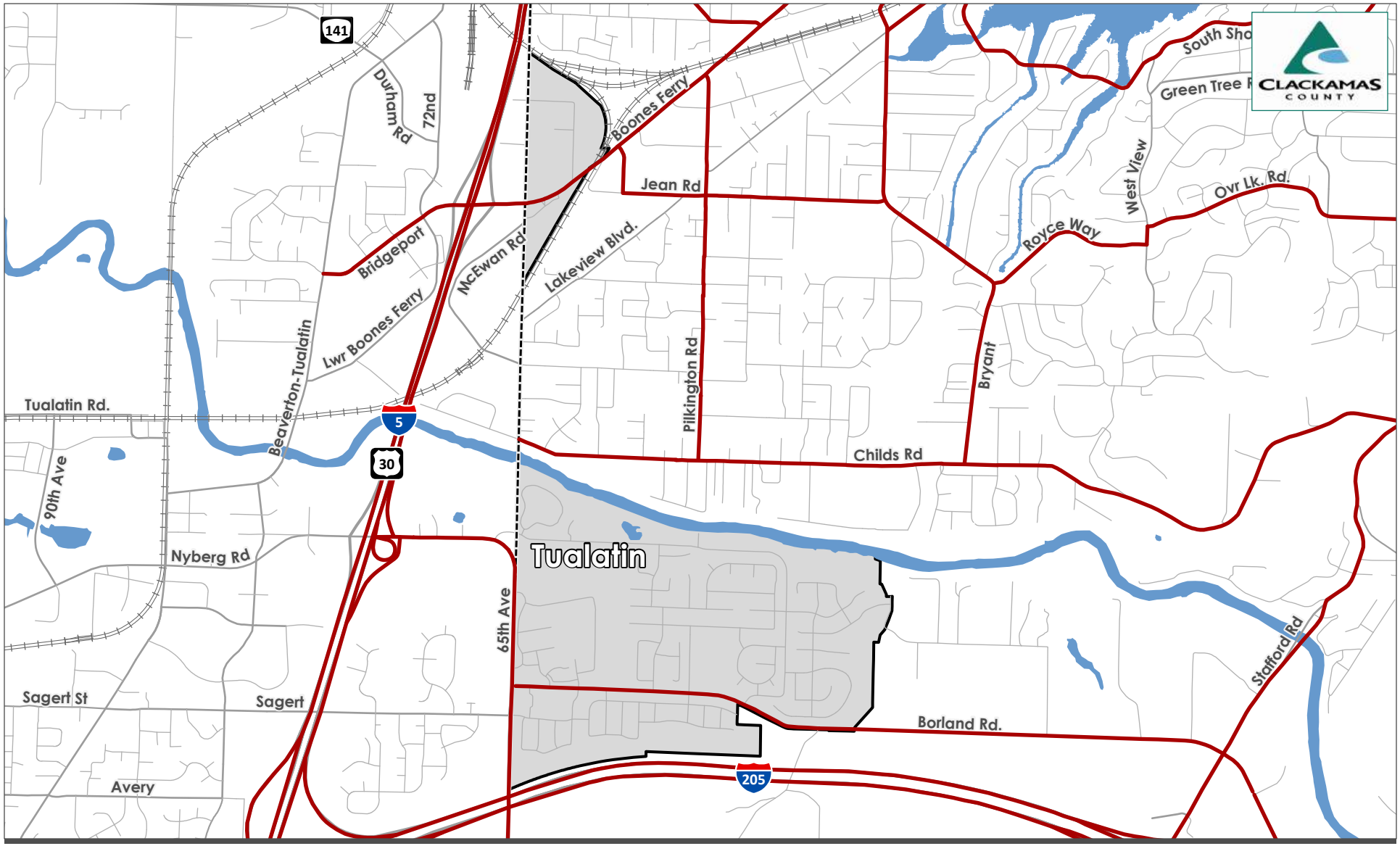

Evacuation Routes
Railroads
City Boundary
County Boundary
Water Bodies

Tualatin

Emergency Evacuation Routes

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Non- Emergency contact no. :
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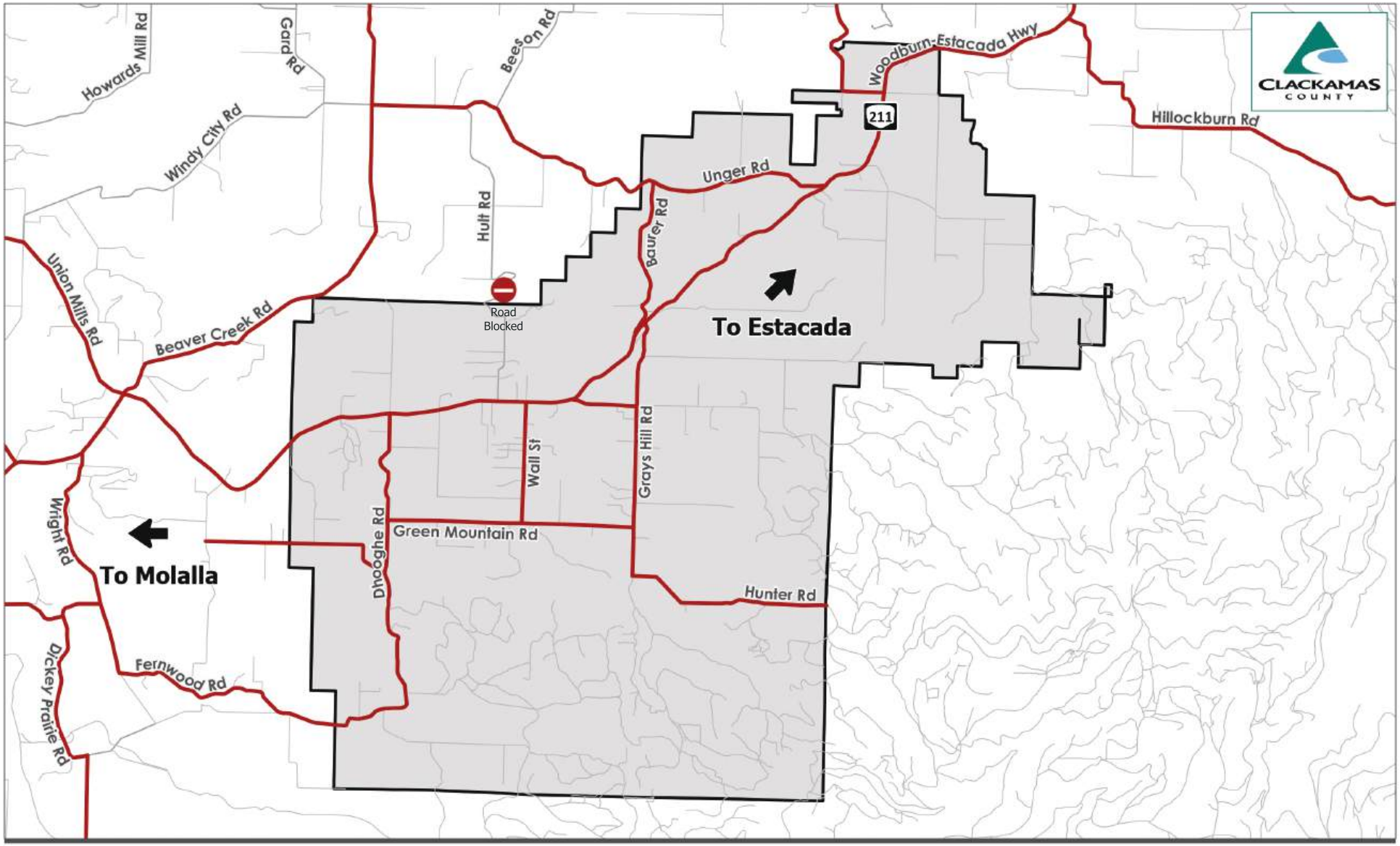

Evacuation Routes
District Boundary
County Boundary

Colton Fire District

Emergency Evacuation Routes

Emergency contact no. : 911
Non- Emergency contact no. : 503-824-2545
To access Evacuation Maps, navigate to : www.coltonfiredistrict.org
Emergency notifications sign-up : -

