

State of Oregon

The State Must Do More to Prepare Oregon for a Catastrophic Disaster

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Secretary of State
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Report Highlights

Oregon is at risk of a major Cascadia earthquake and tsunami that will threaten infrastructure, cost potentially billions of dollars, and result in numerous deaths. The state must do more to prepare for such a disaster, including completing and implementing critical plans, fulfilling minimum standards for an effective emergency management program, and adequately staffing the agency charged with coordinating emergency management efforts.

Background

The emergency management system encompasses local governments and almost all of state government. The Office of Emergency Management (OEM) is charged with coordinating Oregon's emergency management efforts, including mitigation, preparedness, response, and recovery.

Purpose

The purpose of this audit was to determine the status of state agency and local emergency management efforts to prepare for a catastrophic event, such as a Cascadia earthquake and tsunami.

Key Findings

1. Oregon does not meet key emergency management program standards. These national baseline standards are a tool to strengthen preparedness and response, demonstrate accountability, and identify resource needs.
2. Planning efforts across all levels of Oregon's emergency management system are lacking. Critical continuity plans that ensure functional government services in the wake of a disaster are either missing or incomplete. Additionally, insufficient staff resources put the state at risk of losing potentially millions of dollars in federal grant funding for future disasters.
3. Current statewide staffing is inadequate to reduce Oregon's vulnerability to disasters. OEM in particular is understaffed, despite repeated budget requests to the Legislature, which inhibits the agency's capacity to coordinate emergency management efforts in the state.
4. More accountability, such as public reporting and tracking, is needed to ensure progress on long-term resilience goals and projects and to enhance public awareness.

To reach our findings, we conducted a survey of state agencies and local emergency management programs. We also interviewed staff at OEM, other executive branch agencies, and the legislative and judicial branches of state government. We researched programs in other states and assessed emergency management program standards.

Recommendations

This audit includes 11 recommendations, five to OEM and six to the Governor's Office. These recommendations include such actions as completing, implementing, and exercising emergency and continuity plans; meeting minimum emergency management program standards; reporting on efforts to improve state resilience; defining roles and responsibilities and assessing and filling resource gaps.

OEM agreed with all the recommendations we made to them. The Governor's Office agreed with all but one of our recommendations. That recommendation, they believe they have already implemented. Both OEM and the Governor's Office's responses can be found at the end of the report.



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We sincerely appreciate the courtesies and cooperation extended by officials and employees of the Office of Emergency Management during the course of this audit.



Secretary of State Audit Report

The State Must Do More to Prepare Oregon for a Catastrophic Disaster

Introduction

Oregon is vulnerable to a Cascadia earthquake and tsunami that is expected to have deadly and catastrophic consequences throughout the region, in addition to recurring disasters such as wildfires and flooding. The state's emergency management system, coordinated through the Office of Emergency Management (OEM), must be prepared to respond to such events.

However, our audit found the state lacks key elements needed for an effective emergency management program. The agency charged with coordinating the state's response and preparedness efforts, OEM, is understaffed and lacks the capacity to fully execute its role.

These deficiencies must be addressed to strengthen Oregon's preparedness and ensure the state's ability to effectively function during and after a catastrophic event.

Oregon faces a range of disasters, from recurring storms to catastrophic events

Defining an emergency
Oregon Revised Statute (ORS 401.025) defines an emergency as a human-created or natural event or circumstance that causes or threatens widespread loss of life, injury to person or property, human suffering, or financial loss.

Emergencies are unpredictable. They are inevitable. They do not adhere to state or county boundaries. They can manifest as fires, explosions, floods, severe weather, landslides, drought, earthquakes, volcanic activity, tsunamis, disease, contamination, hazardous material spills, or even acts of terrorism and war.

In 2017 alone, the United States endured hurricanes in Florida, Texas, and Puerto Rico; devastating wildfires in California and Oregon; and the deadliest mass shooting in modern history at a music festival in Las Vegas.

Oregon is at risk from a wide range of disasters. Many of them are recurring, meaning they occur on a semi-regular basis. Recurring disasters include localized flooding and most of the wildfires we experience each summer.

More serious than these recurring disasters are catastrophic disasters — events that overwhelm the existing system and exceed our available resources and capacity. A catastrophic disaster may be a volcanic eruption or a major act of terrorism that threatens thousands of lives.

Figure 1: The Cascadia Subduction Zone Stretches From California to Canada



Source: FEMA / Photo by Mustafa Lazkani

Ninety percent of Oregon's population of nearly 4 million people will be directly affected by a Cascadia earthquake and tsunami.

- Oregon Department of Geology and Mineral Industries in 2012

One of the most well-publicized risks is from a 9.0 magnitude earthquake along the entire 700-mile Cascadia Subduction Zone with subsequent tsunamis and aftershocks. This event is predicted to destroy transportation and fuel infrastructure across the Pacific Northwest, cost Oregon more than \$30 billion in direct and economic losses, and result in anywhere from 1,250 to more than 10,000 deaths.¹

There is no way to prevent such an event from happening. Yet with effective emergency management, government officials can take action in advance to minimize the damage.

Emergency management is an ongoing cycle of mitigating risk, planning, responding, and recovering

It is helpful to think about emergency management as experts do, in four areas: mitigation, preparedness, response, and recovery.

- Mitigation are actions taken to prevent future emergencies or minimize their effects. An example of a mitigation activity is purchasing flood insurance or seismically retrofitting a building.
- Preparedness means being ready to handle an emergency. Preparedness activities include developing plans, training personnel and officials, and

¹ Oregon Resilience Plan, 2013.

conducting exercises (referred to generally throughout this report as planning, training, and exercising).

- Response means safely and effectively reacting to an emergency. Response includes actions taken to save lives and prevent further damage in an emergency situation.
- Recovery are actions taken to return to normal, or an even safer situation, following an emergency.

Figure 2: The Four Phases of Emergency Management Operate as a Cycle



EMAP Standards

The EMAP standards include 11 program elements, which are:

1. Hazard Identification, Risk Assessment, and Consequence Analysis
2. Hazard Mitigation
3. Prevention
4. Operational Planning and Procedures
5. Incident Management
6. Resource Management, Mutual Aid, and Logistics
7. Communications and Warning
8. Facilities
9. Training
10. Exercises, Evaluations, and Corrective Actions
11. Emergency Public Information and Education

These efforts are a cycle, with each phase overlapping with and feeding into the next. Mitigation leads into preparedness before a disaster, which feeds into the response during and the recovery after the fact, which cycles back into mitigation for the next disaster.

EMAP establishes standards for emergency management programs

Emergency managers nationwide established a set of standards that are considered the minimum acceptable performance criteria for programs. These standards are part of a process called the Emergency Management Accreditation Program.

EMAP is a voluntary tool to help emergency management programs nationwide foster excellence and accountability through a set of 64 standards.²

Entities that meet all 64 standards can opt to have their programs formally accredited. Currently, 32 states and the District of Columbia are EMAP accredited. Counties, cities, federal programs, and even universities can also become accredited.

² For a complete list of all 64 standards, see EMAP's website: <https://www.emap.org/index.php>.

Accreditation is valid for five years, during which time the program is expected to maintain compliance with the standards. Programs can become re-accredited once the five years is up. Most of the accredited states³ have already been accredited multiple times.

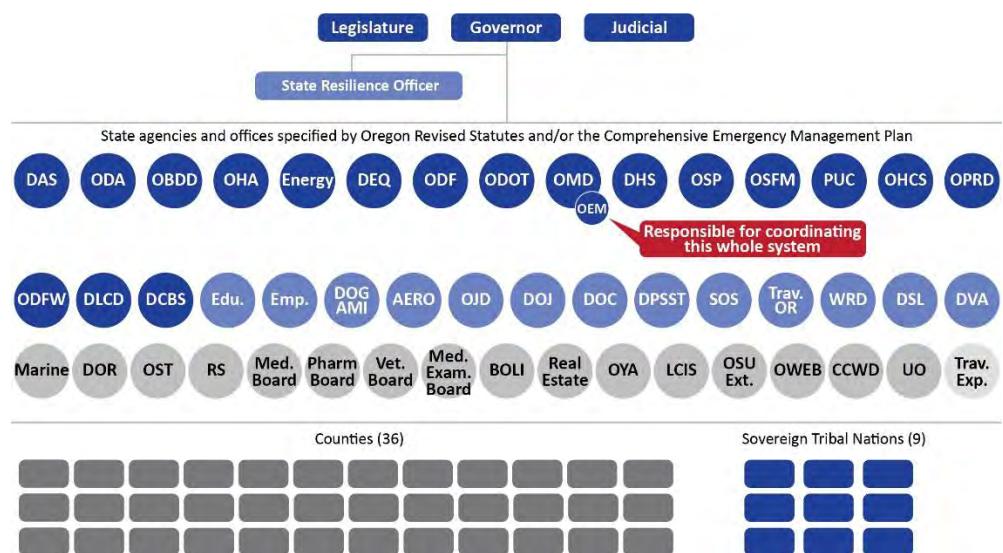
Oregon's emergency management system involves all levels of government

Emergency preparedness and response begins at the local level. Counties are initially responsible for the disasters that happen within their own borders. When disasters spread across multiple counties, or exceed an individual county's response capacity, the state is responsible for stepping in to assist.

Similarly, disasters that span multiple states or exceed one state's ability to respond trigger the involvement of the federal government or other states. For this reason, large-scale disasters require a coordinated response from the local level all the way up to the federal level. This often involves the Federal Emergency Management Agency, or FEMA.

Oregon's emergency management system is more than one agency. It spans across all agencies and organizations involved in the coordinated delivery of emergency services, including: cities, tribal nations, all 36 counties, several dozen state agencies covering all three branches of government, and non-government entities like the American Red Cross.

Figure 3: Oregon's Emergency Management System Spans All of State Government⁴



³ Twenty-six out of the 32 accredited states have been accredited multiple times.

⁴ For a larger and more detailed diagram of the system, see Appendix B.

State Agency Color Codes	Definition
	Agencies with one or more primary roles in the emergency response or recovery functions. These agencies may also have support roles.
	Agencies with support roles in the emergency response or recovery functions.
	Agencies with support roles in the emergency recovery functions only.
	Agency has no primary or secondary role in the response or recovery functions.

The Governor serves a key leadership role in the emergency management system

Per statute,⁵ the Governor is responsible for the emergency management system within the state of Oregon. The leadership of the office is crucial to ensure adequate resources are in place for preparing and responding to state emergencies.

The Office of the Governor has the unique authority to ensure specific actions are taken. This includes directing state agencies to complete and implement critical planning efforts, tracking actions and budget items that cross multiple agencies, and leading the state as a whole in meeting minimum acceptable performance criteria. The Governor also has the ability to declare a formal disaster in the state.⁶

The Governor has at his or her disposal a number of committees, cabinets, and other individuals to assist in these efforts, including the State Resilience Officer. The State Resilience Officer was confirmed by the Oregon Senate in May 2016 to work with state agencies to improve Oregon's seismic safety and resilience.

The Governor also has the authority to delegate certain tasks to state agencies. Chief among them is the Office of Emergency Management (OEM⁷), a division of the Oregon Military Department.

⁵ ORS 401.035: Responsibility for emergency services system. The emergency services system is composed of all agencies and organizations involved in the coordinated delivery of emergency services. The Governor is responsible for the emergency services system within the State of Oregon. The executive officer or governing body of each county or city of this state is responsible for the emergency services system within that jurisdiction

⁶ ORS 401.165: Declaration of state of emergency; procedures. The Secretary of State or State Treasurer may issue a declaration if the Governor cannot be reached.

⁷ For a full list of these acronyms and their meanings, see Appendix A.

OEM Mission

The Oregon Military Department Office of Emergency Management mission is to lead statewide efforts to develop and enhance preparedness, response, recovery and mitigation capabilities to protect the lives, property and environment of the whole community.

