Iron Oregon 2024 "IronOR 24" State-Level Exercise

After-Action Report and Improvement Plan

May 2025

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EXECUTIVE SUMMARY

Exercise Background

IronOR 24 (IO24) was a four-day functional exercise that served as the 2024 Oregon State-Level Exercise to test statewide capabilities in response to a 9.0 magnitude Cascadia Subduction Zone Earthquake event. In 2016, the Oregon Department of Emergency Management (OEM) hosted Cascadia Rising, a similar four-day functional exercise simulating the initial onset (Day 1) through immediate response operations (Day 4) of a 9.0 magnitude Cascadia Subduction Zone earthquake event. Building on the 2016 Cascadia Rising exercise, IO24 exercised Days 5-7 within the scenario.

Originally scheduled to be part of the 2022 National-Level Exercise (NLE), this exercise event was reduced in scope and size following significant impacts on the ability to design and develop the NLE during the COVID-19 pandemic response. The NLE event was reduced to several state government-focused discussion-based exercise events throughout 2022. Following the reduced scope and size of NLE 2022, OEM was interested in pursuing a functional-level exercise that could test the key plans, policies, and procedures developed following Cascadia Rising. Dates were selected in the summer of 2023, however, the transition to a standalone department, leadership transitions and staffing shortages at OEM hindered the ability to plan and conduct a successful exercise. The event was postponed until 2024. October 2024 dates were selected by a group of statewide partners at the 2023 Oregon Prepared Conference.

This exercise event included more than 135 organizations and 650 individuals participating at some level across Oregon and at the FEMA 10 Regional Response Coordination Center (RRCC), Additional details are available in *Appendix B: Participating Organizations*.

Exercise Goals and Objectives

At the foundation of IO24, the State of Oregon seeks to demonstrate its ability to operate the State Emergency Coordination Center (ECC) over multiple operational periods while providing space for State ECC partners to gain experience within roles and responsibilities.

Goal 1-Operational Coordination: The State of Oregon Emergency Coordination Center (ECC) will implement, and maintain, an operational coordination structure to prioritize response actions and share critical incident information to support the simulated response of Days 4 through 7 to a 9.0 Cascadia Subduction Zone Earthquake.

    1.1 <u>Operational Rhythm</u> | The Oregon State Emergency Coordination Center (ECC)-Planning Section/SF #5 will develop an Incident Action Plan (IAP) via the defined Operational Period in accordance with the 2023 Emergency Operations Plan (EOP) Base Plan in response to a 9.0 Cascadia Subduction Zone Earthquake scenario.

    1.2 <u>Situational Assessment</u> | The Oregon State Emergency Coordination Center (ECC) Planning and Intelligence Coordination Section (ESF #5) will produce a situation report during each operational period of ECC activation in accordance with the ESF #5 Annex in response to a 9.0 Cascadia Subduction Zone Earthquake scenario.

1.3 <u>Resource Request Management</u> | The Oregon State Emergency Coordination Center (ECC)-Coordination Sections will implement, and maintain, a process to receive, assign, prioritize, track, and request resources to meet the established incident management objectives during each operational period in accordance with the State ECC OpsCenter Processing Guide in response to a 9.0 Cascadia Subduction Zone Earthquake scenario.

Goal 2-Operational Communications: The State of Oregon Emergency Coordination Center (ECC) will establish redundant communications systems and implement a strategy to address the simulated communications impacts from Days 4 through 7 of a 9.0 Cascadia Subduction Zone Earthquake

2.1 <u>Operating with Redundant Communications</u> | The Oregon State Emergency Coordination Center (ECC)-Communications Unit will establish and maintain redundant communications capabilities in accordance with the State ECC PACE Plan to confirm communication capabilities with local, tribal, and state government partners in response to a 9.0 Cascadia Subduction Zone Earthquake scenario.

2.2 <u>Communications Resource Support</u> | The Oregon State Emergency Coordination Center (ECC) Emergency Support Function (ESF) #2 will develop a functional common operating picture related to system damages and impacts to inform a System Restoration Strategy in accordance with the ESF #2 Annex and in response to a 9.0 Cascadia Subduction Zone Earthquake scenario.

Goal 3-Mass Care Services: The State of Oregon Emergency Coordination Center (ECC)-Emergency Support Function (ESF) #6 will implement, and maintain, a strategy to address the simulated human impacts from Days 4 through 7 of a 9.0 Cascadia Subduction Zone Earthquake.

3.1 <u>Mass Care Support Strategy</u> | The Oregon State Emergency Coordination Center (ECC) Emergency Support Function (ESF) #6 will develop a functional common operation picture related to shelter, feeding, and water operations in accordance with the ESF #6 Annex Concept of Operations following a 9.0 Cascadia Subduction Zone Earthquake scenario.

Exercise Conduct

The exercise took place over four days with the first day (Day 0) preparing participants for exercise play, and the following three days (Days 1-3) being exercise conduct.

IO24 Training Days | Wednesdays in October | 9:00 – 11:00	
Timing	Scope
October 2	Cascadia Subduction Zone Earthquake Overview
October 16	Goal 1-Operational Coordination Play Expectations
October 22	Goal 2 & 3: Operational Communications & Mass Care Play Expectations
Monday, October 28th | Day 0	
Timing	Scope
8:00 – 8:30	Event Registration
8:30 – 9:00	Leadership Comments
9:00 – 10:00	Exercise Briefing
10:00 – 10:30	Incident Turnover Brief
10:30 – 10:45	Break
10:45 – 11:00	Goal 1 Expectations & Daily Breakdown
11:00 – 11:15	Goal 2 Expectations & Daily Breakdown
11:15 – 11:30	Goal 3 Expectations & Daily Breakdown
1:00 – 2:00	OPTIONAL | OpsCenter Refresher
2:00 – 4:30	Open Time
Tuesday, October 29 | Day 1	
Timing	Scope
8:00	STARTEX
4:30	PAUSEEX
4:30 – 5:00	Functional Host Wash, As Needed

Wednesday, October 30 | Day 2	
<u>Timing</u>	<u>Scope</u>
8:00	STARTEX
4:30	PAUSEEX
4:30 – 5:00	Functional Host Wash, As Needed

Thursday, October 31 | Day 3	
<u>Timing</u>	<u>Scope</u>
8:00	STARTEX
12:00	ENDEX
12:00 – 1:00	Lunch
1:00 – 1:45	Function/Section Hot Wash
1:45 – 2:30	Full EOC/ECC Hot Wash
2:45 – 4:00	Full IO24 Hot Wash

Exercise Scenario

At 8:00 A.M. on October 25, 2024, the Cascadia Subduction Zone released the centuries-long stress built up on the margin between the Juan de Fuca Plate and the North American Plate. A 9.0 magnitude earthquake started and encompassed the nearly 700 miles (1100 km) long fault. The earthquake impacted the entire fault zone, rupturing from end to end, causing one great earthquake that was felt throughout the Pacific Northwest.

Within seconds of the fault's rupture at the southern end, seismic waves started impacting coastal communities in Curry and Coos Counties. As the rupture expanded northward, shaking intensified on the south coast of Oregon and Northern California. The shaking intensity along the coast rose to Modified Mercalli Intensity Scale (MMVI)-strong shaking and continued to rise as the shaking continued.

As the locked zone released the pressure, the North American Plate slipped ~80 feet (~25 meters) west, causing an uplift of the ocean floor. This displacement caused the water column to rise, generating a tsunami. The tsunami split with waves going both east and west at about 500 miles per hour.

By 8:02 A.M. on October 25, 2024, Eugene, Salem, and Portland communities began to feel the first shaking. The shaking continued for 2-3 minutes. While the shaking was not as strong as on the coast, the nature of the long seismic waves generated by a subduction zone earthquake means that more damage likely occurred to larger, older structures. The rupture continued northward, and the coastal areas of Washington state began to feel the effect of ground shaking.

Across Oregon, power went out, and cellular communication was significantly impacted. A significant number of unreinforced masonry, non-ductile concrete, and tip-up buildings collapsed, and bridges across the Coastal region and Willamette Valley collapsed or shifted off supports. Coastal subsidence caused a drop of 3-6 feet (1-2 meters), depending on location, which in turn caused an inrush of ocean water.

At 8:15 A.M. on October 25, 2024, the first tsunami surges arrived on the outer coasts of Curry and Coos Counties. On the North coast of Oregon, the leading trough of the tsunami caused a drawdown, and the water temporarily receded from the coast. The initial waves were followed by a series of increasingly larger surges, averaging 30-50 feet (9-15 meters) high and in some areas, even higher. At 8:45 A.M. on October 25, 2024, the tsunami surges reached the Clatsop Spit, entered the Columbia River, and impacted the town of Astoria.

The tsunami generated by the earthquake wrought destruction along the Pacific Northwest coastline. These waves inundated coastal towns, sweeping away homes, businesses, and critical infrastructure. Entire neighborhoods were reduced to rubble, and thousands of residents were either swept out to sea or trapped beneath the debris. The force of the water uprooted trees, overturned vehicles, and left a thick layer of mud and wreckage in its wake. Ports and marinas were decimated, disrupting the local fishing industry and cutting off essential supply lines. The environmental impact was severe, with the tsunami waves causing extensive erosion and depositing hazardous materials across the landscape.

Additional Tsunami inundation area can be found through the following GIS map – areas in yellow and brown have been significantly impacted.

At 9:00 A.M. on October 25, 2024, the first of thousands of aftershocks was felt along the coast. These aftershocks will lessen in frequency and magnitude over time. In the first 24 hours after the main shock, there were dozens of aftershocks in the 4.2-5.3 magnitude range, with several of the more intense aftershocks listed below:

- 7.4 Moment Magnitude. October 26, 2024, at 12:31 A.M.
- 7.1 Moment Magnitude, October 26, 2024, at 3:37 P.M.
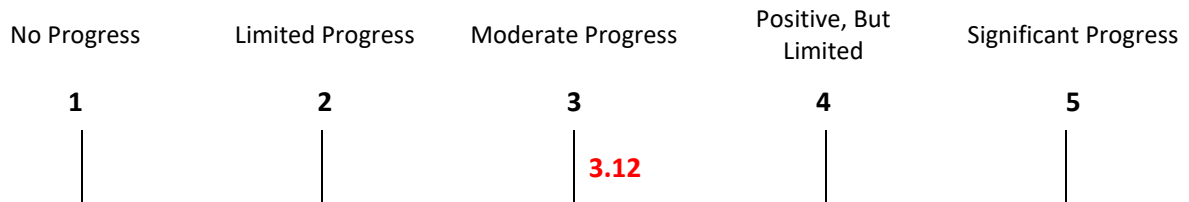- 5.7 Moment Magnitude, October 27, 2024, at 1:15 P.M.

KEY FINDINGS

The AAR for the IO24 exercise focused on evaluating the operational coordination, communication, and resource management capabilities of the State ECC during a simulated response to a 9.0 Cascadia Subduction Zone Earthquake. The exercise emphasized the post-impact phase and included key objectives such as operational rhythm development, situational assessment, and resource management. Findings from the AAR revealed strengths in in-person coordination and collaboration among stakeholders but also identified critical areas for improvement, particularly in leadership clarity, meeting coordination, and resource prioritization. The following feedback collection methods were used to ensure as much feedback as possible from exercise participants and evaluators:

A. Exercise Evaluation Findings: IO24 utilized an Evaluation Team to assess how the identified plans and processes were implemented and utilized by exercise players. The findings from this team were the initial foundation for the AAR and integrated with additional findings.

B. Player Comment Cards: Players were offered digital and physical comment cards during exercise play to share immediate feedback on, lacking/needed planning documents, State ECC functionality, and/or exercise design/conduct. The Evaluation Team received 134 comment cards.

C. Event Hot Wash Discussions: Immediately following the end of exercise play on Thursday, October 31, the Exercise Planning Team hosted three hot washes to gather feedback from players. Those hot washes were separated into:

   o Functional Area – Delve deeper into functional area play and integration with the associated plans, policies, and procedures.
   o Full State ECC – Share functional area findings with the full State ECC to identify cross-functional findings and assess overall State ECC play.
   o Full IO24 – Include Local and Tribal Emergency Management players to assess how the identified plans, policies, and procedures supported coordination and communication between the varying levels of government.

D. Digital Participant Feedback Form: Following the end of exercise play, State ECC players were provided with a digital feedback form to supplement the hot wash and comment card options. This digital feedback form offered players an opportunity to share their experience related to exercise objectives, providing both quantitative and qualitative data. This Evaluation Team received 46 responses from players.

E. Individual/Functional Interviews: The AAR Development Team utilized individual and functional interviews to confirm or clarify feedback offered during options A-D and performed a root cause analysis.

F. Functional After-Action Meetings: After-Action Meetings (AAM) were offered to present the initial draft AAR product to exercise participants. Due to the wide range of scope for this exercise event, the AAR Development Team utilized three separate AAMs for each

of the identified Goals. These spaces offered participants an opportunity to share feedback on the draft findings.

DATA

The Exercise Planning Team utilized the Participant Feedback Form and the Full IO24 Hotwash to assess the exercise overall, asking participants to rate their opinion on whether the State ECC is better prepared to support a Catastrophic Incident following IO24:

No Progress	Limited Progress	Moderate Progress	Positive, But Limited	Significant Progress
1	**2**	**3**	**4**	**5**
		3.12		

G. *Figure 1: Participant Ratings on ECC Readiness for a Catastrophic Incident*

Overall, participants expressed IO24 supported moderate progress in the State ECC's readiness to respond to a catastrophic incident.

