Chapter 4 Statewide Mitigation Capability Assessment

Contents

4.1 Overview

Assessing Oregon capability for mitigation is important for developing an effective mitigation strategy.

This chapter assesses the financial, legislative, and programmatic capabilities of the State of Oregon to carry out mitigation actions both pre-disaster and post-disaster. This assessment also highlights the changes to the mitigation capabilities since the 2020 Oregon Natural Hazard Mitigation Plan.

4.2 State Capability Changes Since 2020

4.2.1 Expansion and restructuring of the Oregon Department of Emergency Management (OEM):

In 2022, the Office of Emergency Management, previously housed within the Oregon Military Department, became a stand-alone cabinet-level department whose director reports to the governor. This change prioritizes emergency management on the state level, and strengthens coordination and response between local, tribal, state and federal governments. The legislature increased OEM's budget allowing for new hires.

The governor hired a new agency director who hired a new deputy director. OEM has hired significantly, and its new director has restructured the department to better support jurisdictions before, during, and after disasters.

4.2.2 Changes in the National Flood Insurance Program (NFIP) in Oregon:

The Oregon Department of Land Conservation and Development (DLCD) hired a new state NFIP Coordinator in 2022, as well as a natural hazards planner focused on flood mitigation and NFIP work. FEMA funds both positions with 80% federal, 20% state split.

The total number of NFIP policies in Oregon decreased by 1.1% between 2023 and 2024.

In 2024, FEMA abruptly announced mandatory pre-implementation compliance measures for Oregon NFIP cities and counties within the six Salmon and Steelhead Recovery Domains (implementation plan area) in response to a biological opinion from the National Marine Fisheries Service. This is one of Oregon's hottest topics currently and the state will continue to support NFIP communities.

4.2.3 New Natural Hazard Mitigation and Resilience Programs, Plans, and Funding:

4.2.3.1 Environmental Justice Council

In 2022, the Oregon Legislature passed House Bill 4077, which renamed and codified the Environmental Justice Task Force as the Environmental Justice Council (EJC). The bill directs the council to develop an environmental justice mapping tool, and to conduct inclusive community engagement that will inform the tool. The purpose of this mapping tool is to provide geospatial information about environmental justice impacts and to develop guidance for state agencies when adopting rules and policies.

4.2.3.2 Climate-Friendly and Equitable Communities

The Land Conservation and Development Commission launched the Climate-Friendly and Equitable Communities rulemaking in 2020 and directed DLCD to draft changes to Oregon's planning system for communities in Oregon's eight most populated areas (regions with populations over 50,000). The goal of this program is to reduce climate pollution, provide more options for transportation and housing, and promote more equitable land use planning. DLCD assists local governments in implementing the program through direct staff-to-staff assistance, and funding for consulting assistance.

4.2.3.3 Community Green Infrastructure Grant Program

In 2023, the Oregon Legislature created the Community Green Infrastructure Grant Program and appropriated $6.5 million to DLCD for the program. The program funds green infrastructure projects across the state that provide social and environmental benefits to local communities. Green infrastructure is meant to mimic natural systems, such as urban green space and parks, trees, rain gardens, and bioswales, among others. It offers a wide array of social, environmental, and economic benefits.

4.2.3.4 Oregon Natural Hazards Risk Assessment Upgrade

DLCD and OEM are upgrading the Oregon Natural Hazards Risk Assessment. The risk assessment provides the factual foundation for establishing mitigation goals and identifying and making strategic investments needed to reduce risks to people, property, and the natural environment from natural hazard events throughout the state. The assessment is designed to be useful for tribes, cities, counties, special districts, and others for natural hazards mitigation planning.

4.2.3.5 Future Climate Projections for Oregon Counties

The Oregon Climate Change Research Institute (OCCRI) continues to support DLCD and the Oregon Partnership for Disaster Resilience by developing county-level future projection reports, which provide climate change information for local natural hazard mitigation plans (NHMP). As of 2024, OCCRI has developed reports for 27 counties.

4.2.3.6 Resilience Hubs and Networks Grant

In 2023, the Oregon Legislature passed House Bill 3409 Section 86, which appropriate $10 million to the Oregon Department of Human Services (ODHS) Office of Resilience and Emergency Management (OREM) for Resilience Hubs and Networks Grants. The program builds resilience within communities by supporting the development of resilience hubs and resilience networks. During the first round of grant funding, over 700 organizations applied, and 87 organizations received grants.

4.2.4 Enhanced wildfire capabilities

4.2.4.1 Wildfire Legislation

In 2021, the Oregon Legislature passed Senate Bill 762 (SB 762), Oregon's first comprehensive wildfire preparedness and resilience bill. This legislation created programs and amended statutes to mitigate the catastrophic impacts of wildfire on lives and property through the three key strategies of the National Cohesive Wildland Fire Management Strategy:

1) creating fire-adapted communities

2) developing safe and effective responses

3) increasing the resiliency of Oregon's landscapes.

SB 762 built on recommendations from the Oregon Governor's Council on Wildfire Response.

Since 2021, the legislature passed bills that expand Wildfire Programs, including SB 80 (2023), SB 82 (2023), and House Bill (HB) 4016 (2024). In addition, SB 644 (2023) addresses wildfire mitigation as it relates to accessory dwelling units in areas zoned for rural residential use.

4.2.4.2 State Wildfire Programs and Advisory Council

The Wildfire Programs Advisory Council

SB 762 created the Wildfire Programs Advisory Council, comprised of 19 members who represent a diverse range of Oregon's geographies and sectors related to wildfire. The Council reviews and recommends policies and programs that help the state prevent wildfire, respond to wildfire, and create more fire resilient communities and landscapes.

Community Risk Reduction Initiatives

The Oregon State Fire Marshal (OSFM) has been funding response and preparedness programs through one-time funding provided by SB 762. OSFM also supports several wildfire initiatives to prepare and protect people from wildfire:

Fire Adapted Oregon: Supports local coordination, funding, education, and training improve community resiliency to wildfire.

Oregon Defensible Space Program: Offers education, outreach, financial assistance, technical assistance, and free defensible space assessments.

Wildfire Hazard Map

The Oregon Department of Forestry (ODF) developed and will maintain a statewide wildfire hazard map, in consultation with Oregon State University (OSU). The wildfire hazard map has three wildfire hazard zones (high, moderate, and low) based on weather, climate, topography, and vegetation. The map also

defines the boundaries of the wildland urban interface (WUI). The map's purposes are to 1) Educate Oregon residents and property owners about the level of wildfire hazard where they live; 2) Assist in prioritizing fire adaptation and mitigation resources for the most vulnerable locations; and 3) Identify where defensible space standards and home hardening codes will apply. ODF and OSU developed the maps with extensive and targeted engagement and outreach in 2024, and published the final maps in early 2025.

20-year Landscape Resiliency Strategy

ODF developed a 20-year strategy to improve forests and rangelands to reduce wildfire risk through prioritized investments in landscape resilience and community risk reduction. ODF developed the plan with private, local, state, and federal partners to target about 13 million high-risk acres. For the 2021-2023 biennium, ODF awarded $19.7 million in landscape resiliency grants, and these investments resulted in $15.8 million of match, and ultimately led to the treatment of 211,915 acres. The legislature appropriated $10 million for the for the 2023-2025 biennium.

Small Forestland Grant Program

SB 762 directed ODF to establish a grant program to support small forestland owners in reducing wildfire risk by restoring landscape resiliency and reducing hazardous fuels on their property. For the 2021-2023 biennium, ODF awarded $4.8 million that reached over 6,000 private landowners, leveraged $3 million in match, and treated 3,887 acres. $800,000 of the total awards went to 20 Firewise communities. The legislature appropriated $2.5 million for the 2023-2025 biennium.

4.2.4.3 Additional initiatives and policies

Oregon Design Criteria Hub

The Oregon Design Criteria Hub is an interactive mapping tool that provides site-specific climatic and geographic design criteria for construction projects governed by the Oregon Residential Specialty Code. This includes wildfire hazard mitigation standards in section R327, ground snow load, basic design wind speed, Seismic Design Category, weathering potential, frost line depth, decay potential, and air freezing index.

Oregon Building Codes Division Fire Hardening Grant Program

This program helps people affected by wildfires rebuild to a more resilient standard. It provides more than $6,000 to home and business owners who complete qualifying fire hardening improvements on their home or business that was damaged or destroyed in a wildfire since 2020. Senate Bill 5506 (2023) expanded an existing program to include people affected by the 2021 wildfires, and appropriate $6 million for implementation. From 2021-2023, the Building Codes Division collaborated with counties to distribute grants to 621 properties, averaging about $4,100. The program continued into 2024.

Electric Utilities

The Public Utilities Commission (PUC) administers Oregon's electric utility wildfire safety and mitigation, which requires investor-owned utilities (PacifiCorp, Portland General Electric, and Idaho Power) to

create, and operate in compliance with a PUC-approved wildfire protection plan. Consumer-owned utilities (rural electric cooperatives, people's utility districts, and municipal electric utilities) are required to create, and operate in compliance with, a governing body-approved wildfire mitigation plan.

4.3 Programs, Organizations, & Cooperation

Oregon has a successful track record of implementing and maintaining programs and organizations that support and advance statewide natural hazard mitigation efforts. These programmatic and organizational capabilities aim to protect property and infrastructure, save lives, enhance community resilience, and alleviate the economic burden of hazards. It is through these programs and organizations that the State can effectively contribute to advancing mitigation and enhancing statewide risk reduction and resilience.

The 2025 State NHMP Capabilities Assessment identified 35 mitigation programs and 16 mitigation organizations that support and advance natural hazards planning and mitigation efforts and evaluated their ability to advance and enhance natural hazards mitigation efforts.

Table ___ shows the number of mitigation program and organization capabilities made available to communities either before or after a disaster, or in both instances.

	Pre-disaster	Post-Disaster	Both	Type Total
Programs	13	2	20	**35**
Organizations	3	1	13	**16**

Table ___ shows the number of mitigation programmatic and organizational capabilities administered by a state, federal, joint state and federal, or private entity.

	State	Federal	Joint	Private	Type Total
Programs	13	4	17	6	**35**
Organizations	8	1	7	4	**16**

Programs include:

ODF Community Wildfire Protection Plans (Federal, State, and Private); *OWRD Dam Safety Program* (Federal, State, and Private); *ODF Firewise* (Federal, State, and Private); *OPDR Mitigation Planning Program* (Federal, State, and Private).

Organizations include:

CRESCENT Cascadia Region Earthquake Science Center (Federal, State, and Private); *DOGAMI Oregon Board of Geologist Examiners* (State and Private); *ODOE Oregon Climate Action Commission* (State and Private); *DOGAMI Oregon Lidar Consortium* (Federal, State, and Private).

4.3.1 Highlighted Mitigation Programs

This section highlights some of the evaluated mitigation programs used in Oregon. The evaluations provide a description of the program and how it contributes to mitigation efforts. Also, some evaluations describe challenges and pose potential solutions.

4.3.1.1 Coastal Hazard Mitigation Program

Program Manager: Oregon Department of Geology and Mineral Industries (DOGAMI)

Description: DOGAMI's enabling statute gives the agency broad responsibility and authority for evaluating all geologic hazards statewide, including coastal hazards (i.e., coastal erosion, flooding, and dune sand influx). The agency, in partnership with other state and federal agencies, has undertaken a wide range of programs in Oregon to identify coastal change, including coastal change monitoring at multiple sites on the Oregon coast, development of coastal flood and erosion maps, monitoring of dynamic revetment cobble beaches, and assessment of the impact of storms. FEMA CTP grants provide funding for coastal flood modeling. Additionally, the coastal program performs outreach to coastal communities.

Advances Mitigation: This program effectively advances mitigation efforts by conducting an array of research projects on coastal hazards, as well as publishing numerous maps and reports of its findings. The coastal monitoring program DOGAMI established on the northern Oregon coast in Tillamook County in 2004 has been very successful and expanded to include other counties in the region. The datasets DOGAMI collected from these sites were integral in updating the FEMA coastal flood maps for the Oregon coast between 2010 and 2015. Additionally, DOGAMI has produced coastal erosion maps for Lincoln, Tillamook and Clatsop Counties (and Gold Beach/Nesika Beach). The coastal communities actively use these maps.

Hinders Mitigation: The program relies on federal funding and support (NOAA IOOS and CSC), which can be unreliable and inconsistent. Additionally, with the exception of core observation sites, many coastal areas have not been observed for coastal monitoring for many years**.**

Potential Solutions: DOGAMI will explore opportunities to expand program capacity to observe and document changes on coastal bluffs that have not been observed in recent years.

4.3.1.2 Community Green Infrastructure Grant Program

Program Manager: Oregon Department of Land Conservation and Development (DLCD)

Description: Established by the Oregon Legislature in 2023 with HB 3409 with an allocated budget of $6.5 million, the program provides funding to communities throughout the state to implement green

infrastructure projects. Projects must be developed in collaboration with the community, and must provide social, environmental, or economic benefits to an environmental justice community (as defined in ORS 182.535). The program also funds native plant nurseries or seed banks and green infrastructure master plans.

Advances Mitigation: Green infrastructure can help mitigate extreme heat, reduce flooding by intercepting and slowing stormwater flow, prevent erosion, and stabilize slopes. Oregon is committed to advancing mitigation efforts through support of this program. Furthermore, Program focuses on providing benefits to members of environmental justice communities, thereby helping enhance equity in mitigation efforts.

Hinders Mitigation: Limited funding constrains the overall program effectiveness.

Potential Solutions: Time will demonstrate the benefits of the green infrastructure projects funded by this program.

4.3.1.3 Dam Safety Program

Program Manager: Oregon Water Resources Department (OWRD)

Description: The Oregon Water Resources Department (OWRD) is the state authority for dam safety and operates under specific state statutory authorities and regulations. As of June 2024, there were 938 state-regulated dams and another 252 federally regulated dams that met Oregon statutory dam safety criteria (at least ten feet high and storing at least three million gallons).

Advances Mitigation: Due to statutory updates in 2019, the new staff are working to address a backlog of dams that are vulnerable to extreme floods, earthquakes and internal erosion.

Hinders Mitigation: Despite efforts to address the backlog of vulnerable dams, it will still take decades for all dam safety concerns to be addressed with the existing resources and community support. In general, dam safety programs for large federal dams have significantly more dam safety staffing while state dam safety staffing is limited.

Potential Solutions: Additional staffing would enable the program to address the backlog of vulnerable dams sooner, as well as provide more technical assistance to dam owners throughout the state. However, hiring new staff will likely require legislative action as well as the allocation of additional funds. Consequently, the Dam Safety Program plans to collaborate with the OWRD management team to explore options for developing a dedicated funding source for dam safety rehabilitation work.

4.3.1.4 Earthquake Hazard Mitigation Program

Program Manager: Oregon Department of Geology and Mineral Industries (DOGAMI)

Description: DOGAMI's enabling statute gives the agency broad responsibility and authority for evaluating all geologic hazards statewide, including earthquake hazards.