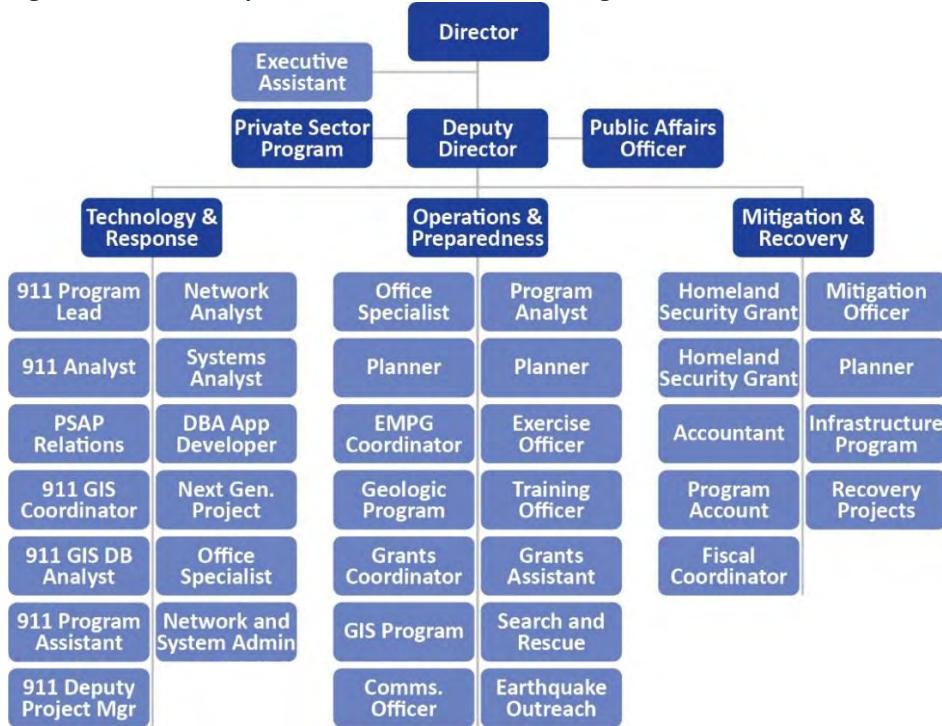
OEM is tasked with coordinating emergency management efforts in the state

Per statute,⁸ OEM is responsible for coordinating exercises and training, planning, response, mitigation, and recovery activities across all levels of the statewide system.

For example, Cascadia Rising was a multi-jurisdictional exercise in 2016 to practice how the affected states, including Washington and Idaho, would respond to a catastrophic Cascadia earthquake and tsunami. OEM and the Oregon National Guard sponsored Oregon's participation in the exercise.

The agency includes 42 positions across four sections: the Director's Office, Technology and Response, Operations and Preparedness, and Mitigation and Recovery Services. The Technology and Response section is responsible for the state's 911 system, while the other two sections conduct the bulk of OEM's program and operational work.

Figure 4: OEM is Comprised of Four Sections, Including the Director's Office



While OEM is charged with coordinating emergency management efforts, it does not have the authority to direct the efforts of other agencies in the same way the Governor does. This concept is illustrated by the functionality of the state's Emergency Coordination Center, or ECC.

OEM is responsible for Oregon's Emergency Coordination Center

The ECC is a centralized facility that OEM can activate in the event of a disaster to bring together partner agencies to coordinate the response and

⁸ ORS 401.052: Responsibilities of Office of Emergency Management.

deployment of resources. These resources may include equipment like snow plows or people like firefighters.

The ECC activates several times a year, either in response to an emergency or as practice during an exercise. For instance, it activated during the total solar eclipse in August 2017 to monitor the flow of people and traffic throughout the state. It also activated in January 2017, after severe winter storms caused flooding and landslides, resulting in disaster declarations in Columbia, Deschutes, Hood River, and Josephine Counties.

The resources used to respond to emergencies are owned by other agencies like the Oregon Department of Transportation or the Oregon Department of Forestry. As OEM does not have ownership of these resources, it must instead coordinate with the agencies that do.

In this way, the state ECC is distinct from other, similar facilities that are called Emergency Operations Centers, or EOCs, many of which exist at the county level. The primary difference between the two is who has ownership of the resources. Counties can make their own operational decisions and deploy resources, such as equipment and people.

OEM is responsible for preparing the statewide Comprehensive Emergency Management Plan

Oregon has a four-volume statewide Comprehensive Emergency Management Plan, with each volume representing one of the phases of emergency management:

- The state's Natural Hazard Mitigation Plan identifies natural hazards and vulnerabilities in Oregon and proposes a strategy to mitigate risk and address recurring disasters and repetitive losses. This plan is required by FEMA and must be revised and updated every five years.
- The Preparedness Plan provides requirements and guidance for each step of the preparedness cycle, including planning, organization, training, exercising, evaluation, and improvement.
- The Emergency Operations Plan, or EOP, describes the organization the state uses to respond to emergencies. It is another plan required by FEMA, with a requisite update cycle of every two years. The EOP includes the basic plan, as well as numerous annexes, which are supporting documents that more specifically define action items in certain areas, or for a specific hazard, during a response.
- The Recovery Plan describes the organization the state uses to assist communities recovering from disasters.

Oregon has developed another document called the Cascadia Playbook. Although not part of the Comprehensive Emergency Management Plan, the playbook is a tool for Oregon's leaders, state agencies, and other participants with a checklist of action items to be done in the wake of a Cascadia earthquake and tsunami. The playbook was the result of a

Liaison agencies

The following agencies are required to designate a liaison to OEM:

Department of Consumer and Business Services

Department of Corrections

Department of Education*

Department of Environmental Quality

Department of Human Services

Department of Justice

Department of Land Conservation and Development

Department of Public Safety

Standards and Training*

Department of State Lands*

Department of State Police

Department of Transportation

Department of Veterans' Affairs*

Employment Department*

Housing and Community Services Department*

Judicial Department

Oregon Business Development Department*

Department of Administrative Services

Department of Aviation

Oregon Health Authority

Oregon Military Department*

Oregon Tourism Commission*

Public Utility Commission

Secretary of State*

Department of Agriculture

Department of Energy

Department of Fish and Wildlife

Department of Geology and Mineral Industries

State Fire Marshal

State Forestry Department

State Marine Board

State Parks and Recreation Department

Travel Information Council*

Water Resources Department

**Agency added via Senate Bill 61,
2017 Regular Legislative Session*

planning effort led by OEM starting in 2014, with support of the Governor and other emergency management partners and stakeholders.

OEM is responsible for coordinating these plans, but many state agencies participate in developing, updating, and implementing plans.

State agencies also have roles and responsibilities in emergency management

OEM cannot fully enact emergency management efforts on its own. It must rely on the expertise and assistance of more than 30 state agencies, each with its own role to play in preparing and responding to disasters.

Before 2018, Oregon statute⁹ identified 22 state agencies that are required to designate an individual to act as a liaison with OEM, to coordinate their functions that relate to emergency preparedness and response. In the 2017 Legislative session, the statute was amended¹⁰ to include an additional 11 agencies, whose liaison designation requirements take effect at the beginning of 2018.

Many of these agencies have been assigned to Emergency Support Functions, or ESFs. Oregon's official plan to respond to disasters, the Emergency Operations Plan, includes 18 designated ESFs to help organize agency roles and response. Each function includes a corresponding annex to the Emergency Operations Plan. For example, ESF 1 is transportation; ESF 2 is communications; ESF 3 is public works; and so on.¹¹

Each ESF includes at least one primary agency and a range of support agencies. For example, the Oregon Department of Transportation is a primary agency for ESFs 1 and 3, but ODOT is also a support agency for an additional seven ESFs. In a similar fashion, many state agencies are assigned to State Recovery Functions, or SRFs.

Agency involvement goes beyond simply responding to disasters. State agencies are responsible for updating and maintaining ESF annexes to the EOP on a regular basis. Agencies also participate in exercise activities; communicate information to local communities; and in one case even facilitate the updating and maintaining of one statewide plan.¹²

⁹ ORS 401.054: Agency liaison with Office of Emergency Management. This list in statute does not include every agency involved in the emergency management system, in particular, those agencies with designated supporting roles in the State Recovery Functions, or SRFs.

¹⁰ Oregon Legislative Session 2017, Senate Bill 61

¹¹ See Appendix C for more information on each ESF and SRF.

¹² Maintenance and updating of the state's Natural Hazard Mitigation Plan is the responsibility of the Department of Land Conservation and Development.

Local governments are required to have their own emergency management programs

State statute¹³ requires each county to have its own emergency management program with a manager. As noted, initial response to disasters begins — and, in the case of most minor events like localized flooding, ends —at the local level.

State law also allows for cities and federally recognized sovereign tribal governments to create their own emergency management programs. Some cities, including Portland and Salem, have elected to create such a program.

These programs are each required to have their own Emergency Operations Plan and manage and maintain their own Emergency Operations Center. They are also expected to coordinate with OEM to implement effective practices in emergency preparedness and response.

County and city programs are generally funded through a combination of federal and local funds.

Federal funds pay a significant amount of Oregon's emergency management dollars

FEMA maintains grant programs that provide funding to state and local emergency management agencies. Some of these include:

- The Emergency Management Performance Grant, or EMPG, helps fund staff at OEM and local governments. The grant requires a 50% non-federal match from each participating jurisdiction. Twenty-one staff at OEM are funded in part through EMPG dollars. In 2016, Oregon was awarded \$5.1 million for this grant. Nearly 80% of these funds were awarded to local and tribal governments.
- The Hazard Mitigation Grant Program provides funding for mitigation projects in jurisdictions with a declared disaster. The amount of available money is determined as a percentage¹⁴ of the total cost of the disaster and requires a 25% local match. For example, this grant allocated approximately \$5.4 million in federal funds after winter storms in 2015. OEM is allowed to keep 4.89% of the projected program costs for administration.
- The State Homeland Security Grant provides funding for projects that fall under the category of planning, organization, equipment, training, or exercises. Recipients must meet certain requirements to be eligible. In 2016, Oregon was awarded \$3.8 million for this grant. Eighty percent of these funds are required to be passed through to local or tribal governments.

¹³ ORS 401.30: Emergency management agency of city, county, or tribal government; emergency program manager; coordination of emergency management functions.

¹⁴ This percentage varies based on whether or not the jurisdiction has an enhanced Natural Hazard Mitigation Plan. This is covered in greater detail later in the report.

OEM receives a small portion of these grants for its own use and distributes most of the funds to local programs as sub-recipients. As grant administrator, OEM is responsible for ensuring the sub-recipients meet each of the requirements, such as having an approved EOP or developing and conducting exercises.

Grant funding makes up the bulk of OEM's budget. For 2015-17, OEM reported that its administrative budget was \$6.2 million with 53% of its funding coming from Federal Funds. Without these grants, nearly all of the positions in OEM's Operations and Preparedness and Mitigation and Recovery units would not exist. Local programs would also lose a significant portion of their budgets.

Our prior audit identified issues with OEM's management practices

In February 2014, this office released report no. 2014-03, entitled: "Office of Emergency Management: Rebuilding the Organization to Strengthen Oregon's Emergency Management."

The objective of that audit was to determine what improvements OEM could make to its management practices to better help the state prepare for, respond to, and recover from disasters, with a focus on OEM's internal management practices. Our audit work highlighted significant internal challenges for the division, including staff turnover and a lack of strategic planning.

Our office contacted OEM to learn about the agency's progress toward implementing the audit's recommendations. In November 2015, OEM reported it had fully implemented eight of the 11 recommendations. By October 2016, the agency reported it had fully implemented the remaining three.

Objective, Scope and Methodology

Objective

The objective of this audit was to report on the status of state agency and local emergency management efforts to prepare for a catastrophic disaster, such as a Cascadia earthquake and tsunami.

Scope

This audit focused on efforts across Oregon's emergency management system and included branches of state government, selected state agencies, and local governments.

Methodology

To address our objective, we used a methodology that included but was not limited to: conducting interviews, administering an online survey and analyzing results, administering a questionnaire, and reviewing documentation.

We conducted interviews with OEM staff, staff at other state agencies, representatives from other states' emergency management programs, and local emergency managers.

We administered a survey to state agencies, counties, and some cities. The survey included 78 entities, comprised of 31 state agencies, the Governor's Office, representatives of Oregon's legislative and judicial branches, 36 counties, and 8 cities. A list of the entities included can be found in Appendix D. Six entities, Department of Land Conservation and Development, Benton County, Deschutes County, Hood River County, Multnomah County, and Wallowa County did not complete the survey. Incomplete responses to survey questions were not used.

