Catastrophic Incident Annex

Tab A:
Critical Transportation

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Purpose

This tab is intended to provide detailed information on the Critical Transportation core capability and reflects the catastrophic planning that has taken place across the state for its associated Critical Tasks. Critical Transportation response considerations addressed in this Tab include: Highway/Roadway, Bridges, Rail, Maritime, and Aviation.

Strategic Goals

Life Safety

Priority Routes

1. Identify the routes critical for response including routes to hospitals, emergency services, mass care shelters, CPODs, staging area, and points of entry including connections to adjacent communities, the states "Seismic Lifeline Routes" and air and water ports.
2. Coordinate the deployment of resources that can assist local jurisdictions with assessment and inspection of transportation infrastructure needed for response operations.
3. Coordinate debris clearance from priority routes needed for response operations.

Incident Stabilization

Situational Awareness

1. Assess the condition of the transportation network starting with priority routes and situational requirements.
2. Determine resource shortfalls.
3. Determine effects to the Community Lifelines due to impacted transportation infrastructure.

Temporary Repair

Remove debris and make necessary emergency repairs to reestablish at least one lane of traffic on state priority routes and establish bypass routes where necessary.

Situation Overview

General

A catastrophic incident will place a tremendous strain on an infrastructure system that is susceptible to natural and technological hazards. Many jurisdictions across the state may find themselves cut off from accessing both interior transportation systems within their own jurisdictions and exterior transportation systems which connect to their larger transportation networks and enable the movement of resources into impacted areas. There are a number of

jurisdictions that have few to no alternative connections to the state transportation system and will be cut off from the ability to move and receive resources following an incident that strains state resources over many areas and overwhelms local capabilities.

Some incident impacts may not exceed the capacity of state and local resources but will require a significant amount of time for response efforts to make progress (e.g., landslides, flooding, etc.). Other incidents may require specialized resources that are either not available in significant quantities (temporary bridges) or require a systematic approach to conduct initial response (repairing one bridge to access another).

There will be an immediate need to prioritize, conserve and deconflict resource requests across the state to both meet the immediate needs of life safety and sustainment operations taking place. State, local, and Tribal resources will need to prioritize their transportation infrastructure assessment, inspection, repair, and restoration activities in relation to their immediately available resources to enable access along priority routes which connect to emergency services, critical infrastructure, mass care sites, logistical sites, and key access points in and out of jurisdictions.

Planning Assumptions and Response Considerations

General

- Assessments are required for all transportation infrastructure in affected areas.
- The extent of damage and debris limit access to conduct assessments and repair.
- The number of significantly damaged and blocked roads, railways, airports, and seaports may overwhelm the limited number of personnel[1] available to conduct assessments and inspections.
- Fuel requirements for assessment and repair crews may exceed local capabilities.
- Local capabilities are likely inadequate to repair transportation infrastructure. Any resources brought in to assist restoration operations will need to be self-sufficient.
- Significant repairs and replacements to transportation infrastructure will take weeks, months, and years rather than days.
- Port, Airport, and Rail operations do not have the equipment or personnel to run 24 hour a day operations needed to support the response.
- For most catastrophic incidents, transportation impacts and limitations may delay situational assessment and early attempts to move resources.
- Assessment resources for transportation infrastructure will be insufficient, requiring prioritization of this resource type.

[1] Bridge inspectors and the specialized equipment necessary to conduct bridge inspections will be one of the most finite and in-demand resources during the early operational periods post-incident.

- Repairs to infrastructure may require that one location be repaired first to access further locations.
- Repair times may not accurately reflect the situation when there are many segments in need of repair.

Airports

- Airports that can be used to move and deliver resources are limited to those that can accommodate larger aircraft, sustain limited damage, have useable and repairable connections to the ground transportation systems, and have the capacity for multiple large aircraft to be on the ground at one time.[2]
- Airport functionality is dependent on the ability to provide necessary support and wraparound services (e.g., power, water, sanitation, fuel, and communications).
- Helicopters may be needed to meet the transportation needs of isolated communities where landing areas are too small for fixed-wing aircraft. Compared to fixed-wing aircraft, helicopters carry fewer supplies, are slower, and have a shorter range.
- Small airports may be able to support helicopter operations.
- Commodities may pile up at airport landing zones if shortages in supply movement capabilities occur.

Maritime[3]

- Seaports are at risk to sustain major or complete damage.
- Ferries are critical links between the east side of Puget Sound, to the Kitsap and Olympic Peninsulas, and the San Juan Islands.
- Ferries are the primary means for vehicles (both commercial and personal) to travel between the mainland and several islands within the Puget Sound and Salish Sea (e.g., Vashon Island, the San Juan Islands, Anderson Island, etc.).
- Maritime resource movement may be unavailable to many locations due to damage to ports, debris in the water, and changes to underwater topography.
- Processes for re-establishing maritime routes will be entirely dependent on the state of the waterway and ports; and the specialized resources needed to make it navigable.

Roadways

- Potential impacts to transportation infrastructure are heightened along the coast, in the coastal mountains, and along the Interstate 5 (I-5) corridor due to ground shaking (liquefaction), and all types of slides.

[2] Although the qualification listed in this statement are the most desirable, there may instances of using other airfields if options are limited and life safety and sustainment is at risk.
[3] Maritime infrastructure includes seaports, riverports, and marinas.

- States have the authority to grant size and weight waivers for state roads only. A vehicle traveling through multiple states needs waivers from each state.
    - Congress has the authority to grant size and weight waivers for federal roads/interstates and does not delegate this authority.
    - The Federal Motor Carrier Safety Administration can issue hours-of-service waivers for commercial vehicles directly involved in disaster response operations.
- If many road segments and bridges sustain damage, the potential for viable alternate routes exists, enabling some degree of movement, but with longer travel times and more congestion.
- Fires and hazardous-material releases can constrain movement.
- Some road systems may be impassable due to damage or secondary effects (e.g., landslides, liquefaction, subsidence, hazardous materials, flooding, etc.)
- Some bridges may require specialized resources to repair which are unavailable during the early stages of incident response.
- Priority Routes designations for assessment may not necessarily share the same priority for repair to account for actual damage states, conditions, and response objectives.

