

Memo

Date: February 8, 2021

To: Joint Policy Advisory Committee on Transportation (JPACT) and interested parties

From: Kim Ellis, Metro
Laura Hanson, Regional Disaster Preparedness Organization (RDPO)

Subject: Regional Emergency Transportation Routes (RETRs) Update: **Draft Final Report and Resolution No. 5160**

PURPOSE

The purpose of this memo is to share the Draft Final Report and a Resolution to accept the final report with JPACT for feedback. Metro staff will request JPACT action on Resolution No. 21-5160 in April.

ACTION REQUESTED

JPACT feedback is requested:

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

BACKGROUND

The five-county Portland-Vancouver metropolitan region's infrastructure systems need to be resilient and prepared for multiple natural hazards, including earthquakes, wildfires, landslides, floods, volcanoes, extreme weather events, and the increasing impacts of climate change. 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 quality of life.

A critical element of emergency preparedness for the region's hazards includes designation of emergency transportation routes (ETRs). First designated in 1996 by the Regional Emergency Management Group (REMG), the region established its first official network of regional ETRs. The last update occurred in 2006, under the direction of the Regional Emergency Management Technical Committee (REMTEC) of the Regional Emergency Management Group (REMG) – the predecessor to the Regional Disaster Preparedness Organization (RDPO).

Co-led by the RDPO and Metro, this project was identified in the 2018 Regional Transportation Plan (RTP) implementation chapter (Chapter 8) as a necessary step to better integrate transportation planning with planning for resiliency, recovery and emergency response. Funding for the project is provided by the Urban Areas Security Initiative (UASI) grant from the Federal Emergency Management Agency (FEMA) that is managed by the RDPO. The UASI grant program makes funding available to



A partnership between the Regional Disaster Preparedness Organization (RDPO) and Metro, this project updated the Regional Emergency Transportation Routes (RETRs) for the five-county Portland-Vancouver metropolitan region, which includes Clackamas, Columbia, Multnomah and Washington counties in Oregon and Clark County in Washington.

Regional ETRs are travel routes that, in the case of a major regional emergency or natural disaster, would be prioritized for rapid damage assessment and debris-clearance. These routes would be used to move resources and materials, such as first responders (e.g., police, fire and emergency medical services), patients, debris, fuel and essential supplies.

These routes are also expected to have a key role in post-disaster recovery efforts.

rdpo.net/emergency-transportation-routes

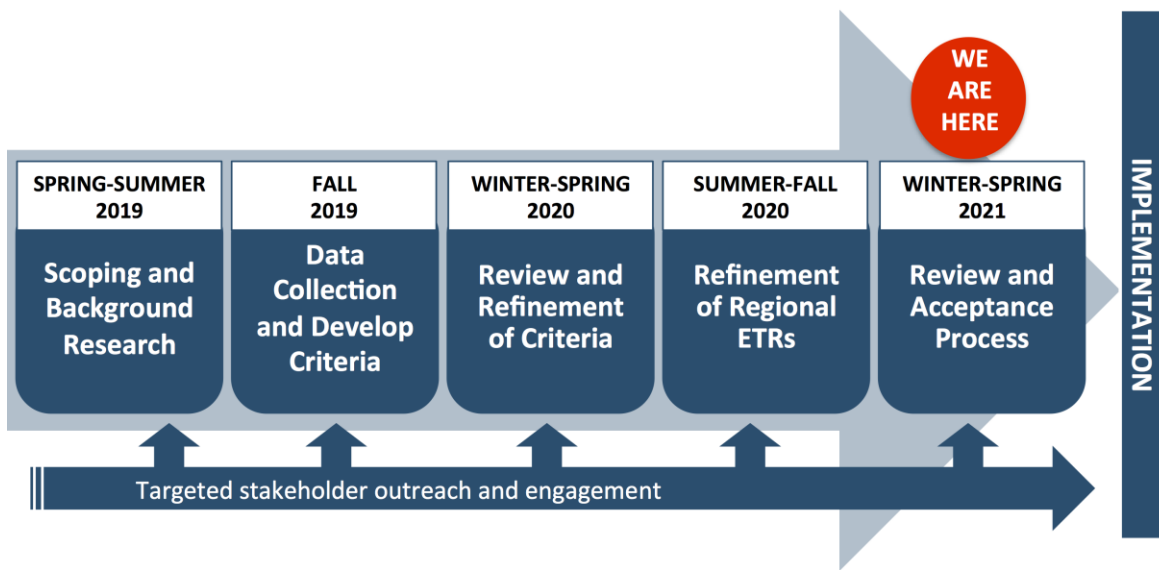
enhance regional preparedness in major metropolitan areas throughout the United States and directly supports expanding regional collaboration to assist in the creation of regional systems for prevention, protection, response and recovery.