The survey gathered information about each program, and covered standard baseline elements for emergency management programs, including: planning, mitigation, incident management, communication, public information and education, training, facilities, exercising, and continuity of operations. Due to the breadth of the survey we did not independently verify the information respondents provided or visit local programs, nor did we assess the quality of respondents' efforts.

We administered a questionnaire to emergency management agencies in six other states to gather information to use as a basis for comparison in assessing Oregon's system. This questionnaire asked about topics including staffing, statutory authority, Continuity of Operations and Continuity of Government plans, coordination efforts, and EMAP accreditation.

We reviewed reports, state laws, administrative rules, executive orders, standards, grant requirements and administration. We also reviewed federal directives and guidance for emergency management programs.

We conducted this performance audit in accordance with generally accepted government auditing standards. Those standards require that we plan and perform the audit to obtain sufficient, appropriate evidence to provide a reasonable basis for our findings and conclusions based on our audit objective. We believe that the evidence obtained and reported provides a reasonable basis to achieve our audit objective.

Audit Results: The State Must Do More to Prepare Oregon for a Catastrophic Disaster



Our audit found Oregon lacks key elements of an effective emergency management program. For example, state planning efforts for a catastrophic disaster are incomplete and inadequate. Critical plans to ensure continuity of government services in the wake of a disaster are either missing or incomplete.

We found current staffing levels statewide appear to be inadequate to reduce Oregon's vulnerability to emergencies. OEM in particular is understaffed compared to some other states, which inhibits the agency's capacity to lead and coordinate emergency management efforts in the state.

Without addressing these basic elements, Oregon is at increased risk of being unprepared for a disaster such as a Cascadia earthquake and tsunami.

Oregon lacks key elements necessary for an effective emergency management program

Industry experts have established a set of standards that are considered the minimum acceptable performance criteria for emergency management programs, known as the EMAP standards.¹⁵ These minimum standards were first established in 2007. Even though they have existed for a decade, our audit found Oregon is still lacking several of them.

EMAP standards cover the basic elements of an effective emergency management program, such as operational planning, hazard mitigation, prevention, exercises, corrective actions, and maintaining operational facilities.

These elements serve as a foundation that will ensure Oregon can withstand, with minimal damage and loss of life, a catastrophic disaster, whether it is a volcanic eruption, a terrorist attack, or a Cascadia earthquake and tsunami.

State planning efforts for mitigating, preparing for, responding to, and recovering from disasters are incomplete

EMAP standards require emergency management programs to have operational plans and procedures that are developed, coordinated, and implemented among all stakeholders. These plans should also include a method and schedule for evaluation, maintenance, and revision.

Oregon's comprehensive emergency management plan includes four volumes. These plans help officials think in advance — without the chaos and confusion of an active emergency — about what needs to be done to

¹⁵ Emergency Management Accreditation Program.

manage disasters. All four volumes, however, have issues that need to be addressed.

Natural Hazard Mitigation Plan: The state is at risk of losing its enhanced status for the second time since 2012 due to staffing challenges at OEM, covered in greater detail later in this report.

States with an enhanced plan, as opposed to basic status, are eligible to receive increased funds from FEMA following a disaster declaration. Enhanced status demonstrates to FEMA that the state has developed a comprehensive mitigation program and is capable of managing the increased funding to achieve its mitigation goals.

If the plan loses enhanced status, Oregon will miss out on millions of dollars that could help fund mitigation projects across the state. For example, Oregon received assistance up to \$62 million for a 2007 disaster when the plan had enhanced status. Had the plan not been enhanced then, Oregon would have lost about \$3 million in potential mitigation funding.

Preparedness Plan: The plan is incomplete and in draft form. Information included about personal and organizational preparedness is preliminary, nonspecific to Oregon, and still needs further development, revision, and refinement.

For example, key supporting documents — including operational plans that define the actions taken to organize resources, train personnel, exercise disaster scenarios, and evaluate program performance — still need to be developed.

Emergency Operations Plan (EOP): While the basic plan is complete and up-to-date, more than a dozen of its annexes are not. These ESF annexes include specific action items corresponding to areas, or functions, that agencies are responsible for in the wake of an emergency, such as transportation or public works.

Of the 18 ESF annexes, 13 of them are overdue for an update. These annexes were last updated in 2014 and 2015. The entirety of the EOP, including these annexes, is required to be updated every two years.

The Recovery Plan: The plan is written, but only some parts have been implemented in the wake of a disaster or during an exercise. For example, the Governor's Disaster Cabinet convened for the first time during the Cascadia Rising exercise in 2016.

However, the entirety of the Recovery Plan has not yet been implemented in a disaster or during an exercise. Additionally, the plan has not been disseminated with the Governor's signature, in a process known as promulgation.

While the only two plans required by FEMA — the Natural Hazard Mitigation Plan and the EOP — are finished, having all these plans

completed and implemented is a crucial way to ensure officials know what to do when an emergency strikes.

State agencies lack critical plans to reestablish or maintain operations after disasters

A catastrophic disaster can potentially disrupt government services and operations for days, weeks, or even months. In a worst case scenario, lines of succession for key officials such as the Governor may need to be initiated, to ensure the state government continues to function effectively.

The effort to plan for these scenarios is known as Continuity of Operations Planning, or COOP,¹⁶ and Continuity of Government, or COG. While COOP focuses more on the capability to continue essential program functions, COG ensures survival of a constitutional form of government.

EMAP standards around planning require programs to have COOP and COG plans. These plans should also include a method and schedule for evaluation, maintenance, and revision.

The Department of Administrative Services (DAS) enacted a policy in 2009 that requires state agencies to develop, implement, test, and maintain COOPs to ensure critical state services continue despite interruption by an emergency.¹⁷ At that time, DAS began efforts to facilitate COOP planning among state agencies. These efforts stalled and ultimately disappeared from legislative budget analysis around 2013.

As a result, we found several state agencies lack these critical plans. Furthermore, we found agencies where plans had not been updated for years, staff had not been trained in their contents, and the actions included within them had not been exercised.

We conducted a survey of 34 state agencies, offices, and branches of government¹⁸ about their continuity planning efforts and all but one agency responded. Most of the agencies we surveyed, 91%, have defined roles in the State's emergency response or recovery functions.

Based on survey results, we found only 9% of respondents met all of the basic elements required for COOP, as detailed in Figure 5. Neither the Executive nor Legislative branches of government have completed, let alone trained or exercised, a COG plan.

¹⁶ Sometimes it is also referred to as Business Continuity Planning, or BCP.

¹⁷ DAS Statewide Policy 107-001-010 applies to executive branch agencies. Other agencies, including the Office of the Secretary of State, Office of State Treasurer, Department of Justice, Judicial Department, and Department of Education have elected to follow this policy.

¹⁸ These agencies, offices, and branches of government are referred to generally in this report as agencies.

Figure 5: State Agency Continuity of Operations Planning is Lacking

Survey Responses	Has a COOP	Updated plan within the last year	Provides training on plan	Exercised and tested plan	Alternate worksite identified	Exercised and tested the alternate worksite	Has a designated COOP coordinator
Yes	67%	38%	33%	21%	50%	13%	94%
No	27%	54%	46%	54%	33%	60%	0%
I don't know	6%	8%	21%	25%	17%	25%	6%

Source: Self-reported survey responses.

Without these plans in place, Oregon's government is at serious risk of failing to continue with or reestablish its key operations following a catastrophic event. Once created, these plans must be reviewed and updated on a consistent basis, staff must be trained on their specific responsibilities, and the plans must be regularly exercised to ensure staff know how to execute them.

During the course of our audit, the Governor's Office and DAS took action to resume COOP planning in executive branch agencies. In July 2017, the Governor's Office presented executive agencies with a timeline for developing and assessing agency COOP plans. According to the most recently developed timeline, established in January 2018, COOP planning efforts are expected to be completed in March 2019.

Oregon has not corrected deficiencies identified in a multi-state exercise

In June 2016, Oregon participated in Cascadia Rising, a four-day, multi-state exercise intended to simulate a Cascadia earthquake and tsunami, and assess state response efforts.

In many ways, the exercise was a success. It brought together emergency management officials from Oregon, Washington, Idaho, and FEMA, as well as city, county, and non-governmental organizations. This was the largest exercise Oregon has ever conducted, and it provided each participating entity with the opportunity to experience first-hand some of the challenges they could expect to face post-Cascadia.

The exercise identified a number of issues that could severely impede Oregon's ability to recover from a Cascadia disaster. These issues were summarized in the Cascadia Rising 2016 After Action Report created by OEM, which found that:

- Government at all levels is ill prepared and equipped to implement effective COOP and COG operations;
- The state's ability to effectively communicate critical warnings and information to the public will be greatly reduced because of impacts to standard communications systems and networks;
- The ECC is not equipped, staffed, or structurally designed to provide the level of sustained emergency management required for a catastrophic event; and



Members of the National Guard participate in the Cascadia Rising exercise on June 8, 2016. (U.S. Air National Guard photo)

- Current emergency planning is not adequate or comprehensive enough for catastrophic disasters.

Oregon developed a corrective action plan in December 2017 to address these issues. However, the plan is still in draft form and has not been finalized, more than 18 months after the exercise. Washington published its own corrective action plan six months after its participation in Cascadia Rising.

According to federal guidance,¹⁹ a corrective action plan documents deficiencies identified during the exercise, the actions that should be taken in response, the resources required to address the deficiencies, and justification for the need to correct them. A due date and responsible person should also be assigned for each action, with the plan reviewed regularly to track progress.

Without this completed plan, the state is not fully prepared to address this type of disaster and the public has no assurance that Oregon will take steps to resolve deficiencies identified in the exercise.

State emergency response facilities are located within seismically vulnerable buildings or have not been exercised

OEM relies on its ECC as the facility for coordinating the state's emergency response. For recurring disasters, such as winter storms and flooding, the ECC has an established staff and set of procedures. Cascadia Rising demonstrated, however, that the facility has insufficient space and staffing needed to cope with a catastrophic disaster.

Furthermore, the ECC is currently located in a building that has not been seismically retrofitted, meaning that in the wake of an earthquake such as Cascadia, the facility could be inoperable or inaccessible.

The Oregon Military Department received approval in the 2017 Legislative session to issue bonds to fund seismically retrofitting three of its facilities, including the Anderson Readiness Center, which houses the ECC. The cost of retrofitting the Anderson Readiness Center is estimated at \$5.4 million.²⁰ Until this construction is completed, however, the building remains vulnerable to a seismic event.

In the event the ECC is inoperable or inaccessible, OEM has identified three alternate sites where the ECC could be relocated. However, two of the sites are located in hazard zones or hazardous buildings, such as one that has not been retrofitted to withstand a seismic event.

Additionally, OEM has never practiced or exercised operating the ECC at any of the three sites. Failure to familiarize staff with the facility or practice

¹⁹ U.S. Department of Homeland Security

²⁰ This figure excludes bonding costs

coordinating events from it could negatively impact how well an emergency response is conducted.

According to EMAP standards, emergency management programs should maintain facilities for conducting emergency management activities, including alternate facilities in addition to their primary facility. Both primary and alternate facilities should be capable of coordinating and supporting sustained response and recovery operations. They should also be regularly tested for activation, operation, and deactivation.

EMAP accreditation can help ensure the state is better prepared for a disaster

All of these basic elements — statewide plans, COOP and COG plans, exercises, corrective actions, and emergency response facilities — come from the EMAP standards.

Emergency management programs that meet all 64 of the EMAP standards can apply for accreditation, which provides programs the opportunity to be recognized for compliance with industry standards and to demonstrate accountability.

However, no jurisdiction in Oregon is currently accredited.

State EMAP accreditation requires leadership and prioritization outside of OEM, as the accreditation applies to Oregon's entire program — meaning other state agencies would have to achieve certain standards, such as COOP planning. The Governor, being responsible for the emergency services system in the state, is in an ideal position to provide leadership on these preparedness efforts, which cut across dozens of state agencies.

The EMAP standards are a valuable tool for continuous improvement. Becoming accredited could help Oregon's program demonstrate public accountability. It could also help the state focus attention on areas and issues where resources are needed. OEM managers told us they do see the value in becoming accredited.