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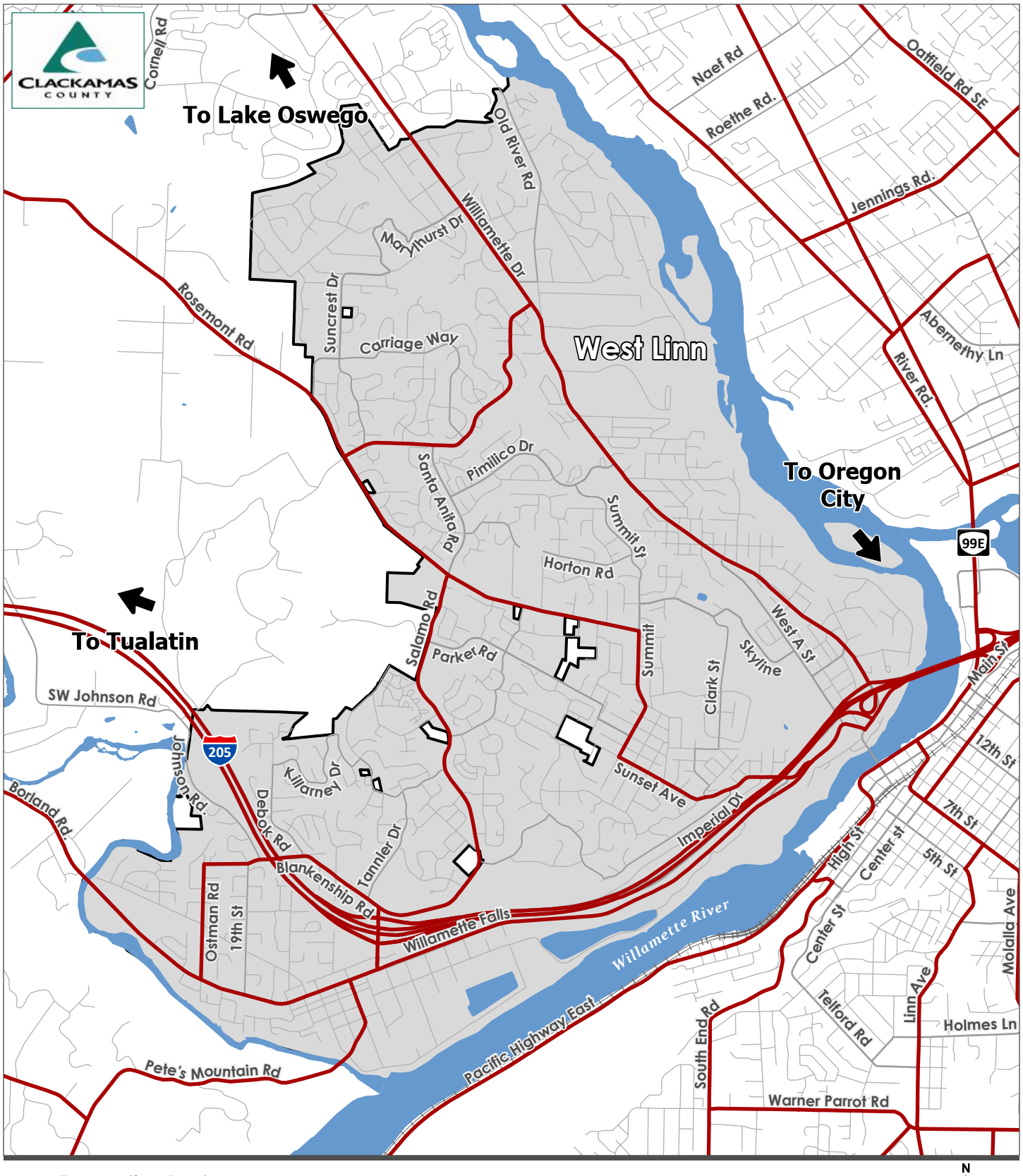

Evacuation Routes
Railroads
City Boundary
County Boundary
Water Bodies

West Linn

Emergency Evacuation Routes

Emergency contact no. : 911
Non- Emergency contact no. : -
To access Evacuation Maps, navigate to : www.westlinnoregon.gov
Emergency notifications sign-up : https://member.everbridge.net/892807736729067/nev

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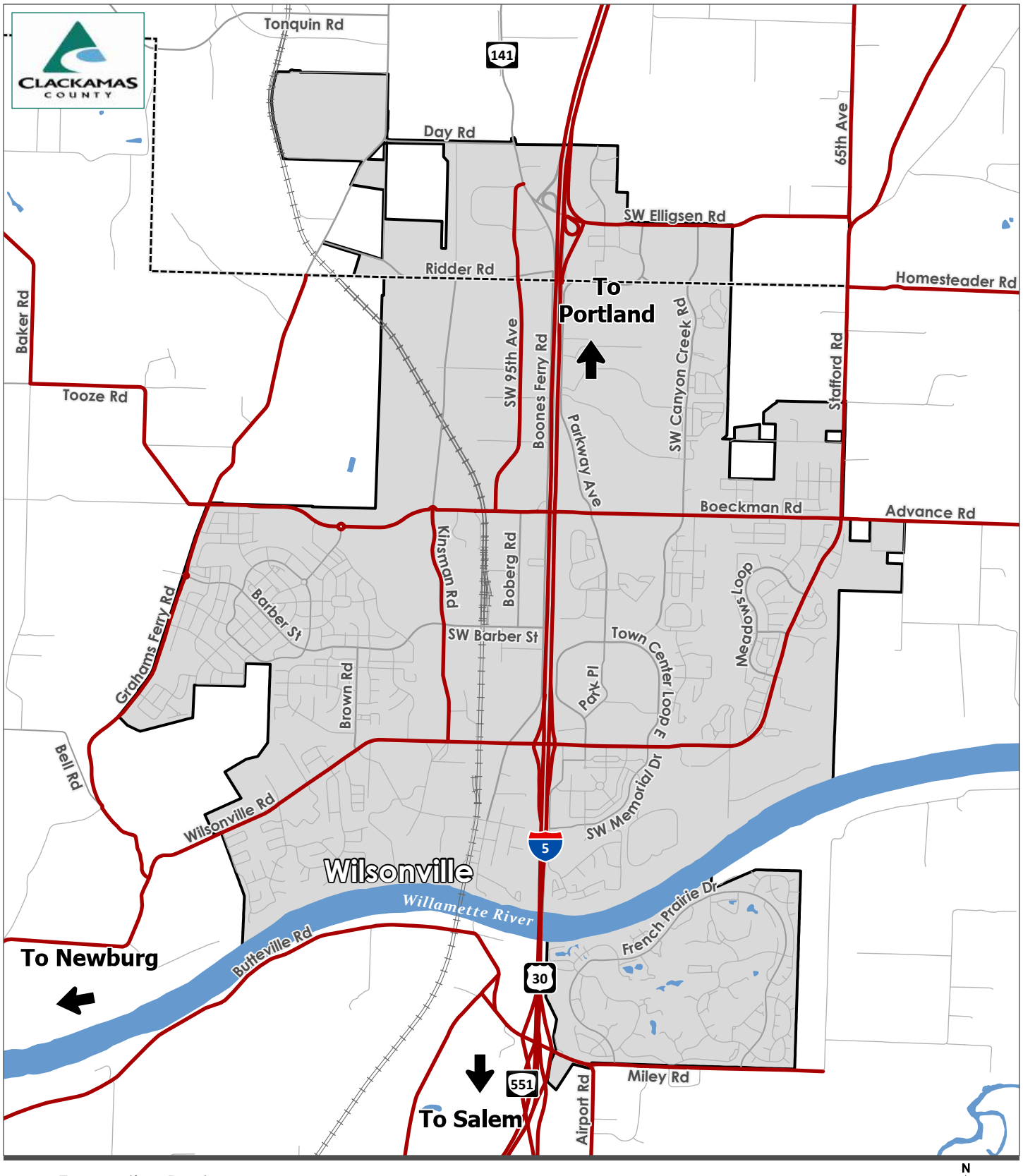

Evacuation Routes
Railroads
City Boundary
County Boundary
Water Bodies

Wilsonville

Emergency Evacuation Routes

Emergency contact no. : 911
Non- Emergency contact no. :
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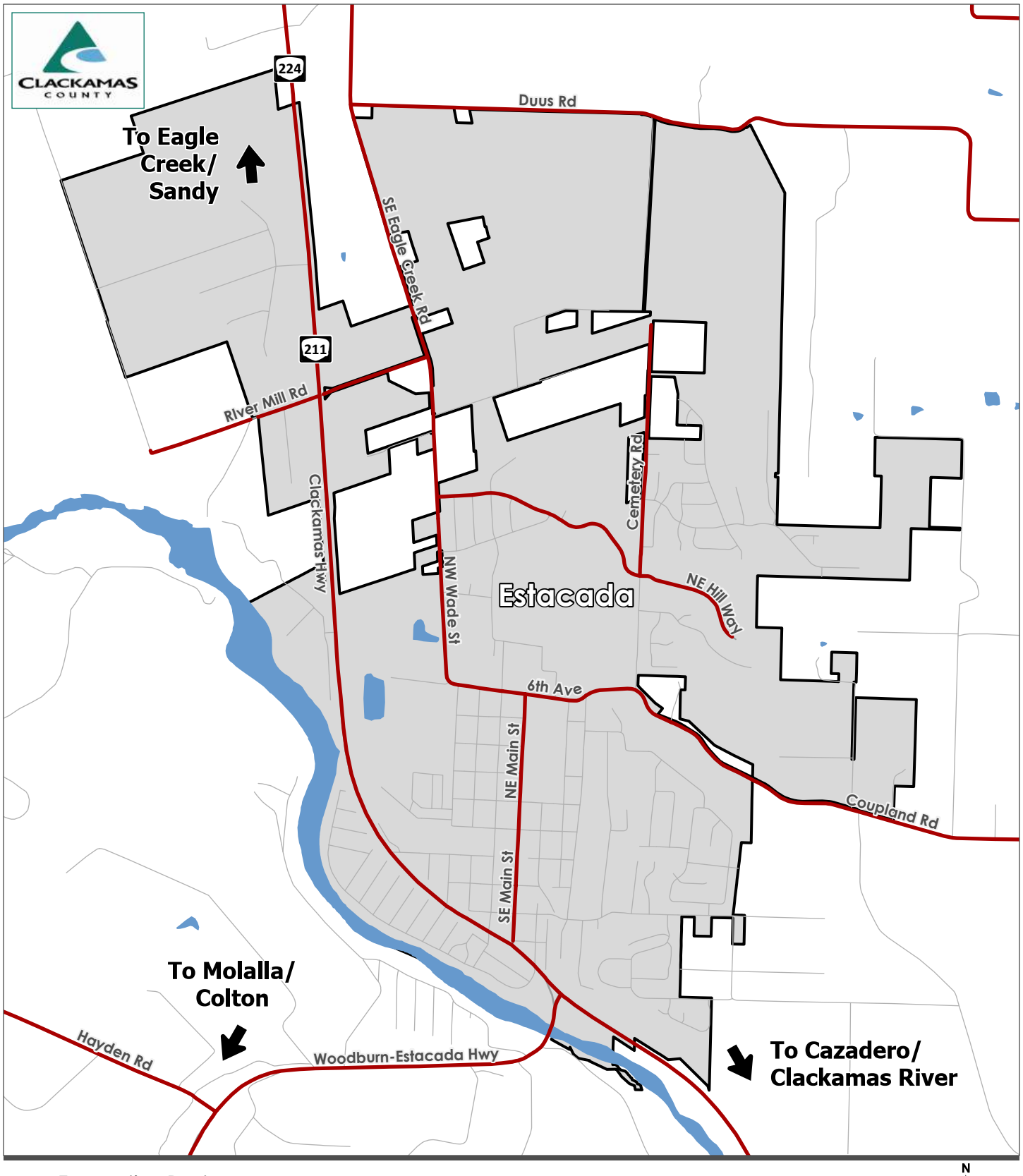

