

# Washington State

**Cascadia Rising 2022 Exercise** (June 2022)

**Final After-Action Report and Improvement Plan**

*Publish Date: July 18, 2023*



## Thank You

The Washington Military Department and the Emergency Management Division would like to thank all those from across our state and region – residents, tribal governments and members, volunteers, non-governmental, non-profit organizations, private sector, local jurisdictions (cities and counties), state government, and federal partners – who dedicated their time, expertise, and resources to design and conduct the second Cascadia Rising exercise series. The Cascadia Rising 2022 (CR22) exercise design, evaluation, and improvement planning team send a special appreciation to all the workgroup members, support staff, and local jurisdictions that provided support to Cascadia Rising 22. Without their involvement, this exercise and improvement planning process would not have been possible. Their tireless efforts have continued to provide the foundation for improving our collective preparedness, mitigation, and resilience through the exercise conduct and the After-Action and Improvement Plan processes.

## Message from the Director

On behalf of the Washington Emergency Management Division, I am honored to present the final Cascadia Rising 22 After-Action Report and recognize the incredible work our local, tribal, state, federal, non-profit, and private sector partners undertook to complete this Improvement Plan. This exercise was the latest evolution of the Cascadia Rising National Level Exercise (NLE) series intended to prepare Washington State for a no-notice catastrophic Cascadia Subduction Zone earthquake. A Cascadia Subduction Zone earthquake would result in devastation, loss of life, social and economic impacts, and dramatic changes to the Pacific Northwest's way of life for decades into the future.

The Cascadia Rising 2022 exercise series was developed collaboratively with representation from the public, private sector, not-for-profit, non-governmental organizations, and all levels of government. The collaborative process focused on Critical Transportation and Mass Care Services, just two of the essential core capabilities needed to provide lifesaving and life-sustaining activities during a catastrophic earthquake response. The exploration of these two primary core capabilities provided critical insight that will aid in the response to a Cascadia event as well as local or regional disasters.

This Cascadia Rising 22 After-Action Report/Improvement Plan outlines the final observations, considerations, and improvement action items identified from exercise analyses conducted during the first phase of the after-action process. These observations represent common threads or themes from across the state to provide a better understanding of the complexity of issues continuing to impact response and recovery operations.

The final observations, considerations, and improvement action items outlined within this document are intended to improve the state's preparedness, response, and mitigation strategies through tribal, local, regional, and statewide initiatives. Preparedness, response, and mitigation activities are needed to address life-safety and life-sustainment, stabilization of critical infrastructure and community needs, as well as short- and long-term recovery. It is imperative that Washington State continue to strive for and develop a culture of preparedness and mitigation at all levels of government, with inclusion of the public and private sectors to mitigate the impacts of a catastrophic event.

I would like to thank the exercise improvement planning workgroup team members and participants for their significant contributions. Your collective work is paving a strategic and operational path forward to enhance catastrophic preparedness and mitigation activities and set the stage to further strengthen the resilience of Washington State.



Robert Ezelle, Director  
Washington Emergency Management Division

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## Executive Summary

**Purpose:** The purpose of this After-Action Report and Improvement Plan is to provide an analysis and develop and implement a series of action items as prescribed from the Cascadia Rising 2022 (CR22) Summary of Conclusions.

**Scope:** This After-Action Report / Improvement Plan covers the period of June 13-16, 2022, was influenced by several National Level Exercises and regional initiatives between February and May 2022, and the July 2022 – May 2023 Cascadia Rising 22 improvement planning efforts.

The focus of the action items were defined from the Cascadia Rising 22 discussion-based exercise for primarily critical transportation and mass care services, but also operational communication, operational coordination, and logistics and supply chain management to augment impacted and supporting jurisdictions following a Cascadia Subduction Zone (CSZ) event.

**Background:** Cascadia Rising 22 was the next evolution of exercises focused on responding to a Cascadia Subduction Zone earthquake, with exercise play beginning at the 96th hour after the initial rupture. This exercise gathered more than 600 participants from tribal partners, the private sector, faith-based organizations, healthcare providers, higher education and school districts, non-governmental/non-profit organizations, cities, counties, state agencies, and federal partners.

It was also supported by the Federal Emergency Management Agency's (FEMA) National Exercise Division (NED) in a collaborative partnership to align the National Level Exercise objectives of Stabilization, Initial Recovery, and Strategic Coordination.

## Administrative Handling Instructions

1. The title of this document is the Washington State Cascadia Rising 2022 (CR22) Exercise Series “After-Action Report and Improvement Plan.”
2. This After-Action Report and Improvement Plan (AAR/IP) provides exercise participants, stakeholders, Washington residents, tribes/nations, private sector, non-governmental, non-profit organizations, local jurisdictions, federal partners, and state agencies with a review and summary of exercise observations, the considerations for improvement, and the continuing After Action and Improvement Plan processes.
3. The information contained in this document is intended for public release.
4. For more information about the exercise, please consult the following points of contact (POCs):

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## Exercise Objectives

### CRITICAL TRANSPORTATION OBJECTIVES AND CORE CAPABILITIES

Exercise 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 how to determine the elements needed as input to develop a plan for reopening the statewide transportation system.

### MASS CARE SERVICES OBJECTIVES AND CORE CAPABILITIES

Exercise Objectives
<b>Sheltering Objectives.</b> <ul style="list-style-type: none"><li>a) Assess the shelter needs of people and pets within the community.</li><li>b) Describe organized community sheltering strategies and operations.</li><li>c) Describe how to effectively coordinate temporary sheltering needs among jurisdictions.</li></ul>
<b>Hydration Objectives.</b> <ul style="list-style-type: none"><li>a) Assess the hydration needs of people and pets within the community.</li><li>b) Describe organized community hydration strategies and operations.</li><li>c) Describe how to effectively coordinate hydration needs among jurisdictions.</li></ul>
<b>Feeding and Nutrition Objectives.</b> <ul style="list-style-type: none"><li>a) Assess the feeding and nutrition needs of people and pets within the community.</li><li>b) Describe organized community feeding strategies and operations.</li><li>c) Describe how to effectively coordinate feeding and nutrition needs among jurisdictions.</li></ul>



## Introduction

The Cascadia Subduction Zone (CSZ) is a 700-mile-long megathrust fault that stretches offshore from Northern Vancouver Island, British Columbia (BC), to Cape Mendocino, California. It is formed by the intersection of the Juan de Fuca and North American plates. The Juan de Fuca plate is moving eastward toward and driving (subducting) beneath the North American plate.

The Cascadia Rising 22 scenario is based on a magnitude 9.0 Cascadia Subduction Zone earthquake along the length of the fault with no distinct epicenter. An event of this type occurs on average once every 200 to 500 years. The last Cascadia Subduction Zone earthquake and tsunami occurred on January 26, 1700, placing Washington State within the recurrence interval for another event. It is estimated shaking resulting from a rupture of the fault could last four to six minutes, with subsequent tsunamis and aftershocks that will continue for hours to months. Additional impacts and cascading events include damage resulting from liquefaction-prone soils and landslides or rock falls.

A Cascadia Subduction Zone earthquake is anticipated to be potentially the largest natural disaster the United States could face and be one of the most complex disaster scenarios for emergency managers, public safety officials, government agencies, and policymakers. To prepare for and practice an emergency response, Washington's Emergency Management Division, in conjunction with stakeholders from around the state, developed and coordinated the Washington State Cascadia Rising 22 exercise series to capitalize on lessons learned from the Cascadia Rising 16 Full-Scale Exercise (FSE) and continue to develop response capabilities within Washington State. The exercise was one component of other Cascadia Rising 22 National Level Exercise (NLE) events spanning the entire 2022 calendar year to examine the ability of all levels of government, private industry, and non-profit or governmental organizations to respond to and recover from a large rupture along the Cascadia Subduction Zone fault line.

This Cascadia Rising 22 After-Action Report / Improvement Plan (AAR/IP) is based on the [Cascadia Rising 22 Summary of Conclusions](#) published in December 2022. The Cascadia Rising 22 Summary of Conclusions (SoC) highlighted the major areas for improvement and paved the path for the creation and implementation of three post Cascadia Rising 22 After-Action Report/Improvement Plan workgroups to develop and charter the course for specific action items to meet the Courses of Action (COA) identified in the Cascadia Rising 22 Summary of Conclusions.

The exercise Improvement Workgroups consisted of:

- Critical Transportation
- Mass Care Services
- Operational Communications / Operational Coordination

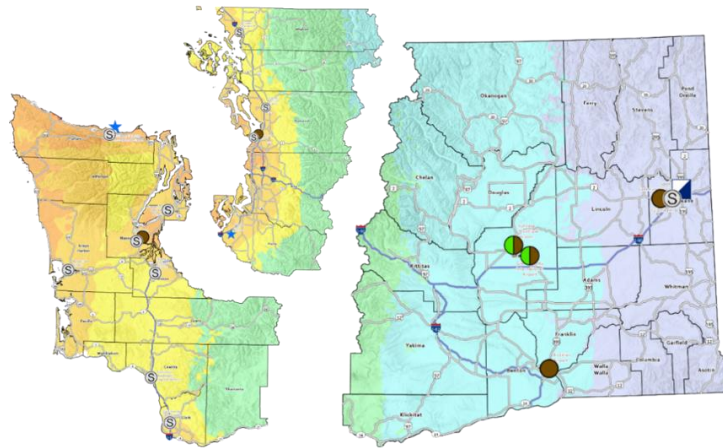
See Appendix D for additional participant information.

## METHODOLOGY

While the Cascadia Rising 22 after action process is inclusive of the entirety of the three-day exercise, this Cascadia Rising 22 After Action Review/Improvement Plan focuses on and provides a more in-depth review of four themes closely related to the most significant operational and strategic objectives from the exercise.

Two primary [Federal Emergency Management Agency Core Capabilities](#) were selected to be exercised during Cascadia Rising 22: Critical Transportation and Mass Care Services. However, Logistics & Supply Chain Management, Operational Communication, and Operational Coordination were also assessed and incorporated into the After-Action Review/Improvement Plan process. This demonstrates the assessment of how well the state can deliver Critical Transportation and Mass Care Services in the event of a catastrophic earthquake.

Exercise play was organized with three distinct geographically aligned regions (Coastal, Interstate-5 Corridor, and East of the Cascades). This model facilitated localized exploration of the exercise objectives at the small group level. The Cascadia Rising 22 After Action Review/Improvement Plan was organized by three workgroups with inclusion and representation from each of the geographically aligned regions. This allowed for cross-pollination and examination of improvement items to ensure each Improvement Plan was able to meet each geographic region's needs.



**Figure 1. Geographically Aligned Breakout Rooms**

At the conclusion of each Tabletop Exercise, exercise participants, observers, and support staff were invited to attend the consolidated hotwash and provide additional qualitative feedback. Finally, the exercise team developed participant feedback surveys to collect quantitative and qualitative data for each event.

This Cascadia Rising 22 After Action Review/Improvement Plan outlines the initial observations, priority themes, and focus areas provided by the Washington State Cascadia Rising 22 Summary of Conclusions, the strategic guide for the After Action and Improvement Planning (AAR/IP) process. The Improvement Item “Target” and “Corrective Action Program Review” dates are goals, necessary to ensure completion and track progress; however, various action items may have, but not limited to, funding, staffing, or other constraints preventing an improvement item from moving forward. This

does not indicate the improvement item has been set aside; it simply means the item is on hold until funding, staffing, or other constraints can be mitigated.

## LIMITATIONS

While the after-action process is inclusive of the entirety of the exercise, both in terms of the full exercise timeframe and the full spectrum of discussions and partners, there are several important factors that limit the after-action review team's ability to collect and analyze the data which informed this report. These factors were considered in the analysis and development of this report and should be considered by the reader as well.

A discussion-based exercise limits the ability of evaluators to effectively evaluate outcomes. Additional effort is needed beyond this After-Action Review/Improvement Plan to better understand local and tribal emergency management agency, state agency, and State Emergency Operations Centers (SEOC) capacity and capability to validate and/or build work plans from each action item which are necessary to occur following the promulgation and conclusion of this Cascadia Rising 22 After Action Review/Improvement Plan process.

The areas outlined within this document were developed by the three workgroups examining cross-cutting themes that were evident in exercise documents and participant feedback. The volume of data will also require greater time and staffing to fully evaluate findings. Furthermore, much of the analysis will require discipline/functional area and capability-specific subject matter experts to provide insight and clarity for the identified improvement action items. However, based on the pervasive nature of these cross-cutting themes, the workgroups believe the priorities and focus areas provided within this document capture the elements needed for further development beyond the After Action Review/Improvement Plan process.

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## Strategic and Operational Findings

The Cascadia Rising 22 Summary of Conclusions (SoC) highlighted four issue areas and contained 16 recommendations with 28 courses of action (COA) needing further exploration, analysis, and improvement planning. The 28 Courses of Actions represent strategic initiatives to influence and guide improvement planning workgroups. The three workgroups identified and developed 92 short- and long-term improvement actions for preparedness, response, recovery and mitigation, but most importantly for continuing to build local and tribal community and statewide resilience.

The first Summary of Conclusions issue area identified a need to “Prioritize the reopening of critical surface transportation infrastructure along key east-to-west routes to move lifesaving and life-sustaining bulk goods and resource support statewide.” (*Cascadia Rising 22 Summary of Conclusions Executive Summary page v*) Limited east-west ground transportation corridors severely limits transportation of logistical resources, including food, water, fuel, and medical supplies to impacted jurisdictions, and limits state-level west-east evacuation capabilities.

The second issue area identified a need to “Prioritize funding to mitigate critical communications infrastructure to maintain emergency response coordination capabilities and provide emergency public information statewide.” (*Cascadia Rising 22 Summary of Conclusions Executive Summary page vi*) Significantly impacted communications infrastructure will severely degrade the ability of local, tribal, state, and federal partners from establishing and maintaining effective incident coordination including the ability to effectively control movement of response and logistical support resources statewide.

A third issue area identified a need to “Prioritize the study of critical aerial, maritime, and rail transportation infrastructure to plan for and move lifesaving and life-sustaining bulk goods and resource support statewide.” (*Cascadia Rising 22 Summary of Conclusions Executive Summary page vii*) Given the magnitude and complexity of a Cascadia Subduction Zone earthquake, coupled with the limited ground transportation corridors to deliver resources and support evacuations, a unified and coordinated approach will need to simultaneously augment resource support by air, maritime, and rail transportation methods.

The fourth and last major issue area identified a need to “Establish comprehensive mass care service and support plans, agreements, and resource support requirements for emergency sheltering, hydration (drinking water), and food and nutrition to support impacted and supporting communities, and people with Access and Functional Needs (AFN).” (*Cascadia Rising 22 Summary of Conclusions Executive Summary page viii*) The significant lack of effective and standardized mass care services planning for shelter operations, feeding, hydrating, and providing wrap around support services for people, people with access and functional needs, and pets will severely impact those affected by the Cascadia Subduction Zone earthquake and significantly slow individual and community recovery.

Aligning the Cascadia Rising 22 Summary of Conclusions Executive Summary, Courses of Action, the Cascadia Rising 22 After Action Review/Improvement Plan strategic and operational findings, and this Cascadia Rising 22 After-Action Report (AAR) Improvement Action items provides a consistent and succinct method for informing and setting the stage for strategic, operational, and tactical programmatic updates. State, tribal and local jurisdiction continuous improvement and evaluation efforts transcend individual exercises and individual or organizational priorities to support preparedness reporting and trend analyses. The following analyses are a list of courses of action derived from the after action hotwash, participant feedback, state agency priorities, executive summary issues, observations, and lines of effort mentioned above.

## Appendix A: Critical Transportation

### ANALYSES OF ISSUES AND CAPABILITIES

#### **Issue 1 – Surface Transportation Infrastructure:**

Prioritization of critical surface transportation infrastructure mitigation projects to enhance resiliency along the key east-to-west corridors for bulk movement of lifesaving and life-sustaining goods and resource support.