Officials with New Mexico's emergency management agency told us they became accredited to ensure their programs are consistent with the benchmarks and standards that have been set for programs nationwide.

The state of Florida and 18 of its counties became accredited, state officials told us, because it demonstrates to the taxpayers that the state is in line with best practices. It also provides justification for funding the state has received, and provides assurance that emergency managers can do the job with which they've been tasked.

Washington is currently pursuing accreditation. Officials told us they believe it can help strengthen the program and point out efficiencies. Accreditation would also give the program standing when they make a case for resources.

State and local government emergency management programs are not meeting minimum standards

To establish a baseline of emergency management efforts across the state, we conducted a survey of all 36 counties, eight cities, and 34 state entities, including the Governor's Office and Legislature. See Appendix D for a complete list of the entities we surveyed.

We had a 92% response rate on the survey overall, with all three branches of government responding. Among state agencies, the response rate was 97%; among counties it was 86%; and 100% of cities responded.

The survey included questions about the standards outlined in EMAP. It asked respondents about their planning, training, exercising and mitigation efforts, as well as the status of facilities. Key survey results are discussed below.

State agency survey results show a lack of dedicated and trained staff for emergency support functions

Approximately 30 state agencies or offices have been designated as either primary or support agencies with specific Emergency Support Functions (ESFs). Per the state's Emergency Operations Plan, these agencies are responsible for executing critical activities during an event in such areas as transportation and public works.

However, our survey found these agencies have little to no dedicated staff to fulfill these ESF obligations. Specifically, 36% of responding state agencies reported having no dedicated Full Time Equivalent (FTE) staff. In some cases, agencies with multiple assignments as either primary or support functions had zero dedicated FTE. Only 39% reported one or more dedicated FTE.

This lack of dedicated staff could be due, in part, to a lack of established expectations for these agencies. Oregon statute requires agencies to designate a liaison to OEM, but there is no additional written guidance or expectations established for these individuals on what it means to be a liaison, such as position descriptions or orientation materials to prepare staff from these agencies on how to fulfill their roles.

Establishing such guidance is critical, as is training staff on how to fulfill these obligations. However, nearly half of responding agencies said they were not conducting a training needs assessment for personnel with emergency management responsibilities.

Additionally, 61% of agencies reported that current key public officials or executive leaders were only partially trained. Only 27% said these individuals are fully trained.

Local emergency management programs lack several EMAP elements

Under state law,²¹ all of Oregon's 36 counties are required to have an established emergency management program with a designated manager. Cities may opt to also create their own programs. For example, Salem and Portland each have their own emergency management program.

The amount of full-time staff dedicated to these programs vary. Some counties had less than one FTE position for the emergency management program. Two counties reported larger programs with six FTE. On average, responding counties reported dedicating 1.6 FTE to emergency management.

Much like OEM, county programs rely heavily on federal funding to support their budgets. Among all the responding counties, an average of 42% of the Fiscal Year 2017 budgets were supported by federal funds or grants.

In order to receive federal funding, emergency management programs must meet certain federal grant requirements, such as having an approved EOP and a FEMA-approved Natural Hazard Mitigation Plan.

Responding counties largely reported they do meet these requirements. In fact, federally required plans are often the only plans that counties have. They often lacked other plans which are considered standard for emergency management programs, such as recovery plans.

All responding city and county programs reported having a complete EOP and 88% reported having a FEMA-approved Natural Hazard Mitigation Plan. Yet only 30% reported having a COG plan, 40% reported a COOP, and 10% reported having a recovery plan. While many programs reported having a complete EOP plan, 27% had not updated their plan within the recommended two-year timeframe.

Figure 6: All Local Programs Reported Having an Emergency Operations Plan (EOP)

Survey Responses	Natural Hazard Mitigation Plan	Emergency Operations Plan	Recovery Plan	Continuity of Operations Plan	Continuity of Government Plan
Yes	88%	100%	10%	40%	30%
Partially	12%	0%	20%	35%	25%
No	0%	0%	68%	25%	45%
I don't know	0%	0%	3%	0%	0%

Source: Self-reported information.

Local governments are a recipient of FEMA's Hazard Mitigation Grant Program, which is administered through OEM. The grant helps fund local projects that mitigate for future disasters, with local programs providing a 25% non-federal match.

²¹ 401.305: Emergency management agency of city, county or tribal government; emergency program manager; coordination of emergency management functions.

Half of city and county survey respondents said their Emergency Operations Center is located in a hazard zone.

Seventy-three percent of local programs indicated they were able to complete mitigation projects related to recurring disasters, such as floods or winter storms. However, only 43% were able to complete projects to reduce the risks associated with a catastrophic disaster. Another 23% reported that they were unable to complete mitigation projects for reoccurring or catastrophic disasters.

While OEM operates the state's ECC, counties and cities are responsible for operating and maintaining their own Emergency Operations Centers, which they activate during emergencies. Seventy-two percent of respondents indicated their jurisdiction had a facility capable of supporting sustained response and recovery operations for a catastrophic event. However, many of these facilities are currently located in known hazard zones. Specifically, half of these respondents said their Emergency Operations Center is located in a hazard zone.

In some cases, these facilities may be required to operate around the clock, requiring multiple shifts of people. However, 28% of respondents said their facility was not capable of supporting sustained operations to respond to a catastrophic event.

The same percentage, 28%, also reported that they do not have an alternate facility identified in the event the primary one is inoperable or inaccessible. For those who have identified an alternate site, 24% said those facilities are also located in hazardous zones.

Most local programs indicated they have training requirements for their Emergency Operations Center staff. However, most reported having only one or part of one shift of staff fully trained. In situations where operations last multiple shifts, this could hinder response efforts.

OEM must be adequately staffed and must enhance its strategic planning to ensure it fulfills its statutory responsibility

Currently, OEM does not have sufficient staff resources to accomplish its wide range of duties and responsibilities, or to effectively lead and coordinate Oregon's emergency management system.

OEM is understaffed in critical areas compared to other states

When compared to states facing similar catastrophic threats and states with a more robust and mature emergency management program, OEM is understaffed.

Per federal law, every state is required to have a State Hazard Mitigation Officer. In some other states, this position oversees a team of people who work on the state's mitigation program. In Washington, this team consists of six people; Alaska maintains a five member team. Florida has 41 people assigned to mitigation efforts.

Conversely, in Oregon, the entire state's mitigation program is administered by one employee.

Other emergency management program areas are also understaffed compared to these states. Washington, Alaska, and Florida all have more people working on planning, training, and exercise efforts than Oregon has. In terms of total staff, Oregon's program is the 12th smallest in the nation.²²

Figure 7: Some Other States Have More Staff Than Oregon in Key Areas

	Planning staff	Mitigation staff	Training staff	Exercise staff	Subtotal	Total staff
Alaska	7	5	2	3	17	62
Florida	11	41	4*	4*	52	157
Washington	9	6	4	3	22	82
Oregon	3	1	1	1	6	42

*Florida has four staff working both on training and exercising.

Source: Self-reported information. Total staff numbers are from the NEMA 2016 Biennial Report.

This staffing issue is especially critical for the hazard mitigation program, where inadequate staffing has put the state at risk of losing out on millions of dollars in funding for local mitigation projects.

FEMA's Hazard Mitigation Grant Program makes funding available to states in the wake of natural disasters to help with local mitigation projects. These projects are intended to mitigate the risk — and reduce the cost — of the next disaster. After Oregon experienced severe winter storms in 2015, this grant provided approximately \$5.4 million in mitigation project funding.

The amount of available grant money is a percentage of the total cost of the declared disaster. For states with a basic Natural Hazard Mitigation Plan, the percentage is set at 15%. For states that have an enhanced plan, that percentage is 20%.

This enhanced status demonstrates to FEMA that the state has developed a comprehensive mitigation program and is capable of managing the increased funding to achieve its mitigation goals.

Although Oregon currently has enhanced status, it is at risk. Oregon previously lost enhanced status in 2012. After working with FEMA, the state was able to regain enhanced status on its Natural Hazard Mitigation Plan, under the condition that OEM would work to develop its mitigation program and prove it could handle the additional funding.

However, Oregon's single mitigation officer is not sufficient to keep up with FEMA's requirements. According to FEMA, without an increase in staffing or a plan and commitment to do so, it would be difficult to justify the state's ability to manage the increased funding that comes with enhanced status.

²² According to the National Emergency Management Association 2016 Biennial Report.

OEM's staffing challenges impair its capacity to coordinate emergency management efforts in the state

OEM staff indicated they are finding it challenging to perform all of their assigned responsibilities. For example, managing the state's ECC is a full-time job on its own, according to OEM. Administering, monitoring, and providing assistance to the state on the EMPG is also a full-time job. At OEM, both of these tasks are handled by a single person.

OEM personnel indicated many emergency management efforts that would help local programs, other agencies, and the state as a whole have not been fully or adequately addressed because they simply do not have the resources.

For instance, due to the time spent on EMPG administration, some standard operating procedures and training have not been developed for the state's ECC. Such procedures and training would help other agencies or participants understand the function of the center and become familiar with how it operates before it activates for an emergency.

Conversely, whenever the ECC is activated, the responsible staff person cannot perform other critical duties, including EMPG. This could put local programs, state agencies, and Oregon as a whole at risk of missing crucial grant deadlines.

These deadlines are especially important because of the number of staff and county and city emergency management programs whose funding relies on federal grant dollars. For example, half of the EMPG administrator's position is funded by the very same grant she administers. According to OEM, without those federal dollars, her position — as well as more than a dozen others in the agency — would not exist.

This scenario applies throughout OEM. Staff have been unable to devote time to work directly with local programs to help them with things like getting training or developing exercises. They also have not had the time to develop guidance for their partner agencies, especially in how they fulfill their ESF obligations.

State agencies are required to designate a liaison to work with OEM, and update their annex to the EOP. These annexes include roles and responsibilities assigned to state agencies and community partners to ensure the ESF activities are performed to support response and recovery.

However, these annexes do not include expectations regarding preparedness efforts, such as training, exercising, and planning. OEM has not provided written guidance as to what agencies are specifically expected to do in order to be adequately prepared to fulfill these ESF obligations.

Budget requests for additional staffing have gone unfulfilled

OEM has previously requested additional funding for more positions to alleviate some of these issues.

In the 2013-15 budget, OEM requested six additional staff to create regional teams to assist city and county emergency managers in planning efforts, as well as responding to requests for assistance during disasters. However, the Governor did not recommend this request be fulfilled and the Legislature did not fund it.

The following biennium, OEM requested two positions critical to helping Oregon retain the enhanced status for its Natural Hazard Mitigation Plan. According to the budget document, the State Hazard Mitigation Officer was overwhelmed as the sole person providing programmatic support statewide for mitigation efforts. Increased staffing, the request stated, would allow OEM to transition the role in a more strategic direction. The Governor did not recommend this request be fulfilled and the Legislature did not fund it.

Another request was for two additional staff to enhance and further develop the ECC, as well as providing technical assistance to local governments and assist and coordinate the protection of critical infrastructure and key resources. This request also went unfulfilled.

For the 2017-19 budget, OEM again requested additional resources for the mitigation and regional staff. Again, these requests went unfulfilled.

Until OEM can find a way to adequately address these staffing challenges, its ability to fulfill its role as the state's leader and coordinator is impaired. Without that critical role filled, it remains unlikely that Oregon will be able to implement the basic elements of an effective program, let alone adequately prepare the state for a catastrophic disaster.

OEM's strategic plan needs strengthening

After our 2014 audit found that OEM did not have a formal strategic plan in place, management took steps to develop one. The plan defines the vision, mission, core values, and goals for the organization. It also identifies the objectives necessary to achieve them.

While developing the plan was a good first step, OEM needs to build upon that work to create a more robust and quantifiable strategic plan. The current plan does not include metrics or any way to measure the agency's progress toward achieving its goals and objectives.

OEM is currently in the process of reviewing and updating its strategic plan to address these issues. According to the OEM director, the updated plan will emphasize existing resource issues and more clearly articulate the agency's priorities.

Having a robust strategic plan will help ensure OEM is able to achieve its mission — to lead statewide efforts to develop and enhance preparedness, response, recovery, and mitigation capabilities to protect the lives, property, and environment of the whole community.

