













NATURAL HAZARDS MITIGATION PLAN

- OREGON COAST
- NORTHERN WILLAMETTE VALLEY/PORTLAND METRO
- 3 MID/SOUTHERN WILLAMETTE



- 4 SOUTHWEST
- **5** MID-COLUMBIA
- **6** CENTRAL
- NORTHEAST
- **8** SOUTHEAST



EFFECTIVE SEPTEMBER 24, 2020 THROUGH SEPTEMBER 23, 2025

Cover images: Oregon Department of Transportation, https://www.flickr.com/photos/oregondot/, Generic (CC BY 2.0) license. Clockwise from top left: Breached irrigation ditches resulted in flooding and freeway closures in eastern Oregon on I-84 near Echo, February 8, 2020; Burning underbrush, Milepost 97 Fire, July 29, 2019; Overhead view of rock scaling on OR 99 E near Oregon City, November 10, 2018; ODOT snow plowing, October 25, 2010; An ODOT incident responder keeps an eye on the road during a snowstorm, October 23, 2012; Crews begin to make repairs to U.S. 101 north of Brookings at the Hooskanadan Slide, winter 2018-19; Rock fall, OR 99E Canemah, Oregon City, November 4, 2018.

OREGON NATURAL HAZARDS MITIGATION PLAN

Approved by FEMA September 24, 2020 Effective through September 23, 2025

Funding for the Oregon Natural Hazards Mitigation Plan Update was provided in part by a grant from the Federal Emergency Management Agency.

Acknowledgments

Contributor names are in alphabetical order.

State Interagency Hazard Mitigation Team

Office of Governor Kate Brown, Resilience Policy Office Mike Harryman

Business Oregon, Infrastructure Finance Authority Gloria Zacharias

Oregon Climate Change Research Institute/Oregon Climate Service

Meghan Dalton, Erica Fleishman, Phil Mote

Oregon Department of Administrative Services, Chief Financial Office

Daniel Christensen, Alice Wiewel

Oregon Department of Administrative Services, Enterprise Asset Management

Darrin Brightman

Oregon Department of Administrative Services, Oregon Geospatial Enterprise Office

Theresa, Burcsu, Cy Smith

Oregon Department of Agriculture

Margaret Matter

Oregon Department of Consumer and Business Services, Building Codes Division

Richard Rogers

Oregon Department of Consumer and Business Services, Division of Financial Regulation

Kevin Jeffries, Cece Newell, Tracy Weeder

Oregon Department of Environmental Quality

Don Pettit, Michael Zollitsch

Oregon Department of Fish and Wildlife

Shaun Clements, Jon Germond

Oregon Department of Forestry

Tom Fields, Jenna Trentadue

Oregon Department of Geology and Mineral Industries

Bill Burns, Yumei Wang

Oregon Department of Land Conservation and Development

Celinda Adair, Matt Crall, Katherine Daniel, Jason Gately, Marian Lahav, Pam Reber, Tricia Sears **Oregon Department of State Lands**

Lauren Brown, Bill Ryan

Oregon Department of Transportation

Greg Ek-Collins, Jessica Gourley, Christina LeClerc

Oregon Health Authority, Health, Security, Preparedness, and Response Program

Eric Gebbe, Akiko Saito

Oregon Health Authority, Acute and Communicable Disease Prevention

Melissa Powell

Oregon Military Department, Office of Emergency Management

Amie Bashant, Clint Fella, Joseph Murray, Erik Rau, Althea Rizzo, Daniel Stoelb, Stan Thomas

Oregon Parks and Recreation Department, Ocean Shores

Jay Sennewald

Oregon Public Utility Commission

Lisa Gorsuch, Lori Koho

Oregon State Police, Office of State Fire Marshal

Michael Heffner, Jim Walker

Oregon Water Resources Department

Keith Mills, Ken Stahr

Oregon Watershed Enhancement Board

Eric Hartstein, Meta Loftsgaarden

University of Oregon, Oregon Partnership for Disaster

Resilience

Josh Bruce, Michael Howard

US Army Corps of Engineers, Silver Jackets Program

Paul Sclafani

(Continued on next page)

