



Washington State
Cascadia Rising Exercise Series
Critical Transportation Tabletop Exercise



Washington State Cascadia Rising 2022 Exercise Series

Critical Transportation Tabletop Exercise

Washington State

June 13, 2022

Virtual: Microsoft Teams



Tabletop Exercise Overview

Purpose:

Define essential elements of information necessary for incident stabilization; identify and prioritize tribal, local and state Critical Transportation routes and functions; and assess tribal, local and state abilities to fill capability gaps following a catastrophic incident.

Scope:

Exercise play begins at 96 hours post rupture, and is limited to critical transportation infrastructure assessment, critical decision making, and operational coordination to reopen inclusive priority routes affecting tribes, nations, counties, cities, and the state following a Cascadia Subduction Zone (CSZ) earthquake.



Critical Transportation Core Capability

Provide transportation (including infrastructure access and accessible transportation services) for response priority objectives, including the evacuation of people and animals and the delivery of vital response personnel, equipment, and services into the affected areas.

1. Establish physical access through appropriate transportation corridors and deliver required resources to save lives and to meet the needs of disaster survivors.
2. Ensure basic human needs are met, stabilize the incident, transition into recovery for an affected area, and restore basic services and community functionality.
3. Clear debris from any route type (i.e., road, rail, airfield, port facility, waterway) to facilitate response operations.



Critical Transportation (CT) TTX Objectives*

1

Examine and assess the coordination of response phase transportation activities between state, tribal, and local transportation entities.

2

Discuss how initial damage assessments of transportation infrastructure will be coordinated across all impacted jurisdictions.

3

Assess and discuss the procedures for the coordination of prioritized critical transportation needs across all jurisdictions.

4

Discuss the elements needed as input to develop a plan for reopening the statewide transportation system.



Tabletop Exercise Outcomes*

The desired outcomes from this TTX are:

- By the end of the exercise, participants will determine response phase transportation priorities between state, tribal, county, and city transportation entities to deliver response resources and disaster relief supplies to meet the basic needs of disaster survivors and stabilize the incident.
- By the end of the exercise, participants will provide cross-functional input to develop a statewide reopening plan to address the transportation system needs of all ESFs after a CSZ incident and other all-hazards threats.
- This exercise, through priority route designation shall directly inform the development of a WSDOT Transportation System Reopening Plan designed to support all tribes/nations and local jurisdictions.



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Module 1: Reconnecting Locally





Impacts by Community Lifeline*

Safety and Security 	Food, Water, Shelter 	Health and Medical 	Energy 	Communications 	Transportation 	Hazardous Materials 
<ul style="list-style-type: none"> Government services are overwhelmed after the earthquake. Impacts to all other lifelines hamper the ability for government to provide basic services, like firefighting and other life-saving services. 	<ul style="list-style-type: none"> Over 450,000 displaced survivors are in immediate need of short-term sheltering, and over a million people need feeding and hydration – including their pets. 100% of coastal and 89% of I-5 corridor potable water facilities have sustained medium to high damage. 	<ul style="list-style-type: none"> Over 10,000 survivors with varying degrees of injuries have attempted to access hospitals. Most hospitals have suffered medium to high damage, which has resulted in the loss of hundreds of regular and critical beds. 	<ul style="list-style-type: none"> After the earthquake, large regions of Washington experienced complete blackout. 100% of coastal energy infrastructure has sustained medium to high damage. 78% of I-5 corridor energy infrastructure has sustained medium to high damage. 	<ul style="list-style-type: none"> Up to 6 million people have lost access to standard communication services immediately after the earthquake. 67% of coastal and 21% of I-5 corridor communications systems are likely damaged beyond repair. Lack of communication networks limit ongoing situational assessments. 	<ul style="list-style-type: none"> 5,655 miles of highway have sustained medium to high damage or are inaccessible requiring repair or clearance. 30% of bridges have sustained damage, and roughly 20% have collapsed or are in imminent danger of collapse. 	<ul style="list-style-type: none"> Over 1,000 facilities in impacted areas of Washington and Oregon contain extremely hazardous substances (EHS). 3,000 facilities in Washington have reportable quantities of less dangerous material. 100% of coastal and 88% of I-5 corridor wastewater facilities in Washington suffered medium to high damage.