Evacuation Routes
City Boundary
County Boundary
Water Bodies

Estacada

Emergency Evacuation Routes

Emergency contact no. : 911
Non- Emergency contact no. : (503) 327-5186
To access Evacuation Maps, navigate to : https://www.clackamas.us/dm/publicalerts
Emergency notifications sign-up :

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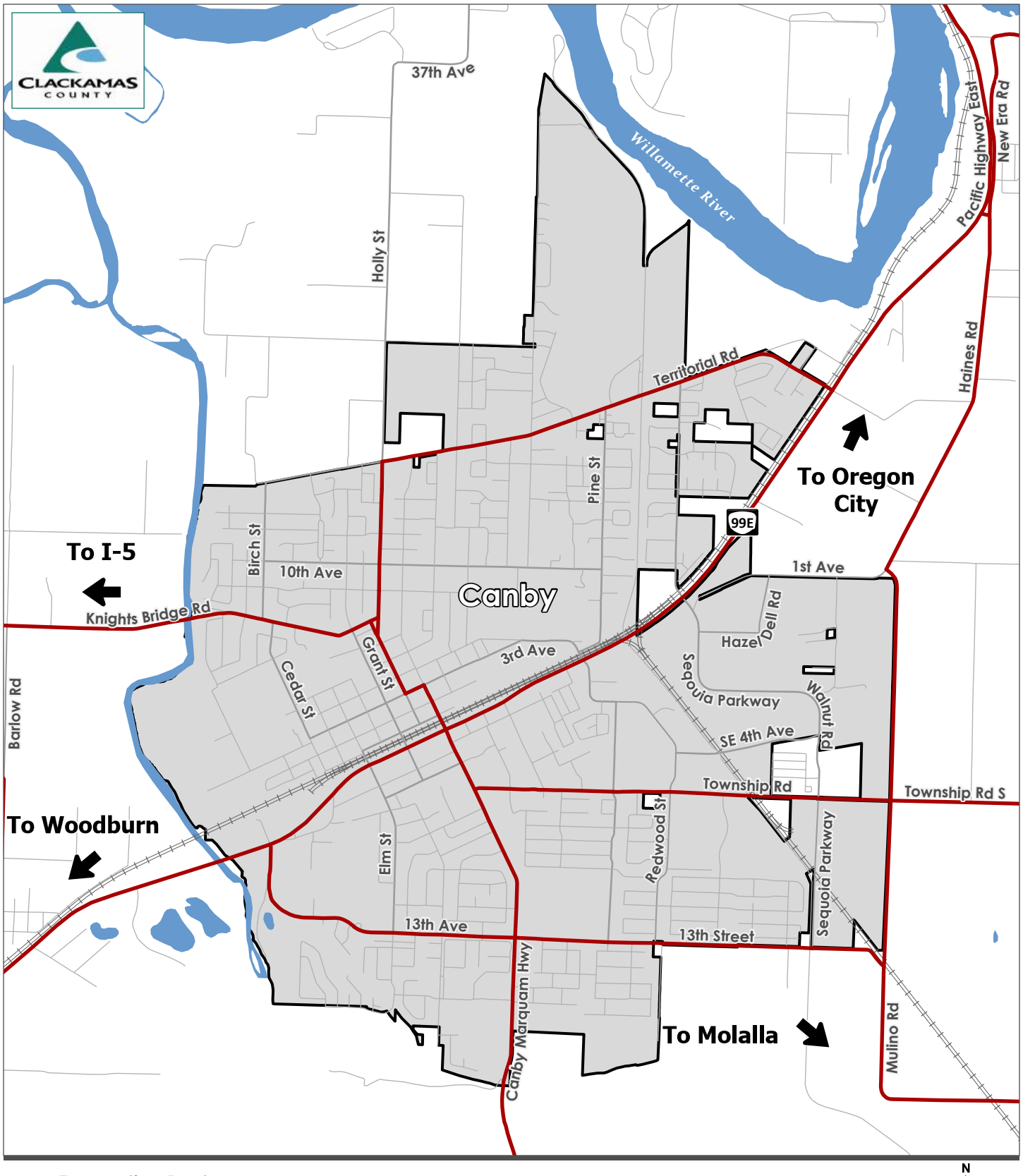

Evacuation Routes
Railroads
City Boundary
County Boundary
Water Bodies

Canby

Emergency Evacuation Routes

Emergency contact no. : 911
Non- Emergency contact no. : 503-655-8211
To access Evacuation Maps, navigate to : https://www.canbyoregon.gov/
Emergency notifications sign-up : N/A

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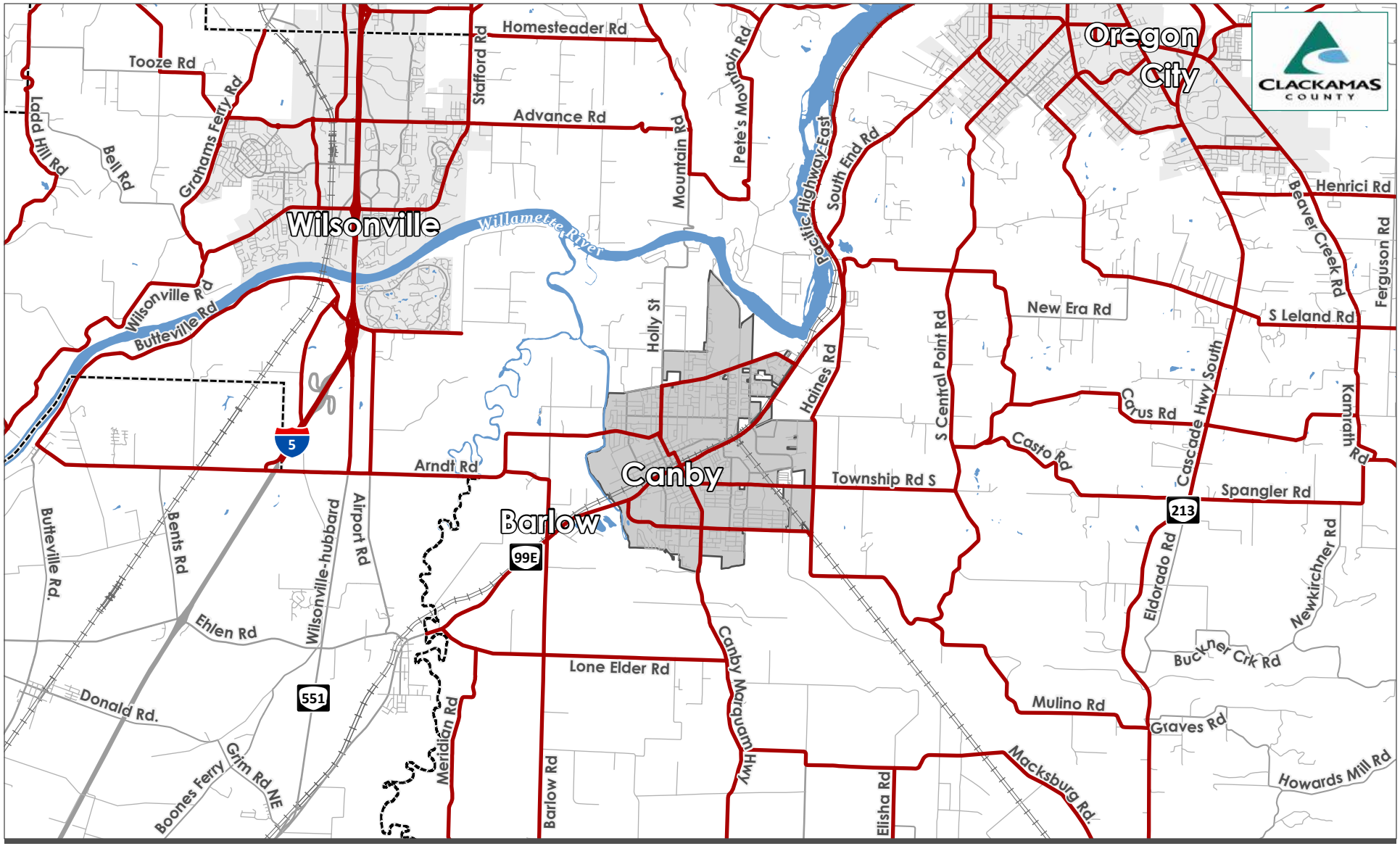

Evacuation Routes
Railroads
City Boundary
County Boundary
Water Bodies

Canby

Emergency Evacuation Routes

Emergency contact no. : 911
Non- Emergency contact no. : 503-655-8211
To access Evacuation Maps, navigate to : https://www.canbyoregon.gov/
Emergency notifications sign-up : N/A

