

Regional Emergency Transportation Routes Update

Joint Policy Advisory Committee on Transportation | February 18, 2021

Review of Phase 1 Draft Report



Project Team: RDPO, Metro
Thuy Tu Consulting, LLC, Salus Resilience, Cascade GIS & Consulting, FLO
Analytics



Project Purpose



To update designated
Regional Emergency Transportation Routes
(RETRs) for the five-county region.

- Update 1996 and 2005/2006 ETRs
- Improve understanding of resilience of ETRs
- Raise visibility of ETRs
- Facilitate regional dialogue regarding resilience and recovery

Project Team



Thuy Tu
Thuy Tu Consulting, LLC



Allison Pynch, PE, GE
Salus Resilience



Erica McCormick
Cascade GIS & Consulting



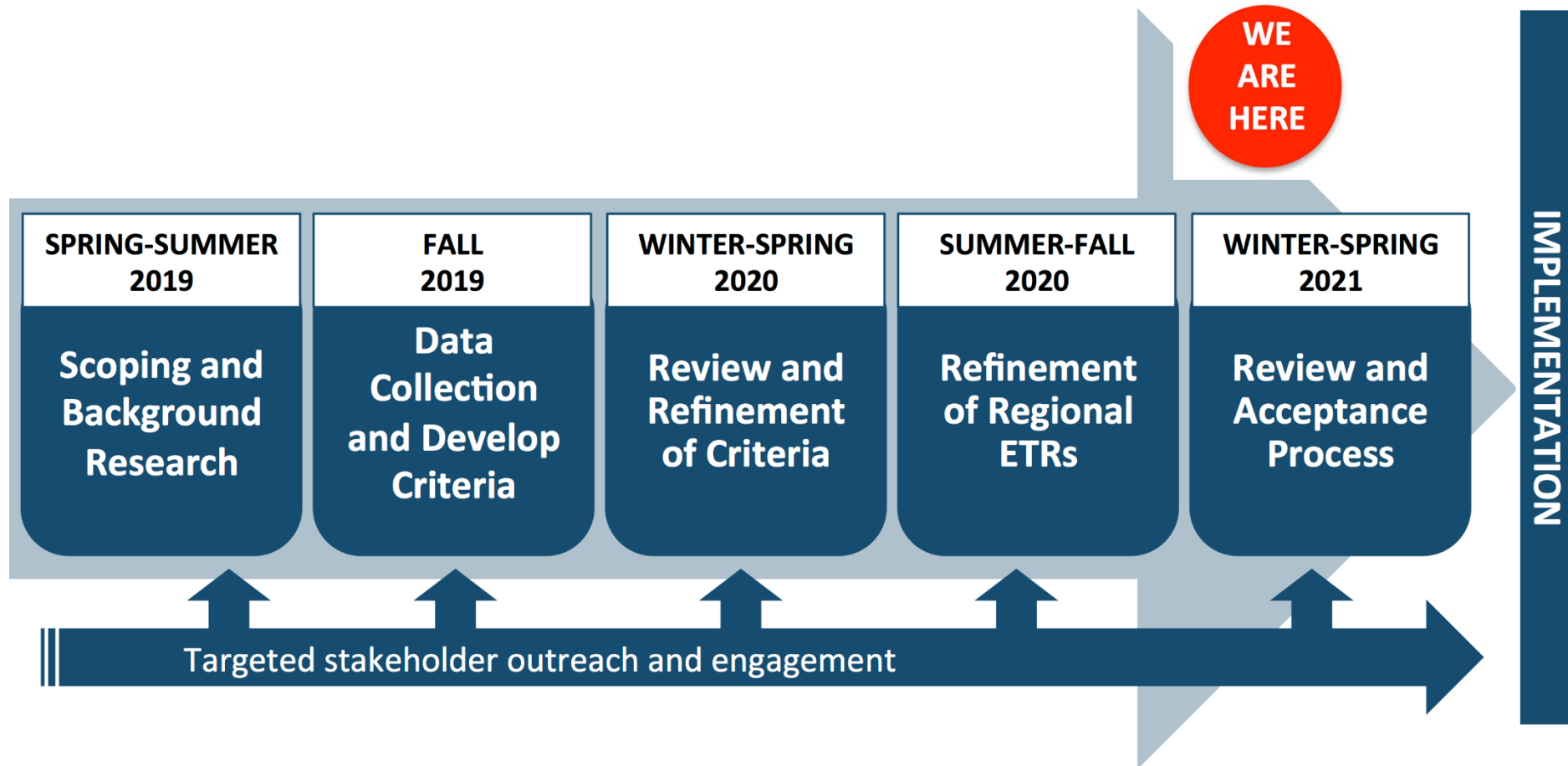
Jed Roberts
FLO Analytics



Regional ETR Update Work Group



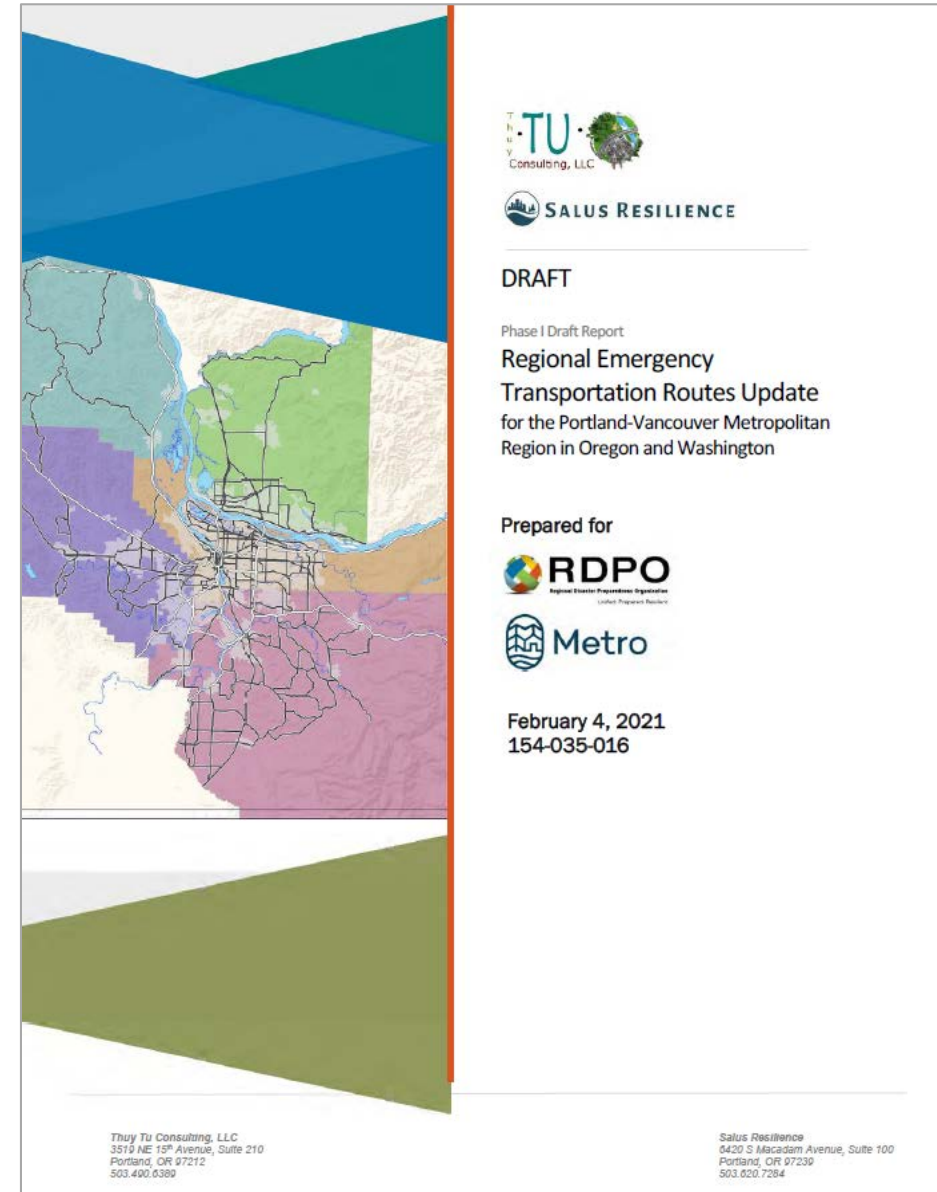
Project Timeline



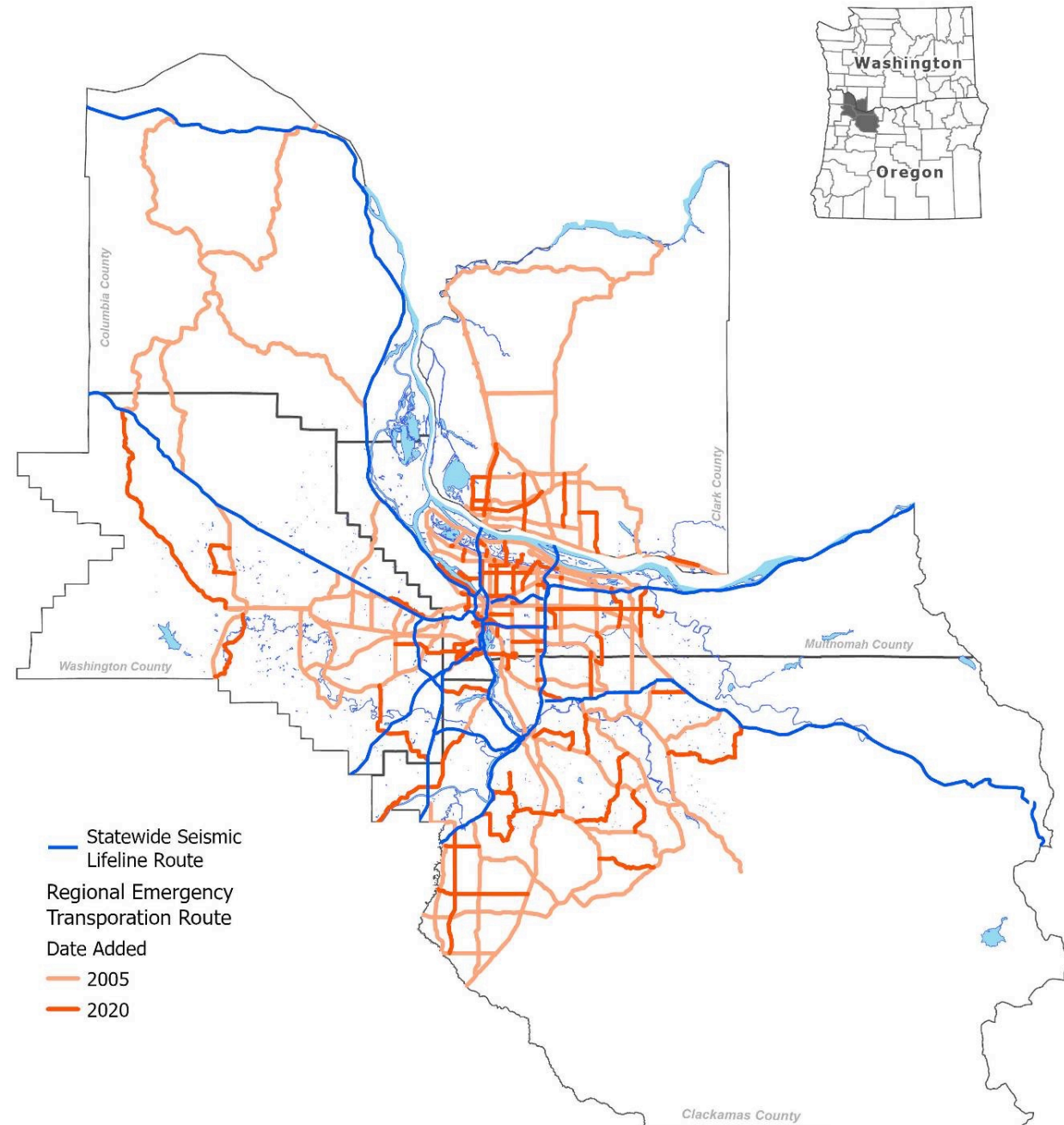
Overview of Draft Final Report

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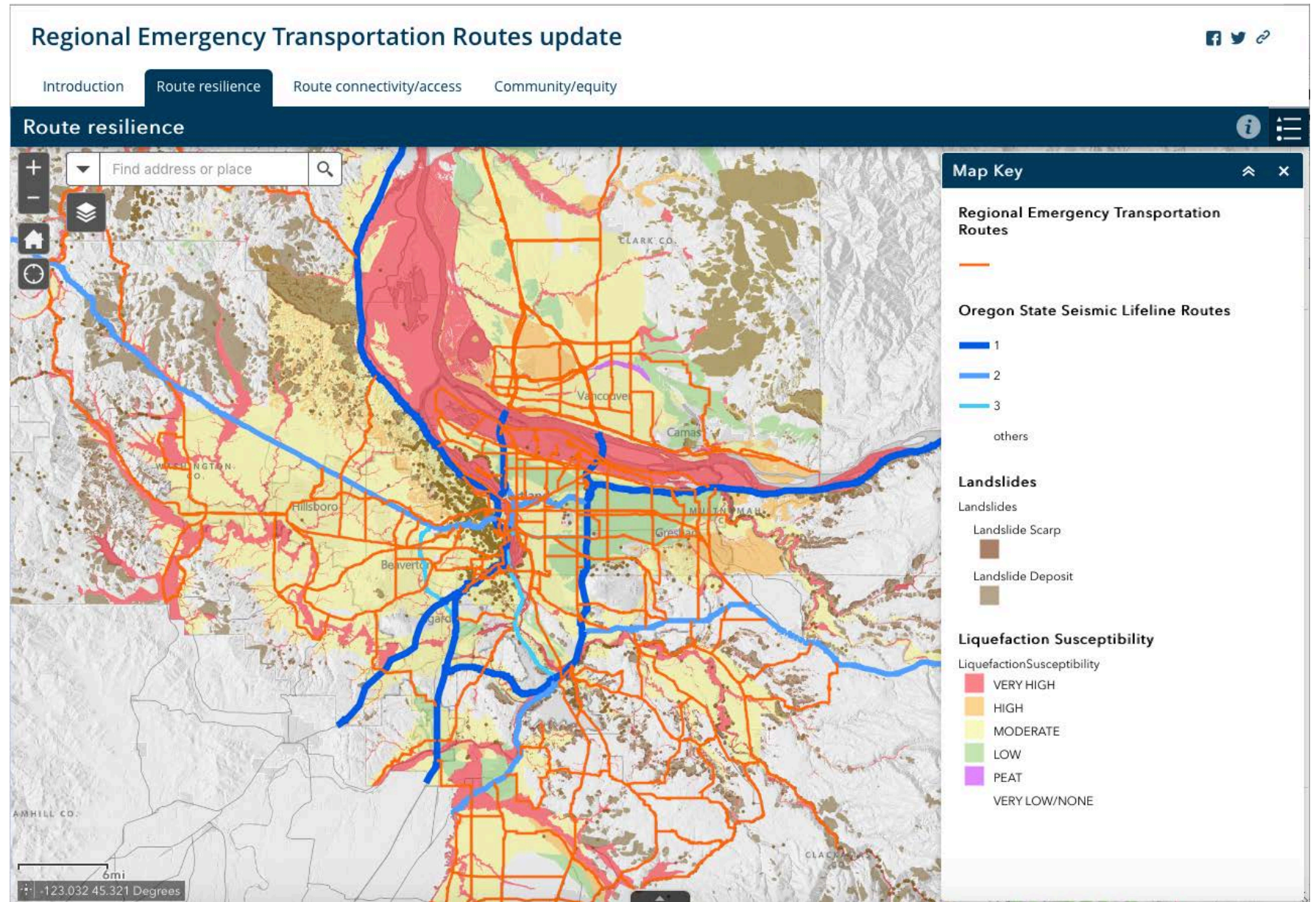


Updated RETRs



On-line viewer

<https://arcg.is/0rWCX5>



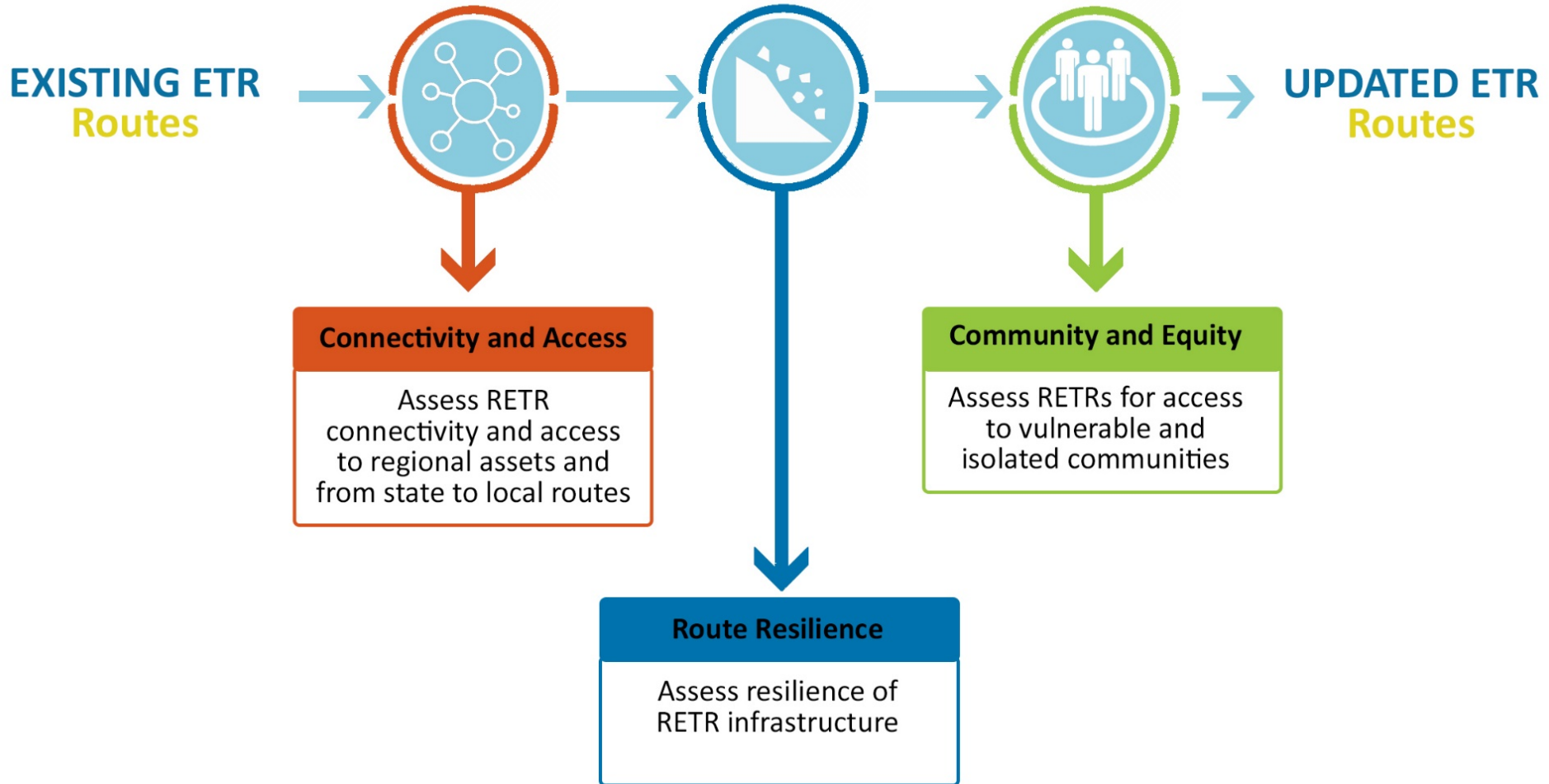
RDPO
Regional Disaster Preparedness Organization