Tracking and progress reporting are needed to ensure resilience efforts are successful

In 2013, the Oregon Seismic Safety Policy Advisory Commission created the Oregon Resilience Plan. It lays out a 50-year plan of recommended action items to achieve the goal of improving our resilience to a catastrophic disaster.

The plan's recommendations are targeted at a range of state agencies and individuals from both the public and private sectors. For example, one of the recommendations charges the Oregon Public Utility Commission with defining criteria for seismic vulnerability assessments to be used by companies in the energy, information, and communication sectors.

Some recommendations have been implemented or are currently being implemented. For instance, according to commission representatives, some local jurisdictions are developing and implementing resilient transportation plans, tsunami overlay zones have been adopted by some coastal communities, and some schools are being upgraded to be used as earthquake shelters.

However, limited accountability for many of these actions means there is a risk that momentum could be lost and they could be abandoned.

The Oregon Resilience Plan needs more accountability to be effective

After the creation of the Oregon Resilience Plan, a legislative taskforce formed in 2013 began prioritizing which of the plan's recommendations to implement. While commission representatives told us some of these recommendations have been implemented, there has been no public, comprehensive reporting on the plan's progress in the nearly five years since the report was first published.

During the course of our audit, the State Resilience Officer began tracking which of the plan's recommendations have been implemented. According to the Governor's Office, the results of this work will be made public in early 2018.

While these tracking efforts are a good start, more work needs to be done to ensure this progress reporting is performed consistently and the results are made public to ensure accountability over the 50-year timeframe.

Specific roles and responsibilities of the State Resilience Officer are unclear

One recommendation that has been implemented was to create a State Resilience Office to provide leadership, resources, advocacy, and expertise in implementing statewide resilience plans.

In 2015, the Legislature passed a bill²³ to create the office of the State Resilience Officer within the Governor's Office. The officer was charged in statute with directing, implementing, and coordinating both seismic safety and resilience goal setting, as well as state agency planning and preparation, all to improve seismic safety and resilience.

However, the statue does not further define the specific roles, responsibilities, goals, objectives or job description for the State Resilience Officer. The State Resilience Officer is likely to be a key position that exists beyond the tenure of one individual. Documenting a position description with clear goals and objectives, including how the officer will coordinate and work with others in the statewide emergency services system, will help ensure the success of future State Resilience Officers.

The Officer told us that he sees the Oregon Resilience Plan as one of his central guiding documents, but it includes 50 years' worth of effort to increase resiliency in the state. Both the plan, and the officer position, need long-term strategies, tracking, public reporting, and clearly defined roles and responsibilities to ensure they are successful.

Without addressing these issues, the effects of a catastrophic event could be even more severe

On March 11, 2011, a magnitude 9.0 earthquake struck Tōhoku, Japan. Both the quake, and the subsequent tsunami, killed more than 18,000 people, triggered the Fukushima power plant meltdown, and cost an estimated \$220 billion.

This was in a country that is recognized as being well-prepared for earthquakes and tsunamis. It was not prepared, however, for the power of a quake of this magnitude. In fact, scientists did not think the region was capable of producing an earthquake with a magnitude exceeding 8.4.

The Tōhoku earthquake is an example of what Oregon faces in the future. Scientists say the odds that a magnitude 9.0 earthquake and subsequent tsunami will strike Oregon within the next fifty years are roughly one in ten.

However, unlike Japan, Oregon is not well-prepared. Although no amount of preparation will prevent all losses from disaster, especially catastrophic ones, countries and states can take action to reduce the loss of life, money, and property.

Officials at all levels of state government have begun laying the necessary foundation, but these efforts have not gone far enough to fully protect Oregon from the worst-case scenario. As detailed above, too many basic elements for a well-functioning program are still missing.

²³ Oregon Legislative Session 2015, House Bill 2270.

Finishing COOP and COG plans will prepare agencies to continue to operate, and the government continue to function, after an emergency. Completing and implementing comprehensive emergency plans will help OEM staff and others feel confident and prepared to respond to any disaster.

Additionally, pursuing EMAP accreditation will begin the process of building an effective emergency management program and identifying where state resources are most needed to keep it functioning.

Recommendations: The State Must Do More to Prepare Oregon for a Catastrophic Disaster

OEM should take the following actions:

1. Continue to advocate for resources through the state budget process to be able to fulfill its role as the state's emergency management coordinator. This advocacy is especially critical to support the State Hazard Mitigation Officer, to prevent the Natural Hazard Mitigation Plan from losing its enhanced status.
2. In conjunction with Cascadia Rising participants, finalize a plan to implement and track corrective actions for the recommendations from the Cascadia Rising After Action Report, including corrective actions relevant to catastrophic planning. Ensure this corrective action plan includes the following:
 - a. deficiencies identified during the exercise;
 - b. the actions that should be taken in response;
 - c. the resources required to address these deficiencies;
 - d. justification for the need to correct them;
 - e. a person responsible for the corrective action; and
 - f. an assigned due date for each action.
3. Clearly define the roles, responsibilities, and expectations for preparedness efforts, in addition to response and recovery, for ESF, SRF, agencies designated in ORS 401.054, and those with a role to play in the emergency services system. Provide written guidance and expectations for agency staff who will serve as a liaison to OEM per ORS 401.054, such as a position description or orientation materials to prepare staff on how to fulfill their roles.
4. Develop internal policies, procedures and a schedule for implementing, maintaining, exercising, and revising the four volumes of the state's Comprehensive Emergency Management Plan. Ensure plans are up-to-date and contain relevant and timely information.
5. Complete revisions to the strategic plan to ensure it includes metrics. Ensure the strategic plan clearly identifies gaps in existing programs and also identifies resources needed. OEM should also clearly communicate this plan to staff and others in the emergency management system.

We recommend the Governor should take the following actions:

1. Work with OEM to pursue statewide EMAP accreditation and develop a timeframe for achieving accreditation.

2. Ensure Oregon's statewide emergency management system has sufficient resources to reduce the state's vulnerability to disasters. For example, ensure sufficient resources to prevent the loss of the Natural Hazard Mitigation Plan's enhanced status.
3. In coordination with all executive agencies and offices, complete Continuity of Government and Continuity of Operations Plans for the executive branch. Additionally, complete statewide continuity plans in conjunction with the Legislative and Judicial branches of government. These plans should include a method and schedule for evaluation, maintenance, revision, and implementation.
4. Enforce the existing policy to require executive branch agencies to complete, train, and exercise COOP plans. Assign responsibility and resources to track and facilitate COOP planning across state government.
5. To provide transparency and assurance to the public, regularly and publicly report on the goals and priorities outlined in the Oregon Resilience Plan and complete efforts to track and report progress toward achieving them.
6. To ensure the success of both current and future State Resilience Officers, and to retain and transfer the knowledge of the position, develop and document a position description with goals, objectives, and performance measures, including a description of how the officer will coordinate and work with OEM and others in the statewide emergency services system.

Appendix A – Glossary of Terms

Acronym or abbreviated name	Meaning or full name
AERO	Oregon Department of Aviation
ARES/RACES	Armature Radio Emergency Service/Radio Armature Civil Emergency Service
BOLI	Bureau of Labor and Industries
CEMP	Comprehensive Emergency Management Plan
CCWD	Office of Community Colleges and Workforce Development
COG	Continuity of Government Plan
COOP	Continuity of Operations Plan
DAS	Department of Administrative Services
DCBS	Department of Consumer and Business Services
DEQ	Department of Environmental Quality
DHS	Department of Human Services
DLCD	Department of Land Conservation and Development
DOC	Department of Corrections
DOGAMI	Department of Geology and Mineral Industries
DOJ	Department of Justice
DOR	Department of Revenue
DPSST	Department of Public Safety Standards and Training
DSL	Department of State Lands
DVA	Department of Veterans' Affairs
ECC	Emergency Coordination Center
Edu.	Department of Education
EM	Emergency Management
EMAC	Emergency Management Assistance Compact
EMAP	Emergency Management Accreditation Program
Emp.	Employment Department
EMPG	Emergency Management Program Grant
Energy	Department of Energy
EO	Executive Order
EOC	Emergency Operations Center
EOP	Emergency Operations Plan
ERC	Economic Recovery Council
ESF	Emergency Support Function
FEMA	Federal Emergency Management Agency
FTE	Full Time Equivalent
GDC	Governor's Disaster Cabinet
IHM	Interagency Hazard Mitigation Team
LCIS	Legislative Commission on Indian Services
Marine	Oregon Marine Board
Med. Board	Oregon Medical Board
MEB	Oregon Medical Examiners Board
NHMP	Natural Hazard Mitigation Plan

NGO	Non-Governmental Organization
OBDD	Oregon Business Development Department
ODA	Department of Agriculture
ODF	Oregon Department of Forestry
ODFW	Oregon Department of Fish and Wildlife
ODOT	Department of Transportation
OEM	Office of Emergency Management - OMD
OERS	Oregon Emergency Response System
OHA	Oregon Health Authority
OHCS	Oregon Housing and Community Services Department
OHSC	Oregon Homeland Security Council
OJD	Judicial Department
OMD	Oregon Military Department
OPRD	Oregon Parks and Recreation Department
ORS	Oregon Revised Statute
OSFM	Office of the State Fire Marshal - OSP
OSMB	Oregon State Marine Board
OSP	Department of State Police
OSSPAC	Oregon Seismic Safety Policy Advisory Commission
OST	Oregon State Treasury
OSU Ext.	Oregon State University Extension Services
ORVOAD	Oregon Voluntary Organizations Active in Disaster
ORWARN	Oregon Water/Wastewater Agency Response Network
OWEB	Oregon Watershed Enhancement Board
OYA	Oregon Youth Authority
PANEMA	Pacific Northwest Emergency Management Arrangement
Pharm. Board	State Board of Pharmacy
PUC	Public Utility Commission of Oregon
SOS	Office of the Secretary of State
SRF	State Recovery Function
SRGC	Seismic Rehabilitation Grant Committee
Real Estate	Real Estate Agency
RS	Regional Solutions
Trav. Exp.	Travel Information Council (Oregon Travel Experience)
Trav. OR	Oregon Tourism Commission (Travel Oregon)
UO	University of Oregon
Vet. Board	Veterinary Medical Examining Board
WRD	Water Resources Department

Appendix B - Oregon's Emergency Management System

Oregon law defines the emergency services system as all agencies and organizations involved in the coordinated delivery of emergency services.

Emergency services include activities by state and local government agencies to prevent, prepare for, respond to, and recover from an emergency.