Table 1: Key Findings Summary

Key Findings
Operational Rhythm (O1.1):
Strength: In-person collaboration improved situational awareness and decision-making efficiency among key stakeholders.
Improvement: Ambiguity in leadership roles and responsibilities disrupted operational coordination during the initial phases of the exercise. Meetings lacked clarity in purpose, structure, and expected outcomes, reducing efficiency.
Situational Assessment (O1.2):
Improvement: Document collaboration tools lacked version control, leading to inefficiencies. Inconsistent data collection processes hindered the ability to create a comprehensive Common Operating Picture.
Resource Request Management (O1.3):
Strength: The State ECC was able to receive resource requests using primary and back-up systems throughout the exercise, allowing players to practice the request process coming from different sources.
Improvement: The absence of a unified resource prioritization framework nor a standardized process for requesting and utilizing Federal resources caused delays and underutilization of critical federal resources. Staffing gaps and training deficiencies within Operations and Logistics sections further exacerbated inefficiencies.
Operating with Redundant Communications (O2.1):

Key Findings
Strength: The State ECC Communications Unit was able to connect with 19 of 19 Counties (100%), 2 of 9 (22%) of Tribal Governments, and the FEMA RRCC during exercise play. There were some counties that played a week before the large-scale exercise. The exercise did find that 9 counties don't have amateur radio operators. The majority of Tribal Governments don't have radio operators.
Communications Resource Support (O2.2):
Improvement: Staffing a Communications Coordinator (COMC) position would help manage and more evenly distribute the amount of work of ESF #2 leads. The COMC, who coordinates and deconflicts the range of internal and external resources and other communications capabilities between multiple incidents, serves as a point of contact and is responsible for maintaining contact with local agencies, collecting information about local resources to aid the Communications Unit Lead (COML), and helping with tasks such as ordering and assigning equipment and frequencies and tracking the status of orders.
Mass Care Support Strategy (O3.1):
Strength: Beginning on Day 2 (Wednesday) of exercise play Task Forces were stood up to begin addressing the sheltering, feeding, and hydration needs of the incident. These Task Forces included ESF #3, 6, 8, 11, and 16 to support the implementation of a Mass Care Strategy. Further guidance and structure for Task Forces are still needed, but a great opportunity to practice these teams.
Improvement: Coordination between the ESF #6 Unit in the State ECC and external ESF #6 operational venues needs to be standardized to confirm roles, responsibilities, and expectations.

Next Steps

The findings from the IO24 exercise will guide improvements to Oregon's emergency response capabilities by addressing gaps in operational coordination, situational assessment, and resource management. Once finalized, the AAR/Improvement Plan (IP) will be submitted to the Continuous Improvement Program (CIP) for ongoing monitoring and tracking of recommended actions. These steps aim to ensure that identified improvements are implemented effectively, enhancing preparedness for future catastrophic incidents.

ANALYSIS OF CORE CAPABILITIES

Aligning observations and core capabilities provides a consistent evaluation for individual incidents to support preparedness reporting and trend analysis. **Table 2** includes the observations, aligned core capabilities, and performance ratings for each core capability as observed during the incident and determined by the evaluation team.

Table 2: Summary of Core Capability Performance

Exercise Objectives	Primary Core Capability	Primary Lifeline	Performed without Challenges (P)	Performed with Some Challenges (S)	Performed with Major Challenges (M)	Unable to be Performed (U)
1.1 - Operational Rhythm … (ECC)-Planning Section/ESF #5 will develop an Incident Action Plan (IAP) via the defined Operational Period in accordance with 2023 Emergency Operations Plan (EOP) Base Plan…	Operational Coordination	--		X		
1.2 -Situational Assessment … (ECC) Planning and Intelligence Coordination Section (ESF #5) will produce a situation report during each operational period of ECC activation in accordance with the ESF #5 Annex…	Operational Coordination	--			X	
1.3 Resource Request Management …(ECC)-Coordination Sections will implement, and maintain, a process to receive, assign, prioritize, track, and request resources to meet the established incident management objectives during each operational period in accordance with the State ECC OpsCenter Processing Guide…	Operational Coordination	--			X	
2.1 Operating with Redundant Communications … (ECC)-Communications Unit will establish and maintain redundant communications capabilities in accordance with the State ECC PACE Plan to confirm communication capabilities with local, tribal, and state government partners…	Operational Communication	Communication		X		
2.2 Communications Resource Support …(ECC) Emergency Support Function (ESF) 2 will develop a functional common operating picture related to system damage and impacts to inform a System Restoration Strategy in accordance with the ESF #2 Annex…	Operational Communication	Communication				X
3.1 Mass Care Support Strategy | …(ECC) Emergency Support Function (ESF) 6 will develop a functional common operation picture related to shelter, feeding, and water operations in accordance with the ESF #6 Annex Concept of Operations…	Mass Care Services	Food, Hydration, Shelter			X	

Performed without Challenges (P): The targets and critical tasks associated with the core capability were completed and did not negatively impact the performance of other activities. Performance of this activity did not contribute to additional health and/or safety risks for the public or for emergency workers, and it was conducted in accordance with applicable plans, policies, procedures, regulations, and laws.

Performed with Some Challenges (S): The targets and critical tasks associated with the core capability were completed and did not negatively impact the performance of other activities. Performance of this activity did not contribute to additional health and/or safety risks for the public or for emergency workers, and it was conducted in accordance with applicable plans, policies, procedures, regulations, and laws. However, opportunities to enhance effectiveness and/or efficiency were identified.

Performed with Major Challenges (M): The targets and critical tasks associated with the core capability were completed but some or all of the following were observed: demonstrated performance had a negative impact on the performance of other activities; contributed to additional health and/or safety risks for the public or for emergency workers; and/or was not conducted in accordance with applicable plans, policies, procedures, regulations, and laws.

Unable to be Performed (U): The targets and critical tasks associated with the core capability were not performed.

SCOPE AND METHODOLOGY

This AAR is based on data collected during the IronOR 24 functional exercise, which took place from October 28 to October 31, 2024. The exercise simulated the response to a 9.0 Cascadia Subduction Zone Earthquake, with a focus on the post-impact phase starting 96 hours after the simulated event. IO24 aimed to assess Oregon's statewide emergency response capabilities across three core areas: Operational Coordination, Operational Communications, and Mass Care Services. This exercise was developed and conducted following the Homeland Security Exercise and Evaluation Program (HSEEP), utilizing formal planning meetings, quarterly training exercises, and Exercise Bootcamps to prepare participants.

The exercise involved 135 organizations across the state, with approximately 650 participants. Data collection for the AAR targeted functional areas such as situational assessment, operational rhythm, resource request management, redundant communications, and mass care strategies. Collection methods included direct observation, structured interviews, hot washes, player comment cards, and surveys. Evaluation teams observed and documented performance metrics, feedback, and situational outputs from participants including ESF Leads, ECC staff, and interagency partners. The findings provide actionable insights into the strengths, challenges, and improvement areas for enhancing Oregon's resilience and emergency readiness.

Data Collection

Data collection for this AAR adhered to the IO24 Collection Analysis Plan (CAP), which outlined objectives, methodologies, and evaluation priorities. Information was gathered through a combination of structured methods to ensure a comprehensive analysis of the exercise and its outcomes:

- **Direct Observations:** A team of 15 evaluators monitored real-time activities within the ECC and interagency coordination processes. Key focus areas included operational coordination, SitRep submissions, resource management, operational communications, mass care strategies and ESF collaboration.

- **Hot Washes:** A total of 9 hot washes were conducted, including 7 section/group-specific hot washes, 1 State ECC hot wash, and 1 Full IO24 hot wash. All hot washes were hybrid (in-person and virtual) and took place on the afternoon of Thursday, October 31st, 2024, ensuring inclusivity and broad participation.

- **Participant Feedback and Surveys:** Feedback was collected through a standardized Participant Feedback Form and surveys administered via Qualtrics. Participants rated their perception of the State ECC's readiness to support a catastrophic incident post-IO24, using a scale from 1 (No Progress) to 5 (Significant Progress). The average score was 3.12, indicating moderate progress with room for improvement (Figure 1: Participant Ratings on ECC Readiness for a Catastrophic Incident).

- **Document Review:** Evaluators analyzed submitted SitReps, Incident Action Plans (IAPs), OpsCenter logs, and ESF-specific documentation to assess compliance with the exercise's objectives and adherence to established procedural guidelines.

- **Qualitative Data Analysis:** Structured interviews and comments captured during hot washes provided qualitative insights into operational processes, communication challenges, and overall exercise effectiveness.

- **Organizational Participation:** Data was gathered from 35 participating organizations, representing a diverse array of state, tribal, local, and interagency partners.

Data Analysis Process

Data analysis began immediately following the exercise on November 1st, 2024, and continued through November 27th, 2024. The evaluation team used both qualitative and quantitative methods to synthesize information, identify trends, and draw actionable conclusions. The Full IO24 Hotwash and Participant Feedback Form played a central role in assessing overall progress, indicating that IO24 contributed to the State ECC's readiness for catastrophic incidents but highlighted areas requiring further development.

This multifaceted data collection approach ensured comprehensive insights into IO24's effectiveness and informed the development of actionable recommendations to enhance future preparedness efforts.

Table 3: Data Collection Metrics (Data Represents State ECC Participants)

Organizations	People	Hotwashes	Exercise Evaluation Guides (EEGs)	Feedback Forms (Digital & Physical)
42	205	9	15	134

EXERCISE OBJECTIVE FINDINGS

Goal 1-Operational Coordination

The State of Oregon Emergency Coordination Center (ECC) will implement, and maintain, an operational coordination structure to prioritize response actions and share critical incident information to support the simulated response of Days 4 through 7 to a 9.0 Cascadia Subduction Zone Earthquake.

O1.1-Operational Rhythm Findings

The Oregon State Emergency Coordination Center (ECC)-Planning Section/ESF #5 will develop an Incident Action Plan (IAP) via the defined Operational Period in accordance with 2023 Emergency Operations Plan (EOP) Base Plan in response to a 9.0 Cascadia Subduction Zone Earthquake scenario.

DATA

<u>"How well do you feel your functional area was able to integrate with and support Objective 1.1?"</u>

No Progress	Limited Progress	Moderate Progress	Positive, But Limited	Significant Progress
1	**2**	**3**	**4**	**5**
	2.38			
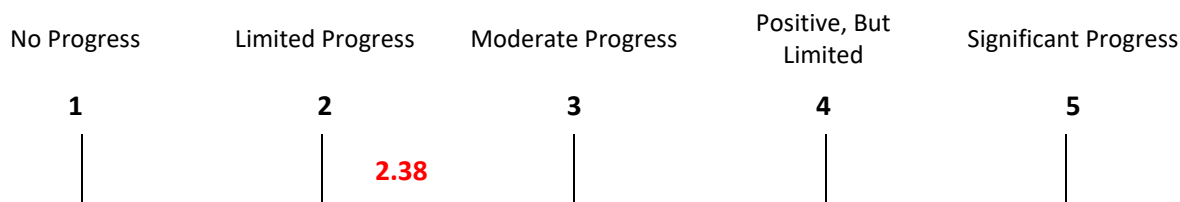
Figure 2: Participant Ratings on O1.1 Integration

<u>"How much did the Operational Rhythm SOG support you meeting Objective 1.1?"</u>

3 of the 38 (8%) respondents to this question did not know the SOG existed.

No Knowledge of SOG	No SOG was not Helpful	SOG was Moderately Helpful	SOG Was Mostly Helpful	SOG was Clear, Concise and Detailed
1	**2**	**3**	**4**	**5**
		2.83		

Figure 3: Participant Ratings on O1.1 SOG Support

STRENGTHS

- **1.1.1.1 | In-Person Coordination – In-Person Collaboration During the Exercise Proved Invaluable for Participating in the Operational Rhythm:** It facilitated the adjustment of plans and schedules as needed, strengthened relationships between local, state, private, non-profit and federal 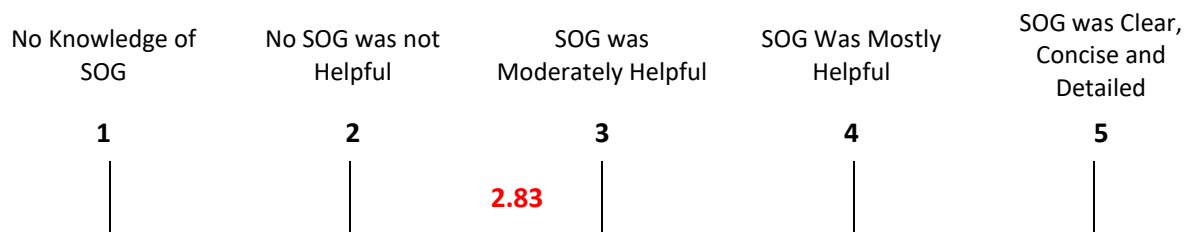partners, and improved integration with key agencies, including OEM, Oregon Department of Agriculture (ODA), Oregon Health Authority (OHA), and Oregon Department of Human Services (ODHS). Having the main ESF coordinating bodies physically present enhanced situational awareness and decision-making efficiency.

- **1.1.1.2 | Openness to Adjust Operational Rhythm – The Ability for the State ECC to Elicit Input and Adjust the Operational Rhythm Pointed to the Point of Exercising Processes not People:** While the initial operational rhythm process outlined the steps to take, participants remained flexible to adjust that process as needed to meet the established objective and meet both partner and Policy expectations as those changed. This strength supported the overall intent of this exercise – to test the processes and not people.