PROJECT TIMELINE

The geographic scope of the planning effort included Clark County in the State of Washington and Columbia, Clackamas, Multnomah and Washington counties in the State of Oregon. The RDPO established a multi-disciplinary work group of more than thirty representatives from seventeen agencies to provide expertise in emergency management, transportation planning, public works, engineering, operations, ports and public transit.

The overall project timeline is provided in **Figure 1**.

Figure 1. Phase 1 timeline for updating regional emergency transportation routes



Engagement of policymakers, planners and other stakeholders was extensive for this RETR update to better integrate transportation planning with planning for resiliency, recovery and emergency response as well as the investments that will be needed to make the region’s transportation system more resilient.

OVERVIEW OF PHASE 1 RETR UPDATE

The RDPO and Metro initiated the first phase of a multi-phase update of the RETRs in Spring 2019. A literature review and other research conducted by the Transportation Research and Education Center (TREC) at PSU in August 2019 served as a foundation, providing a summary of recent work as well as identifying best practices and considerations for updating the RETRs. A consultant team, hired in fall 2019, provided technical support and facilitated the update with the multi-disciplinary work group to:

- assemble readily available local, regional and state datasets to support the evaluation process;
- develop the draft RETR evaluation framework and process to review and update the routes; and
- update the RETRs in coordination and consultation with staff representing emergency management, transportation, operations, port, transit and public works disciplines across the 5-county region.

This phase resulted in:

- Multi-disciplinary collaboration of emergency management with transportation planning, engineering and operations, ports, transit and public works stakeholders.
- Enhanced visibility of RETRs and improved understanding of their resilience that informed a regional dialogue regarding resilience and recovery among policymakers, senior leadership and planners.
- A regionally-accepted network that provides adequate connectivity to critical infrastructure and essential facilities, as well as the region’s population centers and vulnerable communities.
- A comprehensive regional GIS database and online RETR viewer established for current and future planning and operations. The data and on-line viewer provide valuable resources to support transportation resilience, recovery and related initiatives in the region.
- A regionally-accepted set of recommendations for follow-on work to support ongoing local, regional and state efforts to improve the region’s resilience.

KEY FINDINGS FROM THE ANALYSIS

Section 6 of the report outlines key findings from the analysis, including:



The updated routes provide adequate connectivity and access to the routes and regionally- significant critical infrastructure and facilities identified through the process. However, there remain areas with limited alternate routes, areas with higher hazard vulnerability that may require more redundancy, and some areas with higher reliance on state routes. These areas need further attention in future phases. In addition, further study of critical infrastructure and essential facilities will help with operational decisions and future RETR updates, as they are critical in post-disaster response and continuity of life-saving/sustaining services to communities.



The analysis demonstrates seismic and landslide impacts to roads and bridges will hinder connectivity and access during an emergency. Further planning and investment is needed to seismically strengthen bridges, particularly for crossings of the Columbia and Willamette rivers. Additional analysis that anticipates transportation impacts and closures that may result from a CSZ earthquake, landslide, wildfire and flood hazard risks on RETRs will be beneficial for operational decisions, disaster debris management plans and future updates. Further, an expansive engineering analysis would be necessary to identify roads and bridges at risk and propose specific retrofits to improve their survivability after a severe earthquake.



The updated routes provide adequate connectivity and access to the region’s population centers and areas with concentrations of vulnerable populations. However, there are limited alternate routes and transportation services in some rural areas where there is also a higher prevalence of people over 65, people under 18 and low-income households, with fewer travel options.