Focus Areas*

- Reestablishing connections within tribes and counties
- Route Clearance for Lifesaving Services
- Public Access to essential Community Lifelines
- Reducing potential barriers and constraints
- Every region could see impacts from a CSZ earthquake, but the severity diminishes rapidly east of the Cascades.
- Electrical power is slowly being reestablished in communities east of the Cascades as the power grid stabilizes.
- Some communities east of the Cascades are becoming logistical support hubs and staging areas for relief resources and supplies.





Discussion Questions (1 of 4)*

1. What is your tribe's or jurisdiction's priorities at this point in the response, and they determined?
2. What affects will the pre-identified state priority routes have on tribal and/or local priority routes?
3. What resources (types of assessment teams) do you have for completing assessment and inspections of the tribal and/or local transportation system?
4. What are some of the isolated tribes/communities within the geographic region (Coastal, I-5 Corridor, Eastern Washington)?



Discussion Questions (2 of 4)*

5. How will the isolated tribes / local jurisdiction priority routes be prioritized for route clearance?
6. How is emergency public information and education being conducted?
7. What evacuation routes have been established, documented, and communicated with the public?



Discussion Questions (3 of 4)*

8. How are mass transit and/or emergency services being organized and coordinated to expedite the movement of displaced survivors to shelters, health and medical locations, etc.?
9. How will transportation system issues impact other community lifelines ability to restore: Communications, Energy, Sheltering, Food and Water?
10. What are your major barriers and constraints?



Discussion Questions (4 of 4)*

11. How are the priorities, gaps, barriers, constraints, and localized communications with responders and the public shared with regional partners and the State Emergency Operations Center (SEOC) for coordination, support and to share vertically with federal partners and laterally with adjacent states?
12. How does your tribe's or jurisdiction's transportation or emergency operations plans support the influx of federal/state and logistical resources to support western Washington (*Eastern Washington*)?



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Module 2: Connecting with Adjacent Jurisdictions





Focus Areas*

- Establishing viable multi-jurisdictional routes.
- Route clearance for outside assistance; opening and reinforcing these routes is essential for resource sharing and ingress of external supplies and resources.
- What communication has occurred, and agreements or systems may be in place for resource sharing?
- Coordination and deconfliction with state and federal logistics nodes to support transportation needs.
- What communication has occurred, and agreements or systems may be in place for resource sharing?
- Recognize and accommodate the influx of displaced survivors transiting out of the impacted area.
- Managing, coordinating, and addressing local needs while supporting the response needs of western Washington.





Discussion Questions (1 of 4)*

1. Based on updated and ongoing situational assessment information, what updates to your tribal and jurisdictional priorities are there?
2. How are route priorities being deconflicted within and/or among the jurisdiction?
3. What additional resources may be needed to clear priority roadways, highways, and bridges of not only debris, but traffic congestion/bottlenecks to connect the jurisdictions?



Discussion Questions (2 of 4)*

4. How are these resources for clearing and potentially restoring the transportation infrastructure being coordinated and shared?
5. How will factors for re-opening transportation routes be prioritized and coordinated within: your jurisdiction; adjoining jurisdictions?
6. How are tribal and local jurisdictional priorities, gaps, barriers, constraints, and localized communications with responders and the public shared with geographic regional partners and the State Emergency Operations Center (SEOC) for coordination, support and to share vertically with federal partners and laterally with adjacent states?



Discussion Questions (3 of 4)*

7. For a CSZ event, how have priority routes for logistical movement and displaced survivors been identified, coordinated, and communicated with officials and the public?
8. From a transportation system lens, what are the short and long-term impacts of the staging of response resources on your community?
9. How are tribal and local jurisdictional priorities, gaps, barriers, constraints, and localized communications with responders and the public shared with geographic regional partners and the State Emergency Operations Center (SEOC) for support?



Discussion Questions (4 of 4)*

10. As the roads open to Western Washington, what are some anticipated concerns (*Eastern Washington*)?
11. How have the tribes and jurisdictions prepared localized damage assessment team(s) and route clearance resources to be mobilized to support impacted tribes and local jurisdictional communities in Western Washington (*Eastern Washington*)?