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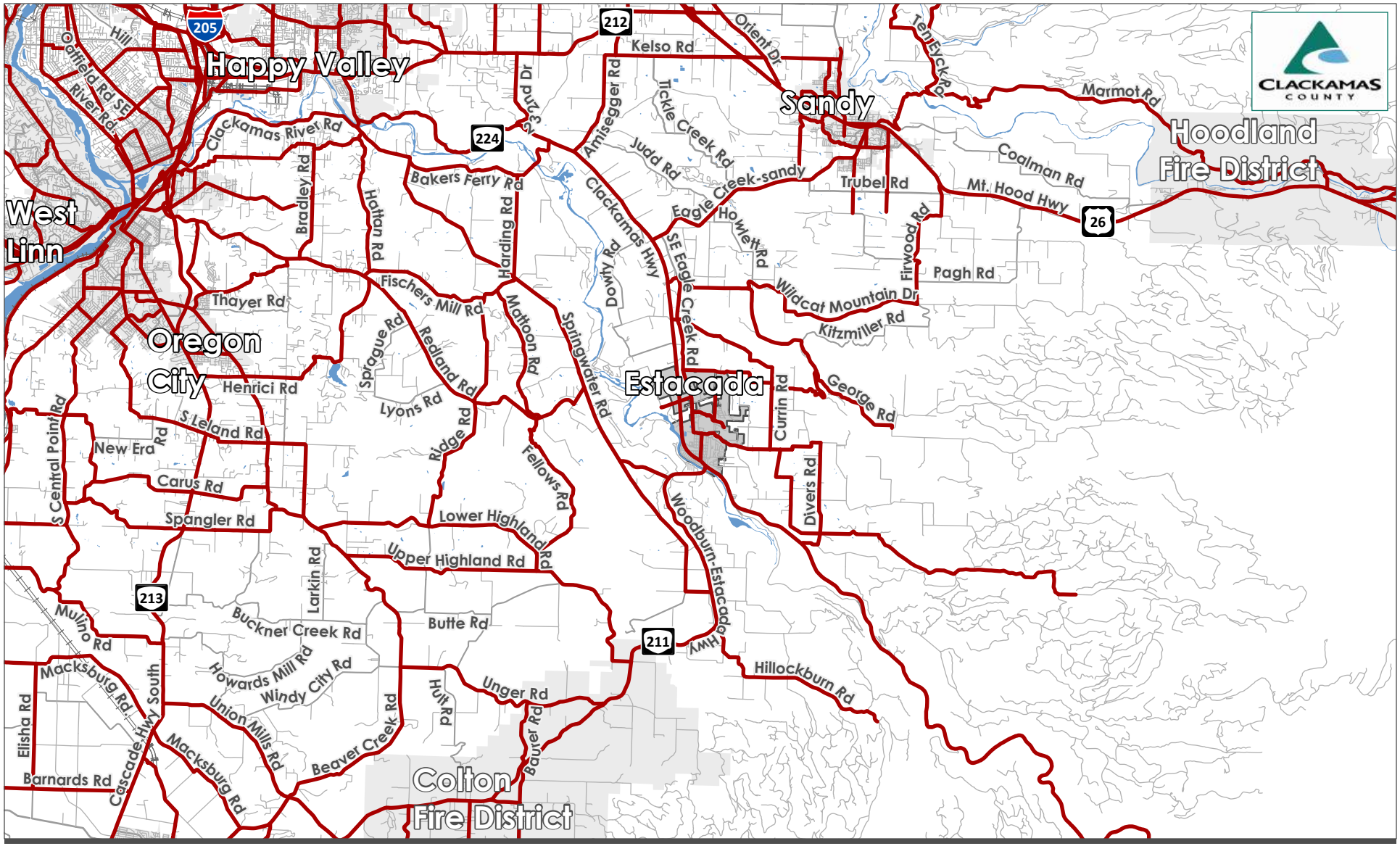

Evacuation Routes
Railroads
City Boundary
County Boundary
Water Bodies

Estacada

Emergency Evacuation Routes

Emergency contact no. : 911
Non- Emergency contact no. : (503) 327-5186
To access Evacuation Maps, navigate to : https://www.clackamas.us/dm/publicalerts
Emergency notifications sign-up :

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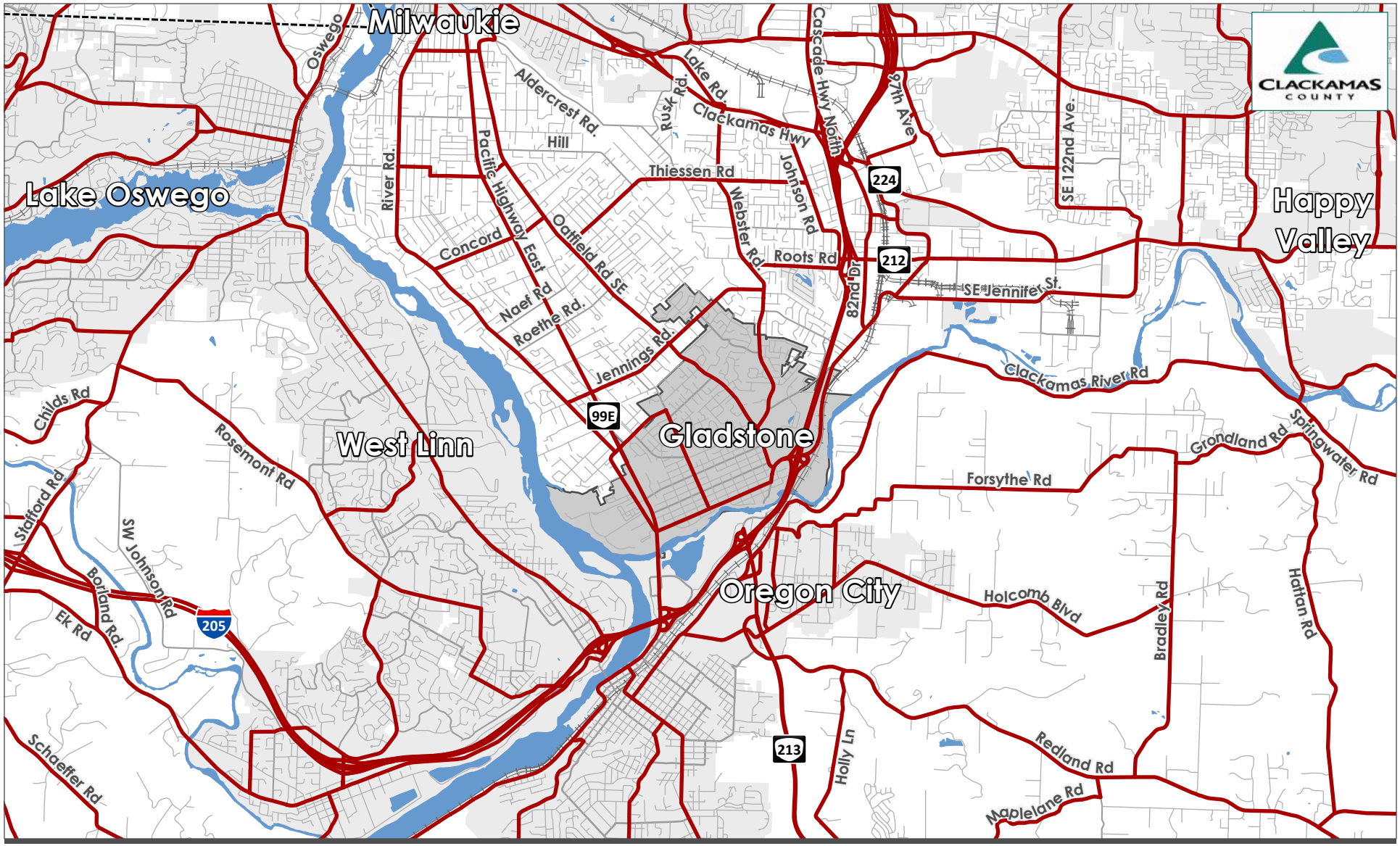

Evacuation Routes
Railroads
City Boundary
County Boundary
Water Bodies

Gladstone

Emergency Evacuation Routes

Emergency contact no. : 911
Non- Emergency contact no. :
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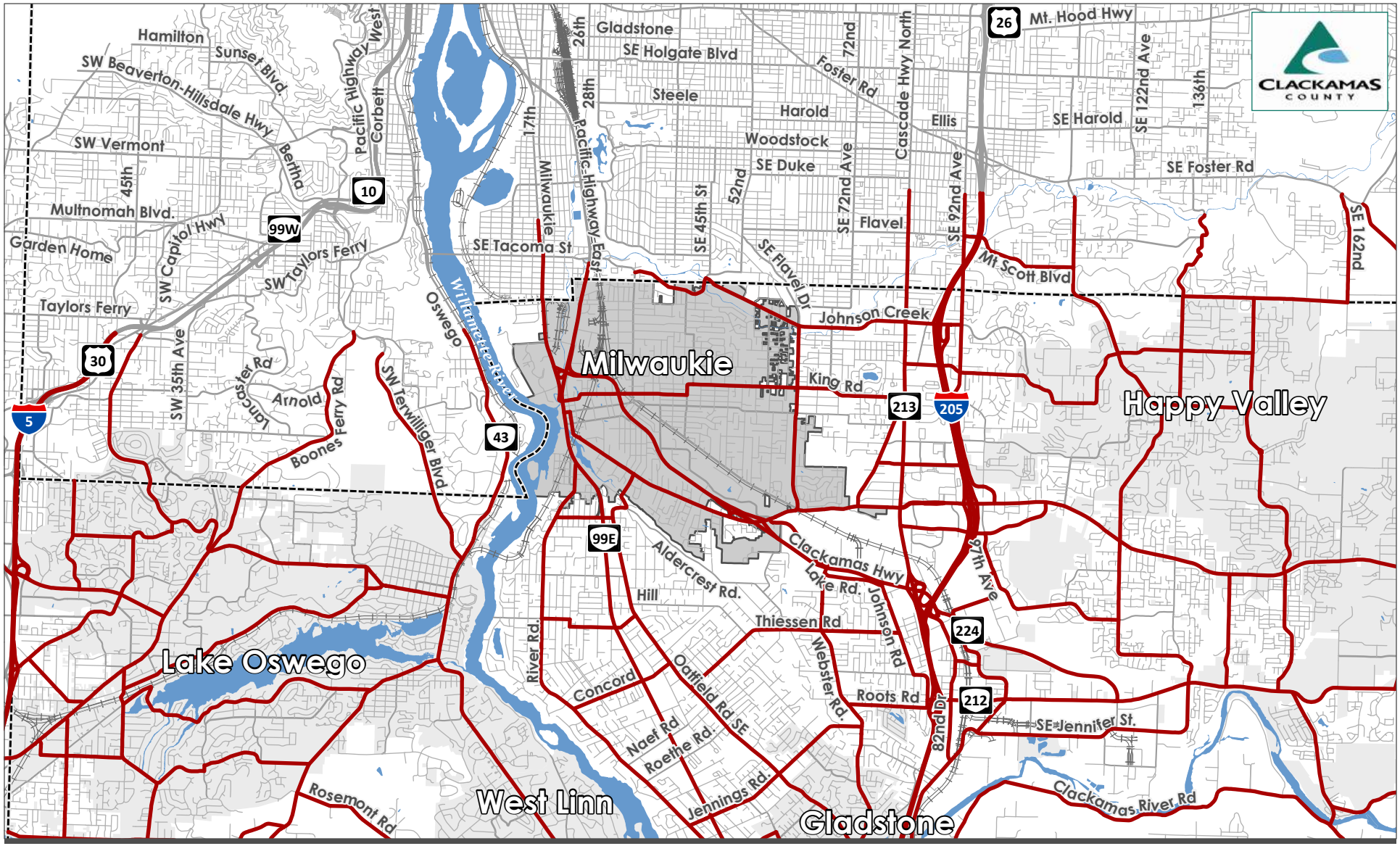