Measuring social vulnerability is complex. More in-depth equity analysis and community-specific engagement is needed to better understand and address the unique needs of urban and rural communities, particularly potential disproportionate impacts and the needs of vulnerable populations. This can help identify potential areas of concern and inform the best approaches to enhance connectivity and access, while ensuring equitable outcomes in emergencies.

RECOMMENDATIONS FOR FUTURE PLANNING WORK

Section 8 of the report outlines a set of necessary follow-on work raised during the course of this planning effort, but which the current project could not meaningfully address. The recommendations are summarized below, including a Phase 2 project led by RDPO and Metro (pending funding from the Urban Areas Security Initiative).

	Recommendation	Level	Lead / Key Partners
1	Integrate RETRs into other planning and investment decision-making processes	State, Regional, and Local	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 and Local	RDPO & Metro (RETR Phase 2 and Social vulnerability Tool (SVT))
5	Integrate RETR and LETRs into evacuation planning	Local and regional	TBD
6	Formalize the RETRs and agree to a plan for consistent updates	Regional	RDPO & Metro (RETR Phase 2)
7	Engineering evaluation of top priority routes for seismic upgrades	Local and regional	TBD
8	Evaluate river routes	Regional/State	Ports and Coast Guard, State Resilience Office
9	Develop equity-centered public messaging for transportation in emergencies	Regional	RDPO Public Messaging TF
10	Evaluate bike and pedestrian options for emergency transportation	Local	Various

NEXT STEPS

A schedule of the review and acceptance process is provided in Attachment 2. The draft final report is now under review by various committees and councils affiliated with the RDPO and Metro. An executive summary and the report are provided in Attachments 3 and 4.

In addition to JPACT, Metro and RDPO staff are seeking feedback from the Transportation Policy Alternatives Committee (TPAC), Metro Technical Advisory Committee (MTAC), Metro Council, county coordinating committees, the Metro Policy Advisory Committee (MPAC), the Southwest Washington Regional Transportation Council (SW RTC), the RDPO Steering Committee and the RDPO Policy Committee. A regional dissemination workshop is anticipated in May 2021 to more broadly share the updated maps, data and recommendations for future planning work.

The draft final report and additional information is available on the project website at <http://www.rdpone.net/emergency-transportation-routes>.

/attachments

Attachment 1 – Draft Resolution No. 21-5160 (including draft Exhibit A and draft Exhibit B) (2/04/2021)

Attachment 2 – 2021 Final Review and Acceptance Process (2/04/2021)

Attachment 3 – Executive Summary (2/04/2021)

Attachment 4 – Draft Final Report (2/04/2021)

BEFORE THE METRO COUNCIL

FOR THE PURPOSE OF ACCEPTING THE)	RESOLUTION NO. 21-5160
FINDINGS AND RECOMMENDATIONS IN THE)	
REGIONAL EMERGENCY TRANSPORTATION)	Introduced by Chief Operating Officer
ROUTES UPDATE PHASE ONE REPORT)	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 (REMG) 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 Emergency Transportation Routes