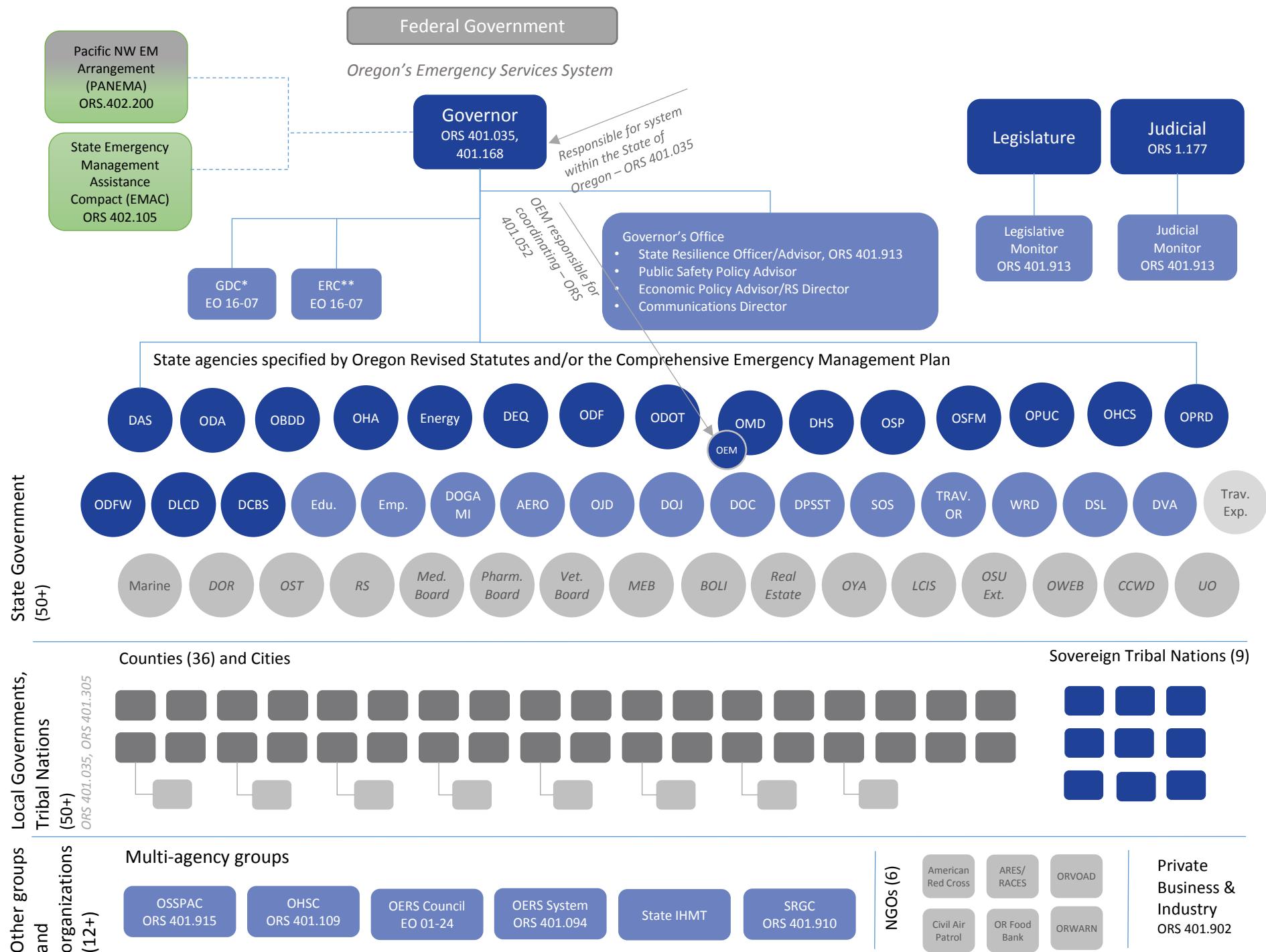
The following chart illustrates Oregon's emergency management system. It includes all agencies and groups we identified from state statutes, plans, and other materials that have a role in mitigation, preparedness, response, and recovery. There may be additional agencies we did not identify.

The chart also includes references to relevant emergency management statutes and executive orders. This is not a complete list of references.

The chart uses many acronyms and abbreviations, which can be found in Appendix A.

State agencies in the chart are color coded based on their roles in the emergency response and recovery functions, known as the Emergency Support Functions (ESFs), and State Recovery Functions (SRFs), respectively.

State Agency Color Codes	Definition
	Agencies with one or more primary roles in the emergency response or recovery functions. These agencies may also have support roles as well.
	Agencies with support roles in the emergency response or recovery functions.
	Agencies with support roles in the emergency recovery functions only. <i>Italicized agencies are not included in ORS 401.054.</i>
	Agency has no primary or secondary role in the response or recovery functions.



Appendix C – Oregon’s Comprehensive Emergency Management Plan Functions

State agencies assist in preparing and responding to disasters. The table below illustrates some of the many ways state agencies are involved in the state’s emergency response system. These roles are specific to three volumes of the state’s comprehensive emergency management plan: the Natural Hazard Mitigation Plan, the Emergency Operations Plan, and the State Recovery Plan.

		Emergency Operations Plan: Emergency Support Functions Effective March 2016																		State Recovery Plan: State Recovery Functions Effective December 2014	Total Agency Roles																														
		Natural Hazard Mitigation Plan: Interagency Hazard Mitigation Team						Emergency Operations Plan: Emergency Support Functions Effective March 2016																																											
Key:		✓ - Member			P - Primary			S - Support			A - Adjunct			C - Coordinator			Emergency Operations Plan: Emergency Support Functions Effective March 2016						State Recovery Plan: State Recovery Functions Effective December 2014	Total Agency Roles																											
		ESF 1	Transportation	ESF 2	Communications	ESF 3	Public Works	ESF 4	Firefighting	ESF 5	Information and Planning**	ESF 6	Mass Care	ESF 7	Resource Support	ESF 8	Health and Medical	ESF 9	Search and Rescue	ESF 10	Hazardous Materials	ESF 11	Food and Water	ESF 12	Energy	ESF 13	Military Support	ESF 14	Public Information***	ESF 15	Volunteers and Donations	ESF 16	Law Enforcement	ESF 17	Agriculture and Animal Protection	ESF 18	Business and Industry	SRF 1	Community Planning and Capacity Building	SRF 2	Economic Recovery	SRF 3	Health Services	SRF 4	Social Services	SRF 5	Disaster Housing	SRF 6	Infrastructure Systems	SRF 7	Natural and Cultural Resources
Administrative Services (DAS)*	✓	S	P	S		S	P	S		S	S		S	S	S	S	S	S	P		S	S	S	S	C/P	S	19																								
Agriculture (ODA)*	✓				S		S		S		S		S		S		P			S	P		S	P	10																										
Aviation (AERO)*		S				S																			S		3																								
Business Development Dept. (OBDD)*			A	S															P		C/P			S		5																									
Consumer and Business Services (DCBS)*	✓			S			S		S			S		S		S		S	P		S	P		S	S	10																									
Corrections (DOC)*		S							S		S		S		S		S		S					S	S	5																									
Education (ODE)*					S				S		S		S		S		S		S		S		S	S	S	5																									
Emergency Management (OEM)	✓		S		P		P			S	P	P		S	S	S	S	P			S		S	S	12																										
Employment Department (OED)*																S		S		S		S		S	S	3																									

Energy (ODOE)*		S		S	P	S		S S	C/P	S	8
Environmental Quality (DEQ)*	✓		S		P	S		S S S	S	C/P	11
Fish and Wildlife (ODFW)*	✓			S	S S					P	6
Forestry (ODF)*	✓	S S	P	S	S S		S	S S		P	12
Geology and Mineral Industry (DOGAMI)*	✓		S					S		S S	5
Health Authority (OHA)*	✓			S	P	S S S		S S S	S	C/P	14
Housing and Community Services (OHCS)*				S		S		S	S C/P		5
Human Services (DHS)*				P	S	S P S	S		S C/P	S	9
Judicial Department (OJD)*								S	S		2
Justice (DOJ)*								S	S		2
Land Conservation & Development (LCDL)*	✓							S C/P	S		5
Military Department (OMD)*		S S S S		S S S S		S S P S		S			13
Public Safety Standards & Training (DPSST)*								S			1
Public Utility Commission (PUC)*	✓		P			P	S		S	C/P	6
Secretary of State (SOS)*								S	S		3
State Lands (DSL)*	✓	S	S			S		S S		S S	9
State Police (OSP)*		S S			S		S P S			S	7
State Fire Marshal (OSFM)*	✓	S	P		S P		S		S	S	8
Transportation (ODOT)*	✓	P S P		S	S S	S	S S	S		C/P	12
Tourism Commission (Trav.OR)*								S	S		2
Veterans' Affairs (ODVA)*				S					S S		3
Water Resources Department (WRD)*	✓		S			S			S P		5
Parks and Recreation Department (OPRD)*	✓									P	2
Marine Board (OSMB)*								S		S S	3
Travel Information Council (Trav.Exp.)*											0
Community Colleges and Workforce Development (CCWD)								S			1

Revenue (DOR)															S				1					
Treasurer (OST)															S				1					
Regional Solutions (RS)															S				1					
Medical Board (Med. Board)															S				1					
Pharmacy Board (Pharm. Board)															S				1					
Veterinary Medical Examining Board (Vet. Board)															S				1					
Medical Examiners Board (MEB)															S				1					
Bureau of Labor and Industries (BOLI)																S			1					
Real Estate Agency (Real Estate)																S			1					
Oregon Youth Authority (OYA)																S			1					
Legislative Commission on Indian Services (LCIS)																	S		1					
Oregon State University Extension Services (OSU Ext.)																	S		1					
Watershed Enhancement Board (OWEB)																	S		1					
University of Oregon (UO)		✓																	1					
Non-Governmental Organizations																								
American Red Cross							A	A	A	A	A							5						
Amateur Radio Services							A												1					
Civil Air Patrol							A	A	A	A								4						
Oregon Food Bank							A			A								2						
ORVOAD							A											2						
ORWARN							A											1						
Total Organizations	17	10	11	10	3	1	11	5	8	7	11	14	7	2	13	7	7	13	18	10	7	12	18	18

* ORS 401.054 requires agency to designate a liaison to OEM.

** Numerous agencies contribute to ESF 5-Information & Planning, but OEM sets the structure of the ESF.

*** Similar to ESF 5, numerous agencies contribute to ESF 14 on an adjunct basis, but are not listed here.

Appendix D – Entities Surveyed

Branches of government

- Governor's Office
- Judicial Department
- Oregon State Legislature

State agencies

- Department of Agriculture
- Oregon Department of Aviation
- Department of Administrative Services
- Department of Consumer and Business Services
- Department of Environmental Quality
- Department of Human Services
- Department of Land Conservation and Development
- Department of Corrections
- Department of Geology and Mineral Industries
- Department of Public Safety Standards and Training
- Department of State Lands
- Department of Veterans' Affairs
- Department of Education
- Employment Department
- Department of Energy
- Department of Justice
- Oregon Business Development Department
- Oregon Department of Forestry
- Oregon Department of Fish and Wildlife
- Department of Transportation
- Oregon Health Authority
- Housing and Community Services Department
- Oregon Military Department
- Oregon Parks and Recreation Department
- Travel Information Council
- Office of the State Fire Marshal
- Oregon State Marine Board
- Department of State Police
- Public Utility Commission of Oregon
- Oregon Tourism Commission
- Water Resources Department

Oregon counties and cities

- Baker County
- Benton County
- Clackamas County
- Clatsop County
- Columbia County
- Coos County
- Crook County
- Curry County
- Deschutes County
- Douglas County
- Gilliam County
- Grant County
- Harney County
- Hood River County
- Jackson County
- Jefferson County
- Josephine County
- Klamath County
- Lake County
- Lane County
- Lincoln County
- Linn County
- Malheur County
- Marion County
- Morrow County
- Multnomah County
- Polk County
- Sherman County
- Tillamook County
- Umatilla County
- Union County
- Wallowa County
- Wasco County
- Washington County
- Wheeler County
- Yamhill County
- City of Beaverton
- City of Corvallis
- City of Eugene

- City of Gresham
- City of Medford
- City of Portland
- City of Salem
- City of Springfield



OREGON MILITARY DEPARTMENT
JOINT FORCE HEADQUARTERS, OREGON NATIONAL GUARD
OFFICE OF THE ADJUTANT GENERAL
P.O. BOX 14350
SALEM, OREGON 97309-5047

18 January 2018

Kip Memmott, Director
Secretary of State, Audits Division
255 Capitol St. NE, Suite 500
Salem, OR 97310

Dear Mr. Memmott:

This letter serves as the Oregon Military Department's written response to the Audit Division's final draft of the audit report *The State Must Do More to Prepare Oregon for a Catastrophic Disaster*, as provided to the department on January 12, 2018.

The department and specifically the Office of Emergency Management (OEM) appreciates the opportunity to respond to the report and the recommendations. I would also like to express my gratitude to the staff at OEM and partners throughout the emergency management system for their time and candor in assisting the audit team throughout this process. As outlined in this report, emergency management is a complex and critically important function across each jurisdiction and through all levels of government. The audit team should be commended for their work assessing that system and making these recommendations.

Emergency management encompasses the responsibility to ensure communities are prepared to respond to and recover from any emergency or disaster, regardless of cause, and to mitigate natural and human-caused hazards. This responsibility does not fall solely on the shoulders of any one discipline, agency, or level of government. Rather, engagement is needed from local, tribal, and federal partners, private industry and non-profit organizations, and the individuals who make up the communities we serve if we are to be successful in this mission. This report articulates the vast scope of emergency management, but does so through the lens of a capability that has not been resourced to meet the expectations we all have for our emergency management system.

