

Oregon Pre-Disaster Mitigation Program

*Community Kick-Off Training
September 15-17, 2003*

Training Manual

Partners for Disaster Resistance &
Resilience: Oregon Showcase State
Program



www.OregonShowcase.org

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September 2003



Funding Support Provided By:



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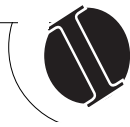
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Local Natural Hazard Mitigation Plans: Fall 2003 Training Manual

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Introduction:
Local Natural Hazard Mitigation Plans in Oregon

Natural hazard mitigation plans assist communities in reducing risk and preventing loss from natural hazards by documenting mitigation goals, recommending activities to minimize losses, and offering technical information and resources to implement activities. This manual and training provides a process for developing as well as evaluating natural hazard mitigation plans. Additionally, this document and training synthesize the standards and approaches developed by state and federal agencies and organizations to assist communities in achieving risk reduction goals.

The training manual is based on the State of Oregon's *Local Natural Hazard Mitigation Plans: An Evaluation Process* document. It is intended to work alongside the Partners for Disaster Resistance & Resilience (PDR) web resources, PDR trainings, the Department of Land Conservation and Development's *Planning for Natural Hazards: Oregon Technical Resource Guide* (a technical resource for land use planning approaches relating to natural hazards affecting Oregon communities) and other resources. There are also many regional, state, and federal planning tools that can assist communities in mitigation planning including the Oregon State Natural Hazards Mitigation Plan, the State Natural Hazards Risk Assessment, and the FEMA 'how-to-guide' series for state and local mitigation planning. These documents provide technical and resource assistance for planning and implementing natural hazard mitigation projects.

The multi-day Fall 2003 Pre-Disaster Mitigation (PDM) training is aimed at walking communities through the various "steps" to building natural hazard mitigation plans - everything from organizing to prepare the plan to setting the plan in motion. While the training takes communities through the entire planning process, it mainly places an emphasis on the early stages of the planning process. In particular, the training focuses on Steps 1-4 as identified in this manual (organizing to prepare the plan, involving the community, describing your community and how mitigation is currently addressed, and identifying and characterizing the natural hazards). Future PDM workshops will focus on the later "steps" of plan development.

Background and Purpose: Natural Hazard Mitigation Plans and Policies

Why develop a natural hazard mitigation plan?

There are many reasons to develop a community natural hazard mitigation plan. A natural hazard mitigation plan provides a community with a set of goals, activities, and resources designed to reduce risk from future natural hazard events. The process of developing a mitigation plan can also forge new partnerships among community organizations, businesses, and local citizens. These partnerships can lead to the development of a mitigation plan that provides strategies to assist the community in reducing its risk from future natural hazard events. Oregonians are developing an understanding of the potential impacts natural hazards may have on their communities. As public awareness increases, there is an opportunity to integrate natural hazards mitigation education and programs in a variety of community initiatives, including land use planning, natural resource management, capital improvement projects, housing developments, and economic development programs, among others.

Some communities prepare natural hazard mitigation plans to become eligible for mitigation grant funding while others are required to so that they address federal criteria. In cases where communities are required to develop a mitigation plan, there are federal criteria that must be addressed. All communities meeting these criteria may become eligible for certain funding programs. Communities with mitigation plans may be eligible for state and federal mitigation funds. FEMA's Hazard Mitigation Grant Program (HMGP), Pre-Disaster Mitigation (PDM) Grant Program and Flood Mitigation Assistance (FMA) Program emphasize funding priority to communities with natural hazard mitigation plans that have been formally adopted.



Definition Box

What is natural hazard mitigation?

The process of developing and implementing actions designed to reduce or eliminate long-term impacts resulting from natural hazards.

There are many “multi-objective” benefits to a mitigation plan and mitigation planning. Programs addressing issues related to employment, housing, poverty, and economic development affect the sustainability of an entire community can assist in mitigation efforts. At the same time, mitigation can strengthen the social structure of a community by setting goals intended to meet the community's social, economic, and environmental objectives. By becoming involved in mitigation planning, organizations and agencies can enhance their work and improve their capacity to reach their goals as they relate to loss reduction, protection of public safety, corporate citizenship and community sustainability.

Congress recognized these “multi-objective” benefits in approving the *Disaster Mitigation Act of 2000 (DMA)*. The purpose of DMA is to amend §322 of the Stafford Act which includes information on criteria for tribal and local mitigation plans, establish a national program for pre-disaster mitigation, and streamline administration of disaster relief. *FEMA Requirement 44 CFR Parts 201 and 206* is the rule that establish the criteria for state and local hazard mitigation plans.



What does a mitigation plan do?

Natural hazard mitigation plans document knowledge about the problems associated with natural hazards in a community. They articulate goals that will assist the community in long-term risk reduction from natural hazards, recommend appropriate mitigation action items, and identify resources to implement activities. Preparing a mitigation plan for your community can reduce public and private costs resulting from natural hazard events. Successes in risk reduction and loss prevention are achieved by implementing programs that address and mitigate the potential impacts natural hazards may have on society, the economy, and the environment.

What do I need to know to develop a mitigation plan?

This training outlines a seven-step approach for developing and evaluating a natural hazard mitigation plan and is intended to assist communities in meeting state guidelines and federal requirements. The approach also provides guidelines for finding information, thinking critically and comprehensively about community problems, developing clear goals, and identifying appropriate mitigation activities.

The seven-step approach outlined in this document is as follows:

- Step #1: Organize to prepare the plan**
- Step #2: Involve the community**
- Step #3: Describe your community and how mitigation is currently addressed**
- Step #4: Identify and characterize the natural hazards impacting your community**
- Step #5: Define plan goals
- Step #6: Develop solutions
- Step #7: Set the plan in motion

The **bolded** Steps 1-4 will be the main focus of the Fall '03 training. The remaining Steps 5-6 will be addressed in more detail at trainings in the Winter and Spring of '04.

What state policies and programs address natural hazards?

Statewide Land Use Planning Goal 7

In addition to the guidance issued by the state of Oregon in this document, Oregon Land Use Planning Goal 7 (Natural Hazards) requires communities to protect life and property from natural hazards through their comprehensive land use plans. An updated version of Goal 7 is available in the "Other Resources" section of this manual and the Fall 2003 Resource CD.

State Building Codes

The State Building Code, as defined in ORS 455.010(8), includes construction safety standards for structural, mechanical, electrical, plumbing, elevators, boilers, manufactured dwellings, and recreational vehicles. Municipalities have the authority to prohibit or restrict some construction within their jurisdiction for the purpose of mitigating certain hazards. (You can find more information on the Building Codes Division at <http://www.cbs.state.or.us/external/bcd.>)

Tsunami Hazard

ORS.455.446 prohibits the construction of new essential facilities and special occupancy structures as determined in ORS 455.449 in the tsunami inundation zone established by the Department of Geology and Mineral Industries.

Flood Hazard

Local governments (both cities and counties) have the authority to prohibit or restrict building construction in coastal flood hazard areas, floodways, and floodplains where there is a threat to life and property according to Statewide Land Use Planning Goal 7 and the National Flood Insurance Act. The State Building Code contains related provisions for construction in flood areas.

Wildfire Hazard

Municipalities have the authority to establish wildfire hazard zones in special hazard areas where a combination of combustible natural fuels, topography, and climate conditions result in significant risk of catastrophic fire over relatively long periods each year. Municipalities may restrict construction and require specific methods and materials to increase the fire resistance of the construction.

Additionally, *Oregon Senate Bill 360* (SB 360) establishes the policy and framework for meeting the fire protection needs of the wildland urban interface. One of goals of the bill is to define the interface in Oregon and establish a process and system for the classification of the interface. Formal classification committees in each county will accomplish the classification. Work has begun in Jackson and Deschutes Counties, with the remainder of the state planned for classification over the next ten years.

Seismic Safety Surveys and Seismic Rehabilitation

Municipalities have authority through the adoption of local ordinances to conduct seismic safety surveys and evaluations for the purpose of establishing an inventory of existing buildings subject to damage from a seismic event. Municipalities may also, through the adoption of a local ordinance, establish a seismic rehabilitation program whereby they require evaluation and upgrade of existing buildings within their jurisdiction.

Governor's Flood and Landslide Hazard Mitigation Policy

Former Oregon Governor John Kitzhaber established a flood and landslide hazard mitigation policy after the devastating statewide flood and landslide events in 1996. The goal of this hazard mitigation policy is to guide governmental action as well as the use of hazard mitigation funding to demonstrate new ways of living within our dynamic environment while minimizing future damages from natural hazard events.



As noted in the flood and landslide policy:

“Oregon’s policy focus is to learn from the flood and landslide events of 1996, and to apply this understanding to mitigate the loss of life and property from all future natural hazard events.”

The policy for existing state programs includes direction for Oregon state agencies to look at their stewardship and regulatory responsibilities, establishment of a “Benchmark” by the Oregon Progress Board for hazard avoidance and hazard mitigation planning, review of Goal 7 by the Land Conservation and Development Commission, and development of a program strategy through Oregon Emergency Management to establish and maintain a statewide all-hazards mitigation program.

The State Natural Hazards Mitigation Plan

State hazard mitigation plans are required in order for states to receive mitigation grants following a natural disaster. The federal regulations mandating these plans outline the required planning process and the responsibilities of officials charged with hazard mitigation planning, and also describe essential components of an acceptable state plan.

The State Natural Hazards Risk Assessment

This online portion of the state’s Natural Hazard Mitigation Plan provides information about natural hazards and events, population, transportation and economic statistics, and presents statewide and regional maps about hazards and infrastructure. Find the online version at: www.oregonshowcase.org/projects/state/snhra/snhra.htm

Partners for Disaster Resistance & Resilience (PDR) - Oregon Pre-Disaster Mitigation Program Partnership

The state of Oregon faces a number of challenges and opportunities with respect to natural hazard mitigation. There is growing recognition of the need for long-term planning strategies to reduce risk from natural hazards and, oftentimes, the disasters they cause. Despite this, many communities continue to experience difficulty in developing and implementing hazard risk reduction policies. Communities regularly suffer from a lack of technical resource assistance, as well as insufficient coordination among public, private, and non-profit sectors at the local, regional, and statewide levels.

Oregon has a solid foundation in natural hazard mitigation; including the state’s land use planning laws, building code requirements, emergency preparedness planning, hazards assessment, and other policies and programs. *Partners for Disaster Resistance & Resilience: Oregon Showcase State* program builds upon this foundation to strengthen the state’s natural hazards risk and loss reduction efforts. This training is an example of how this program will coordinate resources and expertise to provide the greatest level of assistance to PDM communities.



Background

In 2000, Oregon became a “Showcase State for Natural Disaster Resistance and Resilience” through an Executive Order. The Oregon Natural Hazard Workgroup (ONHW), a program of the University of Oregon’s Community Service Center (CSC), subsequently became the coordinating organization for the *Partners for Disaster Resistance & Resilience: Oregon Showcase State Program (PDR)*. PDR is an integrated, cost-effective and systematic approach for all levels of government and the private sector to bring together resources – both human and financial – to prepare for and minimize natural disaster impacts.

Interest in the partnership emerged from both the public and private sectors. The Oregon Department of Geology and Mineral Industries (DOGAMI), the Department of Land Conservation and Development (DLCD) and Oregon Emergency Management (OEM) continue to lead state agency interest from their missions in identifying hazards and reducing public safety risks. SAFECO Insurance Companies, and the Insurance Information Service of Oregon and Idaho (IISOI) lead private sector interest in minimizing property damage and economic losses and expediting economic recovery after a disaster. The initiative is bolstered by the ongoing work of ONHW.