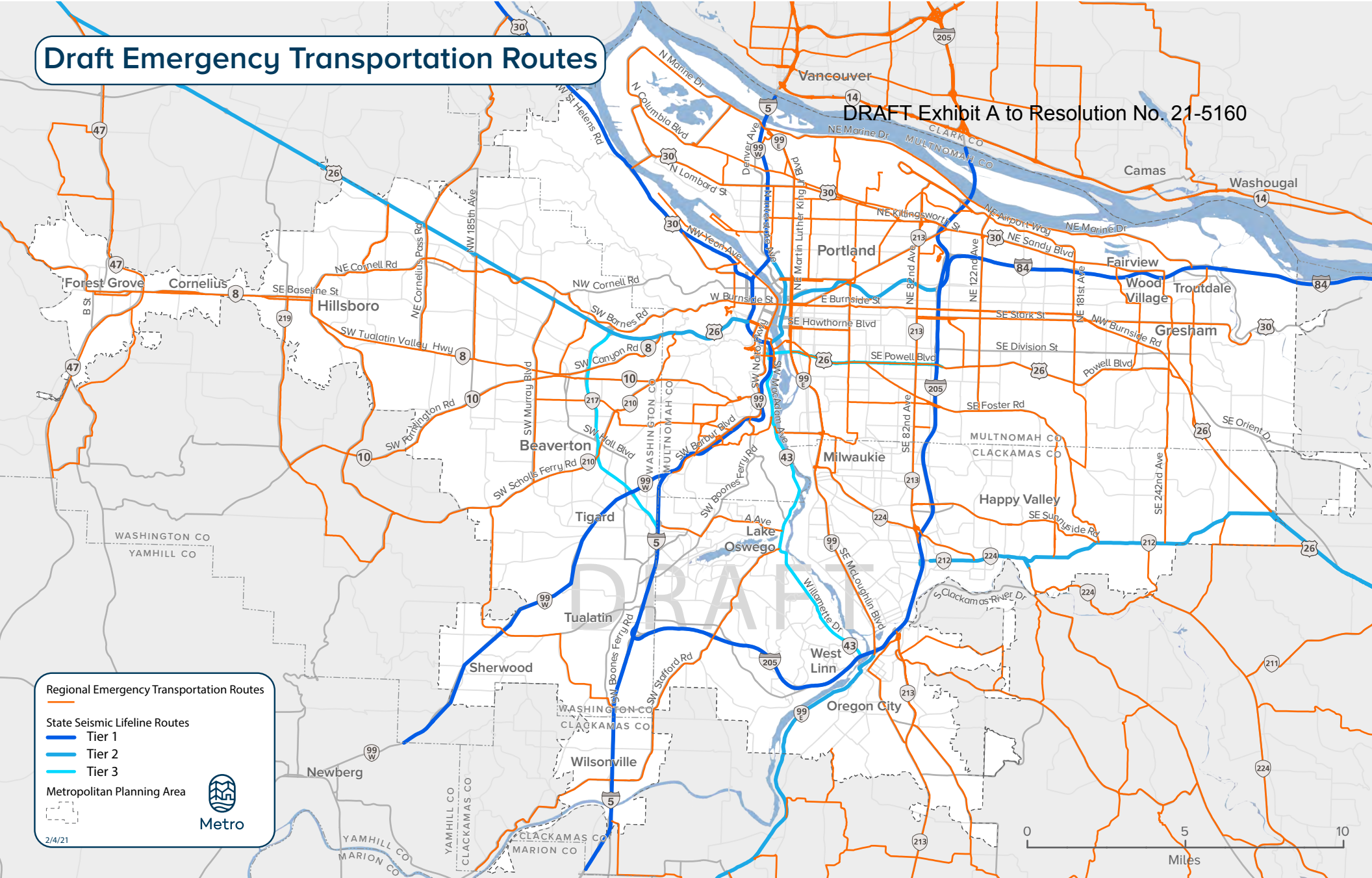
DRAFT Exhibit A to Resolution No. 21-5160