<u>Rail</u>

- If key rail bridges in Seattle, Tacoma, Vancouver, and Portland sustain significant damage, then rail transportation is not possible along the I-5 corridor or spurs to the west.
- The majority of rail facilities in (train stations, dispatch facilities, and fuel facilities) are along the I-5 corridor and are on liquefiable soils.
- Rail lines coming from the east may be significantly impacted by landslides.
- Rail operators may not be forthcoming with repair times due to perceived impacts to their competitive advantage.
- Due to the proprietary and competitive nature of the rail line business, information on repair times and impacts may be unavailable to most response personnel.
    - Coordination with CISA and rail operators may be necessary in to share sensitive information.

Capability Targets[4]

Evacuation:

- *Within (#) (time) notice of an incident, complete the evacuation of (#) people requiring evacuation, including (#) people with access and functional needs (requiring evacuation).*

Debris Removal and Establishing Access:

- *Within (#) (time) of an incident, clear (#) miles of road affected, to enable access for emergency responders, including private and non-profit.*

Non-Standardized Targets

Route Assessment

- *Within (#) (time) of an incident, assess and report the status of damage to the transportation system and critical infrastructure that may need physical access.*
- *Within (#) (time) of an incident assess and report on the damages sustained to priority routes*
    - *Within (time) of an incident implement a coordinated review and approval of the sequence of priority routes to repair and restore to enable access.*
    - *Within (#) (time) of an incident assess and report on the ongoing recovery efforts and alternatives planned or implemented by others to restore the priority routes.*
- *Within (#) (time) of an incident, identify temporary alternative transportation solutions to be implemented when primary systems or routes are unavailable or overwhelmed.*
- *Within (#) (time) of an incident, coordinate regulatory waivers and exemptions to allow safe and effective continuation of response*
- *Within (#) (time) of an incident, work with ESF 15 to maintain notification systems to support emergency/disaster response including evacuation orders, bridge and road closures, suspension of State construction or maintenance operations, contra-flow and the suspension of State tolls, as appropriate.*

Route Clearance

- *Within (#) (time) of an incident, prioritize the routes to be repaired/restored/cleared, and made transversable for incident response resources to gain access to demand points or critical infrastructure.*

[4] The Capability Targets outlined within this section are FEMA's standardized targets. While certain activities listed within these sections may not apply to the actions and activities addressed within this plan, they are presented here to maintain a consistent connection with the Stakeholder Preparedness Review (SPR) and federal planning. For modified versions more applicable to catastrophic planning, refer to the Non-Standardized Targets below.

- *Within (#) (time) of an incident, position equipment and resources for the response and recovery debris clearance and removal operations.*
- *Within (#) (time) of an incident, perform initial debris clearance activities to eliminate life and safety threats, facilitate search and rescue efforts, allow access to critical facilities, and to prevent tertiary effects (such as to prevent flooding).*

Emergency Repairs

- *Within (#) (time) of an incident, assign minimum and maximum restoration times to closed road segments and prioritize restoration based on operational priorities of life safety and life sustainment.*
- *Within (#) (time) of an incident, work with ESF 15 to distribute information and educate the population on the debris management operations and develop a process for answering the public's questions concerning debris removal.*

Concept of Operations[5]

General

Incidents which cause widespread and significant damage to the transportation system will necessitate the prioritization of both local and state routes to facilitate a timely response with limited resources in a time sensitive environment. Response operations conducted by the state should utilize the Priority Routes that have been established during pre-incident planning to both gain situational awareness of local impacts but to also prioritize the assessment and repair of routes that enable access to impacted jurisdictions. When state or other outside resources are able to divert activities away from state infrastructure, they will begin to assist local jurisdictions in temporary repairs and other actions that aid in the reconnection of routes that allow the movement of resources and services into and out of the impacted areas.

[5] The Figures displayed within this section (WSDOT Seismic Lifeline, WSDOT Priority Routes, and Local Priority Routes are available for use in GIS.

WSDOT Seismic Lifeline

These routes are either currently or in the progress of being retrofitted for improved earthquake survivability. This should not imply that they will be functional or undamaged, but that they have the most likelihood of withstanding an earthquake (not collapse).

The WSDOT Seismic Lifeline runs north to south along the I-5/I-405 corridor from Paine Field (Snohomish County) to Joint Base Lewis McChord (Pierce County). It runs west to east along the I-90 corridor from Bellevue (King County) to Grant County International Airport in Moses Lake.

Paine Field is designated as a State Staging Area (SSA) for state logistics and an Aerial Point of Debarkation (APOD) for federal resources. Grant County International Airport is designated as a State Staging Area for state logistics and an Incident Support Base (ISB) for federal response. Joint Base Lewis McChord is designated as a Federal Staging Area (FSA).

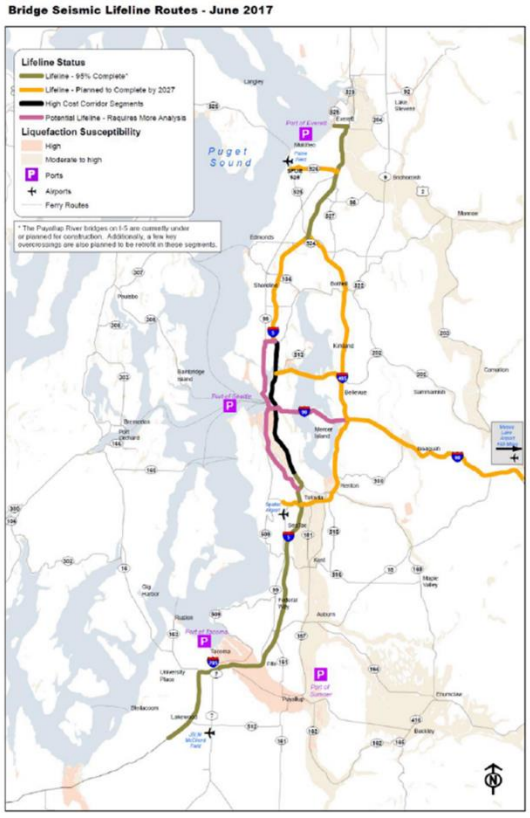

Figure 1 - WSDOT Seismic Lifeline

Logistics Connection	State	Federal
Paine Field	SSA	APOD
Grant County International Airport	SSA	ISB
Joint Base Lewis McChord	N/A	FSA