Hazard Leads and Supporters

Climate Change Oregon Climate Change Research

Institute/Oregon Climate Service

Meghan Dalton

Coastal Hazards Oregon Department of Geology and

Mineral Industries

Jonathan Allan

Droughts Oregon Climate Change Research

Institute/Oregon Climate Service
Meghan Dalton

Wicgilan Balton

Oregon Department of Water

Resources Ken Stahr

Earthquakes Oregon Department of Geology and

Mineral Industries

Ian Madin, Yumei Wang

Extreme Heat Oregon Climate Change Research

Institute/Oregon Climate Service

Meghan Dalton

Oregon Heath Authority, Public

Health Division Emily York

Floods Oregon Department of Geology and

Mineral Industries
Christina Appleby

Oregon Department of Land Conservation and Development

Celinda Adair, Katherine Daniel

Landslides Oregon Department of Geology and

Mineral Industries

Bill Burns

Tsunamis Oregon Department of Geology and

Mineral Industries
Jonathan Allan

Volcanic Hazards Oregon Department of Geology and

Mineral Industries
Jason McClaughry

Wildfires Oregon Department of Forestry

Jenna Trentadue

Oregon State Police, Office of the

Fire Marshal

Michael Heffner, Jim Walker, Fraser Wick, Terry Wolfe

Windstorms Oregon Climate Change Research

Institute/Oregon Climate Service

Meghan Dalton

Oregon Public Utility Commission

Lisa Gorsuch, Lori Koho

Winter Storms Oregon Climate Change Research

Institute/Oregon Climate Service

Meghan Dalton

Oregon Department of Land
Conservation and Development

Katherine Daniel, Marian Lahav

Oregon Department of Transportation Greg Ek-Collins

THIRA Oregon Military Department, Office

of Emergency Management

Alaina Mayfield

(Continued on next page)

Other Contributors

Oregon Department of Agriculture

Wym Matthews, Kevin Fenn

Oregon Department of Administrative Services, Enterprise Goods and Services

Marie Hansen-Wargnier, Shelly Hoffman, Bonnie Robbins

Oregon Department of Environmental Quality

Eugene Foster

Oregon Department of Geology and Mineral Industries Connor Anderson, Bob Houston, Matt Williams

Oregon Department of Land Conservation and Development

Ryan Dyar, Meg Reed, Christine Shirley

Oregon Department of Parks and Recreation, Heritage and Community Programs

Beth Dehn

Oregon Department of Parks and Recreation, State Historic Preservation Office

Jason Allen, Jamie, French, Ian Johnson, John Pouley

Oregon Department of Transportation, Sustainability Program

Geoff Crook

Oregon Department of Transportation, Statewide Project Delivery Branch

Joseph Bond, Bert Hartman, Liz Hunt, Albert Nako

Oregon Health Authority, Environmental Public Health Section

Curtis Cude, Julie Sifuentes, Crystal Weston

Oregon Health Authority, Health, Security, Preparedness, and Response

Sarah Barnard

Oregon Military Department, Office of Emergency Management

Kelly Jo Craigmiles, Nicole Hansen, Jim Jungling, Eric Rau, Julie Slevin, Daniel Stoelb

Oregon OSHA

Jeffery Carlson, Kathleen Kincade, Ed Vawter, Michael Wood

Oregon State Police, Office of the State Fire Marshal

Fraser Wick, Terry Wolfe

Project Manager

Oregon Department of Land Conservation and Development

Marian Lahav

Project Intern

Oregon Department of Land Conservation and Development

Ryan Dyar

Federal Guide and Reviewer

Federal Emergency Management Agency Region X, Mitigation Division

John Schelling

Desktop Publisher

Oregon Department of Geology and Mineral Industries Deb Schueller

State of Oregon Promulgation



Kate Brown Governor

September 10, 2020

Mr. Mike O'Hare Federal Emergency Management Agency US Department of Homeland Security Federal Regional Center 130 228th Street, SW Bothell, WA 98021-8627

Dear Mr. O'Hare,

The State of Oregon is pleased to submit the updated Oregon Natural Hazards Mitigation Plan.

The plan's stated mission, "Create a disaster-resilient State of Oregon," is supported by its vision that, ultimately, "Natural hazard events result in no loss of life, minimal property damage, and limited long-term impacts to the economy." The plan contains the most complete and up-to-date description of Oregon's natural hazards and their probability, the State's vulnerabilities, its mitigation strategies, and implementation capability. It is the result of a coordinated effort overseen by the State Interagency Hazard Mitigation Team, a collaborative body providing expertise and support for natural hazard mitigation planning and implementation statewide.

The *Oregon Natural Hazards Mitigation Plan* meets the requirements of Robert T. Stafford Disaster Relief and Emergency Assistance Act, as amended, as well as those of 44 CFR 201 and 206, maintaining the State of Oregon's eligibility for Stafford Act assistance and non-disaster hazard mitigation programs. The plan includes a Repetitive Loss Strategy, meeting the requirements of 44 CFR §201.4(c)(3)(v), which qualifies the state to request increased funding for mitigating repetitive loss properties under the Flood Mitigation Assistance Program.

I hereby adopt the *Oregon Natural Hazards Mitigation Plan* and assure that the State of Oregon will continue to comply with all applicable federal statutes and regulations in effect with respect to the periods for which it receives grant funding in compliance with 44 CFR 13.11(c), and will amend this plan as necessary to reflect changes in state or federal statutes and regulations as required in 44 CFR 13.11(d).