- **1.1.1.3 | Coordination with External State ECC Partners – IO24 Provided ECC Sections and Units the Opportunity to Collaborate with Key Response Partners:** Overall participants felt the coordination and communication with key external response partners was a strength of this exercise. Utilizing the operational coordination to host ESF-focused coordination calls supported critical coordination and intelligence development. ESF #2-Communications, ESF #6-Mass care, ESF #14-Business and Industry and Public/Private Partnerships Program Manager (both Banking and Groceries), and ESF #16-Volunteer and Donations supported the practice of engaging key response partners**.**

AREAS FOR IMPROVEMENT

- **1.1.2.1 | Establishing Incident Priorities – The Organizational Body Responsible for Establishing Incident Priorities for the State ECC is Currently Unclear:** The exercise revealed significant ambiguity regarding leadership roles and the process for establishing incident priorities within the State ECC. Participants were unclear whether priorities were to be set by the ECC Manager, the Policy Group, the Oregon Governor's Disaster Cabinet (GDC), or the ECC Sections based on functional insights. There was significant uncertainty regarding which organizational body held ultimate responsibility for establishing incident priorities during IO24. On Day 1, operational staff looked to State ECC Leadership for guidance, while leadership deferred to the Sections for direction, resulting in no established incident priorities. A discussion following the end of exercise play on Day 1 resulted in the consensus that State ECC leadership should play a proactive role in setting incident priorities, which was implemented more effectively on Days 2 and 3. However, the initial lack of clarity disrupted operational coordination and highlighted the need for clearly defined leadership roles and responsibilities to maintain unity of effort, operational pacing, and tactical alignment.

- o **Reference** ECC Planning Cycle for IAP Development SOG (2024), Section B, Pages 5-6: This section of the SOG does outline first who should develop the ECC Priorities in Step 3, Page 5, and then who and how the priorities inform ECC strategic objectives in Step 4, Page 5.

- o **Reference** State of Oregon EOP - Base Plan (2024), Pages 38: This section of the EOP outlines that the GDC provides recommendations to the governor regarding statewide priorities, allocation of limited state emergency resources, and use of emergency funds under ORS 401.168. The GDC remains active until the governor determines that the incident has passed. However, the exercise revealed that while the GDC's role is referenced in guiding statewide priorities, there was a lack of clarity around when this body was formally activated. The GDC is co-chaired by the governor's chief of staff and the director of the DAS and can be convened by consultation with the governor pursuant to the executive order establishing the body.

  During IO24, the absence of a formal decision to activate the GDC created uncertainty about which organizational body had the authority to establish overarching incident priorities. This confusion caused delays in setting strategic direction, particularly during the initial operational period. Several ECC sections and staff deferred to ECC leadership for guidance, while leadership looked back to the sections for input. This lack of alignment disrupted operational coordination and limited the ability to pace and sequence response actions. Without a clear, centralized body to set and communicate incident priorities early, sections defaulted to working in silos, resulting in reduced cohesion and inconsistent direction.

- **1.1.2.2 | ECC Meetings and Report-Outs – The ECC Meetings Lacked Clarity on Expected Outcomes, Intended Audiences, and Reporting Content, Resulting in Reduced Efficiency and Decision-Making:** While agendas were provided for Day 1 Command and General Staff Meetings and large ECC group meetings, these agendas led to participant confusion during the meetings. During the ECC Coordination Call, excessive detail detracted from its purpose of addressing high-level issues and directives. Similarly, the objectives and appropriate content for meetings such as the ECC Operations Stand-Up, ECC Tactics Meeting, and ECC Coordination Call were unclear, preventing participants from effectively preparing and contributing. This lack of focus undermined the meetings' overall effectiveness.

  Day 1 ECC Tactics meeting was held in the main ECC room, which disrupted ongoing operations and caused delays in ESF partner workflows due to an active meeting taking them away from their actions/operations**.** The meeting lacked a defined purpose and structure, resembling a situational briefing rather than fulfilling the objectives of a true tactics meeting. Attendees were unclear on the meeting's goals, who needed to participate, and how their contributions aligned with the overall objectives. This ambiguity negatively impacted the meeting's coordination and effectiveness.

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ESF #6 shared they had meetings scheduled that had several conflicted meetings with the ECC meeting schedule. This made it challenging to have ESF representatives at all the ECC meetings.

Participants shared that the requests for updates from ESFs/Sections during full-ECC meetings were done without guidance on the key information or data to share, leaving speakers sharing general unit/section updates which was not always helpful to operations or forwarding the incident objectives. These meetings saw a facilitator scamper around the main ECC space for each speaker. Participants requested that speakers be better prepared so they could be in a single location visible for both in-person and virtual participants and have the talking points prepared.

- o **Reference** ECC Planning Cycle for IAP Development SOG (2024), Section B, Pages 5-7: This section does outline the specific meetings that are necessary as part of the Planning "P", however, does not provide specifics on the meeting outcomes, intended audiences, and report-out content.

- **1.1.2.3 | ESF Lead Roles & Responsibilities – ESFs Lacked Guidance on How to Operate and Therefore Operated in Silos:** Frequent personnel changes and inadequate onboarding have disrupted the flow of critical information and coordination during transitions into new operational periods (each day of exercise play). Furthermore, confusion regarding ESF Leads' roles and responsibilities was observed, with some ESFs operating in silos and focusing on individual tasks rather than guiding their teams and overseeing collective ESF operations. This approach limited the delegation of responsibilities and hindered team effectiveness. Establishing consistent staffing and communication tools is essential to improve operational efficiency and ensure effective emergency management.

  Participants also pointed to the need for ICS operational elements such as Groups or Branches to support the coordination of the different ESFs that work together (DEQ, ODOT, OHA, etc). These organizational elements could have helped guide actions and enhance communication, as well as maintain span of control.

  The question was raised about how the Community Lifelines Model would support this transition but were not addressed until the third day of the exercise.

  - o **Reference** ECC Planning Cycle for IAP Development SOG (2024), Section B, Pages 5-7: This section does outline the specific meetings that are necessary as part of the Planning "P", however does not provide ESFs with awareness of their expected role in preparing for or participating in them.

  - o **Reference** State of Oregon EOP (2024) | Concept of Operations, Community Lifelines (Pages 29-31): This section outlines how Community Lifelines are incorporated into the State ECC.

- **1.1.2.4 | FEMA Synchronization – There is a Misalignment Between the ECC's and FEMA's Operational Rhythms Resulting in Coordination Challenges and Reduced Efficiency:** This lack of synchronization made it difficult to maintain seamless

communication and alignment during joint operations, particularly in a catastrophic event scenario where timing and collaboration are critical. Early in the exercise, there was a noticeable lack of communication and coordination between state and federal ESFs. This improved late into the exercise, but only after repetitive messaging by the exercise team, the FEMA Liaison Officer and the RRCC. Additional expectation setting or structured federal-state interaction meetings and/or guidance are necessary for future success. The need to better integrate FEMA into ECC meetings—beyond quick updates—was underscored, highlighting the importance of aligning priorities and ensuring FEMA's situational awareness before state and jurisdictional report-outs.

The State ECC participants lacked awareness of the joint planning expectations between the state and FEMA, therefore no virtual meeting invites (Planning, Tactics, C&GS, etc.) were created or sent to the RRCC Planning Section, and they were not initially included in the ECC Planning email distros for planning products. The RRCC Planning Section needed these to maintain situational awareness and to complete the Senior Leadership Brief (SLB) at a minimum. This resulted in the RRCC Planning Section contacting FEMA LNO for this information directly. ECC Planning had to create virtual meeting invites during the exercise for the RRCC staff to attend. Eventually, ECC Planning added the RRCC Planning Section to planning product distros and all appropriate virtual meetings.

- o **Reference** ECC Planning Cycle for IAP Development SOG (2024), Section B, Pages 5-7: This process does not currently have any reference to FEMA coordination or fixed meetings.

- **1.1.2.5 | IAP Developer Lead Unclear – The ECC Resource Unit was Unaware of the Requirement to Prepare a Draft Incident Action Plan (IAP):** An exercise evaluator had informed the Resource Unit about the deadline after being prompted by an evaluator. Despite this intervention, there was no proactive follow-up Planning Section Leadership to ensure progress, resulting in delays. Additionally, the Planning Section faced broader issues of unclear operational priorities and poor meeting coordination, which caused confusion and slowed task execution. GIS staff experienced a significant 1.25-hour gap in receiving guidance, delaying the initiation of critical tasks such as product development and data analysis. These issues emphasize the need for improved communication, defined timelines, and consistent follow-up processes to enhance coordination and ensure timely task completion during activations.

  - o **Reference** ECC Planning Cycle for IAP Development SOG (2024), Section B, Step 18, Page 7: This process currently outlines the "Planning Coordination Section staff assemble the ECC IAP." This identifies two ECC Sections as responsible for the IAP, not defining a specific Unit to manage this effort.

  - o **Reference** State of Oregon EOP (2024) | Organization During an Emergency, Emergency Coordination Center, Page 50: This section of the EOP outlines the role of the Documentation Unit Leader, including the IAP.

- **1.1.2.6 | Role Clarity for Liaison Officers – State ECC Deputy Liaison Officers Experienced Uncertainty Regarding their Primary Responsibilities:** The State ECC

Deputy Liaison Officers (OEM Regional Coordinators) felt they lacked clarity on whether their role should focus on supporting local jurisdictions (cities and counties) or serving solely as Liaison Officers (LOFR) within the ECC. Attempting to fulfill both responsibilities concurrently proved infeasible and hindered their ability to provide focused and effective support. This ambiguity created challenges in prioritizing tasks and delivering the level of assistance required in either capacity, underscoring the need for clear role expectations. The transition of these positions to the OEM Regional Coordinator Program seemed to shift the support away from the ECC. Additional clarifications and role expectations for the State ECC Deputy Liaison Officer necessary to support more refined actions in the future.

- o **Reference** ECC Planning Cycle for IAP Development SOG (2024), Section A, Pages 3: The process loosely outlines the expectations of Liaison Officers in the ECC but does not provide guidance on the prioritization of tasks and technical support.

- o **Reference** State of Oregon EOP (2024) | Organization During an Emergency, Emergency Coordination Center, Page 47: This section of the EOP outlines the role of the Liaison Officer.

- **1.1.2.7 | No Air Operations Branch Staffed** – **ESF #6 Encountered Challenges in Understanding the Operations and Logistics of Air Support During the Exercise:** The lack of an Air Branch capable of authoritatively speaking on air operations created significant assumptions around the transportation of emergency lifesaving supplies. ESF #6 staff were forced to make broad assumptions regarding availability, flight schedules, and prioritization of cargo. This knowledge gap hindered their ability to effectively utilize air operations for transporting critical resources to areas with limited road access and evacuating individuals in need. Additionally, the Civil Air Patrol (CAP) faced unclear roles and fragmented coordination within the ECC structure. CAP's tasks and mission assignments were not integrated effectively, leading to inefficiencies in leveraging air resources. These issues highlighted the need for direct tasking of CAP by ESF #18 through a formalized and coordinated request process to enhance operational clarity and streamline air support activities. Strengthening coordination between ESF #6 and ESF #18 will ensure equitable and efficient use of air operations in future emergencies.

- o **Reference** State of Oregon EOP (2024) | Organization During an Emergency, Emergency Coordination Center, Page 49: This section of the EOP outlines the role of the Air Operations Coordination Branch.

O1.2-Situational Assessment Findings

The Oregon State Emergency Coordination Center (ECC) Planning and Intelligence Coordination Section (ESF #5) will produce a situation report during each operational period of ECC activation in accordance with the ESF #5 Annex in response to a 9.0 Cascadia Subduction Zone Earthquake scenario.

DATA

<u>"How well do you feel your functional area was able to integrate with and support Objective 1.2?"</u>

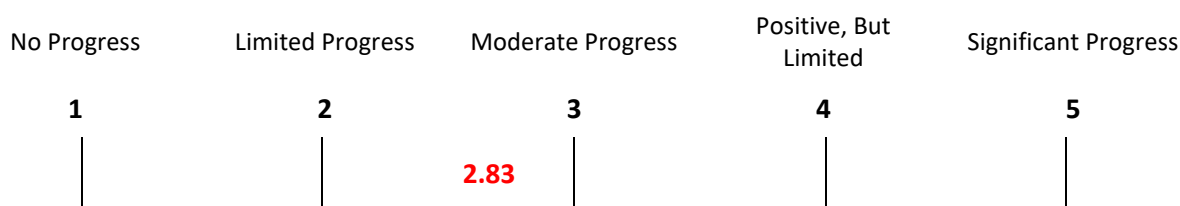| No Progress	Limited Progress	Moderate Progress	Positive, But Limited	Significant Progress
1	2	3	4	5

2.83

Figure 4: Participant Ratings on O1.2 Integration

<u>"How much did the Situation Report SOG support you meeting Objective 1.2?"</u>

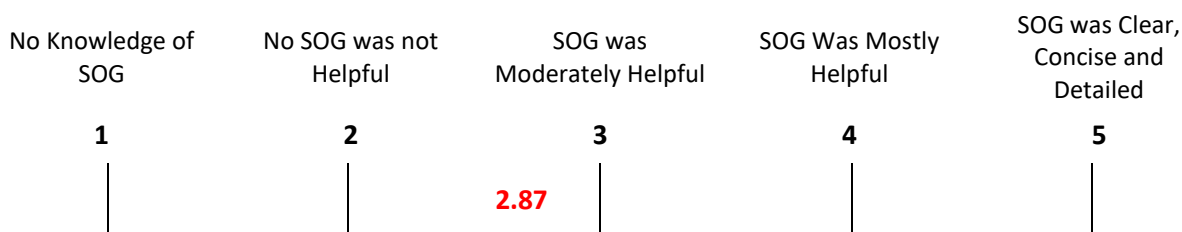4 of the 37 (11%) respondents to this question did not know the SOG existed.

No Knowledge of SOG	No SOG was not Helpful	SOG was Moderately Helpful	SOG Was Mostly Helpful	SOG was Clear, Concise and Detailed
1	2	3	4	5

2.87

Figure 5: Participant Ratings on O1.2 SOG Support

STRENGTHS

- **1.2.1.1 | Exercise Provided Situation Unit Opportunity to Implement Process:** IronOR 24 was the first time the *ECC Situation Products Development & Distribution SOG* was able to be implemented. The 3 days of exercise play provided an extended assessment of the included content for future adjustments.