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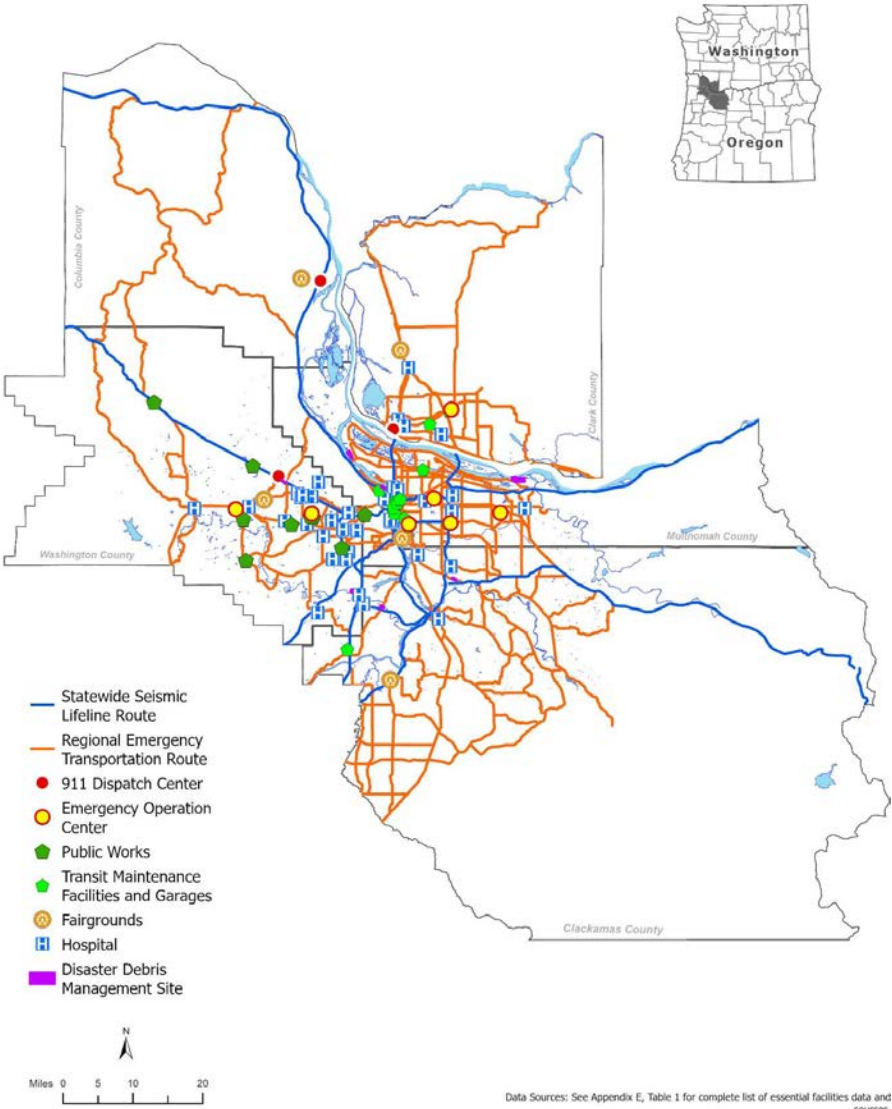
Metro

