

Section 1

Introduction

Lane County developed this Natural Hazards Mitigation Plan in an effort to limit future loss of life and property resulting from natural disasters. It is impossible to predict exactly when these disasters might occur, or the extent to which they could affect the County. However, with careful planning and collaboration among public agencies, private sector organizations, and citizens within the community, it is possible to minimize the losses that can result from natural disasters.

A natural disaster occurs when a natural hazard impacts people or property and creates adverse conditions within a community. Natural hazards include: floods, earthquakes, extreme weather, and wildfire, and each has the potential to harm people or property.¹ This plan focuses on the primary natural hazards that could affect Lane County, Oregon, which include earthquake, flood, landslide, wildfire, windstorm, and winter storm.

Why Update the County's Mitigation Plan?

The dramatic increase in the costs associated with natural disasters over the past decades has fostered interest in identifying and implementing effective means of reducing vulnerability. This Natural Hazards Mitigation Plan is intended to assist the County in reducing its risk of damage from natural hazards by identifying resources, information, and strategies for risk reduction. It will also help to guide and coordinate mitigation activities throughout the County.

The plan is non-regulatory in nature, meaning that it does not set forth any new policy. It does, however, provide: (1) a foundation for coordination and collaboration among agencies and the public in the County; (2) identification and prioritization of future mitigation activities; and (3) support in meeting federal planning requirements to qualify for assistance programs. The mitigation plan works in conjunction with other County plans and programs, including the Comprehensive Land Use Plan, Emergency Response and Recovery Plans, Economic Development Strategic Plan, Capital Improvement Plan, and the State of Oregon Natural Hazards Mitigation Plan.

The plan provides a set of actions to prepare for and reduce the risks posed by natural hazards through education and outreach programs, the development of partnerships, and implementation of preventive activities such as land use or watershed management programs. The actions described in the plan are intended to be implemented through existing plans and programs within the County.

Brief Mitigation Planning History for Lane County

This plan is not the first effort the County has undertaken toward natural hazard mitigation. Its previous efforts can be categorized into the following four phases:

Phase One: In 1996, the County partnered with Benton, Lincoln, and Linn Counties to complete a Regional All Hazard Mitigation Master Plan. The counties contracted with a consultant who completed the plan in December 1998. The finished plan identifies and assesses the counties' risk and vulnerability to the following hazards: floods, winter storms, landslides, and the disruption of utility and transportation systems. The plan additionally provides recommended mitigation projects to reduce the counties' risk to each hazard.

Phase Two: Recognizing a need to update the County's risk assessment information specific to Lane County, the County contracted with Kenneth Goettel and Associates in 2003 to complete county-specific hazard assessments for floods, winter storms, landslides, wildland-urban interface fires, earthquakes, volcanic events, utility-transportation disruption, hazardous materials, terrorism, and dam safety.

Phase Three: In fall 2004, the County completed a county-wide, multi-jurisdictional Community Wildfire Protection Planning process. The County contracted with the Community Service Center's Oregon Natural Hazards Workgroup (ONHW) at the University of Oregon to develop a plan. The finalized Community Wildfire Protection Plan is a proactive document that recognizes the need for shared responsibility in protecting the county from wildland-urban interface fire, recommends collaborative actions to mitigate the county's risk, and serves as the Wildfire Annex of the Lane County All-Hazards Plan.

Phase Four: The Disaster Mitigation Act of 2000 (DMA 2000) is the latest federal legislation addressing mitigation planning. This legislation reinforces the importance of mitigation planning and emphasizes planning for disasters before they occur. The Act established a Pre-Disaster Mitigation program to address this issue. In fall 2004, the ONHW at the University of Oregon partnered with the Department of Geology and Mineral Industries (DOGAMI) and Mid/Southern Willamette Valley Region (Benton, Lane, Linn, Marion, Polk, and Yamhill counties) to develop a Pre-Disaster Mitigation grant proposal for the Mid/Southern Willamette Valley Region. Each county joined the Partners for Disaster Resistance & Resilience (*The Partnership*) by signing (through their county commissions) a Memorandum of Understanding for this project.

The Mid/Southern Willamette Valley Region grant was awarded to support the development of natural hazard mitigation plans for the six counties in the region. The region's planning process utilized a

seven-step procedure and technical resources developed by ONHW and *The Partnership*.

What is Natural Hazard Mitigation?

Natural hazard mitigation is defined as permanently reducing or alleviating the losses of life, property, and injuries resulting from natural hazards through long- and short-term strategies. Example strategies include planning, policy changes, programs, projects, and other activities. Mitigation is the responsibility of individuals, private businesses and industries, state and local governments, and the federal government.² The action items in this plan are assigned to a number of these stakeholders, reflecting the diversity of mitigation responsibility.