#### ***Surface Transportation Infrastructure Improvement Item 1):***

##### ***Observation:***

Representatives from tribes and local jurisdictions spanning both Critical Transportation and Mass Care Service Tabletop Exercise(s) expressed discontent with the inability to effectively understand how the state, tribes, and local jurisdictions were coordinating the prioritization and re-opening of critical state, tribal, and local surface transportation routes to allow for the delivery of bulk goods and resource support and community movement to life safety services such as shelters and healthcare facilities.

##### ***Analysis:***

Initial response efforts will largely depend on the rapid ingress of resources into Washington State. These capabilities are contingent on federally and state pre-coordinated response plan logistical nodes that can receive resources and transition them to surface transportation routes into the affected area. Restrictive terrain across the Cascade Mountain range and the transportation routes into the coastal region pose significant challenges to the viability of surviving surface transportation routes.

It was unclear how long it would take to conduct emergency repairs to each bridge and/or section of the highway and provide an aggregate timeframe to begin re-opening the key east-to-west corridors. It remained unclear how state and local policy and the Unified Coordination Group were going to prioritize and operationally coordinate delivery of federal bulk goods and resources to federal staging areas, state staging areas, and local community points of distribution without having emergency repair estimates and/or re-opening timelines.

Participants highlighted the critical nature of urgent mitigation projects needed to improve the resiliency of surface transportation lifelines along key routes connecting eastern and western Washington, Interstate-5 to support impacted communities south, north, and west of the Interstate-90/Interstate-5 interchange, and those alternate local jurisdictional routes that connect to impacted and isolated communities. Limited and susceptible routes over the Cascades and those that connect large airfields offer the only viable heavy-volume routes to support the response.

The east-to-west routes are the primary surface ingress route across the Cascades to connect logistics nodes in eastern Washington with the logistics nodes at Everett's Paine Airfield and Joint Base Lewis McChord. These seismic lifelines are anticipated to be the first routes to reopen to support responders and logistical support west of the Cascades. Both lifelines include numerous bridges susceptible to damage or failure, including elevated spans and sections that have reached their service lives. While portions of these routes have been upgraded, ongoing and extensive mitigation projects are needed to improve their resiliency.



### **Course(s) of Action:**

1. Develop a comprehensive surface transportation mitigation decision package(s) that urgently implores state lawmakers to allocate and invest mitigation funding to support the critical surface transportation infrastructure (bridges and highways) along east-to-west ground transportation routes and priority alternate routes.
2. Conduct in-depth analysis to develop a comprehensive plan, led by the Washington State Department of Transportation (WSDOT), focused on connecting state and interstate highways to federal and state staging areas that provide:<sup>1</sup>
  - a. A timeframe analysis for emergency bridge and highway inspections,
  - b. A timeframe analysis for emergency bridge and highway repairs, and
  - c. An individual bridge timeframe and an aggregated highway timeframe for re-opening key east-to-west corridors.
3. Establish and support (through legislative, local policy, and/or grant funding, staffing, and workload assistance) local jurisdictions development of a comprehensive plan, with analyses, listing all locally identified priority route bridges and roadways to connect state highways to local community points of distribution and emergency shelters that provide:
  - a. A timeframe analysis for emergency bridge and roadway inspections,
  - b. A timeframe analysis for emergency bridge and roadway repairs, and
  - c. An individual bridge timeframe and aggregated route timeframe for re-opening.
4. Establish and support (through funding, staffing, and workload assistance) state and local emergency management programs exploration, development, and integrate coordination of evacuation (and publicly communicated) strategies and plans using the limited and available surface transportation routes. These plans should be deconflicted with commodity distribution management plans and public safety disciplines.

**Core Capabilities:** Critical Transportation, Operational Coordination

**Critical Transportation identified in previous After Action Review?** Yes

### **Surface Transportation Infrastructure Improvement Item 2:**

#### **Observation:**

Representatives from tribes and local jurisdictions recognized the significant impact damages to the critical surface transportation corridors will have impacts to the traditional public and private sector logistics supply chain. The State of Alaska receives a large portion of food, water, and resources from Puget Sound ports. If the ports are destroyed or damaged, residents in Alaska and elsewhere (e.g., Canada) may experience impacts to food, water, and resource supply chains. With the current inability of state and local officials to determine an estimated time frame for providing emergency repairs to, and the re-opening of, key ground transportation routes, it is currently unknown what the consequences will be for impacted communities west of the Cascade Mountain range, as well as communities east of the Cascade Mountain range who are dependent on the delivery of goods and resource support from western Washington. <sup>1</sup> Please see the *2016 Cascadia Rising Exercise After-action Report* for added insight: Appendix D, Core Capability 7: Planning, Observation 7.1, pages. 19-20. Link: [2016 Cascadia Rising Exercise After-action Report](#)

### ***Analysis:***

Discussions throughout both the Critical Transportation and Mass Care Services Tabletop Exercise(s) illustrate the strategically important role western Washington public and private sector facilities and infrastructure provides to logistics and the statewide supply chain. This infrastructure includes, and is not limited to, traditional points of distribution, warehouses, communications capabilities, and fuel supply points.

A Cascadia Subduction Zone 9.0 magnitude event will cause significant damage to aerial, maritime, and rail(road) infrastructure supply chain embarkation and debarkation points and surface infrastructure throughout western Washington. The disruption to surface transportation infrastructure will prevent the movement of public and private delivery of traditional and bulk goods and resource support to impacted or isolated communities and people with Access and Functional Needs. In addition, communities that receive traditional public and private sector supply chain materials and goods will also be impacted by potential self-evacuees from the impacted areas. The additional burden on eastern Washington communities from displaced survivors who can travel will increase the likelihood of extreme shortages in goods, services, and resource support above normal community capacity.

In addition, non-traditional pre-identified emergency shelters and community points of distribution along the prioritized state and local jurisdictional routes will create another supply need in impacted and supporting communities. This additional community strain complicates state and local officials' ability to develop a comprehensive understanding of the supply-demand for food, water, fuel, and medical supplies to support survivors, people with Access and Functional Needs, and people with pets.

Furthermore, fuel needs across the state are unknown. State agencies, tribes, and local jurisdictions indicated fuel will be an urgent need for communities statewide; however, state agencies, tribes, and local jurisdictions could not provide details or data on what the fuel needs will be following a Cascadia Subduction Zone event. Healthcare communities, first responders (fire, law enforcement, emergency medical services, etc.), shelters, public works, and transportation (road clearance and debris removal), public and private commodity distribution services, will all require fuel for generators, supply chain ingress and egress, busses for mass evacuating displaced survivors, and more. Finally, fuel delivery will be impacted by significant damage and/or degradation to fuel critical infrastructure throughout the impacted areas. State and local officials will be unable to prioritize and effectively provide guidance on fuel distribution without a comprehensive understanding of the emergency repair and restoration of the fuel distribution critical infrastructure.

### ***Course(s) of Action:***

1. Conduct a statewide supply chain commodity flow study to understand commodity distribution impacts to normal supply chain routes along the key east-to-west corridors and determine alternate local jurisdictional routes to re-open. The risk for compromised out-of-state food & supply shipment should be quantified and initial planning done with those entities to identify alternative options.
2. Conduct a statewide supply chain commodity flow study to understand commodity (including, but not limited to, fuel, drinking water, food/nutrition) distribution impacts along identified and prioritized surface transportation routes in eastern and western Washington. This should include post-incident distribution to pre-identified emergency shelters and community points of distribution.

3. State, tribal, and local jurisdictions should conduct a collaborative fuel needs assessment through the Stakeholder Preparedness Review (SPR), appropriate planning, and essential elements of information. This should then be coordinated with the state Energy Office for consideration within fuel planning factors for surface transportation and delivery of fuel.

**Core Capabilities:** Critical Transportation, Logistics and Supply Chain Management, Operational Coordination

**Identified in previous After-Action Review:** No

### **Surface Transportation Infrastructure Improvement Item 3:**

#### **Observation:**

Representatives from tribes and local jurisdictions recognized the need to evacuate and temporarily relocate people, including those with Access and Functional Needs, and pets from the impacted areas, including isolated communities along the coast and islands within Puget Sound. With significant impacts to surface transportation infrastructure, those electing to self-evacuate will find safe passage difficult into potentially less or non-impacted communities.

In addition, the need to allow freedom of movement via prioritized and publicly communicated surface transportation routes will be challenged by factors such as continued emergency repair and/or restoration, additional seismic shifts, limited access to available routes, and commodity distribution. These additional factors stress the importance of the need for a comprehensive surface and aerial movement control framework.

#### **Analysis:**

Incident severity may necessitate the evacuation of large numbers of survivors from isolated communities or areas where reestablishing effective mass care services is unattainable. Large-scale evacuation requires extensive planning and coordination with other lines of effort, including the transportation network, logistics nodes, and mass care services. Current planning is limited to the identification of essential elements of information, roles, and responsibilities, and supporting core capabilities.

Interagency planning and coordination are needed to develop a comprehensive and inclusive whole-community evacuation plan that is nested with other planning efforts. Focus areas should include resource needs, as well as the identification of assembly points, respite sites, reception centers, and shelters. Additional focus areas include transportation models, people with Access and Functional Needs, pets, reunification, traffic management, public safety support, and public messaging.

Impacts on the state and local surface transportation network will create isolated communities, including the islands throughout Puget Sound. Emergency repairs to the surface transportation infrastructure will potentially create the ability to begin re-opening surface routes working outwardly to expand mobility corridors. In an environment where communications and coordination may be severely degraded, coordinated state and locally integrated interagency plans, executable at all levels with available resources, will be critical to establishing evacuation and supply chain corridors into affected areas.

Current planning is jurisdictionally limited and focuses on local or state-level priorities. Plans are limited to intra-agency resources or those expressed within existing mutual aid agreements. Additionally, plans lack a whole community approach to include routes necessary to access public

health and safety, shelters, Community Points Of Distributions, logistical nodes, essential work, or routes that are essential to jurisdictions beyond agency boundaries.

Many communities have tsunami evacuation plans; however, those evacuation routes and planning considerations are limited to the coastal communities and do not expand further into the interior of western Washington, including through the Cascade Mountain range. State-level planners identified the need to develop systems and products to identify and deconflict priority routes at all levels across the state. Previous models relied heavily on snow removal routes which were developed with an emphasis on interstate travel, throughput, and economic impact. These previous models omitted the need for an all-hazards approach and coordination with tribal and local jurisdictions to identify routes that will be needed to support public health and safety, evacuation, sheltering, Community Points of Distribution(s), and response resources.

A series of outreach events have been held to socialize the ongoing project and collect tribal and local data. Current participation is limiting the program's effectiveness in some areas where minimal information exists. Furthermore, information regarding jurisdictional capabilities is also limited.

During recent weather events, many of these limitations were highlighted during incident response. Mutual planning, aid agreements, and coordination are necessary to speed up the reopening of priority routes. These complications would be exacerbated in an environment where communication and coordination may be degraded, especially along routes into rural/coastal areas that are dependent on other jurisdictions to reopen corridors of mobility.

#### ***Course(s) of Action:***

1. Establish and support (through funding, staffing, and workload assistance) state, tribal, and local jurisdictions exploration, development, and vertically integration of operational surface evacuation strategies and plans aligned with movement control framework.
2. Establish and support (through funding, staffing, and workload assistance) state, tribal, and local jurisdictions expansion and further exploration on the integration of self-evacuation, planned evacuation, and commodity distribution with public safety and transportation officials when limited access routes are available for all Washingtonians.
3. Establish and support (through funding, staffing, and workload assistance) state, tribal, and local jurisdictions exploration, development, and vertical integration of private sector business re-entry and commodity distribution plans.
4. Establish and support (through funding, staffing, and workload assistance) state, tribal, and local jurisdictions exploration, development, and vertical integration of operational community re-establishment and reunification plans aligned with movement control framework.
5. Explore, develop, and vertically integrate catastrophic air and surface traffic movement strategies and plan(s) to support first responders, evacuation, and commodity distribution movement via templated logistical nodes and known priority routes.

***Core Capabilities:*** Critical Transportation, Operational Coordination

***Critical Transportation identified in previous After-Action Review?*** Yes

### **Issue 3 – Aerial, Maritime, and Rail Transportation Infrastructure:**

Prioritize aerial, maritime, and rail transportation infrastructure studies to develop planning initiatives to augment the bulk movement of lifesaving and life-sustaining goods and resources.

#### ***Aerial, Maritime, and Rail Transportation Infrastructure Improvement Item 1:***

##### ***Observation:***

Establishing an effective emergency critical transportation response to a Cascadia Subduction Zone event is not limited to the surface transportation infrastructure and takes a whole-transportation community approach to fully respond to, recover from, and re-establish Washington State communities impacted by a catastrophic earthquake. Surface transportation infrastructure is one of the four transportation lifelines and is severely limited by an already constrained number of route options. To respond and recover faster, additional transportation modes, including aerial, maritime, and rail(road) transportation resources and infrastructure, will be needed to allow for the delivery of bulk goods, resource support, and community movement.

##### ***Analysis:***

The impacts to state and local prioritized surface transportation routes and the repair and restoration times needed to re-open surface, aerial, and multi-modal ports will significantly delay lifesaving and life-sustainment within impacted communities. Additional capabilities such as maritime and rail(road) re-opening for the delivery of bulk goods and resource support are going to be needed to begin the response and support short-term recovery operations efficiently and effectively.

A 2019 Regional Resiliency Assessment Program (RRAP) assessment was conducted and briefly mentioned some airport, maritime, and rail impacts in the report; however, the premise of the 2019 Regional Resiliency Assessment Program was dedicated to, and supportive of surface transportation routes (bridges and highways) to establish a commodity flow into western Washington from federal logistics nodes established in eastern Washington.

A 2021 Aerial Port resiliency study between state and federal partners illustrated some of the challenges within current airport resiliency; however, during the Cascadia Rising 22 Critical Transportation Tabletop Exercise (influenced by the Federal Emergency Management Agency Region 10 Rehearsal of Concept (ROC) Drill in May 2022), it became clear there is not a comprehensive understanding of how long it would take to conduct emergency repairs to each of the major airports and identified Aerial Ports of Debarkation (APOD). Aerial Ports of Debarkation augment surface transportation supply chain efforts by providing locations to transfer commodities and resources to the surface transportation network. An aggregated timeframe to begin re-opening airports for the bulk delivery of goods and resource support to federal logistics nodes, state staging areas, and local community points of distribution is needed to inform planning for lifesaving and life-sustainment.

The lack of a dedicated maritime resiliency study to assess capability and risk does not afford the state the ability to effectively open ports for the evacuation of people, support bulk resource movement, or allow for the ingress of critical infrastructure repair resources needed for coastal and Puget Sound communities. In addition, islands throughout Puget Sound and coastal communities will be isolated from the main surface transportation corridors and will not have the ability to effectively navigate survivor evacuation or reception of bulk goods and resource support. Furthermore, the current unknowns concerning repair and restoration capabilities or time frames for maritime port(s) re-opening is another factor delaying an effective response to and recovery from a Cascadia Subduction Zone event.

The lack of a dedicated rail(road) resiliency study and collaborative partnership with rail(road) infrastructure owners and operators significantly prevents the understanding of rail(road)

infrastructure issues, repair and restoration capabilities, and time frames to deliver bulk goods and resource support to impacted communities. In a resource-constrained environment, rail(road) delivery may be one of the most efficient modes for transporting large quantities of commodities and resources into logistics nodes and impacted communities.

**Course(s) of Action:**

1. Collaboratively partner with statewide airfield managers to understand and effectively plan for emergency repair and determine reopening timeframes for delivery of bulk goods and resource support.
2. Fund a dedicated maritime infrastructure and coastal suitability and resilience study to assess the resiliency and ability of naval and maritime resources and systems to support post-disaster response and recovery and prioritize maritime infrastructure, waterways, and potential over the beach operations to inform a long-term bulk commodity transportation infrastructure mitigation strategy.
3. Prioritize critical rail infrastructure and resilience through legislative intent for federal, state, public, and private partners to collaboratively study and plan statewide critical rail transportation resilience.
4. Fund a rail infrastructure study to assess the resiliency and ability of the rail transportation system(s) to support post-disaster response and recovery and prioritize multimodal infrastructure and rail lines to inform a long-term bulk commodity transportation infrastructure mitigation strategy.
5. Conduct joint exercise(s) with federal partners, including the Department of Defense and the Washington Military Department, to evaluate and improve response planning to support airports, Federal Staging Areas, and other logistics nodes that rely on large, rotary, and fixed-wing capable airfields to support response and recovery.
6. Improve coordination with federal partners, including the Department of Defense, to explore and develop plans and methodologies for rotary and fixed-wing aircraft support for lifesaving and life-sustaining resources in isolated communities during the initial response.

