

## SECTION 4

# MITIGATION STRATEGIES

### Introduction

The purpose of this section is to outline a vision for mitigation planning in Oregon and to present the State's strategy for achieving that vision. The culture of our state is informed by its rich natural resources and deep connection to a pioneering spirit. As such, our state has often taken a leading role in the development of innovative and progressive strategies to address issues that impact our residents, our economy and our natural and built environment. The Oregon Beach Bill (1967), the Oregon Bottle Bill (1971) and the Oregon Land Use Program (1973) are but three historical examples of Oregon's visionary spirit.

As it relates to natural hazard mitigation, Oregon is no less visionary. The state adopted its first natural hazard mitigation plan in 1992 with subsequent updates occurring in 2000, 2004, 2006, and 2009. In addition, Oregon's Clackamas County adopted the nation's first FEMA approved Natural Hazard Mitigation Plan under DMA2000 in 2002. Hazard mitigation planning as a foundation for plan implementation through hazard risk reduction project activities is a top priority in Oregon when using available state funding, post-disaster FEMA mitigation grants and non-disaster FEMA grant funding.

The following subsections present the Mission and Goals for this plan. The mission and goals are purposefully aspirational, providing the basis for the state's overall mitigation strategy. The subsequent subsections describe existing policies, programs, and capabilities; presents a targeted action plan to further the overall mitigation strategy; and ends with a description of funding sources available to implement the strategy.

Given the current economic climate, it is important to acknowledge that the resources currently available in Oregon continue to be inadequate to realize our vision of a disaster resilient state in the coming three year performance period. We are not unique in that regard. Even so, Oregon is committed to remaining at the forefront of mitigation planning and will continue to innovate and leverage limited resources to reduce losses resulting from natural hazards in our state. The mitigation strategy presented herein reflects that commitment. These sections of the plan address the following federal code requirement:

**Requirement 44 CFR §201.4(c), Plan Content.** To be effective the plan must include...(3) A **Mitigation Strategy** that provides the State's blueprint for reducing the losses identified in the risk assessment.

### Plan Mission

The mission of this plan is to create a disaster resilient State of Oregon. The plan mission reflects a vision for the state in which natural hazard events result in no loss of life, minimal property damage and limited long-term impacts to the economy.

## OREGON NHMP MISSION

Create a disaster resilient State of Oregon

### Oregon's Hazard Mitigation Goals

Natural hazard mitigation planning goals guide the direction of future activities aimed at reducing risk and preventing loss from natural hazards. The goals listed below are multi-objective in nature, and serve as checkpoints for the various state agencies and organizations involved in implementing mitigation actions. These goals address the following federal code requirement:

**Requirement 44 CFR §201.4(c)(3)**, [The plan] shall include: (i) A description of State Goals to guide the selection of activities to mitigate and reduce potential losses.

### The Oregon NHMP goals are:

**GOAL 1** - Protect life and reduce injuries resulting from natural hazards.

**GOAL 2** - Minimize public and private property damages and the disruption of essential infrastructure and services from natural hazards.

**GOAL 3** - Increase the resilience of local, regional, and statewide economies.

**GOAL 4** - Minimize the impact of natural hazards while protecting and restoring the environment.

**GOAL 5** - Enhance and maintain state capability to implement a comprehensive statewide hazard loss reduction strategy.

**GOAL 6** - Document and evaluate Oregon's progress in achieving hazard mitigation.

**GOAL 7:** Motivate the public, private sector, and government agencies to mitigate against the effects of natural hazards through information and education.

**GOAL 8:** Eliminate development within mapped hazardous areas where the risks to people and property cannot be mitigated.

The IMHT reviewed and reaffirmed the six goal statements from the previous Oregon NHMP (Goals 1-6) during its January, 2011 meeting. During the meeting, the IHMT agreed to add two additional goals, Goal 7 and Goal 8, as presented above. The rationale for adding these two goals was to (1) acknowledge that achieving the vision of a disaster resilient state will require the participation of all Oregonians, and (2) to emphasize the need to eliminate unmitigated development in hazard prone areas in accordance with Statewide Planning Goal 7.