In February 2002, the Federal Emergency Management Agency (FEMA) published Interim Final Rule 44 CFR Part 201, which requires all states and communities to develop natural hazard mitigation plans by November 1, 2004. These planning and mitigation requirements for states and communities will be accomplished through the Pre-Disaster Mitigation Program (PDM) as further described in the next section of this document. With its mission to assist communities in reducing natural hazard risks and losses ONHW is working to build a strong partnership between the *Partners for Disaster Resistance & Resilience: Oregon Showcase State Program* and the statewide Pre-Disaster Mitigation Program. ONHW will work with a second group of designated PDM communities over the next year by providing plan development support and technical assistance to help the communities develop local natural hazard mitigation plans. Oregon communities that are pursuing mitigation planning using other grant and local resources, technical assistance and/or other programs are encouraged and welcome to use the tools and techniques developed through the PDR program.

ONHW is working with OEM, FEMA and local governments statewide to coordinate statewide planning activities with *Partners for Disaster Resistance & Resilience* and the PDM program. This coordinated approach will assist in achieving the broad goals of both programs, while assisting communities address the requirements of the new Federal Rule for local mitigation plans.



To accomplish these goals, OEM, ONHW and the *Partners for Disaster Resistance & Resilience* uses a collaborative partner-based approach to mitigation that promotes inter-governmental coordination, fosters public-private partnerships, and builds local capacity to develop risk reduction strategies and activities.

Oregon's Tiered Approach to Natural Hazard Mitigation

Oregon's approach to natural hazard mitigation planning aims to build local capacity in developing and implementing risk reduction activities through technical assistance and training, partnership development and resource sharing. To achieve this objective, the approach fosters partnerships among agencies, communities, private sector partners and organizations to determine needs, identify issues and capacity, and develop strategies for risk reduction.

Through the Pre-Disaster Mitigation program, activities are organized according to three tiers: *Statewide Activities*, *Regional Activities*, and *Local Activities*. Each level of activity reinforces the others and leads to more coordinated and collaborative state effort. An example of this coordination is illustrated by vulnerability assessments and other baseline information collected at a state and regional level that are then made available to local governments and organizations planning for natural hazards.

Statewide Activities

The broadest of the three levels of natural hazard planning and mitigation activities is Statewide Planning Tools and Resources. There are a number of state agencies and organizations in Oregon participating in natural hazard mitigation activities. The activities in this session are related to the types of resources and programs that exist at the state level.

Examples of Statewide Planning Tools, Resources and Trainings:

- Partners for Disaster Resistance & Resilience:*
 - Oregon Showcase State Program
- State Natural Hazards Mitigation Plan and Statewide Hazard Assessment (based upon all 36 county hazard analysis scores)
- Planning for Natural Hazards: Oregon Technical Resource Guide
- Local Natural Hazard Mitigation Plans: An Evaluation Process
- Other community plans
- Statewide Land Use Planning Goals
- State and Federal Legislation
- State-sponsored trainings and workshops
- Statewide associations

Regional Activities

Regional Activities focus on planning and mitigation activities that provide information on hazards and set regional mitigation goals and objectives for multiple jurisdictions (county/counties and cities). This can be accomplished through a comprehensive regional planning process that fosters partnership development, cooperation and resource sharing among federal, state, and local governments and community and regional organizations.

Examples of planning and mitigation activities at the regional level are the Washington, Jackson, Northeast Oregon and Clackamas County Natural Hazard Mitigation Action Plans and the Benton, Lane and Linn Multi-County Regional Mitigation Plan.

Examples of Regional Planning Tools, Resources and Trainings:

- Development of County/Regional Mitigation Plans
- County/Regional Workshops (Firewise, Project Impact)
- County/Regional associations (watershed councils, fire-prevention cooperatives, etc.)
- Implementation of County and Regional projects

Local Activities

Local Activities focus on community-level planning, activities and plan implementation. Public participation processes are an important aspect of mitigation activities, as public participation feeds directly into action items and implementation strategies for the plans. Action items and implementation strategies are the basis for local mitigation plan goals and objectives. At the local level, everyone can draw on the resources and information at the regional and state levels. This cooperation strengthens plans and leads to more disaster resistant communities through an understanding of potential risk and methods for addressing the impacts. Examples of local planning and mitigation activities include the City of Salem Natural Hazards Mitigation Plan and the Beaverton Action Plans. These plans are specific to a geographic area, yet they draw from statewide knowledge and strategies, and address vulnerability data and regional mitigation goals and objectives from regional plans where applicable.

Examples of Local Planning Tools, Resources and Trainings:

- Local Hazard Identification
- Local Mitigation Plans/Action Items
- Local action groups - city council, commissioners, formally established hazard mitigation committees
- Implementation of local projects



Federal Policy

Federal guidelines and requirements addressed in this plan include some of the laws and Federal Emergency Management Agency programs and policies outlined below.

Disaster Mitigation Act of 2000

Congress approved the *Disaster Mitigation Act of 2000*, commonly known as the 2000 Stafford Act amendments, on October 10, 2000. On October 30, 2000, the President signed the bill into law, creating Public Law 106-390. The purposes of the Act was to amend the Stafford Act, establish a national program for pre-disaster mitigation, and streamline administration of disaster relief. Section 322 of the Act includes information on criteria for tribal and local mitigation plans. These criteria for local mitigation planning will serve, over time, to eliminate the separate planning requirements for all FEMA mitigation programs.

The Disaster Mitigation Act of 2000 is the most recent federal law pertaining to natural hazards mitigation and reinforces the importance of mitigation planning in pre- and post-disaster environments. Section 322 (42 U.S.C. 5165) specifically addresses mitigation planning at the state and local level, identifying new requirements, allowing additional Hazard Mitigation Grant Program (HMGP) funds to be used for planning activities, and increasing the amount of HMGP funds available for states that have developed a comprehensive, enhanced mitigation plan prior to a disaster. Rules for The rule for implementation was published in 2002 and make clear the federal requirements for hazard mitigation planning.

The National Flood Insurance Program

The National Flood Insurance Program (NFIP) is a program within the Federal Emergency Management Agency (FEMA). NFIP makes federally backed flood insurance available in communities that agree to adopt and enforce floodplain management ordinances to reduce future flood damage.

Community Rating System (CRS)

As part of the National Flood Insurance Program (NFIP), CRS recognizes communities' efforts to strengthen floodplain management. CRS rewards those communities that go beyond the minimal requirements of NFIP by reducing flood insurance premiums for a participating community's property owners. The *CRS Planning Process* is related to FEMA's *Flood Mitigation Assistance Program* guidelines and NFIP guidelines for flood mitigation planning.

Policies and resources from federal, state, regional and local areas that contribute to the natural hazard mitigation planning process will be presented and discussed at this training.



Notes:



Associated State and Federal Web Resources

Introduction, Background & Purpose - Local, State and Federal Resources

- Partners for Disaster Resistance & Resilience: Oregon Showcase State* - www.OregonShowcase.org
- Department of Land Conservation and Development (DLCD) - www.lcd.state.or.us
 - DLCD Planning for Natural Hazards: Oregon Technical Resource Guide* - www.lcd.state.or.us/hazhtml/Guidehome.htm
- Department of Geology and Mineral Industries (DOGAMI) - www.oregongeology.com
- Federal Emergency Management Agency (FEMA) Mitigation Division - www.fema.gov/fima/
 - Disaster Mitigation Act of 2000: State & Local Plan Interim Criteria and Mitigation Planning Workshop for Local Governments - www.fema.gov/fima/planning8.shtm
 - FEMA National Flood Insurance Program (NFIP) - www.fema.gov/nfip/nfip.htm
 - FEMA How-To Guides - www.fema.gov/fima/planhowto.shtm
- Oregon Emergency Management (OEM) - <http://www.osp.state.or.us/oem/>
- Oregon Natural Hazards Workgroup (ONHW) - www.uoregon.edu/~onhw
 - Mitigation Plans, Evaluation Guides, PDM Workshop Resources and others available in the 'Print-Based Resources' Section of www.OregonShowcase.org
- United States Geological Survey (USGS) - www.usgs.gov



Step #1: Organize to prepare the plan

1.1: Include a description of why your community developed the mitigation plan

Communities may develop natural hazard mitigation plans for a variety of reasons. It may be in response to a recent disaster, after identifying a need for long-term risk reduction strategies, or for other reasons relating to local or state planning goals. Natural hazard mitigation plans should begin with a description of why the mitigation plan was developed. This helps illustrate the importance and potential outcomes of developing the plan.

In February 2002, the Federal Emergency Management Agency (FEMA) published Interim Final Rule 44 CFR Part 201, which requires all states and communities to develop natural hazard mitigation plans by 1, November 2004. These planning and mitigation requirements for states and communities will be accomplished through the Pre-Disaster Mitigation Program (PDM). Communities often find that after a disaster strikes, public awareness and interest is at a peak. While disasters can potentially cause financial and personal loss, they can also be the impetus for awareness and action. As people and organizations account for their losses, steps that could have been taken to minimize the amount of loss become apparent. Identifying activities to reduce future loss should be the first step in post-disaster reconstruction. Additionally, it is vital to integrate long-term planning and develop mitigation strategies in the pre-disaster environment as is the goal of FEMA's Pre-Disaster Mitigation Program.

Planning for natural hazards can save lives and minimize the financial and emotional costs from disasters. The potential benefits of mitigation can motivate people involved in the planning process and the general public to give their time, energy, and personal commitment to develop and implement a natural hazard mitigation plan.



Tip 1.1: Benefits of Natural Hazard Mitigation Activities

Implementing mitigation activities within a community can assist in preventing the devastating consequences that may result from natural hazard events. Mitigation activities can reduce loss of life and property, strengthen the economic base of a community, and limit environmental degradation. Specifically, natural hazard mitigation can:

- Save lives and reduce injuries;
- Prevent or reduce property loss;
- Reduce economic loss;
- Minimize agricultural losses;
- Protect infrastructure from damage;
- Safeguard operation of critical facilities during a natural hazard event;
- Decrease disruption of families, schools, and other public and private facilities;

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- Strengthen the social fabric of a community and minimize emotional distress after disaster events;
- Protect the environment and natural resources;
- Limit legal liability of government and public officials;
- Foster public/private partnerships that can provide multiple benefits for the community; and
- Protects the livelihood and sustainability of the community.

1.2: Create a planning committee to oversee development of the mitigation plan

A mitigation plan must include information about the issues facing a community, and mitigation activities that can be implemented successfully by members of the community. To accomplish this, the committee developing the plan should include representatives from public agencies, private sector businesses, nonprofit organizations, and local citizens affected by the natural hazard mitigation plan.

Specifically, members of the committee should include a leader responsible for coordinating local hazard mitigation activities, including plan implementation and monitoring, organizations responsible for implementing plan provisions, and appropriate stakeholder groups. These groups may include:

- Property, land and home owners, and renters exposed to the hazard;
- Representatives of neighborhood organizations;
- Business owners;
- Managers of critical facilities;
- Agriculture, forest users, and others who affect (and are effected by) watershed conditions;
- Land developers, real estate agents, lenders, and others who affect the future development of communities;



- Planning office representatives;
 - Local or state government employees at the policy level;
 - Emergency managers; and
 - Building code officials.



Tip 1.2: Roles and Responsibilities of the Committee

A committee working on a natural hazard mitigation plan can have a strong hand in ensuring the success of both the development and implementation of a plan. People will tend to support what they have helped to create. Specifically, the committee can work together to:

- Guide the development of the plan by setting goals, identifying appropriate activities, and developing a process for public participation;
- Ensure that neighboring jurisdictions and appropriate regional, state, tribal, and federal agencies participate in plan development;
- Distribute the plan to all stakeholders and the general public by means of public libraries, websites, local media, and other means;
- Present findings to the community to get feedback;
- Develop clear, effective educational materials and hold public forums to discuss community issues;
- Oversee implementation of mitigation activities; and
- Develop and implement a communication plan to better inform the public about the benefits of risk reduction and loss prevention. This is accomplished by having a committee that represents different segments of the population, from the general public to children, from the public sector to private



Notes:



So What Should My Plan Have?

A description of why your community decided to develop or revise your mitigation plan and the long-term outcomes that your mitigation plan can help to achieve.

Your mitigation plan should include the names and organizations of the people who served on the mitigation planning committee.

