2025 Tsunami Monitoring Event

Summary of Conclusions

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EXECUTIVE SUMMARY

This Summary of Conclusions (SOC) focuses on the state-level coordination and response activities related to the July 29, 2025, Tsunami Advisory/Watch affecting the Oregon coast. It reflects observations and conclusions drawn from internal hotwash discussions, interagency communication, and public information efforts, but does not evaluate local jurisdiction response actions. Findings are based on input received from Oregon Department of Emergency Management (OEM) staff and partner agencies who participated in the July tsunami preparedness and response efforts. Because tsunamis represent a unique and infrequent hazard for Oregon, these findings underscore the value of investing in additional hazard-specific planning, training and exercises to ensure coordinated readiness for future events.

Overview

At 16:24 PST on July 29, 2025, a magnitude 8.7 undersea earthquake struck at a depth of 46 miles, approximately 315 miles southwest of Bering Island, Komandorski, and 80 miles southeast of Petropavlovsk in the Kamchatka region of eastern Russia.

At 17:19 (PST), the National Tsunami Warning Center issued a Tsunami Watch for the Oregon coast, which was elevated to a Tsunami Advisory at 18:27. Forecast models projected tsunami activity along the Oregon shoreline late in the evening, with estimated arrival times of 23:40 in Port Orford (Curry County), 23:45 in Charleston (Coos County), 23:50 in Brookings (Curry County), and 23:55 in both Seaside (Clatsop County) and Newport (Lincoln County). These locations reported tsunami waves ranging from 1 to 2 feet in height beginning around 23:50.

While the tsunami did not result in major flooding or infrastructure damage, the event caused considerable movement of driftwood and other marine debris, creating hazardous conditions for swimming and boating. All alerts for Oregon were cancelled at 10:20 on July 30, 2025.

Key Timeline of Events

July 29, 2025

16:24 PST – Magnitude 8.7 earthquake occurs in the Kamchatka region.

17:19 PST – Tsunami Watch issued for the Oregon coast.

18:00 PST – National Tsunami Warning Center held first coordination call

18:06 PST – Statewide coordination call invite distributed.

18:27 PST – Tsunami Advisory issued for the Oregon coast.

19:00 PST – Statewide coordination call conducted, and Homeland Security Information Network (HSIN) space activated.

23:50 PST (approx.) – Forecasted tsunami waves arrive on the Oregon shoreline; wave heights observed at 1–2 feet.

July 30, 2025

10:20 PST – All tsunami alerts cancelled for Oregon.

OBJECTIVES

O.1 Assess interagency coordination and communication during the issuance and duration of the Tsunami Advisory, including information flow between local, Tribal, state and federal partners.

O.2 Evaluate the effectiveness of state government public information and public alert and warning strategies, including timeliness, accuracy and reach of messages disseminated via Alert & Warning systems.

O.3 Evaluate the effectiveness of coordination with coastal jurisdictions, state and Tribal governments to determine if state partners provided timely and actionable information, and sufficient support, to activate and implement local response plans**.**

Objective 1: Interagency Coordination and Communication

Strengths

1.1 High Engagement on Homeland Security Information Network (HSIN) Supported Targeted Situational Awareness

More than 100 users actively participated in HSIN during the event, contributing keyword and area code submissions that allowed for targeted situational awareness. This high level of engagement improved the precision and relevance of shared information, and the use of HSIN as a single, unified platform ensured that all partners had equal access to timely and consistent information. It is noted that the use of HISN is not standard practice, and this was a successful use of a newer tool.

1.2 Policy Information Coordination

FEMA Region 10 convened a policy text group at 6:15pm to ensure continuity of information being shared with all state directors, including California. USCG pushed text alerts to Deputy Director in real time as incident evolved.

Areas for Improvement

1.3 With no state ECC activation there was no plan or process being followed to determine coordination activities, which created confusion around expected actions or roles of state government agencies

There are no established criteria across hazards for when an ECC activation should occur. During this incident, the event was treated as a "monitoring situation", but the lack of clear definitions created uncertainty among partners about what OEM was doing and what "monitoring" meant for the State ECC. Clarifying the distinction between monitoring and activation, and how partners should expect to engage under each, could help ensure more consistent expectations and coordinated actions in future events.

1.4 Late SME Involvement in State Led Coordination Call Agenda On the coordination call, many state agencies reported that they were "waiting to see" or had "nothing to report at this time," while partners expressed a need for inundation maps and timely updates from National Oceanic and Atmospheric Administration, National Weather Service, United States Geological Survey, Oregon Department of Geology and Mineral Industries, United States Coast Guard, and other technical agencies. Some participants also found the call overly repetitive or internally focused, and subject matter experts were introduced too late in the process to provide actionable technical guidance.

Objective 2: Public Information and Warning Strategies

Evaluate the effectiveness of public information and warning strategies, including timeliness, accuracy, and reach of messages disseminated via Alert & Warning systems.