Evacuation Routes
Railroads
City Boundary
County Boundary
Water Bodies

Milwaukie

Emergency Evacuation Routes

Emergency contact no. : 911
Non- Emergency contact no. : 503-786-7500
To access Evacuation Maps, navigate to : Milwaukieoregon.gov
Emergency notifications sign-up : https://www.clackamas.us/dm/publicalerts

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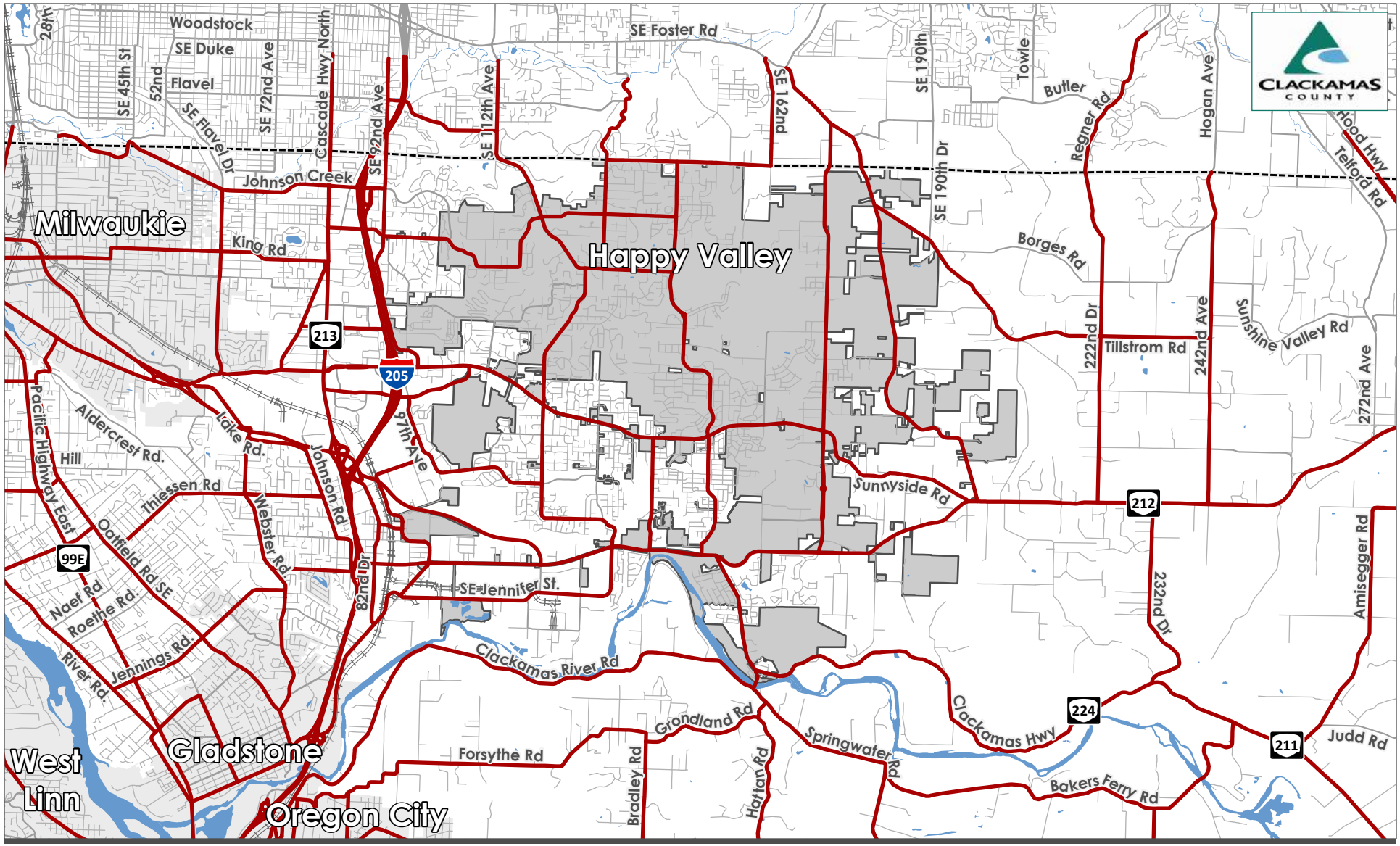

Evacuation Routes
Railroads
City Boundary
County Boundary
Water Bodies

Happy Valley

Emergency Evacuation Routes

Emergency contact no. : 911
Non- Emergency contact no. : 971-563-4641
To access Evacuation Maps, navigate to : www.happyvalleyor.gov
Emergency notifications sign-up : https://www.happyvalleyor.gov/signup-for-notifications/

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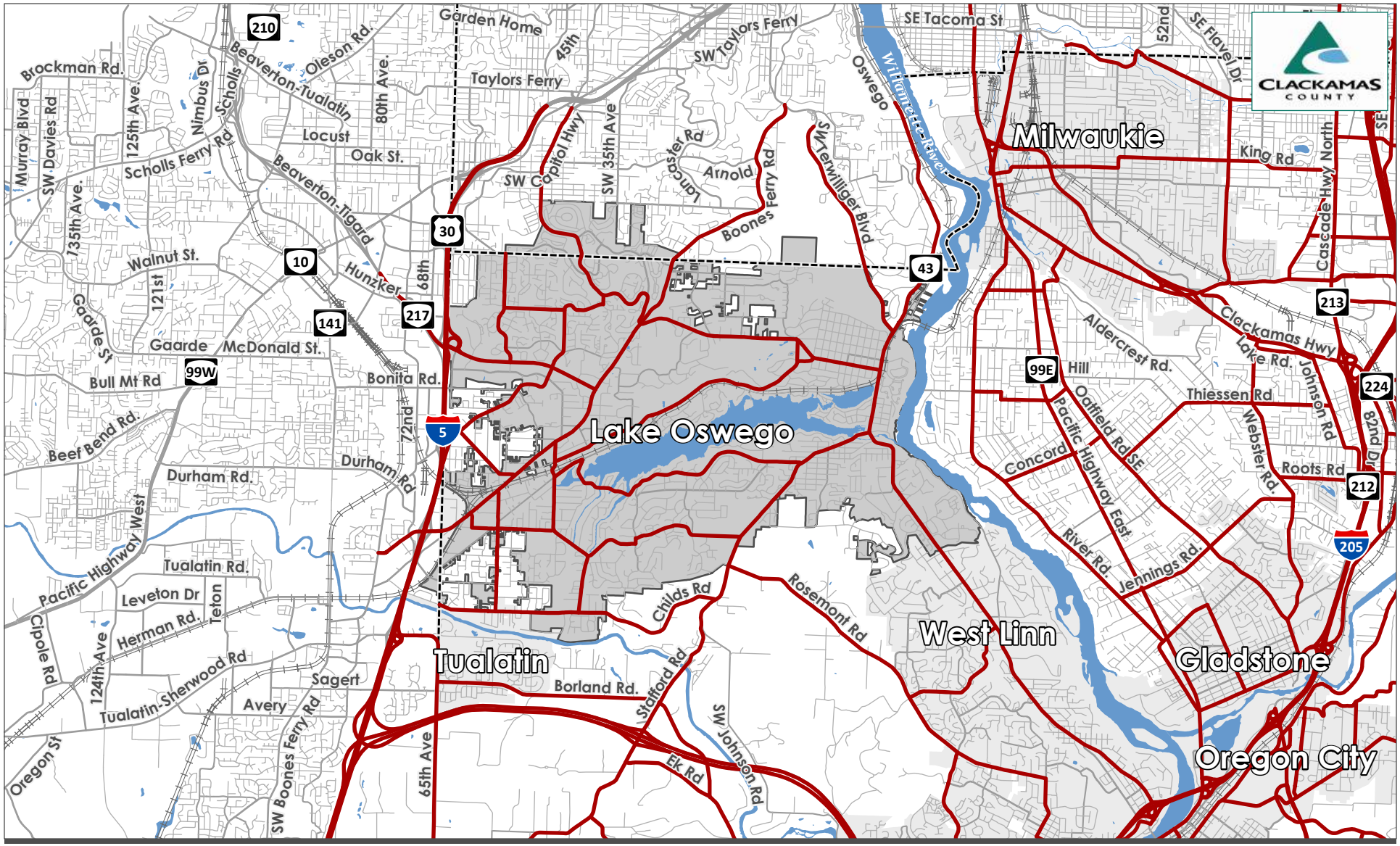