- **1.2.1.2 | ESF Coordination Calls Provided Critical Situational Awareness Information:** The Coordination Calls hosted by various ESFs supported the acquisition of situational assessment information at the State ECC. While this information may not have made it to the larger State ECC Group to inform the collective Common Operating Picture, those calls were a step in the right direction in the collection of critical incident information, ESF #2-Communications, ESF #6-Mass care, ESF #14-Business and Industry (both Banking and Groceries), and ESF #16-Volunteer and Donations supported the practice of engaging key response partners**.**

AREAS FOR IMPROVEMENT

- **1.2.2.1 | Situation Reporting Documentation Collaboration – Inefficiencies in the Current Document Collaboration Tools with External Partners Causing Limitations in Version Control and Centralized Storage:** The lack of real-time collaboration tools during ECC activations resulted in confusion, workflow disruptions, and document integrity issues. Microsoft Office was recommended as the primary platform for document creation and sharing due to its robust features, including enhanced version control, real-time updates, and centralized document management.

  - **Reference** ECC Situation Products Development & Distribution (2024), Guidelines, Page 3-5: This process does reference how each of the Situation Products can be developed but does not address digital collaboration in any way.

  - **Reference** Documentation Unit Leader SOP (2024), Page 2: This process does state where and how to store ECC activation documentation – "Organized every file and document that gets sent to the eccplanning@oem.oregon.gov shared inbox, Teams, and Basecamp. Organize inbox by sub-folders."

    - When saving documents, store them in both the ECC Planning Section by incident type and the Basecamp by incident type.

    - Organize files by date, type of document, and where it came from (ESF Information, Tribal and Local Jurisdiction Information, ECC Information, etc.)"

- **1.2.2.2 | Real-Time ECC Data Availability – The Absence of Real-Time Situational Information Affecting Statewide Impacts:** Exercise play found participants waiting for situational information to be sent to them which left a significant amount of the ground truth in the Simulation Cell unused by players (this has been noted as an Exercise Design comment as well). Because of this, the exercise players did not have much real-time data available to reference or share. Challenges with this included unclear communication regarding IT's capabilities and services, a lack of directed requests to ECC Logistics, ECC Operations, and EEC Planning and limited availability of critical data feeds. The absence of well-defined Essential Elements of Information (EEIs) and insufficient use of GIS visualizations further slowed operations. A lack of coordination and delayed engagement with the ECC Planning-Situation Unit underscored the need for more structured communication and data-sharing protocols across the ECC structure. The State ECC must provide additional guidance to sections and units around the EEIs they should be capturing, who that data should be shared with, and how it can be integrated into the Operational Rhythm/Situation Report.

  The State ECC should establish comprehensive guidelines for EEIs, clarifying what data should be collected, who is responsible, and how it should be shared across sections and ESFs. Direct communication channels and designated points of contact between ECC Planning, Operations, Logistics, and ESFs should be implemented to streamline information flow. Also, creating a dedicated Lifeline Operations Group or Branch would

help monitor information flow, identify gaps, and ensure proactive coordination between ESFs and the ECC.

- o **Reference** ECC Situation Products Development & Distribution (2024): This process does not provide any guidance for sharing situation information in the State ECC through visualizations and with other ECC Sections.

- **1.2.2.3 | Situation Reporting Data Collection Flow – The ECC Sections and Units were not Familiar with the Approach for Collecting Situation Report Information from Statewide Partners:** The exercise participants did not seem aware of the standardized flow for gathering data from sources via the provided SOG. Inconsistencies arose in understanding data needs, formats, and reporting mechanisms. This lack of awareness of the process hindered the ECC's ability to effectively process and analyze critical information, ultimately impacting decision-making and operational coordination.

  During the exercise, ESFs lacked access to appropriate data tools to update their own information into the self-reporting tool, leading to reliance on manual entry by centralized staff: This inefficiency highlighted a missed opportunity to delegate data management responsibilities to ESFs, which could have streamlined operations and reduced the workload on planning and logistics teams. Providing ESFs with the capability and training to manage their data would enhance operational efficiency and foster greater accountability.

  - o **Reference** ECC Situation Products Development & Distribution (2024), Guidelines, Page 3-5: This document does reference the process for collecting information and intelligence for each Situation Product but lacks specificity on how to do so.

- **1.2.2.4 | Lack of ESFs and Local-Tribal Government Essential Elements of Information (EEIs) – There is No Tool to Guide State ECC ESFs or Local-Tribal Government in the Data/Information to Collect:** The ECC Planning Section participants noted a gap in understanding for which role is meant to establish the incident-specific EEIs so State ECC ESFs and Local-Tribal Governments can collect and share key incident data/information with each other, and the state ECC. This effort was primarily found in the State ECC during IO24, where the Planning Section would request situation updates from ESFs; however, they were either unsure what to share with the ECC Planning Section or were expecting the Planning Section to identify the EEIs for them. For the Situation Report to be as useful as possible, the State ECC needs to establish the key EEIs ESFs and local-tribal governments need to collect.

  - o **Reference** ECC Situation Products Development & Distribution (2024), Guidelines, Situation Report (SITREP), Key Functions, Page 4: This section outlines the need to collect EEIs, however, does not get specific on which are relevant nor how to find them.

  - o **Reference** State ECC Situation Report EEIs (2024): This product was created during the 3Q24 State ECC exercise in preparation for IO24.

- **1.2.2.5 | Use of GIS Resources is Unclear – GIS Staff were Underutilized in Supporting the development of a Common Operating Picture:** ArcGIS Online portfolios were overwritten by multiple ESF #5 users due to the absence of version control, leading to confusion, inefficiencies, and challenges in maintaining collaborative updates. Implement a version-controlled system integrated into ArcGIS Online, preventing file overwrites and ensuring consistent URLs for seamless updates.

  The process for managing GIS assistance requests lacked standardization, resulting in gaps in follow-ups, status updates, and response times. OpsCenter could store initial requests but failed to provide functionality for ongoing documentation or notifications. Additionally, requests sent via email lacked uniformity, requiring excessive follow-up to clarify incomplete information. A standardized GIS request documentation template should be developed, along with automatic notifications for resource request assignments to improve tracking and response times.

  There is a need for improved documentation and standardization for GIS tools and workflows, particularly for managing and utilizing the incident portfolio and ArcGIS Online. Critical gaps include instructions for creating copies of templates and dashboards, hiding tabs, and differentiating between RAPTOR and the incident portfolio. Additionally, consistent location standards (e.g., latitude/longitude in decimal degrees) and clear documentation on portfolio update practices, such as screen refreshes, were identified as necessary to prevent errors. Slowing the efficiency and consistency of GIS operations during exercise.

  GIS Portfolio Data - Managing the ECC Incident Portfolio is challenging due to updates being pulled from multiple public sites, making the process inefficient: A centralized platform, like OpsCenter, could streamline data collection and updates. GIS mapping requests are being submitted through various channels, including OpsCenter, email, and in-person interactions, causing disorganization and delays. Normalizing the GIS mapping request process through the ECC Situation Unit Leader for prioritization and final confirmation would improve workflow and coordination. Additionally, RAPTOR could benefit from a new airport status layer (Fully Functional, Partial, No Services, Closed) to enhance situational awareness and decision-making.

  - **Reference** Unit 4 - Mission of the Situation Unit (2024) Section Geographic Information System Specialist Job Aid, Page 20-24: The GIS portfolio resources are addressed in the product but have limited detail on how to handle version control of the incident portfolio and vague instructions for creating copies of templates and dashboards, hiding tabs, and differentiating between RAPTOR and the incident portfolio.

  - **Reference** Unit 4 - Mission of the Situation Unit (2024) Geographic Information System Specialist Job Aid, Page 20-24: The document doesn't showcase a standardized prioritization process or template for GIS requests and updates.

O1.3-Resource Request Management Findings

The Oregon State Emergency Coordination Center Logistics and Coordination Sections will implement and maintain a process to receive, assign, prioritize, track, and request resources to meet the established incident management objectives during each operational period in accordance with the State ECC OpsCenter Processing Guide in response to a 9.0 Cascadia Subduction Zone Earthquake scenario.

DATA

<u>"How well do you feel your functional area was able to integrate with and support Objective 1.3?"</u>

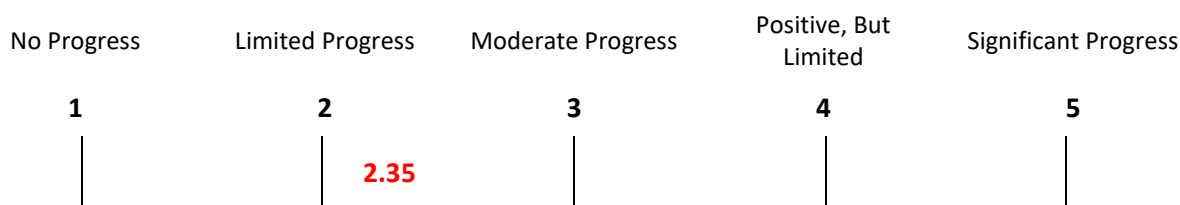| No Progress	Limited Progress	Moderate Progress	Positive, But Limited	Significant Progress
1	**2**	**3**	**4**	**5**
	2.35			

Figure 6: Participant Ratings on O1.3 Integration

<u>"How much did the Resource Management SOGs support you meeting Objective 1.3?"</u>

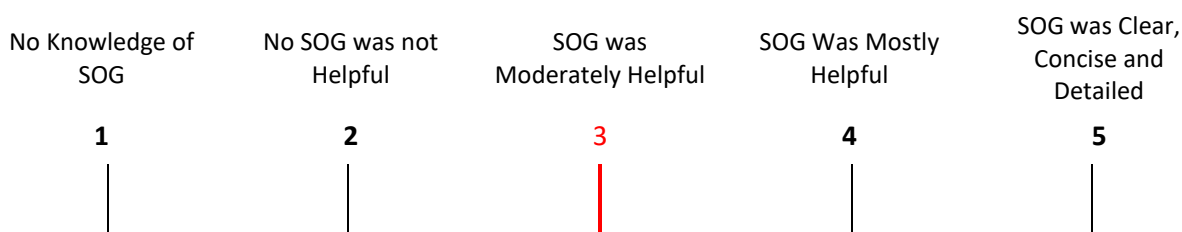4 of the 36 (11%) respondents to this question did not know the SOG existed.

No Knowledge of SOG	No SOG was not Helpful	SOG was Moderately Helpful	SOG Was Mostly Helpful	SOG was Clear, Concise and Detailed
1	**2**	3	**4**	**5**

Figure 7: Participant Ratings on O1.3 SOG Support

STRENGTHS

- **1.3.1.1 | Use of Redundant Resource Request Submission Tools and Processes –** A strength during the exercise was the Communications Unit's ability to successfully receive multiple resource requests via radio transmission, by partners simulating an inability to put the requests into OpsCenter themselves.

- **1.3.1.2 | Needs Identified within the State ECC During Play were Transitioned to Requests:** The participants shared the effort to transition needs/requests that were identified during planning meetings into formal resource requests via OpsCenter as a strength. These needs/requests were integrated into the formal resource request process rather than being left as spoken word.

- **1.3.2.1 | No Formal Resource Prioritization Guidance – The Logistics Section did not have any Prioritization Guidance, Formal or Informal, to Support their Decision-Making/Operations:** Resource request management during the exercise revealed a gap in the absence of any formal resource prioritization system. These limitations led to delays, misplaced requests, and unclear completion statuses, hampering the State ECC's ability to address resource needs effectively. The ECC Logistics Section faced significant challenges in categorizing and prioritizing incoming resource requests due to not having a process for prioritizing incoming resource requests. Without clear guidance, the Logistics Section was overwhelmed by high-priority missions, which slowed their ability to proactively identify and request additional support through federal resources or mutual aid agreements. Most requests coming into the State ECC were categorized as either life-saving or urgent. The Logistics Section had to work within these restrictions as they tried to prioritize many high-priority missions. The challenge in this was twofold:

  o One, when everything is a priority, nothing is a priority.
  o Second, referring back to Finding 1.1.2.1 (Pages 14-15) without established Incident Priorities the Logistics Section was unable to refine their focus for a managed operation.

  The majority of the focus for the ECC Logistics Section was responding to incoming resource requests and were therefore unable to look forward to identifying supporting resources from the federal government and from supporting states, such as requesting additional staffing (like an A-Team) through EMAC or utilizing the federal resources located at staging areas within the state. This continually kept the Logistics Section behind and unable to get in front of the growing demand for resources and support. If the Logistics Section has priorities provided to them, they can work to push those priority requests through the system and identify which need to be pushed up to the Federal Government or out through Mutual Aid Agreements. The failure to establish a structured prioritization framework resulted in reactive resource management, keeping the Logistics Section behind demand and limiting operational efficiency.

  o **Reference** State of Oregon EOP (2024), Response Operational Status Levels, Page 24: The EOP does outline an action the State ECC should take during Level 2 Operations – "ECC staff will coordinate resource prioritization".

- **1.3.2.2 | Requesting Federal Resources was Underutilized – The State ECC lacks a Clear and Standardized Process for Requesting and Utilizing Federal Resources:** ECC staff, including those in the Logistics and Operations Sections, were unfamiliar with a procedure for coordinating with Federal ESFs and completing Resource Request Forms (RRFs). As a result, federal resources such as National US&R, DMORT, DMAT, and USACE debris removal remained at staging bases, despite their availability. This lack of coordination and procedural understanding resulted in significant gaps in resource allocation and impacted the overall response effectiveness. FEMA received 29 total requests in OpsCenter during the 20 hours of exercise:

- o 4 (14%) of these were successfully processed through the federal system.
  - – 2 of the 4 requests were Requests for Information,
  - – The other two were for specific personnel – none for teams that had simulated deployed to support.
- o 17 (59%) were processed by the Oregon State ECC FEMA Liaison, however, were returned by the RRC as they lacked context, were outside the scope, or were for specific resources rather than capabilities.
- o The remaining 8 requests (27%) were submitted close to ENDEX and therefore were not addressed during exercise play.