At the state level, OEM has done remarkable work on behalf of Oregonians. Since 2012, the staff at OEM has managed more than \$70 million dollars of federal preparedness, disaster recovery, and mitigation grants with most of those funds benefiting local or tribal governments and other state agencies. The last three years have seen OEM manage three presidential disaster declarations, coordinate state planning actions to the 2017 eclipse, support Oregon National Guard wildland fire deployments to save lives and property during catastrophic wildfires and broker agreements with neighboring states to bring critical resources into Oregon and to send some of our state firefighting resources to California to do the same there during that state's unprecedented wildfire season. There are, however, opportunities to improve upon the role OEM plays in protecting Oregonians, and we will

work diligently to continue improving as an agency long after the recommendations in this report have been implemented.

It is my hope that this report will spark further dialogue about the importance of appropriately resourcing emergency management across Oregon, while also acknowledging the incredible work the emergency management community has done at all levels throughout Oregon with the minimal staff, funding, and equipment available to meet these challenges.

Below is our detailed response to each recommendation in the audit.

RECOMMENDATION 1

Continue to advocate for resources through the state budget process to be able to fulfill its role as the state's emergency management coordinator. This advocacy is especially critical to support the State Hazard Mitigation Officer, to prevent the Natural Hazard Mitigation Plan from losing its enhanced status.

Agree or Disagree with Recommendation	Target date to complete implementation activities (Generally expected within 6 months)	Name and phone number of specific point of contact for implementation
Agree	August 1, 2018 - Due date for next Agency Budget submission	Oregon Military Department Deputy Director Dave Stuckey 503-584-3985

Narrative for Recommendation 1

The Oregon Military Department agrees with Recommendation 1. The OMD/OEM will continue to request resources through the state budget process to help fulfill its role as the state's emergency management coordinator. Dating back to the 2009-11 biennium, the OMD/OEM has requested the following positions specific to emergency management operations, and the management and development of both State and Local Natural Hazard Mitigation Plans (*this is not inclusive of positions requested for the State 9-1-1 program, the Public Private Partnership Program, or Information Technology staff*):

- 2009-11 – 30 Positions
- 2011-13 – 7 Positions
- 2013-15 – 6 Positions
- 2015-17 – 4 Positions
- 2017-19 – 12 Positions
 - *Two positions were added through a new grant program created by the Legislature.*

The OMD/OEM is planning to submit a number of policy packages for consideration by the Executive and Legislative Branches for the 2019-21 biennial budget. These packages will include a continuation of what has previously been requested such as:

- Regional Emergency Management Coordination Staff
- Dedicated staff to support and sustain local and state mitigation plans and programs and to ensure continued Enhanced Status for the state plan
- Dedicated staff to provide Incident Management Assistance team development, planning activities, and sustainment
- Resources and staff to obtain and maintain EMAP accreditation for the state

There will also be new packages submitted related to modifying how certain existing positions are funded due to requirements outlined in the Code of Federal Regulation.

The OMD/OEM understands its role as the coordinating entity for emergency management response to, and recovery from, disasters. The expectations, both external and internal, placed on the OMD/OEM do require an increase in resources in order to be met. Without increased resources, both personnel and financial, maintaining the current operational capacity of the OMD/OEM will be challenging. Existing staff are struggling to meet the day to day requirements of the multiple duties assigned to them, especially during an activation of the state's Emergency Coordination Center (ECC). Increased demands on the same staff to meet the needs outlined in this audit are unreasonable.

The OMD/OEM understands the competing priorities the Executive and Legislative branches are tasked with balancing, and there is not an expectation that all the needs outlined in this audit will be met in one budget cycle. The OMD/OEM is prepared for this to be an iterative process where needs are addressed one by one as resources and capacity become available. There must be an understanding though that the ability of the OMD/OEM to successfully accomplish the other recommendations outlined in this audit, as well the expectations of parties external to the organization, are directly impacted by the speed at which resources are applied.

The target date identified above is consistent with the submittal of the 2019-21 Agency Request Budget where all needs will be outlined for the next two years of operations within the Oregon Military Department.

RECOMMENDATION 2

In conjunction with Cascadia Rising participants, finalize a plan to implement and track corrective actions for the recommendations from the Cascadia Rising After Action Report, including corrective actions relevant to catastrophic planning. Ensure this corrective action plan includes the following:

- a. deficiencies identified during the exercise;
- b. the actions that should be taken in response;
- c. the resources required to address these deficiencies;
- d. justification for the need to correct them;
- e. a person responsible for the corrective action; and
- f. an assigned due date for each action.

Agree or Disagree with Recommendation	Target date to complete implementation activities (Generally expected within 6 months)	Name and phone number of specific point of contact for implementation

Agree	Complete	Operations and Preparedness Section Manager Sonya Andron 503-378-2911
-------	----------	---

Narrative for Recommendation 2

The OMD/OEM agrees with recommendation 2. OEM, in partnership with each partner agency and organization that participated in the 2016 Cascadia Rising exercise, developed an after-action report that identified areas of strength in the exercise as well as areas where improvement is warranted. This report was released in February, 2017. While this report was being finalized, many of the state's emergency management resources began to focus on preparations for the 2017 eclipse, an unprecedented event that would see the state's population swell and lead to emergency response challenges across the entire state.

Following the response to the eclipse and an historic wildfire season that extended into the fall, OEM planning staff completed the final component of the after-action report: the improvement plan appendices. This plan was shared with partners in December to further validate the recommendations previously included in the report, and ensure the appropriateness of the assigned ESF and timeline for completing each recommendation.

Now that the improvement plan appendices have been finalized, OEM will continue to track progress on each outstanding Cascadia Rising after-action report and improvement plan recommendation through regular updates by cognizant ESF lead agencies at quarterly OERS Council meetings.

Although not specifically articulated as a recommendation in the audit report, OEM will also include an after-action report and improvement plan template, as well as recommended processes and timelines to follow in the development of these reports and plans, as part of the current revision of the state's Preparedness Plan, the second volume of the state's Comprehensive Emergency Management Plan. OERS Council quarterly meetings will also have a standing agenda item for ESF after-action report recommendation and improvement plan corrective action updates.

RECOMMENDATION 3

Clearly define the roles, responsibilities, and expectations for preparedness efforts, in addition to response and recovery, for ESF, SRF, agencies designated in ORS 401.054, and those with a role to play in the emergency services system. Provide written guidance and expectations for agency staff who will serve as a liaison to OEM per ORS 401.054, such as a position description or orientation materials to prepare staff on how to fulfill their roles.

Agree or Disagree with Recommendation	Target date to complete implementation activities (Generally expected within 6 months)	Name and phone number of specific point of contact for implementation
Agree	September 30, 2018	OEM Deputy Director Matt Marheine 503-378-2911

Narrative for Recommendation 3

The OMD/OEM agrees with recommendation 3. OEM will conduct an assessment of the office's statutory requirements to define roles and responsibilities, and develop guidance documents for any areas for which OEM has a specific requirement but has not clearly provided guidance. OEM will also work with partners to identify areas in which a role or responsibility may be unclear and collaboratively work to ensure clarity is achieved and appropriately documented.

OEM has offered to provide briefings to each of the 11 agencies, offices, and organizations added to the Oregon Emergency Response System Council following the passage of Senate Bill 61 in the 2017 legislative session. OEM will ensure each of the 33 OERS Council agencies, offices, and organizations, as well as non-OERS organizations that may have a support or adjunct role in an ESF, clearly understand the expectations of ESF lead, support, or adjunct agencies and OERS Council participation.

OEM will also include training for ESF representatives and other ECC staff on ECC operations, the Real-time Assessment and Planning Tool for Oregon (RAPTOR), and OpsCenter annually as documented on the OEM Multi-Year Planning, Exercise, Training and Events calendar. OEM will continue to provide guidance to local emergency managers through direct technical assistance as resources allow, working with federal partners to provide emergency management training, guidance for ECC operations, and guidance for elected and appointed officials through the publication and dissemination of OEM's emergency declaration guide for local elected and appointed officials.

RECOMMENDATION 4

Develop internal policies, procedures and a schedule for implementing, maintaining, exercising, and revising the four volumes of the state's Comprehensive Emergency Management Plan. Ensure plans are up-to-date and contain relevant and timely information.

Agree or Disagree with Recommendation	Target date to complete implementation activities (Generally expected within 6 months)	Name and phone number of specific point of contact for implementation
Agree	June 30, 2018	Operations and Preparedness Section Manager Sonya Andron 503-378-2911

Narrative for Recommendation 4

The OMD/OEM agrees with recommendation 4. OEM has already drafted a Multi-Year Planning, Exercise, Training, and Events (MY-PETE) calendar that assigns dates to planning initiatives for each component of the Comprehensive Emergency Management Plan, the Cascadia Playbook, the office's Continuity of Operations Plan, Strategic Plan, State Preparedness Report, and Capability Assessment. The calendar also schedules OEM-led hazard- and plan-specific exercises and trainings that encompass professional development and emergency management proficiency. These exercises and training opportunities support planning initiatives and planned events for which the state ECC may be

activated. OEM will also evaluate the maintenance component for each plan to ensure review and update timelines are clearly defined and are scheduled on the MY-PETE.

Each plan for which OEM bears responsibility will have a corresponding policy and standard operating procedure describing the review timeline, integration of lessons-learned and updated state or federal doctrine, policies, directives, or orders, the inclusion of partner feedback, the provision of training associated with the plan, and considerations for the conduct of exercises to assess and evaluate the plan.

RECOMMENDATION 5

Complete revisions to the strategic plan to ensure it includes metrics. Ensure the strategic plan clearly identifies gaps in existing programs and also identifies resources needed. OEM should also clearly communicate this plan to staff and others in the emergency management system.

Agree or Disagree with Recommendation	Target date to complete implementation activities (Generally expected within 6 months)	Name and phone number of specific point of contact for implementation
Agree	June 30, 2018	OEM Director Andrew Phelps 503-378-2911

Narrative for Recommendation 5

The OMD/OEM agrees with recommendation 5. As with all plans maintained by OEM, the strategic plan is reviewed and updated regularly. The current plan, which has been in place since 2014, is being updated to include additional metrics to evaluate progress towards achieving the goals identified in the plan. Upon completion of the current revisions, OEM will disseminate the plan to emergency management partners, post the plan to the OEM website, conduct a staff training seminar to ensure the plan's mission, vision, values, and goals are clearly understood and each OEM team member sees their work reflected in the plan. The plan will be reviewed annually to assess progress towards the identified goals.

We look forward to implementing the recommendations from the report and continuing to lead Oregon's efforts to better prepare our communities.

Sincerely,



MICHAEL E. STENCEL
Major General
The Adjutant General

KATE BROWN
GOVERNOR



January 19, 2018

Kip Memmott, Director
Secretary of State, Audits Division
255 Capitol St. NE, Suite 500
Salem, OR 97310

Dear Mr. Memmott,

This letter provides a written response to the Audits Division's final draft audit report titled, *The State Must Do More to Prepare Oregon for a Catastrophic Disaster*.

Oregon's long-term resilience is critically important, and my office is grateful for the opportunity to participate in this important audit. I directed my staff to cooperate fully and provide the audit team with all relevant information on the state's ongoing work to ensure Oregon is prepared to respond to and recover from emergencies, catastrophic events, and disasters. Members of my team met with your team at least eight times during the course of your work, participated in the survey at your request, and provided multiple documents, including our internal emergency response protocols and the assessment of the State Resilience Officer position performed by my Deputy Chief of Staff.

Oregon is home to diverse communities and geographies that each present incredible opportunities and challenges as we work to build a more resilient state. For our communities and economy to thrive, Oregon must be resilient and ready to recover from not only the expected 9.0 Cascadia earthquake and the ensuing tsunami, but also a myriad of possible disasters and emergencies.

The different landscapes and habitats across the state and worsening impacts of climate change pose distinct challenges for which Oregonians must be prepared. Severe droughts, wildfires, ice and snow storms, and floods are all threats to our Oregon way of life and economy. Furthermore, we must stand ready to confront new threats, such as mass shootings or cyber-attacks on critical infrastructure.

In the time since I took office in 2015, state agencies worked closely with local counterparts to respond to multiple historic wildfire seasons, a winter storm that pushed our Eastern Oregon farmers to their limits, a mass shooting at Umpqua Community College, and the oil train derailment in Mosier. In each of these instances, state and local resources, as well as my own administration, have tested systems and learned from our responses to these emergencies. These lessons are valuable and inform our statewide response protocols, while still recognizing each new situation calls for adaptability so we can respond nimbly and effectively to save lives and protect Oregonians.