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Module 3: Reconnecting the Geographic Regions





Focus Areas*

- Reconnecting geographic regions: coordination and resource sharing to expedite reopening, inspections, and clearing;
 - Coastal Washington
 - I-5 Corridor
 - East of the Cascade Crest
- Identification and discovery of interdependencies and vulnerabilities.
- As resources (fuel, staff, supplies, and equipment) move westward coordination is needed to ensure that transportation system resource and supply levels are maintained in eastern Washington to maintain the transportation system and reinforce priority routes in eastern Washington.
- Transportation of medical patients and displaced survivors is beginning to move East of the Cascades.
 - Not all will go through federal systems
 - Movement of people (displaced survivors/relief workers/etc.)



Discussion Questions (1 of 4)*

1. Based on what was learned from Module's 1 and 2, what are the tribal and local jurisdiction's regional priorities at this point?
2. How are the regional priorities coordinated and communicated among the regions and is this process different than in previous modules?
3. How will you coordinate across jurisdictions, regions, and state partners?
4. What plans have identified local staging resources or C-PODs (Community Points of Distribution) and priority routes as they become available?



Discussion Questions (2 of 4)*

5. As temporary services start to come back online, what are some of the known and/or unknown infrastructure vulnerabilities tribes and local jurisdictions can anticipate, and how will they need to be addressed/prioritized?
6. How are tribal and/or localized plans supportive of the incorporation of regional, state and/or federal support resources into your response?
7. What additional mutual aid and/or interlocal governmental support will need to continue to support secondary or tertiary route clearance at this point in the response?



Discussion Questions (3 of 4)*

8. What additional mutual aid and/or interlocal governmental support will need to continue to support primary, secondary and/or tertiary route (road, rail and/or bridge) temporary repairs at this point in the response?
9. Not every community lifeline will be fully operational; however, please identify some of the potential short- and/or long-term transportation impacts affecting the geographic region?



Discussion Questions (4 of 4)*

10. How are mass transit resources (bus/rail/air/School Districts) used to support localized support for displaced survivors, survivors w/AFN, and pet relocations?
11. How are mass transit and/or emergency services being organized and coordinated to support the evacuation of displaced survivors from Western Washington to shelters, health and medical locations, in eastern Washington?



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Module 4: Input to The Statewide Reopening Plan





Focus Areas*

- Tribal, and local jurisdictional recommendations.
- State coordination of tribal and local jurisdiction recommendations.
- Transportation needs/recommendations inform sharing and coordination of resources.
- Next steps on, and timeline for, plan development for the “new normal”.





Discussion Questions (1 of 2)*

1. What are your respective tribal and local jurisdiction's recommended priorities to propose to the State Emergency Operations Center (SEOC) and the Unified Coordination Group (UCG) for clearance and re-opening?
2. How are the tribal and local jurisdictional critical transportation routes coordinated and prioritized across the geographical regions? Should they be (or do they need to be) coordinated to affect an effective re-opening plan?



Discussion Questions (2 of 2)*

3. What process does the SEOC and UCG use to prioritize geographical, regional, tribal and/or local jurisdictional critical transportation priority route clearance and re-opening?
4. How are waivers for oversize/overweight vehicles, tolls, extended hours, or other measures coordinated and approved?