Factors Applied in RETR Update

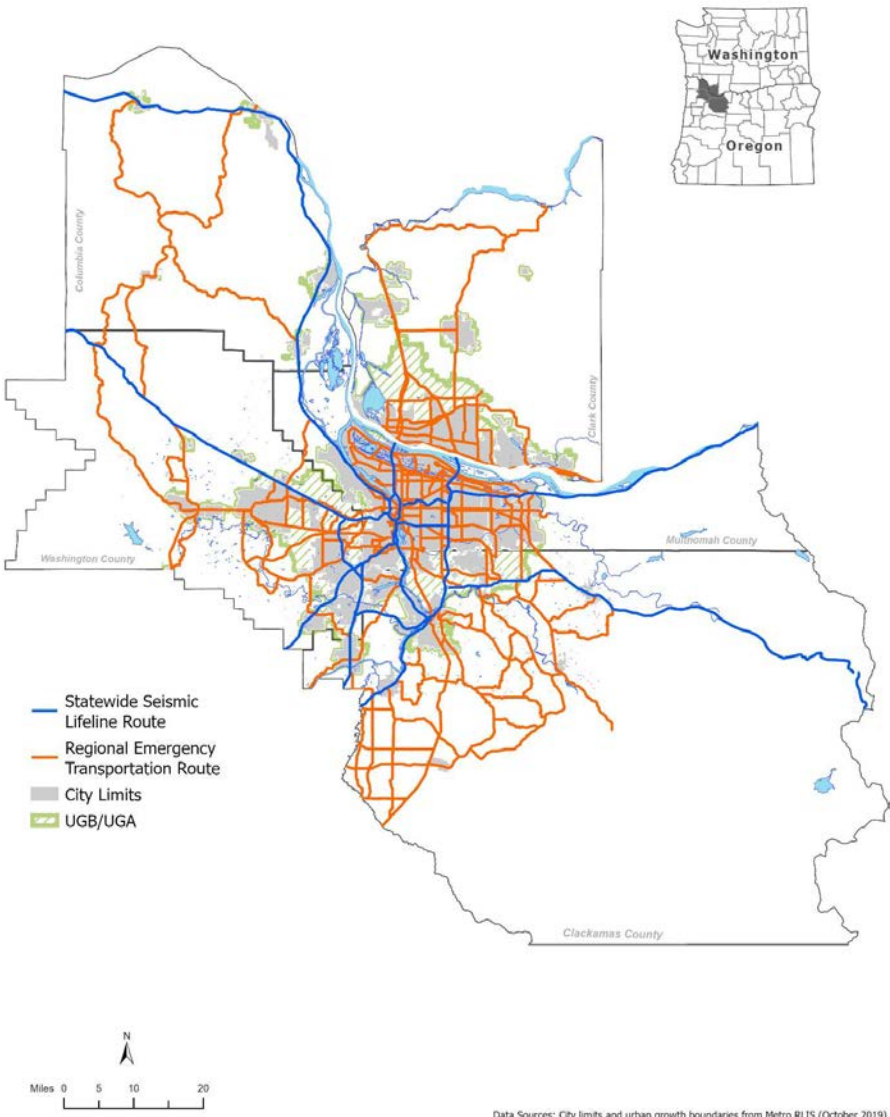


RETR Connectivity

to State/Regional critical infrastructure and essential facilities

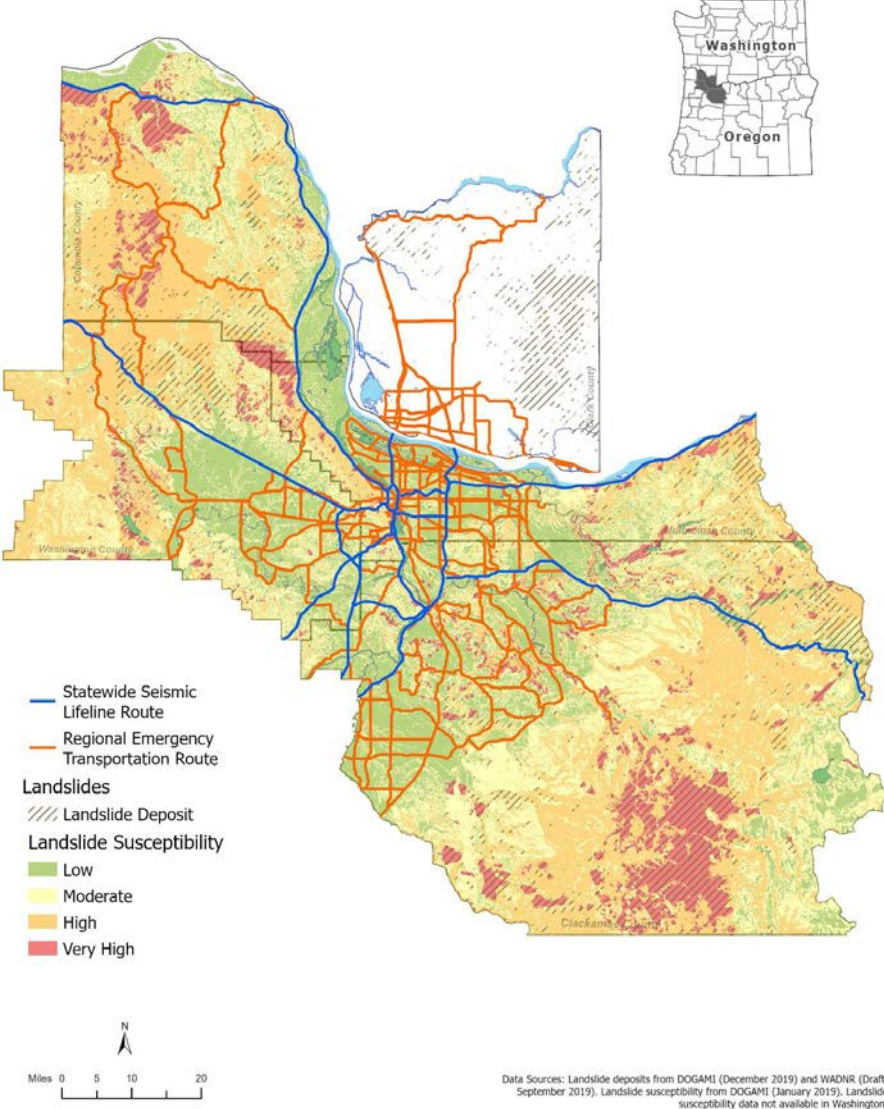
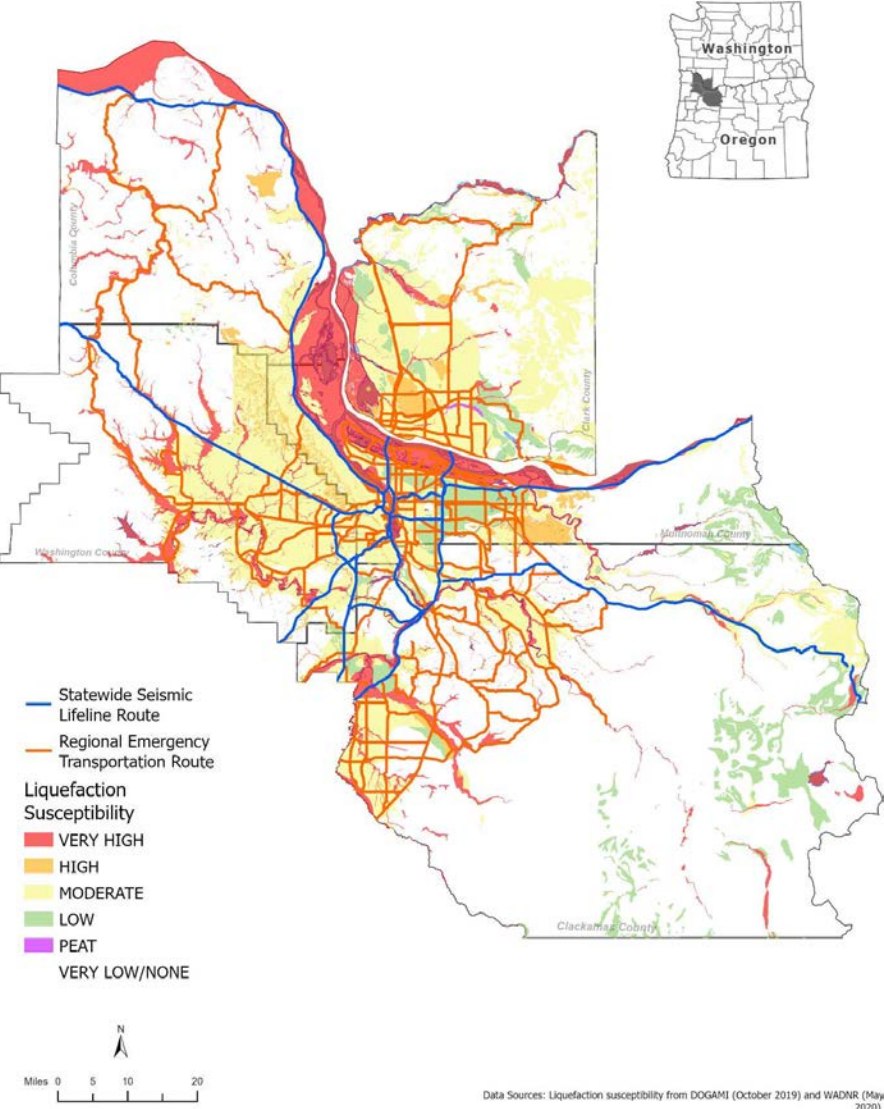