**Core Capability(ies):** Critical Transportation, Operational Coordination

**Critical Transportation Identified in previous After-Action Review:** Yes

**IMPROVEMENT PLAN**

This Improvement plan is developed specifically for the Critical Transportation Core Capability and is derived from the issues, recommendations, and courses of action (COA) outlined above based on the observations and lessons learned during the Critical Transportation Tabletop Exercise conducted on 13 June 2022.



## APPENDIX A: CRITICAL TRANSPORTATION IMPROVEMENT PLAN

Issue/Improvement Item	Course of Action Improvement Plan	Observation	Consideration(s)	Agency / Organization	Agency / Organization Point of Contact	Target Date	Corrective Action Program Review
I (Issue) 1.1	1.1	A Cascadia Subduction Zone-earthquake will cause landslides and other geological hazards will significantly impact the transportation system. Washington State Department of Transportation has pre-emptively identified over 300 unstable slopes that may impact the highway system. State Legislature funds \$10 mil/year which will provide complete resolution within 50 years. Unstable slopes have a high risk of failure during a Cascadia Subduction Zone and will disrupt transportation to rural counties and tribes.	Provide a plan for mitigating known geological hazards, such as unstable slopes.	<b>Primary:</b> Washington State Department of Transportation  <b>Secondary:</b> Washington State Emergency Management Division	<b>Primary:</b> Washington State Department of Transportation Office of Emergency Management  <b>Secondary:</b> Washington State Emergency Management Division Disaster Resiliency Office	9/24	10/24
			<ul style="list-style-type: none"> <li>Draft collaborative legislative decision / funding package(s) for the 2025-2027 biennium for additional FTE (full time employees) to support slope studies and analysis.</li> </ul>			9/24	10/24
			<ul style="list-style-type: none"> <li>Develop a collaborative legislative decision / funding package(s) for the 2025-2027 biennium for a slope mitigation study.</li> <li>Study completion.</li> </ul>			12/26	1/27
			<ul style="list-style-type: none"> <li>Map out the relationship of geological hazards to transportation corridors to plan for the impact of an earthquake.</li> </ul>	6/26	7/26		
				<b>Secondary:</b> Local Public Works/Roads/ American Society of Civil Engineers	<b>Secondary:</b>		
	<b>Secondary:</b>	<b>Secondary:</b>					

Issue/ Improv ement Item	Course of Action Improve- ment Plan	Observation	Consideration(s)	Agency / Organization	Agency / Organization Point of Contact	Target Date	Corrective Action Program Review
I1.3	3.1	The 2019 Region Resiliency Assessment identified vulnerabilities based on modelling key factors, such as age and type of bridge, liquefaction potential, and distance from possible Cascadia Subduction Zone epicenter. Some counties have used this and other data to make planning decisions. Highway and road departments in every jurisdiction are familiar with their vulnerable sites susceptible to geological hazards. There has not been a statewide effort to integrate observed knowledge with the modelling to identify the most challenging sites.	Survey, through the Threat Hazard Identification Risk Analysis (THIRA) and Hazard Mitigation Workgroup’s consequence analysis, roadway stakeholders, including highway superintendents, local project engineers and Department of Natural Resources to identify actual impacts from storms, landslides, flooding, and other geologically vulnerable sites. Integrate this information with the existing Regional Resiliency Assessment Program data to understand the highest areas of concerns, identify impacted communities, and develop potential reconstruction times for emergency repairs.	<b>Primary:</b> Emergency Management Division, Department of Natural Resources	<b>Primary:</b> Emergency Management Division Assessment Program	12/24	1/25
I.1.1	4.1	Large-scale evacuation planning requires extensive coordination of planning between state leadership, local partners, and other lines of effort. Current planning is limited to identifying essential elements of information, roles, responsibilities, and supporting core capabilities.	Identify the transportation component of evacuation planning and incorporate it into state, tribal, and local evacuation planning effort. Note – refer to Course of Action 1 actions.	<b>Primary:</b> Washington State Emergency Management Division (primary coordinating agency)	<b>Primary:</b> Washington State Emergency Management Division Preparedness Section – Planning	6/25	7/25

Issue/ Improv ement Item	Course of Action Improve- ment Plan	Observation	Consideration(s)	Agency / Organization	Agency / Organization Point of Contact	Target Date	Corrective Action Program Review
				<b>Supporting:</b> Emergency Support Functions 1, 3, 12, and 13.	<b>Supporting:</b> Emergency Support Functions 1, 3, 12 and 13.		
I.1.4	4.2	Currently, no state agency has primary responsibility for supporting local jurisdictions with “evacuating people” and pets from impacted areas.	Review current statutes, Federal Emergency Management Agency Core Capabilities and other applicable emergency planning standards to address how to identify a Washington State Emergency Support Function (ESF) or state agency w/responsibilities for planning and supporting evacuation of people, people w/Access and Functional Needs, and pets using identified state ground transportation routes, including: <ul style="list-style-type: none"> <li>- Identification / designation of state evacuation routes based on Regional Resiliency Assessment Program, and bridge/roadway conditions.</li> <li>- Resources to support ground mass transit of evacuees from western to eastern Washington and potentially beyond.</li> <li>- Movement control coordination between and to deconflict commodity/logistical resources and evacuation activities.</li> </ul>	<b>Primary:</b> Emergency Management Division <b>Secondary:</b> Department of Commerce Energy Office, state/local Emergency Support Function 13, local Emergency Management Agencies and Public Works	<b>Primary:</b> Emergency Management Division <b>Secondary:</b> Washington State Department of Transportation, Department of Commerce Energy Office state/local Emergency Support Function13, local Emergency Management Agencies and Public Works	6/25	7/25

Issue/ Improv ement Item	Course of Action Improve ment Plan	Observation	Consideration(s)	Agency / Organization	Agency / Organization Point of Contact	Target Date	Corrective Action Program Review
I.1.1	1.1	Washington state does not have the information available to understand how damage to the transportation infrastructure will impact the ability to move resources after a major earthquake.	Conduct an intermediate Force (commodity and logistics distribution) Flow Analysis (FFA) based on the possible impacts to western Washington and supporting impacts to eastern Washington because of a Cascadia Subduction Zone Earthquake.	<b>Primary:</b> Emergency Management Division  <b>Secondary:</b> Washington State Department of Transportation, Commerce Energy Emergency Management Agencies (local & tribal), state agencies	<b>Primary:</b> Emergency Management Division  <b>Secondary:</b> Washington State Department of Transportation, Commerce Energy Emergency Management Office	12/25	1/26
I1.1	1.2	There is not a clear determination of how many bridge inspectors and/or inspections teams are needed or need to be activated during a Cascadia Subduction Zone earthquake.	Recommend Washington State Department of Transportation and local public works coordinate and determine a minimum number (capability target) of Level 2 trained bridge inspectors / inspection teams needed to support the approximately 5,000 bridges within and west of the Cascade Mountain Range. Incorporate this minimum number of Level 2 trained bridge inspectors as a non-standardized capability target to sustain in the annual Stakeholder Preparedness Review (SPR).	<b>Primary:</b> Washington State Department of Transportation  <b>Secondary:</b> Local Public Works/Roads/ American Society of Civil Engineers	<b>Primary:</b> Washington State Department of Transportation  <b>Secondary:</b> Local Public Works/Roads/ American Society of Civil Engineers	6/24	7/24

Issue/Improvement Item	Course of Action Improvement Plan	Observation	Consideration(s)	Agency / Organization	Agency / Organization Point of Contact	Target Date	Corrective Action Program Review
11.2	2.1	Need to understand how fuel availability and ground transportation movement of fuel will impact the state's ability to respond to a catastrophic incident.	Coordinate with the Washington State Department of Commerce's Energy Office to conduct or if already in progress continue a Fuel Regional Resiliency Assessment Program study that has or address fuel needs by discipline (healthcare, fire, law enforcement, public works, etc.) after a major earthquake in the state (do not just focus on Western Washington and Cascadia Subduction Zone). <i>(In progress)</i>	<b>Primary:</b> Washington State Department of Commerce  <b>Secondary:</b> Washington State Department of Transportation	<b>Primary:</b> Washington State Department of Commerce (Energy Office) <b>Secondary:</b> Washington State Department of Transportation	12/24	1/25
11.2	2.2	Washington does not have a plan that establishes a defined system for identifying how transportation infrastructure will be prioritized after a major incident.	Establish an operational coordination structure, reporting, and decision-making matrix between Washington State Department of Transportation and the state Unified Coordination Group (UCG) for identifying and categorizing federal, state, and local routes for emergency response and logistical resupply during an emergency.	<b>Primary:</b> Washington State Emergency Management Division	<b>Primary:</b> Washington State Unified Coordination Group / State Emergency Operations Center	12/23	1/24

Issue/ Improv ement Item	Course of Action Improve ment Plan	Observation	Consideration(s)	Agency / Organization	Agency / Organization Point of Contact	Target Date	Corrective Action Program Review
I1.2	2.3	Expiring Memorandums of Understanding/Memorandums of Agreements with State Staging Areas that support identified valuable resources and the staging of resources need to be identified and re-establishing to lock in Key State Staging Areas/Federal Staging Areas prior to Cascadia Subduction Zone or other threats and hazards.	Conduct State Staging Area/Federal Staging Area assessments, re-engage with State and Federal partners to identified key areas that support Course of Actions and with each identified area to establish signed Memorandums of Understanding/ Memorandums of Agreement/Intergovernmental Agreements.	<b>Primary:</b> Washington State Emergency Management Division	<b>Primary:</b>		
I1.2	2.4	Updated Memorandums of Understanding should be re-established to identify all State Staging Areas that support response and recovery activities throughout Washington counties.	Assess current State Staging Areas and Community Points of Distribution for appropriate levels of staffing requirements (24/7 ops), equipment (i.e. forklifts, drivers, pallets, etc.), size (capability) to store and traffic flow (ingress / egress)." Also include, assessing additional potential State Staging Areas and Community Points of Distribution locations in impacted communities near airfields.	<b>Primary:</b> Washington State Emergency Management Division	<b>Primary:</b>	12/25	1/26
I.1.3	3.1	Need to understand how fuel availability and movement will impact the state's ability to respond to a catastrophic incident.	Incorporate vulnerabilities and mitigation strategies (following the Force Flow Analysis) to potentially	<b>Primary:</b> Emergency Management Division	<b>Primary:</b> Emergency Management Division	6/26	7/26



Issue/ Improv ement Item	Course of Action Improve- ment Plan	Observation	Consideration(s)	Agency / Organization	Agency / Organization Point of Contact	Target Date	Corrective Action Program Review
			minimize/lessen impacts and/or work toward solutions for movement control activities (ground vs air vs maritime) with state Catastrophic Planning efforts.	<b>Secondary:</b> Washington State Department of Commerce Emergency Management Agencies (local & tribal)	<b>Secondary:</b> Washington State Department of Commerce – Energy Office, Emergency Management Agencies (local & tribal)		
I.1.3	3.1.a	Need to understand how fuel availability and movement will impact the state's ability to respond to a catastrophic incident.	Test the Catastrophic plan through a state level exercise.	<b>Primary:</b> Emergency Management Division  <b>Secondary:</b> Emergency Management Agencies (local & tribal)	<b>Primary:</b> Emergency Management Division Exercise Program	12/27	1/28
I1.3	3.1.b	Washington state does not have an effective statewide integrated business re-entry and commodity distribution plan.	Develop and test in a future statewide exercise a coordinated public and private sector integrated business re-entry decision-making and prioritization matrix for life safety and life sustainment resources and commodities strategy during a catastrophic incident. The matrix should	<b>Primary:</b> Emergency Management Division	<b>Primary:</b> Emergency Management Division Logistics & Cyber Infrastructure, Private Sector section	6/25	7/25

Issue/Improvement Item	Course of Action Improvement Plan	Observation	Consideration(s)	Agency / Organization	Agency / Organization Point of Contact	Target Date	Corrective Action Program Review
			be included as an annex to the Distribution Management Plan.	<b>Secondary:</b> Dept of Commerce	<b>Secondary:</b>		
I1.4	4.1	There is currently no effective statewide concept for operational community reestablishment after a catastrophic incident.	Use statewide community engagement, local business critical transportation studies, outreach, community meetings, and surveys to identify specific operational and community needs to determine the minimum life safety and life stabilization reestablishment needs.	<b>Primary:</b> Emergency Management Division	<b>Primary:</b>	12/24	1/25
				<b>Secondary:</b> Local/state Emergency Support Function 13, Emergency Management Agencies (local, tribal)	<b>Secondary:</b>		
I1.4	4.2	There are currently no effective frameworks to control statewide movement in support of evacuations including reunification as one the many components a framework can support after a catastrophic incident.	Use a whole state agency support approach to develop a framework(s) for how the state will support local and tribal evacuations including reunification and other components to community re-establishment.	<b>Primary:</b> Emergency Management Division	<b>Primary:</b> Emergency Management Division Preparedness Section - Planning	12/25	1/26
				<b>Secondary:</b> All Emergency Support Functions	<b>Secondary:</b> All Emergency Support Functions		

Issue/ Improv ement Item	Course of Action Improve- ment Plan	Observation	Consideration(s)	Agency / Organization	Agency / Organization Point of Contact	Target Date	Corrective Action Program Review
I3.1	1.1	Schedule Federal Staging Area/ State Staging Area assessments/Working groups to work collaboration with airport managers to identify threats, hazards, and vulnerabilities that could be detrimental in the use and staging of resources during response and recovery operations.	Work with airport managers to identify key areas that will need upgrades and establish mitigation strategies to make Federal Staging Area/ State Staging Areas more resilient toward threats and hazards.	<b>Primary:</b> Washington State Emergency Management Division /Local Airport Districts	<b>Primary:</b> Emergency Management Division Logistics Coord	12/25	1/26
				<b>Secondary:</b> Washington State Department of Transportation / Emergency Management Agencies (local / tribal)	<b>Secondary:</b>		
I3.2	2.1	Studies are needed to support planning/ Development of mitigation strategies to improve maritime resiliency.	Recommend a legislatively approved study (Maritime Regional Resiliency Assessment Program) including a task force or workgroup to develop plans for improved maritime strategies. Request Maritime Regional Resiliency Assessment Program.	<b>Primary:</b> Emergency Management Division / Department of Commerce	<b>Primary:</b> Emergency Management Division / Department of Commerce	6/28	7/28
				<b>Secondary:</b> Federal, state, tribal, and local organizations, public and private sector entities.	<b>Secondary:</b> Federal, state, tribal, and local organizations, public and private sector entities.		

Issue/Improvement Item	Course of Action Improvement Plan	Observation	Consideration(s)	Agency / Organization	Agency / Organization Point of Contact	Target Date	Corrective Action Program Review
13.2	2.1.a	Studies are needed to support planning/ Development of mitigation strategies to improve maritime resiliency.	Based on information in Regional Resiliency Assessment Program Report build and incorporate information into Statewide Catastrophic Planning efforts.	<b>Primary:</b> Emergency Management Division	<b>Primary:</b> Emergency Management Division	6/28	7/28
13.2	2.1.b	Studies are needed to support planning/ Development of mitigation strategies to improve maritime resiliency.	Test the plan through a state level exercise.	<b>Secondary:</b> Federal, state, tribal, and local organizations, public and private sector entities.	<b>Secondary:</b> Federal, state, tribal, and local organizations, public and private sector entities.	6/28	7/28
13.2	2.2	Washington state does not have a comprehensive approach to Maritime response planning.	Develop a state maritime infrastructure organization (joint committee or select agency) for maritime emergency response and resupply. Develop a strategic state goal and a state plan for maritime response. Ensure integration of federal, port, and impacted community (city, county, tribe). Fund maritime elements compatible with maritime response.	<b>Primary:</b> Emergency Management Division / Department of Commerce	<b>Primary:</b> Emergency Management Division / Department of Commerce	6/28	7/28
				<b>Secondary:</b> Federal, state, tribal, and local organizations, public and private sector entities.	<b>Secondary:</b> Federal, state, tribal, and local organizations, public and private sector entities.		