Advances Mitigation: DOGAMI has published numerous maps and reports on the earthquake hazards of the state which have helped provide data and research to support and advance mitigation efforts. The

agency, in partnership with other state and federal agencies, has also undertaken a wide-ranging program in Oregon to identify seismic hazards, including active fault characterization, rapid visual screening for earthquake vulnerability of schools throughout the state, as well as earthquake impact estimates, bedrock and soil shaking studies based on material properties, tsunami inundation zone, estimates for coseismic hazards such as liquefaction, landslides, and permanent ground deformation.

The program also developed the Oregon Seismic Hazard Database in 2021, which is the first comprehensive collection of seismic hazard data for Oregon and provides the most up-to-date information on Oregon's seismic risks and hazards. Both local and state government staff have used this resource to assess earthquake risks and determine the appropriate mitigation measures.

Hinders Mitigation: Even though DOGAMI has developed new data and advanced research on seismic hazards since the last plan update, the program is still working with older datasets, such as the USGS Active Fault database (Q-faults). The Q-faults database has not been regularly updated since before 2017, and includes numerous discontinuous faults, particularly in Eastern Oregon, so that the probabilistic national seismic hazard maps underestimate the hazard.

Potential Solution: The challenges could be addressed by applying for funding to update the QRC-Faults database. This would include developing and maintaining a new active fault database (ORQ-Faults) to ensure that the data accessed through the HazVu system is not out of date. The program would start the update immediately if funding were awarded.

Hinders Mitigation: There is currently no Clearinghouse Plan in place at the state-level to coordinate the scientific mobilization in response to a Cascadia or significant crustal earthquake. A Clearinghouse Plan includes details to guide coordinating data collection efforts, including a platform (e.g. Esri FieldMaps, Survey123), and criteria for data processing and review before publication, release, or inclusion in the clearinghouse databases.

Potential Solution: DOGAMI will look for funding that can be used to draft a clearinghouse plan to coordinate scientific mobilization in response to a Cascadia or significant crustal earthquake. DOGAMI, along with other state agencies and partners, plans to coordinate the development of a post-disaster scientific and technical clearinghouse by working with the emergency coordination center that is established immediately after the earthquake, flood, tsunami, or other disaster.

Hinders Mitigation: There is limited staffing to address all the main components of the program.

Potential Solution: This program would benefit from having three dedicated positions to address three main components of the program: 1. Earthquake Geology - Addressing active fault and coseismic hazard characterization through mapping and paleoseismic investigations. 2. Seismology and Instrumentation - Addressing seismic data and instrumentation throughout the state, serve as partner with the Pacific Northwest Seismic Network. 3. Earthquake Engineering - A position focused on engaging with new construction and retrofit efforts.

4.3.1.5 Fuel Tank Seismic Stability

Program Manager: Oregon Department of Environmental Quality (DEQ)

Description: In 2022, Senate Bill 1567 gave the Oregon Department of Environmental Quality the authority to develop a program that evaluates the earthquake vulnerability of large-capacity oil and fuel storage and distribution facilities located in Lane, Multnomah and Columbia counties.

Advances Mitigation: The program helps advance mitigation by requiring facilities to conduct a facility Seismic Vulnerability Assessment and develop a Risk Mitigation Implementation Plan to minimize the identified risks. The plan helps minimize the risk of harm to employees, surrounding communities, and the environment due to fires and fuel product releases due to an earthquake. Facilities must address vulnerabilities and risks by complying with one of two options: 1) meet stringent design standards for new facility construction; or 2) modify existing systems or spill containment such that the Maximum Allowable Uncontained Spill is no more than 42 gallons. Thus far, sixteen facilities have submitted the required Seismic Vulnerability Assessment reports. One additional facility signed an enforceable Mutual Agreement and Final Order with DEQ to close oil storage operations instead of working through the regulatory process.

Hinders Mitigation: Even with the most up-to-date comprehensive data currently available, there is still much unknown about many of Oregon's fuel storage facilities, including their capacity, the age of their tanks and equipment, and their seismic code compliance. Also, there are many other fuel storage facilities throughout Oregon that are vulnerable to earthquake damage and would cause significant public health or environmental problems. These are generally located at transportation hubs near communities and waterways and may not be built to adequate seismic resilience standards. Thus, spills from these facilities are expected after an earthquake.

Potential Solutions: Conducting a statewide analysis of the risk posed by smaller facilities could inform additional legislative efforts to protect public health and the environment from seismic-related spills.

4.3.1.6 Landslide Risk Reduction Program

Program Manager: Oregon Department of Geology and Mineral Industries (DOGAMI)

Description: The State of Oregon has a long history of landslide risk reduction accomplished through collaboration with many entities, including but not limited to: DOGAMI, ODF, DLCD, USGS, FEMA, DOGAMI, NOAA, BLM, USFS, Oregon Universities, cities, and counties. The program has undertaken a wide range of projects in Oregon to mitigate landslide risk, including conducting an array of research projects on landslide risks across the state, as well as publishing numerous maps and reports with its findings.

Advances Mitigation: The program aims to address a wide variety of landslide risk, in particular the following priorities: developing landslide inventory and susceptibility maps, evaluating landslide risk, educating communities on landslide hazards and potential risk reduction opportunities, and collaborating with communities to implement risk reduction actions. The program also hosts and maintains the Statewide Landslide Information Database for Oregon (SLIDO), an interactive mapping tool that provides data on identified landslides throughout the state.

Hinders Mitigation: The program relies on federal funding, which can be unstable. Also, this statewide program has a very limited number of staff which constrains its overall impact across the state.

Potential Solutions: Securing funding to support additional staff.

4.3.1.7 Oregon Coastal Management Program

Program Manager: Oregon Department of Land Conservation and Development (DLCD)

Description: The Coastal Zone Management Program is a national program where the federal and state government enters a voluntary partnership to address coastal issues. The program consists of partnerships between multiple agencies, each with authority in the coastal zone. The Oregon DLCD serves as the lead administrative agency, and NOAA provides funds and technical expertise. Coastal tribes, including the Confederated Tribes of Coos, Lower Umpqua and Siuslaw, the Confederated Tribes of Grand Ronde, the Confederated Tribes of Siletz Indians, the Cow Creek Band of Umpqua Tribe of Indians, and the Coquille Indian Tribe, manage coastal resource lands and are critical partners in protecting the natural, cultural, and historic heritage of native people on the Oregon coast.

Advances Mitigation: Authorized by the Coastal Zone Management Act (CZMA) of 1972, the program provides the basis for protecting, restoring, and responsibly developing our nation's diverse coastal communities and resources. In Oregon, the program has been very effective at supporting and implementing natural hazard and community resilience strategies. The OCMP partners with researchers from agencies such as DOGAMI and OSU to share and create tools for coastal jurisdictions to use to better understand the hazards and risks they face and how to best mitigate against them. The program offers technical assistance and resources for hazard mitigation planning, such as updating hazard overlay zones, implementing tsunami evacuation planning, and providing education on coastal hazards such as sea level rise, tsunami, and storm surge.

Hinders Mitigation: In 2015, the EPA and NOAA disapproved the "Oregon Coastal Nonpoint Pollution Control Program" for another agency not implementing additional management measures to protect anadromous fish-bearing streams in forest areas. This led to a 30% reduction in federal funds for the OCMP. This reduction in funding has created lasting financial burdens, as the OCMP has lost staff, had to suspend local planning assistance grants, and more.

Potential Solutions: The program is currently working to regain standing and its prior level of federal funding.

4.3.1.8 Oregon Defensible Space Program

Program Manager: Oregon State Fire Marshal (OSFM)

Description: Launched in 2023 under SB 762, the OSFM provides education, outreach, financial and technical assistance. Additionally, the OSFM and local fire agencies provide free defensible space assessments to assist property owners in complying with the state's defensible space standards. The Governor's Fire Service Policy Council — a group of fire service professionals who advise the governor about fire protection in Oregon — initiated this program and created a list of recommendations for the public to use to assess their wildfire preparedness. These recommendations are based on the draft defensible space code and other best practices for wildfire safety in Oregon.

Advances Mitigation: This program has been very effective in advancing mitigation efforts, especially due to the success of the free defensible space assessments available to homeowners and business owners. These assessments are available by request and are completed by experts who evaluate a property and provide personalized recommendations. The assessment is completed by an OSFM staff

member or the local fire agency. As of October 4, 2024, 2,446 assessments were completed statewide, by 406 statewide trained assessors, representing 73 agencies, including two state agencies (OSFM and ODF).

OSFM also provides extensive online guides providing steps that any property owner can take to create defensible space around their structures, as well as collective actions neighborhoods and communities can take to reduce wildfire risk. Additionally, in 2024, OSFM started a one-time incentive program for people living in a high-risk area and who received an assessment. Eligible participants received a $250 one-time payment to offset defensible space improvement costs. Over 231 one-time incentives were paid, for a total of $57, 750.

Hinders Mitigation: The funding for the program and incentives for homeowners can be unstable.

Potential Solutions: A 2024 legislature's budget note directed OSFM and ODF to convene a workgroup to identify future funding options that may help address funding gaps.

4.3.1.9 National Flood Insurance Program – Mitigation Program Evaluation

The Oregon Department of Land Conservation and Development (DLCD) manages the National Flood Insurance Program (NFIP), alongside the Oregon Department of Emergency Management (ODEM).

The NFIP functions to provide flood insurance to homes and businesses located in floodplains at a reasonable cost, as well as to promote development in areas outside of floodplains. The program is based upon mapping flood risk areas, which requires local implementation to reduce flood risk, primarily through regulation of new development in floodplains.

Elevation Certificates must be maintained by communities participating in the NFIP when new or substantially improved structures are to be constructed in a high-risk flood area. Accordingly, new development is required to be elevated or otherwise designed to protect against flooding. The NFIP requires local governments to obtain Elevation Certificates for all new construction in floodplains and they must keep the certificates on file. Local governments also must ensure that elevation certificates are filled out correctly for structures built in floodplains.

V-Zone Construction

In many of Oregon's coastal communities, FEMA has mapped "V zones" (velocity zones), which are areas of special flood hazard that are subject to high velocity wave action from storm surges or seismic events. Because of the potential force associated with this wave action, special regulations apply for new construction and substantial improvements in "V zones."

Substantial Damage Policy

Under the NFIP, a building is considered to be substantially damaged when the total cost of repair equals or exceeds 50% of the pre-damage market value of the structure. A substantial damage determination provides opportunities for mitigation through acquisition, relocation, demolition, and elevation. For NFIP-insured properties, timely determinations of substantial damage are critical for meeting the application period for an **Increased Cost of Compliance (ICC)** mitigation claim. If approved

for ICC, the ICC payment of up to $30,000 may be used as the property owner's non-federal cost share. Timely substantial damage determination is a standard protocol for all flood disaster declarations in Oregon. DLCD is creating a Substantial Damage Determination Plan to assist communities with this responsibility after a flood event.

Community Rating System and CRS Users Groups

The NFIP's Community Rating System (CRS) is a voluntary program that recognizes and rewards local governments that engage in floodplain management activities exceeding the minimum NFIP requirements by discounting flood insurance premium rates to reflect the reduced flood risk resulting from those activities. Other benefits resulting from community participation in the CRS program include:

- Reducing flood damage to insurable property,
- Strengthening and supporting the insurance aspects of the NFIP, and
- Encouraging a comprehensive approach to floodplain management.

As of October 2024, twenty-three of Oregon's communities participate in the CRS Program. CRS is supported primarily by FEMA's insurance specialist and regional contractors, with DLCD providing advocacy and encouragement to local governments to join the program during every CAV and CAC. The Northwest Regional Floodplain Management Association's (NORFMA) invites Oregon jurisdictions to participate in its CRS Users Group, which provides quarterly meetings and trainings to interested staff.

Repetitive Loss (RL) and Severe Repetitive Loss (SRL) Policy and Actions

RL and SRL properties are a top priority for mitigation in Oregon. However, several criteria must generally align for their mitigation to be executable. In addition to meeting the federal statutory criteria for mitigation projects — technically feasible, cost-effective, and environmentally sound — the state will vigorously pursue mitigation of RL and SRL properties if:

- The structure is substantially damaged and eligible for funding under the NFIP's Increased Cost of Compliance provision;
- The structure is located in a community with a FEMA-approved NHMP;
- The structure is located in a community with the ability to manage federal grant funds;
- Elected officials support pursuing flood mitigation projects;
- The structure is located in a county named in a major disaster declaration and post-disaster mitigation funding is available; and
- The owners of the structure are interested in mitigation through elevation, flood-proofing, relocation, or demolition.

In addition, geographic distribution of properties and alignment of repetitive loss and severe repetitive loss property mitigation with other mitigation efforts (such as restoring natural and beneficial floodplain functions) may play a role. It is the state's policy to distribute mitigation assistance and funding to impacted communities and repetitive loss and severe repetitive loss properties in different areas of the state whenever practicable.

While data obtained from FEMA's PIVOT database indicates 424 properties in Oregon are identified as RL/SRL properties, some of these properties have been mitigated. This list can fluctuate based upon recent NFIP claims data, intensity of storm events causing damages, and whether structures are mitigated, removed (demolished), or relocated.

NFIP Changes

There are 260 communities participating in the NFIP in Oregon as of November 22, 2024. (Source: Community Status Book report for State OR). From July 2023 to July 2024 the total number of NFIP policies in Oregon decreased by 256, from 24,003 to 23,747 (-1.1%). As of August 11, 2024, the number of NFIP policies in Oregon was 23,690, for a total coverage of $6,568,847,000. Of these, 19,413 were Write-Your-Own (WYO) policies, where private insurance companies are paid to directly write and service NFIP policies. The remaining 4,277 NFIP policies were purchased directly from the NFIP. Total annual payments were $25,449,187. (Source: FEMA's Pivot database)

The market share for private flood insurance is growing fast in Oregon, increasing from 11% in 2019 to 22% in 2022. A market share of 22% represents 5,785 contracts in force. Private flood insurance is not available to all Oregon communities, and some structures are unable to obtain private insurance.

NFIP Challenges and Opportunities

Several challenges have arisen for the Oregon NFIP since 2020; however, potential solutions and opportunities have been identified and are currently being further researched and explored.

Biological Opinion (BiOp): In July 2024, FEMA abruptly announced pre-implementation compliance measures for Oregon NFIP communities within the six NOAA Salmon and Steelhead Recovery Domains (implementation plan area). In response, DLCD staff created a Frequently Asked Questions about FEMA's pre-implementation to assist staff administering their local floodplain programs. The BiOp is one of Oregon's hottest topics currently. Several congressional delegates and Governor Tina Kotek have written letters of concern with FEMA's pre-implementation process and need for more collaboration. DLCD is currently participating as an advisory committee member on FEMA's full implementation process, but did not have the same opportunity to collaborate or offer feedback on FEMA's pre-implementation compliance measures. The state will continue to work with FEMA and NFIP communities as needed.