Additional Resources and Associated State & Federal Guidelines

Step 1: Organize to prepare the plan

Additional State and Federal Resources to help meet the objectives of Step #1	State and Federal Guidelines and Requirements Met in Step #1
1.1 Include a description of why your community developed the mitigation plan	
<ul style="list-style-type: none"> FEMA 386-1 How-To Guide #1: Getting Started: Building Support for Mitigation Planning 	<ul style="list-style-type: none"> ✓ Community Rating System Guideline #1 ✓ FEMA Review Criteria 3.2.1 Documentation of the Planning Process <i>Requirement §201.6(c)(1): (Must)</i> ✓ FEMA Review Criteria 3.3.2 Profiling Hazard Events <i>Requirement §201.6(c)(2)(i): (Shall)</i>
1.2 Create a planning committee to oversee development of the mitigation plan	
<ul style="list-style-type: none"> FEMA 386-1 How-To Guide #1: Getting Started: Building Support for Mitigation Planning 	<ul style="list-style-type: none"> ✓ FEMA Review Criteria 3.2.1 Documentation of the Planning Process <i>Requirement §201.6(c)(1): (Must)</i> ✓ OEM Evaluation Criteria Checklist for Local Natural Hazards Mitigation Plan Review

Plan Framework Connection

Work for step one connects to the following area of the ONHW plan framework

- Vol. I, Section 1: Introduction - Historical Impacts and Events
- Vol. III, Worksheet B - Establishing the Planning Team



Step #2: Involve the community

2.1: Develop a public involvement strategy

Public involvement ensures that the plan includes diverse community perspectives, reflects community need, and assists in garnering community support and participation during plan implementation. Including citizen input about the issues at stake and potential solutions during mitigation plan development is the first step in identifying outreach and education activities. State and federal policies require that the planning process must involve the general public. Even without these requirements, public participation is essential, as it strengthens the integrity of the plan.



Tip 2.1: Inviting people to become involved

Members of the public who should be included in development of the mitigation plan are comprised of those people interested in the livelihood and sustainability of their community. They may include:

- Property owners, homeowners, and renters;
- Representatives of neighborhood organizations;
- Business owners and managers;
- Managers of critical facilities;
- Farmers, land managers, and anyone shaping the physical geography of the watershed landscape or watershed;
- Land developers, real estate agents, lenders, and others who affect the future development of the community;
- Neighboring jurisdictions;
- Representatives of appropriate regional, state, tribal, and federal agencies; and
- Colleges and universities.

2.2: Involve local, regional, and state agencies and organizations in the planning process

Natural hazards have little consideration for county lines, political districts, or jurisdictions. A river flooding upstream of your community will likely have consequences downstream. Therefore, developing relationships with neighboring communities and investigating regional issues during development of the mitigation plan is essential. Fostering partnerships with local, regional, and state agencies helps ensure that a broad spectrum of community issues will be considered during development of the mitigation plan. Partnerships and coordination help communities identify resources and programs that will assist in implementing mitigation activities. Partnerships and coordination demonstrate the community's commitment to reducing damages from future natural disasters through the provision of financial or technical assistance that support the community's mitigation goals and priorities.



Tip 2.2: Agencies and organizations to involve in the planning process

It is important to include a broad spectrum of agencies and organizations in the planning process. Reaching out for technical expertise, or to organizations that may have maintained databases on hazard occurrences will strengthen your planning process. Some of these agencies may have resources to offer to your community later as hazard mitigation activities are implemented. Involving these agencies and organizations can be accomplished through interviews or by sending invitations to public meetings, hearings, and workshops.

Selected agencies and organizations to consider:

- American Red Cross and other voluntary organizations;
- Businesses and private-sector organizations;
- Chamber of Commerce;
- Civic organizations;
- Local, county, and state emergency managers;
- Elementary and secondary schools and universities;
- Environmental advocacy groups;
- Federal Emergency Management Agency;
- Land trusts;
- Local farm bureau;
- Local fire departments/districts and ambulance services;
- Local native american tribes and organizations;
- Planning commissions;
- Planning, parks, and local government affairs office;
- Regional council of governments (COG);
- Regional planning, water, sewer, and sanitary districts;
- National Marine Fisheries Service;
- National Weather Service;
- Natural Resources Conservation Service;
- Oregon Economic and Community Development Department;
- Oregon Department of Fish and Wildlife;
- Oregon Department of Forestry;
- Oregon Department of Geology and Mineral Industries;
- Oregon Department of Land Conservation and Development;
- Oregon Emergency Management;
- United States Army Corps of Engineers;
- United States Department of Agriculture;
- United States Geological Survey; and
- United States Fish and Wildlife Service.



Information Key

The Community Rating System (CRS) credits activities that occur during the process of developing a mitigation plan. Among other requirements, the CRS requires that 1) the community contact other agencies at the beginning of the planning process, and 2) the community send a draft plan to these agencies for comment.

Communities participating in CRS can request a copy of the 2002 CRS Coordinator's Manual by contacting the Insurance Services Office. .

2.3: Work with local, regional, and state agencies and organizations to identify mitigation activities and assist with implementation

Coordination with local, regional, and state agencies and organizations is essential to developing feasible mitigation activities that will be successfully implemented. Partnerships illustrate the commitment of various organizations to a common goal. Once partnerships are formed, it is easier to identify potential activities and implement them as the various organizations have committed to doing their part.



Tip 2.3: Fostering interagency partnerships

Fostering coordination and collaboration among agencies and partners during the mitigation planning process assists in consolidating resources and programs. Cost-effectiveness, increased coordination, and outreach can all result from interagency partnerships, and agencies will tend to support a mitigation plan that they have helped to create. Additionally, interagency agreements facilitate program development and funding of agreed upon mitigation activities.

Interagency Partnership: Partners for Disaster Resistance & Resilience (PDR)

Oregon faces a number of natural hazards with the potential to cause loss of life, injuries and substantial property damage. Consequently, the state is presented with many unique challenges and opportunities in natural hazard risk reduction. Despite the growing recognition of the need for long-term coordination to reduce risk from natural disasters, many communities continue to experience difficulty in developing and implementing natural hazard risk reduction plans, policies and activities. Communities regularly suffer from a lack of technical and funding assistance, as well as insufficient coordination among public, private, and non-profit sectors at the local, regional, and statewide levels. The Partners for Disaster Resistance & Resilience (PDR or The Partnership) works to address these issues and offers a model of how increased communication, coordination and collaboration between diverse partners can assist communities in reducing their risk from natural hazards.



What is “Partners for Disaster Resistance & Resilience: Oregon Showcase State” and how can it help Oregon?

The Partnership provides a comprehensive, cost-effective approach for partners to bring together resources – both human and financial – to enhance disaster safety and preparedness statewide. The Partnership fosters collaboration among private and public agencies; works with communities and organizations to determine needs, identify issues and resources; and helps develop strategies for risk reduction. Activities are organized on three levels: statewide, regional, and local. Each level of activity builds off of the other and leads to a more coordinated and collaborative statewide program.

What are the goals of The Partnership?

- Prevent injuries and death caused by natural disaster;
- Protect public and private property from disaster impacts; and
- Create a disaster-resilient economy.

The Partnership seeks to make disaster resistance and resilience a part of every community’s routine decision making, thus making Oregon safer both now and for generations to come.

What are The Partnership's primary activities?

The Partnership is based upon 14 core elements. A five-year strategic plan identifies which activities are priorities. Primary activities to make Oregon “disaster resistant by design” include:

- **Community Plan Development and Activity Support:** The Partnership supports communities in developing natural hazard risk reduction plans by providing training programs, workshops, and hands-on assistance to communities. Additionally, PDR aims to build local capacity for disaster safety and risk reduction, while developing a support network among communities and partners.
- **Technical Resource Development & Research:** The Partnership develops and distributes resource manuals and CDs (e.g., Technical Resource Guide, Natural Hazard Risk Reduction Plan Framework, etc.) that assist communities in planning and preparing for natural hazards.
- **Training Programs & Capacity Building:** The Partnership continually develops new training programs that benefit communities, agencies and partners involved in natural hazard risk reduction. Samples include Open for Business, Benefit/Cost Analysis, Vulnerability Assessment and a “How-To series” for communities developing FEMA-approved natural hazards risk reduction plans.
- **Partnership Development:** The Partnership facilitates collaboration between agencies by providing networking opportunities at the training programs, and further provides information exchange through a printed newsletter and web newsletter.

Who started the Partnership and who can become involved?

The Partners for Disaster Resistance & Resilience started with a core group of state agencies, insurance companies, Oregon Natural Hazards Workgroup (ONHW) and Institute for Business & Home Safety (IBHS), who provided the model and framework for the development of the Oregon Showcase State. ONHW, a service-learning program of the University of Oregon's Community Service Center works as the coordinating body to unite partners working to increase natural disaster safety and risk reduction statewide.



PDR continues to engage a broad range of organizations from state and local government, nonprofit organizations, and citizen groups to private industry of all varieties. The Partnership focuses on audiences who have authority and accountability to make a difference in natural hazard protection and loss reduction. These individuals range from those making household and business decisions to those who affect the sustainability of an entire community and beyond, (e.g. , urban planners, local fire marshals, city managers, conservation club members, builders/contractors). By becoming involved in Partners for Disaster Resistance & Resilience: Oregon Showcase State, organizations and agencies can enhance their work and improve their capacity to reach their goals as they relate to loss reduction, protection of public safety, corporate citizenship and community sustainability.

For further information about the *Partners for Disaster Resistance & Resilience* please visit www.OregonShowcase.org or contact one of the following partners:

André LeDuc
State Coordinator of PDR
Oregon Natural Hazards Workgroup
541.346.5833
onhw@uoregon.edu
<http://darkwing.uoregon.edu/~onhw>

Krista Fischer
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503.241.1757
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<http://www.insuranceoregon.org>

Diana McClure
Institute for Business & Home Safety
617.879-3145
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<http://www.ibhs.org>

State's Interagency Hazard Mitigation Team

Ken Murphy
Oregon Emergency Management
503.378.2911
kmurphy@oem.state.or.us
<http://www.osp.state.or.us/OEM/>

Vicki McConnell
Department of Geology and Mineral Industries
503.731.4100
Vicki.McConnell@dogami.state.or.us
<http://sarvis.dogami.state.or.us/homepage/>



Notes:



What Should My Plan Include?

Your mitigation plan should include a summary of how public participation was integrated within the planning process and how information in the final plan will be disseminated to various stakeholders in the community.

The plan should include a section describing interagency agreements related to plan implementation. Additionally, it should include a section that demonstrates the community's commitment to reducing damages from future natural disasters through the development of partnerships with businesses, schools, higher education, and other private and nonprofit agencies.