Issue/Improvement Item	Course of Action Improvement Plan	Observation	Consideration(s)	Agency / Organization	Agency / Organization Point of Contact	Target Date	Corrective Action Program Review
13.2	2.2.a	Washington state does not have a comprehensive approach to Maritime response planning.	Once the organization is in place, coordinate their efforts with Statewide Catastrophic Planning efforts ensuring Maritime response is address by the state's Catastrophic Plan.	<b>Primary:</b> Emergency Management Division/Dept of Commerce	<b>Primary:</b> Emergency Management Division/Dept of Commerce	6/28	7/28
13.2	2.2.b	Washington state does not have a comprehensive approach to Maritime response planning.	Test the plan through a state level exercise.	<b>Secondary:</b> Statewide Catastrophic Planning Team Members	<b>Secondary:</b> Statewide Catastrophic Planning Team Members	8/29	9/29
13.2	2.3	The Cascadia Rising Tabletop Exercise discussions generated a lot of ideas for maritime response or maritime resupply. However, the exercise exposed that the state does not have a plan or an organized maritime emergency response concept. Also apparent is that information about Individual ports is not integrated as a state system of information.	Request a regional resilience assessment of maritime ports for Washington and Oregon. Develop the goals for the assessment to address vulnerability and potential for maritime resupply.	<b>Primary:</b> Emergency Management Division/Department of Commerce  <b>Secondary:</b> Federal, state, tribal, and local organizations, public and private sector entities.	<b>Primary:</b> Emergency Management Division Disaster Resiliency Office / Planning and Department of Commerce Energy Office  <b>Secondary:</b> Federal, state, tribal, and local organizations, public and private sector entities.	6/27	7/27

Issue/ Improv ement Item	Course of Action Improve- ment Plan	Observation	Consideration(s)	Agency / Organization	Agency / Organization Point of Contact	Target Date	Corrective Action Program Review
13.3	3.1	Washington state does not have a good grasp on how rail infrastructure could be impacted by a catastrophic earthquake.	Request a regional resilience assessment of the rail industry for Washington state. Develop the goals for the assessment to address vulnerability and potential for rail resupply.	<b>Primary:</b> Federal Emergency Management Agency, Department of Commerce, and Utilities and Transportation Commission	<b>Primary:</b> Federal Emergency Management Agency, Department of Commerce, and Utilities and Transportation Commission	6/28	7/28
				<b>Secondary:</b> Washington State Department of Transportation /Emergency Management Division	<b>Secondary:</b> Washington State Department of Transportation /Emergency Management Division		
13.3	3.1.a	Washington state does not have a good grasp on how rail infrastructure could be impacted by a catastrophic earthquake.	Based on information in Regional Resiliency Assessment Program Report build and incorporate information into Statewide Catastrophic Planning efforts.	<b>Primary:</b> Emergency Management Division		6/30	7/30
				<b>Secondary:</b> Statewide Catastrophic Planning Team			

Issue/Improvement Item	Course of Action Improvement Plan	Observation	Consideration(s)	Agency / Organization	Agency / Organization Point of Contact	Target Date	Corrective Action Program Review
I3.3	3.1.b	Washington state does not have a good grasp on how rail infrastructure could be impacted by a catastrophic earthquake.	Test the plan through a state level exercise.	<b>Primary:</b> Emergency Management Division		8/31	9/31
				<b>Secondary:</b> Emergency Management Agencies (local & tribal)	Rail industry partners, Federal Emergency Management Agency Region 10		
I3.4	4.1	Washington state does not have a good grasp on how damage to rail infrastructure by a catastrophic earthquake would affect the flow of resources into the state and how that would impact the state's ability to respond.	Working with Federal partners conduct a study of how resources move into and through the state by rail. As a follow on develop a guide on how to incorporate rail support to catastrophic planning at the state and local level.	<b>Primary:</b> Federal Emergency Management Agency	<b>Primary:</b>	6/28	7/28
				<b>Secondary:</b> Depart of Commerce, Utilities and Transportation Commission	<b>Secondary:</b>		
				<b>Secondary:</b> FEMA	<b>Secondary:</b>		
I3.5	5.1	A statewide movement control framework or plan to support a catastrophic incident does not exist.	Include in the Force Flow Analysis (FFA) and statewide community engagement, local business critical transportation studies, outreach, community meetings, and surveys to identify specific movement control needs.	<b>Primary:</b> Emergency Management Division	<b>Primary:</b>	12/25	1/26



Issue/ Improv ement Item	Course of Action Improve- ment Plan	Observation	Consideration(s)	Agency / Organization	Agency / Organization Point of Contact	Target Date	Corrective Action Program Review
13.5	5.2	More involvement is needed to build better relations with Federal Partners/stakeholders to support plans to respond and recover isolated communities.	Develop working groups that involve federal partners and stakeholders that would improve plans to lock in MOUs and IGAs with organizations that could provide rotary and fixed wing aircraft that would provide more effective and efficient response and recovery time for isolated communities.	<b>Primary:</b> WA State Emergency Management Division	<b>Primary:</b>	12/24	1/25
				<b>Secondary:</b> Federal Emergency Management Agency	<b>Secondary:</b>		
				<b>Secondary:</b>	<b>Secondary:</b>		

## Appendix B: Operational Communication and Coordination

### ANALYSES OF ISSUES AND CAPABILITIES

#### **Issue 2 – Communications Infrastructure:**

Prioritize funding to mitigate critical communications infrastructure to maintain emergency response coordination capabilities and provide emergency public information statewide.

#### ***Communications Infrastructure Improvement Item 1:***

##### ***Observation:***

Representatives from tribes and local jurisdictions identified increasing gaps in the ability to effectively communicate vertically and horizontally using non-internet-based radio, satellite, and emerging communications technologies and systems. Legacy statewide communications systems and those supported by tribes and local jurisdictions have experienced reduced capabilities resulting from system lifecycle and prohibitive upgrade/replacement costs.

To effectively communicate and coordinate, the critical communications infrastructure must be operational and capable for both voice and data communications. This allows for effective coordination for the response and emergency management collaboration and coordination of support resources for impacted and supporting communities.

##### ***Analysis:***

Discussions throughout both the Critical Transportation and Mass Care Services Tabletop Exercise(s) illustrated the strategically important role that both voice and data communications infrastructure have on the ability to communicate holistically throughout the emergency management community. Without the ability to communicate, state and local officials are either completely unable or significantly degraded in their capacity to understand and respond to the needs of the tribes and local jurisdictions, as well as vertically coordinate with federal partners.

The inability of state and local officials to effectively communicate emergency repairs to re-open critical transportation infrastructure, collect and disseminate essential emergency response and public information, and coordinate with federal partners significantly degrades the state's ability to prioritize and provide lifesaving and life-sustaining delivery of bulk goods and resource support to impacted, isolated and supporting communities.

In addition, the inability of state and local officials to effectively communicate, coordinate, and control the movement of people self-evacuating and the delivery of bulk goods and resources along limited prioritized surface transportation routes will significantly impact life safety and life sustainment operations. Furthermore, the inability to effectively communicate and coordinate the delivery of fuel, food, water, and medical supplies significantly degrades the state's ability to support the healthcare community and the needs of mass care service and support for sheltering, hydrating, and feeding displaced survivors and people with Access and Functional Needs.

Finally, the significantly damaged and degraded communications infrastructure significantly delays state and local officials' ability to begin individual and public damage assessments and assist recovery operations.

##### ***Course(s) of Action:***

1. Develop long-term mitigation strategies to support comprehensive communications decision package(s) to strengthen and improve interoperable emergency management primary and alternate voice and data communications, public information and warning systems, and interoperable first responder communications infrastructure capabilities statewide.
2. Review current continuity planning and explore redundant and compatible communications infrastructure for alternate State Emergency Operations Center relocation site(s) and Emergency Management Division Field Office(s) to enhance the state's capabilities to swiftly and seamlessly, continue to provide effective interoperable coordination with emergency management programs and Emergency Operations Centers statewide.
3. Establish a vertical data coordination mechanism, using situational assessment, to locally identify and prioritize critical transportation and mass care service and support gaps and needs (e.g., consolidated shelter and Community Point of Distribution location databases).

**Core Capabilities:** Operational Communications, Operational Coordination

**Operational Communications identified in previous After Action Review?** Yes

### **Communications Infrastructure Improvement Item 2:**

#### **Observation:**

Representatives from tribes and local jurisdictions recognized the need for a greater understanding of operational communications capabilities and protocols supporting operational coordination horizontally with adjoining tribes and jurisdictions but also vertically with their respective regional Multi-Agency Coordination Groups (MACG) and the State Emergency Operations Center (SEOC).

#### **Analysis:**

Many existing communications systems, resources, modes, and frequencies are available during an incident. A variety of systems and radio services are identified within current planning: Land Mobile Radio (LMR), Comprehensive Emergency Management Network (CEMNET), On-Scene Command and Coordination Radio (OSCCR), State Emergency Communications Using Radio Effectively (SECURE), FEMA SHARED RESOURCES (SHARES), National Warning System (NAWAS), and Amateur Radio (voice and data). While a Primary, Alternate, Contingency, and Emergency (PACE) plan(s) is identified, each of these systems and services have unique requirements that must be encapsulated within state and local jurisdiction communications priorities. Greater clarification and communication of specific needs to assist state agencies and local jurisdictions in developing communications capabilities is needed. Further clarity is needed to develop an understanding of the State Emergency Operations Center process of progression through the Primary Alternate Contingency Emergency plan strategies. Additionally, there is a need to explore potential emerging technologies for inclusion within Primary Alternate Contingency Emergency plan strategies.

Communications infrastructure within Washington State faces additional challenges across the public and private sectors using a combination of localized and potentially disparate digital, analog, and legacy technologies, some of which are at or beyond their life expectancy. State and local communications officials currently do not have a comprehensive understanding of respective, adjoining jurisdiction and supporting (state and federal) communications capabilities. The lack of understanding of communications interoperability, or what communications capabilities will be prioritized for use, creates a path for significant delays in the ability to understand and respond to the needs of impacted and supporting communities.

#### **Course(s) of Action:**

1. Develop and socialize a comprehensive statewide operational communications strategy and plan, incorporating tribal, local jurisdiction, and state agency Primary Alternate Contingency Emergency.
2. Develop a comprehensive situational assessment plan, including a methodology for how to coordinate the horizontal and vertical collection of essential elements of information (EElS) and incorporation into geographical information systems (GIS).

**Core Capabilities:** Operational Communications, Operational Coordination

**Operational Communications identified in previous After Action Review?** Yes

#### IMPROVEMENT PLAN

This Improvement plan is developed specifically for the Operational Communication and Operational Coordination Core Capabilities and is derived from the issues, recommendations, and courses of action (COA) outlined above based on the observations and lessons learned during the Critical Transportation and Mass Care Services Tabletop Exercises conducted on 13 and 15 June 2022.

## APPENDIX B: OPERATIONAL COMMUNICATIONS/COORDINATION IMPROVEMENT PLAN

Summary of Conclusion Course of Action	Course of Action Improvement Plan	Observation	Consideration(s)	Agency/ Organization	Agency/ Organization Point of Contact	Target Date	Corrective Action Program Review
l(issue)  2.1	2.1.a 2.1.b 2.1.c	There is a lack of understanding of all voice and data communication systems in use, their efficacy, and how they contribute to interoperable state-wide communications.	Commission for an assessment or perform an assessment of current voice and data communications systems in use for statewide primary and alternate emergency management facilities and/or capabilities.	<b>Primary:</b> Emergency Management Division	<b>Primary:</b> Emergency Support Function-2 / Assessment Program Manager	6/25	7/25
				<b>Secondary:</b> Washington Technology Solutions, Washington State Department of Transportation, Utilities and Transportation Committee	<b>Secondary:</b> State Agency Liaison(s) & Emergency Support Function-2, Department of Corrections, Department of Ecology, Washington Department of Fish and Wildlife, Department of Health, Department of Natural Resources, Washington State Patrol,		
l2.1	2.1.d	There is a comprehensive lack of understanding of the resiliency of statewide voice	Request Department of Homeland Security-Cybersecurity	<b>Primary:</b> Emergency Management Division /	<b>Primary:</b> Emergency Management Division Emergency	6/25	7/25

Summary of Conclusion Course of Action	Course of Action Improvement Plan	Observation	Consideration(s)	Agency/ Organization	Agency/ Organization Point of Contact	Target Date	Corrective Action Program Review
		and data communication systems including the associated commercial power infrastructure needed to support communications infrastructure and/or private sector.	Infrastructure Security Agency conduct a comprehensive Regional Resiliency Assessment Program (RRAP) for the systems identified in the assessment and used for primary & alternate emergency management voice & data communications and associated commercial power infrastructure supporting communications.	<p>Cybersecurity Infrastructure Security Agency, Department of Commerce</p> <p><b>Secondary:</b> Department of Corrections, Department of Ecology, Washington Department of Fish and Wildlife, Department of Health, Department of Natural Resources, Washington State Patrol, Washington Technology Solutions, Washington Department of Transportation, Utilities and Transportation Commission</p>	<p>Support Function-2, Department of Commerce Energy Office and Emergency Support Function 12.</p> <p><b>Secondary:</b> State Agency Liaison(s) &amp; Emergency Support Function-2 and 12 leads.</p>		

Summary of Conclusion Course of Action	Course of Action Improvement Plan	Observation	Consideration(s)	Agency/ Organization	Agency/ Organization Point of Contact	Target Date	Corrective Action Program Review
12.1	2.1.e	A statewide comprehensive communication plan does not exist.	<p>Establish a workgroup charged with developing a statewide strategic communication plan (supportive of both voice and data communication systems and associated power infrastructure needs).</p> <p>Develop, assess to ensure Emergency Management Accreditation Program compliance (if applicable) and implement the statewide strategic communication plan.</p>	<p><b>Primary:</b> Emergency Management Division,</p> <p><b>Secondary:</b> Department of Corrections, Department of Ecology, Washington Department of Fish and Wildlife, Department of Health, Department of Natural Resources, Washington State Patrol, Washington Technical Solutions, Washington state Department of Transportation, Utilities and Transportation Commission</p>	<p><b>Primary:</b> Emergency Support Function-2, 12, and State Emergency Operations Center</p> <p><b>Secondary:</b> State Agency Liaison(s) &amp; Emergency Support Function-2 and 12</p>	<p>12/23</p> <p>6/25</p>	<p>1/24</p> <p>7/25</p>
12.1	2.1.f	It is unknown if Emergency Management Agencies (local	Emergency Management Agency	<b>Primary:</b>		6/25	7/25



Summary of Conclusion Course of Action	Course of Action Improvement Plan	Observation	Consideration(s)	Agency/ Organization	Agency/ Organization Point of Contact	Target Date	Corrective Action Program Review
		and tribal) have established communication plans.	(local and tribal) (if already not complete) develop jurisdictional communication plans and ensure they are integrated with neighboring jurisdictions and the statewide strategic communication plan. Review and update current State Emergency Operations Center and Emergency Operations Center-to-Emergency Operations Center communications plans.	Emergency Management Agency (local/tribal)  <b>Secondary:</b> Local communication offices.			
I2.1	2.1.g	Funding is needed for voice and data infrastructure improvements and/or migration.	Draft local policy and/or state decision packages strategy starting with the 2025-2027 biennium including applying for available federal	<b>Primary:</b> Emergency Management Division, Emergency Management Agencies (local and tribal)	<b>Primary:</b> Emergency Support Function-2, Statewide WIC, Emergency Management Agencies (local & tribal)	9/24	10/24