Engaging in mitigation activities provides jurisdictions with a number of benefits, including reduced loss of life, property, essential services, critical facilities and economic hardship; reduced short-term and long-term recovery and reconstruction costs, increased cooperation and communication within the community through the planning process; and increased potential for state and federal funding for recovery and reconstruction projects.

Who Will the Plan Affect?

Lane County's size and diversity of geography, population, and land management practices mean that the threat of natural hazards is not uniform across the County. The plan identifies general areas at high risk to earthquakes, floods, landslides, winter storms, windstorms and wildfires, and recommends actions the County can take to reduce its risk. The plan affects the County and a portion of its urban service area, and addresses the ways in which the County can mitigate the threat to life, property, and resources caused by the natural hazards present throughout the County. Through risk identification and the recommendation of risk-reduction actions, the plan aligns with the goals of the County's Strategic and Rural Comprehensive Plans, and helps the County meet the requirements of statewide land use planning Goal 7: Areas Subject to Natural Hazards.

While this plan does not establish mandates for the County, it does provide a viable framework for planning for natural hazards. The resources and background information in the plan are applicable countywide, and the goals and recommendations can lay groundwork for the development and implementation of mitigation activities and partnerships.

Policy Framework for Natural Hazards in Oregon

Planning for natural hazards is an integral element of Oregon's statewide land use planning program, which was instituted in 1973. All Oregon cities and counties have comprehensive plans and implementing ordinances that are required to comply with statewide

planning goals. The challenge faced by state and local governments is to keep this network of local plans coordinated in response to the changing conditions and needs of Oregon communities.

Statewide land use planning Goal 7: Areas Subject to Natural Hazards, calls for local plans to include inventories, policies, and ordinances to guide development in hazard areas. Goal 7, along with other land use planning goals, has helped to reduce losses from natural hazards.

The primary responsibility for the development and implementation of risk reduction strategies and policies lies with local jurisdictions. However, some resources exist at the state and federal levels. Key agencies in this area include Oregon Emergency Management (OEM), Oregon Building Codes Division (BCD), Oregon Department of Forestry (ODF), Oregon Department of Geology and Mineral Industries (DOGAMI), and the Department of Land Conservation and Development (DLCD).

Section 322 of the Disaster Mitigation Act of 2000 (DMA 2000) specifically addresses mitigation planning at the state and local levels. It identifies new requirements that allow HMGP funds to be used for planning activities, and increases the amount of HMGP funding available to states that have developed a comprehensive, enhanced mitigation plan prior to a disaster. States and local communities must have approved mitigation plans in place in order to qualify to receive post-disaster HMGP funds.

Plan Methodology

Phase four of the Lane County Natural Hazards Mitigation Plan was developed using a planning process created by the Community Service Center's Oregon Natural Hazard Workgroup at the University of Oregon.³ The planning process was designed to (1) result in a plan that is DMA 2000 compliant, (2) coordinate this plan with the State's plan and activities of the Partners for Disaster Resistance & Resilience: Oregon Showcase State Program, and (3) build a network of jurisdictions and organizations that can play an active role in plan implementation. Following is a summary of major activities included in the planning process.

Steering Committee:

Building upon phases two and three, the steering committee was convened 4 times between July and September 2005 to guide the development of the natural hazard mitigation plan. The committee played a vital role in developing the mission and goals of the mitigation plan and served as the coordinating body to implement and maintain the plan upon adoption and FEMA approval. The committee comprised representatives of public and private agencies and organizations in the County, including:

- Lane County Emergency Management
- Lane County Land Management Division

- Oregon Department of Forestry – East Lane and South Cascade Districts
- Lane County Public Works, GIS and Roads Units
- United States Forest Service
- Bureau of Land Management
- Eugene Water and Electric Board
- Springfield Utility Board

Hazard-specific Information:

The County recognized the importance of establishing a collaborative planning process to develop both short-term and long-term risk reduction strategies with strong ties to the County’s existing programs and divisions of governance. Therefore, the County worked with stakeholders, individuals and specialists, with natural hazard mitigation understanding and responsibilities from County departments, state agencies, and community organizations in and around Lane County. These stakeholders were able to provide insight on community issues, policies, and programs related to specific natural hazards and assist in identifying potential future action items.