Additional Resources and Associated State & Federal Guidelines

Step 2: Involve the Community

Additional State and Federal Resources to help meet the objectives of Step #2	State and Federal Guidelines and Requirements Met in Step #2
2.1 Develop a public involvement strategy	
<ul style="list-style-type: none"> FEMA 386-1 How-To Guide #1: Getting Started: Building Support for Mitigation Planning 	<ul style="list-style-type: none"> ✓ Community Rating System Guideline #2 ✓ FEMA Review Criteria 3.2.1 Documentation of the Planning Process <i>Requirement</i> §201.6(c)(1): (Must) ✓ OEM Evaluation Criteria Checklist for Local Natural Hazards Mitigation Plan Review
2.2 Involve local, regional, and state agencies and organizations in the planning process	
<ul style="list-style-type: none"> TRG: Natural hazard chapters: Section 6: Where Can Your Community Find Resources to Plan for Hazards? FEMA 386-1 How-To Guide #1- Getting Started: Building Support for Mitigation Planning FEMA 386-8 How-To Guide #8- Multi-Jurisdictional Approaches to Mitigation Planning 	<ul style="list-style-type: none"> ✓ Community Rating System Guideline #3 ✓ FEMA Review Criteria 3.1.3 Multi-jurisdictional Participation <i>Requirement</i> §201.6(a)(3) (Multi-Jurisdictional Only) ✓ OEM Evaluation Criteria Checklist for Local Natural Hazards Mitigation Plan Review
2.3 Work with local, regional, and state agencies and organizations to identify mitigation activities and assist with implementation	
<ul style="list-style-type: none"> TRG: Natural hazard chapters: Section 6: Where Can Your Community Find Resources to Plan for Hazards? FEMA 386-1 How-To Guide #1- Getting Started: Building Support for Mitigation Planning FEMA 386-3 How-To Guide #3: Developing The Mitigation Plan; Identifying Mitigation Actions And Implementing Strategies 	<ul style="list-style-type: none"> ✓ FEMA Review Criteria 3.1.3 Multi-jurisdictional Participation <i>Requirement</i> §201.6(a)(3) (Multi-Jurisdictional Only) ✓ FEMA Review Criteria 3.2.1 Documentation of the Planning Process <i>Requirement</i> §201.6(c)(1): (Must)

Plan Framework Connection

Work for step two connects with the following areas of the ONHW plan framework

- Vol. I, Section 1: Introduction - Plan Methodology & Natural Hazard Mitigation Planning
- Vol. III, Appendix B: Public Participation



Step #3: Describe your community and how mitigation is currently addressed

3.1: Create a community profile

Developing strategies for mitigation is dependent on an understanding of the history of natural hazard events, and the demographic, economic, environmental, and social structure of the community. Providing historical perspectives and current data assists in forecasting future changes in a community. This is important because community risk from hazards can increase with changes in population and development. For example, increases in the percentage of impervious surface and other changes in the watershed may have an effect on the impacts of a flood event. Mitigation plans developed in response to a Presidential major disaster declaration or for the PDM program must include an evaluation of natural hazards in the declared area.

Tip 3.1: Creating a community profile



Having a community profile in your hazard mitigation plan is essential to the planning process. A profile illustrates how the community has developed over time, the population, critical facilities, and infrastructure exposed to natural hazards, and the economic base that may impact the community's abilities to recover from hazard events. It is likely that your community already has information for the community profile on hand. It may exist in your comprehensive land use plan, or you can look to information documented by the local media or the community historical society.

If you don't readily have information for your community profile, you may be able to find volunteers to help you gather it. You may undertake a "treasure hunt" and compile the following:

- State Natural Hazards Risk Assessment;
- Population, demographic, and economic statistics from Oregon Economic and Community Development Department (<http://www.econ.state.or.us/>), Oregon Employment Department (<http://www.olmis.org>), and the Census (<http://www.census.gov>);
- Climate data from the National Weather Service (<http://www.nws.noaa.gov/>);
- Information on local geology and evidence of natural hazards from the Oregon Department of Geology and Mineral Industries (<http://www.oregongeology.com/>);
- Historical records on natural hazard events from local newspaper archives, State Historic Preservation Office (http://shpo.prd.state.or.us/services_survey.php) and the Oregon Historical Society (<http://www.ohs.org/>); and
- Information on current planning regulations and building codes from local government offices, the Department of Land Conservation and Development (<http://www.lcd.state.or.us/>), and the Oregon Building Codes Division (<http://www.cbs.state.or.us/external/bcd/>).



Information Key

For more information on the hazards impacting your community check out the State Natural Hazards Risk Assessment (SNRA) at <http://www.oregonshowcase.org/projects/state/snhra/snhra.htm>

3.2: List policies and requirements that pertain to the hazards addressed in the plan

Local, state, and federal policies pertaining to hazard mitigation must be documented in community mitigation plans. Local comprehensive plans and natural hazard mitigation plans have a direct relationship to a community's factual base and can provide valuable information in its review and update.

Local Comprehensive Plans

The Oregon Land Use Planning Act requires all cities and counties to develop and adopt comprehensive land use plans. The Oregon statewide program for land use planning is founded on a set of 19 statewide planning goals. These goals establish a mandatory standard for comprehensive planning in the state. Goals set requirements for comprehensive plans and determine how land use decisions and statutory laws are to be made. Additionally, most of the goals are accompanied by "guidelines," which are suggestions about how a goal may be applied, though the guidelines are not mandatory. The goals require that local governments provide opportunities for citizen involvement, and they set standards on how certain types of land are planned and zoned. The goals also apply to state agencies when they make decisions affecting land use.

The local comprehensive plans must be consistent with the statewide planning goals. The state's Land Conservation and Development Commission (LCDC) with assistance from their administrative body, the Department of Land Conservation and Development (DLCD), reviews plans for such consistency. When LCDC officially approves a local government's plan, the plan is said to be "acknowledged." It then becomes the controlling document for land use in the area covered by that plan.

What is a comprehensive plan?

A comprehensive land use plan (commonly referred to as the "comprehensive plan") is an official document adopted by a city or county, which sets forth the general, long-range policies on how the community's future development should occur. A comprehensive plan combines an inventory of existing conditions (factual base); general goals and objectives; policies; and implementing ordinances and regulations. Local plans must:

1. Address all the applicable topics in the Statewide Planning Goals, as well as issues of local concern.
2. Anticipate and provide for future land use needs (20 years).
3. Include plan elements corresponding to each applicable statewide goal (e.g., citizen involvement, agricultural lands, **natural hazards**, transportation, coastal resources, etc.).
4. Include implementing measures which must comply with the statewide goals and be consistent with and carry out comprehensive plan policies.



Information Key

For more information on comprehensive land use plans and the statewide planning system check out the Land Conservation Development Commission website and the Oregon Technical Resource Guide at <http://www.lcd.state.or.us>



How do comprehensive plans relate to mitigation plans?

Natural hazard mitigation plans can provide a factual base on the natural hazards affecting a community; specifically, on the effects natural hazards can have on current and future development. Natural hazard mitigation plans can assist communities in addressing Statewide Land Use Planning Goal 7, which requires communities to protect life and property from natural hazards through their comprehensive land use plans. This is accomplished through the factual base established in the mitigation plan that documents historical incidents of hazards in the community and hazard identification. Moreover, natural hazard mitigation plans recommend action items to assist the community in reducing risk and preventing loss from natural hazard events. The action items may recommend amendments and improvements to policies, zoning requirements, and ordinances for improvement, which further assist in meeting Goal 7 planning requirements.



Information Key

Communities engaged in periodic review of their comprehensive plan can look to their flood mitigation plan (if available) in addressing Goal 7. Likewise, if a community developing a mitigation plan has recently updated Goal 7 during periodic review, that factual base will assist in development of the mitigation plan.

Mitigation Successes

The Salem Landslide Ordinance is one example of a mitigation success story. The 1996 flood events contributed to two major landslide events in Salem, which damaged a number of homes and forced the city into litigation. Through FEMA's Hazard Mitigation Grant Program, the city of Salem, Marion County, and DOGAMI received \$250,000 to map landslide areas and develop a landslide ordinance. Through development of the ordinance they updated their landslide hazard inventory and adopted and implemented the landslide hazard ordinance.

The ordinance requires the preparation and approval of geological assessments before development occurs in areas identified with a moderate degree of hazard. Those areas then undergo a preliminary review of geologic conditions. The ordinance requires staff to determine if a geotechnical report requiring more information and detail than the geological assessment is necessary. This approach ensures adequate review of proposed development on private property where potentially greater risk requires more detailed information to fully identify and address the hazard. Additionally, prior to development, a declaratory statement indicating that the property is within an identified hazard area must be recorded on the property deed. Compliance with the ordinance is required as part of land use and building permits for regulated activities within identified hazard areas.

Summary of hazard policies and programs

The following table provides an outline to the various programs and policies related to specific natural hazards that impact Oregon communities.

Table 3-1. Hazard Policies and Programs

Hazard	Oregon Policies and Programs	Federal and National Policies and Programs
Multi-Hazard	Local Comprehensive Plans	Federal Emergency Management Agency (FEMA) Pre-disaster mitigation planning
	Goal 2: Land Use Planning	
	Goal 7: Natural Hazards Oregon Building Codes	American Planning Association (resources on landslides, flooding, and post-disaster recovery)
Flood	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	FEMA Region X's Policy on Fish Enhancement Structures in the Floodway.
	Oregon's Wetlands Protection Program	Army Corps of Engineers Permit Program
Landslides	Goal 17: Coastal Shorelands	American Planning Association: Landslide Hazards and Planning
	The Oregon Plan for Salmon and Watersheds	
	Senate Bill 12: Rapidly moving landslides	
Coastal Hazards	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 455.488	
Wildfire	Senate Bill 360: Wildland/Urban Interface	National Fire Protection Agency Firewise Program
	Additional Criteria for Forestland Dwellings ORS 215.730	
	Urban Interface Fire Protection - ORS 477.015-061	
Seismic	Senate Bill 13: Seismic Event Preparation	USGS Earthquake Hazards Program
	Senate Bill 14: Seismic Surveys For School Buildings	
	Senate Bill 15: Seismic Surveys For Hospital Buildings	
	Senate Bill 96: Seismic Hazard Investigation	National Earthquake Hazards Reduction Program (NERHP) - FEMA/USGS Partnership
	Tsunamis - ORS 336.071, ORS 455.446, and ORS 455.448	
	Oregon Seismic Safety Policy Advisory Commission (OSSPAC) - ORS 401.337 to 401.353	

(Last Updated 2002)



Tip 3.2: Oregon policies

Policy requirements addressed within the plan should include:

- Local hazard management policies, programs, and capabilities to mitigate the hazards addressed by the plan (e.g., floodplain management ordinance, building codes, etc.).
- References to laws, regulations, ordinances, administrative rules, etc. that establish the legal basis for the mitigation measures being proposed.
- Information on building codes adopted by the community. The State Building Code, as defined in ORS 455.010(8), includes construction safety standards for structural, mechanical, electrical, plumbing, elevators, boilers, manufactured dwellings, and recreational vehicles. Municipalities have the authority to prohibit or restrict some construction within their jurisdiction for the purpose of mitigating certain hazards.
- Information on whether the community has had a Building Code Effectiveness Grading Report (BCEGS) performed by the Insurance Services Office, Inc., and, if so, what BCEGS score the community received.
- Compliance with Statewide Land Use Planning Goal 7: Areas Subject to Natural Hazards, which aims to protect people and property from natural hazards.⁵

Websites to access information on Oregon laws relating to natural hazards:

- Oregon Land Use Statutes, Statewide Planning Goals, and DLCDC Administrative Rules: <http://www.lcd.state.or.us>
- Land Use Board of Appeals (LUBA) Decisions: <http://luba.state.or.us/>
- State Building Codes Division: <http://www.cbs.state.or.us/external/bcd>



Information Key

To review a natural hazards mitigation plan prepared by another community in Oregon, contact Oregon Emergency Management at (503) 378-2911 and ask for the State Hazard Mitigation Officer.

3.3: Describe mitigation activities that are currently in place within your community

Mitigation plans should list the goals, activities, projects, and success stories that have been implemented or accomplished in the community. Documenting existing mitigation activities establishes a baseline of risk reduction efforts that have taken place within a community.



Tip 3.3: Case Studies: Existing Mitigation Activities

This section highlights existing mitigation activities occurring throughout the state.

Local Action: Flood Mitigation - Eagle Point, Oregon

Using funds from the FEMA Hazard Mitigation Grant Program received as a result of the December 1996/January 1997 flooding, two homes have been elevated in Eagle Point. The city also acquired and demolished two homes, designating the vacant lots as open space in perpetuity.

FireFree Program – Bend, Oregon

FireFree is a unique private/public program for interface wild-fire mitigation involving partnerships between an insurance company and local government agencies. It is an example of an effective non-regulatory approach to hazard mitigation. Originating in Bend, the program was developed in response to the city's "Skeleton Fire" of 1996, which burned over 17,000 acres and damaged or destroyed 30 homes and structures. Bend sought to create a new kind of public education initiative that emphasized local involvement. SAFECO Insurance Corporation was a willing collaborator in this effort.