Sincerely,

Governor Kate Brown

254 STATE CAPITOL, SALEM OR 97301-4047 (503) 378-3111 FAX (503) 378-8970 WWW.GOVERNOR.OREGON.GOV

Federal Emergency Management Agency Approval

U.S. Department of Homeland Security FEMA Region 10 130 – 228th Street, SW Bothell, Washington 98021



September 21, 2020

Honorable Kate Brown Governor, State of Oregon 160 State Capitol 900 Court Street Salem, Oregon 97301-4047

Reference: Updated Approval of the State of Oregon Hazard Mitigation Plan

Dear Governor Brown:

The United States Department of Homeland Security, Federal Emergency Management Agency (FEMA) Region 10 has approved the updated State of Oregon Hazard Mitigation Plan as a Standard Mitigation Plan effective September 24, 2020, through September 23, 2025, in accordance with the planning requirements of the Robert T. Stafford Disaster Relief and Emergency Assistance Act (Stafford Act), as amended, the National Flood Insurance Act of 1968, as amended, the Water Infrastructure Improvements for the Nation Act, and Title 44 Code of Federal Regulations (CFR) Part 201.

A FEMA-approved State Mitigation Plan is a condition of receiving certain non-emergency Stafford Act assistance and FEMA mitigation grants from the following programs:

- Public Assistance Categories C-G
- Fire Management Assistance Grants
- Hazard Mitigation Grant Program
- Pre-Disaster Mitigation Grant Program
- Flood Mitigation Assistance
- Rehabilitation of High Hazard Potential Dam Grant Program

FEMA Region 10 has determined that the State Mitigation Plan addresses all dam risks for high hazard potential dams and the State of Oregon (State) is therefore eligible for the Rehabilitation of High Hazard Potential Dams Grant Program.

FEMA has determined that the State Mitigation Plan includes a Repetitive Loss Strategy that meets the requirements set forth in 44 CFR §201.4(c)(3)(v) and qualifies the State to request an increased Federal share for repetitive loss properties under the FMA program.

State Mitigation Plans must be updated and resubmitted to FEMA Region 10 for approval. If the plan is not updated by the date indicated on this FEMA approval letter, the plan is considered lapsed and FEMA will not obligate funds for the programs listed above until the State Mitigation Plan is approved by FEMA.

www.fema.gov

Governor Brown September 21, 2020 Page 2

If at any time over the plan approval period, FEMA determines that the State is not complying with all applicable Federal statutes and regulations in effect with respect to the periods for which it receives funding or is unable to fulfill mitigation commitments, FEMA may take action to correct the noncompliance (44 CFR §201.3(b)(5) and 201.4(c)(7)).

The State is responsible for communicating with local and tribal officials, as applicable, interested in applying through the State for FEMA assistance. FEMA encourages states to communicate with the appropriate officials regarding mitigation plan status and eligibility requirements. At a minimum of every six months, FEMA will provide to the State written information on mitigation plans, including but not limited to:

- Local and tribal, as applicable, mitigation plan expiration dates;
- Consequences of not having a FEMA-approved local or tribal, as applicable, mitigation
 plan with respect to eligibility for HMA programs;
- · Availability of mitigation planning training and technical assistance; and
- Upcoming funding opportunities.

The State is responsible for reviewing and submitting approvable mitigation plans to FEMA. If the State is not submitting approvable mitigation plans, FEMA will provide feedback as well as technical assistance or training, as needed.

In addition, FEMA will provide a reminder to the State, at a minimum, 12 months prior to the plan expiration date, of the consequences of not having a FEMA-approved mitigation plan with respect to eligibility for the FEMA assistance programs that require FEMA-approved mitigation plan as a condition of eligibility. To maintain eligibility for the programs listed above, and the State must submit a draft of the next plan update prior to the end of the approval period and allow sufficient time for the review and approval process, including any revisions, if needed, and for formal adoption by the State of Oregon following determination by FEMA that the plan has achieved a status of "Approvable Pending Adoption."

We look forward to continuing a productive relationship between FEMA, Region 10, and the State of Oregon. Please contact our Mitigation Division Director, Kristen Meyers, at 425-487-4543 with any questions or for further assistance.

Sincerely,

VINCENT J Digitally signed by VINCENT J MAYKOVICH Date: 2020.09.21 15:51:02 -07'00'

Michael F. O'Hare Regional Administrator

cc: Major General Michael E. Stencel, The Adjutant General, State of Oregon Military Department Andrew Phelps, Director, Oregon Emergency Management Amie Bashant, State Hazard Mitigation Officer, Oregon Emergency Management

Enclosure