Federal Flood Risk Management Standard (FFRMS): Two new rules were published under US Housing and Urban Development and FEMA to implement FFRMS policy nationwide in 2024. FFRMS require a greater level of flood protection for new federal projects and structures. FFRMS aims to increase resiliency, reduce the risk loss of human life and property, and minimize disruptions to households across the nation from flooding. HUD is requiring structures to be built 2-ft above the base flood elevation for FHA loans for residential structures. FEMA issued a new rule requiring any federally funded structure in the floodplain be built to the same standard. This eligibility criterion applies to Hazard Mitigation Assistance programs and all actions subject to FFRMS. However, floodplain management standards have not changed within the Code of Federal Regulations. Therefore, local governments are not required to adopt this standard. In November 2024, FEMA began to provide NFIP coordinating offices and local government staff with training.

- FEMA's FFRMS website: Federal Flood Risk Management Standard | FEMA.gov

- HUDs FFRMS website: Federal Flood Risk Management Standard | HUD.gov / U.S. Department of Housing and Urban Development (HUD)

Community Rating System (CRS) Redesign: FEMA issued a request for information seeking public input on potential changes to CRS. Comments on the CRS redesign were published September 9, 2024 in the federal register. FEMA is exploring potential changes and improvements to the CRS program through programmatic review and improvement efforts. This FEMA-led effort will likely take several years to complete.

Opportunity – Floodplain Managers Group: After a number of years in hiatus, Oregon re-started its Floodplain Managers Group in 2024.

4.3.1.10 RiskMAP

The Risk MAP (Mapping, Assessment, and Planning) program aims to deliver quality flood data that increases public awareness of natural hazards, leading to mitigation and resilience actions that reduce risk to life and property and supporting a safer future for communities through effective partnerships. The main goal is to increase local resilience by providing communities with flood hazard information and tools they can use to strengthen their ability to make informed decisions about reducing flood risk. A cornerstone of Risk MAP is the collaborative partnerships developed to increase community resilience to natural hazard risks.

The Oregon Department of Emergency Management (OEM) coordinated Risk MAP activities for the State of Oregon for state fiscal years 2023-2025. A Cooperating Technical Partnership between the State of Oregon and FEMA provided sponsorship and all of the funding for these activities. FEMA has sponsored Risk MAP studies for many incorporated jurisdictions within Oregon, with projects having just begun, underway, or completed. The studies range from risk and vulnerability assessments to lidar acquisition to physical map revisions.

Twenty-four counties in Oregon currently have access to digital flood hazard data, as found in the National Flood Hazard Layer (NFHL). However, digital flood hazard data is not available for 12 counties. They rely instead on paper maps. Additionally, approximately 83 NFIP counties or communities have effective flood hazard data that is older than 20 years, with some maps going as far back as 40 years. Without up-to-date information and data, communities are unable to effectively understand their exposure to natural hazards. Risk MAP offers opportunities to update data, facilitate public awareness and communication, and help to identify flood mitigation opportunities. This data and information can be incorporated into local hazard mitigation plans.

In Oregon, 13 counties and one tribe are in various stages of completion for Risk MAP projects.

- Active/Ongoing: 10 counties, one Tribe
- Completed: Two

FEMA will produce new or updated flood hazard maps in connection with the Risk MAP projects listed in Table ___.

Table X. Status of Oregon Risk MAP Projects

Project Area	Project Status
Benton County	Active/ongoing.
Clatsop County (coastal)	Active/ongoing. Flood Risk Review (FRR) April 16, 2024.
Gilliam County	Active/ongoing. Flood Risk Review Oct 22, 2024.
Grant County	Active/ongoing. Anticipate draft maps Dec 2024, FRR Feb 2025.
Harney County	Completed (Effective Feb 8, 2024).
Hood River County	Active/ongoing. Revised Preliminary maps were issued Aug 30, 2024. Consultation Coordination Officers (CCO) Meeting held Oct 3, 2024.
Jackson County	Active/ongoing. Discovery report held July 8, 2024.
Klamath County	Completed (Effective Nov 7, 2024).
Lane County	Amazon: Active/ongoing. Revised Draft delivered Oct 10, 2024.
	Central/CF-MF: Active/ongoing. Working on Revised Prelim (anticipated Winter 2024/2025).
	Siuslaw: Active/ongoing. Working on draft updates (delayed).
Sherman County	Active/ongoing. Letter of Final Determination (LFD) anticipated in Winter 2024/25.
Umatilla County	Active/ongoing. Draft maps anticipated Oct 2025.
Wasco County	Active/ongoing. Working on Revised Prelim (anticipated release Spring 2025).

The Risk MAP process requires an extensive level of engagement, knowledge, and coordination with individual communities engaged in a Risk MAP study. To accomplish this, FEMA funds a state-based "Risk MAP Coordinator" (RMC) for each of the states within FEMA Region 10 (AK, ID, OR, WA). The Oregon RMC, housed in OEM, serves as the intermediary and primary point of contact between Oregon's local jurisdictions and FEMA and provides training and technical assistance to Oregon communities.

A priority for the Oregon Risk MAP program is to identify communities and areas where a detailed flood map analysis would benefit the community and guide hazard mitigation efforts to help reduce the impact of a natural disaster in the area. Oregon's RMC collaborates with local jurisdictions to prioritize Risk MAP projects and flood map updates throughout counties and Tribal areas. Additional factors guide outreach efforts with new jurisdictions, including state priorities, community needs and local interest in participation, social vulnerability, new LiDAR data availability, hazard mitigation plan status, and age or format of natural hazard risk data.

More detailed information about the Oregon Risk MAP Program can be found in the State of Oregon's FY2024 Risk MAP Program State Strategy. This document provides a current snapshot of the status of community flood hazard information throughout the state, as well as lays out a plan for future needs and priorities throughout Oregon.

4.3.2 Highlighted Mitigation Organizations

This section highlights some of the evaluated mitigation organizations in Oregon. The evaluations provide a description of the organization and how it contributes to mitigation efforts. Also, some evaluations describe challenges related to the implementation or utilization of these mitigation organizations and pose possible solutions.

4.3.2.1 Oregon Drought Readiness Council

Description: The Drought Readiness Council (DRC) is responsible for assessing the impact of drought conditions and making recommendations to the Governor's senior advisors. The council's goal is "to reduce the effects of an impending drought through a coordinated federal, state, local, and voluntary effort, consisting of the development of drought plans, policies, and procedures, and through coordinated state response." (Oregon Office of Emergency Management, 2014 rev.). The Drought Council is, in turn, advised by the Water Availability Committee, a sub-committee of technical people who monitor conditions throughout the state and report these conditions monthly. In this manner the Drought Council keeps up to date on water conditions. Members combine this knowledge with information they bring from their organizations and differing geographical areas of the state to make recommendations for policy, response, and mitigation.

Advances Mitigation: The DRC plays an important role in advancing natural hazards mitigation and community resilience. In addition to supporting the development of drought plans and policies, its primary responsibility is evaluating and making recommendations on state drought declaration requests to the Governor. These declarations provide emergency water rights tools that help manage water supply challenges and improve resilience to drought, although they primarily address short-term needs rather than long-term climate resilience.

Hinders Mitigation: Counties do not fully utilize all of the emergency and water rights tools available from a state drought declaration.

Potential Solutions: A possible solution to this problem is to improve the state drought declaration process to make it more efficient and effective. However, updating the process would likely require the state legislature to create or amend statutes and rules. While this could theoretically be accomplished within 5 years, OWRD capacity constraints will likely prevent this change from occurring within that timeframe.

4.3.2.2 Oregon Seismic Safety Policy Advisory Committee

Description: The Oregon Seismic Safety Policy Advisory Committee (OSSPAC) is a state advisory commission charged with promoting earthquake awareness and preparedness through education, research, and legislation. The purpose of the 18-member group, each representing various interests concerning earthquakes, is to reduce exposure to earthquake hazards in Oregon. The mission of OSSPAC

is "to positively influence decisions and policies regarding pre-disaster mitigation of earthquake and tsunami hazards, increase public understanding of earthquake hazards, risk, exposure, and vulnerability through education, and be responsive to the new studies and/or issues raised around earthquakes and tsunamis." (OEM OSSPAC, Retr. Feb. 10, 2024).

Advances Mitigation: While this is a volunteer commission, it has still made a significant contribution to earthquake mitigation and risk reduction in Oregon, including the development and implementation of the Oregon Resilience Plan and the establishment Seismic Rehabilitation Grant Program (SRGP).

Hinders Mitigation: The program is unfunded and organized by volunteers making consistent administration difficult.

Potential Solutions: Secure funding to maintain consistent administration.

4.3.2.3 Oregon Silver Jackets

Description: Silver Jackets teams are interagency teams that facilitate collaborative solutions to state flood risk priorities. In Oregon, the Silver Jackets team is a sub-committee of State Interagency Hazard Mitigation Team, led by the State Hazard Mitigation Officer in the Oregon Department of Emergency Management.

Advances Mitigation: The state-led team brings together multiple state, federal, and sometimes tribal and local agencies from across the state to learn from one another and collaborate to reduce risk from floods and, if necessary, other natural disasters. By applying their shared knowledge, the team enhances statewide preparedness, mitigation, response, and recovery efforts. Each participating agency representative supports the team using its own programs and resources within the constraints of available budgets and agency authorities.

The Oregon Silver Jackets team directly contributes to flood resilience and mitigation by focusing on advancing state flood-related priorities and identifying flood-related action items for the Oregon NHMP.

Hinders Mitigation: The Oregon Silver Jackets team works hard to develop flood-related proposals and initiatives that support the Oregon NHMP. However, these tasks require participation at a high enough level to provide a big picture understanding of how the programs work together, rather than focusing on the details of a single program. Thus, the team needs greater support from state and federal agencies to facilitate participation at the appropriate levels.

Potential Solutions: The Oregon Silver Jackets team needs to conduct more outreach to other federal and state agencies to increase participation and support from more agencies and organizations.

4.3.2.4 Pacific Northwest Seismic Network

Description: The Pacific Northwest Seismic Network operates seismograph stations and locates earthquakes in Oregon and Washington. It is funded by the U.S. Geological Survey, the Oregon Department of Energy, and the State of Washington. The Pacific Northwest Seismic Network (PNSN) website provides information on Pacific Northwest earthquake activity and hazards.

Advances Mitigation: The PNSN has been very effective at advancing mitigation efforts. PNSN has a dense network of seismic instrumentation in western Oregon and off-shore and is expanding these network to include central and eastern Oregon. PNSN supports the ShakeAlert system, established in 2021, to provide earthquake alerts to system users. Currently Android mobile users and institutional partners are supported; eventually Apple mobile users will be supported also.

Hinders Mitigation: Most of the funding for PNSN comes from federal grants, which can be inconsistent.

Potential Solutions: Currently, there is no proposed solution.

4.3.2.5 State Interagency Hazard Mitigation Team

Description: The purpose of the State Interagency Hazard Mitigation Team (IHMT) is to provide expert guidance to Oregon State, Tribal and local jurisdictions in matters of hazard mitigation. It is a key state mechanism for interagency mitigation coordination and collaboration. The Team's focus is to understand losses arising from natural hazards, including the secondary losses that occur when natural hazard events impact technological systems and critical infrastructure. It also develops and coordinates recommended strategies to mitigate losses of life, property, economy, and natural resources by maintaining a FEMA-approved and Governor-promulgated Oregon NHMP.

The State Hazard Mitigation Officer (SHMO) convenes, chairs, and facilitates the State IHMT's quarterly meetings and OEM provides staff support for them. IHMT members are appointed by state agency directors and hold knowledge of natural hazard risk, mitigation actions, mitigation planning, and community resilience needs. Table X identifies the State IHMT agencies, their roles and responsibilities and authorities.

Table X. State IHMT Agencies' Hazard Mitigation Roles, Responsibilities, and Authorities

State IHMT Agency	Hazard Mitigation Roles and Responsibilities	Hazard Mitigation Legal Authority
Governor's Office - State Resilience Officer	Advises Oregon Governor Tina Kotek on disaster resilience and emergency response.	Oregon Revised Statutes (ORS) 401.913
University of Oregon, Institute for Policy Research and Engagement (IPRE), Oregon Partnership for Disaster Resilience (OPDR)	OPDR is a coalition of public, private, and professional organizations working collectively toward the mission of creating a disaster resilient and sustainable state. Developed and coordinated by the Community Service Center at the University of Oregon, OPDR employs a service-learning model to increase community capacity and enhance disaster safety and resilience statewide. Primary activities include community plan and project development support; applied research and technical resource development; training programs and capacity building; and the development of strategic alliances.	No legal authority for hazard mitigation.
Department of Administrative Services (DAS)	DAS works to improve safety among the workplace by identifying risks and developing tools to manage risks. DAS also works to protect state-owned property and buildings, and sets standards for leasing and constructing state buildings.	No legal authority for hazard mitigation, except that which may arise from a claim under self-insurance property coverage.
Oregon Department of Agriculture (ODA)	Works to exclude or eradicate certain insect pests from becoming established in the state. Using the Insect Pest Prevention and Management program (IPPM), the ODA works to protect Oregon's agriculture, horticulture and timber resources from damaging insect pests, thus preventing the defoliation of vast acreage of trees and reducing fire and erosion hazards; works with soil and water conservation districts to help landowners implement best management practices to reduce erosion, thereby preventing slides, floods, and erosion-related problems; actively involved in watershed health and maintaining natural resources through education, technical assistance, and regulatory programs for landowners.	ORS, Chapter 568 provides authority for water quality and soil conservation measures, and Chapter 570 provides authority for pest and disease control programs.
Oregon Department of Consumer and Business Services-Building Codes Division (DCBS-BCD)	Works to implement statewide building codes through a permitting program. BCD has adopted construction standards that help create disaster resistant buildings. BCD administers the post-earthquake inspection program for damaged buildings and provides technical assistance and training for building inspectors, plans examiners, designers, and contractors. A post-earthquake inspector carries out post-earthquake habitability assessments for all structures affected by an earthquake. BCD has compiled an active list of certified post-earthquake inspectors. BCD generally adopts nationally recognized model codes that include various standards to ensure building safety. Technical assistance is provided to designers, contractors, building officials, and the public through its code specialists, its web page, listserv distributions to interested parties and local building officials.	ORS, Chapter 455 provides legal authority for the Building Codes Division's (BCD) natural hazard mitigation activities including 455.020 (code adoption), .725 (training), .440 (site soil analysis), .446 (construction in tsunami zones), .447 (seismic site hazard analysis), and .448-.449 (entry and inspection of earthquake damaged buildings).

State IHMT Agency	Hazard Mitigation Roles and Responsibilities	Hazard Mitigation Legal Authority
Oregon Department of Consumer and Business Services-Division of Financial Regulation (DCBS-DFR)	Works to perform a major balancing role, protecting the public's interests through ensuring the financial soundness of insurers, the availability and affordability of insurance, and the fair treatment of policyholders and claimants while maintaining a positive business climate. DCBS-DFR helps home and business owners prepare for natural hazards through the provision of insurance-related educational material and trainings. DCBS-DFR also works to help ensure insurance compensation to insurance holders in the wake of a natural disaster.	ORS Chapter 731 provides authority to DCBS-DFR. House Bill 3605 allows the director of the Department of Consumer and Business Services (DCBS) to modify insurance policy terms in times of emergency.
Business Oregon - Infrastructure Finance Authority	Works with the Governor and all state agencies to prioritize programs and modify services that help those affected by natural disasters. Works with current loan customers to address needs during recovery from a natural disaster. Works with communities to prioritize infrastructure needs resulting from a natural disaster, which is used to develop state and federal funding solutions for Oregon communities. Offers Emergency Response Funding Programs. Also supports hazard mitigation by promoting development of new facilities and infrastructure in appropriate locations. Administers the Seismic Rehabilitation Grant Program (SRGP).	ORS Chapter 285A-C provides authority to Oregon Business, including 285B.020 (infrastructure).
Oregon Climate Change Research Institute (OCCRI) and the Oregon Climate Service (OCS)	OCCRI, housed at Oregon State University, is authorized to: 1. Facilitate research by Oregon University System faculty on climate change and its effects on natural and human systems in Oregon 2. Serve as a clearinghouse for climate change information 3. Provide climate change information to the public in integrated and accessible formats 4. Support the Oregon Global Warming Commission in developing strategies to prepare for and to mitigate the effects of climate change on natural and human systems 5. Provide technical assistance to local governments to assist them in developing climate change policies, practices and programs In addition, at least once each biennium, OCCRI assesses the state of climate change science as it relates to the state of Oregon, and the likely effects of climate change on the state and delivers the assessment to the Governor's Office and the Legislative Assembly. OCS is part of the College of Earth, Ocean, and Atmospheric Sciences at OSU, and has been absorbed by OCCRI. OCS: 1. Collects, maintains and distributes Oregon weather and climate data; 2. Educates Oregonians on current and emerging climate issues; and 3. Performs research related to climate issues.	HB 3543 (2007)
Oregon Department of Energy (ODOE)	Is the lead state agency for the *Oregon Energy Security Plan*, which identifies and prioritizes mitigation measures that may improve energy security and presents an action plan to work toward increased resilience.	ORS 469.064

State IHMT Agency	Hazard Mitigation Roles and Responsibilities	Hazard Mitigation Legal Authority
Department of Environmental Quality (DEQ)	Works to protect and maintain waters of the state for public health and safety as well as for all future beneficial uses under EPA delegated programs from the Clean Water Act and Safe Drinking Water Act. Emergency actions related to natural hazards must meet environmental protection requirements. If a natural hazard were to result in hazardous materials being released into the environment, DEQ's Emergency Response Program is designed to respond. DEQ's Environmental Cleanup Division takes action should a release occur or the threat of a release. DEQ assists OEM, DLCD, and FEMA in conducting environmental assessments related to watershed restoration, hazard mitigation projects, and provides matching grants for projects under the Clean Water Act. DEQ plays a central role in the disposal of disaster debris. DEQ also works with Oregon Natural Events Action Plan for Wildfire Smoke. DEQ offers the Wildfire Air Quality Rating to monitor air pollution throughout the state to ensure that air quality standards are being met.	ORS, Chapter 468, water pollution control, enables DEQ to protect all future beneficial uses of waters of the state (surface and groundwater), and allows DEQ to act should there be a threat of release or a spill. ORS, Chapter 468a, enables the DEQ to regulate and monitor air quality. ORS, Chapters 465 and 466 enables the DEQ to respond to hazardous waste and materials that have been released into the environment.
Oregon Department of Fish and Wildlife (ODFW)	Has a primary role in determining the effects of potential hazard mitigation projects on fish and wildlife habitats and recommending measures that enhance or at least do not degrade such habitats; administers the state's Riparian Tax Incentive Program and Restoration and Enhancement Program, and can provide cost-share funding, grants and technical assistance.	ORS, Chapter 496 (application, administration, and enforcement of wildlife laws), Chapter 497 (licenses and permits), Chapter 498 (hunting, angling and trapping) and Chapter 501 (refuges and closures).
Oregon Department of Forestry (ODF)	Works to protect communities from wildfires through the implementation of the Communities at Risk Assessment Program. ODF Identifies communities and assigns each a low, moderate, or high risk rating for the following categories: risk, hazard, protection, capability, value, and overall. ODF works with communities to create Community Wildfire Protection Plans (CWPP): a process involving collaboration between communities and agencies interested in reducing wildfire risk. ODF is responsible for all aspects of wildland fire protection on private, state and BLM forestlands. ODF administers regulations, including landslide mitigation, on non-federal lands. ODF does all of the following things which advance natural hazards mitigation: requires landowners to control fires on their lands; controls fires that other landowners cannot control; administers the industrial fire prevention program; investigates wildfires; administers the Forest Practices Act; coordinates with other agencies; maintains technical expertise on wildfire sciences, geosciences, and hydrology; completes debris flow hazard mapping for Western Oregon; and leads many aspects of the *Oregon Plan for Salmon and Watersheds.*	ORS, Chapter 477 addresses the fire protection of forests and vegetation, including sections on urban interface fire protection, hazard abatement, fire abatement, fire prevention, and related sections. Chapter 527 contains provisions which pertain to timber harvest and road construction regulations in landslide areas.
Department of Geology and Mineral Industries (DOGAMI)	Works to develop geologic maps and data to enable Oregonians to understand geology and to mitigate the hazards resulting from earthquakes, tsunamis, landslides, and other hazards; works with project partners, to develop a statewide seismic needs assessment; focuses much effort on risk reduction, often in partnership with other federal, state, and local agencies, and the private sector; provides information which leads to the construction of safer buildings; works on siting of natural gas cogeneration power plants, correctional facilities, gas pipelines using policy decisions related to geologic, seismic and coastal hazards; also works with local partners to develop systematic evaluations of risk to people and property so mitigation efforts can be prioritized.	ORS, Chapter 516 creates and defines the duties; Section 516.030(3) directs DOGAMI to administer on a cooperative basis studies and programs that will reduce the loss of life and property by understanding and mitigating geological hazards.

State IHMT Agency	Hazard Mitigation Roles and Responsibilities	Hazard Mitigation Legal Authority
Oregon Health Authority (OHA) State Public Health Division	The Oregon Health Authority's Health Security, Preparedness and Response (HSPR) Program develops public health systems to prepare for and respond to major, acute threats and emergencies that impact the health of people in Oregon. The Program addresses eight of the 11 natural hazards in the Oregon NHMP, extreme heat, and bioterrorism. The Oregon Health Authority's Climate Change and Public Health Program is working with partners to study, prevent, and plan for the health effects of climate change.	ORS 431 provides authority for state and local administration and enforcement of health laws including public health emergency planning and response.
Department of Land Conservation and Development (DLCD)	Manages the statewide land use planning program; Goal 7 of which addresses development in places subject to natural hazards, requiring that jurisdictions apply "appropriate safeguards" when planning for development there. The goal requires local comprehensive plans to include inventories, policies, and ordinances which will reduce losses. DLCD supports local governments' and tribes' efforts to address natural hazards through technical assistance during periodic plan review, comprehensive plan and zoning code updates, and development and updates of NHMPs; provides workshops and responds to local government requests for information. As of 2013, DLCD is responsible for facilitating updates of the Oregon Natural Hazards Mitigation Plan. DLCD manages the National Flood Insurance Program (NFIP) in the State of Oregon through an agreement with FEMA. DLCD also manages the Oregon Coastal Management Program, which implements a coastal hazards and assessment program.	ORS, Chapter 197 provides the basis for comprehensive land use planning in the State of Oregon, including provisions governing development in floodplains and in other areas subject to natural hazards, which are intended to mitigate the effects of such hazards. ORS, Chapter 476 provides the basis for the Conflagration Act.
Department of State Lands (DSL)	Responsible for a variety of service-related functions relating to land management and implementation of state removal-fill law. DSL's role in hazard mitigation is in the issuing of removal and fill permits or enforcement actions on wetlands waters of the state.	ORS 196 and 390 address wetlands, removal and fill permits or enforcement actions on the beds and banks of the waters of this state. Many of these provisions have a tangential effect on floodplain management and flood hazard mitigation.
Oregon Department of Emergency Management (OEM)	Convenes the State IHMT and provides overall coordination of natural hazards mitigation in the State of Oregon. The State Hazard Mitigation Officer (SHMO) is on the staff. Among the agency's related responsibilities are chairing the Oregon Emergency Response System (OERS) Council, staffing the Oregon Seismic Safety Policy Advisory Commission (OSSPAC), developing and maintaining the state *Comprehensive Emergency Management Plan* (CEMP) and related documents, and providing training and other assistance which help mitigate hazards.	ORS, Chapter 401 Includes many of the state's emergency management statutes one section of which states that the general purpose of the law is to reduce the vulnerability of the State of Oregon to loss of life, injury to persons or property, human suffering, and financial loss resulting from emergencies.

State IHMT Agency	Hazard Mitigation Roles and Responsibilities	Hazard Mitigation Legal Authority
Oregon State Fire Marshal (OSFM)	Develop, promote, and maintain protection of life, property, and the environment from fire and other perils through leadership, direct action, and coordination of public safety resources; provides hazard mitigation through programs to educate, inspect, survey, investigate, respond to emergency incidents, and communicate with the public and emergency responders. The Conflagration Act and the State Fire Services Mobilization Plan are coordinated at all levels of state, county, and city government and they foster cooperation in responding to fires and emergency incidents. OSFM employs Regional HazMat Emergency Response Teams to help ensure public safety regarding hazardous materials incidents occurring throughout the state. OSFM provides education and programs, inspections, information, reports, data and brochures, training programs, and emergency responses to incidents for the schools, governments, and the public.	ORS, Chapters 453 and 476-480 authorize the State Fire Marshal to perform a wide variety of education and training programs, inspections, investigative and information reports and other activities related to fire prevention, safety, and management.
Oregon Public Utility Commission (PUC)	A regulatory agency for certain electric, gas, telecommunication, and water utility companies; enforces the National Electrical Safety Code and the Federal Gas Pipeline Safety Regulations, which address utility operations under both normal and emergency conditions; monitors utilities' actions and infrastructure under a wide variety of conditions, including natural hazards, to ensure code compliance and prudent practices. OPUC promotes effective vegetation management practices to improve system safety and reliable service delivery by its ongoing enforcement of Oregon statutes and administrative rules, specifically in Chapter 860, Division 024.	ORS, Chapters 756-759, 772, and 774 authorize the OPUC to carry out its purpose.
Oregon Department of Transportation (ODOT)	Is the road authority for all state highways in Oregon, including interstate highways; works to maintain drainage, open culverts, clean ditches, and perform hydraulic studies; helps prevent or reduce damage to the state highway system caused by floods or landslides. ODOT invites and works with local public works agencies to become participating parties in the Oregon Public Works Emergency Response Cooperative Assistance Agreement. ODOT and local agencies completed a seismic retrofit prioritization study of Oregon's bridges in 1997. As of January 1999, ODOT completed seismic retrofit projects on 124 state bridges.	ORS, Chapter 810 designates ODOT as the road authority for all state highways and specifies a wide range of maintenance, operations, and analysis activities related to hazard mitigation, for example: drainage maintenance, culvert inventory, and the bridge seismic retrofit program.
Oregon Water Resources Department (OWRD)	Responsible for allocation of the water produced by watersheds each year; quantifies and provides public notification of flows throughout the state and insures safe operation of certain dams and other hydraulic structures.	ORS Chapter 540 provides OWRD statutory authorities for dam safety and a statewide hydrographic program for measuring river and stream flows.
Oregon Parks and Recreation Department (OPRD)	Works to provide and protect outstanding natural, scenic, cultural, historic, and recreational sites for the enjoyment and education of present and future generations. OPRD is responsible for land stewardship, marine conservation, rocky shores, several permit programs, department-wide resource policies, and park plants and animals. OPRD strives to provide a safe environment while maintaining the natural beauty and historic importance of our parks. In certain areas providing a safe environment for park users involves planning for natural disasters. OPRD also hosts a wealth of information to protect historic and cultural resources from the impacts of natural hazards.	ORS Chapter 390 provides deals with the role of OPRD in dealing with state and local parks, recreation programs, scenic waterways and recreation trails

State IHMT Agency	Hazard Mitigation Roles and Responsibilities	Hazard Mitigation Legal Authority
Oregon Watershed Enhancement Board (OWEB)	OWEB manages state-funded grants which can sometimes serve as non-federal match for FEMA HMA Grants when the work proposed meets the mission and interests of OWEB.	ORS 541.890 through 541.972

Advances Mitigation: As an interagency organization with a diverse range of partnering agencies, the State IHMT makes recommendations to executive branch agencies, in particular to OEM. To effectively advance and support statewide mitigation, the IHMT's goals are:

1. Coordinate hazard mitigation programs and activities at all levels in Oregon.
2. Describe and evaluate the natural hazards to which Oregon is vulnerable.
3. Describe and evaluate state, local government and private sector hazard mitigation policies, programs and capabilities, consistent with federal codes and regulations.
4. Identify sources of hazard mitigation funding and the procedures that must be followed to obtain such funding; make this information widely available.
5. Identify and evaluate proposed hazard mitigation strategies, projects and legislation to ensure consistency, and to proactively integrate natural resource goals into mitigation activities.
6. Continue to develop, implement, monitor, evaluate and update the Oregon Natural Hazards Mitigation Plan.
7. Provide education and information about natural hazards and steps which can be taken to mitigate against their effects.
8. Facilitate integration of hazard mitigation into the activities and programs of state and local government agencies, and to the extent practical, into the activities of private sector organizations.
9. Strive to integrate into natural hazard mitigation: Natural resource protection and restoration, storm water management, fish and wildlife concerns, federally and state listed threatened and endangered plants and invertebrates, floodplain management and protection of water quality for public use.
10. Promote and facilitate the concept of a disaster resistant economy in Oregon.

IHMT members help with various mitigation activities beyond attending and contributing to IHMT meetings. IHMT members help update the Oregon NHMP. Members also serve on grant review committees to ensure state award decisions meet local priorities, and that federal funds help communities throughout Oregon.

Hinders Mitigation: Though established in 1997, IHMT lacks formal recognition, constraining its influence and impact.

Potential Solutions: OEM is continuing to work through state channels to establish formal recognition for the State IHMT.

4.3.2.6 Wildfire Programs Advisory Council

Description: Established in 2021 following the passage of Senate Bill 762, the Wildfire Programs Advisory Council (Council or WPAC) is a tasked with reviewing Oregon's existing model for wildfire preparation and response, as well as providing recommendations to the state on how to address wildfire risks. The Council is appointed by the legislature, and works alongside the State Wildfire Programs Director who is appointed by the Governor. The council is comprised of representatives from 11 state agencies, as well as members from across Oregon representing a variety of interests.

Advances Mitigation: The Council is charged with monitoring the progress of wildfire programs, advising and assisting the Director in wildfire-related activities, closely monitoring and providing feedback on

implementation efforts, and handling wildfire-related programmatic responsibilities, such as wildfire hazard mapping, defensible space, building codes, land use, forest management, landscape resiliency, electric utilities, air quality, and public health. The Council also prepares an annual report describing and evaluating implementation progress.

Hinders Mitigation: While the Council is adequately supported and fulfills its mission, its overall effectiveness is limited due to a lack of dedicated and ongoing funding allocated for the implementation of its recommendations. As such, many of the Council-advised programs launched since the passage of SB 762 in 2021 were one-time initiatives or have since been only partially funded or defunded.

Potential Solutions: If sustained funding is provided, many of the Council's recommendations could be accomplished within five years.

4.4 Legislation and Planning

Oregon maintains a natural hazard mitigation planning program, largely informed by the Oregon Statewide Land Use Planning Program's Goals.

Staff reviewed the Statewide Landuse Planning Program's authority and goals, and evaluated how they influence state and local hazard mitigation planning in Oregon.

Through the 2025 Oregon NHMP Capability Assessment, staff identified 28 mitigation statutes and 18 mitigation plans and reports that support and advance natural hazards planning and mitigation efforts, and evaluated each one's ability to advance and enhance natural hazards mitigation.

4.4.1 Statewide Land Use Planning Program

4.4.1.1 Overview

Oregon's rapid population growth and development during the 1960s prompted concern about the effect rapid growth could have on the environment, natural resources, and community livability. These concerns led to the passage of Senate Bill 10 in 1969, which required all Oregon cities and counties to adopt comprehensive land use plans and zone all land under their jurisdiction by 1971 (*History of Land Use Planning*, N.D.). However, it failed to establish both the means of enforcing the new law and a technical support program to assist communities in developing their comprehensive plans. As a result, most cities and counties refused to develop plans.

In 1973, the Land Conservation and Development Act (comprised of Senate Bills 100 and 101) was passed, which outlined and established a statewide land use planning framework and program. Whereas SB 101 sought to strengthen farmland protection across the state, SB 100 largely maintained SB 10's original goals of directing local governments to adopt and implement comprehensive plans and revise them periodically in accordance with statewide goals (*History of Land Use Planning*, N.D.). However, to address the shortcomings of SB 10, SB 100 outlined procedures and devised structures to implement and enforce the law. Under SB 100, a land use planning, policy, and administrative oversight body was established - the Land Conservation and Development Commission (LCDC) - along with a new state agency, the Department of Land Conservation and Development (DLCD).

Under the LCDC charge, the state developed and adopted state land use goals, which were to serve as the foundation for the statewide land use planning framework. Additionally, the DLCD was to assist the commission and local governments in the implementation and continued compliance with those goals, and support coordinating state agencies in land use matters (*History of Land Use Planning*, N.D.).

4.4.1.2 Statewide Land Use Planning Program

Under the statewide land use planning program, Oregon cities and counties are responsible for adopting comprehensive plans, including zoning land to implement the plan, administering land use regulations, and handling land use permits for Oregon's non-federal land, all in accordance with the 19 statewide planning goals. These planning goals, as developed by the LCDC, are the foundation of the statewide land use planning program (ORS 197.225; OAR 660-015, OAR 660-025). Their purpose is to offer guidance for local land use planning processes, urban development and coastal community asset planning, as well as direct state resource preservation (*History of Land Use Planning*, N.D.).

An effective comprehensive plan contains inventories and technical information, local land use issues, goals, policies, and implementing measures consistent with the statewide land use planning goals. Additionally, any plans and programs carried out by state agencies must comply with local comprehensive plans and zoning regulations.

A major contributing factor to the success of land use planning efforts in Oregon is that each planning goal is treated with equal importance and strength. This position helps ensure that each goal is addressed in a way that complements rather than conflicts with others. This encourages planning entities and stakeholders to collaborate and work cooperatively on land use planning efforts. Through collaboration and consensus, it is possible to address as many of the concerns outlined in the comprehensive plan as possible and develop solutions that consider a range of perspectives (*History of Land Use Planning*, N.D.).

4.4.1.3 Statewide Natural Hazard Mitigation Program

Oregon maintains a robust and effective natural hazards mitigation planning program through the DLCD. The DLCD engages in efforts that contribute to statewide mitigation and resilience building, such as assisting local governments with developing and updating NHMPs, and providing technical and financial assistance to agency staff, local governments, and individuals.

4.4.1.4 Evaluation of Land Use Planning Goals Related to Natural Hazards

There are several statewide planning goals that pertain to natural hazard management and statewide resilience. Each natural hazard-related goal aims to strengthen and enhance community and state resilience against current and future natural hazard events and conditions, including the effects of climate change.

The primary planning goal related to hazard risk reduction is Goal 7: Areas Subject to Natural Hazards (OAR 660-015-0000(7)). Additional statewide planning goals related to natural hazards mitigation planning include the following (DLCD, 2024):

- Goal 2: Land Use Planning
- Goal 5: Natural Resources, Scenic and Historic Areas and Open Space

- Goal 16: Estuarine Resources
- Goal 17: Coastal Shorelands, and
- Goal 18: Beaches and Dunes.

Goal 7: Areas Subject to Natural Hazards' purpose is "To protect people and property from natural hazards (*Goal* 7, 2002)." Under Goal 7, local governments must adopt comprehensive plans that contain inventories, policies, and implementation measures to reduce risk to people and property from, at minimum, coastal and riverine floods, landslides, earthquakes and related hazards, tsunamis, coastal erosion, and wildfires. This risk reduction can be achieved through both regulatory and non-regulatory strategies.

The DLCD's Natural Hazards Mitigation Planning Program implements Goal 7 through activities such as leading the periodic updates of the Oregon Natural Hazards Mitigation Plan (NHMP), assisting local governments and tribes directly with developing and updating NHMPs, and providing technical assistance to agency staff, local governments, and individuals with other Goal 7-related projects and questions (*Goal 7*, N.D.). Additionally, this program's staff works collaboratively with DLCD's National Flood Insurance Program (NFIP) staff, Climate Change Resilience Coordinator, and Ocean and Coastal Management Program (OCMP) staff to implement Goal 7 statewide.

Goal 7 establishes a detailed framework and process for local government planning officials to follow when determining the appropriate local response to new hazard information. The process includes evaluating risk, soliciting public comment, and revising policies and implementation measures as appropriate - consistent with outlined principles - and coordinating with DLCD.

Goal 7 also serves as an incentive for all of Oregon's flood-prone communities to participate in the National Flood Insurance Program, as well as the Community Rating System Program (CRS). When a local government adopts measures that exceed the National Flood Insurance Program minimum standards through participation in the CRS, flood insurance policy-holders in that jurisdiction will receive discounted premiums.

Despite its positive aspects, Goal 7 is not without challenges. Unlike other statewide land use planning goals, Goal 7 is process-based, and does not include a set of regulations. This makes enforcing it more challenging. Additionally, there is little state funding allocated for Goal 7, constraining implementation.

Goal 2: Land Use Planning requires each local government in Oregon to adopt and adhere to a comprehensive land use plan and implementing regulations and is implemented primarily through the guidance of the DLCD's Community Services Division (*Goal 2*, N.D.). Under Goal 2, cities and counties are required to build their comprehensive plans on a factual foundation and follow the comprehensive plan policies when deciding on appropriate land use designations, zoning, and other implementing actions, including developing in hazards zones (adherence to Goal 7). Comprehensive plans must comply with each applicable Statewide Planning Goal. The Land Conservation and Development Commission (LCDC) reviews each city and county comprehensive plan for compliance with the Statewide Planning Goals. Once LCDC acknowledges a comprehensive plan, the plan drives local land use decision-making.

DLCD staff encourage local governments to incorporate their NHMPs into their comprehensive plans. In this way, hazard risks and vulnerabilities are documented, along with potential mitigation actions that can reduce hazard risks and vulnerabilities. This advances mitigation, as well as encourages the community to

continue incorporating the most up-to-date hazard science and data into their planning processes, policies, and regulations.

Goal 5: Natural Resources, Scenic and Historic Areas and Open Space requires local governments to adopt inventories, policies, and implement measures to protect natural resources and conserve scenic, historic, and open space resources for present and future generations (*Goal 5*, N.D.). Implementation of Goal 5 is primarily guided by the DLCD's Natural Resources Planning and Renewable Energy program.

Land use plans can be used to ensure communities have an adequate supply of and access to resources that promote healthy and safe environments. This includes implementing mitigation measures to further reduce risk and enhance community safety. Resource areas and open spaces offer natural hazards mitigation opportunities by buffering development from or absorbing the impacts of natural hazards. Goal 5 implementation can also help jurisdictions determine how to protect historic resources from the potential impacts of natural hazards.

Goal 16: Estuarine Resources provides the principal guidance for the planning and management of Oregon's estuaries. The goal has a twofold purpose: (a) to recognize and protect the unique environmental, economic, and social values of each estuary and associated wetlands; and (b) to protect, maintain, where appropriate develop, and where appropriate restore the long-term environmental, economic, and social values, diversity, and benefits of Oregon's estuaries (*Goal 16*, N.D.). Implementation of Goal 16 is primarily guided by the DLCD's Coastal Management Program.

Comprehensive management programs are used to achieve this goal and are developed by the appropriate local, state, and federal agencies for estuaries. Such objectives can be developed in coordination with a mitigation action.

Goal 17: Coastal Shorelands focuses on the protection and management of coastal shoreland resources, and aims to address the conservation, protection, and as appropriate, development of Oregon's coastal shorelands. It aims to reduce hazards to human life and property, as well as reduce any adverse effects upon water quality and fish and wildlife habitat resulting from the use of Oregon's coastal shorelands (*Goal 17*, N.D.). The implementation of Goal 17 is primarily guided by the DLCD's Coastal Management Program and is implemented through local comprehensive planning and zoning.

Goal 17 advances natural hazard mitigation through active cooperation and collaboration between the DLCD's Coastal Management Program and Natural Hazards Mitigation Planning Program. Through collaboration efforts, Goal 17 supports and advances mitigation efforts focused on protecting natural coastal resources, which can include taking measures meant to reduce natural hazards risk to life, property, and natural resources. Additionally, under Goal 17, jurisdictions are required to maintain inventories that provide information on the characteristics, location, and extent of natural hazards, such as floods and geological hazards.

Goal 18: Beaches and Dunes' purpose is to conserve and protect Oregon's beach and dune resources. It is central to the work of coastal communities when addressing the impacts of coastal hazards and climate change in areas along the ocean shore.

The implementation of Goal 18 is primarily guided by the DLCD's Coastal Management Program. Goal 18 requires coastal communities to inventory beaches and dunes, and describe their stability, hazards, and vulnerabilities. In response, local governments must apply appropriate policies for the use of these areas, including identifying areas where development is permitted or must be prioritized in order to help restore

the resources and benefits of coastal beach and dune areas. Goal 18 also instructs communities to minimize hazard risks to human life and property from any natural or human-induced actions associated with these areas (*Goal 18*, N.D.).

Like Goal 17, the DLCD's Coastal Management Program and Natural Hazards Mitigation Planning Program collaborate on advancing natural hazard mitigation planning to meet Goal 18. This is accomplished by taking measures such as prohibiting development on the most sensitive and hazardous landforms in the beach and dune environment, which includes beaches, active foredunes and other dune areas subject to severe erosion or flooding. Success of this goal is imperative, as Oregon continues to experience significant increases in ocean erosion, in conjunction with climate change and sea level rise. Thus, limiting hard structures along the coast and allowing natural shoreline migration are critical policy tools for conserving and maintaining Oregon's ocean beaches, and advancing mitigation and resilience efforts (*Goal 18*, N.D.).

4.4.1.5 Summary

Throughout its history, the Oregon Statewide Land Use Planning Program and its Planning Goals have had continual success in the protection and management of natural resources and the environment, while still responding to community priorities and reducing community risks and vulnerabilities related to natural hazards. It is through the ongoing collaboration of public and private planning entities and stakeholders that the implementation and maintenance of statewide land use planning goals continue to focus on and advance natural hazard mitigation efforts across the state.

4.4.2 Building Codes

Adoption and adherence to building codes creates stronger and safer buildings, increases sustainability and community resilience, reduces environmental impact, decreases recovery time and efforts following a natural disaster, complies with required guidelines for government assistance, and saves money over the life of a building.

In Oregon, building codes are administered by the Department of Consumer and Business Services' Building Codes Division (BCD). BCD establishes codes according to uniform standards for all residential and commercial buildings across the state, a system that prohibits local governments from enacting conflicting regulations. The BCD adopts, amends, and interprets specialty codes that make up the Oregon State Building Code, as well as provides code development, administration, inspection, plan review, licensing, and permit services, all meant to improve the safe and effective construction of structures in Oregon.

The Building Codes Division strives to ensure safe building construction in Oregon by (a) adopting and administering uniform statewide building codes, (b) providing code and rule interpretation, (c) assisting local government building departments and facilitating dispute resolution, (d) enforcing license, code, and permit requirements, (e) certifying inspectors and licensing trade professionals, (f) facilitating economic development efforts around the state, and (g) conducting inspections where local entities do not.

4.4.2.1 Developing and Adopting Codes and Standards

Oregon building codes are guided by the standards outlined by the International Code Council (ICC), an organization that develops model codes and standards for structure development and construction. Every

three years, the ICC updates their model codes to provide guidance on current best practices and standards regarding new construction and updates. The ICC series of model codes includes the following: International Building Code (IBC), International Residential Code (IRC), and International Existing Building Code (IEBC), all of which provide guidance for developing structures and communities built to keep residents and community members safe in the event of a disaster.

Oregon's building codes for commercial structures, called the Oregon Structural Specialty Code (OSCC), was last updated in 2022, and was revised based on the 2021 International Building Code (IBC) and International Existing Building Code (IEBC). With the adoption of the 2022 Oregon Structural Specialty Code (OSSC), building designs in Oregon must comply with the latest building and construction science available.

Oregon is currently in the process of developing the 2025 OSSC, which will include updated building codes for commercial buildings. This update will be informed by the 2024 IBC and 2024 IEBC, as well as the new construction provisions outlined in the 2024 International Fire Code (IFC). The 2025 OSSC is anticipated to be adopted in late 2025.

Building codes for residential structures, call the Oregon Residential Specialty Code (ORSC), was last updated in 2023 and was revised based on the 2021 International Residential Code (IRC). With the adoption of the 2023 Oregon Residential Specialty Code (OSSC), residential building designs in Oregon must comply with the latest building and construction science available.

A number of provisions of the model building codes apply to the design and construction of buildings located in areas prone to natural hazards. The ORSC incorporates several of these model code hazards-related provisions, such as updates to building codes in relation to wildfire. As described in section R327 of the 2021 Oregon Residential Specialty Code (ORSC), the Building Codes Division (BCD) will adopt wildfire hazard mitigation building code standards in 2025. These standards apply to new dwellings and their accessory structures located in the high wildfire hazard zone in the WUI, as identified on the Oregon wildfire hazard map, released in early 2025. Section R327 of the ORSC was also amended to include standards for additions to existing dwellings and accessory structures, as well as for the replacement of existing exterior elements.

The updated wildfire hazard mitigation building codes standards build upon the 2019 update to section R327 of the ORSC, which included additional parameters to guide local assessment of wildfire hazard on a voluntary basis. Since the passage of SB 762, jurisdictions no longer have the voluntary local pathway under the updated R327 code as it has been revised to include the statewide mapping component to ensure sufficient protection for all residents in Oregon.

4.4.2.2 Adopting and Enforcing Codes

At the local level, all jurisdictions maintain building codes that they adopt and enforce, but which must be within the state's minimum and maximum standards. Should their local code exceed or conflict with the state's regulations, they must defer to the state's requirements, even if the local code would result in greater structure resilience. Placing a maximum requirement can discourage local governments from pursuing innovative and cost-effective methods of risk reduction.

The issue may be resolved by the state removing the building code maximum requirements, thus allowing local jurisdictions to exceed state requirements. However, removing this requirement would necessitate

extensive legislative action at local and state levels of government, a process that may prove difficult to achieve.

4.4.2.3 State Codes and Legislation Relevant to Buildings and Hazards

The following table summarizes state legislation and codes that apply to the design and construction of buildings located in areas prone to natural hazards.

Table 1 Oregon State Codes and Legislation Related to Buildings and Hazards

Codes /Statute / Legislation	Description	Hazards Addressed
House Bill 2605 (2021): Relating to tsunami risk.	This Bill creates new provisions and amends ORS 455.447. In particular, it a) defines essential facilities and major structures, b) adopts the ASCE tsunami design zone such that Risk Category III and IV structures must now meet minimum standards as described in the ASCE 7-16 (more recently 7-22) tsunami loads chapter, and c) requires DOGAMI to be consulted when designing Risk Category III and IV structures. BCD adopted the tsunami provisions in ASCE-7-16 but put them in an optional Appendix that is only binding if adopted by a city or county. Essentially, it means that communities can decide whether to follow these provisions or not.	Tsunami
House Bill 3309 (2019): DOGAMI Regulations Reform	The bill removed the prohibition of constructing essential facilities and other defined structures in the tsunami inundation zone, meaning that now all prohibited uses under ORS 455.446-447 become consultation uses. That means that all new essential facilities, hazardous facilities, major structures, and special occupancy structures (as defined in the statute) may now be permitted within the regulatory tsunami inundation line. However, the state adopted an Appendix O in the 2019 Oregon Structural Specialty Code addressing tsunami loading which is available for local adoption.	Tsunami
House Bill 4016 (2024): Additional Home	This bill extended the Department of Consumer and Business Services (DCBS) Building Codes Division's (BCD) home hardening grant program for wildfire survivors	Wildfire

Codes /Statute / Legislation	Description	Hazards Addressed
Hardening Grant Program Extension	and expanded it to include wildfire losses that may occur in the 2024 fire season. It also required BCD and OSFM to write a report to the legislature on what a proactive home hardening grant program would look like by September 15, 2024.	
ORS 215.730 (2024): Additional Criteria for Forestland Dwellings	ORS 215.730 (County Planning; Zoning, Housing Codes) provides additional criteria for approving dwellings located on lands zoned for forest and mixed agriculture and forest use. Under its provisions, county governments must require, as a condition of approval, that single-family dwellings on lands zoned as forestland meet certain criteria, such as having a fire-retardant roof, a spark-arrestor for each chimney, and appropriate defensible space maintained around the structure.	Wildfire
R327 (2021): Wildfire Hazard Mitigation – addition to the Oregon Residential Specialty Code (ORSC)	The Building Codes Division (BCD) anticipates adopting wildfire hazard mitigation building code standards in 2025. These standards are described in section R327 of the 2021 Oregon Residential Specialty Code (ORSC), that apply to new dwellings and their accessory structures located in the high wildfire hazard zone in the WUI as identified on the statewide wildfire hazard map. Section R327 of the ORSC was also amended to include standards for additions to existing dwellings and accessory structures and for replacement of existing exterior elements. The updated wildfire hazard mitigation building code standards build upon the 2019 update to section R327 of the ORSC, which included additional parameters to guide local assessment of wildfire hazard on a voluntary basis. Since the passage of SB 762, jurisdictions no longer have the voluntary local pathway under the updated R327 code as it has been updated to include the statewide mapping component to ensure sufficient protection for all residents in Oregon.	Wildfire

Codes /Statute / Legislation	Description	Hazards Addressed
Section R302 (2023): Fire-Resistant Construction	This chapter is for when fire-resistant construction is required for residential homes and their accessory structure. This is either due to separation between structures on the same property or distance from property line. This type of construction is designed to slow the passage of fire between structures to allow the occupants to safely leave the building and give the fire authority time to stop the spread of the fire. Implementation of this chapter has reduced the spread of fire between buildings.	Wildfire
Section R322 (2020): Flood-Resistant Construction	Buildings and structures constructed in whole or in part in flood hazard areas, including A or V Zones and Coastal A Zones, as established by the floodplain administrator, and substantial improvement and repair of substantial damage of buildings and structures in flood hazard areas, must be designed and constructed in accordance with the provisions contained in this section. Buildings and structures located in more than one flood hazard area must comply with the provisions associated with the most restrictive flood hazard area. Buildings and structures located in whole or in part in identified floodways must be designed and constructed in accordance with ASCE 24.	Flood
Senate Bill 5506 (2023): Extending Fire Hardening Grant Program	This bill expanded an existing BCD program, the Fire Hardening Grant Program, to include people affected by the 2021 wildfires, and allocated an extra $6.3 million for its implementation. With the extension of this initiative into 2024, BCD anticipates a higher level of participation.	Wildfire

Codes /Statute / Legislation	Description	Hazards Addressed
Senate Bill 644 (2023): Relating to accessory dwelling units on lands zoned for rural residential use	This legislation amends requirements relating to wildfire hazard mitigation for development of accessory dwelling units (ADUs) on lands zoned for rural residential use. The bill allows, but does not require, counties to permit ADUs in rural residential zones if the ADU complies with the construction provisions of section R327 of the Oregon Residential Specialty Code (wildfire hazard mitigation, also known as home hardening); minimum statewide defensible space standards; adequate access for firefighting equipment, safe evacuation and staged evacuation areas; and other requirements regardless of location in the absence of the statewide wildfire hazard map. This legislation has been effective, as at least 13 counties have amended their land use development codes to allow for ADUs in areas zoned for rural residential use.	Wildfire
Senate Bill 82 (2023): Relating to homeowner insurance for wildfire risk.	Continues the Wildfire Program. Works to partner with Oregon's insurance industry to ensure transparency in rating and underwriting decisions by insurers, as related to wildfire threats. The bill also allows consumers to see how wildfire risk reduction efforts – such as establishing defensible space, hardening homes, and participation in wildfire community preparedness programs – may influence their insurance rating and the availability of insurance. Extends statutory protections found in ORS 742.270 to apply to losses related to a fire subject to an order under ORS 476.510-610.	Wildfire
Senate Bill 96 (1991): Seismic Hazard Investigation	This law requires site-specific seismic hazard investigations before the construction of essential facilities, hazardous facilities, major structures, and special-occupancy structures (e.g., hospitals, schools, utilities and public works, police and fire stations). These requirements are included in the State Building Code. The law also provides for the installation of strong-motion sensors in selected major buildings and	Earthquake

Codes /Statute / Legislation	Description	Hazards Addressed
	mandates that school officials in all public schools lead students and staff in earthquake drills.	
Statewide Minimum Defensible Space Requirements (2023)	The purpose of the Oregon Defensible Space Code is to establish minimum requirements for protecting life and property. Standards in the code are intended to mitigate the risk to life, structures, and other values from wildfire. Established by the OSFM in consultation with the Oregon Fire Code Advisory Board, these codes are consistent with sections 603 and 604 of the International Wildland-Urban Interface (WUI) Code and best practices specific to Oregon. The requirements apply statewide for all lands in the WUI that are designated as being in the high wildfire hazard zone on the wildfire hazard map. Local governments have the option of adopting and enforcing more stringent requirements upon review and approval by the OSFM. OSFM will periodically re-examine the standards set forth in the International Wildland-Urban Interface Code and update requirements to reflect current best practices.	Wildfire

4.4.3 Highlighted Plans and Reports

This section highlights some of the evaluated mitigation plans and reports available in Oregon. The evaluations provide a description of the plans and reports and how they contribute to mitigation efforts. Also, some evaluations describe challenges related to their implementation or use and propose potential solutions.

4.4.3.1 Central Cascades Volcano Coordination Plan (2019) and Mount Hood Coordination Plan (2013)

Author: Oregon Department of Emergency Management (OEM)

Description: Both plans provide vital response and communication information for the areas that will be most affected by a Cascades or Mount Hood volcanic event. These plans play a crucial role in a coordinated effort to enhance the regions' preparedness for emergencies and disasters.

Advances Mitigation: As these plans serve as a coordinated effort to enhance the region's preparedness for emergencies and disasters, they advance planning efforts among impacted communities and counties, multiple state and federal agencies, and Tribes.

Hinders Mitigation: Currently, there is no individual person or agency that oversees either of these plans, so updates will not be pursued unless staff has capacity to convene and facilitate an update process. This can result in updates occurring infrequently.

Potential Solutions: The effectiveness of these plans is in part determined by the frequency of updates and improvements. In an effort to update these plans more regularly and efficiently, OEM is combining the Mt. Hood and Central Cascades Coordination Plans and incorporating them into the Oregon Emergency Operations Plan as an annex.

4.4.3.2 Oregon Climate Assessment (2025)

Author: Oregon Climate Change Research Institute (OCCRI)

Description: The Climate Assessment is a biennial assessment of the state of climate change science as it relates to Oregon and the likely effects of climate change on the state, as well as how it will affect social vulnerability and equity across the state. The most recent update, the seventh Oregon Climate Assessment was published in January 2025.

Advances Mitigation: The assessments have been used to inform natural hazards mitigation and actions to improve community resilience and reduce vulnerability. The assessments generally include sections on changes in climate, climate-related hazards, and effects of climate change on the sectors highlighted in Oregon's Climate Change Adaptation Framework. The assessments are a resource for communicating with the public, decision-makers, and the media.

Hinders Mitigation: The plan is updated on a limited budget. As such, the content included in the assessment is dependent on the availability and generosity of contributors who are not financially compensated.

Potential Solutions: Currently, no solution has been proposed, however, additional funding to support the biennial updates could be pursued in the future.

4.4.3.3 Oregon Resilience Plan (2013)

Author: Oregon Department of Emergency Management (OEM) and Oregon Seismic Safety Policy Advisory Commission (OSSPAC)

Description: House Resolution 3, adopted in April 2011, directed the Oregon Seismic Safety Policy Advisory Commission (OSSPAC) "to lead and coordinate preparation of an Oregon Resilience Plan that reviews policy options, summarizes relevant reports and studies by state agencies, and makes recommendations on policy direction to protect lives and keep commerce flowing during and after a Cascadia earthquake and tsunami." (*The Oregon Resilience Plan*, 2013) OSSPAC assembled task groups, comprising of volunteer subject-matter experts from the government, universities, the private sector, and the general public. An Advisory Group of public- and private-sector leaders oversaw the Task Groups' work, assembled in the portfolio of chapters that make up the plan.

Advances Mitigation: Over the 12 years since the plan was adopted, the plan has served as a valuable resource for seismic risk reduction across the state. Many of its recommendations have been implemented, such as developing a statewide inventory of buildings critical to the basic functioning of the public and private sectors.

Hinders Mitigation: OSSPAC has not updated the Plan since its adoption, as there has been no funding allocated to support an update.

Potential Solutions: There are currently no plans to secure dedicated funding for an update. However, OSSPAC has an effort underway to assess and analyze progress of the 2013 recommendations. This tracking will help the state understand where resilience has advanced and where more attention is needed.

4.4.3.4 Oregon's Integrated Water Resources Strategy (2025)

Author: Oregon Water Resources Department

Description: The IWRS provides a statewide inter-agency framework to better understand and meet Oregon's instream and out-of-stream water needs, which will support resilient communities, local economies, and healthy environments.

Advances Mitigation: The IWRS includes about fifty recommended actions, including three that address natural hazards (drought, floods, and earthquakes), referred to in the 2017 IWRS as "Extreme Events." The IWRS includes many other actions that, if implemented, could support climate resilience.

Hinders Mitigation: Due to limited staffing capacity and funding resources, the engagement and coordination with other agencies and partners needed to accomplish the IWRS's goals and objectives are very limited. As such, there is limited familiarity with or use of the tool across agencies. Additionally, there is limited funding to carry out water management duties, which include developing the water data needed to guide water management decisions.

Potential Solutions: The effectiveness and awareness of the strategy would significantly benefit from hiring 1 FTE at OWRD for the purpose of guiding the Strategy's implementation. Also, additional funding would enable partnering agencies to adequately fund water management responsibilities at all scales (e.g.,

engagement and technical assistance capacity, planning, data collection and analysis, regulation and enforcement).

4.4.3.5 Wildfire Communities Recommendations Report (2022)

Author: Oregon Department of Land Conservation and Development (DLCD)

Description: DLCD's Wildfire Adapted Communities Recommendations Report, prepared in response to Senate Bill 762 (2021), identified six recommendations for changes to state and local land use planning programs to reduce risk from wildfire to protect Oregon communities. DLCD provided the report to the Legislature, the Wildfire Programs Director, and the Wildfire Programs Advisory Council on October 1, 2022.

Six recommendations reflect what DLCD heard from community members and leaders about the role land use can play in addressing and mitigating wildfire risk in communities, informed by best practices, including strategies some Oregon communities are already implementing. How and where the built environment exists and expands directly affects how effectively communities can increase their resilience to wildfire. DLCD's recommendations focus on land use and transportation planning actions at a regional, community, or neighborhood scale.

Advances Mitigation: The recommendations included in the report have high potential to be very effective in increasing community resilience by reducing risk from wildfire hazards. Some of the recommendations that are within the DLCD's authority can be accomplished with existing funding and staff capacity are being advanced, such as working with local and state partners to better integrate the planning process for updating Community Wildfire Protection Plans with that of Natural Hazards Mitigation Plans.

Hinders Mitigation: The legislature has not provided DLCD with direction or funding to pursue any of the recommendations included in the report.

Potential Solutions: A potential solution would be to obtain dedicated funds for implementing recommendations.

4.5 Funding

Oregon has been proactive in pursuing funding for hazard mitigation projects available through federal and state sources with the intention of improving statewide hazard mitigation capabilities and further advancing hazard mitigation goals.

The 2025 NHMP State Capability Assessment identified 59 mitigation funding capabilities that support and advance natural hazards planning and mitigation efforts and evaluated their ability to advance and enhance natural hazards mitigation efforts.

4.5.1 State Use of State Mitigation Funds

The state pursues a variety of funding opportunities not funded by the federal government, such as state, local, and private sources. While state funding for hazard mitigation and risk reduction remains limited, Oregon has an excellent track record of leveraging limited state resources to successfully complete mitigation planning and projects.

The following section highlights some of the evaluated state mitigation funds available in Oregon. The evaluations provide a description of the funding and how it contributes to mitigation efforts. Also, some evaluations describe challenges related to the implementation or use of these mitigation funding and propose potential solutions.

4.5.1.1 Community Wildfire Protection Plan Investments

Funding Source: Oregon State Fire Marshal (OSFM) and Oregon Emergency Management (OEM)

Description: In 2023, OSFM made a strategic, one-time $2.7 million investment at the local and county levels through funding the development and implementation of community wildfire protection plans (CWPP) to promote wildfire hazard mitigation community resilience across the state.

In 2023, several state agencies, academia, and local emergency managers met to discuss the relationship between CWPPs and natural hazard mitigation plans (NHMP). NHMPs have a chapter covering wildfire hazards, which is also the purpose of CWPPs. The workgroup unanimously agreed that NHMPs and CWPPs are distinct, and they should remain separate documents. The workgroup wrote recommendations for coordinating CWPPs and NHMPs, and shared it with the members of the Inter-agency Hazard Mitigation Team.

OEM discussed grant programs with OSFM and the Oregon Department of Forestry (ODF) and then changed priorities in the Hazard Mitigation Grant Program (HMGP) and the Hazard Mitigation Grant Program – Post Fire (HMGP-PF). OEM decided, with agreement from OSFM and ODF, that when Oregon receives HMGP-PF funding, OEM will prioritize CWPPs to update and wildfire plans. HMGP funding from other disaster declarations will prioritize NHMP updates. This ensures that Oregon supports both types of plans because they are both important.

Advances Mitigation: This funding supported numerous wildfire mitigation projects in 25 counties: Baker, Benton, Clackamas, Coos, Crook, Curry, Deschutes, Douglas, Gilliam, Hood River, Jackson, Jefferson, Josephine, Lake, Lane, Lincoln, Linn, Malheur, Marion, Morrow, Multnomah, Polk, Wallowa, Wheeler, and Yamhill. These projects included promoting wildfire-specific community risk reduction efforts, community education, defensible space projects, home assessments, media campaigns, signage, fuel mitigation programs, and grant funds. Awards were announced in February 2023.

Hinders Mitigation: The funding was a one-time investment in 2023-2025, and the legislature may consider continuing it.

Funding from FEMA's HMGP and HMGP-PF programs vary in funding amount which is based on the size of the declared event. There are times Oregon cannot fund all proposed mitigation planning or project activities.

Potential Solutions: Currently, no solution has been proposed.

4.5.1.2 Landscape Resiliency Program

Funding Source: Oregon Department of Forestry (ODF)

Description: Lead by ODF, the Landscape Resiliency Program was established through Senate Bill 762, Section 18 (2021) to improve forest restoration and resiliency. This grant program funds landscape-scale projects aimed toward reducing wildfire risk on public and private forestlands and rangelands, and in communities near homes and critical infrastructure through the restoration of landscape resiliency and reduction of hazardous fuels. It funds cross-boundary strategic landscapes that may or may not include WUI areas. The program was appropriated $20 million General Fund to be spent by the end of the 2021—2023 biennium by the Oregon Department of Forestry (ODF). Any funds from other funding streams may be used as match, but Oregon General Fund may not be used as match.

Advances Mitigation: The program is highly effective in reducing wildfire risk on a landscape scale through cross-boundary collaboration with federal, state, tribal, and local partners. It excels in leveraging federal funds to achieve significant, large-scale impacts and is recognized as one of the 40 critical programs identified in Oregon's 20-Year Landscape Resiliency Strategy. For the 2021-2023 biennium, ODF awarded $19.7 million in landscape resiliency grants to nine cross-boundary projects through 30 individual agreements. This work was completed by June 30, 2023. These investments resulted in $15.8 million of additional matching dollars leveraged, and treatment of 211,915 acres.

Hinders Mitigation: Funding challenges persist. The 2023-2025 biennium saw funding cut in half to $10 million, with uncertain prospects for the 2025-2027 biennium. A recent assessment under the 20-Year Landscape Resiliency Strategy determined that $100 million per biennium is necessary to fully leverage federal funding and achieve Oregon's landscape resiliency and wildfire risk reduction goals.

Potential Solutions: The 2024 Wildfire Programs Advisory Council's annual report contains a recommendation for increasing funding in the next biennium and establishing reliable state and federal funding for resilience projects.

4.5.1.3 Oregon Watershed Enhancement Board

Funding Source: Oregon Watershed Enhancement Board (OWEB)

Description: OWEB provides grants that protect and restore watersheds in Oregon. Grant offerings include: 1) Engagement, which provides funding for grantees to recruit landowners and land managers to implement restoration or protection activities; 2) Technical Assistance, which provides funding for assessment and design work leading to restoration or protection; 3) Restoration, which provides funding for on-the-ground activities that restore watersheds; 4) Acquisition, which provides funding for acquisitions of land or water; and 5) Monitoring, which provides funding for tracking status, trend, or effectiveness of restoration activities. The focus of these grant offerings is fish and wildlife habitat restoration and the protection of water quality, but activities often have community and climate resiliency benefits as well.

Advances Mitigation: OWEB grants have been effective at engaging landowners and land managers across the state to participate in voluntary restoration and conservation actions that improve watershed health. In addition to benefits to fish and wildlife habitat and water quality, restoration actions often have climate adaptation and ecosystem resilience benefits along with opportunities to sequester and store carbon.

Hinders Mitigation: The pace and scale of needed restoration is large, and projects have become increasingly complex and expensive.

Potential Solutions: Increases in leveraged funding and coordination between and amongst funding entities and restoration implementors will be imperative.

4.5.1.4 Resilience Hubs and Networks Grant

Funding Source: Oregon Health Authority (OHA) and Oregon Department of Human Services (ODHS)

Description: The Oregon Legislature approved the Resilience Hubs and Networks Grant program through House Bill 3409, with $10 million allocated to fund the grant. The grant is meant to fund projects that combat environmental justice issues affecting people in Oregon, and to provide resources to communities disproportionately impacted by climate change. This grant aims to support communities to establish places where people can come together daily to share related resources, help people build communities, and store resources that can be distributed in times of emergency.

Advances Mitigation: This capability advances natural hazards mitigation and community resilience by addressing environmental justice and supporting communities impacted by climate change. It enhances resilience through daily resource sharing and emergency support and empowers local networks for climate adaptation. During the 2024-2025 grant cycle, over 700 organizations applied, with 87 organizations from across the state awarded funding.

Hinders Mitigation: Since the allocated $10 million was distributed to the 87 organizations for the purpose of establishing resilience hubs and networks, approximately 600 organizations remain without funding for resilience-building activities. Also, despite over 700 applicants, there remains limited awareness of the grant in communities across the state, which may contribute to an inequitable distribution of funds. Moreover, the $10 million allocated to the program was for the 2023-2025 biennium, with future funding dependent upon the allocation for the 2025-2027 biennium.

Potential Solutions: This grant program would benefit from a dedicated and sustainable funding source, as well as the hiring of specialized staff to provide technical assistance to communities. OHA has proposed enhancing outreach efforts to encourage more communities, such as those that are more rural and those with less capacity, to apply. Enhancing outreach efforts would help the program foster stronger partnerships with local groups for the purpose of enhancing collaboration and resource sharing.

4.5.1.5 Seismic Rehabilitation Grant Program

Funding Source: Business Oregon (BO)

Description: Through Business Oregon, the state's economic development agency, the Seismic Rehabilitation Grant Program (SRGP) is a competitive grant program that provides state funds meant to help enhance the resilience of Oregon's critical public facilities through seismic rehabilitation. The SRGP pays particular attention to public schools and emergency services facilities. Eligible mitigation activities include structural improvements, project management, and engineering.

Advances Mitigation: A requirement for SRGP projects is to ensure the life-safety of the building occupants and the continuity of the facilities' operations as an essential consideration. It also requires that seismic upgrades for emergency services facilities ensure their continued operation and allow for immediate occupancy following a seismic event.

Over the past 4 years, the SRGP has provided almost $389 million in funding, and functions very well as a program. Table ___ summarizes the breakdown of total funds allocated to schools and emergency services each year.

Table X: SRGP Awarded Funds 2020-2024

2020	
Schools	$64,897,165
Emergency Services	$9,581,669
2021	
Schools	$47,857,624
Emergency Services	$17,791,376
2022	
Schools	$59,423,322
Emergency Services	$21,428,477
2023	
Schools	$59,697,462
Emergency Services	$25,657,281
2024	
Schools	$55,842,944
Emergency Services	$26,111,710
Total	**$388,289,030**

Wildfire Season Staffing Grant

Funding Source: Oregon State Fire Marshal (OSFM)

Description: The Wildfire Season Staffing Grant provides funds for local fire agencies to hire firefighters for the fire season. This additional capacity allows fire agencies to respond to more calls, improve response times, and ultimately save more lives.

Advances Mitigation: Between 2023 and 2024, OSFM provided $6 million in one-time funding for local fire agencies to hire firefighters for the fire season. Local agencies could apply for up to $35,000 to hire

additional firefighters. In 2022 and 2023, the grant increased capacity by 3,476 firefighters in 220 communities.

Hinders Mitigation: 2024 is the last year for which funding is allocated for this grant.

Potential Solutions: Priority is to secure funding to continue the $6 million wildfire season staffing grant for 2025 and beyond.

4.5.2 State Use of FEMA Mitigation Funds

FEMA Hazard Mitigation Assistance (HMA) grants figure prominently in the state's mitigation funding strategy. The HMA program includes:

- Non-disaster grants
  - Building Resilient Infrastructure and Communities (BRIC)
  - Flood Mitigation Assistance (FMA)
- Legislative pre-disaster mitigation (LPDM) grants
- Post-disaster
  - Hazard Mitigation Grant Program (HMGP)
  - Hazard Mitigation Grant Program- Post Fire (HMGP-PF)
  - Fire Management Assistance Grants (FMAG)

The state also receives grants from FEMA programs not directly connected to disasters:

- High Hazard Potential Dams (HHPD)
- Emergency management Performance Grants (EMPG)
- Cooperating Technical Partners (CTP)
- Community Assistance Program – State Support Services Element (CAP-SSSE)

The state also uses post-disaster Public Assistance (PA) grants to mitigate natural and dam hazards across Oregon.

As the State Administrative Agency (SAA) for FEMA mitigation grants, OEM is the only entity in Oregon eligible to submit applications and subapplications to FEMA for mitigation grants. In this role, OEM is responsible for managing and administering financial services and grant funding to subapplicants. OEM has been successful in administering and leveraging these federal mitigation grants and programs.

The growing success and positive impact that OEM has had across Oregon is largely due to the significant growth of the OEM Mitigation Team from two staff in 2020 to 15 in 2025. Because of this increase, OEM Mitigation Team now has dedicated staff solely focused on administering non-disaster and post-disaster funding. OEM also uses some of the federal funds it receives as state management costs to contract with consultants to reach out to potential subapplicants, to help subapplicants with benefit-cost analysis (BCA), and to help subapplicants prepare subapplications.

The following tables summarize the number of FEMA mitigation funds for non-disaster (BRIC and FMA) and post-disaster (HMPG, HMPG-Post Fire) grants that Oregon has been awarded or applied for since 2020, and the FEMA share (75%) of the total project cost allocated to the projects.

Table X: Total FEMA Mitigation Grants and Requested FEMA Share of Funds by Phase

Phase	Number	FEMA Funds
Awarded	136	$129,581,730
In Closeout	12	$2,476,087
Subapplication Review	105	$563,526,983
Grand Total	**253**	**$695,584,799**

Table X: Number of FEMA Mitigation Grant Funds by Phase and Grant Type

Grant	# Awarded	# In Closeout	# In Review	Total / Grant
BRIC	7	1	62	70
FMA	2	-	8	10
HMGP	90	4	23	117
HMGP-PF	29	2	11	42
LPDM	4	-	-	4
PDM	4	5	1	10
Grand Total	**136**	**12**	**105**	**253**

Table X: Requested FEMA Share of Funds by Grant Type and Phase

Grant	$ Awarded	$ In Closeout	$ In Review	Total / Grant
BRIC	$18,004,811	$127,500	$479,808,691	$497,941,002
FMA	$584,145		$21,501,912	$22,086,057
HMGP	$88,732,423	$781,423	$54,441,261	$143,995,107
HMGP-PF	$12,194,099	$608,730	$3,775,119	$16,577,948
LPDM	$6,572,563	-	-	$6,572,563
PDM	$3,493,689	$958,434	$4,000,000	$8,452,122
Grand Total	**$129,581,730**	**$2,476,087**	**$563,526,983**	**$695,584,799**

4.5.2.1 FEMA Non-Disaster Mitigation Funding and Programs

FEMA's non-disaster grant funds, such as BRIC, FMA, and HHPD, which are made available on a regular basis rather than in response to major disasters (such as FEMA HMGP-Post Fire or FEMA Public Assistance Grants) are an integral component of OEM's mitigation funding strategy. Non-disaster funding covers proactive mitigation actions and measures, which are intended to reduce or eliminate risk to people and property from future natural hazards, ultimately enhancing community resilience.

These non-disaster grant programs and projects are administered through the collaborative efforts of the OEM Agency Director, Deputy Director, Mitigation Section Manager and SHMO, Deputy SHMO for non-disaster grants, Facilities Engineer (Public Assistance Officer), Seismic Grants Coordinator, and financial support staff. Additionally, OEM employs Regional Coordinators, who live and work in designated regions of the state to support local jurisdictions and operations both during and after disasters. The OEM Mitigation and Recovery Regional Coordinators provide their regions with technical and coordination assistance in pursuing mitigation grant opportunities and assist in effectively leveraging state and federal dollars so as to maximize community risk reduction and be better positioned to recover from disasters. They also collaborate with local jurisdictions to identify, develop, and implement mitigation planning activities that align with community and statewide mitigation efforts.

Although OEM has limited staff to support non-disaster mitigation planning and project implementation activities, the state continues to successfully secure and manage FEMA's BRIC and FMA grants. In fact, since 2020, Oregon has been awarded almost $19 million in FEMA non-disaster funds, funding 10 mitigation projects across the state.

Building Resilient Infrastructure and Communities (BRIC):

Since it replaced the Pre-Disaster Mitigation program in 2020, OEM has leveraged BRIC funds to implement and effectively manage mitigation projects, securing funding for non-construction planning and pre-construction scoping activities, and introducing innovative programs and new technology applications.

Table X: Total BRIC Applications and FEMA Share of Funds by Phase

Phase of BRIC Grant	Number of Projects	FEMA Funds
Awarded	7	$18,004,811
In Closeout	1	$127,500
In Review	62	$479,808,691
Total	**70**	**$497,941,002**

Mitigation projects in Oregon funded by BRIC include:

- NHMP updates
- Code and ordinance updates

- Hazard risk reduction studies
- Seismic retrofit of essential facilities and community lifelines
- Structure hardening
- Relocation of essential facilities out of hazard areas

Flood Mitigation Assistance Program (FMA):

The State has effectively leveraged FMA program funds to support flood mitigation efforts statewide. Successes include implementing projects on priority community flood mitigation measures, securing funding for individual/residential flood mitigation acquisitions and non-construction/demolition scoping activities, and other tangible mitigation products meant to reduce or eliminate risk and damage from future flooding and increase community resilience.

One challenge for the FMA program in Oregon is that at the state level it is underutilized. As seen in Table X, only two FMA projects have been awarded since 2020. This lack of utilization could be addressed by combining FEMA mitigation program awareness, information access and resource availability, and targeted outreach to the least participating state jurisdictions to facilitate increased participation.

Table X: Total FMA Applications and FEMA Share of Funds by Phase

Phase of FMA Grant	Number of Projects	FEMA Funds
Awarded	2	$584,145
In Closeout	0	$-
In Review	8	$21,501,912
Total	**10**	**$22,086,057**

Mitigation projects in Oregon funded by FMA have been only acquisition of properties in the floodplain.

Rehabilitation Of High Hazard Potential Dam (HHPD) Grant Program:

FEMA's Dam Safety Program awards technical, planning, design and construction assistance in the form of grants for rehabilitation of eligible high hazard potential dams. The Oregon Water Resources Department, the state authority for dam safety with specific authorizing laws and implementing regulations, is eligible to apply to HHPD grant.

Oregon has 25 dams eligible for HHPD, and the state was allocated $3,599,417 during Fiscal Year 2024. The State has used these funds to conduct risk level analysis and to draft designs to reduce risk.

In 2022, OWRD was awarded $1,279,408 for rehabilitation of the Big Creek Dam #2, owned by the City of Newport, and Wallowa Lake Dam, owned by the Wallowa Lake Irrigation District. These projects were selected based on the level of risk each dam poses to public safety and the owner's readiness to complete the work

4.5.2.2 FEMA Post-Disaster Mitigation Funding and Programs

An integral component of OEM's mitigation funding strategy is FEMA post-disaster funding - such as HMGP, HGMP-Post Fire, and Public Assistance Grants - which is only made available following a major disaster declaration. Post-disaster funding supports reactive mitigation actions and measures and facilitates the recovery and rebuilding of a disaster-affected community through constructive mitigation efforts aimed at reducing future risk and preventing future loss of life, property, damages, and costs.

These post-disaster grant programs and projects are administered through the collaborative efforts of OEM's Agency Director, Deputy Director, Mitigation Section Manager and SHMO, Deputy SHMO for post-disaster grants, Facilities Engineer (Public Assistance Officer), Seismic Grants Coordinator, and financial support staff. Through this collaboration, post-disaster mitigation grant programs and project activities have been successfully administered and managed, despite limitations in staffing and available technical assistance.

Furthermore, since 2020, Oregon has experienced more disasters that have resulted in a presidential disaster declaration than in years past. This has opened up more post-disaster funding opportunities and has enabled Oregon to use these funds to support more local and statewide hazard mitigation planning as well as supporting numerous local mitigation projects.

Hazard Mitigation Grant Program (HMGP):

HMGP grants improve resilience and help communities reduce both risk and vulnerability. Grant projects contribute to climate resilience. Priority is given to grant proposals that clearly identify and articulate the proposal's benefits and risk reduction to underserved or disadvantaged communities.

Table X: Total HMGP Applications and FEMA Share of Funds by Phase

Phase	Number of Projects	FEMA Funds
Awarded	90	$88,732,423
In Closeout	4	$781,423
In Review	23	$54,441,261
Total	**117**	**$143,995,107**

Mitigation projects in Oregon funded by HMGP include:

- NHMP updates
- Disaster planning for community resources
- Infrastructure and essential facilities vulnerability assessments
- Wildfire fuels reduction

Hazard Mitigation Grant Program – Post Fire (HMGP-PF):

FEMA's Hazard Mitigation Grant Program (HMGP) also provides Post Fire assistance which is available to help communities implement hazard mitigation measures after wildfire disasters.

Table X: Total HMGP-Post Fire Applications and FEMA Share of Funds by Phase

Phase	Number of Projects	FEMA Funds
Awarded	29	$12,194,099
In Closeout	2	$608,730
In Review	11	$3,775,119
Total	**42**	**$16,577,948**

Mitigation projects in Oregon funded by HMGP-PF include

- Backup generators for essential facilities
- Defensible space, and fuels treatment and reduction

Fire Management Assistance Grants (FMAG):

Since 2020, Oregon has had 36 Fire Management Assistance Declarations, with 16 declarations made during the 2020 wildfire season and 12 declarations made during the 2024 wildfire season. As the effects of climate change continue to exacerbate wildfire risk across the state, the FMAG Program continues to be a critical component of helping communities mitigate against future wildfires.

Public Assistance (PA) Grant Program

FEMA's Public Assistance Program provides supplemental assistance to state, tribal, territorial, and local governments, and certain types of private non-profits so communities can quickly respond to and recover from major disasters or emergencies. Section 406 of the Stafford Act specifically authorizes the assistance FEMA provides under the Public Assistance providing financial support for Repair, Restoration, and Replacement disaster-damaged facilities. Unlike HMGP, the 406 funding provides discretionary authority to fund mitigation measures in conjunction with the repair of the disaster-damaged facilities, so is limited to Public Assistance designated areas/counties and eligible damaged facilities located in those areas.

Section 406 is applied to the parts of the facility that were damaged by the disaster and the mitigation measure is intended to directly reduce the potential of future, similar disaster damages to the eligible facility.

FEMA has authorized Section 404 and Section 406 funds seven times between January 2020 and December 2024 under the Presidential Major Disaster Declarations for Oregon, with one identified as a Tribal Declaration.

The Oregon PA program is managed by the state's Public Assistance Officer, who works to identify early mitigation opportunities immediately following a disaster declaration that can frequently be implemented

quickly as a component of Section 406 disaster assistance. Oregon has been successful in distributing millions of dollars in reimbursements.

4.5.3 Non-Disaster and Post-Disaster FEMA Mitigation Funding

Cooperating Technical Partners (CTPs):

In Oregon, OEM is a Cooperating Technical Partner (CTP) with FEMA, and coordinates the Risk MAP program. DOGAMI and Oregon Partnership for Disaster Resilience (OPDR) are also CTPs. The Oregon RiskMAP program has been successful and effective, providing improved data and mapping products, with 24 out of 36 Oregon counties now having access to digital flood hazard data. Other successful CTP projects include DOGAMI-led debris flow, channel migration, county-level risk assessments, and numerous other projects.

Community Assistance Program — State Support Services Element (CAP-SSSE)

The CAP-SSSE program is part of the NFIP and provides grants to states at shared costs to evaluate local governments' NFIP performance and provide technical assistance to help communities successfully implement the various facets of the NFIP. The CAP-SSSE program provides funds to employ the state's floodplain coordinator.

To fairly assess and evaluate the state floodplain management program performance and capacity to manage the state's NFIP, FEMA uses the Tiered State Framework (TSF). Through the TSF process, states are assigned performance grades based on each state's capability, capacity, performance, and statewide coordination of duties and responsibilities set forth in CFR 60.25(b). TSF grades influence the state's annual statement of work and funding, and FEMA requires a full TSF assessment to be conducted every three years.

Oregon currently is graded as "proficient" by the TSF, which has provided the state with additional funding, expanded funding opportunities, and more autonomy over workplans. This additional funding has allowed the Oregon NFIP to increase capability by providing funds to hire additional staff.

4.5.4 State Use of Other Federal Mitigation Funds

Lastly, the state does seek other federal funding opportunities outside of FEMA Mitigation Funds to support hazard mitigation and risk reduction. These funds have helped the state implement mitigation planning and projects.

4.5.4.1 Community Wildfire Defense Grant Program:

The CWDG is intended to help at-risk local communities and tribes plan for and reduce the risk of wildfire through developing Community Wildfire Protection Plans and enhancing wildfire mitigation efforts and projects.

Numerous Oregon projects located in high fire risk areas were selected for funding through the CWDG Program. This funding has enabled many communities, especially those that are located in high wildfire risk areas and are socially vulnerable, to enhance community wildfire resilience and mitigate against future wildfire risks.

During Round One of Funding in 2023, 10 projects across the state were funded. In Grant County, ODF successfully secured $681,041 in funds to conduct defensible space projects across the county. Projects included conducting fuels reduction treatment on 300 acres of land for Grant County landowners living in the WUI, installing Firewise communities, and conducting outreach and education in high-risk communities, including John Day, Mt. Vernon, and Canyon City.

During Round Two of Funding in 2024, 12 projects across the state were funded.

Continued financial support offered through the grant program is unstable as the funding is slated to end in 2026. If additional funding is added, ODF will continue to support the program through staffing and project coordination.

4.5.4.2 Community Assistance and Protection Program

Funding Source: Unite States Bureau of Land Management (BLM)

Description: This program helps individuals and communities to adapt to, prepare for and respond to wildfire. The program offers assistance in developing wildland fire ecology and prevention education materials, assisting communities develop and update wildfire protection plans, and more.

Oregon has not seen significant funding related to projects in Community Assistance Programs. Several projects which have received funding have been associated with fuel treatments on federal lands adjacent to high-risk communities to reduce wildfire impacts in these areas. Coordination with federal partners encourages collaboration and relationship growth.

Limited funding has been available through the competitive process, and Oregon has not seen significant funding related to projects in Community Assistance Programs. It is unlikely that these challenges can be adequately addressed in the next 5 years.

4.6 State Mitigation Strengths, Challenges, and Potential Solutions

Oregon has many strengths in natural hazards mitigation, and also faces significant challenges.

4.6.1 State Capability Strengths

The strengths of Oregon mitigation capabilities include a commitment to climate adaptation, expanding financial and technical capacity, and legislation that enhances statewide resilience. The sections below describe examples of these strengths.

4.6.1.1 Strength: Climate change adaptation

Description: Since 2020, the state has strengthened capabilities for climate change adaptation. These capabilities include new funding sources, updated building codes, and enhanced technical support.

How it Advances Mitigation: In 2022 DLCD began work on a Climate Change Social Vulnerability Assessment. The department partnered with the Institute for Policy Research & Engagement at the University of Oregon to hold 12 regional workshops around Oregon in the fall of 2022 and the spring of 2023. In 2024 DLCD published a draft of the Climate Change Social Vulnerability Assessment for public review.

The Community Green Infrastructure Grant Program, established in 2024, provides funding to communities to implement green infrastructure projects, such as implementing green stormwater infrastructure or planting native trees. This increases tree cover, which will reduce the risk from extreme heat.

The Resilience Hubs and Networks Grant program funds local communities to establish resilience hubs and networks, which provide resources to communities disproportionately impacted by climate change to enhance community resilience.

4.6.1.2 Strength: Increased staffing

Description: Since 2020, the state has increased staffing for technical assistance to local communities, outreach, helping applicants apply for federal grants, and managing grants.

How it Advances Mitigation: OEM has added staff and now provides more technical and financial assistance to communities. OEM added Regional Mitigation and Recovery Coordinators to assist local and tribal emergency managers.

Since 2020, the Dam Safety Program has hired additional staff, increasing the pace that it addresses the backlog of vulnerable dams

In 2022, DLCD hired a new position to focus on wildfire mitigation and implement elements of SB 762 and SB 80.

4.6.1.3 Strength: Legislation

Description: Since 2020, the Oregon Legislature has enacted new and revised legislation to reduce risk. Departments of state government have worked to implement the legislation.

How it Advances Mitigation: In 2021, the Oregon Legislature passed House Bill 2605. This bill imposes new tsunami design standards for certain buildings and structures. Also, the bill requires that these structures be evaluated for vulnerability to seismic geologic hazards or designated as having specified tsunami risk for design. Additionally, designers must consult with DOGAMI when designing Risk Category III and IV structures.

In 2021, the Oregon Legislature passed Senate Bill 762, which appropriated approximately $195 million to wildfire programs that significantly mitigated the risk from wildfires.

Prior to 2021, the OSFM could only mobilize mutual aid resources to wildfires when the governor invoked the Emergency Conflagration Act. SB 762 gave OSFM the authority to mobilize without a declaration from the governor. This has resulted in much quicker response times and makes it much easier to address wildfires before they get out of hand.

The legislature created the Resilience Hubs and Networks Grant program through House Bill 3409, Section 86 in 2023 and appropriated $10 million. The grant program received over 700 applications in its first grant cycle and awarded grants to 87 organizations.

4.6.2 State Capability Challenges and Solutions

Even with Oregon's many mitigation strengths, challenges persist, some of which mirror the strengths.

For instance, while Oregon has expanded its disaster mitigation financial and technical capacities, the state still faces funding constraints and staffing shortages which hinder its ability to implement and provide ongoing support and maintenance of these capabilities. Oregon is learning to prioritize and apply equitable strategies to its processes and activities, particularly regarding resource and funding distribution among higher- and lower-capacity jurisdictions. With time and continued effort, Oregon will be successful in developing strategic solutions and opportunities that build resilience, reduce vulnerabilities, and enhance equity across the state.

Several of the most prominent challenges are described below, with potential solutions.

4.6.2.1 Challenge: Limited Mitigation Support Staffing

Description: Though staffing capacity has increased in some areas since 2020, others still lack staff capacity. This limits technical assistance and outreach to partnering organizations.

How it Hinders Mitigation: OWRD updated the Oregon Integrated Water Resources Strategy in 2025. However, due to limited staffing, coordination with partners was very limited, which limits the benefits.

While new staff at the OWRD Dam Safety Program have made progress in addressing the backlog of vulnerable dams, it will still take decades to address all of the dam safety concerns. Additionally, while staff focus on the backlog, they have limited ability to support dam owners**.**

Potential Solutions: Seek funding to hire more technical staff.

4.6.2.2 Challenge: Lack of Consistent and Reliable Funding

Description: Lack of funding for hazard mitigation is a significant obstacle, especially lack of funds for the non-federal share of projects receiving federal grants

How it Hinders Mitigation: Almost all federal grants require the recipient to provide non-federal funds for a significant share of the project costs, often 25 percent. This is consistently a significant barrier for potential recipients. In 2021, the legislature passed House Bill 5006 in response to the 2020 wildfires. The bill appropriated $20 million to OEM to provide the non-federal cost share for mitigation grants. It helped

many recipients, but it was a one-time appropriation. When it is spent, recipients will again struggle to provide the non-federal share.

The legislature provided funding for the Community Wildfire Defense Grant Program, but it ends in 2026.

During the 2023-2025 biennium, funding for the ODF Landscape Resiliency Program declined by 50 percent, from $20 million to $10 million, and funding remains uncertain for the 2025-2027 biennium. The 20-Year Landscape Resiliency Strategy determined that $100 million per biennium is necessary to fully leverage federal funding and achieve Oregon's goals for landscape resiliency and reducing wildfire risk.

Potential Solutions: Seek funding.

4.6.2.3 Challenge: Inequitable access and distribution of resources

Description: Some tribes, counties, and cities lack the ability to apply for mitigation funding, to plan for hazard mitigation, or to implement hazard mitigation projects. These communities apply at lower rates and receive fewer funds than higher-capacity communities.

How it Hinders Mitigation: The subapplication process for the FEMA Flood Mitigation Assistance grant (FMA) is a complex process. This gives larger and higher-capacity jurisdictions a competitive advantage, while lower-capacity jurisdictions are less likely to apply.

Potential Solutions: Simplify application processes.

Hire more staff to provide technical assistance and outreach to lower-capacity jurisdictions so they can apply for grants.

Invest in technology that makes it easier to apply for grants.