Summary of Conclusion Course of Action	Course of Action Improvement Plan	Observation	Consideration(s)	Agency/ Organization	Agency/ Organization Point of Contact	Target Date	Corrective Action Program Review
			<p>grants targeted to enhance primary and alternate voice and data communications systems serving emergency management agencies.</p> <p>Recommend scoping decision packages based on Emergency Management Agencies (state, tribal, and local) Primary Alternate Contingency Emergency planning needs and consider developing local policy and decision packages over a period of time versus one biennium.</p>	<p><b>Secondary:</b> Department of Corrections, Department of Ecology, Washington Department of Fish and Wildlife, Department of Health, Department of Natural Resources, Washington State Patrol, Washington Technical Solutions, Washington Department of Transportation, Utilities and Transportation Committee</p>	<p><b>Secondary:</b> State Agency Liaison(s) &amp; Emergency Support Function-2 Leads</p>		
I2.1	2.1.h	WG: Exercise systems/capabilities	Establish a method and schedule for evaluation and revision to test and	<p><b>Primary:</b> Emergency Management Division, Emergency Management</p>	<p><b>Primary:</b> Emergency Support Function -2</p>	9/24	10/24

Summary of Conclusion Course of Action	Course of Action Improvement Plan	Observation	Consideration(s)	Agency/ Organization	Agency/ Organization Point of Contact	Target Date	Corrective Action Program Review
			<p>update the statewide strategic communication plan for primary and alternate voice and data communications including testing specific public information and warning exercises. This builds consistency according to existing plans including testing the newly developed strategic communications plan, local/tribal Emergency Management Agency communication plans.</p> <p>Recommend annual review and update the exercise strategy as emerging infrastructure, plans, policies, and procedures refine</p>	<p>Agencies (local and tribal)</p> <p><b>Secondary:</b> Department of Corrections, Department of Ecology, Washington Department of Fish and Wildlife, Department of Health, Department of Natural Resources, Washington State Patrol, Washington Technology Solutions, Washington State Department of Transportation, Utilities and Transportation Commission , local and tribal communication offices</p>	<p><b>Secondary:</b> State Agency Liaison(s) &amp; Emergency Support Function-2 Leads</p>		

Summary of Conclusion Course of Action	Course of Action Improvement Plan	Observation	Consideration(s)	Agency/ Organization	Agency/ Organization Point of Contact	Target Date	Corrective Action Program Review
			statewide operational communications.				
I2.1	2.1.i	Voice and data communication gaps (equipment and infrastructure) are not comprehensively understood by the statewide EMAs which includes the lack of an improvement strategy.	Annually conduct an assessment (local/tribal gap analysis) and/or SPR of current capabilities for emergency management to provide public information and warnings.  Develop financial strategies to deliver decision packages and grant funding requests.	<b>Primary:</b> Emergency Management Division, Emergency Management Agencies (local / tribal)  <b>Secondary:</b>	<b>Primary:</b> Assessment Program and State Emergency Operations Center/Alert and Warning Center, Emergency Management Agencies (local & tribal)	9/24	10/24
I2.2	2.1.a	More synchronization is needed among Emergency Support Function 15, Joint Information Center/Joint Information System regarding public information dissemination.	Local, tribal, and state Emergency Management Agencies including Public Information Officers, Emergency Support Function 15, and/or Joint Information	<b>Primary:</b> Emergency Management Division, Emergency Management Agencies (local / tribal)  <b>Secondary:</b>	<b>Primary:</b> Emergency Management Division and Emergency Management Agencies, Emergency Support Function 15 and/or	6/25	7/25

Summary of Conclusion Course of Action	Course of Action Improvement Plan	Observation	Consideration(s)	Agency/ Organization	Agency/ Organization Point of Contact	Target Date	Corrective Action Program Review
			Center/Joint Information System components should review and update respective plans, policies, procedures with the goal of timely, coordinated messaging. State Joint Information Center/Joint Information System plan should be an annex of the Comprehensive Emergency Management Plan and/or the strategic statewide communications plan.	Military Department	communication offices.  <b>Secondary:</b> Mil Dept Communication Office		
I2.2	2.1.b	To effectively communicate, the critical communications infrastructure must be operational and capable for both voice and data communications. This allows for effective coordination for the response and emergency management collaboration	Define the scope of 'responder communications infrastructure' capabilities statewide. Cast too broadly, this could result in a frustrating initiative to make all	<b>Primary:</b> Emergency Management Division  <b>Secondary:</b> Washington Technology Solutions, Military	<b>Primary:</b> Emergency Management Division, Emergency Support Function-2 and Statewide Interoperability Center	6/25	7/25

Summary of Conclusion Course of Action	Course of Action Improvement Plan	Observation	Consideration(s)	Agency/ Organization	Agency/ Organization Point of Contact	Target Date	Corrective Action Program Review
		and coordination of support services for impacted and supporting communities.	tribal and local jurisdiction communication systems used by first responders completely interoperable.	Department Information Technology,	<b>Secondary:</b> Washington Technology Solutions, Military Department Information Technology		
I2.2	2.1.c		Assessment of existing methods and systems available to the SEOC for interfacing with tribal and local jurisdiction's responder communication infrastructure.			6/26	7/26
I2.2	2.1.d		Capabilities study to determine gaps and opportunities to improve access methodologies.			6/26	7/26
I2.2	2.1.e		Develop and review criteria to ensure new technologies and communications systems interface most effectively with responder	<b>Primary:</b> Emergency Management Division, Emergency Management Agencies (local / tribal)	<b>Primary:</b> Emergency Management Division, Emergency Management Agencies (local / tribal)	6/26	7/26

Summary of Conclusion Course of Action	Course of Action Improvement Plan	Observation	Consideration(s)	Agency/ Organization	Agency/ Organization Point of Contact	Target Date	Corrective Action Program Review
			communications infrastructure.	<b>Secondary:</b> Emergency Management Division, Washington Technology Solutions, Military Department Information Technology	<b>Secondary:</b> Emergency Management Division, Emergency Support Function 2, Statewide Interoperability Coordinator, Washington Technical Solutions, Military Department Information Technology		
12.2	2.1.f		Develop local policy and state decision packages to include: - Local policy and legislative Decision Packages targeted to enhance responder and emergency operations center communications infrastructure. - Review / apply for federal grants for opportunities with a similar focus.	<b>Primary:</b> Emergency Management Division, Emergency Management Agencies (local / tribal)  <b>Secondary:</b> Emergency Management Division, Washington Technology Solutions, Military Department	<b>Primary:</b> Emergency Management Division, Emergency Management Agencies (local / tribal)  <b>Secondary:</b> Emergency Management Division, Emergency Support Function-2, Statewide Interoperability Coordinator,	9/26	10/26



Summary of Conclusion Course of Action	Course of Action Improvement Plan	Observation	Consideration(s)	Agency/ Organization	Agency/ Organization Point of Contact	Target Date	Corrective Action Program Review
				Information Technology	Washington Technical Solutions, Military Department Information Technology		
12.2	2.2.a	There is a lack of understanding of all the systems in use, their efficacy, and how they contribute to statewide alert and warning and operational communications requirements.	Assess and catalog existing communications infrastructure available for alternate SEOC and EMD field offices. Existing and potential locations should be defined in order to specifically understand communications infrastructure capabilities.	<p><b>Primary:</b> Emergency Management Division</p> <p><b>Secondary:</b> Department of Corrections, Department of Ecology, Washington Department of Fish and Wildlife, Department of Health, Department of Natural Resources, Washington State Patrol, Washington Technical Solutions, Washington State Department of Transportation, Utilities and Transportation Commission</p>	<p><b>Primary:</b> Emergency Support Function-2</p> <p><b>Secondary:</b> State Agency Liaison(s) &amp; Emergency Support Function-2 Leads</p>	6/26	7/26

Summary of Conclusion Course of Action	Course of Action Improvement Plan	Observation	Consideration(s)	Agency/ Organization	Agency/ Organization Point of Contact	Target Date	Corrective Action Program Review
12.2	2.2.b	Memorandum of Understanding/Memorandum of Agreement or potential partnerships are needed to establish continuity and support across the jurisdictions, tribes, and state agencies.	Collaborative process to identify and include gaps and needs for systems and infrastructure to support alternate State Emergency Operations Center and Emergency Management Division field offices during the annual assessment process, as identified in Improvement Plan Action Item #2.1b.	<p><b>Primary:</b> Emergency Management Division, Emergency Management Agencies (local / tribal)</p> <p><b>Secondary:</b> Department of Corrections, Department of Ecology, Washington Department of Fish and Wildlife, Department of Health, Department of Natural Resources, Washington State Patrol, Washington Technical Solutions, Washington State Department of Transportation, Utilities and Transportation Committee</p>	<p><b>Primary:</b> Emergency Management Division and Emergency Management Agencies, Emergency Support Function-2 functions</p> <p><b>Secondary:</b> State Agency Liaison(s) &amp; Emergency Support Function-2 Leads, local partners to the local Emergency Management Agencies.</p>	6/26	7/26

Summary of Conclusion Course of Action	Course of Action Improvement Plan	Observation	Consideration(s)	Agency/ Organization	Agency/ Organization Point of Contact	Target Date	Corrective Action Program Review
12.2	2.2.c	The identified location for the alternate Alert and Warning Center needs additional <u>planning</u> considerations.	Update the strategic statewide communications plan to include alternate State Emergency Operations Center and Alert and Warning Center relocation site(s) including any/all Emergency Management Division Field Office(s).	<p><b>Primary:</b> Emergency Management Division</p> <p><b>Secondary:</b> Department of Corrections, Department of Ecology, Washington Department of Fish and Wildlife, Department of Health, Department of Natural Resources, Washington State Patrol, Washington Technical Solutions, Washington Department of Transportation, Utilities and Transportation Committee</p>	<p><b>Primary:</b> Emergency Support Function-2</p> <p><b>Secondary:</b> State Agency Liaison(s) &amp; Emergency Support Function-2 Leads</p>	9/26	10/26
12.2	2.2.d	The identified location for the alternate Alert and Warning Center needs additional	Explore potential partnerships for	<b>Primary:</b> Emergency Management Division	<b>Primary:</b> Emergency Support Function-2		

Summary of Conclusion Course of Action	Course of Action Improvement Plan	Observation	Consideration(s)	Agency/ Organization	Agency/ Organization Point of Contact	Target Date	Corrective Action Program Review
		<u>resource</u> (equipment and facilities) considerations.	access to alternative facilities.	<b>Secondary:</b> Department of Corrections, Department of Ecology, Washington Department of Fish and Wildlife, Department of Health, Department of Natural Resources, Washington State Patrol, Washington Technical Solutions, Washington State Department of Transportation, Utilities and Transportation Committee	<b>Secondary:</b> State Agency Liaison(s) & Emergency Support Function-2 Leads	6/26	7/26
12.2	2.2.e	The identified location for the alternate Alert and Warning Center needs additional <u>staffing</u> (organizational) considerations.	Currently, the Alert and Warning Center is not organized with any additional capability (paid or volunteer staff) to develop short- and long-term planning, resourcing, and/or	<b>Primary:</b> Emergency Management Division  <b>Secondary:</b> Department of Corrections, Department of Ecology, Washington	<b>Primary:</b> Emergency Support Function-2  <b>Secondary:</b> State Agency Liaison(s) &	6/26	7/26

Summary of Conclusion Course of Action	Course of Action Improvement Plan	Observation	Consideration(s)	Agency/ Organization	Agency/ Organization Point of Contact	Target Date	Corrective Action Program Review
			training and exercising to implement, operationalize and test emergency communications systems at any newly established sites east of the Cascades.	Department of Fish and Wildlife, Department of Health, Department of Natural Resources, Washington State Patrol, Washington Technology Solutions, Washington State Department of Transportation, Utilities and Transportation Committee	Emergency Support Function-2 Leads		
12.2	2.2.f	The identified location for the alternate Alert and Warning Center needs additional <u>training</u> and <u>exercise</u> to test the alternate site systems/capabilities.	Exercise statewide emergency management primary and alternate voice and data communications and public information and warning systems infrastructure and systems from the alternate SEOC and/or EMD field office(s), exercise	<p><b>Primary:</b> Emergency Management Division</p> <p><b>Secondary:</b> Department of Corrections, Department of Ecology, Washington Department of Fish and Wildlife, Department of</p>	<p><b>Primary:</b> Emergency Support Function-2</p> <p><b>Secondary:</b> State Agency Liaison(s) &amp; Emergency Support Function-2 Leads</p>	Ongoing	Ongoing

Summary of Conclusion Course of Action	Course of Action Improvement Plan	Observation	Consideration(s)	Agency/ Organization	Agency/ Organization Point of Contact	Target Date	Corrective Action Program Review
			requirements should mirror the exercise methodology recommended in IP Action Item #1.1(a-c).	Health, Department of Natural Resources, Washington State Patrol, Washington Technological Solutions, Washington State Department of Transportation, Utilities and Transportation Committee			
I2.3	3.1.a	There currently is not an integrated and comprehensive mechanism for lateral and vertical information sharing to support critical transportation, logistical resourcing. (including State Staging Area and Community Point of Distribution locations), and mass care service and support.	The Statewide Interoperability Coordinator should assemble and maintain a work group consisting of public and private sector partners, and other communication professionals with interests to define future end-state functionality for any new/updated voice and data communication tools	<b>Primary:</b> Emergency Management Division  <b>Secondary:</b> Washington Technology Solutions, State Emergency Operations Center, Washington State Department of Transportation, Washington State Patrol, Department of Natural Resources	<b>Primary:</b> Emergency Management Division Statewide Interoperability Coordinator  <b>Secondary:</b> Washington Technology Solutions, State Emergency Operations Center, Washington State Department of Transportation,	6/24	7/24

Summary of Conclusion Course of Action	Course of Action Improvement Plan	Observation	Consideration(s)	Agency/ Organization	Agency/ Organization Point of Contact	Target Date	Corrective Action Program Review
			<p>and resources to include, but not limited to data elements, processes, procedures.</p> <p>The work should improve the common understanding of existing data, where data is missing, and what data requires validation prior to being incorporated into response planning initiatives.</p>		Washington State Patrol, Department of Natural Resources		
12.3	3.1.b		Perform a statewide comprehensive assessment to identify local/tribal and state gaps in current data collection and reporting systems.			6/25	7/25
12.3	3.1.c		Evaluate existing tools, systems, and staffing to collect and aggregate data and information.			6/25	7/25



Summary of Conclusion Course of Action	Course of Action Improvement Plan	Observation	Consideration(s)	Agency/ Organization	Agency/ Organization Point of Contact	Target Date	Corrective Action Program Review
I2.3	3.1.d		Develop an annex to the statewide catastrophic communications plan for sequential implementation of new/updated data gathering and reporting tools and services.			6/25	7/25
I2.3	3.1.e		Determine funding availability and impacts for implementation of tool(s), to include Cost/Benefit analysis and likelihood of use among stakeholders.			9/25	10/25
I2.1	1.1.a	Representatives from tribes and local jurisdictions recognized the need for a greater understanding of operational communications capabilities and protocols supporting operational coordination horizontally with adjoining tribes and jurisdictions but also vertically with their respective	Emergency Management Agencies (local / tribal) perform an Operational Communications (including Primary Alternate Contingency Emergency) Stakeholder Preparedness Review	<b>Primary:</b> Emergency Management Agencies (local / tribal) – Stakeholder Preparedness Reviews, Emergency Management Division - survey Federal Emergency Management	<b>Primary:</b> Emergency Management Agencies (local / tribal) Emergency Management Division  Emergency Management	9/23 ongoing  6/26	10/23  7/26

Summary of Conclusion Course of Action	Course of Action Improvement Plan	Observation	Consideration(s)	Agency/ Organization	Agency/ Organization Point of Contact	Target Date	Corrective Action Program Review
		regional Multi-Agency Coordination Groups (MACG) and the State Emergency Operations Center.	assessment of existing communications planning documents across all Emergency Management and Emergency Management-adjacent organizations and agencies. (including Federal Emergency Management Agency, Statewide Interoperability Executive Committee, Emergency Management Division, etcetera.)	Agency/Cybersecurity and Infrastructure Security Agency	Division, Emergency Support Function-2 and Statewide Interoperability Coordinator  <b>Secondary:</b> Federal Emergency Management Agency/Cybersecurity and Infrastructure Security Agency		