Regional Emergency Transportation Routes
— Orange line

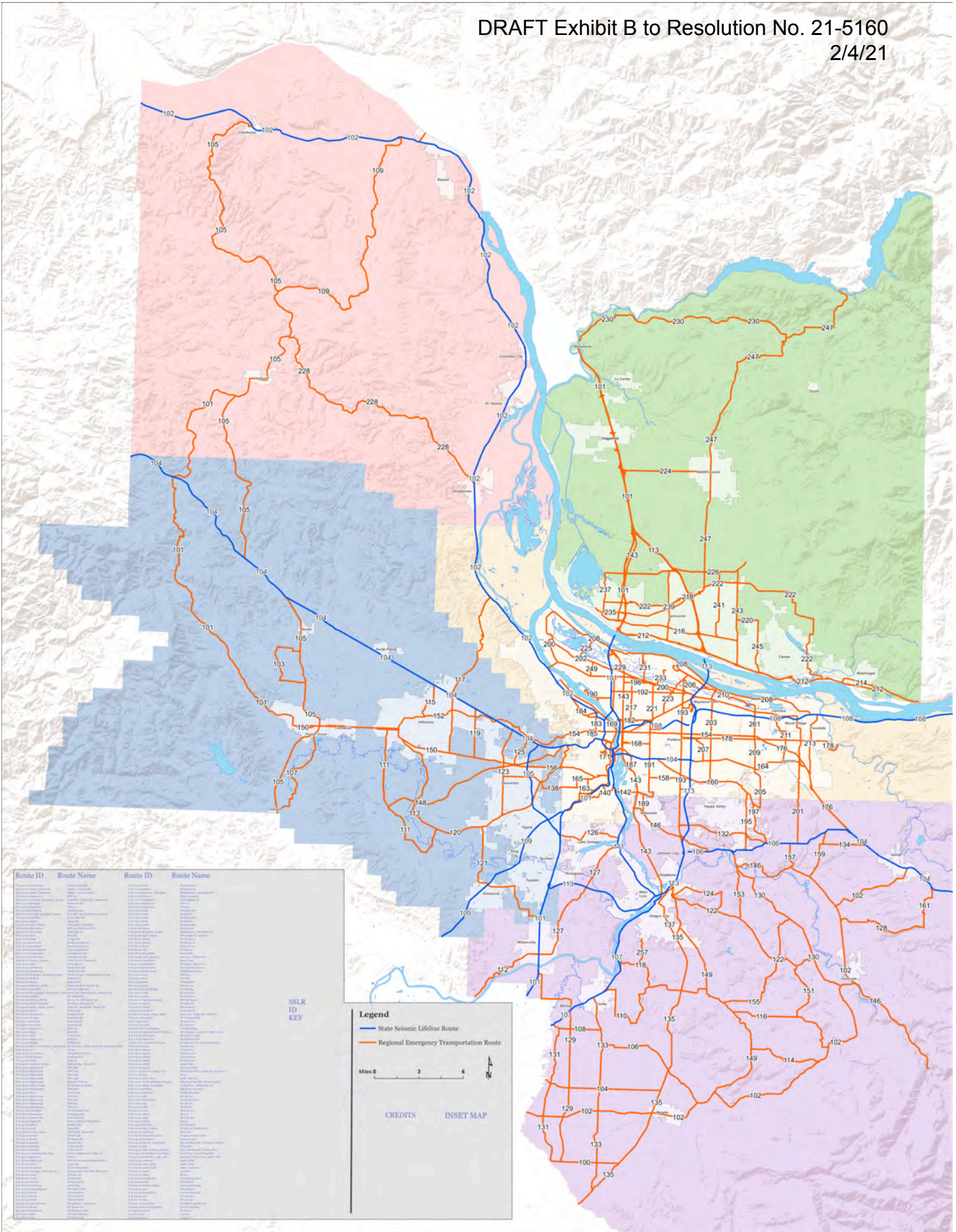
State Seismic Lifeline Routes
— Blue lines

- Dark Blue: Tier 1
- Medium Blue: Tier 2
- Light Blue: Tier 3

Metropolitan Planning Area

Metro



DRAFT Exhibit B to Resolution No. 21-5160
2/4/21



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- Regional Emergency Transportation Route

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CREDITS INSET MAP

SSLR ID KEY

**REGIONAL EMERGENCY TRANSPORTATION ROUTES UPDATE
2021 FINAL REVIEW AND ACCEPTANCE PROCESS**

Dates are subject to change.



Final review process – Regional Committees

Who	Anticipated Date
ETR Work Group Review	Jan. 20
REMTEC	Feb. 5 and March 5
RDPO Steering Committee	Feb. 8
Transportation Policy Alternatives Committee (TPAC)/ Metro Technical Advisory Committee (MTAC) workshop	Feb. 17
Joint Policy Advisory Committee on Transportation	Feb. 18
Regional Technical Advisory Committee (RTAC)	Feb. 19
RDPO Policy Committee	Feb. 19
Metro Council	Feb. 23
Metro Policy Advisory Committee (MPAC)	Feb. 24
Southwest Washington Regional Transportation Council	March 5