Numerous resource requests in OpsCenter were marked as "Unable to Fulfill" without any follow-up communication from the ECC Operations Section. This lack of communication resulted in stalled requests, even though federal resources were available to address them. The FEMA Liaison Officer identified, submitted to the RRCC, and resolved this issue, but only after delays had occurred. ESF staff reported being overwhelmed with incoming requests, leaving little capacity for follow-up or escalation, while ECC Operations did not proactively monitor or coordinate these unresolved requests. Highlighting a siloed approach to resource management, where the absence of centralized oversight contributed to gaps in communication and missed opportunities for resolution.

There seemed to be a lack of understanding on the part of the state ESFs regarding the purpose and use of the Federal Resource Laydown map. There was vocal feedback about specific assets shown on the map and how the ESF disagreed with their placement, stating "they would not have deployed that asset there" and not understanding that the resource was merely staged there pending a request for onward deployment. The purpose of the map was repeated several times by the exercise team and the FEMA Liaison Officer, but some ESFs never utilized it and continued to push back on it. In the end, none of the federal resources displayed on the map ended up being "deployed" because of a federal resource request submitted by the state to FEMA.

Participants shared their experience: They coordinated with their FEMA 10 RRCC counterpart via phone to get USAR assigned but realized post-exercise that they may not have followed the process correctly if none of the resources were assigned in the end. Requesting a clear process for federal resource requests as they didn't realize they were to use OpsCenter and just spoke with the RRCC over the phone and via email and felt confident that the USAR teams had been assigned, which we have found out were not

- o **Reference** Processing RRFs SOG (2024): OEM does have this SOG the following SOG that was provided to players prior to exercise play.

- o **Reference** Processing Requests for Assistance (2023), State Agency is Unable to Fill Request, Page 7: This SOG does include guidance for how to adjust a request

in OpsCenter that will need to become a federal request. This process does not address guidance for assessing if a resource can be procured locally.

- **1.3.2.3 | Limited ECC Operations & Logistic Section Staffing Hindered Resource Management Effort – Limited Staffing Limited how the Coordination Section and Logistics Section could Implement a Resource Management System:** No one in the ECC was responsible for overseeing the OpsCenter system which created inefficiencies, as system-related inquiries were redirected to already overburdened ECC staff. This gap, coupled with the lack of activated Branch Supervisors, resulted in an unsustainable span of control, bottlenecks, and delays in resource processing and movement. Additionally, the Logistics Chief was unable to focus on higher-level coordination tasks, such as interfacing with FEMA, due to the burden of training and addressing staff questions. The lack of a structured process and concentrated institutional knowledge within a few individuals, further disrupted operations when those individuals were unavailable. Frequent personnel rotations, often with staff present for only a single day, exacerbated the problem, creating a chaotic cycle of retraining and undermining operational efficiency. These challenges underscore the critical need for pre-activation training, a consistent task book, and dedicated roles to support ECC functions effectively.

  - **Reference** State of Oregon EOP (2024), Organization During an Emergency, Pages 46 & 49: This section does reference the organizational structure for a Logistics Section but does not provide guidance on staffing numbers.

- **1.3.2.4 | OpsCenter System Hindered Resource Management Efforts – OpsCenter Faced Recurring Challenges Due to Users' Lack of Familiarity and Regular Practice:** Many participants did not utilize available training resources or verify account access before the exercise, resulting in inefficiencies and delays. The platform's inability to track and report Requests for Information compounded these challenges, forcing manual tracking by Operations and Logistics sections already constrained by insufficient staffing. These issues underscore the need for regular training, account verification processes, and potential system enhancements to streamline functionality during activations and exercises.

  - **Reference** Processing Requests for Assistance (2023): The resource request process showcases a step-by-step process on how to submit a request, but OpsCenter does not have an intuitive user interface making regular training for OpsCenter important on its functionality and user access.

Goal 2-Operational Communications

The State of Oregon Emergency Coordination Center will establish redundant communications systems and implement a strategy to address the simulated communications impacts from Days 4 through 7 of a 9.0 Cascadia Subduction Zone Earthquake.

O2.1-Operating with Redundant Communications Findings

The Oregon State Emergency Coordination Center Communications Unit will establish and maintain redundant communications capabilities in accordance with the State ECC PACE Plan to confirm communication capabilities with local, tribal, and state government partners in response to a 9.0 Cascadia Subduction Zone Earthquake scenario.

STRENGTHS

- **2.1.1.1 | State ECC has Connection to Majority of County and Tribal Governments Using Back-up Communications Systems:** The State ECC Communications Unit was able to connect with 19 of 19 Counties (100%), 2 of 9 (22%) of Tribal Governments, and the FEMA RRCC during exercise play. There were some counties that played a week before the large-scale exercise. The exercise did find that 9 counties don't have amateur radio operators. The majority of Tribal Governments don't have radio operators.

AREAS FOR IMPROVEMENT

- **2.1.1.1 | ECC Radio Data Acquisition - There is no process or expectations for passing along a report or request that is received by the radio room:** In several cases, requests for assistance were received in the radio room from counties that were recorded, printed, and then hand-delivered in the ECC. This requires an additional step of getting the information into the relevant space/system. It was unclear which position is responsible for entering requests received by the radio room into OpsCenter. In some cases, the request was handed to several roles, mostly throughout the Operations Section, before it found a home in the Logistics Section. Additionally, miscommunication led to radio requests being directed to the ECC Situation Unit, further disrupting workflows. The absence of a centralized communication tool or defined information flow slowed efficient operations, underscoring the need for a structured process and digital solutions to streamline communication.
    - **Reference** State of Oregon EOP (2024), ESF #2-Communications Annex (2014), Section 2-8. Subsection 3.2.3 States that "The communications officer is responsible to coordinate and organize the ARES/RACES capabilities within the ECC." The Annex was written in 2014 and does not specify how this work is to be done.

- **2.1.2.2 | Radio Room Role and Responsibilities Awareness – Awareness and understanding of the Radio Room is severely lacking for State ECC Participants:** Very few ECC participants knew the radio room was operational nor that they had contact with counties and the federal government. There needs to be more attention given to the relationship between the radio room and the ECC floor.

- o **Reference** <u>State of Oregon EOP (2024), ESF #2-Communications Annex (2014), Section 2-8. Subsection 3.2.3</u>: "The communications officer is responsible to coordinate and organize the ARES/RACES capabilities within the ECC." The Annex was written in 2014 and does not specify how this work is to be done.

- **2.1.2.3 | Unit Staffing Limitations – ECC Communications Unit Staffing and Auxiliary Communication Capacity:** During the IO24 exercise, the ECC Communications Unit faced significant challenges due to limited staffing, with only one radio operator volunteer available to support operations. This resulted in six missed voice calls from counties seeking to provide updated information and status reports, as well as delays in processing resource requests through auxiliary communication methods. These gaps underscore the critical need for a more robust staffing framework to ensure effective communication in large-scale incidents. The scale of such an event would require additional radio operators than were available during the IO24 functional exercise in the ECC Communications Unit to manage the volume of incoming and outgoing communications effectively.

- **2.1.2.4 | ESF #2 Annex Needs Updated to Support Unit Operations – Updating the ESF #2 Annex for Modern Communication Needs:** The ESF #2 Annex, last updated in 2014, contains outdated information that no longer reflects current communication practices or technologies. For example, the document still references ARES, which is no longer in use, highlighting the need for revisions to align with modern operations and terminology. An updated annex would improve clarity, enhance interoperability, and provide actionable guidance for auxiliary communications during large-scale incidents.

  - o **Reference** <u>State of Oregon EOP (2024), ESF #2-Communications Annex (2014)</u>

- **2.1.2.5 | Connection & Collaboration of Efforts Between ESF #2 and Logistics Section-Communications Unit – Additional Clarification Necessary on Roles and Responsibilities for the Two Units:** Both ESF #2 and The Communications Unit demonstrated the ability to request and receive ICS 205s (Incident Radio Communications Plans) from partner agencies during IO24, leveraging established relationships and multiple data-sharing platforms such as SHARES WinLink, email, and the HSIN Connect ESF2 Room. While these relationships and processes worked effectively, both organizational elements noted an unclear division of roles and responsibilities between them – who is ultimately responsible for acquiring ICS-205s during activations? What happens when situational information enters organizational elements via redundant communications – what is the process for distributing further? To support successful radio and communications-focused operations, it is critical for the State ECC to clarify the roles and responsibilities of these two organizational elements.

  - o **Reference** <u>State of Oregon EOP (2024), ESF #2-Communications Annex (2014)</u>: Neither the EOP nor the ESF #2 Annex outline how these two Units interact.

O2.2-Communications Resource Support Findings

The Oregon State Emergency Coordination Center Emergency Support Function #2 will develop a functional common operating picture related to system damage and impacts to inform a System Restoration Strategy in accordance with the ESF #2 Annex and in response to a 9.0 Cascadia Subduction Zone Earthquake scenario.

Goal Accomplishment Note

Overall, the evaluation and State ECC ESF #2 participants identified that the challenges coming from Objective 1.1, and specifically the lack of incident objectives to guide communications restoration efforts, impacted the development of a Communications Restoration Strategy enough that it was unable to be developed.

STRENGTHS

- **2.2.1.1 | Breadth of ESF #2 Partners Improved Collective Communications Impacts that Informed a Restoration Strategy:** During the exercise, ESF #2 demonstrated strong coordination with Federal and private sector communications partners and resources. Federal resources were engaged through the Federal Communications Commission to activate the Network Outage Reporting System (NORS) and Disaster Information Reporting System (DIRS). This proactive approach enabled real-time monitoring and assessment of communications infrastructure issues, showcasing ESF #2's ability to leverage federal systems effectively. Additionally, discussions around alternate spectrum use underscored ESF #2's adaptability and commitment to addressing emerging communication challenges. The inclusion of NORS and DIRS activation within the ESF #2 Battle Rhythm Checklist reflects the integration of these capabilities into operational processes. While a formal Communications Restoration Strategy was unable to be completed, the necessary partners were available and engaged during this exercise that would support the development of that Strategy.

AREAS FOR IMPROVEMENT

- **2.2.2.1 | Lack of Communications Coordinator – Lack of Position Staffing Impacted Overall ESF #2 Functionality:** Staffing a Communications Coordinator (COMC) position would help manage and more evenly distribute the amount of work of ESF #2 leads. The COMC, who coordinates and deconflicts the range of internal and external resources and other communications capabilities between multiple incidents, serves as a point of contact and is responsible for maintaining contact with local agencies, collecting information about local resources to aid the Communications Unit Lead (COML), and helping with tasks such as ordering and assigning equipment and frequencies and tracking the status of orders.
  - **Reference** State of Oregon EOP (2024), ESF #2-Communications Annex (2014): This Annex, nor the EOP Base Plan have any reference to the organization structure of ESF #2.

Goal 3-Mass Care Services

The State of Oregon Emergency Coordination Center ESF #6 will implement, and maintain, a strategy to address the simulated human impacts from Days 4 through 7 of a 9.0 Cascadia Subduction Zone Earthquake.

O3.1-Mass Care Support Strategy Findings

The Oregon State ECC ESF #6 will develop a functional common operation picture related to shelter, feeding, and water operations in accordance with the ESF #6 Annex Concept of Operations following a 9.0 Cascadia Subduction Zone Earthquake scenario.

STRENGTHS

- **3.1.1.1 | Mass Care Task Forces Established:** Beginning on Day 2 (Wednesday) of exercise play Task Forces were stood up to begin addressing the sheltering, feeding, and hydration needs of the incident. These Task Forces included ESF #3, 6, 8, 11, and 16 to support the implementation of a Mass Care Strategy. Further guidance and structure for Task Forces are still needed, but a great opportunity to practice these teams.

AREAS FOR IMPROVEMENT

- **3.1.2.1 | JDOC and State ESF #6 Data Sharing – Information and Intelligence was Not Funneled from the JDOC to the State ECC:** The separation of the Office of Resilience and Emergency Management (OREM) Joint Department Operations Center (JDOC) from the State ECC resulted in significant communication challenges for ESF #6. Requests coming through OpsCenter are not effectively coordinated with JDOC, which operated in a siloed environment due to its physical separation. This disconnects limits situational awareness and slows the ability to align support and services, resulting in inefficiencies and missed opportunities for coordination. General communication between the State ECC (through ESF #6) and the JDOC was minimal over the 20 hours of exercise play. The information and intelligence from the JDOC that was necessary for the planning meetings and situation report were not shared with the ESF #6 staff on-site at the State ECC, impacting the ability to build a Common Operating Picture or establish/advocate for function-focused objectives or priorities related to Mass Care Services.

  - Day 1 saw limited interaction between the two exercise venues, with Days 2 and 3 having functional "Task Force Meetings" established to determine tactics for incident objective implementation. Acknowledging the reality of first-day operations, evaluation staff still identified a lack of communication between the venues as a key coordination gap for Day 1.

  - None of the work the JDOC was accomplishing with the Mass Care Strategy was shared with State ECC partners, including ESF #6 by ENDEX on Day 3. This information and intelligence are key to helping the ECC identify incident objectives and develop a Common Operating Picture to inform leadership, response partners, and the general public regarding what is taking place.

- o **Reference** State of Oregon EOP (2024), ESF #6-Mass Care Annex (2015): This Annex, nor the EOP Base Plan have any reference to the coordination expectations between the State ECC ESF #6 and the JDOC.

- **3.1.2.2 | ESF #6 Purpose and Role in the State ECC – Additional Clarification is Necessary for the Role of ESF #6 at the State ECC to Support JDOC Operation:** Additional clarification is needed to refine what ESF #6 should be focusing on versus a department/agency operations center. Throughout IO24, it was assumed that the O3.1 Capability Target actions were taking place at the JDOC as on-site State ECC evaluators did not see ESF #6 players engaged with the overall objective. Much of the effort at the State ECC-ESF #6 was engagements with individual injects and participating in Operational Rhythm meetings. Evaluators observed limited engagement with developing and communicating ESF #6 mission assignments, the coordination of staffing to meet operational needs, nor the monitoring of ESF #6 mission assignments – ultimately leading to questions of whether this is the responsibility of ESF #6 at the State ECC, the JDOC, or another coordination body.