Public Education and Outreach - Portland General Electric

Through the Right Tree-Right Place program, Portland General Electric (PGE) educates homeowners, landscapers, and tree propagators on tree species that will not be subject to ongoing stress from constant trimming. PGE offers tree owners a certificate to help defray the cost of a new tree that replaces one that is inappropriate. PGE also runs a tree-trimming program and keeps a database of information in order to build profiles of trees that cause power line outages. The database of tree failures intends to identify those trees that are at an above average risk. PGE foresters work with local government and the public to assess and identify situations in which trees or power lines put life and property at risk. Calls and faxes to PGE's tree-trimming program result in immediate response to clear roads of fallen trees.



Notes:

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So What Should My Plan Have?

Your mitigation plan should include a profile of your community, a list of local, state, and federal policies relating to the hazards addressed in your plan, and a summary of mitigation activities and resources that exist within your community.



Additional Resources and Associated State & Federal Guidelines

Step 3: Describe your community and how mitigation is currently addressed

Additional State and Federal Resources to help meet the objectives of Step #3	State and Federal Guidelines and Requirements Met in Step #3
3.1 Create a community profile	
<ul style="list-style-type: none"> • SNHRA - Regional Profiles 	<ul style="list-style-type: none"> ✓ Community Rating System Guideline #2 ✓ FEMA Review Criteria 3.3.5 Assessing Vulnerability: Analyzing Development Trends <i>Requirement §201.6(c)(2)(ii)(c): (Should)</i> ✓ OEM Evaluation Criteria Checklist for Local Natural Hazards Mitigation Plan Review
3.2 List policies and requirements that pertain to the hazards addressed in the plan	
<ul style="list-style-type: none"> • TRG: Hazard Chapters - -Section 4: How Can Your Community Reduce Risk from Hazards? -Section 5: How are Oregon Communities Addressing Hazards? • FEMA 386-2 How to Guide #2: Understanding Your Risks: Identifying hazards and estimating losses 	<ul style="list-style-type: none"> ✓ FEMA Review Criteria 3.3.2 Profiling Hazard Events <i>Requirement §201.6(c)(2)(i): (Shall)</i> ✓ FEMA Review Criteria 3.3.1 Identifying Hazards <i>Requirement §201.6(c)(2)(i): (Shall)</i> ✓ OEM Evaluation Criteria Checklist for Local Natural Hazards Mitigation Plan Review
3.3 Describe mitigation activities that are currently in place within your community	
<ul style="list-style-type: none"> • TRG: Hazard Chapters -Section 4: How Can Your Community Reduce Risk from Hazards? -Section 5: How are Oregon Communities Addressing Hazards? • FEMA 386-2 How to Guide #2: Understanding Your Risks: Identifying hazards and estimating losses 	<ul style="list-style-type: none"> ✓ FEMA Review Criteria 3.3.2 Profiling Hazard Events <i>Requirement §201.6(c)(2)(i): (Shall)</i> ✓ FEMA Review Criteria 3.3.1 Identifying Hazards <i>Requirement §201.6(c)(2)(i): (Shall)</i> ✓ OEM Evaluation Criteria Checklist for Local Natural Hazards Mitigation Plan Review

Plan Framework Connection

Work for step three connects with the following area of the ONHW plan framework

- Vol. I, Section 2: Community Profile
- Vol. I, Section 1: Introduction - Historical Impacts and Events
- Vol. III, Worksheet B - Establishing the Planning Team
- Vol. III, Appendix A: Multi-Hazard Mitigation Resource Directory



Step #4: Identify and characterize the natural hazards impacting your community

Understanding the impacts natural hazards have on your community is essential to reducing your community’s risk to natural hazards. A hazard assessment provides information on what areas of a community are in need of assistance. This occurs through the evaluation of which populations and facilities are most vulnerable to natural hazards, and to what extent injuries and damages may occur. A hazard assessment illustrates:

- The hazards to which your community is susceptible;
- The harm these hazards can do to physical, social, and economic assets;
- The areas are most vulnerable to damage from these hazards; and
- The resulting cost of damages or costs avoided through future mitigation projects.

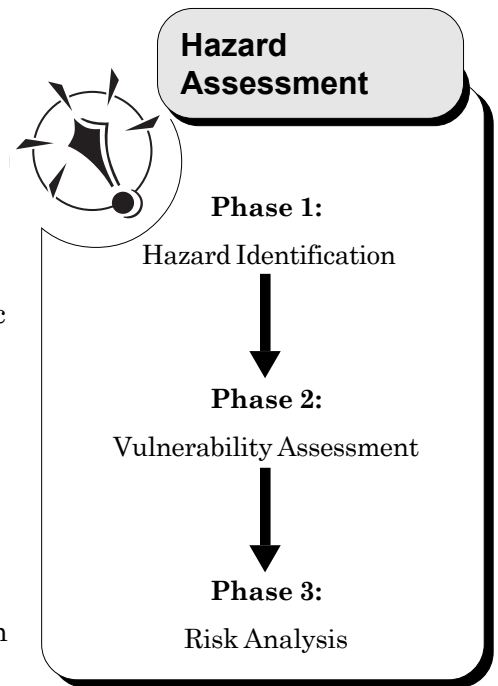
Statewide Planning Goal 7 requires communities to inventory known natural hazards and implement appropriate safeguards for development in hazardous areas. You can identify the problems facing your community by using existing information that has been developed with your community’s hazard inventory.

Identifying the problems your community faces can be distilled into a three-step process: (1) identify the hazards; (2) assess community vulnerability; and (3) determine relative risk. The steps outlined above comprise a hazard assessment. Conducting a hazard assessment can provide information on the location of the hazard, the value of existing land and property in the hazard location, and an analysis of risk to life, property, and the environment that may result from a natural hazard event.

The three steps of a hazard assessment must be conducted sequentially, and each step is dependent on the data and information on a given hazard within your community. Gathering data for a hazard assessment requires a commitment of resources on the part of participating organizations and agencies. Understanding the location and potential impact of natural hazards, however, will enable you to pinpoint the most appropriate solutions to the problems faced by your community. The information below will help you assess which steps of a hazard assessment have been completed for your community mitigation plan.

4.1: Identify and characterize the natural hazards impacting your community

Natural hazard mitigation plans should include a description and analysis of the hazards addressed (*Phase 1 in the accompanying graphic - what you will work on this Fall*). You can begin by reviewing your community’s comprehensive plan when conducting a hazard assessment, since Statewide Land Use Planning Goal 7 requires communities to inventory natural hazards. The plan should include maps outlining all hazard areas within the community or other graphic displays to delineate the hazard area. The hazard description can include a summary of past hazard events, and the causes and





Step #5: Develop plan goals

5.1: Develop plan goals

Developing goals to reduce risk sets a vision for the future while building consensus among the committee involved with plan development. The mitigation plan should include a description of mitigation goals and how they are related to the State Hazard Mitigation Plan (available at <http://www.osp.state.or.us/oem>). This sets the stage for proposed strategies, programs, and actions to reduce or avoid losses from the hazards addressed in the plan.

Goals are broad statements that articulate where a community wants to be, or what they hope to achieve in the future. Goals are the framework to identify strategies and actions to reduce or avoid long-term risk to the identified hazards. The mitigation planning committee should facilitate the goal setting process and obtain public input on the goals by presenting them at public workshops or submitting the draft plan for public comment. Communities can also review goals outlined in the State Natural Hazards Mitigation Plan.



Tip 5.1: Example Goal Statements

Goal	Goal Statements
Protect life and property	Develop and implement activities to protect human life, commerce, property and natural systems from natural hazards.
	Reduce insurance losses and repetitive claims for chronic hazard events while promoting insurance coverage for catastrophic hazards.
	Evaluate county guidelines, codes, and permitting processes in addressing natural hazard mitigation.
Protect and restore natural systems	Link watershed planning, natural resource management, and land use planning with natural hazard mitigation activities to protect vital habitat and water quality.
	Preserve and rehabilitate natural systems to serve natural hazard mitigation functions.
Increase public education, outreach, and partnerships	Develop and implement education programs to increase awareness among citizens, local, county, and regional agencies, non-profit organizations, business, and industry.
	Develop and conduct outreach programs to increase the number of local, county, and regional activities implemented by public and private sector organizations.
	Strengthen communication and coordinate participation in and between public agencies, citizens, non-profit organizations, business, and industry.
Enhance emergency services	Strengthen emergency operations by increasing collaboration and coordination among public agencies, non-profit organizations, business, and industry.
	Coordinate natural hazard mitigation activities, where appropriate, with emergency operations plans and procedures.



Notes:

Opportunities for public involvement



Source: Lower Siletz Basin Flood Mitigation Plan Public Workshop



So What Should My Plan Have?

A statement of the mitigation plan goals developed by the planning committee and how public input was obtained on development of those goals.

Additional Resources and Associated State & Federal Guidelines

Step 5: Define Plan Goals

Additional State and Federal Resources to help meet the objectives of Step #5	State and Federal Guidelines and Requirements Met in Step #5
5.1 Develop plan goals	
<ul style="list-style-type: none"> FEMA 386-3 How-To Guide #3: Developing The Mitigation Plan; Identifying Mitigation Actions And Implementing Strategies 	<ul style="list-style-type: none"> ✓ Community Rating System Guideline #6 ✓ FEMA Review Criteria 3.4.1 Local Hazard Mitigation Goals <i>Requirement</i> §201.6(c)(3)(i): (Shall) ✓ OEM Evaluation Criteria Checklist for Local Natural Hazards Mitigation Plan Review

Plan Framework Connection

Work for step five connects with the following area of the ONHW plan framework

- Vol. I, Section 4: Multi-Hazard Goals and Action Items - Goals Section



Step #6: Develop solutions

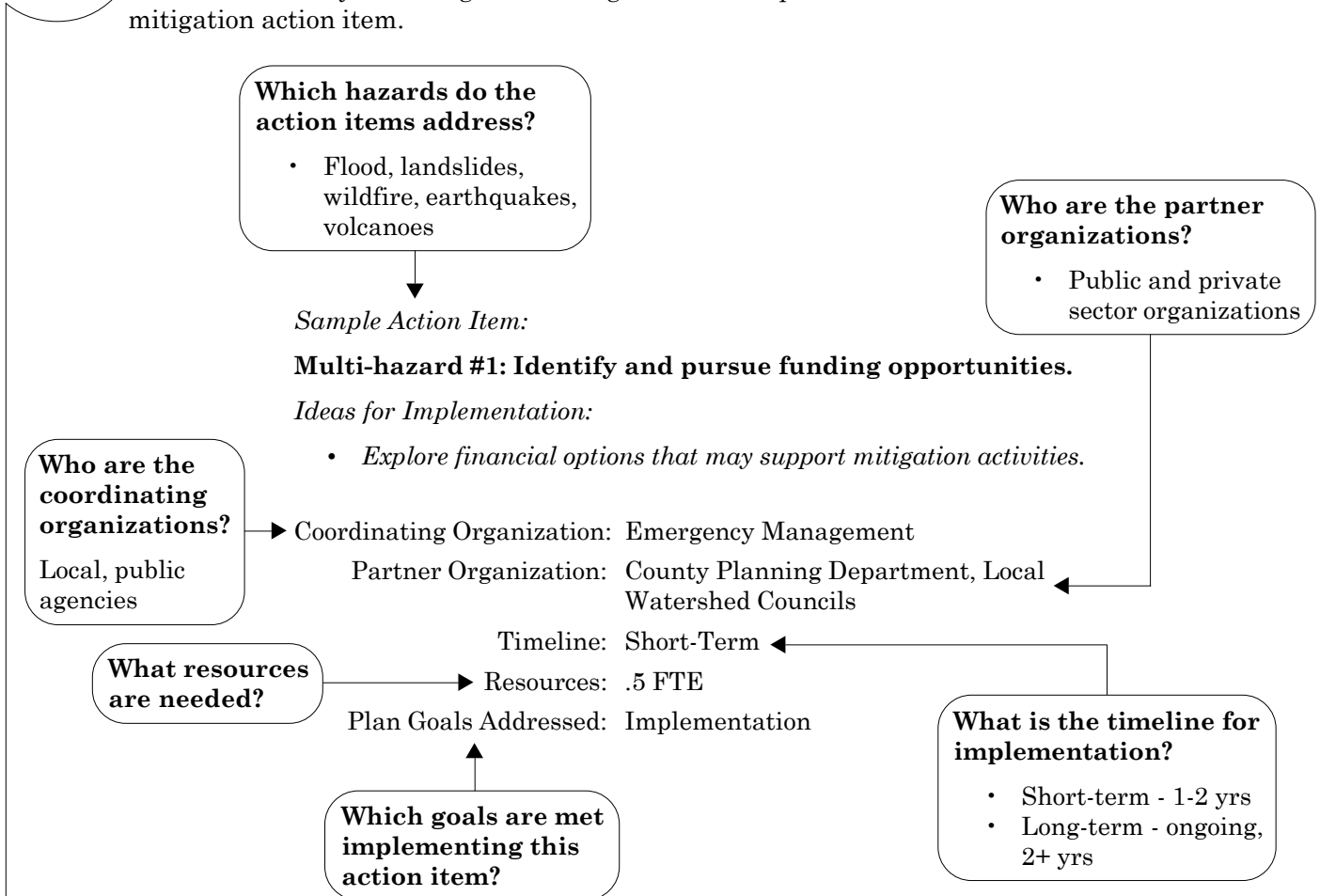
6.1: Develop action items that support the mitigation plan goals

The plan must include community mitigation goals and action items. The goals and actions outline long-term direction, and strategies, projects, and tasks to reduce the community's risk to natural hazards. Each action item should include timelines for implementation, which describe when activities, projects, or tasks are slated for completion. This section should also include discussion of how each action item supports the mitigation goals and priorities of the community.