Summary of Conclusion Course of Action	Course of Action Improvement Plan	Observation	Consideration(s)	Agency/ Organization	Agency/ Organization Point of Contact	Target Date	Corrective Action Program Review
I2.1	2.1.b		<p>Crosswalk/inventory the varieties of local procedures for communicating with the State Emergency Operations Center.</p> <p>Planning efforts and evaluations should include both voice &amp; data systems.</p> <p>Planning efforts should address voice as an aspect of data (Radio over Internet Protocol, Voice over Internet Protocol, etcetera.).</p>	<p><b>Primary:</b> Emergency Management Agencies (local / tribal) – Stakeholder Preparedness Review, Emergency Management Division - survey</p> <p><b>Secondary:</b> Federal Emergency Management Agency/ Cybersecurity and Infrastructure Security Agency</p>	<p><b>Primary:</b> Emergency Management Agencies (local / tribal assessment programs), Emergency Management Division Emergency Support Function -2 and Statewide Interoperability Committee</p> <p><b>Secondary:</b> Federal Emergency Management Agency/ Cybersecurity and Infrastructure Security Agency</p>	6/25	7/25
I2.1	2.1.c		Perform a holistic communications gap and needs analysis and incorporate into the state’s Logistics Section Gap Analysis.	<p><b>Primary:</b> Emergency Management Agencies (local / tribal) and Emergency Management</p>	<p><b>Primary:</b> Emergency Management Agencies and Emergency Management</p>	9/23 ongoing	10/23

Summary of Conclusion Course of Action	Course of Action Improvement Plan	Observation	Consideration(s)	Agency/ Organization	Agency/ Organization Point of Contact	Target Date	Corrective Action Program Review
				Division  <b>Secondary:</b> Federal Emergency Management Agency/ Cybersecurity and Infrastructure Security Agency	Division logistics or responsible function  <b>Secondary:</b> Federal Emergency Management Agency/ Cybersecurity and Infrastructure Security Agency		
I2.1	2.1.d		Coordinate with existing authorities and organizations (including Statewide Interoperability Executive Committee, Statewide Interoperability Committee, etcetera.).	<b>Primary:</b> Emergency Management Agencies (local / tribal) and Emergency Management Division  <b>Secondary:</b> Federal Emergency Management Agency/ Cybersecurity and Infrastructure Security Agency	<b>Primary:</b> Emergency Management Agencies and Emergency Management Division logistics or responsible function  <b>Secondary:</b> Federal Emergency Management Agency/ Cybersecurity and Infrastructure Security Agency	6/25	7/25

Summary of Conclusion Course of Action	Course of Action Improvement Plan	Observation	Consideration(s)	Agency/ Organization	Agency/ Organization Point of Contact	Target Date	Corrective Action Program Review
12.2	2.2.a	Representatives from tribes and local jurisdictions recognized the need for a greater understanding of operational communications capabilities and protocols supporting operational coordination horizontally with adjoining tribes and jurisdictions but also	Determine appropriate scope for Essential Elements Information coordination.  Address critical infrastructure & key systems that support Community Lifelines.	<b>Primary:</b> Emergency Management Division  <b>Secondary:</b> Agencies w/critical infrastructure roles and responsibilities	<b>Primary:</b> Emergency Management Division Planning, State Emergency Operations Center, and Critical Infrastructure sections  <b>Secondary:</b> Agencies w/critical infrastructure roles and responsibilities	12/24	1/25
12.2	2.2.b	vertically with their respective regional Multi-Agency Coordination Groups (MACG) and the State Emergency Operations Center.	Develop listing of Community Lifeline-based Essential Elements of Information.				
12.2	2.2.c		State Emergency Operations Center Planning & Operations Sections to determine requirements for data reporting in cooperation with tribal and local jurisdictions.				
12.2	2.2.d		Develop a template-based reporting system, accessible to all levels of				

Summary of Conclusion Course of Action	Course of Action Improvement Plan	Observation	Consideration(s)	Agency/ Organization	Agency/ Organization Point of Contact	Target Date	Corrective Action Program Review
			emergency management personnel via Starlink and Winlink Global Radio Email, amenable to structured algorithmic data analysis and evaluation reporting such as that rendered by Artificial Intelligence chatbots.				
12.2	2.2.e		Identify or create mechanisms and/or processes for collecting and categorizing incoming assessments and Essential Elements of Information.				
12.2	2.2.f		Develop a plan for analysis and fusing information for prioritization.				

## Appendix C: Mass Care Services

### ANALYSES OF ISSUES AND CAPABILITIES

#### **Issue 4 – Mass Care Services and Support:**

Establish comprehensive mass care services and support plans, agreements, and resource support requirements for emergency sheltering, hydration (drinking water), and food and nutrition to support impacted and supporting communities and people with Access and Functional Needs (AFN).

#### ***Mass Care Services and Support Improvement Item 1:***

##### ***Observation:***

Representatives from the state, tribes, and local jurisdictions recognized, through the Mass Care Services (MCS) Tabletop Exercise, the need for vastly improved planning and operational capabilities to support operations for shelters, hydration, and food/nutrition needs of impacted and isolated communities, people with Access and Functional Needs, and communities providing direct and indirect support for displaced survivors. Local shelters and shelter operations across the state are inconsistently coordinated and planned, or in some cases, non-existent. Statewide water (hydration) critical infrastructure impacts, delivery system capabilities, supply chain demand and needs, and local water planning efforts are not well understood. Statewide food/nutrition service and support capabilities, supply chain demand and needs, and local food/nutrition planning efforts are also not well understood.

##### ***Analysis:***

The impacts on communities statewide from a Cascadia Subduction Zone event will significantly challenge the ability of Washington State to effectively provide support and service operations to displaced survivors, people with Access and Functional Needs, and those communities absorbing and supporting displaced survivors. The lack of effective state and local emergency management program mass care services and support gap analyses, planning initiatives, staffing, training, and coordination between the public, private, non-profit, and non-governmental organizations, and volunteer communities, exacerbates these impacts.

Participants across the state realized the inconsistencies with effective shelter, hydration, and food/nutrition coordination and planning. In addition, there is a lack of understanding of what constitutes the necessary shelter capabilities. For instance, some jurisdictions have good working relationships with their respective volunteer communities in working with their Access and Functional Needs communities and are looking to expand that further into Cascadia Subduction Zone planning, whereas some jurisdictions lack effective planning and rely solely on the American Red Cross to support their respective shelter planning efforts. Complicating the issue is the lack of a standardized set of criteria that constitutes the minimum requirements for establishing a shelter. Minimum requirements needed include, and are not limited to, beds, blankets, sanitation, staffing support, security, equity for people with Access and Functional Needs, and pet considerations.

Volunteer and Community Organizations Active in Disasters (VOAD/COAD) organizations are a vital resource and are uniquely suited to aid local jurisdictions in sheltering, donation management, survivor advocacy and other mass care services planning efforts. However, during the exercise,

jurisdictions discussed approaches to volunteer support and management, which highlighted the numerous and disparate mechanisms in place across the state. While national organizations such as the American Red Cross and Salvation Army have standardized protocols to vet, train, and certify volunteers, the varied organizations and systems within the state limit the potential employment of local Volunteer Organizations Active in Disasters/Community Organizations Active in Disasters organizations across jurisdictional boundaries to provide mutual aid or assistance.

The reality is that the American Red Cross and Salvation Army are a very limited resource within the state that will also be impacted by a Cascadia Subduction Zone event. This limited resource capability (throughout the state) will limit their ability to provide support to every impacted jurisdiction. For this reason, communities currently lacking mass care services and support plans will be further challenged by a no-notice event requiring sheltering, hydration, and food/nutritional support to displaced survivors, including those with Access and Functional Needs.

State and local emergency management programs should consider additional statewide and regional cross-jurisdictional coordination and planning, including conducting gap analyses for mass care services and support operations. The lack of coordinated statewide and regional planning and gap analyses for sheltering (including additional wrap-around services such as, but not limited to, healthcare, medications, crisis counseling, etc.), hydration, and food/nutrition services, does not allow state and local programs to be self-sufficient during the immediate response and short-term incident stabilization following a Cascadia Subduction Zone event.

Water and wastewater systems in western Washington will be destroyed, damaged, or severely degraded due to earthquake activity and the contamination of surviving delivery systems by damaged sections or components. Previous earthquake activity indicates that eastern Washington may also experience degradation of infrastructure and/or damage to public and private wells. Each of these regions have unique considerations when addressing these elements. Furthermore, Washington Public Health authorities indicated primary contractors reside west of the Cascades.

Tribes and local jurisdictions indicated the need for a comprehensive analysis of the water sector to identify providers, sources, and resources (testing, commodities, etc.) and to gain an understanding of the existing distribution network. Once stakeholders are identified and the network can be defined, collaborative planning and prioritization are needed to develop these elements and to explore mitigation measures to improve resiliency and strategies to resume distribution and delivery. This cooperative approach will need to explore methods to provide interim bulk distribution of lifesaving/sustaining hydration needs.

Food and nutrition assessments, demands, and commodity distribution will be challenged. As noted in the critical surface transportation analysis above, the flow of commodity distribution to impacted and supporting communities will be significantly challenged by a Cascadia Subduction Zone event. The need to provide a methodology among the public and private sectors to establish post-incident supply and demand levels will need to be explored to provide a time-based buffer and allow communities to be semi-self-sufficient for a short period of time. This will allow for the ability of state and federal partners to plan for and prioritize the distribution of food/nutritional supplies statewide.

Exercise participants identified gaps in existing, or the need for, databases and geospatial mapping products that are used to identify pre-coordinated routes, shelters, and Community Point of Distribution(s). Current products have limitations in data or are maintained by external organizations,



including data that is unvetted by emergency managers. Participants expressed the need for more specificity regarding systems for providing Situational Assessment information to state-level decision-makers during incident response.

**Course(s) of Action:**

1. Establish guidelines to develop the minimum requirements needed by local jurisdiction emergency management programs to establish catastrophic emergency shelter operations, including wrap-around mass care services and support needs for impacted, isolated, and supporting communities.
2. Establish guidelines or technical updates to current statutes to enable emergency management programs the ability to develop comprehensive shelter and mass care services and support plans with gap analyses (including current tribal and local capabilities) for a shelter inventory/database, wrap-around services (health, sanitation, etc.) needs assessment, including necessary staffing, training, and certification.
3. Establish and support through funding, grant guidance, staffing, and workload assistance, emergency management programs' comprehensive Community Point of Distribution (CPOD) site inventory with gap analyses for fuel, hydration (drinking water), and food/nutrition, and include findings within the Stakeholder Preparedness Review (SPR) process.
4. Establish a state or grant funding mechanism for additional staffing resources to strengthen emergency management programs to improve volunteer and community organizations active in disaster planning initiatives that will enhance response to impacted communities and people with Access and Functional Needs.
5. Establish through legislative, local policy, and/or grant funding, staffing, or workload assistance, the ability for tribes and local jurisdictions to collaboratively coordinate with adjoining jurisdictions of mass care services functions (shelter, hydration, food/nutrition), including gap analyses and mutual aid agreements, and include findings within the Stakeholder Preparedness Review process.
6. Conduct a comprehensive analysis of the water sector to identify providers, sources, resources (testing, commodities, etcetera.), and to gain understanding of the existing distribution networks.
7. Establish guidelines for the development of the minimum requirements needed to enable local jurisdiction emergency management programs and water sector partners the ability to develop best practices to aid tribes and local jurisdictions in developing hydration strategies.

**Core Capability(ies):** Mass Care Services, Operational Coordination

**Mass Care Services Identified in previous After Action Review:** Yes

**IMPROVEMENT PLAN**

This Improvement plan is developed specifically for the Mass Care Services Core Capability and is derived from the issues, recommendations, and courses of action (COA) outlined above based on the observations and lessons learned during the Mass Care Services Tabletop Exercise conducted on 15 June 2022.

## APPENDIX C: MASS CARE SERVICES IMPROVEMENT PLAN

Summary of Conclusion Course of Action	Course of Action Improve ment Plan	Observation	Consideration(s)	Agency/ Organization	Agency/ Organization Point of Contact(s)	Target Date	Corrective Action Program Review
I (Issue)4.1	1.1	<p>Personal preparedness will be critical in a large-scale event.</p> <p>A prepared public will lead to fewer required resources. As discussed during the exercise it is likely that isolated areas will be unreachable for extended periods of time as infrastructure is repaired. Limited knowledge exists regarding how prepared these communities are.</p>	<p>Consideration 1: State pass through grant guidance to assess Mitigation Mission Area core capabilities of: Planning, Community Resilience, Risk and Disaster Resilience Assessment, and Threats and Hazards Identification.</p> <p>And/or</p> <p>Consideration 2: State and local updates to Hazard Mitigation Plans to include additional consequence analysis of public confidence surveys. Include results in next update of the tribal / local Hazard Mitigation Plans and State Enhanced Hazard Mitigation Plans.</p> <p>And/or</p> <p>Consideration 3: Emergency Management Division Outreach Program coordinates with Emergency Support Function 6 Mass Care Services, local emergency management agencies, and state/local Volunteer Organizations Active in Disasters to build / coordinate community-based surveys.</p>	<p><b>Primary:</b> Emergency Management Division, Emergency Management Agencies (local/tribal)</p> <p><b>Supporting:</b> Volunteer Organizations Active in Disasters, Community Organizations Active in Disasters, American Red Cross, Coalition on Inclusive Emergency Support Function 6</p>	<p><b>Primary:</b> Emergency Management Division Grants, Outreach, and Assessments</p> <p><b>Supporting:</b> Emergency Management Agencies, Volunteer Organizations Active in Disasters, Community Organizations Active in Disasters, American Red Cross, Coalition on Inclusive Emergency Planning, and Emergency Management Division Limited</p>	12/24	12/25

Summary of Conclusion Course of Action	Course of Action Improvement Plan	Observation	Consideration(s)	Agency/ Organization	Agency/ Organization Point of Contact(s)	Target Date	Corrective Action Program Review
			Note: original Improvement Plan item consisted of resourcing survey contractors / software and/or a study by the legislature. Re-worded w/options. In-house capability outweighs trying to fund a study/survey. Can reach same outcome.		English Proficiency/Access and Functional Needs.		
14.1	1.2	Following a Cascadia Subduction Zone event, some survivors may be unable to travel to designated shelter locations or apprehensive about re-entering buildings or structures designated as shelters due to post-traumatic stress from collapsed buildings. In addition, some survivors may need to travel to alternative locations for sheltering. Knowledge of migration potential and shelter capabilities and plans are limited.	Draft decision package(s) for the 2025-2027 biennium for legislative/local policy to fund or apply for grants to study sheltering capabilities, alternative shelter (cloth, tent) survivability and capability; study to include but not limited to power, fuel, water, sewage, and Heating, Ventilation, and Air Conditioning capabilities.  Study should include displacement potential and the likely movement of populations.	<b>Primary:</b> Emergency Management Division	<b>Primary:</b> Emergency Support Function 6	9/24	10/24
				<b>Supporting:</b> Department of Enterprise Services, American Red Cross, Department of Commerce	<b>Supporting:</b> Department of Enterprise Services, Department of Commerce Energy Office, American Red Cross		
14.1	1.3	The lack of minimum requirements to establish and maintain shelter operations precludes	Establish the recommendations for local and tribal Emergency Management Agencies to include and	<b>Primary:</b> Emergency Management Division	<b>Primary:</b> Emergency Support Function 6	12/25	2026
				<b>Supporting:</b>	<b>Supporting:</b>		