## State Capability Assessment

This section of the plan summarizes of the State's pre- and post-disaster hazard management policies, programs, and capabilities for mitigating hazards including: an evaluation of state laws, regulations, policies, and programs related to hazard mitigation and development in hazard-prone areas, as well as a discussion of state funding capabilities for hazard mitigation projects. Specific information on individual policies, programs, capabilities and funding is included in Appendix 4-D. The information presented in this subsection addresses the following federal code requirement:

**Requirement 44 CFR §201.4(c)(3)**, [The plan] shall include: (ii) A discussion of the State's pre- and post-disaster hazard management policies, programs, and capabilities to mitigate the hazards in the area, including: an evaluation of State laws, regulations, policies, and programs related to hazard mitigation as well as to development in hazard-prone areas; a discussion of State funding capabilities for hazard mitigation projects; and a general description and analysis of the effectiveness of local mitigation policies, programs, and capabilities.

### Pre-Disaster Hazard Mitigation Policy Framework

Oregon maintains a robust pre-disaster natural hazard mitigation policy framework. The foundation of this framework is rooted in the Oregon statewide land use planning requirements passed in 1972. Goal 7, the natural hazard planning component of a community's comprehensive land use plan, in turn provided an incentive for all of Oregon's flood-prone communities to participate in the National Flood Insurance Program. A number of Oregon communities have also chosen to participate in the Community Rating System as well. Oregon updated Goal 7 in 2002, largely driven by the flooding and landslides of the February 1996 major disaster declaration (DR-1099). In its current form, the goal directs communities regulate development in hazard prone areas through local comprehensive plans and implementing ordinances. At minimum, local comprehensive plans in Oregon must address floods (coastal and riverine), landslides, earthquakes and related hazards, tsunamis, coastal erosion, and wildfires where applicable. Thus, all of Oregon's cities and counties are required to plan for Oregon's major natural hazard events and to mitigate impacts through regulatory controls.

Mitigation for the earthquake hazard specifically has also been a top legislative priority for Oregon resulting in the passage into law of four senate bills during the 2005 legislative session. The legislation focused on: 1) Performing a statewide seismic needs assessment for all schools and emergency facilities, 2) Formation of a temporary committee to establish a new state grant program to distribute earthquake rehabilitation grants using state bond funds, and 3) Issue of state bond funds through the newly established grant program to state and local communities for the rehabilitation (seismic retrofit) of fire stations, police stations, hospitals and high occupancy school buildings. DOGAMI completed the needs assessment in 2007 and OEM hired a Seismic Grants Coordinator to develop and implement the grant program for the state bond funds. Up to \$100



In 2005, Douglas County School District 4 applied for a FEMA hazard mitigation grant to address vulnerabilities in the High School Commons Building. This building was selected because of its use as a high occupancy classroom and library/media center, and because it has major seismic deficiencies which pose a significant life safety risk to occupants. Final inspection of the Roseburg High School Commons Building was conducted by Oregon Emergency Management staff on February 14th, 2007, well ahead of the August 25th, 2008 project completion deadline. The estimated project cost was \$975,350. The actual cost of construction, consultation and assessment totaled \$1,002,530. The cost overrun of \$27,180 was fully absorbed by the school district.

million in state-bonded funding could become available to seismically retrofit facilities around the state.

Funding provided by a FEMA Pre-Disaster Mitigation competitive grant for the seismic retrofit of three university facilities (two dormitories at Portland State University and operations/administration building at the Oregon Institute for Technology) helped lay the foundation for this successful legislative initiative. The PSU seismic retrofit projects showed that the state could successfully leverage funding, program management, technical assistance and university-managed implementation to complete the projects within the grant budget and on schedule.