Final review process – County Committees

Who	Anticipated Date
Clackamas County TAC	Feb. 24
East Multnomah County Transportation Committee TAC	March 3
Washington County Coordinating Committee TAC	March 4
Washington County Coordinating Committee (policy)	March 15
East Multnomah County Transportation Committee (policy)	March 15
C-4 subcommittee (policy)	March 18

Acceptance process – Regional Committees

Who	Anticipated Date
RTAC – seek recommendation to the SW RTC	March 19
TPAC – seek recommendation to JPACT	April 2
SW RTC – seek acceptance of updated map, report findings and recommendations for future work	April 6
JPACT – seek recommendation to the Metro Council	April 15
Metro Council – seek acceptance of updated map, report findings and recommendations for future work	April 29 <i>pending JPACT action</i>
RDPO Policy Committee – seek acceptance of updated map, report findings and recommendations for future work	May 1 <i>pending Metro Council and SW RTC action</i>

Policy and Technical Committee Information (listed in alphabetical order)

Note: Meetings are currently being held virtually due to COVID-19.

ETR Working Group – Regional Emergency Transportation Routes Working Group

Times and locations vary.

JPACT – Joint Policy Advisory Committee on Transportation

Typically meets 7:30-9 AM.

Metro Council

Typically meets 2-4 PM.

MPAC – Metro Policy Advisory Committee

Typically meets 5-7 PM.

MTAC – Metro Technical Advisory Committee

Typically meets 10 AM-noon.

RDPO Policy Committee

Typically meets three times per year. Times and locations vary.

RDPO Steering Committee

Typically meets 1-3 PM. Locations vary.

REMTEC – RDPO's Emergency Management Work Group (*originally named Regional Emergency Management Technical Committee*)

Typically meets 9-11 AM.

RTAC – Regional Transportation Advisory Committee

Typically meets 9-11 AM.

SW RTC – Southwest Washington Regional Transportation Council

Typically meets 4-6 PM.

TPAC – Transportation Policy Alternatives Committee

Typically meets 9:30-noon.

TPAC/MTAC Workshop – Joint Workshop of TPAC and MTAC

Typically meets 10 AM-noon.

EXECUTIVE SUMMARY

The five-county Portland-Vancouver metropolitan region's infrastructure systems need to be resilient and prepared for multiple natural hazards, including earthquakes, wildfires, landslides, floods, volcanoes, extreme weather events, and the increasing impacts of climate change. 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 quality of life.

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A critical element of emergency preparedness for the region's hazards includes designation of emergency transportation routes (ETRs). First designated in 1996 by the Regional Emergency Management Group (REMG), the region established its first official network of regional ETRs. The last update occurred in 2006, under the direction of the Regional Emergency Management Technical Committee (REMTEC) of the Regional Emergency Management Group (REMG) predecessor to the RDPO.

Over the past 15 years, the region has experienced significant growth and demographic changes and new technology, data and mapping have greatly expanded our understanding of the region's natural hazard risks, particularly to a catastrophic Cascadia Subduction Zone (CSZ) earthquake. During that same period investments were made to improve seismic resilience of some roads and bridges in the region and additional planning was completed by the City of Portland, the five counties and the Oregon Department of Transportation (ODOT) to evaluate seismic risks along state-designated seismic lifeline routes (SSLRs) located in Oregon.



A partnership between the Regional Disaster Preparedness Organization (RDPO) and Metro, this planning effort updated the Regional Emergency Transportation Routes (RETRs) for the five-county Portland-Vancouver metropolitan region. The geographic scope of the effort included Clackamas, Columbia, Multnomah and Washington counties in Oregon and Clark County in Washington.

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rdpo.net/emergency-transportation-routes

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This report presents the results of the two-year collaborative planning effort and recommendations for future work.

Phase 1 Project Scope and Timeline

The geographic scope of the planning effort included Clark County in the State of Washington and Columbia, Clackamas, Multnomah and Washington counties in the State of Oregon. The RDPO established a multi-disciplinary work group of more than thirty representatives from seventeen agencies to provide expertise in emergency management, transportation planning, public works, engineering, operations, ports and public transit.