KATE BROWN
GOVERNOR



Additionally, in 2016, 16 state agencies participated in Cascadia Rising, a four-day, multi-state functional exercise to better prepare emergency responders and public and private partners for a Cascadia Subduction Zone earthquake and ensuing tsunami. The exercise provided important insights into steps that can be taken to improve our preparedness for such a massive disaster, and served as a reminder of the critical importance of personal preparedness.

The 2017 Total Solar Eclipse presented Oregon emergency responders and state agencies, as well as local, tribal, and federal partners, with the extraordinary opportunity to test and improve the resilience and effectiveness of our preparedness and response systems. Planning for the eclipse was perhaps the largest-scale, real-world coordinating effort ever taken on by the state. I am happy to report that our ability to prepare for such a large-scale event in Oregon resulted in a safe and positive event for the estimated one million viewers who witnessed the historic event in our state. The Total Solar Eclipse of 2017 was a powerful reminder that preparation for any known hazard greatly improves our chances of a successfully coordinated response.

As Oregonians, we all have a stake in building a more resilient Oregon and responsibility to do all we can to prepare for disasters. In recent years, Oregon has made great strides in bolstering statewide resilience, and I look forward to working with the Legislature to ensure state agencies are better equipped to respond to a variety of emergencies. The recommendations included in the Audit Division's report will help accomplish this goal and should be closely reviewed and carefully considered.

Included is a detailed response to each recommendation in the audit.

Please contact my Public Safety Policy Advisor Heidi Moawad at 503-378-8472 with any questions. Again, thank you for the opportunity to participate in and respond to this important audit.

Sincerely,

A handwritten signature in black ink, appearing to read "Kate Brown".

Governor Kate Brown

KATE BROWN
GOVERNOR



RECOMMENDATION 1

Work with OEM to pursue statewide EMAP accreditation and develop a timeframe for achieving accreditation.

Agree or Disagree with Recommendation	Target date to complete implementation activities (Generally expected within 6 months)	Name and phone number of specific point of contact for implementation
Agree	March 31, 2018	Heidi Moawad 503-378-8472

Narrative for Recommendation 1

The Office of the Governor agrees that—as part of an overall strategy of building and maintaining strong emergency programs and practices—EMAP accreditation is an appropriate goal. However, meeting the high standards is more important for Oregon than the actual accreditation. To that end, OEM will continue efforts to build programs that meet or exceed EMAP standards and determine the resources needed to sustain these programs before committing financial resources to the final accreditation process.

In 2017, OEM developed a draft EMAP standards compliance project plan. The Governor will direct OEM to validate the plan with state partners, as well as share the plan with local and tribal jurisdictions in Oregon who may wish to further develop, enhance, or sustain programs in compliance with EMAP standards.

Regarding compliance, OEM assumes a three to five-year timeline to achieve and sustain compliance with each of the 64 EMAP standards. This timeline is predicated on securing the necessary resources to maintain compliance.

The EMAP standards and assessment program, which applies to all agencies that comprise the state emergency management system, are not new concepts for OEM. The agency currently has four staff members formally trained as EMAP Assessors, one of whom has reached the designation of Lead Assessor and has served as the Chair of the EMAP Standards Subcommittee. These assessors have participated in over a dozen assessments on local, state, and federal programs seeking accreditation. This level of familiarity with the standards, and continued opportunities to assess standards compliance in other jurisdictions, will prove valuable as OEM and the state work to bring any remaining compliance areas to the current standard or beyond.



RECOMMENDATION 2

Ensure Oregon's statewide emergency management system has sufficient resources to reduce the state's vulnerability to disasters. For example, ensure sufficient resources to prevent the loss of the Natural Hazard Mitigation Plan's enhanced status.

Agree or Disagree with Recommendation	Target date to complete implementation activities (Generally expected within 6 months)	Name and phone number of specific point of contact for implementation
Agree	December 1, 2018	Heidi Moawad 503-378-8472

Narrative for Recommendation 2

The Office of the Governor agrees that a well-resourced emergency management system in Oregon is critical. Oregon's statewide emergency management system is multifaceted and multilayered. The Governor believes strongly in ensuring all levels of government in this state have the skills and tools needed to respond to any disaster regardless of their scale, and continued investment in the mitigation of future disasters is a key part of the Governor's public safety policy agenda.

That is why Governor Brown recommended in past budgets \$200 million in Seismic Rehabilitation Grants and continued funding the State Resilience Officer position within her office. It is why the Governor's Recommended Budget (FY 2017-2019) included a \$250,000 investment to support grants for five, local community hazard mitigation plans, with a focus on seismic risk and tsunami inundation zones. It is also why Governor Brown recommended investments to enhance the resilience of Oregon's water infrastructure across the state through \$32 million in bonding for water grants. Finally, it is why Governor Brown fought hard to secure funding to address critical, seismic infrastructure improvements in HB 2017, the most comprehensive transportation funding package in Oregon's history.

Moving forward, Governor Brown is prepared to assess the organizational structure across the Executive Branch to determine whether current resources committed to preparing for, responding to, recovering from, and mitigating against emergencies or disasters are appropriately aligned to maximize unity of effort. The target date identified above is consistent with the publication of the 2019-2021 Governor's Recommended Budget for all state operations.

Oregon's ability to fulfill the well-intentioned goal of this recommendation does not solely rest with the Executive Branch. Recognizing a number of competing needs and budget priorities, the Governor's Office will work with the Legislature to ensure state agencies are better equipped to respond to the variety of emergencies. All budget requests submitted by agencies responsible for emergency response, including the Oregon Military Department's Office of Emergency Management, or by agencies that play supporting roles in response and recovery efforts must be carefully reviewed and receive a thorough



analysis by the Chief Financial Office, legislators, and stakeholders. In the past, the legislature has shown a willingness to fund preparedness by creating the State Resilience Officer position and financing the Seismic Rehabilitation Grant Program, which has put tens of millions of dollars to use in local communities to rehabilitate schools and emergency service facilities across the state.

RECOMMENDATION 3

In coordination with all executive agencies and offices, complete Continuity of Government and Continuity of Operations Plans for the executive branch. Additionally, complete statewide continuity plans in conjunction with the Legislative and Judicial branches of government. These plans should include a method and schedule for evaluation, maintenance, revision, and implementation.

Agree or Disagree with Recommendation	Target date to complete implementation activities (Generally expected within 6 months)	Name and phone number of specific point of contact for implementation
Agree	December 2018	Mike Harryman 503-975-1911

Narrative for Recommendation 3

Oregon's ability to quickly restore key, state services and resume normal government operations is critically important following a catastrophic event. That is why Governor Brown directed the State Resilience Officer to review and track progress of Executive Branch agencies through their development of their Continuity of Operations Planning documents.

In mid-2017, a review of existing Department of Administrative Services policies and current agency compliance was conducted. The findings were consistent with the Auditor's, in that it was last a priority two administrations ago. In response to this finding, Governor Brown's office has worked to update the state policy and provide written guidance to agencies to clarify the Governor's commitment to agency preparedness. The policy and guidance document is in its final review stages with agency directors, and will go into effect no later than February 1, 2018.

In fact, Oregon already has a contract in place with a vendor that offers an integrated program that can guide agencies through each step of the continuity planning process. Maximizing the utilization of this program will ensure a systematic approach for each agency as they contemplate their own response and recovery protocols. Comprehensive use of the vendor software also allows the ability to track and evaluate the plans, and to work on a revision, maintenance, and implementation schedule.



The Governor's Office will continue to collaborate with other executive elected officers, and the Legislative and Judicial branches, to equip Oregon. Already, the Legislative leadership has met with the Governor's Office and agreed that each branch, while responsible for their own work, should come back together to review Continuity of Government plans.

RECOMMENDATION 4

Enforce the existing policy to require executive branch agencies to complete, train, and exercise COOP plans. Assign responsibility and resources to track and facilitate COOP planning across state government.

Agree or Disagree with Recommendation	Target date to complete implementation activities (Generally expected within 6 months)	Name and phone number of specific point of contact for implementation
Agree	December 2018	Mike Harryman 503-975-1911

Narrative for Recommendation 4

The history of compliance with and evaluation of the existing Department of Administrative Services policies made it clear to Governor Brown that a long-term implementation plan was necessary. Enforcing existing policy is imperative for a prepared Executive Branch and a prepared Oregon, which is why the guidance document discussed in our narrative for Recommendation 3 includes a staged timeline for completion, as well as a new maintenance schedule.

In addition to enforcing the existing policy, a number of important changes to Oregon's emergency preparedness policies have also already been identified and improvements are underway. Specifically, new policy requires each agency director must designate an individual as the agency's plan sponsor, as well as a staff person to serve as the plan coordinator. The designees will become members of an interagency Continuity of Operations Plan coordination group to be led by the State Resilience Officer and supported by the Department of Administrative Services. In 2018, the coordination group will meet monthly to ensure the updated policy and guidance is being executed on schedule.

The Continuity of Operations Plan will also inform a tabletop exercise in late 2018 with the Governor's Disaster Cabinet. After this initial exercise, the Governor's Office will coordinate with the Office of Emergency Management for a long-term exercise program that will tie into the agency's ongoing statewide training cycle.

KATE BROWN
GOVERNOR



RECOMMENDATION 5

To provide transparency and assurance to the public, regularly and publicly report on the goals and priorities outlined in the Oregon Resilience Plan and complete efforts to track and report progress toward achieving them.

Agree or Disagree with Recommendation	Target date to complete implementation activities (Generally expected within 6 months)	Name and phone number of specific point of contact for implementation
Agree	January 2018	Mike Harryman 503-975-1911

Narrative for Recommendation 5

The Oregon Resilience Plan has both long-term and short-term goals. To more effectively communicate the progress of the implementation of these goals, Governor Brown directed the State Resilience Officer to work with the Department of Administrative Services to create a public website related to the Oregon Resilience Plan.

At resilience.oregon.gov, Oregonians can easily find links to the plan itself, and will be able to track recommendations in the “Status Report” by chapter. Unresolved recommendations from the Oregon Resilience Plan (and those further clarified in 2013 by the Senate Bill 33 Task Force) can be found in the “Looking Ahead” section of the site by chapter.

As other developments contribute to Oregon’s progress, like the Senate Bill 850 (2017) Community Resilience bill, the website will be updated to reflect additional benchmarks.

RECOMMENDATION 6

To ensure the success of both current and future State Resilience Officers, and to retain and transfer the knowledge of the position, develop and document a position description with goals, objectives, and performance measures, including a description of how the officer will coordinate and work with OEM and others in the statewide emergency services system.

Agree or Disagree with Recommendation	Target date to complete implementation activities (Generally expected within 6 months)	Name and phone number of specific point of contact for implementation

**KATE BROWN
GOVERNOR**



Disagree (because we believe this has already been done)	Not Applicable	Mike Harryman 503-975-1911
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Narrative for Recommendation 6

The State Resilience Officer position was added to the Governor's Office by statute and is subject to Senate confirmation. To ensure that the statutory responsibilities of this position as well as the Governor's priorities for the state are met, the Governor's Office finalized a position description in December 2016.

Further, in early 2017, the Office of Governor Brown conducted a thorough assessment of the State Resilience Officer position. The assessment included interviews with state, county, city, tribal, and elected officials in the field of resilience and emergency management. The assessment recommended specific areas of focus: engagement with the Executive Leadership Team to focus on Continuity of Operations Planning; a focus on Cascadia Subduction Zone hazard mitigation; and coordination with the Office of Emergency Management on statewide seismic safety and state agency planning on Cascadia Subduction Zone activities. The recommendations gathered from this assessment are considered to provide performance measures for the State Resilience Officer. Additionally, the State Resilience Officer serves as the Governor's Office liaison to the Oregon Seismic Safety Policy Advisory Commission, the entity responsible for maintaining the Oregon Resilience Plan.

Thank you for the opportunity to participate in and respond to this important audit. Please contact Governor Brown's Public Safety Policy Advisor, Heidi Moawad, at 503-378-8472 with any questions.