Since adoption of the 2009 Oregon NHMP, there have been no significant changes to state policies related to development in hazard prone areas.

Even though communities understand the benefits of mitigation, neither the state nor local governments have established comprehensive mitigation programs with stable funding sources (one exception being Clackamas County which funds a Hazard Mitigation Coordinator position through its emergency management department). Most often, the mitigation component is accomplished on an opportunistic basis or when federal grant program resources become available. State and local governments are encouraged to establish mitigation budgets so that projects can be implemented on a regular basis and, at least, meet the non-federal matching requirement when grant programs are offered. On the implementation side of the equation, there is a continuing need to identify stable funding programs and staff resources at both the state and local government level. The majority of pre-disaster mitigation policies are related to land use and emergency management. Further work is needed to strengthen mitigation activity in the areas of economic development and infrastructure and capital improvement planning.

Table 4.1 provides an overview of the various policies and federal programs related to specific natural hazards in Oregon.

**Table 4.1 Policies and Federal Programs Related to Specific Natural Hazards in Oregon**

<b>Hazard</b>	<b>Oregon Statewide Planning Goals &amp; Policies</b>	<b>Federal Programs &amp; National Resources</b>
<b>Multi-Hazard</b>	Local Comprehensive Plans	Pre-disaster mitigation planning grants (FEMA)
	Goal 2: Land Use Planning	
	Goal 7 Natural Hazards	American Planning Association (Resources on landslides, flooding, and post-disaster recovery)
	Oregon Building Codes	
<b>Coastal Hazards</b>	Goal 17: Coastal Shorelands	National Flood Insurance Program (NFIP)
	Goal 18: Beaches and Dunes	NFIP V-Zone Construction
	Ocean Shore Regulation	Army Corps of Engineers Permit Program
	Tsunamis – ORS 336.071, ORS 455.446, and ORS 455.448	
<b>Flood</b>	Goal 5: Natural Resources, Scenic and Historic Areas, and Open Spaces	National Flood Insurance Program (NFIP)
	Division of State Lands (DSL) Fill and Removal Permit Program	NFIP Community Rating System and Flood Mitigation Assistance Programs
	The Oregon Plan for Salmon and Watersheds	Severe Repetitive Loss
	Oregon’s Wetlands Protection Program	Repetitive Flood Claims Program FEMA Region X’s Policy on Fish Enhancement Structures in the Floodway Army Corps of Engineers Permit Program
<b>Landslide</b>	Goal 17: Coastal Shorelands	American Planning Association: Landslide Hazards and Planning
	The Oregon Plan for Salmon and Watersheds	
	1997 Senate Bill 12: Rapidly Moving Landslides	
<b>Seismic</b>	2005 Senate Bill 2: Statewide seismic needs assessment for schools and emergency facilities	
	2005 Senate Bill 3: Seismic earthquake rehabilitation grant program	
	2005 Senate Bill 4 & 5: State bond authorization	
	2001 Senate Bill 13: Seismic Event Preparation	
	2001 Senate Bill 14: Seismic Surveys for School Buildings	USGS Earthquake Hazards Program
	2001 Senate Bill 15: Seismic Surveys for Hospital Buildings	
	1991 Senate Bill 96: Seismic Hazard Investigation	
	Tsunamis – ORS 336.071, ORS 455.446, and ORS 455.448	
<b>Fire – WUI</b>	1997 Senate Bill 360: Wildland/ Urban Interface	
	Additional Criteria for Forestland Dwellings – ORS 215.730	National Fire Protection Agency Firewise Program
	Urban Interface Fire Protection – ORS 477.015-061	

Source: OPDR

For specific information on the policies listed above, refer to Appendix 4-D: *Policies, Programs, Capabilities and Funding*.