  The responsibility for coordination and communication between ESF #6 and other ESFs, came mostly from the JDOC and not the State ECC ESF #6 seat – however, on Days 2 and 3 of exercise play when Task Force Meetings began occurring it was the State ECC ESF #6 that lead the outreach and coordination with other key ESFs: "On day 2 when the Task Force meeting was held, Red Cross from the State ECC ESF #6 invited other State ECC ESFs to those meeting."

  The need for additional clarification was further emphasized as the exercise progressed, ESF #6 found that meeting the outlined objectives required a shift in focus toward OpsCenter work. JDOC staff were subsequently redeployed to emphasize responding to individual requests. This shift reduced the exercise scope of their participation to an OpsCenter drill, which detracted from the critical mass care objective. For instance, JDOC staff spent a significant amount of exercise conducting addressing requests, such as verifying the delivery of small quantities of water to specific locations. This focus diverted resources away from testing the overarching Mass Care Strategy and broader coordination goals. Working to clarify how ESF #6 at the ECC versus agency operations centers is necessary to ensure roles, responsibilities, and expectations are clarified.

  - o **Reference** State of Oregon EOP (2024), ESF #6-Mass Care Annex (2015): This Annex, nor the EOP Base Plan have any reference to the roles and responsibilities between the State ECC ESF #6 and the JDOC during an activation.

- **3.1.2.3 | ESF #6 Annex as Written is not an Operational Plan – Operational Gaps and Lack of Staffing Guidance Impacted Strategy Development:** The ESF #6 annex, as currently written, is not an operational plan. While it provides a general framework for roles, responsibilities, and coordination, it lacks detailed guidance on operational execution and the linkage between the ECC and JDOC.

Operational Gaps: The annex did not clarify how the ECC, JDOC, and supporting agencies should interact during an active response. For example, coordination between ECC personnel and JDOC resource management was inconsistent, leading to delays in decision-making.

State ECC ESF #6 Staffing: The lack of clarity on staffing roles at the state ECC further hampered coordination. Current OREM documentation does not fully establish staffing requirements or responsibilities within the ECC.

Because of this significant hurdle, no formal Mass Care Strategy was able to be created. There were components of a strategy developed; however, no strategy was formally developed. At ENDEX on Day 3, no Mass Care Strategy made it to the State ECC players. Evaluators noted there was some movement on coordination activities on Day 2 following the State ECC Tactics Meeting, however, there still was no defined Mass Care Strategy:

> *After the Tactics meeting on Day 2, there was some movement in coordination efforts, with the focus on needing air support to move people to Resilience hubs with no further mention of what those hubs are resourced with, locations of them, etc. just a brief mention. Nothing was mentioned about coordinating with tribal governments, feeding or Access and Functional Needs (AFN).*

Specific Essential Elements of Information were not provided to ESF #6 by State ECC Leadership or from the JDOC, slowing the ability for ESF #6 staff to develop any strategy (see 1.2.2.4 for more findings on EEI gap).

O3.1 focused on the development of a Mass Care Strategy tailored to catastrophic conditions, yet no pre-existing plan or framework for this work was identified within the ESF6 annex.

Coordination: The annex also lacks guidance on how ESF #6 agencies should collaborate with other ESFs (e.g., Feeding, Sheltering, Evacuation Support) to meet responsibilities over a prolonged period. While this level of planning exists within the Base Plan, it was unclear if the exercise effectively utilized or followed the new Base Plan guidelines.

For instance, there was minimal coordination between ESF #6 and ESF #1-Transportation to ensure the timely evacuation of shelter populations, highlighting a gap in integrated cluster planning.

- o **Reference** State of Oregon EOP (2024), ESF #6-Mass Care Annex (2015)

- **3.1.2.4 | Mass Care 'Push' Model for Delivery of Resources – ESF #6 Adopted 'Push' Model of Resource Distribution Needs Additional Communication/Coordination Details:** ESF# 6 staff adopted a mass delivery strategy based on a 'push' model rather than responding to individual resource requests. This approach prioritized bulk deliveries to pre-determined locations rather than addressing ad-hoc, individualized demands on the first day of the exercise. While this decision supported efficiency in resource deployment, it became the genesis of JDOC's lack of response to individual requests.

For example, resource requests submitted by local jurisdictions on Day 1 were not prioritized, causing frustration and operational confusion. The reliance on a 'push' model without a robust communication plan exacerbated gaps in situational awareness between the ECC, JDOC, and field partners.

- o **Reference** State of Oregon EOP (2024), ESF #6-Mass Care Annex (2015): his Annex, nor the EOP Base Plan have any reference the strategic for ESF #6 resource distribution.

- **3.1.2.5 | Process for Sharing/Submitting Mass Care Strategy – It is Unclear How the State ECC Wants to Receive Key ESF Strategies like the Mass Care Strategy:** The overarching Mass Care Strategy was overlooked during the exercise. This was most evident when ECC staff failed to review the Mass Care Strategy submitted with Wednesday's Situation Report (SitRep). This oversight diminished the value of ESF6 contributions to the broader response goals.

  This item ties into 3.1.2.3 (No Operational Plan) as the ESF #6 exercise participants were unable to know the expected process for sharing a Mass Care Strategy as no guidance currently exists for them to reference.

  - o **Reference** State of Oregon EOP (2024), ESF #6-Mass Care Annex (2015): This Annex, nor the EOP Base Plan have any reference to a Mass Care Strategy or the distribution of this product.

STATE ECC SPACE FEEDBACK

While testing the State ECC space was not identified as a specific exercise objective, it is crucial for this AAR-IP to capture how the State ECC participants were able to utilize the new space to accomplish their responsibilities and objectives. The Oregon State ECC space opened in 2024 and was initially tested during the 2024 wildfire season, but IO24 was the first time the space was used to near full capacity – and was therefore an excellent test of the space.

POSITIVES

- **4.1.1.1 | Overall Positive Experience with Adjustments Needed:** The new State ECC facility had areas for improvement (listed below) but was overall well equipped to house the number of people who attended IO24. The large main room was well equipped for meetings, and the displays in the front were supported by information sharing during those meetings. The kitchen area was adequate for food distribution, storage, and meals. It would be a little tight, but the space would be able to grow by another 50 people likely in the main hall. Sound and lights and power and desks and everything helped with being able to be effective.

AREAS FOR IMPROVEMENT

- **4.2.1.1 | Identifying Necessary Shared Visuals – There are no Expectations for what Information or Data is Shared in the ECC Space:** State ECC players began expressing the desire for key information and data to be shared in the State ECC, however no requests were made to the ECC Logistics-Section Information Technology Unit. The lack of visuals was primarily caused by a lack of requests for display and a general lack of data to display, but it may come back to the lack of awareness of the different feeds and display options the Unit has access to.

  This concern was raised during the ECC Logistics hotwash that there is no process for which roles could decide on screen priorities which could result in competing requests. Screen layout should be based on the critical EEIs.

  - o **Reference** State of Oregon EOP (2024), Organization During an Emergency, Logistics Section, Information Technology Unit, Page 49: This section outlines what the Information Technology Unit is responsible for but does not include specific guidance on shared visuals.

- **4.2.1.2 | State ECC Working Environment – Current Design of the State ECC Presents a Noisy Environment with Limited Areas for Smaller Meetings:** The current set-up of the State ECC has a very open floor plan that creates significant background noise in numerous rooms/spaces. The Planning Section noted Planning East space had significant background noise from the main ECC space and entry.

  The Planning East space, where all the planning huddles were being held, experienced similar disruptions from background noise with ECC participants entering the space – they found it hard to hear and discuss important issues.

The GIS room is physically located where no matter where someone walks, they are walking through a meeting. Participants working as the ECC GIS position also indicated that they felt disconnected from the ECC Planning Section due to the space distance as well as the physical location being more conducive to spontaneous requests for assistance instead of going through the chain of command in the ECC organizational structure. Additionally, the lack of a dedicated screen for GIS products limited their ability to share critical visual data effectively.

Participants raised concerns about insufficient smaller, quieter meeting spaces for task forces and lifeline huddles, as the Planning West room's size and layout were unsuitable for smaller group discussions. These issues also raised security concerns, as sensitive information could potentially be overheard by anyone passing through the open floor plan of the ECC.

- o **Reference** State of Oregon EOP (2024), Concept of Operations, Oregon State Emergency Coordination Center (ECC), Page 21: This section outlines what the State ECC is, but does not provide any instructions on the set-up of the space.

- **4.2.1.3 | State ECC Internet Accessibility – Wireless Internet and Cellular Connection had Significant Connection Issues with the Number of Participants:** The State ECC experienced significant challenges with Wi-Fi and cellular connectivity during the exercise. Internet connections were unstable, particularly in key areas like the breakroom, and network speeds were insufficient to support operational demands, disrupting critical activities. Additionally, poor cellular reception within the ECC facility compounded the issue, as participants who relied on mobile networks encountered difficulties in making voice calls. These connectivity problems prompted reliance on an overburdened network, which further hampered operational efficiency. These issues underscore the need for a thorough assessment of the ECC's network and connectivity infrastructure.

  - o **Reference** State of Oregon EOP (2024), Organization During an Emergency, Logistics Section, Information Technology Unit, Page 49: This section outlines what the Information Technology Unit is responsible for but does not include specific guidance on internet accessibility.

- **4.2.1.4 | State ECC AV Resources – Limited Audio and Visual (AV) Systems for Internal State ECC Communication and Coordination:** The State ECC space has excellent AV systems to support a presentation event with a hybrid audience with ceiling speakers and microphones, mobile microphones, and large screens – however, the space could use additional equipment to support State ECC operational needs. The AV system is limited now for internal State ECC communication and coordination, to include:

  - o Dedicated microphones for functional areas to reduce the need to run around with the 2-3 current mobile microphones.

  - o Dedicated HDMI/way to share screens/data for functional areas to support any responder/participant has the ability to share their data/information.

- A video system that can show both podium/presenter and the full State ECC space at the same time. Virtual participants significantly lack an engaging discussion as the camera is only situated on the podium presenter.

- A large monitor or digital map showing screen layouts was also suggested to streamline management and prevent disruptions across sections.

- The absence of an effective system to track screen setups led to confusion, with printouts quickly becoming outdated.

- **Reference** State of Oregon EOP (2024), Organization During an Emergency, Logistics Section, Information Technology Unit, Page 49: This section outlines what the Information Technology Unit is responsible for but does not include specific guidance on AV resources.

- **4.2.1.5 | Large Screen Concerns – Brightness of the Visual Equipment in the ECC Caused Headaches and Distraction:** Participants shared that while the wall screen is impressive, it was so bright it started causing headaches during specific meetings or if they were in the main ECC space for extended periods of time. The screen was turned down following Day 1 following comments; however, those comments continued throughout the duration of the exercise.

  - **Reference** State of Oregon EOP (2024), Organization During an Emergency, Logistics Section, Information Technology Unit, Page 49: This section outlines what the Information Technology Unit is responsible for but does not include specific guidance on visual equipment.

- **4.2.1.6 | Personnel Identification – Identification of State ECC Sections and Units was Challenging:** The State ECC utilized table stands to identify where various sections and units were located, along with a single space map hung on the wall – both these did not meet the needs of players. There was interest in the ECC Map being more readily available for State ECC participants they can reference regularly during an exercise or activation.

  ECC participants also shared an interest in having more identification for individuals to include what role they are performing in an exercise or activation – whether that be lanyards, vests, or another option.

  The lack of visual identification for ESF representatives during ECC operations made it challenging to quickly determine roles and responsibilities. Implementing identification vests for ESF personnel could streamline interactions and improve situational awareness among participants by providing clear role visibility.

  - **Reference** State of Oregon EOP (2024), Concept of Operations, Oregon State Emergency Coordination Center (ECC), Page 21: This section outlines what the State ECC is, but does not provide any instructions on Functional Area (Section Unit) identification.

- **4.2.1.7 | ECC Facility Access and Security Protocols - The ECC Lacks a Cohesive and Secure Access Control System, Creating Vulnerabilities and Inefficiencies During Activations and Exercises:** The current visitor badges at OEM allow for unrestricted entry to the entire ECC building for all users, which raises questions about security and operational necessity. It may be more effective to limit visitor access to the first floor, with controlled access to the second floor granted only through escorts or special badges for meetings or operational needs.

  ECC entrance lacks sufficient security measures, allowing anyone entering the main door to access the building without additional verification. This places undue reliance on either the OEM IT Section or the identified State ECC role responsible for Safety and Security to act as the primary security safeguard.

  Participants shared that if the ECC needed to activate during a catastrophic incident, nobody outside of OEM would have access. Individuals who could potentially get there would have no means to gain access unless an OEM employee was also present – at the Anderson Readiness Center the ESFs were provided access badges prior to an emergency, this could be considered for future access in the building.

  - **Reference** State of Oregon EOP (2024), Organization During an Emergency, ECC Leadership, Safety/Security Officer, Page 47: This section outlines what the Safety/Security is responsible for but does not include specific guidance for completing duties.

- **4.2.1.8 | Utilizing the Space – Staff Lacked Awareness on How to Leverage the State ECC Space:** Even with an ECC Readiness Checklist, there were challenges in the availability and accessibility of basic logistical supplies and infrastructure for ECC operations. Specific issues included limited paper and printer availability, lack of adequate bathroom signage, inconsistent internet bandwidth, and missing or non-functional clocks.

  - **Reference** State ECC Readiness Checklist

ADDITIONAL EXERCISE FINDINGS (OUTSIDE OBJECTIVE SCOPE)

The following items were shared with the Exercise Planning Team but fell outside the objective exercise scope for IO24. While these items are not in scope, the Exercise Planning Team wanted to capture these items and will share them with the relevant ECC Section/Unit; however.