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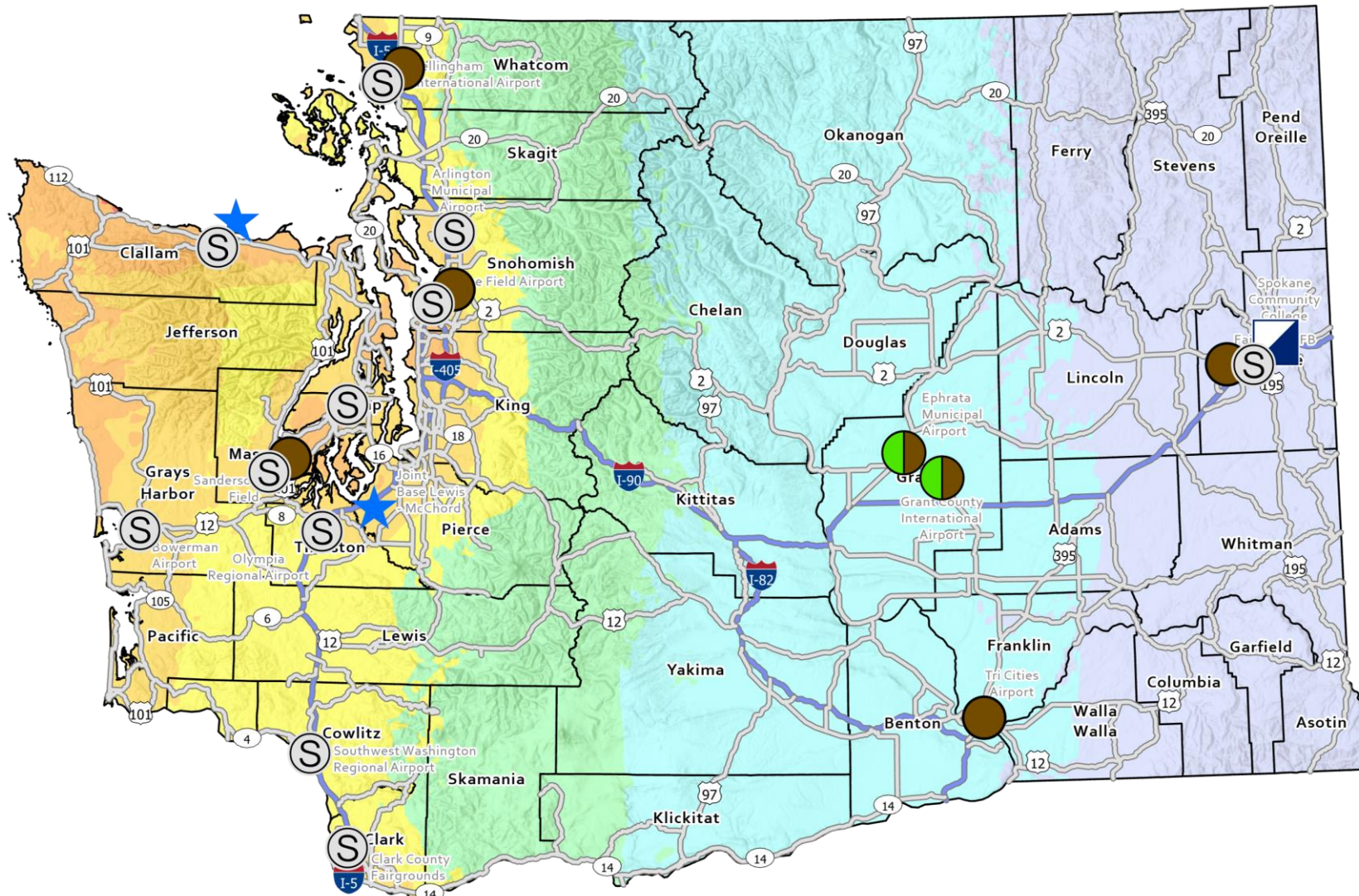
Supporting Maps