Planning Resources

The County reviewed natural hazard mitigation plans from other jurisdictions, current FEMA planning requirements, the FEMA Pre-Disaster Mitigation Program requirements, and the National Flood Insurance Program’s Community Rating System. Statewide reference materials consisted of community and county mitigation plans, including:

- Regional All Hazards Mitigation Master Plan for Benton, Lane, Lincoln and Linn Counties;
- Douglas County Natural Hazards Mitigation Plan;
- Clackamas County Natural Hazard Mitigation Plan;
- Metro’s Regional Hazard Mitigation Policy and Planning Guide;
- Oregon Natural Hazards Workgroup, Plan Framework (ONHW);
- *Planning for Natural Hazards: Oregon Technical Resource Guide* (DLCD);
- *Natural Hazard Mitigation Plans: An Evaluation Process* (OEM)
- State of Oregon Natural Hazards Mitigation Plan (OEM); and
- Post-Disaster Hazard Mitigation Planning Guidance for State and Local Governments (OEM)
- Partners for Disaster Resistance & Resilience: Oregon Showcase State Initiative’s Community Planning Resources

The County plan builds upon the resources listed above and is based upon the University of Oregon’s Oregon Natural Hazards Workgroup, plan framework and seven-step collaborative planning process.

Plan Organization

How is the plan to be used?

Each section of the mitigation plan provides specific information and resources to facilitate understanding of the hazard-specific issues facing Lane County citizens, businesses, and the environment. Combined, the sections work together to form a mitigation plan that guides the plan's mission to research, coordinate and implement risk reduction activities. This plan's structure enables stakeholders to use the section(s) of interest to them.

Mitigation Action Plan

Executive Summary

The executive summary provides an overview of the Lane County Natural Hazard Mitigation Plan.

Section 1: Introduction

The Introduction briefly describes why the plan was updated, what mitigation is, hazard policy framework in the state, and the methodology used to develop the plan. It also includes information about the steering committee's role, and how stakeholders provided input.

Section 2: Community Profile

The Community Profile briefly describes the County in terms of demographic, economic, and development trends as well as geography and environment, housing and transportation.

Section 3: Risk Assessment Summary

This section provides information on the five federal requirements for a risk assessment: hazard identification; profiling hazard events; vulnerability assessment/inventorying assets; risk analysis/estimating potential losses; and assessing vulnerability/analyzing development trends. It also includes summaries of the risk assessments for the primary hazards affecting Lane County.

Section 4: Mitigation Plan Goals, Action Items

This section provides information on the process used to develop the goals and action items in the plan. It also describes the plan's mission, goals and actions, which guide the implementation of mitigation strategies.

Section 5: Plan Maintenance

This section describes the roles, responsibilities and process associated with implementing, maintaining and updating the plan.

Hazard-specific Annexes

Hazard-specific annexes, developed in Phase II of the planning process, provide detailed background information on the hazards known to impact Lane County. Each of these annexes includes information about historical impacts, risk assessments, and specific community issues

related to that particular hazard. Hazards are organized into two categories: primary and secondary. Primary hazards are naturally occurring events, such as floods and earthquakes; secondary hazards are those that are either man-made or those that might occur as a secondary effect of a natural hazard, such as utility or transportation disruption. The primary hazards addressed in the plan include:

- *Winter Storm*
- *Wildfire*
- *Earthquake*
- *Landslide*
- *Flood*
- *Volcanic Event*

The secondary hazards presented in the plan include:

- *Utility-Transportation Disruption*
- *Dam Safety*
- *Terrorism*
- *Hazardous Materials*

Resource Appendices

The resource appendices are designed to provide users of the Lane County Natural Hazards Mitigation Plan with additional information to assist them in understanding the contents of the mitigation plan, and potential resources to assist them with implementation.

Economic Analysis of Natural Hazard Mitigation Projects

This appendix describes the Federal Emergency Management Agency's (FEMA) requirements for benefit cost analysis in natural hazards mitigation, as well as various approaches for conducting economic analyses of proposed mitigation activities.

Existing Plans, Policies, and Programs in Lane County

This appendix provides information on the existing plans, policies, and programs within Lane County, and describes how mitigation can be linked to existing efforts.

List of Acronyms

This appendix provides a list of acronyms for county, regional, state and federal agencies, organizations and programs that may be referred to within the Lane County Natural Hazards Mitigation Plan.

Section Endnotes

¹ Federal Emergency Management Agency. 2002. *How-To Guide #2: Understanding Your Community's Risks; Identifying Hazards; and Determining Risks.*

² Massachusetts Department of Environmental Management. 1999. "Hazard Mitigation: Managing Risks, Lowering Costs."
<http://www.state.ma.us/dem/programs/mitigate/whatis.htm> Accessed 8/2/02

³ More information on the Oregon Natural Hazards Workgroup can be found at
<http://darkwing.uoregon.edu/~onhw>