- **5.1.1.1 | Integrating Non-OEM Staff into a Shared Operational Channel – The State ECC does not have a collaborative digital space that all ECC personnel can access**: The ECC shared email inboxes faced operational challenges due to restricted access for external partners outside the Oregon Microsoft Office tenant, limiting its effectiveness in collaborative emergency response operations. This issue is particularly critical during activations involving out-of-state partners, such as through the Emergency Management Assistance Compact (EMAC), where consistent communication is vital. The lack of shared ESF-specific email addresses made communication inefficiencies, impacting the ability to coordinate and collaborate effectively. Additionally, there were instances where internal personnel lacked proper permissions to utilize an inbox, further complicating its use. A solution is needed to enable external users to send and receive emails through shared accounts, ensuring consistent and accessible communication during activations. A centralized listing of all shared inboxes and their permissions would enhance operational clarity and readiness.

    o **Reference** State of Oregon EOP (2024), Concept of Operations, Crisis Management Application, Page 20

- **5.1.1.2 | ECC Resource Unit SOG: Check-in/Check-Out – Gaps in the Check-in/Check-out Process and Data Management:** The Resource Unit's Standard Operating Guide (SOG) lacked clear instructions for handling check-in/check-out data, leading to inefficiencies. Technical issues were encountered while exporting data in Excel or CSV formats, limiting accessibility. Furthermore, the system does not retain user information, such as name, email, and phone number, requiring repeated manual entry. Additionally, there is no list of "approved" participants or observers, raising concerns about security and the potential for unauthorized access. The lack of a credential verification system or formal authorization process further exacerbated these challenges.

    o **Reference** State ECC Resource Unit's Standard Operating Guide (SOG)

- **5.1.1.3 | Daily Logs were not Used – ICS-214 Forms were not used Interrupting Position Transition and Tracking:** ICS-214 forms were distributed via Microsoft Teams, but ESF partners lacked access to the shared platform. Additionally, there was no clear guidance on were completed ICS-214 forms should be submitted or stored. This lack of accessibility and direction of the documentation process between ESF partners and ECC staff potentially compromises the integrity of critical incident records.

    o **Reference** *There is no reference to the use of daily logs in the EOP or State ECC Planning Section resources*.

- o **5.1.1.4 | Pre-Packaged Donations Expectations and Guidance – Simulated Movement of Donations During Exercise Demonstrated Potential Issues with Incoming Resources:** ESF #16 highlighted pre-packaged donations, especially those originating from outside Oregon, need to be coordinated before they are packed and shipped. Managing donations after they have arrived at the area of operations can cause delays and inefficiencies, making it challenging to triage them effectively when needed most.

  - o **Reference** State of Oregon EOP (2024), ESF #16 Volunteer and Donations Annex (2017): This Annex does reference responsibilities for management of donations, but no specifics on how to perform those operations.

- o **5.1.1.5 | Importance of Player Cross-Training – Positions Lacked Role Continuity via Written Guidance and Training Options that Hindered Easy Position Transitions by Staff:** Many exercise players shifted positions throughout the event, limiting their ability to fully understand their roles and responsibilities. For example, the ECC Logistics Chief spent significant time training five individuals on Tuesday, only for those individuals to leave their roles, wasting valuable time and resources. Consistent role assignments would enhance continuity within sections and improve the training experience for staff-in-training.

  - o **Reference** State ECC Training and Exercise Plan (2023)

- o **5.1.1.6 | No Process of Integrating Legal Considerations – There is no Legal Briefing to Address Critical Aspects of Authority and Operational Limitations:** Key questions include the authority to direct efforts, impose curfews, enforce evacuations, and handle issues like eminent domain, easements, and public utilities. Additionally, clarity on federal disaster declarations, executive orders, and the scope of federal law enforcement authority is essential to support informed decision-making and coordination during emergencies.

  - o **Reference** State of Oregon EOP (2024): This product does not outline where legal actions will be coordinated within the State ECC.

- o **5.1.1.7| ECC Procurement SOP is Needed – There is an Absence of a Clear and Comprehensive ECC Procurement Guidance or Policy:** This gap creates challenges in efficiently managing procurement-related activities such as Request for Proposals (RFPs), contracts, and coordination between the ECC Finance and Logistics Sections, as well as ESF #7 (Resource Support). A well-defined ECC Procurement SOP would provide a structured approach to procurement processes, ensuring alignment and effective collaboration among all relevant sections and stakeholders during activations.

  - o **Reference** State of Oregon EOP (2024), Organization During an Emergency, Finance and Administration Coordination Section, Page 51: This section outlines the positions within this Section, but does not include specific guidance on procurement.

- o **5.1.1.8 | Damage Assessment Data Collection – There is Currently no Process for Integrating Damage Assessment Data into the State ECC:** Collecting Damage

Assessment Information is currently Unclear - The absence of a dedicated ECC Damage Assessment Unit within the ECC Planning Section was identified as a gap during the exercise: Without a centralized unit, damage assessment efforts lacked coordination, and intelligence was not effectively consolidated or reported. This resulted in fragmented information sharing and missed opportunities to streamline situational awareness and decision-making processes.]

- o **Reference** State of Oregon EOP (2024), Organization During an Emergency, Planning and Coordination Section Chief, Page 48: This section does outline it is the responsibility of the Section Chief to: "Coordinate the collection of initial damage assessment information to inform if the incident qualifies for a federal emergency or major disaster declaration".

EXERCISE DESIGN FINDINGS

The Exercise Planning Team utilized the Participant Feedback Form and the Full IO24 Hotwash to assess the exercise overall. Below are two questions asked of the participants:

Overall, participants expressed that IO24 was the correct amount of time or too little time to address the scenario.

Rate their opinion on the duration of IO24:

- Too Short (Rating 1-4) = **25%** of Participants
- Just Right (Ratings 5-6) = **55%** Participants
- Too Long (Ratings 7-10) = **20%** of Participants

Participants were evenly split that exercise build-up activities were underwhelming or just right to not support exercise participation.

Rate their experience with the build-up activities provided (meetings, documents, etc.):

- Underwhelming & Did Not Support Participation (Rating 1-4) = **39%** of Participants
- Just Right for Supporting Participation (Ratings 5-6) = **39%** Participants
- Overwhelming & Did Not Support Participation (Ratings 7-10) = **22%** of Participants

STRENGTHS

- **5.1.2.1 | Exercise Placemats Supported Player Participation:** The exercise placemats provided during the exercise were highly appreciated by participants for their utility in presenting essential information in a clear and organized manner. Feedback suggested that adding a webpage or URL linked to the QR code on the placemats would further enhance their functionality by directing users to additional resources or real-time updates.

- **5.1.2.2 | SimCell & Evaluators Communication Flow Effectively Managed Conduct:** On the second day of the exercise, SimCell improved its communication strategy by copying evaluators assigned to specific ECC sections or ESFs on email injects. This adjustment enhanced situational awareness for evaluators, allowing them to ask follow-up or guiding questions tailored to their assigned areas, ultimately supporting a more effective evaluation process.

- **5.1.2.3 | Participants Expressed Appreciation for Peer Support Brought to the Exercise:** The inclusion of peer support resources such as the Psychological First Aid Provider and the Critical Incident Stress Management Briefing during the exercise was recognized and appreciated by participants. This demonstrated the agency's commitment to valuing mental health and well-being, which is crucial in high-stress scenarios. Prioritizing peer support during planning and execution is an important step toward building resilience among staff during real-world events.

- **5.1.3.1 | Additional Pre-Start Ground Truth Necessary for Sections/Units:** Many State ECC exercise participants expressed interest in having focused ground truth provided to their section or unit to better establish a foundation for the actions and decisions they need to take. Day 0 Scenario and Turnover Briefing provided the ground truth at a high level, there is a desire for more specific ground truth to support the players taking their initial actions.

  The Exercise Planning Team developed a significant amount of ground truth data that was intentionally not shared with players to encourage the players to reach out and acquire the information/data. Moving forward, it is necessary for the Exercise Planning Team to develop some level of ground truth for each section/unit participating. Future exercises can improve the ground truth through an improved understanding of the resources State ECC partners utilize to gather information and ensure those have a simulated resource for players to reference.

  An example comes from the GIS Team that shared – "When we are conducting an exercise that requires the use of data, we should have guidance on how we can use ground truth data and actual exercise collected data. There appeared to be confusion about how the players can take advantage of this information (ground truth data)."

  This ensures the players have education and clarification on how to use the ground truth provided for exercise purposes. We had participants express the confusion around a portfolio that was set up for the exercise design and development phase of the exercise (with ground truth information), this was then used during exercise play which conflicts with a portfolio that would have to be created for purposes of the response.

  - **Reference** *There is currently no Ground Truth guidance documentation outside the FEMA HSEEP Guidance.*

- **5.1.3.2 | Additional Pre-Exercise Education on How Functional Areas Fit into the Objectives:** During the exercise, ESFs focused primarily on their own objectives without fully considering the interdependence between other ESF objectives. For example, while Objective 3.1 centered on Mass Care, Objectives 2.1 and 2.2 addressed communication systems. The lack of integration across objectives limited the ability to identify potential cascading impacts, such as how communications failure would affect mass care operations.

  The Exercise Design Team identified the need for each State ECC Section and Units to have more focused education, expectations setting, and preparation related to their roles and responsibilities prior to participating in larger exercise events. This approach would allow individual ESFs to refine their internal processes, identify gaps, and ensure a clearer understanding of their capabilities before integrating into the broader emergency coordination framework. Conducting build-up events could enhance the effectiveness of collaboration and coordination during future exercises.

- o **Reference** *There is currently no guidance documentation for preparing Functional Areas into the exercise event outside the FEMA HSEEP Guidance.*

- **5.1.3.3 | Information Technology Integration with Exercise Planning Team:** The absence of IT involvement early in the exercise planning process limited its capacity to anticipate and address IT-related needs, provide guidance, and adequately prepare staff and resources. This late inclusion led to rushed IT requests, such as:

  - o Providing network access
  - o Resolving external email/user challenges
  - o Anticipate IT-related requests or issues
  - o Provide guidance, recommendations, or alternatives for IT-related needs
  - o Prepare IT staff and schedules for support and play; and,
  - o Assess the facility/space needs based on the exercise size and scope.

  This made systems and tools not adequately evaluated due to the absence of dedicated IT staff to evaluate operations and gather feedback, missing an opportunity to assess their functionality and effectiveness. Developing exercises that incorporate data-centric objectives and encourage collaboration across ESFs would better reflect real-world scenarios and improve overall response strategies. The exercise highlighted the critical need for IT integration into the planning process to enhance operational readiness and efficiency.

  - o **Reference** *There is currently no guidance documentation for the Exercise Planning Team outside the FEMA HSEEP Guidance.*

- **5.1.3.4 | Additional Guidance to Player on Interacting with the SimCell Necessary:** The SimCell was underutilized during the exercise due to a lack of clear guidance for players on how to engage with it. ESFs did not leverage the SimCell to gather necessary information, resulting in incomplete Situation Reports and reduced realism in simulating partner coordination. Additionally, ESFs relied on the SimCell as a substitute for coordination with non-participating partners, further limiting exercise comprehensiveness. SimCell faced challenges in addressing player requests due to insufficient pre-exercise preparation, as many requests lacked critical details such as Capability, Size, Amount, Location, Type, and Time (CSALLT). This lack of clarity and preparation hampered SimCell's ability to respond dynamically and effectively, underscoring the need for improved processes and player education.

  - o **Reference** *There is currently no guidance documentation for the Simulation Cell outside the FEMA HSEEP Guidance.*

- **5.1.3.5 | Master MSEL Tracking Shared Widely Created Chaos for Simulation Cell:** The exercise revealed challenges in efficiently tracking and managing the Master Scenario Event List (MSEL). Evaluators and participants noted that having a centralized, accessible system to monitor the MSEL's status would improve situational awareness. A suggested solution involved using Microsoft Lists to track injects, paired with a visual dashboard displayed on a large screen. This system could include filters to show injects categorized

by status (e.g., waiting for a response, completed, or not yet sent out), offering real-time updates and reducing confusion during exercise play.

- o **Reference** *There is currently no guidance documentation for the Simulation Cell and MSEL outside the FEMA HSEEP Guidance.*

- **5.1.3.6 | Ensuring Simulation Cell has Subject Matter Experts to respond to Player Needs/Communications:** The IO24 Simulation Cell used a significant number of new simulators in various roles. The players appreciated the interactions but asked for simulators to be more knowledgeable in the subject matter they are simulating for future exercises of this size.

  - o **Reference** *There is currently no guidance documentation for the Simulation Cell outside the FEMA HSEEP Guidance.*

CONCLUSION

The IO24 exercise served as a critical evaluation of Oregon's emergency response capabilities, focusing on operational coordination, situational assessment, resource management, redundant communication, and mass care strategies during a simulated 9.0 Cascadia Subduction Zone Earthquake. This AAR highlights significant strengths, such as enhanced in-person collaboration, while also identifying key areas for improvement, including clarifying leadership roles, improving operational processes, and addressing gaps in training and resource management.

The findings outlined in this AAR are intended to inform future preparedness efforts and ensure the continuous enhancement of Oregon's emergency response framework. Once finalized, the AAR will be submitted to the Continuous Improvement Workgroup for tracking and monitoring the implementation of corrective actions.

The Continuous Improvement Program (CIP) Action Tracker will serve as the central repository for maintaining the status of corrective action implementation. The tracker will document strengths, best practices, areas for improvement, and innovative solutions identified during the exercise. It will also record the division responsible for implementing corrective actions, assigned points of contact, formulated actions, and completion dates. Upon completion, each corrective action will be evaluated for effectiveness to ensure progress toward the overarching goal of enhancing statewide resilience to catastrophic events.