## Post-Disaster Hazard Mitigation Policy Framework

Following the Presidential Disaster Declaration for the December 2007 winter storm event (DR-1683), the Governor signed Executive Order 08-20 establishing the Governor's Emergency Recovery Framework. The Order established a Recovery Planning Cell to direct emergency recovery in Oregon during times of significant crisis. The Order also established the Governor's Recovery Cabinet to coordinate the next phase of ongoing recovery efforts, after the initial response phase is complete.

More recently, the legislature passed House Resolution 3 following the 2011 Great Tohoku Earthquake in Japan and the resulting tsunami that impacted the Oregon coast (DR-1964). HR 3 Recognizes risks and susceptibility of Oregon to catastrophic damage and loss of life resulting from megathrust earthquakes and tsunamis associated with Cascadia fault. Furthermore, it directs the creation and legislative consideration of an "Oregon Resilience Plan." The plan is to include recommendations on responses to Cascadia megathrust earthquakes and tsunamis. The Oregon Seismic Safety Policy Advisory Commission is in charge of implementation; however no funds have been allocated to date.

For the purposes of determining substantial damage following a major hazard event, Oregon implements its substantial damage policy. 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. For flood hazard mitigation, a substantial damage determination provides opportunities for mitigation of buildings through acquisition (to include demolition), relocation out of the floodplain and, potentially, elevation. In fact, when a building is substantially damaged (whether by flooding or other disaster) or substantially improved and said building is in a Special Flood Hazard Area (SFHA), NFIP regulations require mitigation be applied to meet the local community's current floodplain development regulations. Immediately after a flood, local officials should tour the floodplain and note damaged areas on a community map and develop a database of properties that flooded. Where the flooding was deep and with potentially high velocity (the mapped floodway, for example) it will become evident that damages to buildings will reach and exceed the 50% threshold. For those properties that have NFIP flood insurance, timely determinations of substantial damage by flooding will assist property owners in considering mitigation alternatives so that they can apply for an Increased Costs of Compliance (ICC) mitigation claim. If approved for ICC, the ICC claim can be used to expedite mitigation implementation.

In the post-disaster environment, particularly when such events are declared major disasters, the state, local governments and FEMA work closely together during Joint Field Office Operations to facilitate substantial damage determinations and identify early mitigation opportunities for buildings. Structures that are substantially damaged in the SFHA have been given top priority in the past when considering what structures to acquire. In some instances, the benefit/cost analysis can be waived using Hazard Mitigation Grant Program funding when a building is substantially damaged by flood. Timely

substantial damage determination is a standard protocol for all flood disaster declarations in Oregon.

For specific information on these and other post disaster policies, refer to Appendix 4-D, *Policies, Programs, Capabilities, and Funding*.

## **Mitigation Programs and Capabilities**

Oregon facilitates the state's hazard mitigation programs and capabilities in a variety of ways. The State IHMT oversees the state mitigation strategy and is the primary venue for all-hazards information and resource sharing among state agencies. Oregon Emergency Management coordinates the group's activities and chairs its quarterly meetings. Notably, the IHMT is not referenced in state statute nor does it have specific authorities. This issue limits what the IHMT can do and has been identified as a high priority issue for the 2012-2015 planning review and updated cycle. For additional information and a listing of IHMT members, refer to Appendix 4-D, *Policies, Programs, Capabilities, and Funding*.

Other primary state-level mitigation program and capability examples include:

- OREGON LIDAR CONSORTIUM

Formed by the Department of Geology and Mineral Industries, the Oregon Lidar Consortium (OLC) develops cooperative agreements for the collection of high-quality lidar that benefits the public at large, the business community, and agencies at all levels of government. The goal of the OLC is to provide high-quality lidar coverage for the entire state. The collection of lidar data can assist governments in better identifying hazardous areas.

- OREGON SEISMIC SAFETY POLICY ADVISORY COMMITTEE

OSSPAC is a state advisory commission created in February 1990 through an executive order from Governor Neil Goldschmidt and established in statute by the 1991 Oregon Legislature (ORS 401.337). The purpose of the 18 member group is to reduce exposure to Oregon's earthquake hazards.

- HAZARD MITIGATION GRANT REVIEW BOARD

The Hazard Mitigation Grant Review Board is an intergovernmental body which, when convened, reviews, discusses, ranks, and recommends project selections for funding under Section 404 of the Stafford Act (aka Hazard Mitigation Grant Program – HMGP). The Board uses the criteria listed in Section 6, Established Eligibility Criteria and Ranking Measures for Multi-Hazard Mitigation Measures,, and the goals and objectives of hazard mitigation plans for the geographic area in question to evaluate proposed projects for funding.

- DROUGHT COUNCIL

The Drought Council is responsible for assessing the impact of drought conditions and making recommendations to the Governor's senior advisors.

Numerous additional agency-specific hazard mitigation programs and capabilities also exist or are under development. For example, 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. Similarly, DLCD is currently working to incorporate the principles of FEMA's RiskMap program into an Oregon specific initiative called RiskPlan. The RiskPlan program is only conceptual at this point, but when implemented, will offer an integrated state-wide framework for delivering information, guidance, technical assistance and other resources to local governments. Appendix 4-D, *Policies, Programs, Capabilities, and Funding*, includes a complete list of Oregon's mitigation programs and capabilities.

## Mitigation Actions

**Requirement 44 CFR §201.4(c)(3)**, [The plan] shall include: (iii) An identification, evaluation, and prioritization of cost-effective, environmentally sound, and technically feasible mitigation actions and activities the State is considering and an explanation of how each activity contributes to the overall mitigation strategy. This section should be linked to local plans, where specific local actions and projects are identified.

Action items are detailed recommendations for activities that state agencies and others could implement to reduce risk. The top priority action items for this plan are listed below and organized by category, a full list of the actions is presented within a matrix as Appendix 4-A, full descriptions of actions can be found in Appendix 4-B and a list of completed action items is included within Appendix 4-C.

The mitigation plan identifies action items developed through data collection and research, along with the public participation process. For example, OEM is directly involved with the post-disaster mitigation project identification processes by meeting with local government officials on mitigation strategies and priorities, as was the case following the December 2007 flooding in the city of Vernonia and Tillamook County. In Vernonia, the FIRM was not accurately representing the 100-year flood, so additional data collection, analysis and research was undertaken (during JFO operations) to better quantify the flood risk and guide mitigation project implementation.

Mitigation plan activities may be considered for funding through state and federal grant programs, including the Federal Emergency Management Agency's Hazard Mitigation Grant Program and Pre-Disaster Mitigation Competitive Grant Program, as funds are made available. Action items address both multi-hazard (MH) and hazard specific issues for the hazards addressed in this plan. To facilitate implementation, each action item includes information on lead and support agencies, timelines, resources needed for implementation, and plan goals addressed. The action items in the state plan have been deemed cost-effective, environmentally sound, and technically feasible by their respective lead agencies.

## **Lead Agency**

The lead is the state agency with regulatory responsibility to address a particular proposed action, or that is willing and able to organize resources, find appropriate funding, and oversee implementation, monitoring, and evaluation. Currently all lead agencies are represented within the State Interagency Hazard Migration Team.

## **Support**

Internal partner organizations are agencies within the State Interagency Hazard Migration Team or other state agencies that may be able to assist in the implementation of a particular proposed action item by providing relevant resources to the lead agency.

## **Timeline**

In previous editions of the Oregon NHMP, each hazard chapter included both short and long-term actions. Short-term action items were activities that state agencies could implement with existing resources and authorities. Long-term action items were defined as requiring new or additional resources and/or authorities. Given the somewhat arbitrary nature of these categories and current lack of resources and authority to implement actions, the IHMT decided to eliminate the short- and long-term action item classifications.

## **Resources**

Resources are generally expressed as a level of effort in full time equivalent (FTE) staff members. While costs are not estimated for this plan, \$100,000 (in 2000 dollars) is a commonly used value for one FTE; it includes direct salary plus benefits, and overhead costs. Where direct resources are not known agency or program/ grant funding areas are listed.

## **Linkage to Goals**

Each action item is tied to at least one State Plan goal. This linkage explains how each proposed action contributes to the overall state mitigation strategy.

## **Action Item Evaluation Table**

The Action Item Evaluation Table pulls together action items and combines them in an easy to read matrix (see Appendix 4-A). This matrix lists the action items and then indicates which of the plan goals they help to accomplish.

The following describes how state actions items were prioritized in the Action Item Evaluation Table. In a perfect world, the state would be able to compare the risks associated by the twelve hazards on a level playing field (e.g., annualized losses) so that true risk would guide the prioritization of actions. Unfortunately, this type of data does not currently exist for all hazards within the plan. Instead, a more subjective approach must be taken to prioritize actions across hazards until better risk-based data becomes available.

During the September 28, 2011 action item meeting, OPDR facilitated a discussion regarding the existing action item categorization with a subgroup of the state IHMT. The subgroup agreed to re-categorize the action items, reword a number

of existing actions to make them more specific and to remove others that no longer apply (see Appendix 1-A, *Plan Changes*, for details). In the process of re-categorizing the action items the numbering convention was changed, Appendix 4-B includes the current and former action item number. Furthermore, the subgroup established and prioritized the plans new action item categories as presented below (based on existing knowledge about probability and vulnerability). During its October 20, 2011 meeting, the full IHMT approved the actions of the subgroup. During the January 19, 2012 IHMT meeting, OPDR presented an overview of the action item changes and received consent from the IHMT on the implemented changes.

### **Functional Category Top Priority Action Items**

The State IHMT prioritized the following categories (listed in order of priority):

- LEGISLATIVE / POLICY

Actions within this category aim to establish or re-establish natural hazard mitigation authorities, funding and policy. Since the IHMT was established, the officials representing their agencies on the State IHMT have – in many cases – passed from agency directors to division management and/or department staff with a similar diminishment in the perceived importance of natural hazards mitigation at the highest levels of state government.

- EDUCATION / OUTREACH

Enhancing individual and government official responsibility and accountability is a low-cost, high-benefit way to increase resilience throughout the state. Education and outreach programs already exist. The actions in this category are intended in some cases for the general public, but are predominantly aimed at better educating and informing local officials about actions they can take – largely within the scope of existing authorities and resources – to make their communities more disaster resilient.

- CRITICAL INFRASTRUCTURE / ESSENTIAL PUBLIC FACILITIES

The actions within this category address critical infrastructure and public facilities that are essential to the basic functioning of society, and fundamentally necessary for effective emergency response, as well as recovery and redevelopment efforts following a disaster event.

- LAND USE / DEVELOPMENT

Actions within this category seek to utilize laws, regulations, and other tools regarding the use and development of land as methods of protecting lives and property.

- MAINTENANCE / PLANNING.

Actions in this category stress the importance of maintaining elements of this Oregon NHMP, the data that supports the Oregon NHMP, and also promote the development of plans and reports that support the goals of the Oregon NHMP.

Within each functional category are specific action items. Listed below are the most critical actions proposed for implementation within each category:

#### LEGISLATIVE/ POLICY

- LP-1. Review and re-establish State IHMT membership and member responsibilities
- LP-2. Complete a hazard mitigation policy legislative needs assessment
- LP-3. Establish statutory authority for the State IHMT
- LP-4. Promote a state disaster and hazard mitigation fund to assist local governments' mitigation and response efforts
- LP-5. Establish a system of special zones, procedures, restrictions, and conditions to limit development in tsunami inundation zones
- LP-6. Integrate hazard data into planning and regulations

#### EDUCATION/ OUTREACH

- EO-1. Continue promoting the CRS program throughout the state
- EO-2. Develop a statewide strategy to encourage the purchase of flood insurance
- EO-3. Assist communities to adopt risk reduction techniques and ordinances
- EO-4. Encourage Oregon coastal communities to enroll in the NFIP's Community Rating System (CRS) which includes tsunami standards

#### CRITICAL INFRASTRUCTURE / ESSENTIAL PUBLIC FACILITIES

- CI-1. Complete a statewide evaluation of the condition of levees, dikes, and dams built for flood control purposes
- CI-2. Continue to conduct and improve risk assessments for state owned properties
- CI-3. Promote the reduction of non-structural hazards in K-12 schools
- CI-4. Inventory and evaluate state owned and occupied buildings for seismic risk
- CI-5. Strongly encourage voluntary relocation of essential facilities, hazardous facilities, and special occupancy structures that are in the tsunami inundation zone

#### LAND USE / DEVELOPMENT

- LU-1. Develop model risk reduction techniques and ordinances for landslide prone communities
- LU-2. Develop process for implementing the revised elements of Goal 7
- LU-3. Enhance coordination of hazard mitigation planning with local comprehensive planning
- LU-4. Complete a model "Substantial Improvement/Substantial Damage" program to support local government regulation of floodplain development

#### MAINTENANCE / PLANNING

- MP-1. State IHMT Agency Action Item Progress Reports

- MP-2. Develop post-disaster strategic reconstruction plans based on damage projections from a Cascadia Subduction Zone earthquake and tsunami
- MP-3. Monitor hazard mitigation implementation

## Funding Sources

**Requirement 44 CFR §201.4(c)(3)**, [The plan] shall include: (iv) Identification of current and potential sources of Federal, State, local, or private funding to implement mitigation activities.

Oregon utilizes several federal funding sources, described in some detail within Appendix 4-D, *Policies, Programs, Capabilities, and Funding*, to fund mitigation projects and mitigation planning. Most of these programs are available “pre-disaster” and a few of them are available only after a federally declared disaster has occurred. State funding is very limited, but also often contributes toward mitigation planning and implementation of mitigation measures or projects.

Chief among the federal sources of funding historically used in Oregon is Pre-Disaster Mitigation, also known as PDM first competitively offered in FY 2003. The Flood Mitigation Assistance Program and several other more narrowly focused grants also provide federal funds for flood hazard planning or projects or both. Oregon has successfully used PDM funds for both mitigation planning and projects in the past. Assuming the recent decreases in the level of federal PDM funds available to states continues, Oregon will need to look to new funding sources to maintain state and local NHMPs. More importantly, the identification of new (non-PDM) funding sources will be needed to implement pre-disaster mitigation projects.

The primary post-disaster sources of funding are the Hazard Mitigation Grant Program (HMGP), the Public Assistance Program, and the SBA’s Physical Disaster Loan Program. HMGP can be used for both planning and for projects, while the other two generally do only project work.

State funding often consists of “General Fund” money that pays for the labor costs of state officials who are working on mitigation projects; these labor costs are often used as non-federal cost-share for projects that are otherwise federally funded. Notably, the majority of state-level staff positions dedicated to hazard mitigation planning and implementation (and a growing number of those at the local level) are funding through federal programs or grants. The state occasionally contributes cash match through one of several funding mechanisms. Oregon’s Seismic Rehabilitation Grant Program (SRGP) is also a key source of state funding for mitigation. All of these are described in detail within Appendix 4-D, *Policies, Programs, Capabilities, and Funding*.

Future funding sources may include private foundations or other public-private funding agreements. Notably, the identification, generation and allocation of new sources of state funding would be the best way to ensure that critical mitigation activities are implemented in Oregon. Given current economic and political realities at local, state, region, nation and global levels, it is unlikely that Oregon will be successful in identifying the new public funding sources needed to

achieve many of the implementation actions identified in this plan during the three-year planning period. Consistent funding is essential for program continuity which allows for project development, implementation, close-out and validation (mitigation successes) which is basis for a robust, strategic mitigation program.