Summary of Conclusion Course of Action	Course of Action Improvement Plan	Observation	Consideration(s)	Agency/ Organization	Agency/ Organization Point of Contact(s)	Target Date	Corrective Action Program Review
		shelter standardization needs across the state.	adopt into mass care and shelter plans, policies, procedures, and processes.	American Red Cross, Department of Enterprise Services	Emergency Management Division Logistics, American Red Cross, Department of Enterprise Services		
14.1	1.4	Local jurisdictions in Washington state differ dramatically and have different levels of capacity to support sheltering.	Establish work groups that include local government community planners, policy makers, public works, and non-profit, non-governmental, and volunteer partners with similar sized jurisdictions across the state to develop and validate plans based on sheltering and migration study, including updating and/or developing mutual aid or interlocal governmental agreements.	<b>Primary:</b> Emergency Management Agencies (local and tribal) <b>Supporting:</b> Emergency Management Division, Department of Social and Health Services, American Red Cross	<b>Primary:</b> Emergency Management Agencies (local and tribal) <b>Supporting:</b> Emergency Management Division, Department of Social and Health Services, American Red Cross	2026	2027
14.1	1.5	Personal preparedness will be critical in a large-scale event. A prepared public will lead to fewer required resources. As discussed during the exercise it is likely that isolated areas	Draft local and state decision packages to fund full time staffing support for community preparedness activities, including gaps that may exist within the Access and Functional Needs community and other marginalized communities. Full time staffing will provide guidance, training, outreach,	<b>Primary:</b> Emergency Management Agencies (local and tribal, Emergency Management Division	<b>Primary:</b> Emergency Management Agencies (local and tribal) Emergency Management Division Outreach Program,	12/23	12/30

Summary of Conclusion Course of Action	Course of Action Improvement Plan	Observation	Consideration(s)	Agency/ Organization	Agency/ Organization Point of Contact(s)	Target Date	Corrective Action Program Review
		<p>will be unreachable for extended periods of time as infrastructure is repaired. Limited knowledge exists regarding how prepared these communities are.</p> <p>Awareness of Access and Functional Needs resources at the local level may be low.</p>	and technical support to local jurisdictions regarding personal preparedness.		Emergency Support Function 6		
				<p><b>Supporting:</b>  Volunteer Organizations Active in Disasters, Community Organization Active in Disasters, American Red Cross, Coalition for Inclusive Emergency Planning.</p>	<p><b>Supporting:</b>  Emergency Management Agencies, Volunteer Organizations Active in Disasters, Community Organizations Active in Disasters, American Red Cross, Coalition for Inclusive Emergency Planning, and Emergency Management Division Limited English Proficiency/Access and Functional Needs.</p>		
				<b>Primary:</b>	<b>Primary:</b>		

Summary of Conclusion Course of Action	Course of Action Improvement Plan	Observation	Consideration(s)	Agency/ Organization	Agency/ Organization Point of Contact(s)	Target Date	Corrective Action Program Review
14.2	2.1	Lack of understanding around current statutes that impact mass care and local jurisdictions.	Establish a workgroup to review, research and provide recommendations on current statutes regarding Mass Care mandatory and wrap around services and support.	Emergency Management Division, Emergency Management Agencies (local/tribal)	State, local, and tribal Emergency Support Function 6	12/24	1/25
				<b>Supporting:</b> Department of Social and Health Services, American Red Cross	<b>Supporting:</b> Department of Social and Health Services, American Red Cross		
14.3	3.1	Currently there is not sufficient state-level Full Time Staffing capacity and capability to conduct and maintain a catalog of Community Point of Distribution (CPOD) sites for Washington State.	Draft a decision package(s) for the 2025-2027 biennium to support project or contract positions from the state level to assist counties and tribes to conduct a gap analysis. The goal of the analysis is to first identify county and tribe/nation level needs, then establish statewide Community Point of Distribution standards based on community demographics and location(s) focusing on the following, and not limited to: hydration, populations being served, transportation (logistics and community support), food and nutrition, site	<b>Primary:</b> Emergency Management Division	<b>Primary:</b> Emergency Management Division Human Services / Emergency Support Function 6 and/or Logistics Section	9/24	12/29
				<b>Supporting:</b> Emergency Management Agencies (local/tribal) Department of	<b>Supporting:</b> Emergency Management Division Human Services/ Emergency		

Summary of Conclusion Course of Action	Course of Action Improvement Plan	Observation	Consideration(s)	Agency/ Organization	Agency/ Organization Point of Contact(s)	Target Date	Corrective Action Program Review
			characteristics (sanitation, parking, ingress/egress, security, location to other community resources), and other resources (fuel, power, Heating, Ventilation and Air Conditioning, mutual aid).	Commerce, Department of Health, Department of Social and Human Services, and Department of Children Youth and Families,\	Support Function 6, Emergency Support Function 12, and/or Logistics Section		
14.3	3.2	Currently there is not sufficient state-level full time staffing capacity and capability to develop a standardized training and exercise program for counties, tribes, and state partners for the management of Community Point of Distribution sites.	Draft local and state decision package(s) for the 2027-2029 biennium to provide a local, tribal, and state level Full Time Employment Community Point of Distribution program coordinators to support local jurisdiction and tribal Community Point of Distribution planning and to develop standardized, plans, training, and exercise of Community Point of Distribution management and operations.	<b>Primary:</b> Emergency Management Division and Emergency Management Agencies (local and tribal) <b>Supporting:</b> Emergency Management Division and Emergency Management Agencies (local and tribal)	<b>Primary:</b> Emergency Management Division and Emergency Management Agencies (local and tribal) <b>Supporting:</b> Emergency Management Division and Emergency Management Agencies (local and tribal)	9/26	12/34
14.3	3.3	There is a need for state and local-level Community Point of Distribution	Conduct a state-wide survey of warehousing capabilities and capacity across jurisdictions in both the private	<b>Primary:</b> Emergency Management Division and	<b>Primary:</b> Emergency Management	12/30	12/35

Summary of Conclusion Course of Action	Course of Action Improvement Plan	Observation	Consideration(s)	Agency/ Organization	Agency/ Organization Point of Contact(s)	Target Date	Corrective Action Program Review
		capacity studies and funding.	and public sectors to establish a baseline of facility resources. Review plans from other states to establish a standard. The results of this survey will be included with the state's gap analysis mentioned in IP 3.1 above.	Emergency Management Agencies (local and tribal)	Division, Emergency Management Agencies (local and tribal)		
				<b>Supporting:</b> Department of Enterprise Services and local community planners	<b>Supporting:</b> Department of Enterprise Services and local community planners		
14.3	3.4	Currently there is no funding, grant guidance, staffing, or workload assistance for emergency management programs to address the identified Course of Action #3 recommendations.	Develop and implement a multi-jurisdictional (tribal, Homeland Security Region, county, state agencies) workgroup to explore and advise comprehensive Community Point of Distribution (CPOD) site inventory with gap analyses funding strategies. Coordination for this workgroup would be a role for the state's Community Point of Distribution coordinator position.	<b>Primary:</b> Emergency Management Division, Emergency Management Agencies (local/tribal)	<b>Primary:</b> Emergency Management Division Community Point of Distribution Coordinator	12/30	12/32
				<b>Supporting:</b> Emergency Management Division, Department of Health, Department of Social and Health	<b>Supporting:</b> Emergency Management Division Logistics, Emergency Management Division		



Summary of Conclusion Course of Action	Course of Action Improvement Plan	Observation	Consideration(s)	Agency/ Organization	Agency/ Organization Point of Contact(s)	Target Date	Corrective Action Program Review
				Services, and Department of Children Youth and Families; Department of Enterprise Services, Emergency Management Agencies (local/tribal)	Planning, Department of Health, Department of Social and Health Services, and Department of Children, Youth and Families; Emergency Management Agencies (local/tribal)		
14.3	3.5	No statewide warehousing capability, guidelines, and program for prepositioned Community Points of Distribution exist to build a network of warehouse sites across Washington State to support county or tribal jurisdictions. This leads to an inability to sufficiently respond to a catastrophic incident and creates disparities across all jurisdictions.	Draft state and local decision package(s) for the 2029 - 2031 biennium to support and fund Community Point of Distribution efforts. Community Point of Distribution resources would contain emergency food rations, water, sheltering kits, Access and Functional Needs items that the county could draw from during a local or regional disaster need.	<b>Primary:</b> Emergency Management Division/Emergency Management Agencies (local / tribal)  <b>Supporting:</b> Emergency Management Division,	<b>Primary:</b> Emergency Management Division and Emergency Management Agencies (local/tribal Community Point of Distribution Coordinators  <b>Supporting:</b> Emergency Management Division	9/28	12/36

Summary of Conclusion Course of Action	Course of Action Improvement Plan	Observation	Consideration(s)	Agency/ Organization	Agency/ Organization Point of Contact(s)	Target Date	Corrective Action Program Review
				Department of Health, Department of Social and Health Services, and Department of Children, Youth and Families	Logistics, DOH, DSHS, and DCYF		
14.4	4.1	Lack of funding to support volunteer management for tribes, and local jurisdictions.	Draft local and state decision package(s) for the 2025 - 2027 biennium to hire a Statewide Volunteer Management Coordinator. The package should also include funding for tribal and local grants for Volunteer Organizations Active in Disasters/Community Organizations Active in Disasters full-time staffing support.	<p><b>Primary:</b> Emergency Management Agencies (local and tribal), Emergency Management Division</p> <p><b>Supporting:</b> Emergency Management Agencies (local and tribal) Washington Volunteer</p>	<p><b>Primary:</b> Emergency Management Agencies (local and tribal) Emergency Management Division Human Services Emergency Support Function 6</p> <p><b>Supporting:</b> Emergency Management Agencies (local and tribal) Washington Volunteer</p>	9/24	12/35

Summary of Conclusion Course of Action	Course of Action Improvement Plan	Observation	Consideration(s)	Agency/ Organization	Agency/ Organization Point of Contact(s)	Target Date	Corrective Action Program Review
				Organizations Active in Disasters, Community Organizations Active in Disasters	Organizations Active in Disasters, Community Organizations Active in Disasters		
14.4	4.2	Lack of engagement of volunteer organizations due to inability to organize and maintain active and engaging participation.	Local/tribal Emergency Management Agencies and state Volunteer Management Coordinators establish workgroups in collaboration with Volunteer Organizations Active in Disasters and Community Organizations Active in Disasters to develop volunteer management plans and policy.	<b>Primary:</b> Emergency Management Agencies (local and tribal), Emergency Management Division	<b>Primary:</b> Emergency Management Agencies (local and tribal) and Emergency Management Division Volunteer Management Coordinators	12/28	12/30
				<b>Supporting:</b> Volunteer Organizations Active in Disasters, Community Organizations Active in Disasters	<b>Supporting:</b> Volunteer Organizations Active in Disasters, Community Organizations Active in Disasters		
				<b>Primary:</b>	<b>Primary:</b>		

Summary of Conclusion Course of Action	Course of Action Improvement Plan	Observation	Consideration(s)	Agency/ Organization	Agency/ Organization Point of Contact(s)	Target Date	Corrective Action Program Review
I4.4	4.3	Lack of volunteer management standards leads to county-by-county differences and inconsistent standards.	Develop state standards which include minimal requirements for volunteer management based on outcomes and lessons learned from study.	Emergency Management Division	Emergency Management Division Volunteer Management Coordinator	12/29	12/34
				<b>Supporting:</b> Emergency Management Division, Washington Volunteer Organizations Active in Disasters	<b>Supporting:</b> Emergency Management Division Planning Team, Washington Volunteer Organizations Active in Disasters		
I4.5	5.1	Expectations are not clear between state, Non-Government Organizations, and local jurisdictions around capacities that can be provided during a disaster (people, resources, etc.).	Establish workgroup containing local /tribal Emergency Management Agencies, Non-Government Organizations, and Emergency Support Function 6, and other agencies/organizations to establish and review capabilities and expectations during a disaster. Workgroup should also establish points of contact and focus on relationship building between jurisdictions.	<b>Primary:</b> Emergency Management Division	<b>Primary:</b> Emergency Management Division Human Services	12/24	12/25
				<b>Supporting:</b> Emergency Management Agencies (local/tribal)	<b>Supporting:</b> all Emergency Support Function 6 agencies, local jurisdictions, tribes		
				<b>Primary:</b>	<b>Primary:</b>		

Summary of Conclusion Course of Action	Course of Action Improvement Plan	Observation	Consideration(s)	Agency/ Organization	Agency/ Organization Point of Contact(s)	Target Date	Corrective Action Program Review
14.6	6.1	Lack of understanding surrounding utility (power, fuel, water, wastewater) information sharing in times of disaster to support water/wastewater systems and sanitation. Water/Wastewater Agency Response Network (WAWARN) is a network in our state (independent of state's network) that connects water systems with needed resources through existing agreements and contracts.	Develop a common operating picture with coordination and development of best practices with the Energy Office and Water/Wastewater Agency Response Network to gain understanding of mechanisms for sharing of resources during emergencies. Share resources between utilities across borders on Water/Wastewater Agency Response Network's experiences.  <i>CIPHR – Washington Coalition for Infrastructure Protection and Homeland Resilience.</i>	Emergency Management Division	Emergency Management Division Cyber Security and Critical Infrastructure	12/23	12/25
				<b>Supporting:</b> Department of Health, Washington Coalition for Infrastructure Protection and Homeland Resilience, Department of Commerce	<b>Supporting:</b> Department of Health Office of Drinking Water, Washington Coalition for Infrastructure Protection and Homeland Resilience, Department of Commerce Energy Office		
14.6	6.2	Local governments, tribes, and water systems may need assistance with conducting their own analyses of their water sector resources.	Water/Wastewater Agency Response Network (WAWARN) and Emergency Support Function 3 and Emergency Support Function 8 to develop guidance and provide technical assistance to local governments and tribes to conduct their local focused analyses.	<b>Primary:</b> Water/Wastewater Agency Response Network, Department of Enterprise Services,	<b>Primary:</b> Water/Wastewater Agency Response Network, Department of Enterprise Services,	9/24	12/26

Summary of Conclusion Course of Action	Course of Action Improvement Plan	Observation	Consideration(s)	Agency/ Organization	Agency/ Organization Point of Contact(s)	Target Date	Corrective Action Program Review
				Department of Health	Department of Health		
				<b>Supporting:</b> Department of Health, Cybersecurity Infrastructure Security Agency, Washington-Coalition for Infrastructure Protection and Homeland Resilience, Department of Commerce	<b>Supporting:</b> Department of Health Office of Drinking Water, Cybersecurity Infrastructure Security Agency, Washington-Coalition for Infrastructure Protection and Homeland Resilience, Department of Commerce Energy Office		
14.6	6.3	Lack of capability knowledge surrounding options of distribution of drinking water during emergencies at local community-level and regional-level.	Conduct a gap analysis and/or water assessment via the Stakeholder Preparedness Review (SPR) of options of distribution of drinking water during emergencies at local community-level and regional-level. Includes funding resources to local governments, tribes, and state agencies to conduct local analyses to identify providers, sources, and resources. Recommend	<b>Primary:</b> Emergency Management Division/ Department of Commerce	<b>Primary:</b> Emergency Management Division Critical Infrastructure and Assessment Program Manager	12/24	12/26
				<b>Supporting:</b>	<b>Supporting:</b>		

Summary of Conclusion Course of Action	Course of Action Improvement Plan	Observation	Consideration(s)	Agency/ Organization	Agency/ Organization Point of Contact(s)	Target Date	Corrective Action Program Review
			coordination with Water/Wastewater Agency Response Network (WAWARN) and development of planning documents to gain understanding of the capability of existing distribution network.	Department of Health, Cybersecurity Infrastructure Security Agency, Washington-Coalition for Infrastructure Protection and Homeland Resilience	Department of Health Office of Drinking Water, Cybersecurity Infrastructure Security Agency, Washington-Coalition for Infrastructure Protection and Homeland Resilience		
14.6	6.4	Emergency Management Division or a contractor may be able to aggregate results of analyses from partners into one comprehensive data set of water sector resources.	Draft local and state decision package(s) to fund proposal(s) to develop a software system that compiles and maintains a comprehensive database from local governments, tribes, and state agencies on the analyses of water sector resources. The comprehensive database could be implemented as an accessible Geographic Information System.	<b>Primary:</b> Emergency Management Division <b>Supporting:</b> Department of Health, Washington-Coalition for Infrastructure Protection and Homeland Resilience	<b>Primary:</b> Emergency Management Division Critical Infrastructure <b>Supporting:</b> Department of Health Office of Drinking Water, Emergency Management Division Geospatial Information System, Washington-	6/25	12/27