Strengths

2.1 Rapid Redistribution of Trusted Federal Messaging Enhanced Situational Awareness
Federal updates from the National Weather Service (NWS) Tsunami Warning Center and PTWC were quickly redistributed by Tribal, local, state and federal partners. This rapid dissemination supported timely and consistent situational awareness across jurisdictions.

Areas for Improvement

Lack of Tsunami-Specific Public Messaging Templates
There were no pre-developed tsunami-specific templates for public messaging, which caused delays in drafting and disseminating information during the advisory. Having ready-to-use templates could ensure faster, more consistent communication in time-sensitive situations.

Insufficient Translation and Culturally Tailored Tsunami Hazard Messaging
There were no pre-translated tsunami alert templates, with Spanish identified as the most frequently requested language. The absence of tailored messages further reduced effectiveness in reaching Spanish speaking communities, as translations were being done ad hoc using online translation tools. Public messaging lacked consistent visual tools linking NOAA/NWS alert categories to plain-language frameworks such as “Ready, Set, Go.” Messages were also not available in multiple languages, limiting timely accessibility for non-English-speaking populations.

Unclear Alert Terminology and Public Confusion
The terms “Watch,” “Advisory,” and “Warning” were used without including the standardized definitions in public-facing communications. This created confusion for both the public and responders.

2.2 Inconsistent Use of Wireless Emergency Alert (WEA)/ Emergency Alert System (EAS) for Tsunami Advisories
Because advisories do not automatically trigger WEA/EAS alerts, supplemental warnings

were issued inconsistently. This reduced the reach of official notifications and left some communities without timely, authoritative information. This could end up being a challenge in the event that the state is asked to send an alert or warning on a jurisdiction's behalf.

Objective 3: Coordination with Coastal Jurisdictions and Tribal Governments

Evaluate the effectiveness of coordination with coastal jurisdictions and Tribal governments to determine if state partners provided timely and actionable information, and sufficient support, to activate and implement local response plans**.**

Strengths

3.1 Cross-Agency Collaboration Strengthened Support for Coastal Tribes

Strong relationships between Regional Coordinators and Tribal Emergency Managers supported coordination between east side Tribes, the Bureau of Indian Affairs (BIA), Oregon Emergency Management (OEM), and the Oregon Health Authority (OHA).

Areas for Improvement

3.2 Delayed Access to the Coordination Call for Non-State Agency Partners

Some local and Tribal partners experienced delays joining the coordination call due to access code requirement, while other county emergency managers found that call timing conflicted with critical local decision-making window.

3.3 CONCLUSION

While the impacts on the environment, communities, and infrastructure from the July 29, 2025 Tsunami were minimal, the event provided OEM with insights into how best practices can be preserved and where improvements to processes are needed. The event displayed both OEM's strengths and challenges in coordinating with local, Tribal, state, and federal partners. High engagement on information-sharing platforms, proactive cross-agency collaboration, and rapid redistribution of trusted messaging supported situational awareness and readiness. However, because this was a monitoring event rather than a response, no established plan or process was followed to determine coordination activities. This lack of defined triggers created confusion among state agencies regarding expected roles and actions. Gaps in activation criteria, notification protocols, platform standardization, and messaging templates further limited the efficiency and consistency of monitoring and coordination. Addressing these areas through clearer procedures, training, and improved communication will strengthen the state's ability to manage future tsunami events and other coastal hazards.

APPENDIX A: PARTICIPATING ORGANIZATIONS

Participating Jurisdictions
Cities
City of Cannon Beach (Clatsop County)
City of Florence (Lane County)
Counties
Clatsop County
Columbia County
Coos County
Curry County
Douglas County
Grant County
Lane County
Lincoln County
Multnomah County
Tillamook County
Coastal Tribal Nations
Confederated Tribes of Coos, Lower Umpqua & Siuslaw Indians
Confederated Tribes of Grand Ronde
Coquille Indian Tribe
Cow Creek Band of Umpqua Tribe of Indians
State & Federal Agencies / Partners
Bureau of Indian Affairs (BIA)
Department of Consumer and Business Services (DCBS)
Department of Environmental Quality (DEQ)
Department of Land Conservation and Development (DLCD)
Federal Emergency Management Agency – Region 10 (FEMA Region 10)
HHS Administration for Strategic Preparedness and Response – Region 10 (HHS ASPR Region 10)
National Weather Service (NWS)
Oregon Department of Emergency Management (OEM)

APPENDIX B: ACRONYM LIST

AAR – After Action Report
BIA – Bureau of Indian Affairs
DOGAMI – Oregon Department of Geology and Mineral Industries
ECC – Emergency Coordination Center
EM – Emergency Manager / Emergency Management
EAS – Emergency Alert System
HSIN – Homeland Security Information Network
NWS – National Weather Service
OEM – Oregon Department of Emergency Management
OERS – Oregon Emergency Response System
OHA – Oregon Health Authority
OREM – Oregon Office of Resilience and Emergency Management (ODHS)
PTWC – Pacific Tsunami Warning Center
RC – Regional Coordinator
SOP – Standard Operating Procedure
USCG – United States Coast Guard
WEA – Wireless Emergency Alerts