Evacuation Routes
Railroads
City Boundary
County Boundary
Water Bodies

Lake Oswego

Emergency Evacuation Routes

Emergency contact no. : 911
Non- Emergency contact no. :
To access Evacuation Maps, navigate to :
Emergency notifications sign-up :

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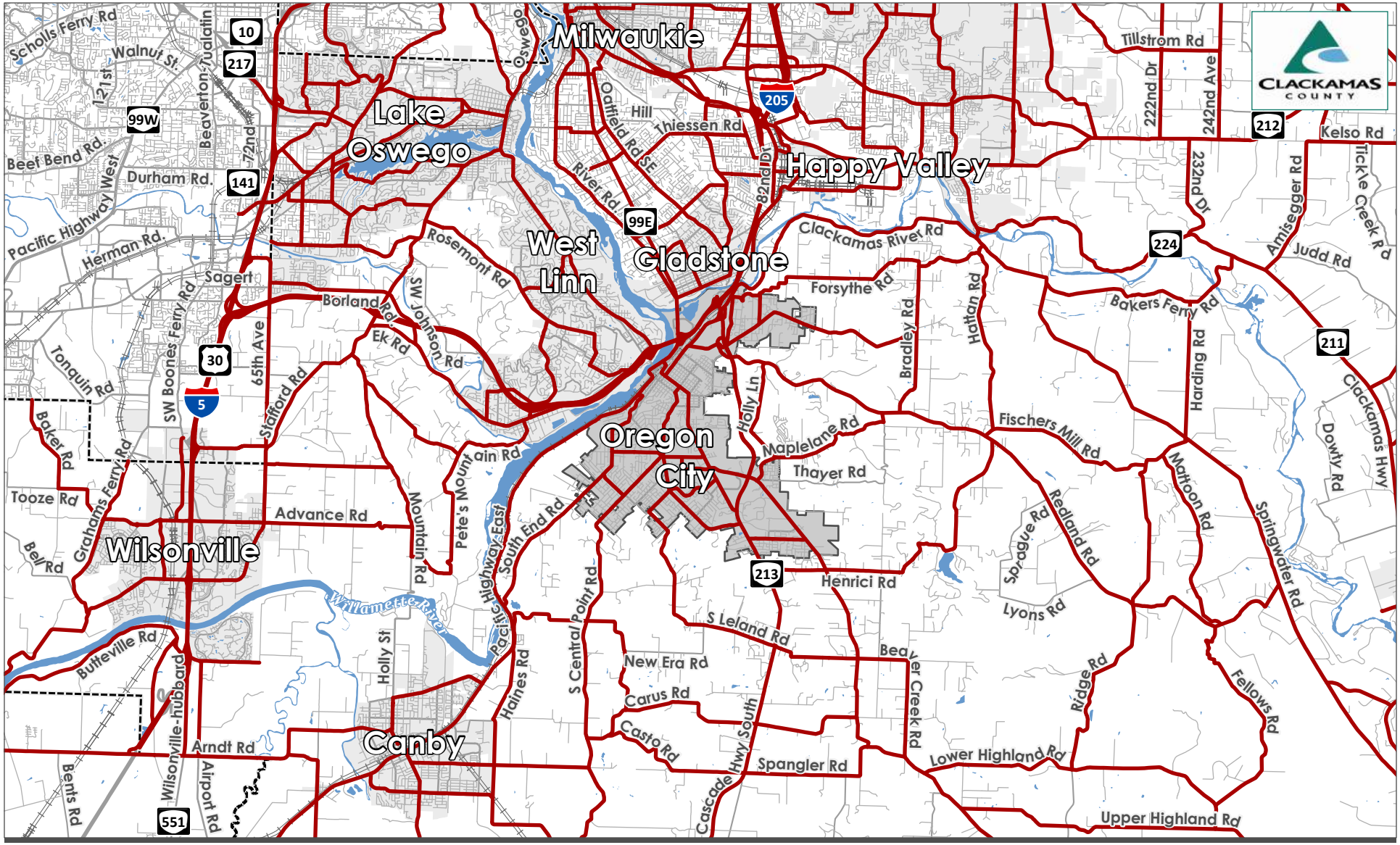

Evacuation Routes
Railroads
City Boundary
County Boundary
Water Bodies

Oregon City

Emergency Evacuation Routes

Emergency contact no. : 911
Non- Emergency contact no. : 503-657-3063
To access Evacuation Maps, navigate to : www.orcity.org/emergencies
Emergency notifications sign-up : N/A

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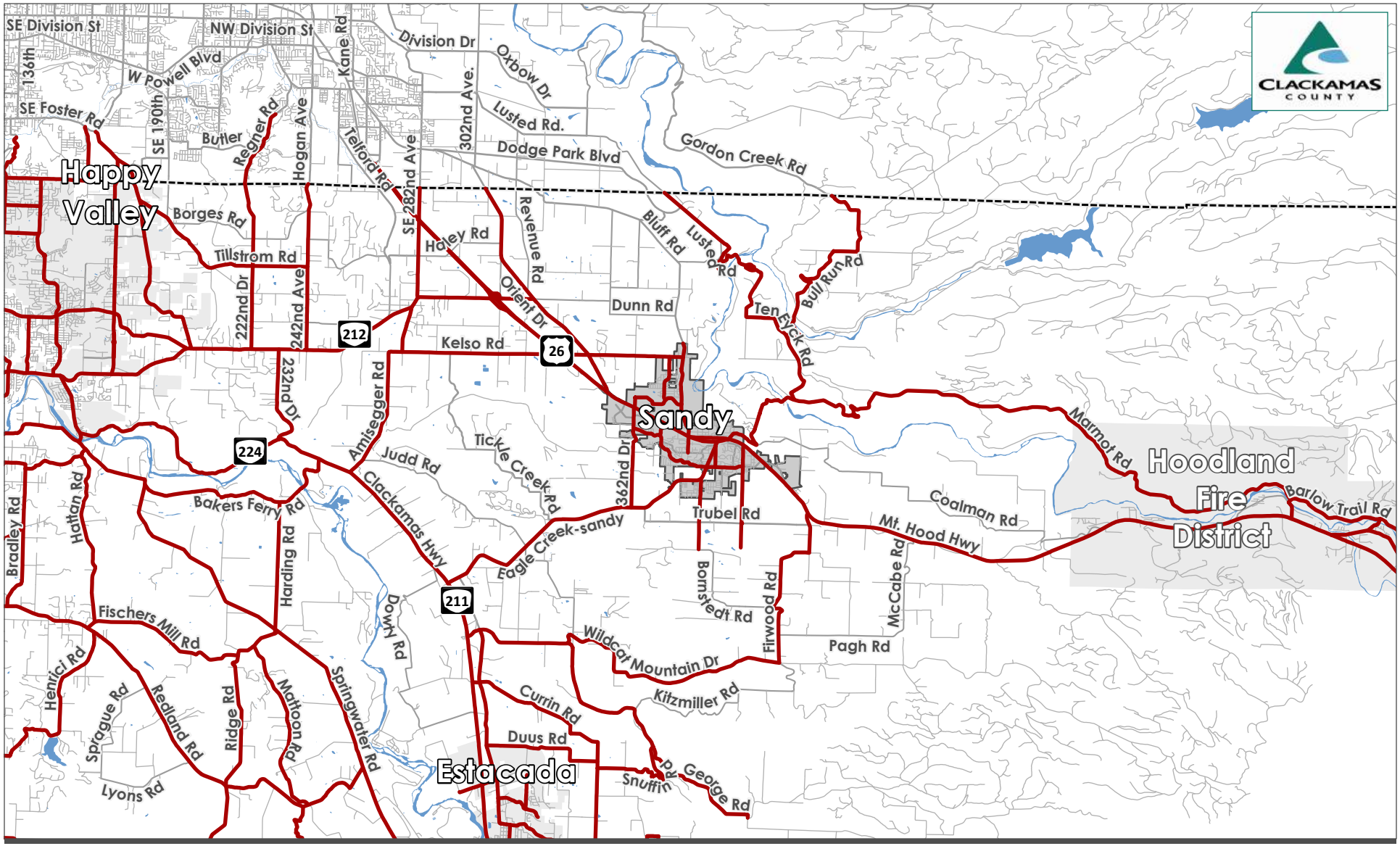

Evacuation Routes
Railroads
City Boundary
County Boundary
Water Bodies

Sandy

Emergency Evacuation Routes

Emergency contact no. : 911
Non- Emergency contact no. :
To access Evacuation Maps, navigate to :
Emergency notifications sign-up :