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Statewide Map



Mercalli Intensity Scale

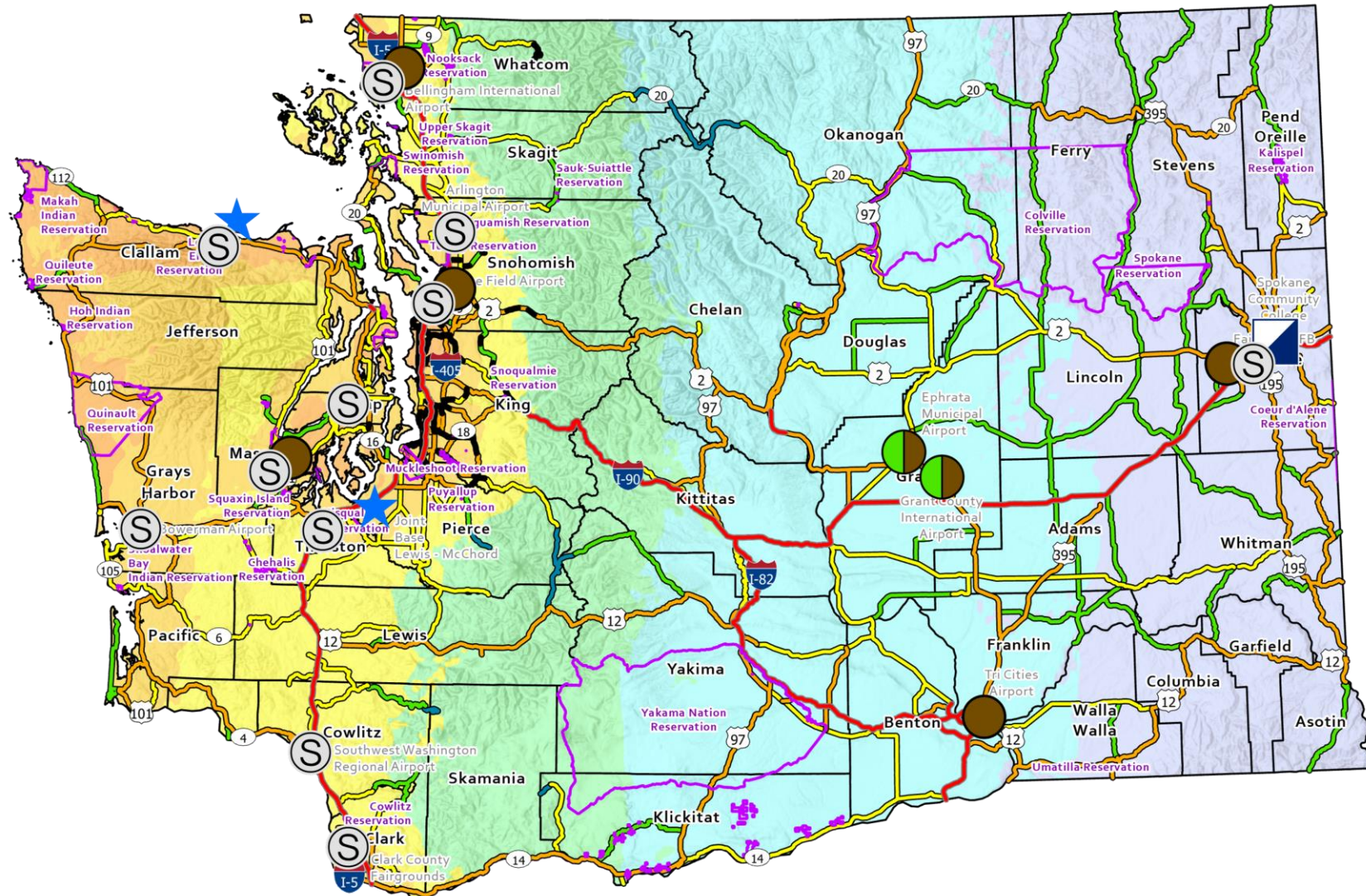
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- II - III (Weak)
- IV (Light)
- V (Moderate)
- VI (Strong)
- VII (Very Strong)
- VIII (Severe)
- IX (Violent)
- X+ (Extreme)

Logistical Nodes

- APOD
- ★ FSA
- IOF
- ISB
- S SSA



WSDOT Priority Routes for Assessment



WSDOT Priority Routes for Assessment

- 1 Immediate Priority
- 2 Urgent Priority
- 3 High Priority
- 4 Medium Priority
- 5 Low Priority
- Non-Priority Designation