Summary of Conclusion Course of Action	Course of Action Improvement Plan	Observation	Consideration(s)	Agency/ Organization	Agency/ Organization Point of Contact(s)	Target Date	Corrective Action Program Review
					Coalition for Infrastructure Protection and Homeland Resilience		
14.7	7.1	Emergency management programs, local governments and tribes can benefit from developing contracts or agreements with businesses that can provide water during an emergency. Examples of large businesses include Costco, Target, Fred Meyer.	Emergency Management Agencies (local and tribal) and the state enter into new or existing public and private sector agreements and contracts for water during an emergency. Develop guidance to assist local governments and tribes in developing new contracts or agreements.	<p><b>Primary:</b> Emergency Management Division</p> <p><b>Supporting:</b> Department of Health, Washington- Coalition for Infrastructure Protection and Homeland Resilience</p>	<p><b>Primary:</b> Emergency Management Division Critical Infrastructure</p> <p><b>Supporting:</b> Department of Health Office of Drinking Water, Washington- Coalition for Infrastructure Protection and Homeland Resilience</p>	12/25	12/27



## Appendix D: Cascadia Rising 22 Parking Lot Items

### PARKING LOT ITEMS

1. Assessments and modeling of threats and hazards extending across eastern Washington are needed for both state and local jurisdiction planning. *(Included with the annual Stakeholder Preparedness Review (SPR) / Hazard Mitigation Plan (HMP) assessment and development)*
2. Increased public outreach and awareness is needed to foster a preparedness culture across the whole community – two [+] weeks ready, water filtration, etc. *(Included with Mass Care Services Improvement Plan)*
3. The exercise has highlighted the need for greater inclusion of the Tribes, Nations, Private Sector, and Non-Governmental/Profit Organizations. *(Included with Mass Care Services Improvement Plan)*
4. Explore of, incorporate, and leverage emerging technologies should be considered to aid in situational assessment operational communications/coordination *(Included with Operational Communications Improvement Plan)*
5. Further exploration of the impact(s) of the evacuation and sheltering of people, people with Access and Functional Needs, and pets including additional resource needs to support co-located sheltering, hydrating, and feeding plans. *(Included with Critical Transportation Improvement Plan)*
6. Exploration and cooperation in the development of Private Sector Business Emergency Operations Center(s), Business Continuity, and best practices to develop resilient Public-Private Sector partnerships.
7. Non-impacted or supporting communities or jurisdictions should consider leveraging capabilities and resources (language, etc.), pre-incident, to have products available to support the needs of displaced survivors. *(Identified within Force Flow Analysis in Critical Transportation Improvement Plan)*
8. Explore the feasibility of pre-staging supplies and resources as a viable option – bench stock(s) of sheltering supplies, water filters, etc.? *(Included with Mass Care Services Improvement Plan)*
9. Further exploration and/or identification of inter-state evacuee support and host communities is needed – pre-incident. Ferries could be useful to evacuate folks south or north in the event Interstate-5 is compromised. *(Included with Critical Transportation Improvement Plan)*
10. Multiple Homeland Security Regions identified the potential need or interest in exploring further cooperation through Homeland Security Region or Geographical Region Multi-Agency Coordination Groups(s) (MACG) to deconflict and prioritize regional objectives and requests prior to submission to the state. *(Deferred to Homeland Security Regions to explore further)*

11. Additional exploration of non-traditional sheltering approaches to increase shelter stock is needed (e.g., soft-sided shelters). *(Included with Mass Care Services Improvement Plan)*
12. Explore and expand the use of the task force model to allow cross-jurisdictional coordination (e.g., sheltering and feeding). *(Included with Mass Care Services Improvement Plan)*
13. There is a need to identify and include, within prioritization, transportation corridors to hospitals and healthcare facilities, including routes linking healthcare to aerial transportation hubs to allow for escalation of patient care and evacuation from isolated communities. *(Included with Critical Transportation Improvement Plan)*

## Appendix E: Cascadia Rising 22 Improvement Planning Participants

### ATTENDANCE DATA

<b>Participants (total numbers):</b>	
Jurisdictions / Tribes-Nations	<b>14 / 5</b>
Private Sector	<b>0</b>
Non-profit / Non-Governmental Organizations	<b>4</b>
State Agencies / Organizations	<b>12</b>
Federal Organizations / Canadian Organizations	<b>2 / 1</b>
<b>Agency or Organizational Participation:</b>	
<b>Critical Transportation Workgroup</b>	<b>Participant #s</b>
Makah Indian Tribe	1
Clallam County Emergency Management	1
Grant County Sheriff's Office	1
Franklin County Emergency Management	1
Kittitas County Sheriff's Office	1
Kittitas County Public Works	1
King County Emergency Management	1
Yakima Valley Emergency Management	2
Washington State Department of Transportation	8
Washington State Patrol	2
Washington State Emergency Management Division	8
Washington State Department of Natural Resources	2
<b>Operational Communications Workgroup</b>	<b>Participant #s</b>
Quinault Indian Nation	1
Nisqually Indian Tribe	1
Grays Harbor County Emergency Management	2
Washington State Emergency Management Division	14
Washington Military Department Information Technology	3
Washington State Technologies	1
Washington State Patrol	3
Washington State Department of Transportation	2

Agency or Organizational Participation:	
Franklin County Emergency Management	1
Skagit County 9-1-1	1
Snohomish County Emergency Management	1
Yakima Valley Emergency Management	2
City of Seattle Emergency Management	2
Federal Emergency Management Agency (FEMA) Region 10	1
Cybersecurity & Infrastructure Security Agency	6
<b>Mass Care Services Workgroup</b>	<b>Participant #s</b>
Shoalwater Bay Tribe	1
Kalispel Tribe of Indians	1
Benton County Emergency Management	1
Pierce County Department of Emergency Management	1
Snohomish County Emergency Management	1
Stevens County Emergency Management	1
Yakima Valley Emergency Management	2
East Pierce Interagency Coalition	1
Washington Volunteers Active in Disaster (WaVOAD)	1
Coalition on Inclusive Emergency Planning (CIEP)	1
Salvation Army	1
American Red Cross	2
Emergency Management British Columbia	2
Washington State Emergency Management Division	16
Washington State Department of Social and Health Services	4
Washington State Department of Health	6

## Appendix F: Relevant Plans, Reports, and Supporting Material

### PLANS AND REPORTS

1. [Region 10 Cascadia Subduction Zone \(CSZ\) Earthquake and Tsunami Plan, Federal Emergency Management Agency, January 2022](#)
2. [The Regional Resiliency Assessment Program for Washington State Transportation](#)
3. [Washington State Comprehensive Emergency Management Plan \(CEMP\)](#)
  - a. [Emergency Support Function 1 – Transportation](#)
  - b. [Emergency Support Function 6 – Mass Care, Emergency Assistance, Temporary Housing, and Human Services](#)
  - c. [Emergency Support Function 7 – Logistics Management and Resource Support](#)
  - d. [Emergency Support Function 13 – Public Safety, Law Enforcement, and Security](#)
  - e. [Emergency Support Function 14 – Long-Term Recovery](#)
  - f. [Emergency Support Function 15 – External Affairs](#)
4. [Washington State Distribution Management Plan, December 2021](#)
5. [Washington State Enhanced Hazard Mitigation Plan](#)
6. [Washington State Catastrophic Incident Annex Base Plan](#)
  - a. [Tab A: Critical Transportation](#)
  - b. [Tab B: Mass Care Services](#)
8. [Washington State 2021 Tsunami Vertical Evacuation Structure Impact Analysis Assessment](#)
9. Tribal and local plans, policies, and procedures related to supporting Critical Transportation and Mass Care Services

### SUPPORTING MATERIALS

1. CR22 Warm Start Videos: [Part 1](#) and [Part 2](#)
2. [Critical Transportation Tabletop Exercise Situation Manual](#)
3. [Critical Transportation Tabletop Exercise PowerPoint Slides](#)
4. [Critical Transportation Tabletop Exercise Expanded Questions](#)
5. Critical Transportation Regional Placemats (Coastal, I-5 Corridor, and Eastern WA)
6. [Mass Care Services Tabletop Exercise Situation Manual](#)
7. [Mass Care Services Tabletop Exercise PowerPoint Slides](#)
8. [Mass Care Services Tabletop Exercise Expanded Questions](#)
9. Mass Care Services Regional Placemats (Coastal, I-5 Corridor, and Eastern WA)
10. Ground Truth data surveys conducted with local jurisdictions
11. FEMA Cascadia Rising 2022 Exercise Scenario Document
12. Washington State 2021 Threat Hazard Identification and Risk Assessment/Stakeholder Preparedness Review Capability Target(s)
13. Washington State 2021 Stakeholder Preparedness Review Capability Reporting
14. United States Census Bureau Data (2010 and 2020)

## Appendix G: Core Capability Descriptions

### 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.

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 routes (i.e., road, airfield, port facility, rail) to facilitate response operations.

### Mass Care Services:

Provide life-sustaining and human services to the affected population, to include hydration, feeding, sheltering, temporary housing, evacuee support, reunification, and distribution of emergency supplies.

1. Move and deliver resources and capabilities to meet the needs of disaster survivors, including individuals with access and functional needs.
2. Establish, staff, and equip emergency shelters and other temporary housing options (including accessible housing) for the affected population.
3. Move from congregate care to non-congregate care alternatives and provide relocation assistance or interim housing solutions for families unable to return to their homes.

### Operational Communications:

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

1. Ensure the capability to communicate with both the emergency response community and the affected populations and establish interoperable voice and data communications between Federal, tribal, state, and local first responders.
2. Re-establish sufficient communications infrastructure within the affected areas to support ongoing life-sustaining activities, provide basic human needs, and a transition to recovery.
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.

### Operational Coordination:

Establish and maintain a unified and coordinated operational structure and process that appropriately integrates all critical stakeholders and supports the execution of Core Capabilities.

1. Mobilize all critical resources and establish command, control, and coordination structures within the affected community, in other coordinating bodies in surrounding communities, and across the Nation, and maintain as needed throughout the duration of an incident.
2. Enhance and maintain command, control, and coordination structures consistent with the National Incident Management System (NIMS) to meet basic human needs, stabilize the incident, and transition to recovery.

## Appendix H: Acronyms, Abbreviations, and Key Terms

### ACRONYMS AND ABBREVIATIONS

Acronym	Term	Acronym	Term
AAM	After-Action Meeting	ECY	Department of Ecology
AAR	After-Action Report	EEI	Essential Elements of Information
AAR/IP	After-Action Report/Improvement Plan	EM	Emergency Manager
AFN	Access and Functional Needs	EMA	Emergency Management Agency
APOD	Aerial Point of Debarkation (logistics term)	EMD	Emergency Management Division
ARC	American Red Cross	ESF	Emergency Support Function
AWC	Alert and Warning Center	FEMA	Federal Emergency Management Agency
BC	British Columbia (Canada)	FHWA	Federal Highway Administration
CAP	Corrective Action Plan	FSA	Federal Staging Area (logistics term)
CEMNET	Comprehensive Emergency Management Network	FSE	Full Scale Exercise
CEMP	Comprehensive Emergency Management Plan	FTE	Full Time Employee
CIEP	Coalition on Inclusive Emergency Planning	GIS	Geographic Information System
CIPHR	Coalition for Infrastructure Protection & Homeland Resilience	HAZMAT	Hazardous Materials
CISA	Cybersecurity and Infrastructure Security Agency	HMP	Hazard Mitigation Plan
COAD	Community Organizations Active in Disasters	HLS	Homeland Security (Region)
COVID 19	Novel Corona Virus 2019	HVAC	Heating, Ventilation and Air Conditioning
CPOD	Community Point of Distribution	I-#	Interstate
CR	Cascadia Rising	IGA	Intergovernmental Agreement
CR22	Cascadia Rising 2022	IOF	Initial Operating Facility
CSZ	Cascadia Subduction Zone	IP	Improvement Plan
CT	Critical Transportation	IPPW	Integrated Preparedness Plan Workshop
DCYF	Department of Children, Youth, and Families	ISB	Incident Support Base
DES	Department of Enterprise Services	LEP	Limited English Proficiency
DHS	Department of Homeland Security	LMR	Land Mobile Radio
DOC	Department of Corrections	MACG	Multi-Agency Coordination Group
DOH	Department of Health	MCS	Mass Care Services
DOH-ODW	Department of Health -Office of Drinking Water	MOA	Memorandum of Agreement

Acronym	Term	Acronym	Term
DSHS	Department of Social and Health Services	MOU	Memorandum of Understanding
DNR	Department of Natural Resources	SoC	Summary of Conclusions
NED	National Exercise Division	SPR	Stakeholder Preparedness Review
NGO	Nongovernmental Organization	SSA	State Staging Area
NIMS	National Incident Management System	SWIC	Statewide Interoperability Coordinator
NLE	National Level Exercise	THIRA	Threat & Hazard Identification and Risk Assessment
OSCCR	On-Scene Command and Coordination Radio	TTX	Tabletop Exercise
PACE	Primary, Alternate, Contingency, and Emergency	USCG	United States Coast Guard
POC	Point of Contact	UTC	Washington Utilities and Transportation Commission
POETE	Planning, Organizing, Equipping, Training, and Exercise	VOAD	Volunteer Organizations Active in Disasters
ROC	Rehearsal of Concept	WA	Washington
RRAP	Regional Resiliency Assessment Program	WATECH	Washington Technology Solutions
SAL	State Agency Liaison	WAWARN	Water/Wastewater Agency Response Network
SCRIPT	Statewide Catastrophic Incident Planning Team	WC	Work Cell (phone)
SECURE	State Emergency Communications Using Radio Effectively	WDFW	Washington Department of Fish and Wildlife
SEHMP	State Enhanced Hazard Mitigation Plan	WG	Workgroup
SEOC	State Emergency Operations Center	WSDOT	Washington State Department of Transportation
SIEC	Statewide Interoperability Executive Committee	WSP	Washington State Patrol
SHARES	FEMA Shared Resources		



## KEY TERMS

Key Term:	Definition:
Access and Functional Needs (AFN)	Persons with or without disabilities who may have additional needs before, during, and after an incident in functional areas because of any condition (temporary or permanent) that may limit their ability to act in an emergency, including but not limited to maintaining independence, communication, transportation, supervision, and medical care. Individuals in need of additional response assistance may include those who have disabilities; live in institutionalized settings; are seniors; are children; are from diverse cultures; have limited English proficiency or are non-English speaking; have limited access to financial resources, are transportation disadvantaged, or others deemed at risk.
Aerial Port(s) of Debarkation (APOD)	An airfield for sustained air movement at which personnel and material are discharged from aircraft. Aerial ports of debarkation normally serve as ports of embarkation (APOE) for return passengers and retrograde cargo shipments.
Community Point of Distribution (CPOD)	A location from which basic material assistance is provided to the public in the form of emergency food and drinking water. The CPOD may also distribute other commodities such as ice, tarps, baby food, etc. A CPOD is not the same as a point of dispensing, which distributes or administers pharmaceuticals.
Federal Staging Area (FSA)	A temporary facility in the vicinity of the affected area at which commodities, equipment, and personnel are received and from which they may be deployed upon State request. Resources at a Federal Staging Area are assigned to the disaster, awaiting tactical assignment. These resources are under the control of the FEMA Region Office, Regional Response Coordination Center, its Incident Management Assistance Team, or the Joint Field Office and are allocated by FEMA according to specific requests by the affected State.
Interim Operating Facility (IOF)	A site identified in consultation with the state—as a precursor to the establishment of a Joint Field Office (JFO).
Incident Staging Base (ISB)	A location near an impacted disaster area at which FEMA mobilizes and pre-positions commodities and other resources in response to, or in anticipation of, a state request for assistance. Resources at an ISB are national-level resources under the control of FEMA's National Response Coordination Center and are available for deployment nationwide. FEMA considers establishing an ISB to be a valid course of action when an incident is foreseen or for multi-state incidents.
State Staging Area	A temporary facility in the vicinity of the affected area at which commodities and equipment are received and from which they may be deployed. The State Staging Area is the focal point in the supply chain for resources to be delivered from multiple sources to survivors in a community. Resources staged at a State Staging Area may be distributed directly to the point of use or to a County Staging Area or Community Point of Distribution (CPOD). Co-location of state, tribal, and/or local jurisdictions will provide a more efficient transfer of ownership. The goal of each staging area, once stocked, is to provide needed resources within 12 hours of receiving a request.