Tip 6.1: Action Items

Recommended action items should include information on how, when, and what resources are needed to implement the activity. The diagram below gives an example of a mitigation action item.



6.2: Develop mitigation action items that are economically, environmentally, and socially feasible

Mitigation plans should prioritize cost effective mitigation projects and actions that will reduce damages from future natural disasters. The Governor's Flood and Landslide Hazard Mitigation Policy sets a direction for choosing cost effective hazard mitigation strategies. The policy articulates preferences for limited mitigation funds to be used in the following ways:

- Across the area affected: The intent of this is to broadly encourage the combination of expertise and creativity to find ways to reduce existing risk and to avoid creating negative consequences from poor planning or land use decisions. It is intended to offer the opportunity for all parts of the state affected by a hazard to participate in and observe the benefits of proactive actions.
- Where projects or actions can get “the biggest bang for the buck.” This will be viewed in multiple ways:
 - Does the action improve watershed health and reduce future risks from floods?
 - Are there other dollars or in-kind services that can be leveraged?
 - Does this link partners within a watershed or along stream reaches to collectively act for the health of the watershed and the long-term reduction of flood losses?
 - Does this take an “all-hazards” view?
 - Does this provide multiple environmental as well as hazard-reduction benefits?
 - Does this meet other community goals (e.g., open space, parks, etc.)?
 - Is there active local support for sustaining/maintaining the hazard mitigation actions?
- To implement locally developed plans and follow-on action projects that address hazard mitigation or avoidance.
- To demonstrate new ideas for mitigating hazards that can be instructive for future hazard mitigation actions. The intent here is to encourage innovative thinking and push the envelope beyond past mitigation actions.
- To elevate or purchase for public-ownership high-risk private property which chronically/repeatedly receives public dollars to repair flood damage.

The federal government also requires a benefit/cost analysis for potential mitigation activities. Listed below are a series of questions that pertain to these two analyses, and should be considered in determining if a project is cost effective and feasible. Considering all of these questions when comparing alternatives can lead to a more comprehensive understanding of the financial and resource costs and potential benefits of a given activity.

- Is the action item technically appropriate for the hazard?
- Does the action item support any of the plan goals?
- Do the action item benefits exceed the costs?
- Is the action item affordable?



- Will the action item comply with all local, state, and federal regulations?
- Is the action item fair to all people who may be affected by the activity?
- Is the action item beneficial, neutral, or harmful to the environment?

Evaluating natural hazard mitigation provides decision-makers with an understanding of the potential benefits and costs of an activity, as well as a standpoint to compare alternative projects. This evaluation, however, can be a difficult undertaking. First, natural disasters affect all segments of the communities they strike, including individuals, businesses, and public services such as fire, police, utilities, and schools. Second, while some of the direct and indirect costs of disaster damages are measurable, some of the costs are non-financial and difficult to quantify in dollars. Third, many of the impacts of such events produce “ripple-effects” throughout the community, thus increasing some of the social and economic impacts a disaster may have on a community immediately after the event and, possibly, for many years into the future.

While economic analysis is complex, benefit-cost analysis and cost-effectiveness analysis are important tools in evaluating a mitigation activity. One framework for evaluating alternative mitigation activities is outlined below:

1. Identify the Alternatives

Different mitigation projects can minimize risk to natural hazards, but do so at varying economic costs. For each problem/risk area identified, alternatives should be chosen that will work to reduce risk.

2. Calculate the Costs and Benefits

Choosing economic criteria is essential to systematically calculating costs and benefits of mitigation projects and selecting the most appropriate alternative. Potential economic criteria to evaluate alternatives are project costs, estimated benefits, and the present and future costs and benefits to society, the economy, and the environment.

3. Analyze and Rank the Alternatives

Once costs and benefits have been calculated, economic analysis tools can rank the alternatives by comparing the various costs and benefits of the alternatives, and including the total amount of the future cost, which may include adding the future interest rate to the final calculation.

Information Key



Benefit Cost Analysis Software and Methodology

The Office of Management and Budget (OMB) regulations require all hazard mitigation projects to be cost-effective before they can be approved for funding. What does this mean? In the language of hazard mitigation, it means a benefit-cost analysis must be used to determine whether a project's benefits—avoided damages in future disasters—outweigh its up-front costs. To standardize the benefit-cost analysis and make it easier to complete, FEMA has developed software to analyze mitigation projects for several different hazards (riverine flooding, earthquake and a generic limited data module for other hazards). The analysis software and user training are offered directly by FEMA to assist state and local governments in pre-determining potential eligibility for cost effective mitigation projects. This is the same software and methodology FEMA will use in their required review. For more information go to: <http://www.fema.gov/mit/gamit.pdf>



Tip 6.2: Taking the STAPLE/E approach¹⁰

STAPLE/E stands for Social, Technical, Administrative, Political, Legal, Economic, and Environmental. The STAPLE/E approach provides a series of questions to help make planning decisions and determine benefits and costs of various mitigation activities.

Social: *Community development staff, local non-profit organizations, or a local planning board can help answer these questions.*

- Is the proposed action socially acceptable to the community?
- Are there equity issues involved that would mean that one segment of the community is treated unfairly?
- Will the action cause social disruption?

Technical: *The city or county public works staff and building department staff can help answer these questions.*

- Will the proposed action work?
- Will it create more problems than it solves?
- Does it solve a problem or only a symptom?
- Is it the most useful action in light of other community goals?

Administrative: *Elected officials or the city or county administrator can help answer these questions.*

- Can the community implement the action?
- Is there someone to coordinate and lead the effort?
- Is there sufficient funding, staff, and technical support available?
- Are there ongoing administrative requirements that need to be met?

Political: *Consult the mayor, city council or county planning commission, city or county administrator, and local planning commissions to help answer these questions.*

- Is the action politically acceptable?
- Is there public support both to implement and to maintain the project?

Legal: *Include legal counsel, land use planners, risk managers, and city council or county planning commission members, among others, in this discussion.*

- Is the community authorized to implement the proposed action? Is there a clear legal basis or precedent for this activity?
- Are there legal side effects? Could the activity be construed as a taking?
- Is the proposed action allowed by the comprehensive plan, or must the comprehensive plan be amended to allow the proposed action?
- Will the community be liable for action or lack of action?
- Will the activity be challenged?



Economic: *Community economic development staff, civil engineers, building department staff, and the assessor's office can help answer these questions.*

- What are the costs and benefits of this action?
- Do the benefits exceed the costs?
- Are initial, maintenance, and administrative costs taken into account?
- Has funding been secured for the proposed action? If not, what are the potential funding sources (public, non-profit, and private)?
- How will this action affect the fiscal capability of the community?
- What burden will this action place on the tax base or local economy?
- What are the budget and revenue effects of this activity?
- Does the action contribute to other community goals, such as capital improvements or economic development?
- What benefits will the action provide? (This can include dollar amount of damages prevented, number of homes protected, credit under the CRS, potential for funding under the HMGP or the FMA program, etc.)

Environmental: *Watershed councils, environmental groups, land use planners and natural resource managers can help answer these questions.*

- How will the action impact the environment?
- Will the action need environmental regulatory approvals?
- Will it meet local and state regulatory requirements?
- Are endangered or threatened species likely to be affected?

Open Space in Johnson Creek



Source: *Oregon Emergency Management*

6.3: If the plan addresses flood mitigation, develop action items that meet National Flood Insurance Program requirements

The National Flood Insurance Program (NFIP) was created in 1968 to minimize flood losses, strengthen floodplain management, and keep people and their developments above floodwaters. Its basic purpose is to “guide development in floodplain areas in such a way as to greatly lessen the economic loss and social disruption caused by impending flood events.”

The NFIP has four goals:

1. Provide flood insurance coverage not generally available in the private market.
2. Stimulate local floodplain management to guide future development.
3. Emphasize less costly non-structural flood control regulatory measures over structural measures.
4. Reduce federal disaster costs by shifting the burden from the general taxpayer to floodplain occupants.

A community that implements a mitigation plan may be eligible for reduced flood insurance premiums under the Community Rating System. The Community Rating System (CRS) is an NFIP program that recognizes communities' voluntary efforts to strengthen floodplain management. It specifically rewards those efforts that go beyond the minimal requirements of the NFIP by reducing flood insurance premiums for the community's property owners. The CRS recognizes 18 creditable activities organized under four categories: Public Information, Mapping and Regulations, Flood Damage Reduction, and Flood Preparedness. The CRS approach additionally sets forth a ten-step planning process of gathering information, setting goals, reviewing alternatives, and deciding what to do.

The CRS steps are:

1. Organize to prepare the plan
2. Involve the public
3. Coordinate with other agencies
4. Assess the hazard
5. Evaluate the problem
6. Set goals
7. Review possible strategies and measures
8. Draft an action plan
9. Adopt the plan
10. Implement, evaluate, and revise the plan

The ten CRS planning steps are addressed throughout this document and can be used as a reference during development of a mitigation plan for any natural hazard. More information on the Community Rating System may be found online at <http://www.fema.gov/nfip/crs.htm> or by calling (800) 427-5593.

Information Key



Communities participating in CRS can request a copy of the draft 2002 CRS

Coordinator's Manual by contacting the Insurance Services Office.



Tip 6.3: NFIP/FEMA requirements for flood mitigation

Reduce repetitive loss: One of the NFIP's primary objectives is to reduce the number of properties subject to repetitive loss. This can be accomplished by first identifying those properties that have been impacted by more than one flood event and then elevating or relocating the home, or acquiring the home for demolition and returning the vacant land to open space in perpetuity.

Public education and outreach: Increasing education and outreach and providing technical assistance about the NFIP and related programs to the general public, businesses, and other organizations can assist in reducing loss from future flood events.

Natural Systems and Open Space Preservation: Preservation or creation of open space should be among the measures proposed in a flood mitigation plan, specifically designating areas that will provide natural and beneficial functions such as parks, wetlands, riparian corridors, natural resource areas, nature preserves, etc.

Emergency Services: Flood mitigation plans should direct implementation or improvement of warning methods as a way of reducing future damage, injury, and loss-of-life. Furthermore, they can identify and direct mitigation activities for critical facilities such as utilities, hospitals, fire stations, chemically hazardous areas, etc.