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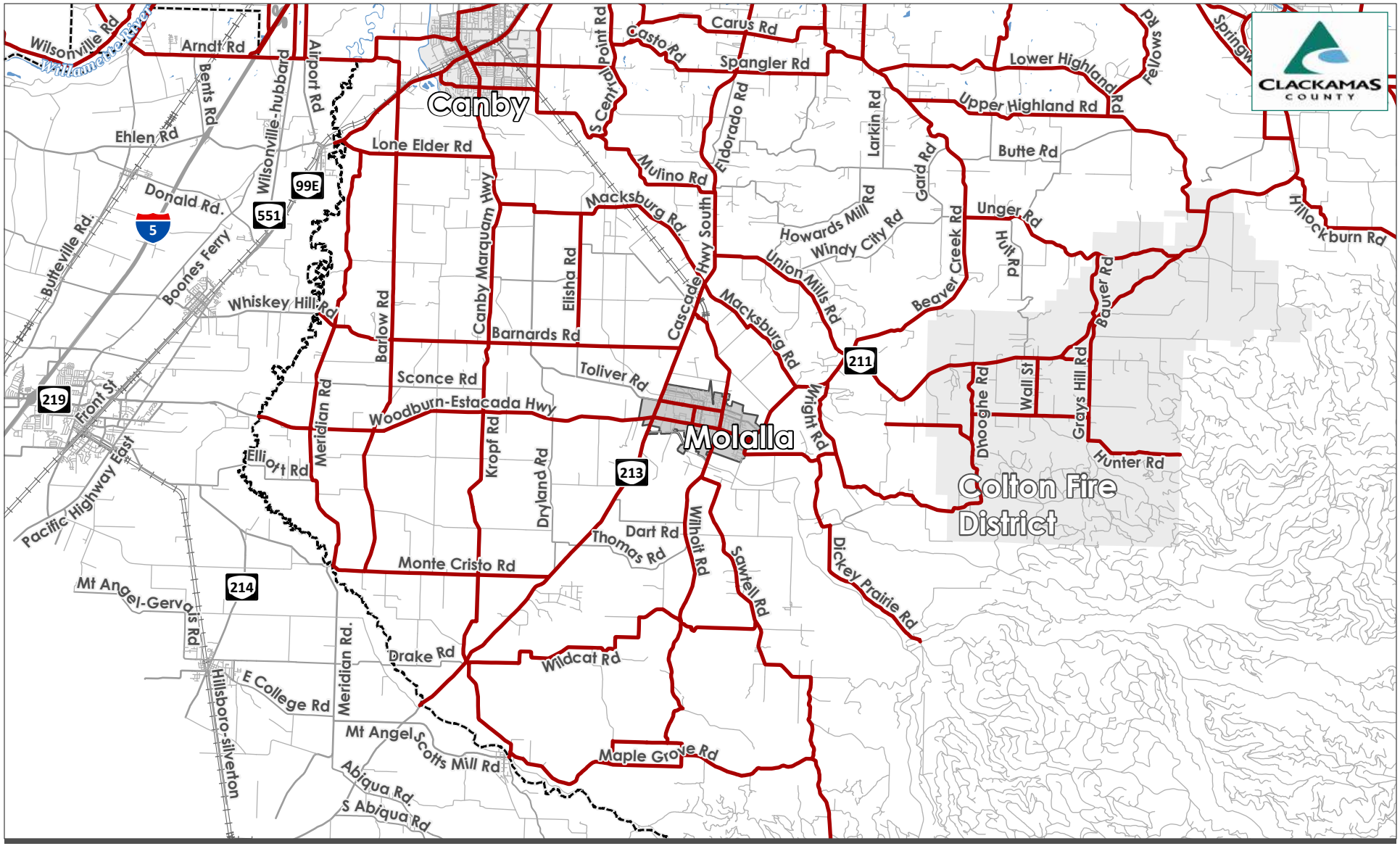

Evacuation Routes
Railroads
City Boundary
County Boundary
Water Bodies

Molalla

Emergency Evacuation Routes

Emergency contact no. : 911
Non- Emergency contact no. :
To access Evacuation Maps, navigate to :
Emergency notifications sign-up :

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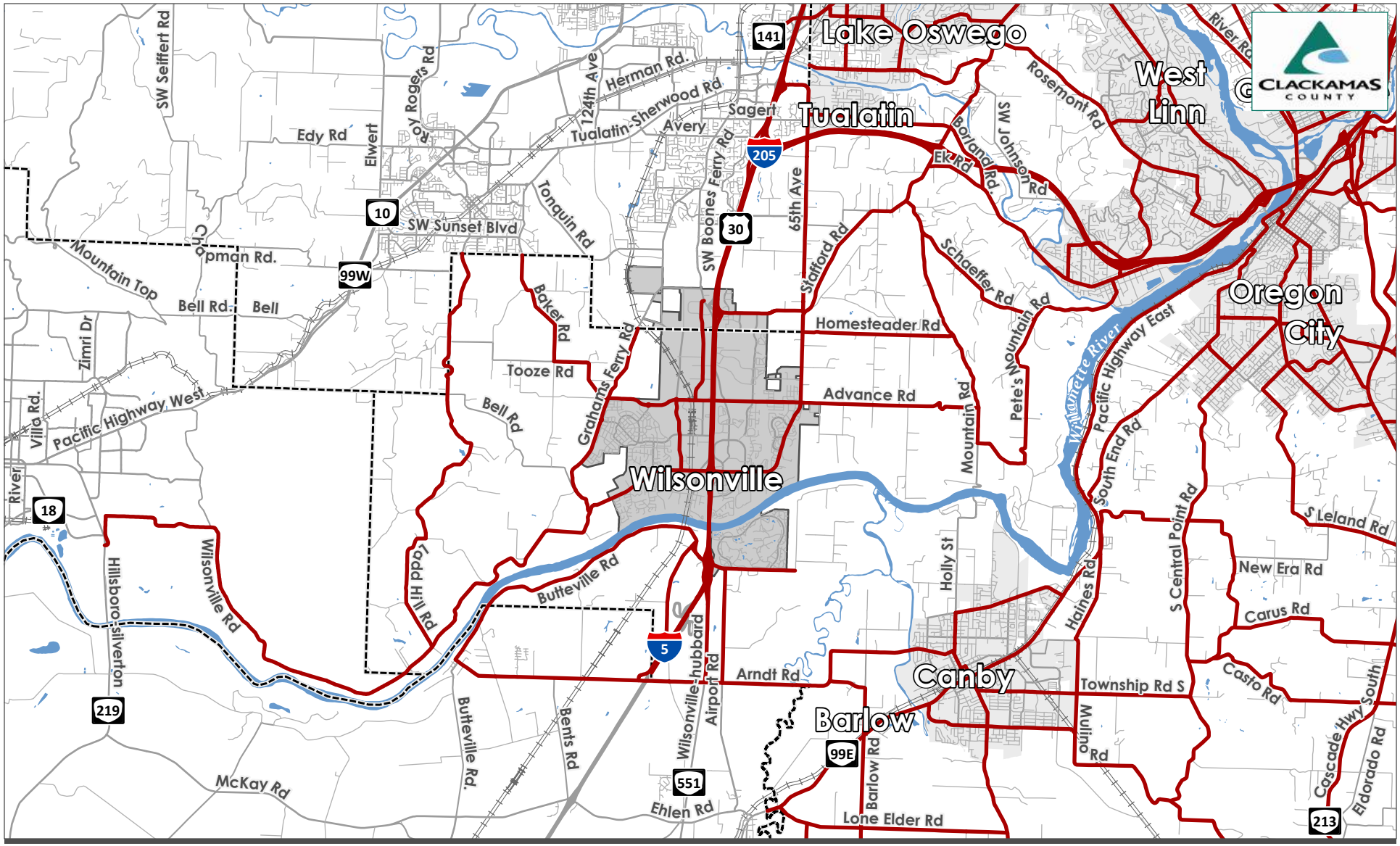

- Evacuation Routes
- Railroads
- City Boundary
- County Boundary
- Water Bodies

Wilsonville

Emergency Evacuation Routes

Emergency contact no. : 911
Non- Emergency contact no. :
To access Evacuation Maps, navigate to :
Emergency notifications sign-up :

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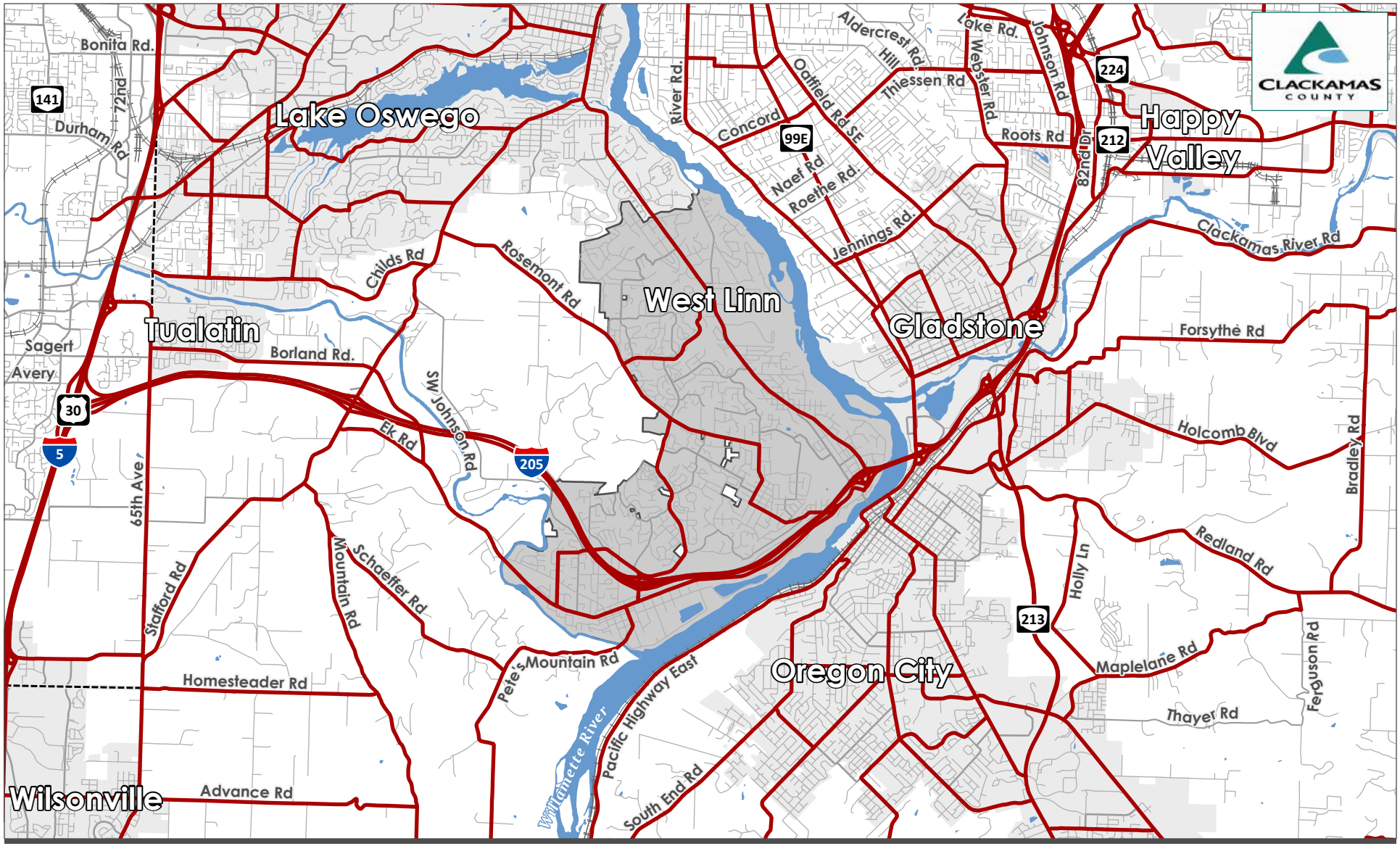

Evacuation Routes
Railroads
City Boundary
County Boundary
Water Bodies

West Linn

Emergency Evacuation Routes

Emergency contact no. : 911
Non- Emergency contact no. : -
To access Evacuation Maps, navigate to : www.westlinnoregon.gov
Emergency notifications sign-up : https://member.everbridge.net/892807736729067/new

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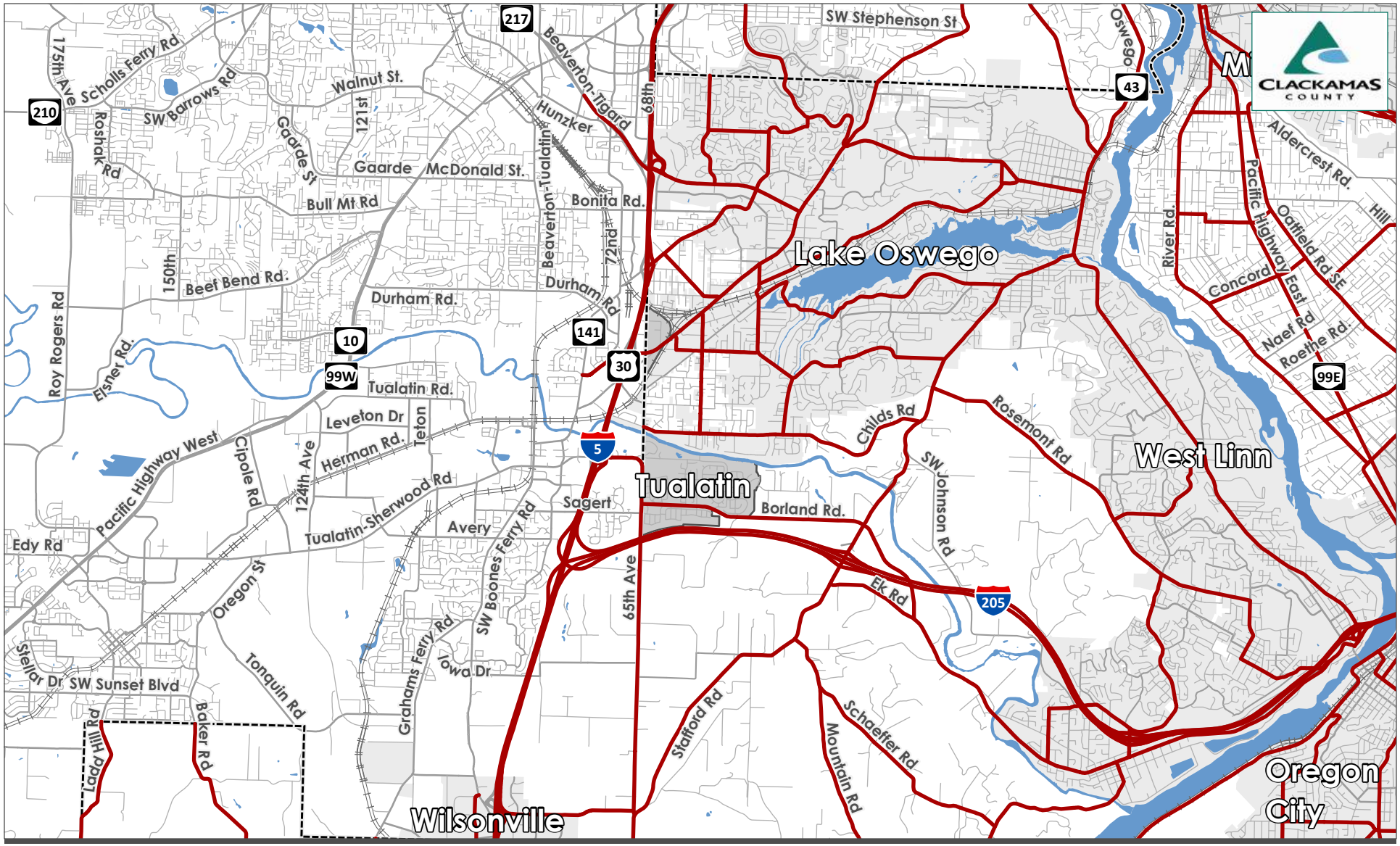

Evacuation Routes
Railroads
City Boundary
County Boundary
Water Bodies

Tualatin

Emergency Evacuation Routes

Emergency contact no. : 911
Non- Emergency contact no. :
To access Evacuation Maps, navigate to :
Emergency notifications sign-up :

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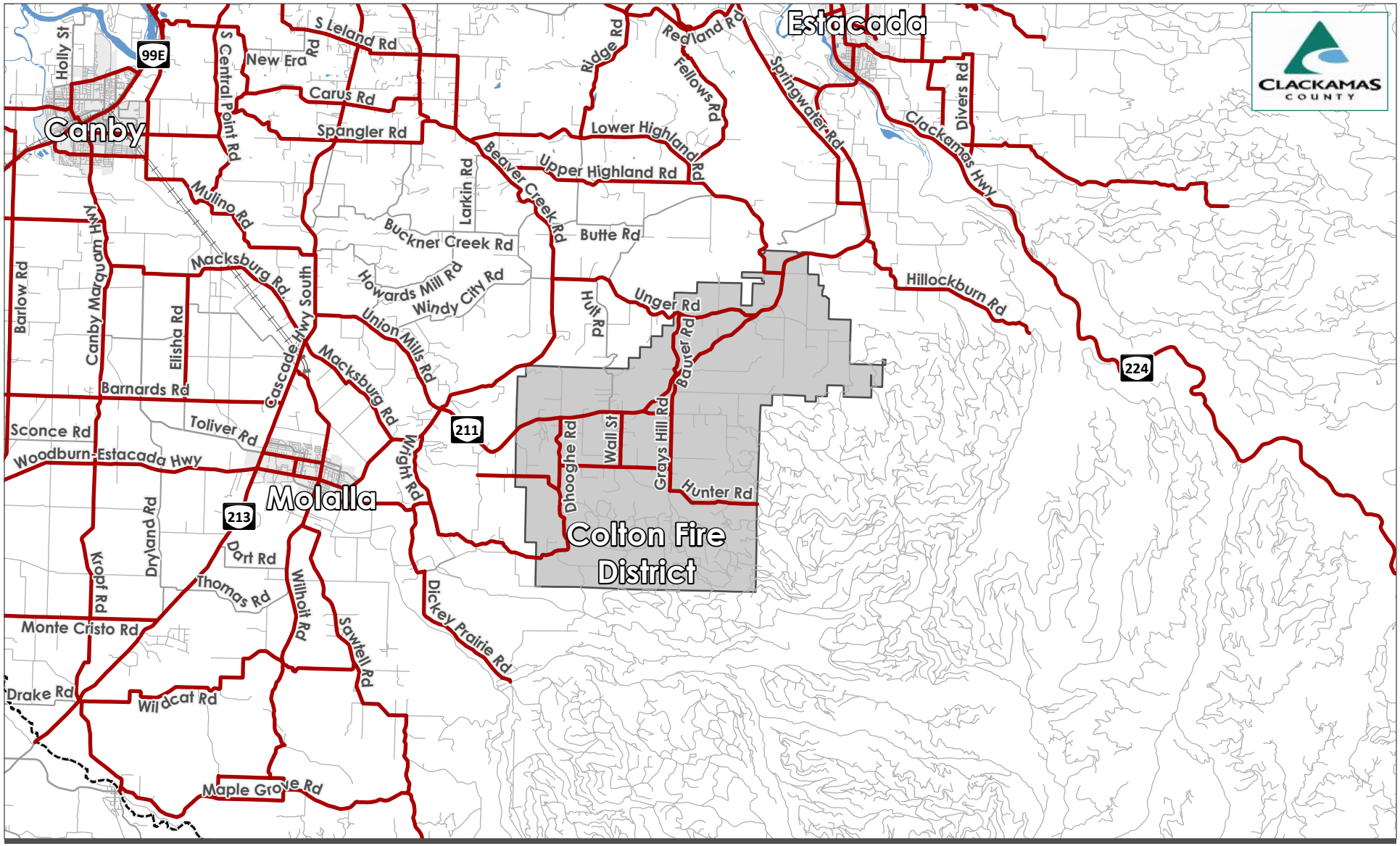

Evacuation Routes
Railroads
District Boundary
County Boundary
Water Bodies

Colton Fire District

Emergency Evacuation Routes

Emergency contact no. : 911
Non- Emergency contact no. : 503-824-2545
To access Evacuation Maps, navigate to : www.coltonfiredistrict.org
Emergency notifications sign-up : -

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