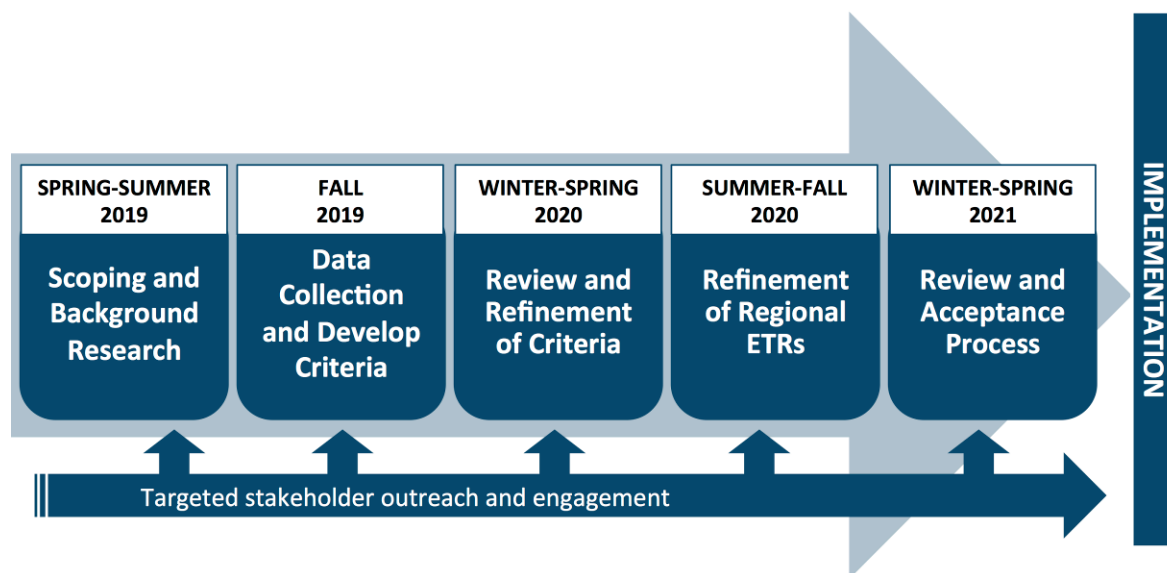


Figure ES.1 Phase 1 Project Timeline

Phase 1 Project Outcomes and Deliverables

This project represents the first phase of a multi-phase update to the regional ETRs. This phase resulted in:

- Multi-disciplinary collaboration of emergency management with transportation planning, engineering and operations, ports, transit and public works stakeholders.

- Enhanced visibility of RETRs and improved understanding of their resilience that informed a regional dialogue regarding resilience and recovery among policymakers, senior leadership and planners.
- A regionally-accepted network that provides adequate connectivity to critical infrastructure and essential facilities, as well as the region's population centers and vulnerable communities.
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Engagement of policymakers, planners, and other stakeholders was extensive for this RETR update to better integrate transportation planning with planning for resiliency, recovery, and emergency response, as well as the investments that will be needed to make the region's transportation system more resilient

Coordination and Consultation

Regional Disaster Preparedness Organization (RDPO)
RDPO Policy Committee
RDPO Steering Committee
REMTEC- Regional Emergency Manager Technical Committee (formerly called REMG)
RDPO ETR Work Group
RDPO Public Works Work Group
Metro
Metro Council
Metro Technical Advisory Committee (MTAC)
Transportation Policy Alternatives Committee (TPAC)
Joint Policy Advisory Committee on Transportation (JPACT)
SW Washington Regional Transportation Council (SW RTC)
Oregon Department of Transportation (ODOT)
Washington Department of Transportation (WSDOT)
Oregon Department of Geology and Mineral Industries (DOGAMI)
Tri-County Metropolitan Transportation District (TriMet)
South Metro Area Regional Transit (SMART)
Clark County Public Transit Benefit Area Authority (C-TRAN)
Ports of Vancouver and Portland
Clark Regional Emergency Services Agency (CRESA)
Cities and Counties (five county region)

ETR Work Group



Key Findings from the Analysis



CONNECTIVITY AND ACCESS FINDINGS

The updated routes provide adequate connectivity and access to the routes and regionally- significant critical infrastructure and facilities identified through the process. However, there remain areas with limited alternate routes, areas with higher hazard vulnerability that may require more redundancy, and some areas with higher reliance on state routes. These areas need further attention in future phases. In addition, further study of critical infrastructure and essential facilities will help with operational decisions and future RETR updates, as they are critical in post-disaster response and continuity of life-saving/sustaining services to communities.