to population centers and urban growth areas



RETR Resilience

Liquefaction and Landslide Hazards

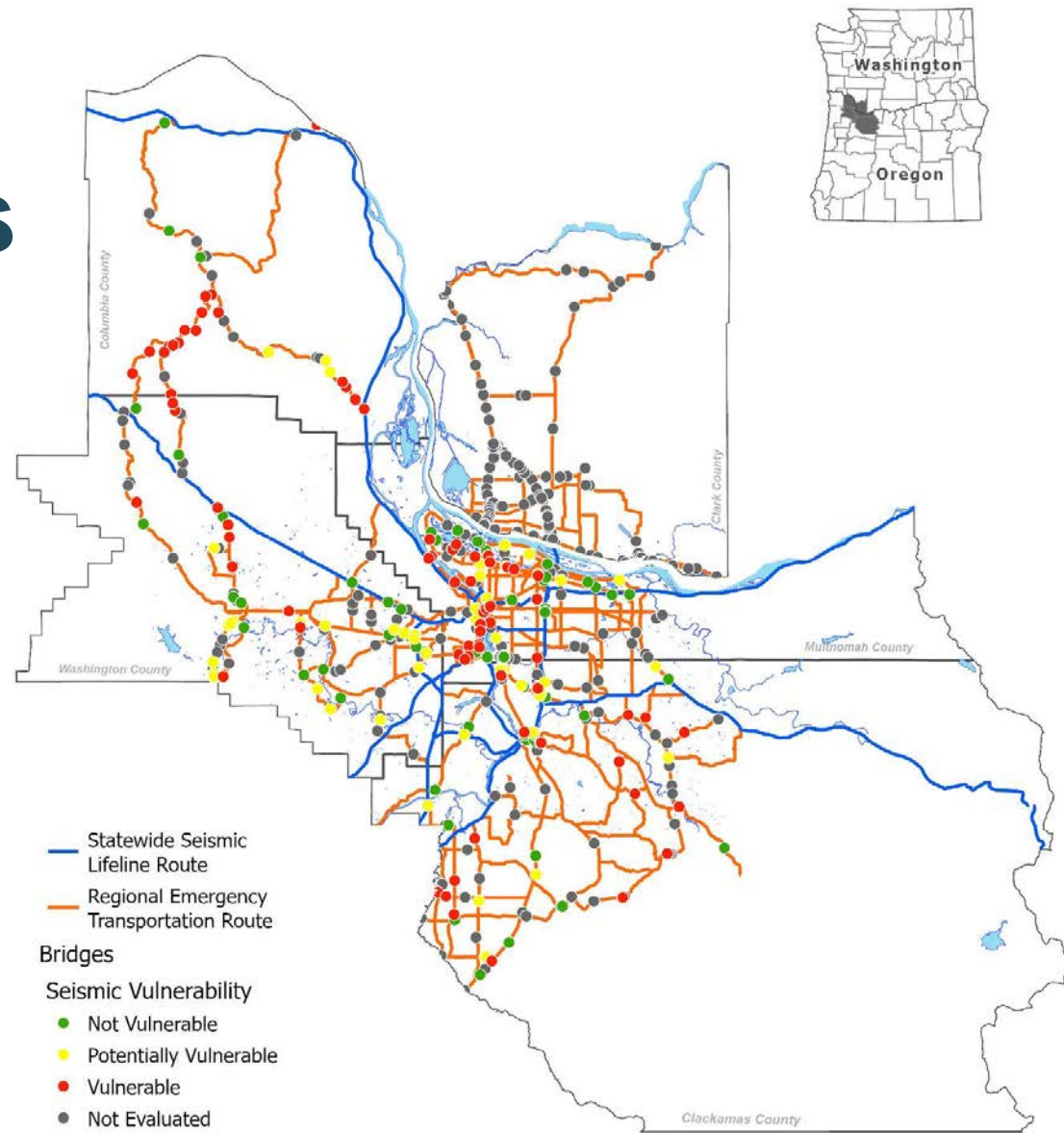


RETR Resilience Vulnerable Bridges

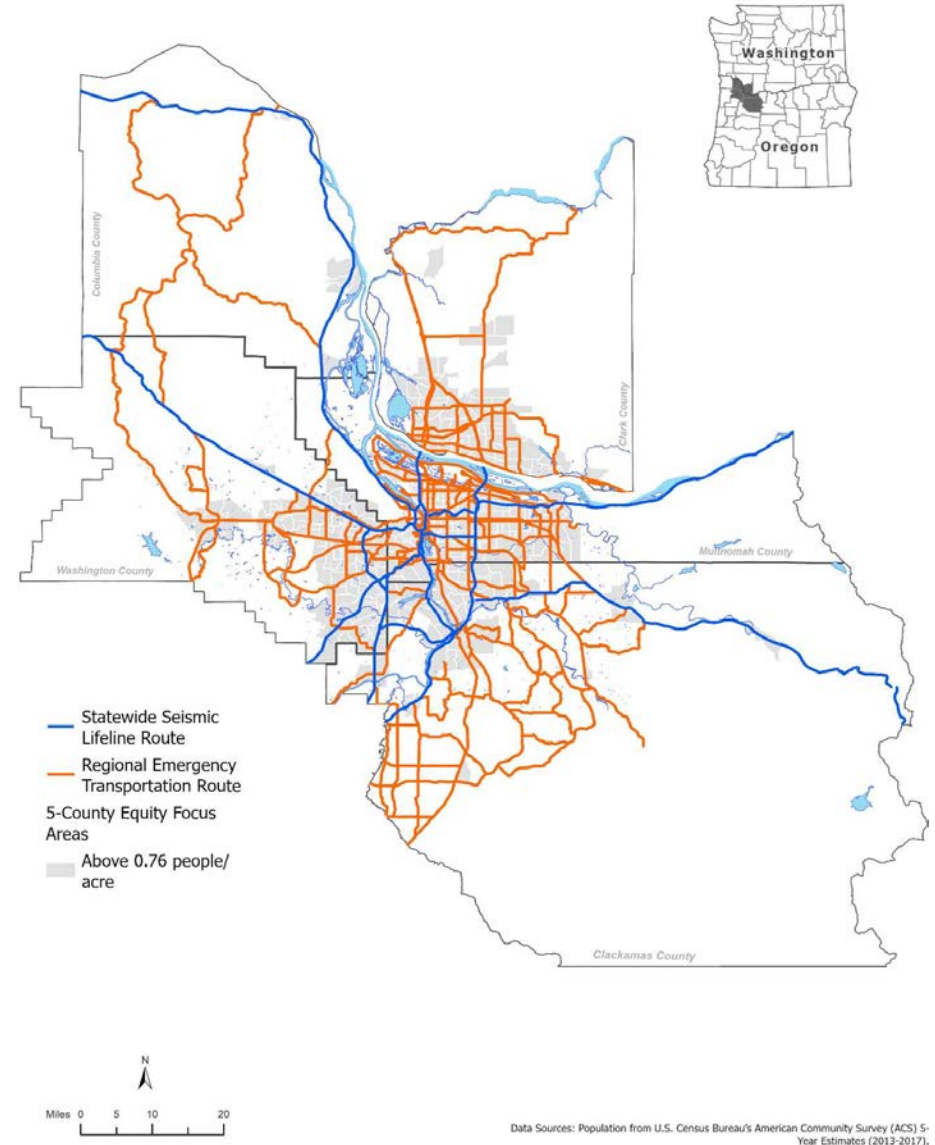
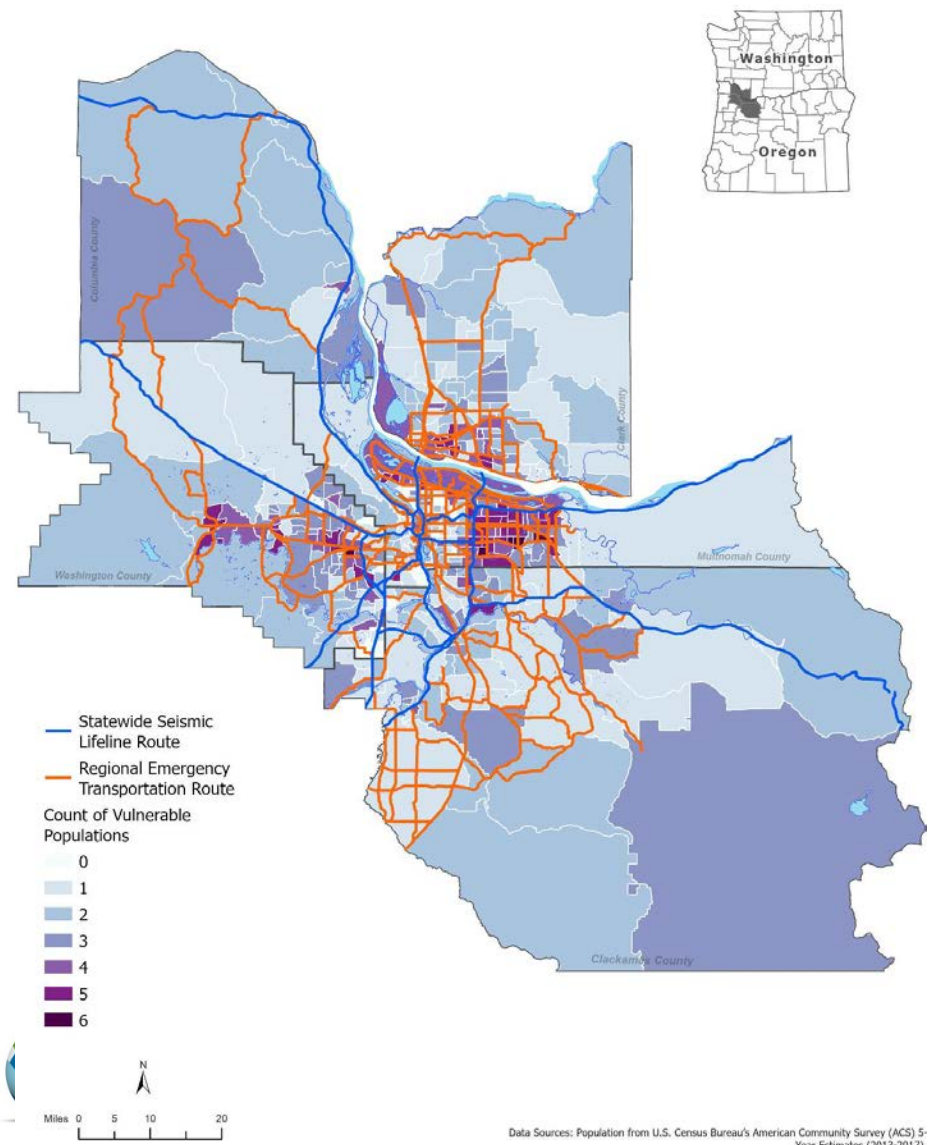
Vulnerable bridges greatly increase risk in region.

Crossings of the Columbia and Willamette rivers are very vulnerable.

Seismic and landslide impacts to roads and bridges will likely hinder connectivity and access during an emergency.



Vulnerable Populations and Equity Focus Areas



Recommendations for Future Work

Recommendation	Level	Lead/Key Partner(s)
1. Integrate regional ETRs into other planning and investment decision-making processes	Regional	Various
2. Prioritize or tier the regional ETRs	Regional	RDPO & Metro (RETR Phase 2)
3. Develop RETR management plans to include: RETR operations in an emergency, evaluation of specific hazard events, maintenance and coordination between jurisdictions and transition to recovery	Local with regional facilitation	Local jurisdictions with facilitation by RDPO & Metro (RETR Phase 2)
4. Better address vulnerable populations	Regional	RDPO & Metro (RETR Phase 2 and Social Vulnerability Tool)
5. Integrate RETR and LETRs into evacuation planning	Local and regional	Various
6. Formalize the RETRs and agree to a plan for consistent updates	Regional	RDPO & Metro (Phase 2)
7. Engineering evaluation of top priority/tier routes for seismic upgrades	Local and regional	TBD
8. Evaluate river routes	Regional/State	Ports, Coast Guard & State Resilience Office
9. Develop equity-centered public messaging for transportation in emergencies	Regional	RDPO Public Messaging Task Force
10. Evaluate bike and pedestrian options for emergency transportation	Local	Various

RETR Update Phase 2 – Tiering and Operationalization of Routes

- **Tiering Methodology and Prioritization Framework**
 - Develop and apply a GIS-based tiering methodology for comparing the different RETR segments
 - Designate which routes should be evaluated, cleared and opened first, next and last, in a catastrophic scenario
- **Operationalization Guidelines and Agreement(s)**
 - Establish facility owner and operator roles and responsibilities and related coordination activities

Next Steps

Feb. 8

Phase 2 Project Proposal submitted

Feb. and March

Broad stakeholder review

April

SW RTC, JPACT and the Metro Council consider action

May

RDPO Policy Committee considers action

Dissemination Webinar

Discussion and feedback

- Comments on the overall report?
- Comments on the recommendations for future work?
- Comments on the draft resolution?

Thank you!

Laura Hanson, RDPO

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Kim Ellis, Metro

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rdpo.net/emergency-transportation-routes

RETR Update Acceptance by Policy Makers

BEFORE THE METRO COUNCIL

FOR THE PURPOSE OF ACCEPTING THE FINDINGS AND RECOMMENDATIONS IN THE REGIONAL EMERGENCY TRANSPORTATION ROUTES UPDATE PHASE ONE REPORT)
RESOLUTION NO. 21-5160
Introduced by Chief Operating Officer
Marissa Madrigal in concurrence with
Council President Lynn Peterson

WHEREAS, our region's infrastructure systems need to be resilient and prepared for multiple natural hazards, which include earthquakes, wildfires, landslides, floods, severe weather and volcanic events, and the increasing impacts of climate change; and

WHEREAS, emergency management planning will help mitigate the risks these hazards pose to the public health and safety of communities and the region's economic prosperity; and

WHEREAS, research and experience demonstrate that climate change and natural hazards have a disproportionate effect on historically marginalized communities, including Black, Indigenous and people of color (BIPOC), people with limited English proficiency, people with low income, youth, seniors, and people with disabilities, who typically have fewer resources and more exposure to environmental hazards, and are, therefore, the most vulnerable to displacement, adverse health effects, job loss, property damage and other effects; and

WHEREAS the Regional Disaster Preparedness Organization (RDPO) was created by intergovernmental agreement in 2015 as a partnership of government agencies, non-governmental organizations, and private-sector stakeholders in the Portland-Vancouver metropolitan region collaborating to build upon and unify various regional preparedness efforts and increase the region's resilience to disasters; and

WHEREAS, as a member of the RDPO Metro plays an important role in transportation and emergency management planning related to regional functions, such as data and mapping, disaster debris management and emergency transportation route designations to improve disaster response coordination and help reduce loss of life, injury and property damage during disasters; and

WHEREAS, the Regional Emergency Transportation Routes (ETR) Update is a joint planning effort between the Regional Disaster Preparedness Organization (RDPO) and Metro, exemplifying regional collaboration and coordination to prepare for disasters that affect the transportation system; and

WHEREAS, the 2018 Regional Transportation Plan (RTP) identified the need for an update to the region's designated regional emergency transportation routes to support future planning and investment related to regional emergency management, transportation recovery and resiliency; and

WHEREAS, Regional ETRs were first designated within the Metro jurisdictional boundary in 1996 by the Regional Emergency Management Group (REMIG) at the recommendation of the Regional Emergency Transportation Route Task Force facilitated by Metro, as priority routes targeted for rapid damage assessment and debris removal during a major regional emergency or disaster and used to transport emergency resources and materials, including first responders (e.g., police, fire and emergency medical services), essential supplies, debris, equipment, patients and personnel; and

WHEREAS, the Regional ETRs were last updated in 2005 and a Memorandum of Understanding was signed by local jurisdictions, the Port of Portland and the Oregon and Washington Departments of Transportation that formalized commitments for assessing and reporting the status and condition of

identified emergency transportation routes following an earthquake and coordinating activities under emergency conditions in relation to those routes; and

WHEREAS, since 2005, the region has experienced significant growth and demographic changes, and new technology, data and mapping have greatly expanded understanding of current hazard risks in the region, particularly seismic, wildfire, landslide, and flooding risks; and

WHEREAS, the RDPO ETR work group, a multi-disciplinary team of more than 30 local, regional, and state emergency management, transportation planning, engineering, operations and public works staff from 17 agencies within the five counties, supported the Phase 1 planning effort, including development of recommendations for future planning work; and

WHEREAS, the geographic scope of the planning effort was the five-county Portland-Vancouver metropolitan area, including Clark County in the state of Washington, and Columbia, Clackamas, Multnomah and Washington counties in the state of Oregon; and

WHEREAS, RDPO and Metro staff coordinated and consulted with cities, counties and agencies throughout the process to address specific needs of each agency or jurisdiction and facilitate collaboration and coordination among the agencies and jurisdictions, including: transportation, emergency management, and public works departments of each of the five counties and the City of Portland, the Oregon Department of Transportation (ODOT), the Washington Department of Transportation (WSDOT), the Oregon Department of Geologic and Mineral Industries (DOGAMI), transit providers, port districts, and cities within each of the five counties; and

WHEREAS, updates to the Regional ETRs incorporate changes recommended by the City of Portland, Clackamas, Columbia, Multnomah and Washington counties and ODOT through recent work that evaluated seismic risks along Statewide Seismic Lifeline Routes (SSLRs) identified in the Oregon Highway Plan; and

WHEREAS, agencies and jurisdictions recommended additional updates to the Regional ETRs and critical infrastructure and essential facilities to be included in the analysis through a series of consultation meetings convened by RDPO and Metro in Fall 2020; and

WHEREAS, the Regional Emergency Transportation Routes Update Report identifies a network of 193 local and state-owned route segments in the region that should be designated as Regional ETRs, and summarizes key findings about the resilience and connectivity of these routes and recommendations for future planning work, including a second planning phase to tier and operationalize the routes; and

WHEREAS, the analysis found many of the Regional ETRs and their bridges are vulnerable to significant seismic and other hazard risks, such as flooding, landslides and liquefaction; and

WHEREAS, the analysis found the network of Regional ETRs provide adequate connectivity and access to the SSLRs as well as the region's population centers, isolated populations, areas with high concentrations of vulnerable populations, and critical infrastructure and essential facilities of state and regional importance; and

WHEREAS, the report was developed in collaboration with the ETR work group and reflects input from regional committees and elected bodies, such as the Transportation Policy Alternatives Committee (TPAC), the Metro Technical Advisory Committee (MTAC), the Regional Transportation Advisory Committee (RTAC), the County Coordinating Committees, Southwest Washington Regional Transportation Council (SW RTC), the Joint Policy Advisory Committee on Transportation (JPACT), the Metro Council, and the RDPO Steering and Policy Committees and work groups, including the RDPO emergency management work group; and

WHEREAS, by accepting the report and updated routes, the Metro Council hereby recognizes all routes designated in the report are of state and regional importance during an emergency; and

WHEREAS, by accepting the report and updated routes, the Metro Council further recognizes the value in using the findings and recommendations in this report to inform the recommended second phase of work and ongoing local, regional and state efforts to improve the region's resilience and to develop funding strategies to make these routes more resilient; now therefore,

BE IT RESOLVED THAT:

1. The Metro Council hereby accepts:
 - a. the updated Regional ETRs for the metropolitan planning area (MPA) boundary, as shown in the attached Exhibit A;
 - b. the updated Regional ETRs for the five-county Portland-Vancouver region, as shown in the attached Exhibit B; and
 - c. the findings and recommendations in the Regional Emergency Transportation Routes Update Phase 1 Report, as shown in the attached Exhibit C.
2. The Metro Council hereby directs staff to use the updated Regional ETR maps and report to inform planning, policy and investment priorities in the 2023 Regional Transportation Plan update and ongoing efforts to improve the region's resilience and to develop funding strategies to make these routes more resilient.

ADOPTED by the Metro Council this _____ day of _____, 2021.

Lynn Peterson, Council President

Approved as to Form:

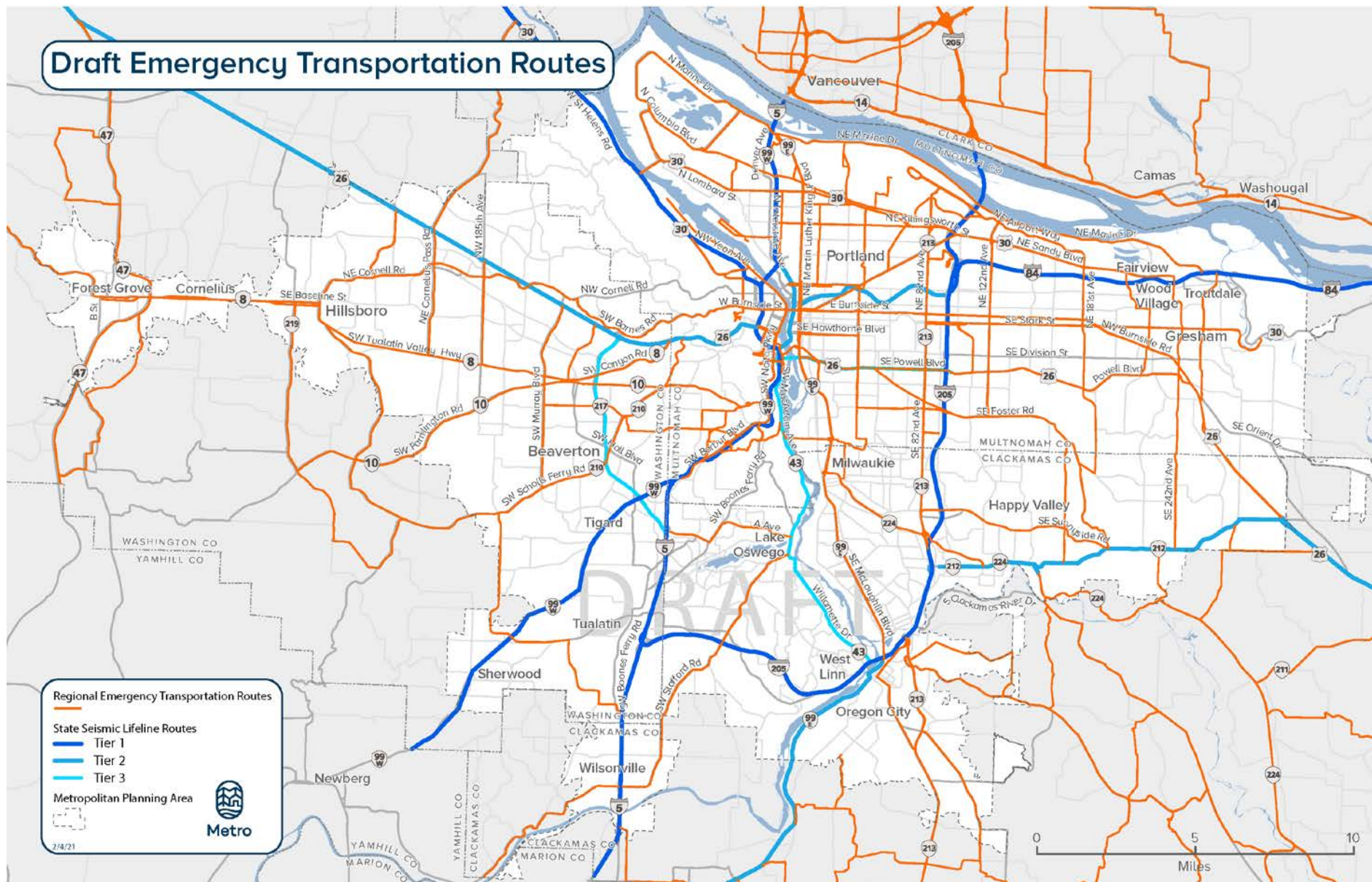
Carrie MacLaren, Metro Attorney

DRAFT LANGUAGE (1 of 2)



BE IT RESOLVED

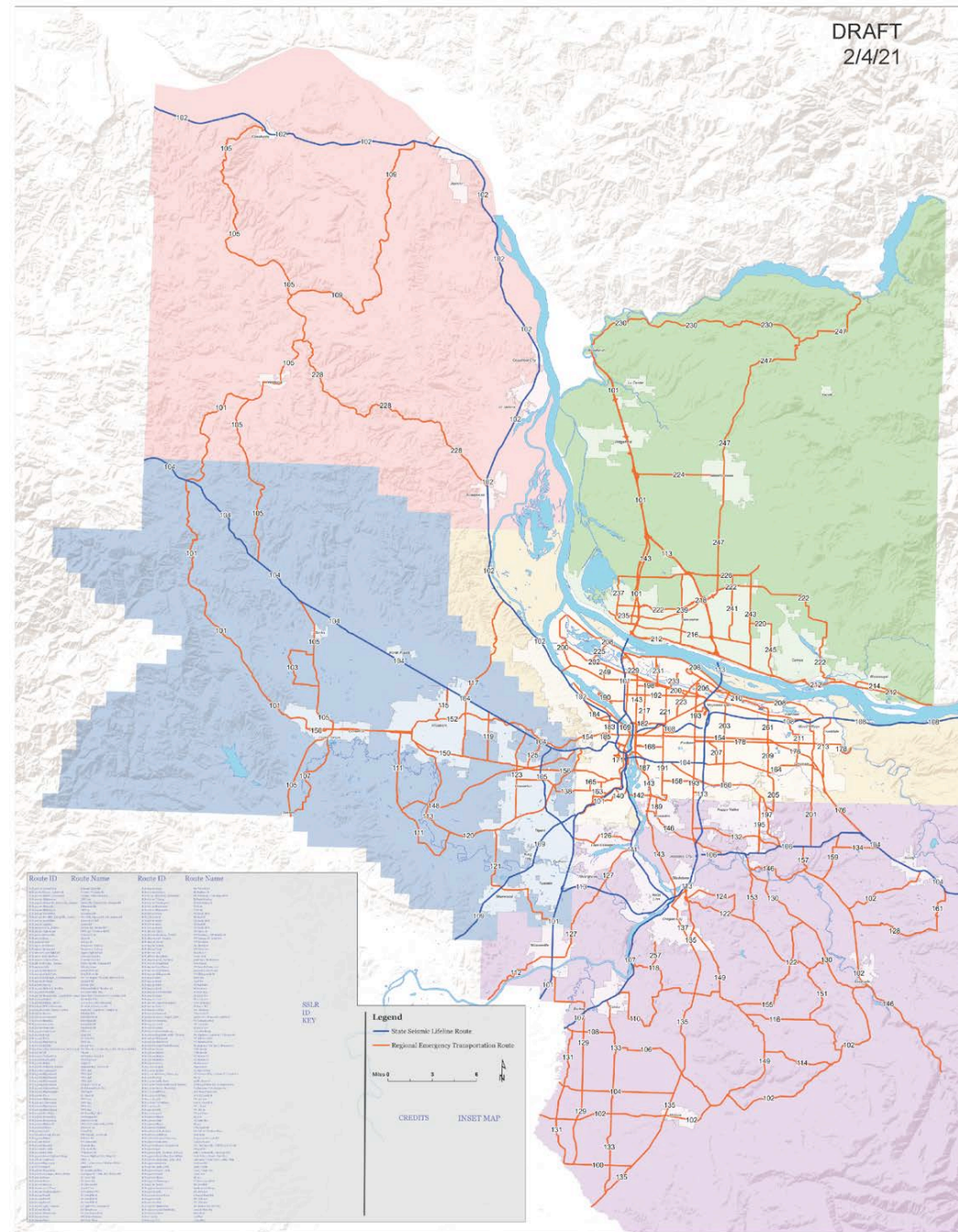
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 - the findings and recommendations in the Regional Emergency Transportation Routes Update Phase 1 Report, as shown in the attached Exhibit C.

Draft Exhibit A



Draft Exhibit B

-  Statewide Seismic Lifeline Route
 Regional Emergency Transportation Route



DRAFT LANGUAGE (2 of 2)

BE IT RESOLVED

- That the Metro Council hereby directs staff to use the updated Regional ETR maps and report to:
 - inform planning, policy and investment priorities in the 2023 Regional Transportation Plan update and ongoing efforts to improve the region's resilience, and
 - to develop funding strategies to make these routes more resilient.

Draft County-Level Maps



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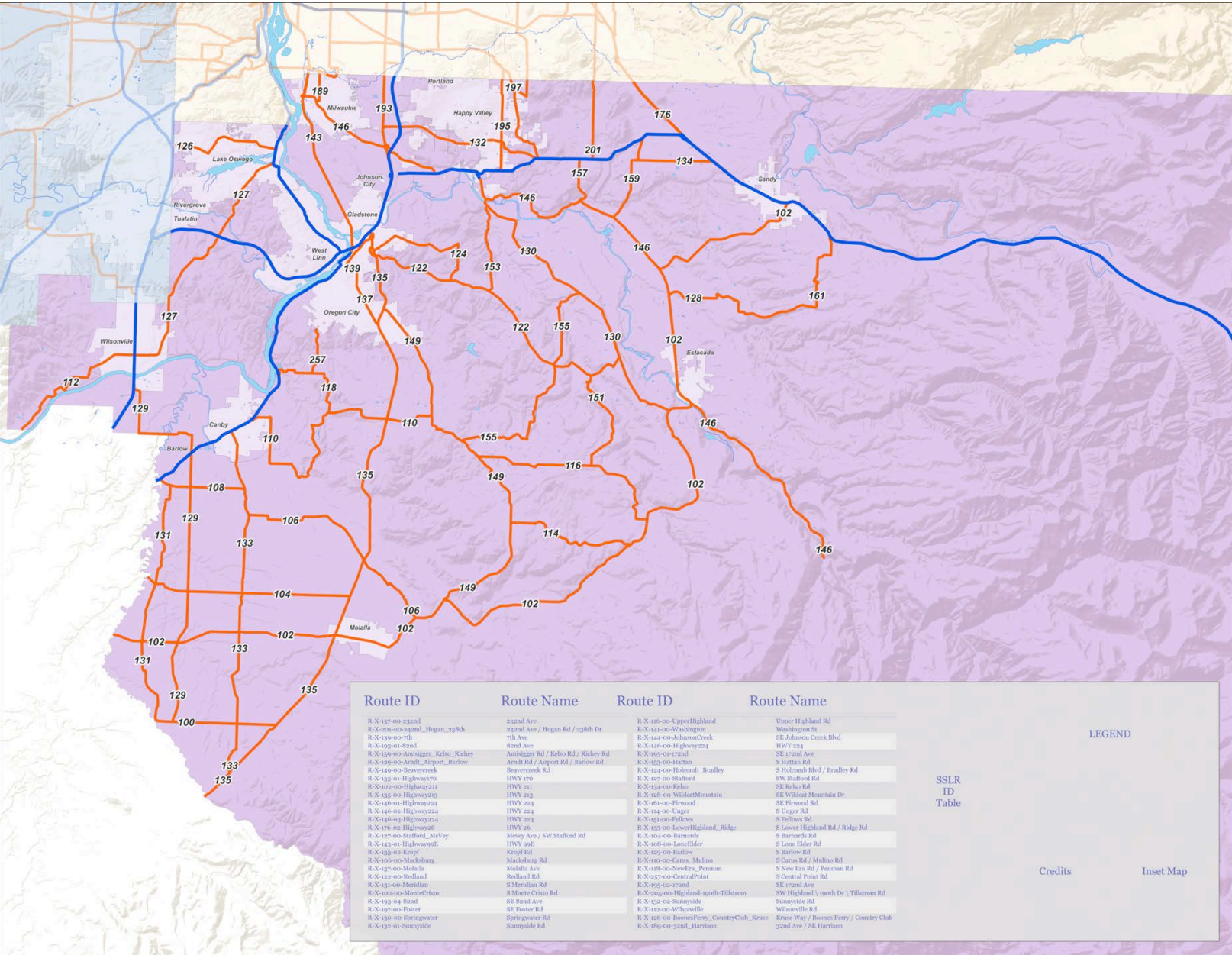
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Draft Clackamas County Map

- Statewide Seismic Lifeline Route
- Regional Emergency Transportation Route



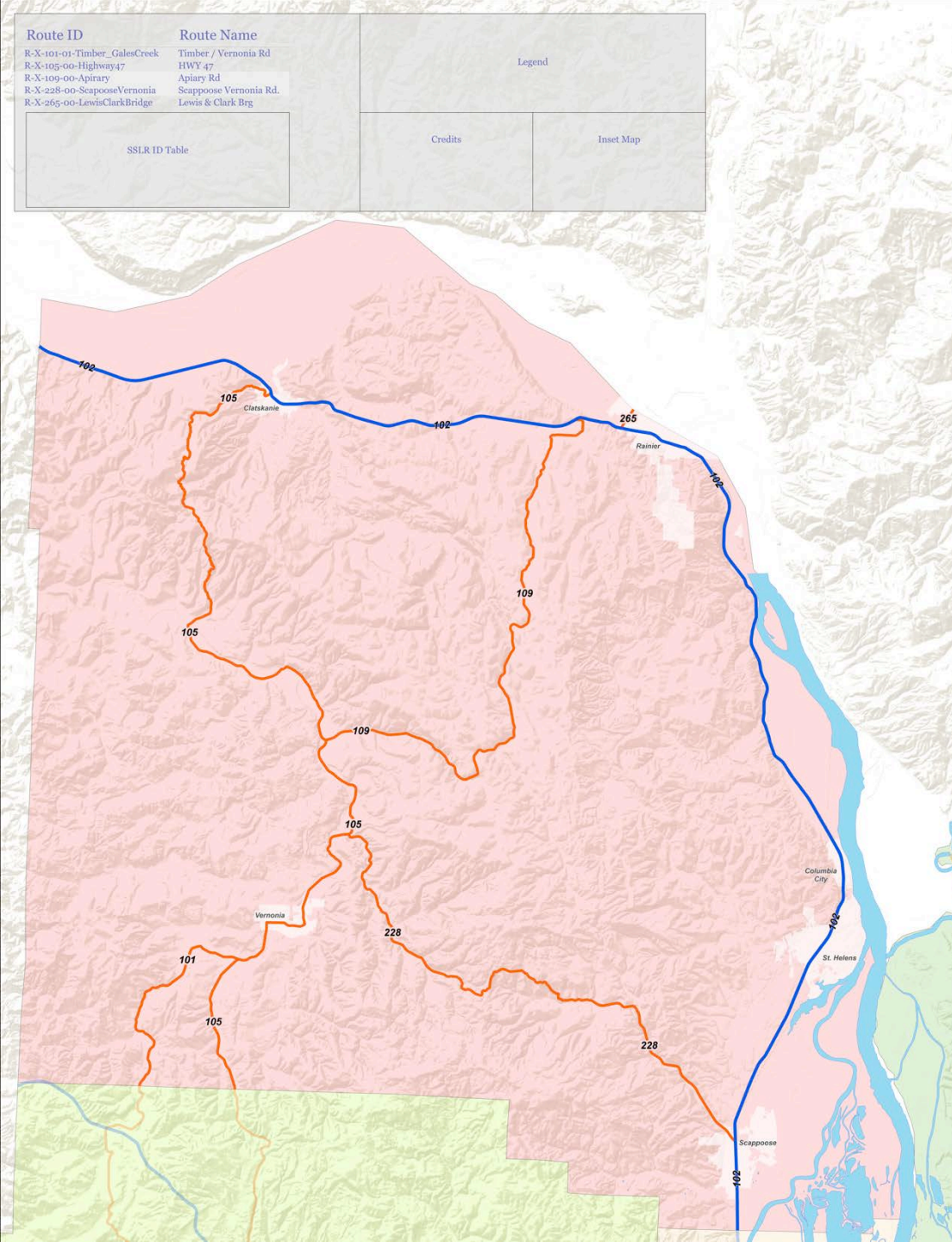
Draft Clark County Map

- Statewide Seismic Lifeline Route
- Regional Emergency Transportation Route



Draft Columbia County Map

- Statewide Seismic Lifeline Route
- Regional Emergency Transportation Route



Legend

- Existing Routes
- New or Modified Routes
- Proposed Routes

Route ID	Route Name	Route ID	Route Name	Route ID	Route Name
101	US Highway 101	102	US Highway 102	103	US Highway 103
104	US Highway 104	105	US Highway 105	106	US Highway 106
107	US Highway 107	108	US Highway 108	109	US Highway 109
110	US Highway 110	111	US Highway 111	112	US Highway 112
113	US Highway 113	114	US Highway 114	115	US Highway 115
116	US Highway 116	117	US Highway 117	118	US Highway 118
119	US Highway 119	120	US Highway 120	121	US Highway 121
122	US Highway 122	123	US Highway 123	124	US Highway 124
125	US Highway 125	126	US Highway 126	127	US Highway 127
128	US Highway 128	129	US Highway 129	130	US Highway 130
131	US Highway 131	132	US Highway 132	133	US Highway 133
134	US Highway 134	135	US Highway 135	136	US Highway 136
137	US Highway 137	138	US Highway 138	139	US Highway 139
140	US Highway 140	141	US Highway 141	142	US Highway 142
143	US Highway 143	144	US Highway 144	145	US Highway 145
146	US Highway 146	147	US Highway 147	148	US Highway 148
149	US Highway 149	150	US Highway 150	151	US Highway 151
152	US Highway 152	153	US Highway 153	154	US Highway 154
155	US Highway 155	156	US Highway 156	157	US Highway 157
158	US Highway 158	159	US Highway 159	160	US Highway 160
161	US Highway 161	162	US Highway 162	163	US Highway 163
164	US Highway 164	165	US Highway 165	166	US Highway 166
167	US Highway 167	168	US Highway 168	169	US Highway 169
170	US Highway 170	171	US Highway 171	172	US Highway 172
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263	US Highway 263	264	US Highway 264	265	US Highway 265

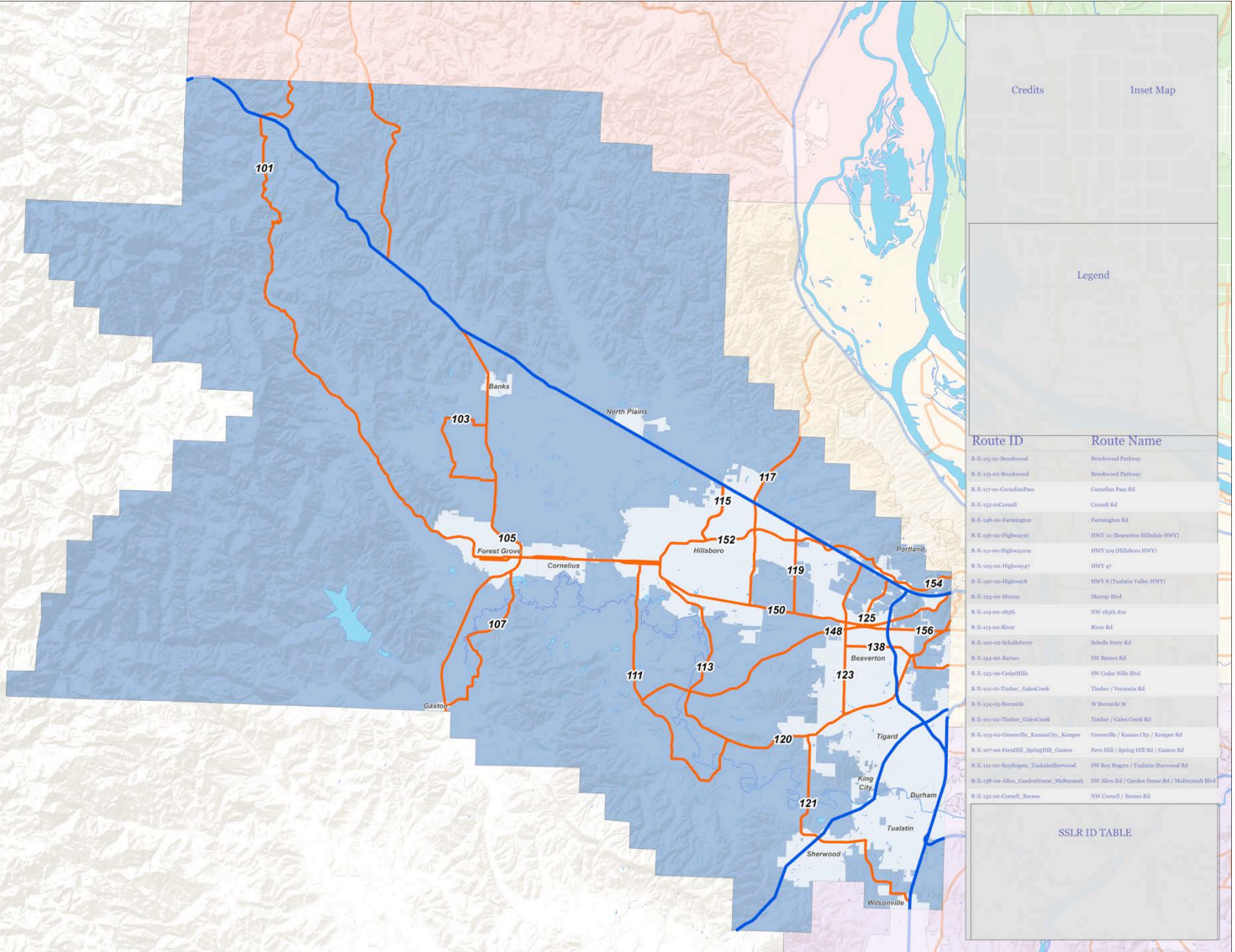


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Draft Washington County Map

- Statewide Seismic Lifeline Route
- Regional Emergency Transportation Route



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