Appendix A: Acronym List

Acronym	Description
AAM	After-Action Meeting
AAR	After-Action Review
AV	Audio-visual
AFI	Area for Improvement
AOC	Agency Operations Center
C&G	Command & General Staff
CIP	Continuous Improvement Program
CSALTT	Capability, Size, Amount, Location, Type, and Time
DPSC	Deputy Planning Section Chief
DMORT	Disaster Mortuary Operational Response Team
DMAT	Disaster Medical Assistance Teams
ECC	Emergency Coordination Center
EEI	Essential Elements of Information
ESF	Emergency Support Function
EMAC	Emergency Management Assistance Compact
GIS	Geographic Information System
IAP	Incident Action Plan
ICS	Incident Command Structure
IP	Improvement Plan
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JDOC	Joint Department Operations Center
LOFR	Liaison Officer
MSEL	Master Scenario Event List
NLE	National-Level Exercise
OREM	Office of Resilience and Emergency Management
PSC	Planning Section Chief
PIO	Public Information Officer
RAPTOR	Real-time Assessment and Planning Tool for Oregon
RFI	Request for Information
RFP	Request for Proposals
RFR	Request for Resource
RRCC	Regional Response Coordination Center
RRF	Resource Request Forms
SitRep	Situation Report
SCO	State Coordinating Officer
SOG	Standard Operating Guidelines
SOP	Standard Operating Procedures
SimCell	Simulation Cell
SWIC	Statewide Interoperability Coordinator
US&R	National Urban Search & Rescue
USACE	United States Army Corps of Engineers

APPENDIX B: PARTICIPATING ORGANIZATIONS

IronOR 24 (IO24) included organizations from around the State, representing all levels of Government alongside key response partners from the non-profit and private sectors. The participants below participated in various locations and at varying levels during IO24. This four-day exercise event included a total of over 650 individuals representing 135 organizations/jurisdictions.

Table 4: Participating Organizations

State
Oregon Department of Forestry (ODF)
Oregon Department of Transportation (ODOT)
Oregon Department of Emergency Management (OEM)
Oregon Public Utility Commission (PUC)
Oregon Department of Administrative Services (DAS)
Oregon Department of Administrative Services (DAS)-Enterprise Information Services (EIS)
Oregon National Guard (ONNG)
Oregon State Police (OSP)
Oregon Water Resources Department (OWRD)
Oregon Department of the State Fire Marshal (OSFM)
Oregon Department of Human Services (ODHS)
Oregon Health Authority (OHA)
Oregon Department of Environmental Quality (DEQ)
Oregon Department of Energy (ODOE)
Oregon Department of Agriculture (ODA)
Oregon Department of Corrections (DOC)
Oregon Department of Consumer and Business Services (DCBS)
Higher Education Coordinating Commission (HECC)
Oregon Judicial Department (OJD)
Oregon Legislature
County / Local
Burns Paiute Tribe
Confederated Tribes of Coos, Lower Umpqua and Siuslaw Indians

Confederated Tribes of Grand Ronde
Confederated Tribes of Siletz Indians
Confederated Tribes of the Umatilla Indian Reservation
Confederated Tribes of Warm Springs
Cow Creek Band of Umpqua Tribe of Indians
Coquille Indian Tribe
Klamath Tribes
Benton County
Benton County CERT
Benton County ARES
Clackamas County
Clatsop County
Columbia County
Coos County
Crook County
Deschutes County
Douglas County
Harney County
Hood River County
Jackson County
Josephine County
Klamath County
Lincoln County
Marion County
Multnomah County
Morrow County
Polk County
Umatilla County
Union County
Tillamook County
Washington County

Washington County ARES
Yamhill County
City of Beaverton (Washington County)
City of Bend (Deschutes County)
City of LaPine (Deschutes County)
City of Forest Grove (Washington County)
City of Manzanita (Lincoln County)
City of Sisters (Deschutes County)
City of Redmond (Deschutes County)
City of Tualatin (Washington County)
City of Black Butte (Deschutes County)
City of Sunriver (Deschutes County)
City of Adair (Benton County)
City of Philomath (Benton County)
Blodgett-Summit Rural Fire (Benton County)
Private Sector / Non-Governmental Organizations
Bonville Power Administration
AT&T FirstNet
Link Oregon
Verizon
Dish/Boost Mobile
Everbridge
FirstNet Authority
Red Cross
Team Rubicon
Ecumenical Ministries of Oregon
Oregon Food Bank
Kelley Nonprofit Consulting
North Pacific Union Conference of Seventh-day Adventists
211
Salvation Army

Providence Medical Center
Hillsboro Medical Center
Southern Oregon Veterinary Emergency Room
New Seasons Market
C&S Wholesale
Albertsons Grocers
Fred Meyer Grocers
Umpqua Bank
OnPoint Credit Union
First Tech Federal Credit Union
SELCO Community Credit Union
First Community Credit Union
Northern Credit Union
Oregon Pacific Bank
Rogue Credit Union
Summit Bank
Oregon State Credit Union
Ukrainian Foundation (Washington County)
Familias en Accion (Washington County)
Beaverton Resource Center
Salem Health
Chemeketa Comm College
St Charles Medical Center (Deschutes County)
Oregon State University
Federal
Federal Emergency Management Agency (FEMA) Region 10
Region 10 Regional Response Coordination Center (RRCC)
U.S. Department of Transportation (USDOT)
General Services Agency (GSA)
Environmental Protection Agency (EPA)
U.S. Department of Agritulture (USDA)

U.S. Department of Energy (USDOE)
Cybersecurity and Infrastructure Security Agency (CISA)
U.S. Coast Guard (USCG) D13
Defense Coordinating Element (DCE)
Health and Human Services (HHS)
National Weather Service (NWS)/National Oceanic and Atmospheric Administration (NOAA)
Information Technology Disaster Resource Center (ITDRC)
Federal Bureau of Investigations (FBI)

APPENDIX C: IMPROVEMENT PLAN

Below you will find the IronOR 24 Improvement Plan (IP) that takes the findings from the sections above and assigns them the Planning, Organization, Equipment, Training, and Exercise (POETE) elements they are aligned with. This process allows for the items to be integrated into a Continuous Improvement Workplan. This IP outlines the following POETE needs:

- o **P**lanning – 22.5 of 48 (48%)
- o **O**rganization – 6 of 48 (12%)
- o **E**quipment – 6 of 48 (12%)
- o **T**raining – 7.5 of 48 (16%)
- o **E**xercise – 6 of 48 (12%)

Goal	Objective	Finding	POETE Element
Goal 1	Obj 1.1	**1.1.2.1 | Establishing Incident Priorities –** The organizational body responsible for establishing incident priorities for the State ECC is currently unclear.	**P**lanning
		1.1.2.2 | ECC Meetings and Report-Outs – The ECC meetings lacked clarity on expected outcomes, intended audiences, and reporting content, resulting in reduced efficiency and decision-making.	**P**lanning
		1.1.2.3 | ESF Lead Roles & Responsibilities – ESFs lacked guidance on how to operate and therefore operated in silos.	**P**lanning
		1.1.2.4 | FEMA Synchronization – There is a misalignment between the ECC's and FEMA's operational rhythms resulting in coordination challenges and reduced efficiency	**P**lanning
		1.1.2.5 | IAP Developer Lead Unclear – The ECC Resource Unit was unaware of the requirement to prepare a draft Incident Action Plan (IAP)	**T**raining
		1.1.2.6 | Role Clarity for Liaison Officers – Regional Coordinators experienced uncertainty regarding their primary responsibilities	**T**raining
	Obj 1.2	**1.2.2.1 | Situation Reporting Documentation Collaboration –** Inefficiencies in the current document collaboration tools with external partners causing limitations in version control and centralized storage	**E**quipment
		1.2.2.2 | Real-Time ECC Data Availability – The absence of real-time situational information of statewide impacts limited the ability to build a common operating picture	**P**lanning
		1.2.2.3 | Situation Reporting Data Collection Flow – The ECC Sections and Units were not familiar with the	**T**raining

		approach for collecting situation report information from statewide partners	
		1.2.2.4 | Lack of ESFs and Local-Tribal Government EEIs – There is no tool to guide State ECC ESFs or Local-Tribal Government in the data/information to collect	**P**lanning
		1.2.2.5 | Use of GIS Resources is Unclear – GIS Staff were underutilized in supporting the development of a Common Operating Picture	**P**lanning / **T**raining
	Obj 1.3	**1.3.2.1 | No Formal Resource Prioritization Guidance –** The Logistics Section did not have any prioritization guidance, formal or informal, to support their decision-making/operations	**P**lanning
		1.3.2.2 | Requesting Federal Resources was Underutilized – The State ECC lacks a clear and standardized process for requesting and utilizing federal resources.	**P**lanning
		1.3.2.3 | Limited ECC Operations & Logistic Section Staffing Hindered Resource Management Effort – Limited staffing limited how the Operations Section and Logistics Section could implement a resource management system	**O**rganization / **T**raining
		1.3.2.4 | OpsCenter System Hindered Resource Management Efforts – OpsCenter faced recurring challenges due to users' lack of familiarity and regular practice	**E**quipment / **T**raining
Goal 2	Obj 2.1	**2.1.1.1 | ECC Radio Data Acquisition –** There is no process or expectations for passing along a report or request that is received by the radio room	**P**lanning
		2.1.2.2 | Radio Room Role and Responsibilities Awareness – Awareness and understanding of the radio room is severely lacking for State ECC participants	**T**raining
		2.1.2.3 | Unit Staffing Limitations – ECC Communications Unit Staffing and auxiliary communication capacity	**O**rganization
		2.1.2.4 | ESF #2 Annex Needs Updated to Support Unit Operations – Updating the ESF #2 Annex for modern communication needs	**P**lanning
		2.1.2.5 | Connection & Collaboration of Efforts Between ESF #2 and Logistics Section-Communications Unit - Additional clarification necessary on roles and responsibilities for the two units	**O**rganization

	Obj 2.2	**2.2.2.1 | Lack of Communications Coordinator** – Lack of position staffing impacted overall ESF #2 Functionality	**O**rganization
Goal 3	Obj 3.1	**3.1.2.1 | JDOC and State ESF #6 Data Sharing** – Information and intelligence was not funneled from the JDOC to the State ECC.	**P**lanning / **T**raining
		3.1.2.2 | ESF #6 Purpose and Role in the State ECC – Additional clarification is necessary for the role of ESF #6 at the State ECC to support JDOC operation.	**P**lanning
		3.1.2.3 | ESF #6 Annex as Written is not an Operational Plan – Operational gaps and lack of staffing guidance impacted strategy development.	**P**lanning
		3.1.2.4 | Mass Care 'Push' Model for Delivery of Resources – ESF #6 Adopted 'Push' Model of resource distribution needs additional communication-coordination details.	**P**lanning
		3.1.2.5 | Process for Sharing/Submitting Mass Care Strategy – It is unclear how the State ECC wants to receive key ESF strategies like the Mass Care Strategy.	**P**lanning / **T**raining
State ECC Space		**4.2.1.1 | Identifying Necessary Shared Visuals** – There are no expectations for what information or data is shared in the ECC Space	**P**lanning
		4.2.1.2 | State ECC Working Environment – Current design of the State ECC presents a noisy environment with limited areas for smaller meetings	**P**lanning / **O**rganization
		4.2.1.3 | State ECC Internet Accessibility – Wireless internet and cellular connection had significant connection issues with the number of participants	**E**quipment
		4.2.1.4 | State ECC AV Resources – Limited audio & visual (AV) systems for internal State ECC Communication and coordination	**E**quipment
		4.2.1.5 | Large Screen Concerns – Brightness of the visual equipment in the ECC caused headaches and distraction	**E**quipment
		4.2.1.6 | Personnel & Functional Areas Identification – Identification of State ECC Sections and Units was challenging	**P**lanning / **O**rganization
		4.2.1.7 | ECC Facility Access and Security Protocols – The ECC lacks a cohesive and secure access control system, creating vulnerabilities and inefficiencies during activations and exercises	**P**lanning / **E**quipment

	4.2.1.8 | Utilizing the Space – Staff lacked awareness on how to leverage the State ECC Space	**P**lanning
Additional Exercise Findings	**5.1.1.1 | Integrating Non-OEM Staff into a Shared Operational Channel** – The State ECC does not have a collaborative digital space that all ECC personnel can access.	**E**quipment
	5.1.1.2 | ECC Resource Unit SOG: Check-in/Check-Out – Gaps in the Check-in/Check-out process and data management	**P**lanning
	5.1.1.3 | ICS-214 Forms were not Used – Interrupting position transition and tracking.	**P**lanning / **T**raining
	5.1.1.4 | Pre-Packaged Donations Expectations and Guidance – Simulated movement of donations demonstrated potential issues with incoming resources	**P**lanning
	5.1.1.5 | Importance Player Cross-Training – Positions lacked role continuity via written guidance and training options that hindered easy position transitions by staff.	**P**lanning / **T**raining
	5.1.1.6 | No Process of Integrating Legal Considerations – There is no legal briefing to address critical aspects of authority and operational limitations	**P**lanning / **O**rganization
	5.1.1.7| ECC Procurement SOP is Needed – There is an absence of a clear and comprehensive ECC Procurement guidance or policy.	**P**lanning
	5.1.1.8 | Damage Assessment Data Collection – There is currently no process for integrating damage assessment data into the State ECC.	**O**rganization
Exercise Design Findings	**5.1.3.1 | Additional Pre-Start Ground Truth Necessary for Sections/Units.**	**E**xercise
	5.1.3.2 | Additional Pre-Exercise Education on How Functional Areas Fit into the Objectives.	**E**xercise
	5.1.3.3 | Information Technology Integration with Exercise Planning Team	**E**xercise
	5.1.3.4 | Additional Guidance to Player on Interacting with the SimCell Necessary.	**E**xercise
	5.1.3.5 | Master MSEL Tracking Shared Widely Created Chaos for Simulation Cell	**E**xercise
	5.1.3.6 | Ensuring Simulation Cell has Subject Matter Experts to respond to Player Needs/Communications	**E**xercise