ROUTE RESILIENCE FINDINGS

The analysis demonstrates seismic and landslide impacts to roads and bridges will hinder connectivity and access during an emergency. Further planning and investment is needed to seismically strengthen bridges, particularly for crossings of the Columbia and Willamette rivers. Additional analysis that anticipates transportation impacts and closures that may result from a CSZ earthquake, landslide, wildfire and flood hazard risks on RETRs will be beneficial for operational decisions, disaster debris management plans and future updates. Further, an expansive engineering analysis would be necessary to identify roads and bridges at risk and propose specific retrofits to improve their survivability after a severe earthquake.



COMMUNITY AND EQUITY FINDINGS

The updated routes provide adequate connectivity and access to the region's population centers and areas with concentrations of vulnerable populations. However, there are limited alternate routes and transportation services in some rural areas where there is also a higher prevalence of people over 65, people under 18 and low-income households, with fewer travel options.

Measuring social vulnerability is complex. More in-depth equity analysis and community-specific engagement is needed to better understand and address the unique needs of urban and rural communities, particularly potential disproportionate impacts and the needs of vulnerable populations. This can help identify potential areas of concern and inform the best approaches to enhance connectivity and access, while ensuring equitable outcomes in emergencies.

BY THE NUMBERS

[insert TBD three summary infographics on the routes]

XX miles of routes are designated

XX miles new routes were designated

X% of critical infrastructure and essential facilities connected

Add regional map of the updated routes (SSLRs and RETRs)

Conclusions and Next Steps

The regional emergency transportation routes play an important role in the region’s resilience and ability to respond to multiple hazards, particularly to a catastrophic CSZ earthquake. The data set and on-line RETR viewer produced in this effort will be distributed to emergency managers and transportation planners throughout the region for use in future planning and during disaster response and the early recovery period. Coordinated planning can inform emergency transportation response planning and set the stage for agencies to seek funding for improvements to increase route resiliency to accelerate response and recovery times within the region.

Section 8 of the report outlines a set of necessary follow-on work raised during the course of this planning effort, but which the current project could not meaningfully address. The recommendations are summarized below, including a Phase 2 project led by RDPO and Metro (pending funding from the Urban Areas Security Initiative) to address recommendations 2, 3, 4 and 6. Additional resources are needed to advance the full list of recommendations for future work.

	Recommendation	Level	Lead / Key Partners
1	Integrate RETRs into other planning and investment decision-making processes	State, Regional, and Local	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 and Local	RDPO & Metro (RETR Phase 2 and Social vulnerability Tool (SVT))
5	Integrate RETR and LETRs into evacuation planning	Local and regional	TBD
6	Formalize the RETRs and agree to a plan for consistent updates	Regional	RDPO & Metro (RETR Phase 2)
7	Engineering evaluation of top priority routes for seismic upgrades	Local and regional	TBD
8	Evaluate river routes	Regional/State	Ports and Coast Guard, State Resilience Office
9	Develop equity-centered public messaging for transportation in emergencies	Regional	RDPO Public Messaging TF
10	Evaluate bike and pedestrian options for emergency transportation	Local	Various

This report was developed and is being released at a time when the Portland-Vancouver region – along with the rest of the world – is confronting a different kind of disaster in the response to COVID-19. The region (and Oregon) also experienced devastating wildfires in September 2020 as this work was underway, underscoring the need to be prepared and resilient. The alignment of these circumstances has provided an opportunity to reflect on how the current public health and economic disruption, and the 2020 wildfires are both like and unlike the kind of disruption that may occur at a regional scale following a CSZ event.