Tillamook Flooding in 1999



Source: Oregon Emergency Management

6.4: Include action items that address Oregon laws related to natural hazards

Where appropriate, mitigation plan action items should include implementation of appropriate land use safeguards, building code and/or construction standards, and preservation/maintenance of protective dunes and beaches. Oregon's Statewide Land Use Planning Goals 2 and 7 impose several broad requirements on local governments. Goals 17 and 18 establish additional authority and requirements for coastal communities. Together, these goals establish an obligation for all local governments to:

- 1) Develop inventories of hazard areas for inclusion in their comprehensive plan;
- 2) Enact land use regulations based on those inventories and comprehensive plan policies to protect life and property from losses associated with development in hazard areas; and
- 3) Update inventories, policies, and land use regulations on a periodic basis to reflect new information, new laws and goal requirements, and changing circumstances in the community.

Additionally, the State Building Code, as defined in ORS 455.010(8), includes construction safety standards for structural, mechanical, electrical, plumbing, elevators, boilers, manufactured dwellings, and recreational vehicles. Municipalities have the authority to prohibit or restrict some construction within their jurisdiction for the purpose of mitigating certain hazards.

Dodson-Warrendale 1996



Source: *Oregon Emergency Management*



Tip 6.4: Statewide planning goals with requirements relating to natural hazards

Communities may have addressed hazard-related issues in current plans and policies. Communities developing mitigation plans should review comprehensive planning documents for relevant information.

Goal 2: All Cities and Counties	<ul style="list-style-type: none"> • City and county land use plans shall include “inventories and other factual information for each applicable statewide planning goal ...” • “All land-use plans and implementation ordinances ... shall be reviewed and, as needed, revised on a periodic cycle to take into account changing public policies and circumstances, in accord with a schedule set forth in the plan.”
Goal 7: All Cities and Counties	<ul style="list-style-type: none"> • Statewide Land Use Planning Goal 7: Areas Subject to Natural Hazards aims to protect people and property from natural hazards. Goal 7 guidelines for planning state that in adopting plan policies and implementing measures to protect people and property from natural hazards, local governments should consider: <ol style="list-style-type: none"> a. The benefits of maintaining natural hazard areas as open space, recreation, and other low density uses; b. The beneficial effects that natural hazards can have on natural resources and the environment; and c. The effects of development and mitigation measures in identified hazard areas on the management of natural resources. • Furthermore, the guidelines state that local government should coordinate their land use plans and decisions with emergency preparedness, response, recovery, and mitigation programs.
Goal 17: Coastal Cities and Counties Only	<ul style="list-style-type: none"> • Requires local governments to develop programs to “reduce the hazard to human life and property ... resulting from the use and enjoyment of Oregon’s coastal shorelands.” • Requires that “[l]and use plans, implementing actions and permit reviews shall include consideration of ... the geologic and hydrologic hazards associated with coastal shorelands.” • Requires that “[i]nventories shall be conducted to provide information necessary for ... designating uses and policies. These inventories shall provide information on the nature, location, and extent of geologic and hydrologic hazards ... in sufficient detail to establish a sound basis for land and water use management.”
Goal 18: Coastal Cities and Counties Only	<ul style="list-style-type: none"> • Requires local governments to “reduce the hazard to human life and property from natural or man-induced actions associated with [coastal beach and dune areas].” • Requires inventories to be conducted, which “shall describe the stability, movement, [and] hazards ... of the beach and dune areas in sufficient detail to establish a sound basis for planning and management.” • “Local governments ... shall base decisions on plans, ordinances and land use actions in beach and dune areas, other than older stabilized dunes, on specific findings that shall include at least: ... Hazards to life, public and private property ... which may be caused by the proposed use.”

6.5: Identify organizations that will coordinate and implement mitigation action items

The plan needs to identify functions and responsibilities of lead and support organizations, including voluntary and private organizations/groups where appropriate. Also, it should discuss how local, regional, and state agencies can work together to leverage resources. The plan should identify the following:

- Potential funding sources to assist in implementing plan action items;
- Strategies illustrating how the local plan will be implemented and administered by the local government;
- Discussion of how officials will approach and manage mitigation actions; and
- Lead and support organizations to take responsibility for implementing recommended action items.



Tip 6.5: Develop a plan of action

When issues are identified in the mitigation plan as a potential problem for the community, an appropriate action item should be recommended to develop solutions to each problem. These action items should detail specific activities, a timeline, coordinating and partner organizations, and resources for implementation. Resources may be potential grants or other funding sources, related planning activities, or time and/or material resources that will be essential for activity implementation. In addition, each activity should identify the plan goals that it is assisting in accomplishing.



Table 6.1. Mitigation Action Item Matrix (Example)

City/County Natural Hazards Mitigation Plan							
Hazard	Problem/ Risk	Mitigation Action Items					
		Activity	Timeline	Coordinating Organization	Partner Organizations	Resources	Plan Goals Addressed
Multi-hazard	Implementing action items recommended in the mitigation plan	Establish a committee to implement, monitor, and evaluate mitigation activities.	Short-term: <i>6 months</i>	City Emergency Manager	City Planning Department, watershed council, OEM, school district, utility companies, City Hall	City hall	Implementation
Flood	Repetitive loss to 5 homes in the 100-year floodplain	Seek funding to elevate homes above Base Flood Elevation level, or for acquisition and demolition.	Short-term: <i>6 to 18 months</i>	City Emergency Manager	City Planning Department, OEM	FEMA's HMGP or FMA Program	Property Protection
Earthquake	Critical facilities that are not stable or retrofitted to withstand impact from an earthquake	Pursue regulatory mandates for structural mitigation of critical facilities.	Short-term: <i>1-2 years</i>	City Planning Department	School district, hospital, OEM, DOGAMI, OSSPAC		Property Protection
Wildfire	Lack of understanding by the public about the risk wildfire poses to their community	Develop and implement, or enhance existing outreach and education programs aimed at mitigating wildfire hazards.	Long-term: <i>Ongoing</i>	Local Fire Department or Fire Defense Board	School districts, OEM, ODF, Local government	FireWise, FireFree	Education and Outreach



Notes:



So What Should My Plan Have?

NFIP lays out a number of goals and activities that must be addressed in flood mitigation plans funded by the Flood Mitigation Assistance Program. These goals are critical to sound floodplain management. A flood mitigation plan should include:

- Recommended activities designed to reduce the number of properties that have experienced two or more losses in flood events; and
- Recommended activities that address prevention, property protection, emergency services measures, structural projects, natural resource protection, and public information programs.



Additional Resources and Associated State & Federal Guidelines

Step 6: Develop Solutions

Additional State and Federal Resources to help meet the objectives of Step #6	State and Federal Guidelines and Requirements Met in Step #6
6.1 Develop action items that support the mitigation plan goals	
<ul style="list-style-type: none"> FEMA 386-3 How-To Guide #3: Developing The Mitigation Plan; Identifying Mitigation Actions And Implementing Strategies TRG: Natural Hazard Chapters -Section 4: How Can Your Community Reduce Risk from Hazards? 	<ul style="list-style-type: none"> √ FEMA Review Criteria 3.4.2 Identification and Analysis of Mitigation Measures <i>Requirement §201.6(c)(3)(ii): (Shall)</i> √ OEM Evaluation Criteria Checklist for Local Natural Hazards Mitigation Plan Review
6.2 Develop mitigation action items that are economically, environmentally, and socially feasible	
<ul style="list-style-type: none"> FEMA 386-5 How-To Guide #5 - Using Benefit Cost Analysis in Mitigation Planning TRG: Natural Hazard Chapters -Section 4: How Can Your Community Reduce Risk from Hazards? 	<ul style="list-style-type: none"> √ Community Rating System Guideline #7 √ FEMA Review Criteria 3.4.3 Implementation of Mitigation Measures <i>Requirement §201.6(c)(3)(iii): (Shall)</i>
6.3 If the plan addresses flood mitigation, develop action items that meet National Flood Insurance Program requirements	
<ul style="list-style-type: none"> TRG: Flood Chapter, Section 3.2 	<ul style="list-style-type: none"> √ Community Rating System Guideline #7
6.4 Include action items that address Oregon laws related to natural hazards	
<ul style="list-style-type: none"> TRG: Natural Hazard Chapters -Section 3: What are the Laws in Oregon for Hazards? 	<ul style="list-style-type: none"> √ FEMA Review Criteria 3.5.2 Implementation Through Existing Programs <i>Requirement §201.6(c)(4)(ii): (Shall)</i> √ OEM Evaluation Criteria Checklist for Local Natural Hazards Mitigation Plan Review
6.5 Identify organizations that will coordinate and implement mitigation action items	
<ul style="list-style-type: none"> FEMA 386-4: How-To Guide #4 - Bringing the Plan to Life: Assuring the Success of the Hazard Mitigation Plan TRG - Natural hazard chapters: Section 6: Where Can Your Community Find Resources to Plan for Flood Hazards? 	<ul style="list-style-type: none"> √ FEMA Review Criteria 3.4.3 Implementation of Mitigation Measures <i>Requirement §201.6(c)(3)(iii): (Shall)</i> √ FEMA Review Criteria 3.4.4 Multi-jurisdictional Mitigation Strategy <i>Requirement §201.6(c)(3)(iv): (Multi-Jurisdictional Only)</i> √ FEMA Review Criteria 3.5.2 Implementation Through Existing Programs <i>Requirement §201.6(c)(4)(ii): (Shall)</i> √ OEM Evaluation Criteria Checklist for Local Natural Hazards Mitigation Plan Review

Plan Framework Connection

Work for step six connects the following areas of the ONHW plan framework

- Vol. I, Section 4: Multi-Hazard Goals and Action Items - Action Items Section
- Vol. I, Section 5: Plan Maintenance - Plan Implementation

Step #7: Set the plan in motion

7.1: Present all information clearly

The hazard mitigation plan should have a logical layout, and include the background, purpose, and methodology of the planning process. The mitigation plan should also include a table-of-contents and definitions of terms and acronyms.

Tip 7.1: Sample framework for a mitigation plan



- I. History of the hazard(s) (*insert the hazards your plan addresses here*) and losses to the community
- II. Causes and characteristics of the hazard(s) in the community
- III. The effect of community growth and development on the hazard event(s)
- IV. Community hazard assessment
 - a. *Hazard identification* - where is the hazard located?
 - b. *Vulnerability assessment* - how many residents, properties, businesses, etc., are residing in hazard areas?
 - c. *Risk Analysis* - what is the probability that life and property will be impacted by a given natural hazard event, and what is the total amount of loss that may be incurred?
- V. Community problems relating to the hazard event(s)
- VI. Existing mitigation activities that are addressing community problems
- VII. Mitigation action items – activities that will assist in solving the community problems for which no mitigation activities exist.
 - a. Timeline
 - b. Desired outcome
 - c. Estimated budget
 - d. Coordinating and partner organizations
 - e. Potential resources



Information Key

For more information on Hazard Assessment, refer to *Planning for Natural Hazards: Oregon Technical Resource Guide*, or FEMA's *Understanding Your Risks: Identifying Hazards and Estimating Losses*.

7.2: Include estimated costs for mitigation activities and potential funding sources

Local and regional mitigation plans can provide a strong foundation for implementing plan action items by developing activity budgets and identifying potential grant programs, bond measures, or other funding sources. The State Natural Hazards Mitigation Plan specifically requires that state designated “small and impoverished communities” must include a section describing how funds available under this program will be used to maximize benefits to all citizens within the community. Each activity must have one or more funding sources (or other resources) designated for its implementation or a budget explaining how the action items will be financed.

Additionally, each action item should have a timeline that is short-term or long-term. Short-term action items are those activities that can be implemented with existing resources or within the current budget cycle. Long-term action items require external resources and may take up to five years for full implementation.



Tip 7.2: Define the implementing measures of the plan

To ensure implementation of mitigation plan action items, clear procedures for monitoring implementation, reviewing progress, and recommending revisions should be established. A strategy to ensure plan implementation, monitoring, and evaluation is to establish a formal hazard mitigation committee. Members of this committee could be the coordinating organizations of the mitigation plan and members of the planning committee that assisted in developing the plan. The hazard mitigation committee's primary role is to coordinate implementation of plan action items, work with partner organizations, meet activity timelines, and identify and pursue funding for activities.