Table 1 - WSDOT Lifeline Connection to Logistics and Supply Chain Management

State Priority Routes

All state routes have been assigned an assessment priority by WSDOT which aligns with their current methodology in responding to other incident types. These routes are divided into 5 categories based on their level of use: (1-Red) Immediate, (2-Orange) Urgent, (3-Yellow) High, (4-Green) Medium, and (5-Blue) Low. *Note: Routes labeled as non-priority (Purple), should be disregarded for the purposes of this plan.*

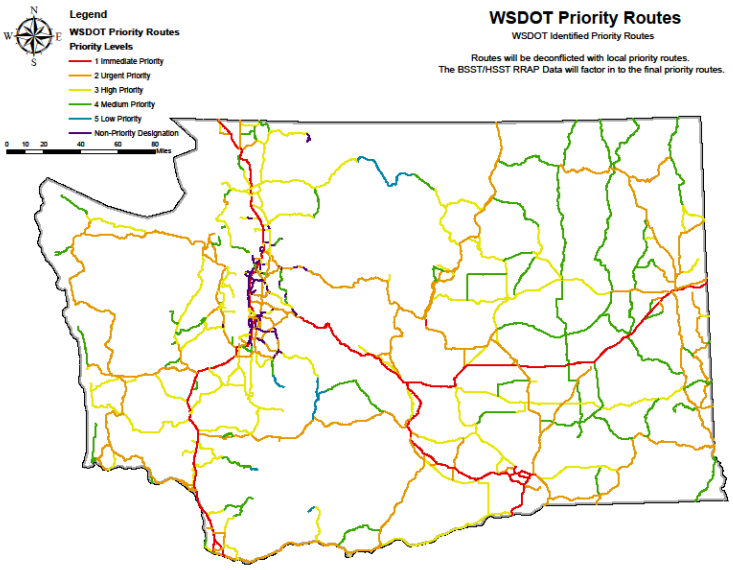

Figure 2 - WSDOT Priority Route Overlay

WSDOT Regional Operations

WSDOT divides the state into 6 regions: Olympic, Northwest, North Central, Eastern, South Central, and Southwest. These regions do not necessarily conform to either political boundaries or the Homeland Security Regions. Additional coordination will be required through the SEOC to maintain coordination and situational awareness on the deployment of resources or response objectives as the relate to these regions and operations that cross these boundaries will require the inclusion of multiple regional leads.

Figure 3 - WSDOT Regions

Local Priority Routes[6]

Local Priority Routes are those roadways which are essential for a local response to occur within a jurisdiction. These routes are intended to:

- Enable access from the state transportation system.
- Connect with local staging areas, mass care locations, medical services, and specific critical infrastructure.
- Bypass the state transportation system at points to offer additional areas of connection and access.

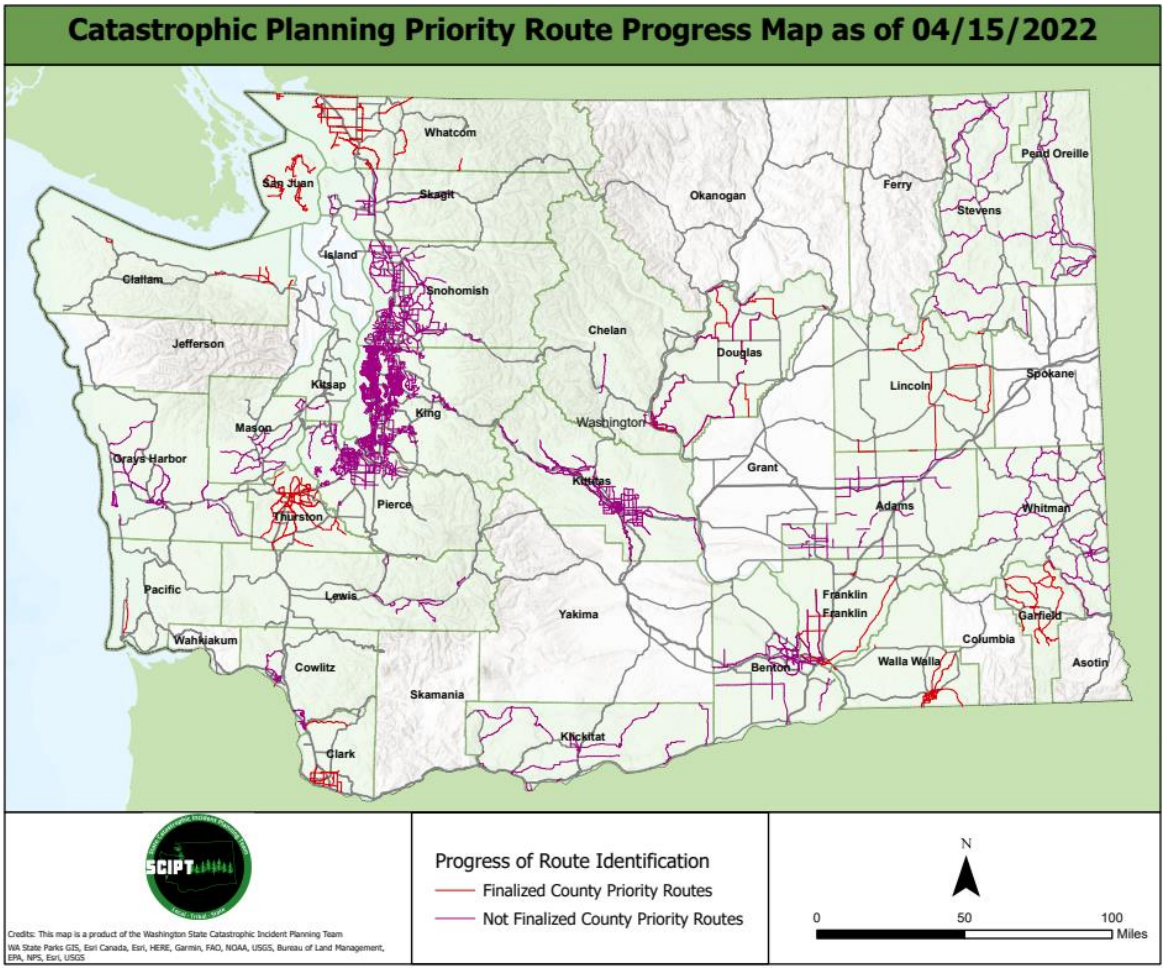

Figure 4 - Local Priority Routes

[6] Local Priority Route Identification, Deconfliction, and Verification planning efforts is an ongoing effort across the state. Routes displayed within Figure 4 display finalized and verified routes (red) and those still involved in the planning process (purple).

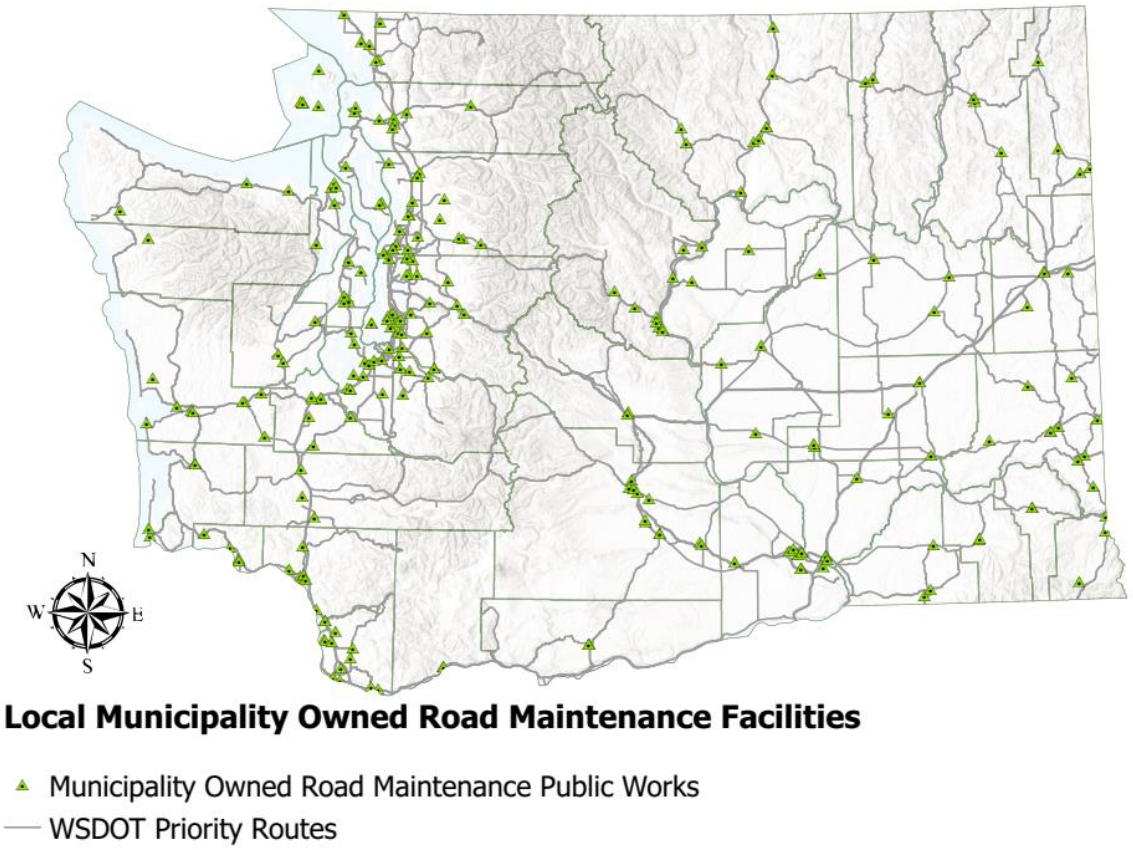

Figure 5 - Local Public Work Facilities and State Priority Routes

Primary Core Capabilities

Critical Transportation

Objective:

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 to the affected area.

Critical Tasks:

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.

Supporting Core Capabilities

Operational Coordination

Objective:

The National Preparedness Goal defines operational coordination as the ability to establish and maintain a unified and coordinated operational structure and process that appropriately integrates all critical stakeholders and supports the execution of core capabilities.

Critical Tasks:

1. Mobilize all critical resources and establish command, control, and coordination structures within the affected community, which may no longer be defined by established jurisdictional boundaries as needed throughout the duration of an incident.
2. Enhance and maintain command, control, and coordination structures (C3), consistent with the National Incident Management System (NIMS), to meet basic human needs, stabilize the incident, and facilitate the integration of restoration and recovery activities.

Operational Communication

Objective:

Ensure the capacity for timely communications in support of security, situational awareness, and operations by any and all means available, among and between affected communities in the impact area and all response forces.

Critical Tasks:

1. Ensure the capacity to communicate with both the emergency response community and the affected populations and establish interoperable voice and data communications between the Federal, tribal, state, and local levels through primary and redundant communications technology and protocols.
2. Re-establish sufficient communications infrastructure within the affected areas to support ongoing life-sustaining activities, provide basic human needs, and facilitate the integration of recovery activities.
3. Re-establish critical information networks, including cybersecurity information sharing networks, to inform situational awareness, enable incident response, and support the resilience of key systems.

Situational Assessment

Objective:

Provide all decision makers with decision-relevant information regarding the nature and extent of the hazard, any cascading effects, and the state of the response.

Critical Tasks:

1. Deliver information sufficient to inform decision making regarding immediate lifesaving and life-sustaining activities, and engage governmental, private, and civic sector

resources within and outside of the affected area to meet basic human needs and stabilize the incident.

2. Deliver enhanced information to reinforce ongoing lifesaving and life-sustaining activities, cascading impacts, and engage governmental, private, and civic sector resources within and outside of the affected area to meet basic human needs, stabilize the incident, and facilitate the integration of recovery activities.

Logistics and Supply Chain Management

Objective:

Deliver essential commodities, equipment, and services in support of impacted communities and survivors, to include emergency power and fuel support, as well as the coordination of access to community staples. Synchronize logistics capabilities and enable the restoration of impacted supply chains.

Critical Tasks:

1. Mobilize and deliver governmental, nongovernmental, and private sector resources within and outside of the affected area to save lives, sustain lives, meet basic human needs, stabilize the incident, and facilitate the integration of recovery efforts, to include moving and delivering resources and services to meet the needs of disaster survivors.
2. Enhance public and private resource and services support for an affected area.

Organization

Mobilization

The Washington Department of Transportation holds significant authorities and responsibilities for the activities that will occur under the Critical Transportation core capability. Following the occurrence of a catastrophic incident it will become necessary to coordinate activities through each of the WSDOT regions depicted in Figure 6. These regions will be required to marshal scattered (and potentially) cut-off resources to work towards accomplishing the incident objectives and priorities established through the UCG. Resource may be required to accomplish secondary tasks in order to accomplish primary tasks.

For example, WSDOT resources on the opposite side of the state would need to ensure access through the mountains in order to assist. Or, WSDOT resources may need to assist in local route clearance in order to reach their own areas of operations.

GIS layers are available to display the locations of WSDOT road maintenance facilities, WSDOT HQ road facilities, WSDOT staging/holding areas (for gravel/equipment). [7]

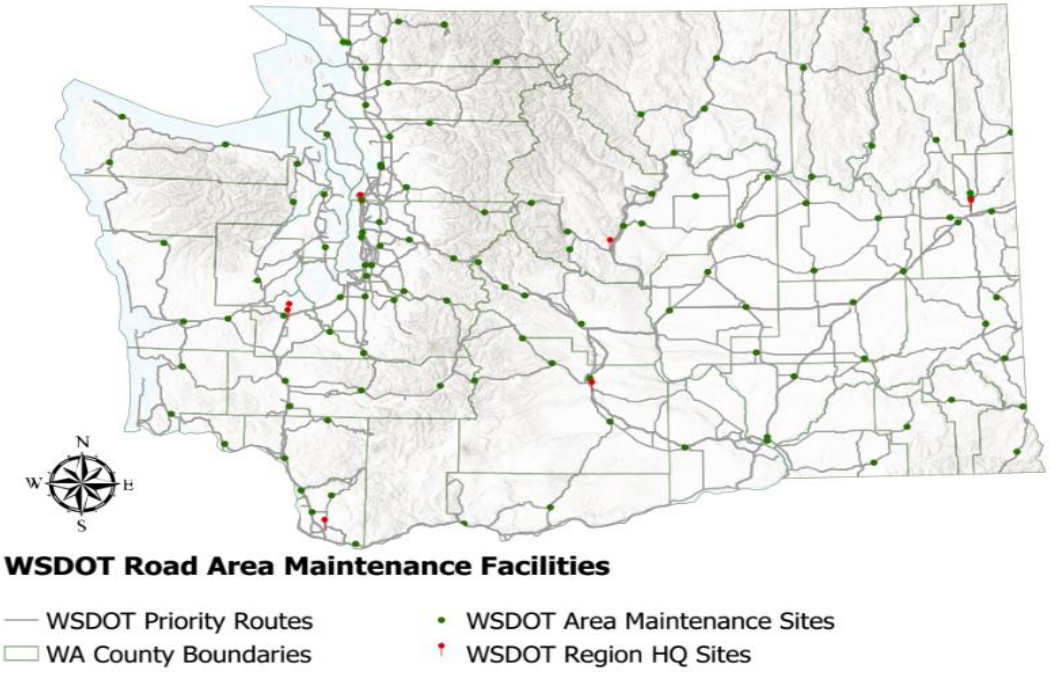

Figure 6 - WSDOT Facilities and Priority Routes

Structure

Transportation is a Lifeline sector, and therefore touches on many other operational components needed for both immediate and sustained response. The organizational structure employed should reflect the current needs of the response while also considering the growth of ESF 1 activities.

> For example, in the early stages of the response, ESF 1 activities will be highly concentrated on establishing situational awareness received from damage assessments and inspections; however, as the incident progresses past incident stabilization, activities may include collaboration with the private sector to coordinated repair of infrastructure necessary for the reestablishment of the supply chain. These two activities will require the reshaping of the organizational structure to more accurately reflect incident objectives.

[7] Current planning is also building a GIS layer with all local Public Works road maintenance facilities and will be available in later updates to this plan.

The response structure typically employed for incidents involving transportation will need to be expanded beyond the standard ESF 1 structure to include additional ESFs and logistical functions involving the request for federal resources. This includes the activation of operational branches under the SEOC Operations Section for each mode of transportation, to include Air Operations. The structure below depicts one possible configuration, although the inclusion of the Business and Infrastructure Branch may be insufficient to accommodate the complete needs of multiple functions within ESF 1. In which case, additional Branches may be established to coordinate the efforts of these functions (i.e., Rail, Ferries, Bridges, etc.).

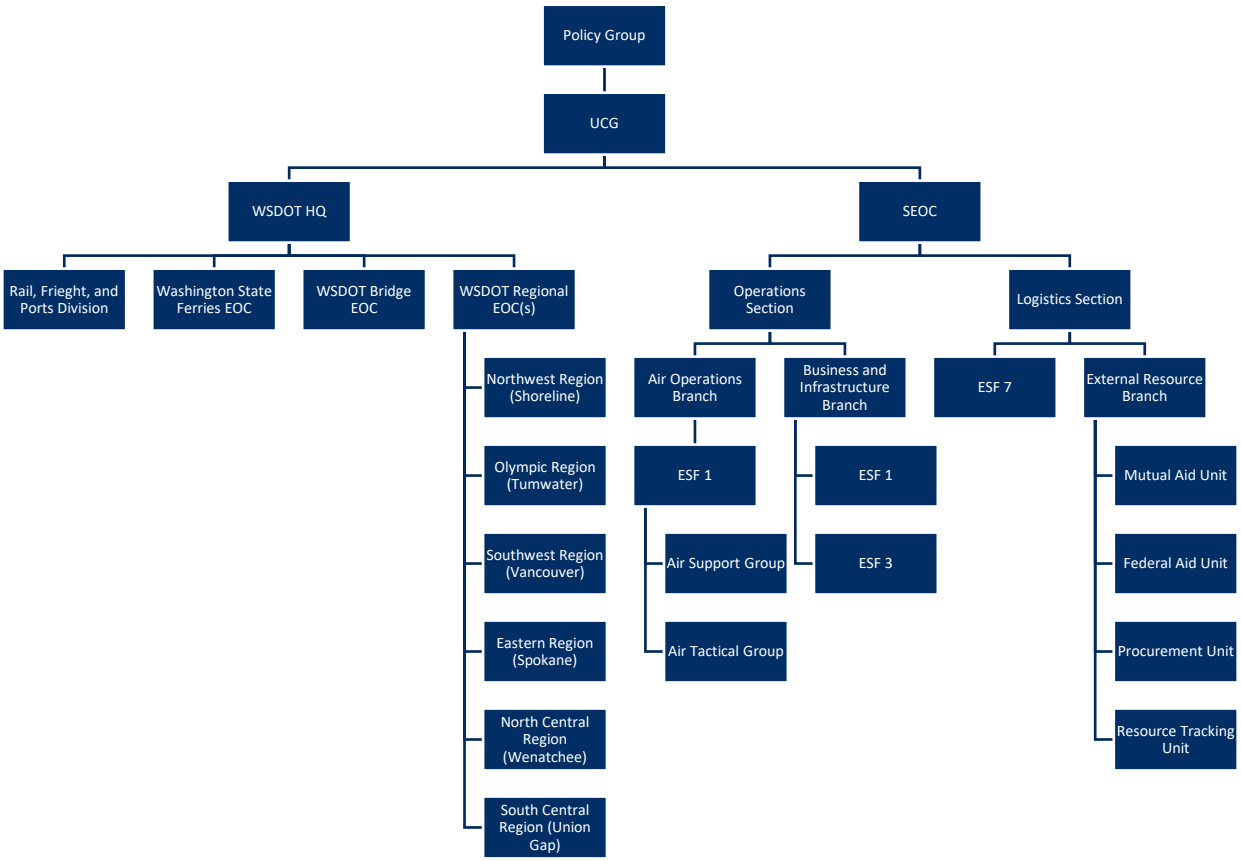

Figure 7 - Response Structure for Incident Involving Critical Transportation

Direction, Control & Coordination

General

Many hazard and incident types pose great risk to the transportation system and will greatly reduce the ability to move resources and potentially conduct evacuations out of impacted areas. As out-of-state resources begin moving into state, transportation will represent the first barrier to responding to an incident and beginning lifesaving and sustaining activities. The barrier or challenge will then be to identify how resources can begin to move into staging areas at all levels to initiate the response. Once the resources are able to move into these staging areas, they will require direction in order to proceed to their areas of operation.

Unified Coordination Group and Policy Group

The UCG and Policy Group will be responsible for providing the overall direction of Critical Transportation priorities and should clearly establish and communicate leadership's intent and strategic goals to response personnel.

Coordination between state agencies will be essential in providing the input for a restoration plan following a significant disruption to transportation infrastructure. Each agency and department will need to evaluate the impacts to their Mission Essential Functions (MEF) and the dependencies on transportation to restore and sustain those activities. Every government stakeholder with affected MEFs should report specifically on the extent to which impacts to Critical Transportation is contributing to impacts to life safety and outline what is required to achieve incident stabilization.

Through the information collection of the UCG, WSDOT can prioritize the assessment and repair of transportation corridors necessary to aid in the restoration of government MEFs. These priorities will not be the sole focus of prioritization for response activities as other activities related to reestablishment of specific routes will need to occur as well that may or not be directly associated with government MEFs.

Information Collection, Analysis, & Dissemination

The following section outlines the Essential Elements of Information (EEI) needed to determine the effects on Community Lifeline subcomponents. The status of lifeline subcomponents directly affects the condition of the main lifeline. After the lifeline conditions are assessed, they can be used to inform activated ESFs to determine impacts and develop courses of action for an operational period's objectives. The conditions of the lifelines can also be developed into Senior Leadership Briefs (Tiers 1 & 2) to inform response personnel and senior leadership/decision-makers.

Figure 8 - Information Collection and Dissemination

Information Collection

General Essential Elements of Information (EEIs)

Community Lifeline	Lifeline Component	Lifeline Subcomponent	Essential Element of Information
Transportation	Highway/ Roadway	Roads	• Status and Access to WSDOT Seismic Lifeline • Status and Access to Priority Routes • Identification of routes that will require extensive resources and time to clear
		Bridges	• Status of critical bridges • # of highway bridges with at least moderate damage • Available detours • Accessibility concerns • Route clearance plan • Debris issues • Resource shortfalls • Identification of routes unable to be repaired without significant external resources Status of waivers (e.g., hours of service, vehicle marking, etc.)

			• Status of State or FHWA Approved Oversize/Overweight waivers • Status of state/tolling authority waivers to toll requirements
	Mass Transit	Bus	• Status of public transit systems
		Rail	
		Ferry	
	Railway	Passenger	• Status of rail transportation systems • # of railway bridges with at least moderate damage • # of oil or hazmat train incidents
	Aviation	Commercial	• Status of airports (to include reporting major delays and closures) • # of airport runways with at least moderate damage • Runway condition • Condition of critical infrastructure connections (i.e., power, water/wastewater, fuel, communications) • Status of immediate connecting roadway • Operability of air traffic control • Resources staged • Scheduled flights • Temporary Flight Restrictions
		General	
		Military	
	Maritime	Waterways	• Port status and assessment • # of port facilities with at least moderate damage • Status of local waterway • Condition of critical infrastructure connections (i.e., power, water/wastewater, fuel, communications) • Status of immediate connecting roadway • Resources staged • Port messages and reports • Resource shortfalls • Condition and statues of WSF and Local Ferries • Availability of ferry crews.
		Ports and Port Facilities	

Evacuation-specific Essential Elements of Information (EEIs)

Community Lifeline	Lifeline Component	Lifeline Subcomponent	Essential Element of Information
Transportation	Highway/ Roadway	Roads	• Status of evacuation routes • Status of Evacuation Staging Areas • Status of fueling areas for evacuation vehicles • Activation and suspension of contraflow operations • Road closures impacting evacuation traffic • Emergencies impacting evacuation traffic • Major evacuation traffic disruptions • Status of transportation infrastructure in neighboring jurisdictions/states
		Bridges	
	Mass Transit	Bus	• Status of public transit systems
		Rail	
		Ferry	
	Railway	Passenger	• Status of rail transportation systems
	Aviation	Commercial	• Status of airports (to include reporting major delays and closures)
		General	
		Military	
	Maritime	Waterways	• Status of maritime (to include closed ports)
		Ports and Port Facilities	
	Applies to all components + Other Lifeline EEIs that inform the Critical Transportation core capability for the Evacuation function		• Identification of HAZMAT threat • # of projected evacuees • Location of evacuation destination (to include if the evacuation is internal or external of the impacted political jurisdiction) • Location of evacuation facilities • Projected clearance times from evacuation area • Capacity and distance of shelters from impacted area • Status of fuel supply along evacuation routes • # of evacuees requiring accessible transportation

		• Transportation resource shortfalls (vehicles, operators, fuel) • Public information messaging/notices • Expected changes in weather conditions that would impact evacuation operations • Time required to complete evacuations with available resources • Time required to complete evacuations with external resource support • Reentry operations (i.e., phased reentry)

Debris Clearance-specific Essential Elements of Information (EEIs)

Community Lifeline	Lifeline Component	Lifeline Subcomponent	Essential Element of Information
Transportation	Highway/ Roadway	Roads	• Debris blocking priority routes and the WSDOT Seismic Lifeline • Debris blocking access from state transportation infrastructure to local priority routes • Estimated miles to clear along each impacted route • Estimated time to clear priority routes for damage assessment access • Estimated time to clear priority routes to enable single lane access • Estimated time to clear priority routes to enable two-way traffic
		Bridges	
	Mass Transit	Bus	• Debris blocking mass transit routes
		Rail	
		Ferry	
	Railway	Passenger	• Debris blocking rail transportation
	Aviation	Commercial	• Debris inhibiting access to airport facilities • Debris blocking airport runways
		General	
		Military	
	Maritime	Waterways	

		Ports and Port Facilities	• Debris inhibiting access to facilities • Debris blocking vessel navigation
	Applies to all components + Other Lifeline EEIs that inform the Critical Transportation core capability for the Debris Clearance function		• Types of debris • Identification of HAZMAT threat • Debris blocking evacuation routes • Debris inhibiting first-responder activities • Debris blocking access to critical infrastructure • Location of landslides • Location of debris flows from dam/levee failures • Location of ground liquefaction sites • Remote sensing missions that have been requested • Areas that are being assessed • Where over-flights are being conducted • Other aerial reconnaissance missions in progress • Commercial remote sensing sources availability • Status of fuel supply for debris clearance equipment • Transportation resource shortfalls (vehicles, equipment, operators, fuel) • Resources available and locations of resources • Public information messaging/notices • Expected changes in weather conditions that would impact debris clearance operations • Availability of storage locations for removed debris

Information Analysis

Figure 6 displays the relationship of ESFs associated with information collection and analysis activities. Information collected through impacts to Community Lifelines can then be analyzed by these ESFs to inform new or ongoing response objectives.

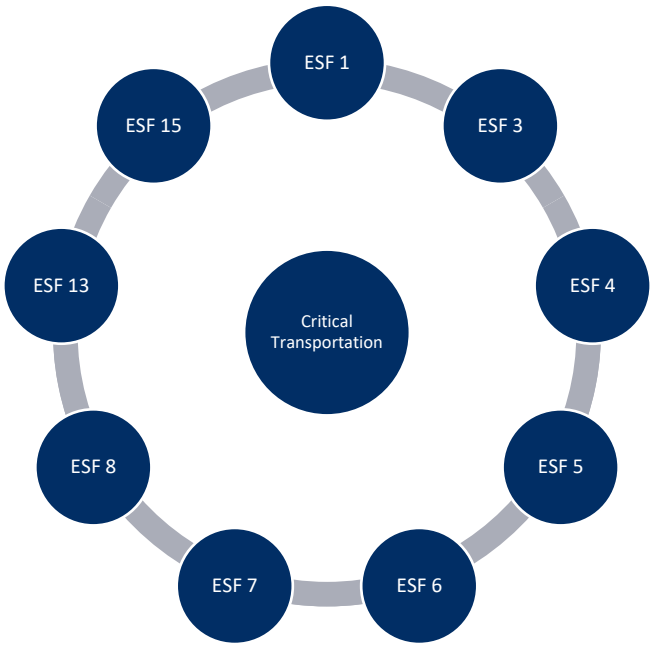

Figure 9 - Critical Transportation Information Analysis

Information Dissemination

Information analysis will result in contributions to the Tier 1: Disaster Summary, Senior Leadership Brief (SLB) provided to the UCG. Additionally, the more detailed information not necessary for executive level response decision making will be supplied for the creation of the Tier 2: Lifeline Overview SLB for use in tracking conditions and informing response personnel.

Responsibilities

The table below outlines the responsibilities of the entities involved with this Tab. These actions are tied to executing the Critical Tasks noted in the Concept of Operations section, which contribute to the primary and supporting Core Capabilities.

Note: While it may seem intuitive to associate Critical Transportation with the normal functions of WSDOT and ESF 1, there are many activities which will be performed through the various Sections of the SEOC. These activities are most notable within the Logistics and Supply Chain Management supporting core capability.

Phase 1 (Prepare)

Phase 1	
Critical Transportation	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.
Operational Coordination	

• Identify local priority routes within each county and Tribal lands.
  ○ Identify local routes within each city and town in cooperation with counties.
  ○ Identify local routes that connect with other jurisdictions.
  ○ Identify local routes that bypass state routes to enable access around hazard-prone areas.
  ○ Identify routes that connect with local critical infrastructure
  ○ Identify routes that connect with local staging areas and CPODs.
• Develop plans in coordination with WSDOT HQ and WSDOT Regional Offices.
  ○ Identify priority routes for assessment and repair.
• Develop plans in coordination with WSDOT Aviation for the use of airports.
• Develop plans in coordination with WSDOT Ferries for the use of ferries.
• Coordinate with private sector maritime and rail partners for reestablishment of transportation corridors.
• Develop plans in coordination with the Washington National Guard.
• Develop plans in coordination with FEMA Region 10 to support the reestablishment of the transportation system's connection from ISB/FSAs/APODS to SSAs.	

Operational Communications	
• Identify communication needs for a WSDOT response involving a disruption or degradation of communications capabilities. • Identify the communications needs to support cross jurisdictional evacuation.	

Logistics and Supply Chain Management
• Identify resource needs to establish access along the WSDOT Seismic Lifeline. • Identify those portions of the transportation system that will require significant or special resources to repair or restore. • Identify those portions of the transportation system that will require considerable time to repair or restore. • Identify transportation resources to request using EMAC. • Coordinate with FEMA Region 10 on the development of Mission Ready Packages for "push" logistics.
Situational Assessment
• Input priority route information into GIS for use in all phases. • Identify capabilities to clear debris from any road type over a pre-defined period of time. • Identify areas within the state that will become isolated due to severe and long-lasting transportation damages. • Identify local, regional, Tribal, and state resource gaps.

Phase 2a (Initial Response)

Phase 2a	
Critical Transportation	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.
Operational Coordination	
• Establish contact between WSDOT HQ and the SEOC • Determine transportation-related ICS positions needed for staffing of ESF 1 • Receive situation reports from WSDOT HQ concerning regional conditions to include damage status and available capabilities • Identify routes that are being assessed and their priority/sequence of assessment • Coordinate with ESF 6 for evacuation routes that will be needed • Identify temporary bypasses to impacted infrastructure • UCG outlines response goals based on conditions, damage, and available resources on-hand ○ SEOC/ESF 1 develops response objectives based on UCG goals for: ▪ Tracking deployment and status of assessment teams, repair teams, and debris clearance teams ▪ Repair priorities (to include temporary bypasses) ▪ Evacuation route conditions ▪ Evacuation transportation resources	

▪ Establishing access for movement of resources into affected areas • Coordinate with local emergency management and public works to determine if state transportation resources can be used to support the establishment of local priority routes which support objectives
Operational Communications
• Ensure the capability to communicate with WSDOT HQ • Ensure that WSDOT HQ can communicate with regional offices and other field operations • Establish the ability to provide communications to SSAs • Determine capabilities needed to support communications with private airports, maritime, and rail partners which may be used during the response • Ensure the capability to communicate with local and Tribal partners for transportation response • Ensure the capability to communicate with FEMA Region 10
Logistics and Supply Chain Management
• Determine initial resource deficiencies for debris clearance and highway/bridge assessments • Push initial mission ready packages to support previously identified resource gaps • Determine initial capabilities needed to meet debris clearance operations and assessments • Determine composition of EMAC and federal requests needed for debris clearance and assessment resources • Stand-up and staff SSAs • Make preparations for resource coordination between SSAs, FSAs, APODs, and the ISB • Support requests for evacuation resources
Situational Assessment
• Map impacted state routes (roadways and bridges) into GIS using Priority Routes layer ○ Determine nature of impact (e.g., landslide, bridge collapse, etc.) ○ Map impacted local priority routes into GIS using Priority Routes layer • Map impacted WSDOT Ferry terminals into GIS using Priority Routes layer • Map impacted maritime ports into GIS using Priority Routes layer • Map impacted airports into GIS using Priority Routes layer ○ Identify airports with impacted access that are designated as SSAs, APODs, and FSAs • Map impacted rail lines into GIS using Priority Routes layer • Identify areas that are inaccessible or cut-off due to damaged state routes • Determine impacts status of Transportation Community Lifeline

Phase 2b (Employment Resources)

Phase 2b	
Critical Transportation	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.

Operational Coordination

- Develop a time-based plan to restore operation of lifeline routes, or alternate routes if the lifeline routes are severely damaged, and ports of entry
- Coordinate assessment of debris clearance/removal and repair efforts through WSDOT regional EOCs
  - Begin debris removal and emergency repairs necessary to reestablish transportation corridors for increased capacities[8]
- Determine repair requirements for maritime infrastructure
  - Assess the viability and requirements for establishing minimal operations
- UCG updates response goals based on conditions, damage, and available resources on-hand
  - SEOC/ESF 1 updates response objectives based on UCG goals for:
  - Tracking deployment and status of assessment teams, repair teams, and debris clearance teams
  - Repair priorities (to include temporary bypasses)
  - Evacuation route conditions
  - Evacuation transportation resources
  - Establishing access for movement of resources into affected areas
- Coordinate with Federal ESF 1 on response needs

Operational Communications

- Sustain the capability to communicate with WSDOT HQ
- Sustain communications between WSDOT HQ and regional offices and other field operations
- Sustain the ability to communication with SSAs
- Ensure the capability to communicate with Local Staging Areas
- Sustain capabilities to support communications with private airports, maritime, and rail partners which may be used during the response
- Sustain communications with FEMA Region 10

[8] Phase 2a activities concerning debris clearance and removal will likely only be concerned with establishing initial access for a single lane. This phase may allow for available resources to establish access for additional capacity.

Logistics and Supply Chain Management
• Support resource requests for transportation resources • Identify external resources that can support response objectives • Track mutual aid and federal resources employed by the state • Identify barriers for the movement of resources • Identify alternative methods for the movement for resources
Situational Assessment
• Maintain map of impacted state routes (roadways and bridges) in the GIS Priority Routes layer • Assess if available priority routes are connecting staging areas, points of distribution, points of entry, hospitals, and emergency services including police and fire. • Identify areas that are inaccessible or cut-off due to damaged state routes • Determine impacts status of Transportation Community Lifeline ○ Identify if response conditions are improving or worsening • Assist in the assessments of non-priorities routes

Phase 2c (Transition to Recovery)

Phase 2c	
Critical Transportation	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.
Operational Coordination	
• Transition response activities from ESFs to RSFs • Transition response from the CIA to WRF	
Operational Communications	
• Ensure the capabilities to communicate with recovery personnel and field operations	
Logistics and Supply Chain Management	
• Demobilize resources as they are no longer required • Close out State Staging Areas	
Situational Assessment	
• Maintain reporting statuses of lifelines until all lifelines are stabilized	

References and Supporting Guidance

SCIPT Critical Transportation Outreach

Developed by the SCIPT, this outreach first met with each HLS Region across the state, then initiated 1-on-1 meeting with each partner to determine those routes that are prioritized at local levels for assessment and repair.

Transportation RRAP

The Washington State Transportation Systems project assessed the resilience of Washington State's surface transportation systems to a Cascadia Subduction Zone (CSZ) earthquake, and the ability of those systems to support post-disaster response and recovery activities.

Highway Seismic Screening Tool (HSST)

Assessment of each segment in the highway network according to four factors: segment soil liquefaction potential, distance from the CSZ fault, relative ground slope, and segment pavement type.

Bridge Seismic Screening Tool (BSST)

Assessment of the potential impacts that a CSZ earthquake could have on state highway bridges and offers an approximate reopening time for each bridge.

Airport RRAP

The Cybersecurity and Infrastructure Security Agency (CISA), under DHS, partnered with WSDOT Aviation Division and Washington Emergency Management Division to conduct airport/airfield resilience assessments for select airports within Washington State.

Terms and Definitions

Seismic Lifeline Corridor

The Pacific Northwest section of I-5, the I-5 Urban Corridor, extends from Eugene, Oregon to the Vancouver, Canada. The State, county and cities in the Puget Sound area have a long-term plan for seismic retrofitting for emergency response and economic recovery to build a usable route around the I-5 section through downtown Seattle via SR 99 and I-405.