Mercalli Intensity Scale

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Logistical Nodes

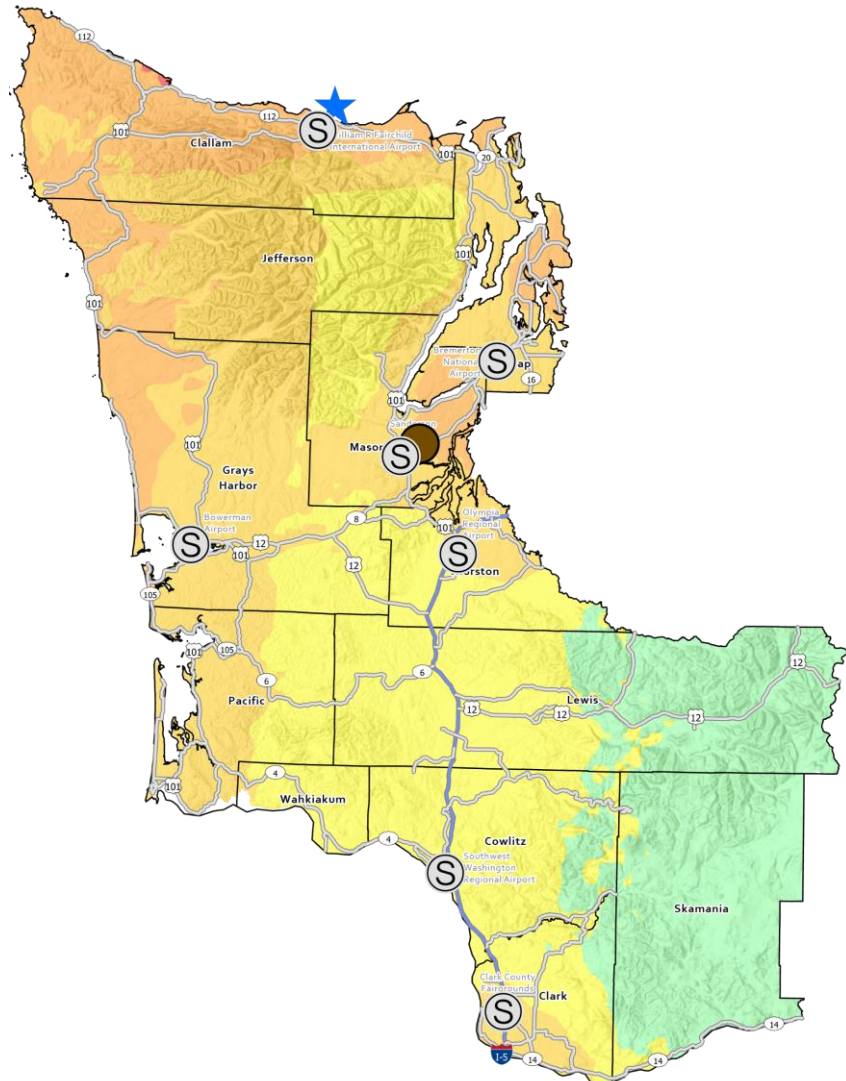
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- ★ FSA
- IOF
- ISB
- SSA

Tribal Lands

- Tribal Lands



Coastal Region



Mercalli Intensity Scale

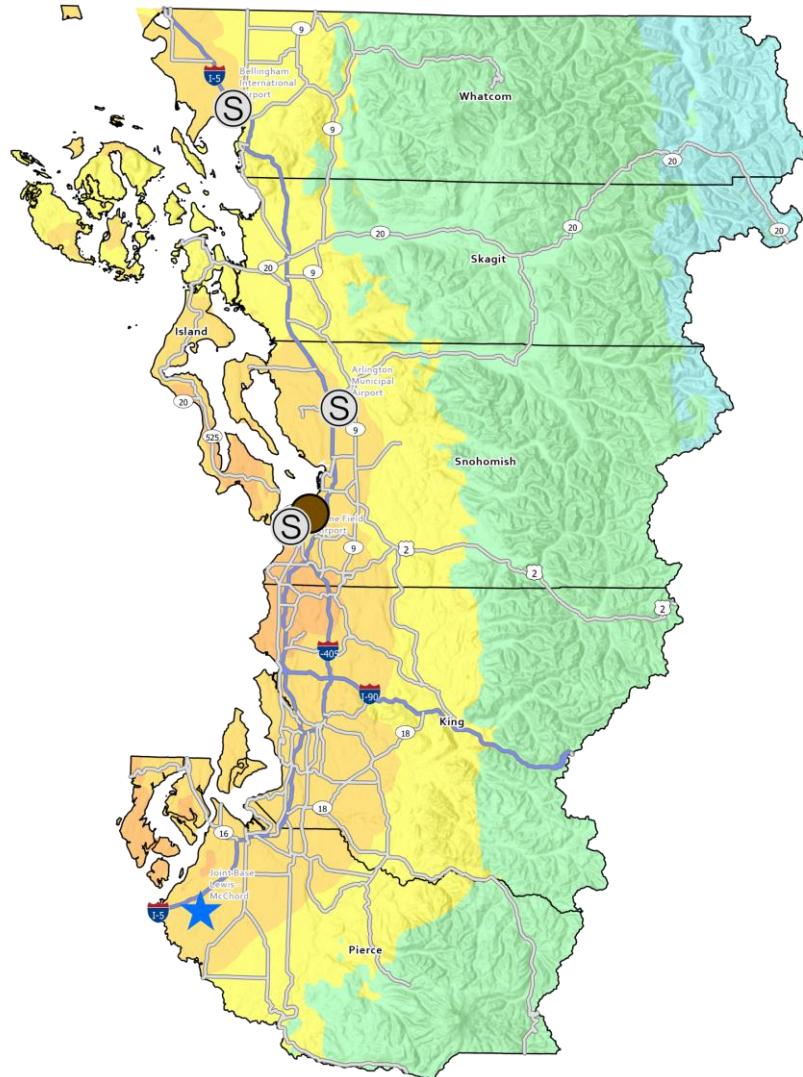
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Logistical Nodes

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- IOF
- ISB
- S SSA



I-5 Corridor



Mercalli Intensity Scale

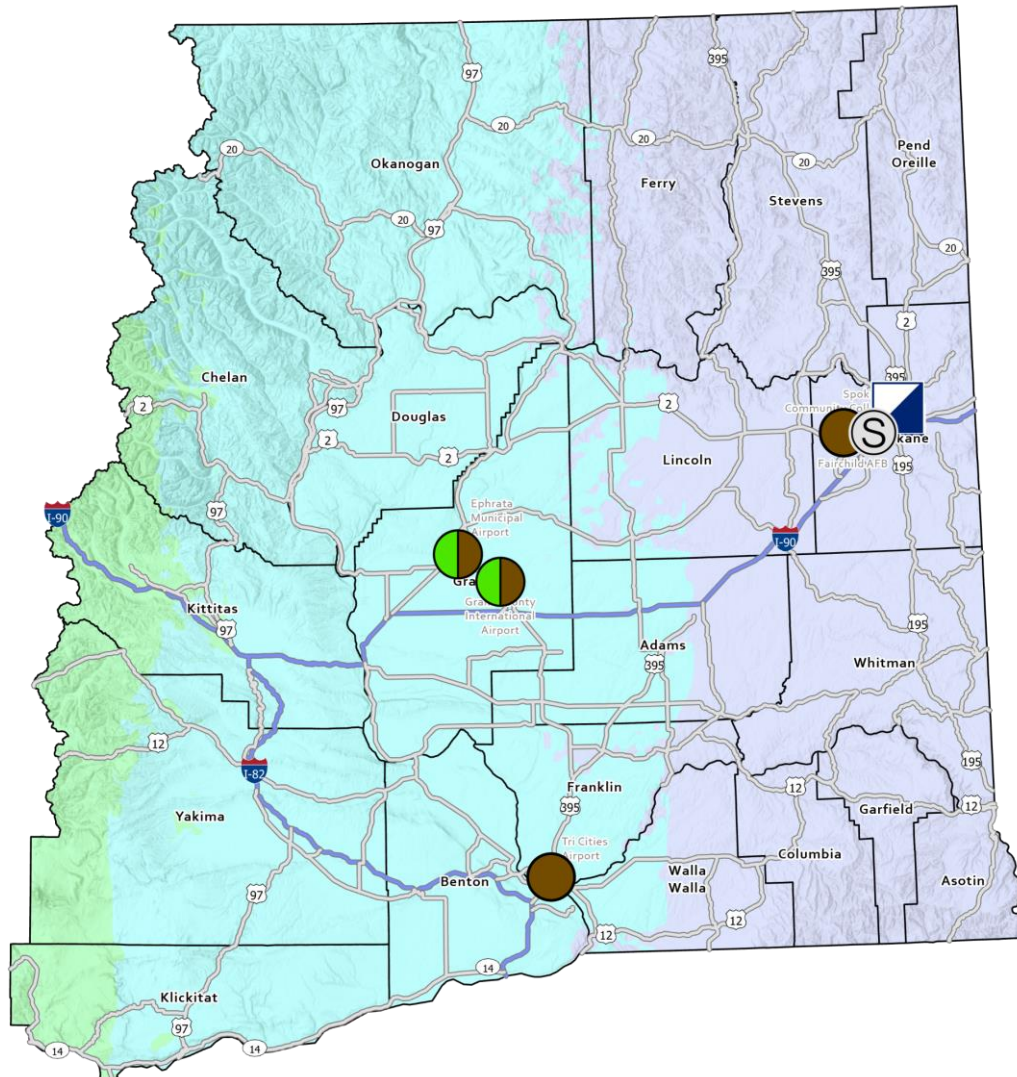
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Logistical Nodes

- APOD
- FSA
- IOF
- ISB
- SSA



East of the Cascades



Mercalli Intensity Scale

- I (Not Felt)
- II - III (Weak)
- IV (Light)
- V (Moderate)
- VI (Strong)
- VII (Very Strong)
- VIII (Severe)
- IX (Violent)
- X+ (Extreme)

Logistical Nodes

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- FSA
- IOF
- ISB
- SSA