7.3: Include provisions for monitoring, evaluating, and revising the plan

The plan should include a section describing the established method and schedule of monitoring, evaluating, and updating the mitigation plan at least biennially, but preferably annually. The plan also needs to describe how the community will continue to garner public involve-



Tip 7.3: Monitoring and Evaluation

Mitigation plans should be reviewed and amended as appropriate. This can be on a defined periodic basis, when planning laws change, or after disasters. FEMA suggests updates for flood mitigation plans reflect:

- Changes in characteristics of the floodplain or floodway brought about by a flood or other disaster;
- Changes in population, land use, or development;
- Changes in community goals or priorities;
- Unanticipated changes in the floodplain or floodway due to development in the area; and
- Advances in flood mitigation knowledge, strategies, or techniques.

Following these suggestions will assist in meeting FEMA requirements for flood mitigation plans, as well as applying an effective evaluation methodology for the rest of your plan¹



7.4: Encourage the appropriate authority within your community to adopt the plan

The mitigation plan must be presented to the proper authority for formal adoption. This may require holding public hearings and getting the legislative body and chief executive to adopt the plan. Formal adoption can do the following:

- Demonstrate community commitment to efforts aimed at reducing potential loss from hazard events;
 - Prepare the public for what the community can be expected to do before and after a hazard event;
 - Ensure continuity of hazard loss reduction efforts over time;
 - Ensure eligibility for funding under several federal programs; and
- Result in additional credit under the Community Rating System for action items specifically related to flood mitigation.

Tip 7.4: Who has the authority to adopt a community mitigation plan?

Many state and federal funding programs require formal adoption of mitigation plans. City Councils or County Boards, Planning Commissions, and Planning Boards can adopt a community plan.

Once a community mitigation plan has been formally adopted, the plan can be set in motion. Implementation of action items set forth in the plan document make way for successful hazard mitigation planning.



Notes:



Additional Resources and Associated State & Federal Guidelines

Step 7: Set the plan in motion

Additional State and Federal Resources to help meet the objectives of Step #7	State and Federal Guidelines and Requirements Met in Step #7
7.1 Present all information clearly	
	<ul style="list-style-type: none"> √ Community Rating System Guideline #8 √ OEM Evaluation Criteria Checklist for Local Natural Hazards Mitigation Plan Review
7.2 Include estimated costs for mitigation activities and potential funding sources	
<ul style="list-style-type: none"> • SNHRA - Regional Hazard Assessments • FEMA 386-5 How-To Guide #5 - Using Benefit Cost Analysis in Mitigation Planning 	<ul style="list-style-type: none"> √ Community Rating System Guideline #10 √ FEMA Review Criteria 3.4.3 (D) Implementation of Mitigation Measures <i>Requirement: §201.6(c)(3) (iii): (Shall)</i> √ FEMA Review Criteria 3.4.4 Multi-Jurisdictional Mitigation Strategy <i>Requirement: §201.6(c)(3) (iii): (Multi-Jurisdictional Only)</i> √ FEMA Review Criteria 3.5.2 Implementation Through Existing Programs <i>Requirement §201.6(c)(4)(ii): (Shall)</i> √ OEM Evaluation Criteria Checklist for Local Natural Hazards Mitigation Plan Review
7.3 Include provisions for monitoring, evaluating, and revising the plan	
<ul style="list-style-type: none"> • FEMA 386-4: How-To Guide #4 - Bringing the Plan to Life: Assuring the Success of the Hazard Mitigation Plan 	<ul style="list-style-type: none"> √ Community Rating System Guideline #10 √ FEMA Review Criteria 3.5.1 Monitoring, Evaluating, and Updating the plan <i>Requirement §201.6(c)(4)(i): (Shall)</i> √ FEMA Review Criteria 3.5.2 Implementation Through Existing Programs <i>Requirement §201.6(c)(4)(ii): (Shall)</i> √ FEMA Review Criteria 3.5.3 Continued Public Involvement <i>Requirement §201.6(c)(4)(iii): (Shall)</i> √ OEM Evaluation Criteria Checklist for Local Natural Hazards Mitigation Plan Review

Resource and Guideline Table Continued on Page 7-6

Additional Resources and Associated State & Federal Guidelines

Step 7: Set the plan in motion

Additional State and Federal Resources to help meet the objectives of Step #7	State and Federal Guidelines and Requirements Met in Step #7
7.4 Encourage the appropriate authority within your community to adopt the plan	
<ul style="list-style-type: none"> FEMA 386-4: How-To Guide #4 - Bringing the Plan to Life: Assuring the Success of the Hazard Mitigation Plan 	<ul style="list-style-type: none"> √ Community Rating System Guideline #10 √ FEMA Review Criteria 3.1.1 Adoption by the Local Governing Body <i>Requirement</i> §201.6(c)(5) (Shall) √ FEMA Review Criteria 3.1.2 Multi-jurisdictional Plan Adoption <i>Requirement</i> §201.6(c)(5) (Multi-Jurisdictional Only) √ FEMA Review Criteria 3.1.3 Multi-jurisdictional Plan Participation <i>Requirement</i> §201.6(a)(3) (Multi-Jurisdictional Only) √ OEM Evaluation Criteria Checklist for Local Natural Hazards Mitigation Plan Review

Plan Framework Connection

Work for step seven connects with the following areas of the ONHW plan framework

- Entire Plan Framework - Especially Vol. I, Section 1: Introduction
- Plan Framework Vol. I, Section 5: Plan Maintenance

EXAMPLE Worksheet #1:

Establishing the Planning Team

Many different people and agencies should be involved in the creation of the plan. The level of involvement can range from participation in the steering committee, to a stakeholder interview, to providing technical assistance and/or plan development support to simply being a resource for aspects of plan development. Completing this worksheet will help you decide how to involve the agencies in appropriate ways.

Directions: Describe in the following matrix who in your community can be involved in developing the natural hazards mitigation plan and what role they should play (What can you expect from this individual - level of involvement, time?; Why should they be involved?; Do you have a specific person in mind?). Refer to Steps 1, 2 and 3 to further develop this worksheet.

Group	Notes	Steering Committee	Stakeholder Interview	Resource	Other
Local / Tribal Government					
Administrator/Manager	#County Administrator should be involved in steering committee as they can help with plan adoption and could serve as convener to implement the plan #Likely would not have time to write parts of plan #Can be used as resource on city history #Contact at City Manager's Office	X		X	
Floodplain Manager	#Could be a resource for developing the flood chapter. #Could be asked to begin writing sections of hazard plan #May also be a good stakeholder interview		X	X	
Community Organizations					
American Red Cross	#Should involve in steering committee #May suggest using 'Prepare Oregon' Campaign as strategy for educating community about preparedness and engage public in planning process. #May be able to gain information regarding successful community outreach efforts from.	X		X	

Worksheet #1: Establishing the Planning Team

Many different people and agencies should be involved in the creation of the plan. The level of involvement can range from participation in the steering committee, to a stakeholder interview, to providing technical assistance, and/or plan development support to simply being a resource for aspects of plan development. Completing this worksheet will help you decide how to involve the agencies in appropriate ways.

Directions: Describe in the following matrix who in your community can be involved in developing the natural hazards mitigation plan and what role they should play (What can you expect from this individual - level of involvement, time?; Why should they be involved?; Do you have a specific person in mind?). Refer to Steps 1, 2 and 3 to further develop this worksheet.

Group	Notes	Steering Committee	Stakeholder Interview	Resource	Other
Local / Tribal Government					
Administrator/Manager					
Attorney					
Budget and Finance Office					
Building Code Department					
Police					
Economic Development					
Emergency Preparedness					
Fire					
Housing Agencies					
Operations and Maintenance					
Planning and Zoning					
Public Works					
Solid Waste Department					
Transportation Department					
Tribal Leaders					
Elected Officials					
Special Districts					
Fire					
Flood Control					
Regional Planning Organization					

Group	Notes	Steering Committee	Stakeholder Interview	Resource	Other
Parks and Recreation District					
Soil and Water Conservation Districts					
Community Organizations					
American Red Cross					
Chamber of Commerce					
Faith Based					
Environmental					
Homeowners Association					
Neighborhood Association					
Utility Providers (Electric, Water, Telecommunications, Sewerage, Other)					
Historical Societies					
Watershed Councils					
Other Non-Profit Organizations					
Education and Research Groups					
Community Colleges/University Systems					
School Board					
Public/Private Schools K-12					
Research Centers					
Extension Service					
Private Sector					
Large Employers					
Small Businesses					
Contingency Groups					
Business Associations					

Group	Notes	Steering Committee	Stakeholder Interview	Resource	Other
Builders, Developers and Realtors					
Communication/Media					
Television Stations					
Newspapers					
Telecommunications					
Public Broadcasting					
General Public					
Citizen Groups					
Interested Citizens					
State Government					
Board of Education					
Building Code Office					
Climatologist					
Earthquake Program Manager					
Economic Development Office					
Emergency Management Office					
Environmental Protection Office					
Geologist					
Housing Office					
National Flood Insurance					
Coordinator					
Natural Resources Office					
Planning Agency					
Public Health Office					
Public Information Office					

Group	Notes	Steering Committee	Stakeholder Interview	Resource	Other
State Hazard Mitigation Officer					
State Police					
State Tourism Department					
State Fire Marshal					
Others					

List of Final Planning Team and Strategy for Development:

Worksheet #2:

Navigating the Resources – “Open Book Test”

Directions: Using what you have learned at this training and the resources available to you, answer these questions and indicate in which resource you found the answer.

Example Question:

- What information should you include in the community profile?
- According to the 2000 census, what is the poverty rate for your county? Why is this information important to include in your plan?

Step Reference: Step 3

Example Answer:

Community Profile

*Framework, Section 2– Geography, Environment, Demographics, Employment
Training Manual, Step 3, Tip 3.1 - Demographic, Economic, Environmental,
Social Structure*

Poverty Rate

SNHRA Community Profile, Region 1 page 3 – Coos County 15%

Why Important?

Question 1:

- What are the different types of landslides?
- How can your community determine if an area is prone to landslides?

Step Reference: Step 4

Question 2:

- How can your community plan for wildfire? What are the steps?
- Is your community susceptible to earthquakes? If so, what Uniform Building Code Seismic Zone is it in?
- Who can prepare a Geotechnical report? What do you use it for?

Step Reference: Step 4

Question 3:

- What does the federal rule require for public participation?
- Why would you want to increase public participation in your planning process?
- What are some ideas that you have to involve the public in your planning process?

Step Reference: Step 2

Workplan Development:
STATEMENT OF NEED

Why is your community developing a natural hazard mitigation plan?

Activity #3 - Work Strategy Development

Step 1 - Organize to Prepare the Plan

Detailed Work Strategy for How Your Community Will Accomplish Step 1

Notes (How? When? Why?):

Outcomes and Timeline:

Activity #3 - Work Strategy Development

Step 2 - Involve the Community

Detailed Work Strategy for How Your Community Will Accomplish Step 2

Notes (How? When? Why?):

Outcomes and Timeline:

Activity #3 - Work Strategy Development

Step 3 - Describe Your Community and How Mitigation is Addressed

Detailed Work Strategy for How Your Community Will Accomplish Step 3

Notes (How? When? Why?):

Outcomes and Timeline:

Activity #3 - Work Strategy Development

Step 4 - ID/Characterize the Natural Hazards Impacting Your Community

Detailed Work Strategy for How Your Community Will Accomplish Step 4

Notes (How? When? Why?):

Outcomes and Timeline:

Activity #3 - Work Strategy Development

Step 5 - Develop Plan Goals

Detailed Work Strategy for How Your Community Will Accomplish Step 5

Notes (How? When? Why?):

Outcomes and Timeline:

Activity #3 - Work Strategy Development

Step 6 - Develop Solutions

Detailed Work Strategy for How Your Community Will Accomplish Step 6

Notes (How? When? Why?):

Outcomes and Timeline:

Activity #3 - Work Strategy Development

Step 7 - Set the Plan in Motion

Detailed Work Strategy for How Your Community Will Accomplish Step 7

Notes (How? When? Why?):

Outcomes and Timeline: