

Section 4:

Plan Implementation and Maintenance

This section details the formal process that will ensure that the Clackamas County multi-jurisdictional Natural Hazards Mitigation Plan remains an active and relevant document. The plan implementation and maintenance process includes a schedule for monitoring and evaluating the Plan annually, as well as producing an updated plan every five years. Finally, this section describes how the County and participating jurisdictions will integrate public participation throughout the plan maintenance and implementation process.

Implementing the Plan

After the Plan is locally reviewed and deemed complete, the County will submit it to the State Hazard Mitigation Officer at Oregon Emergency Management. Oregon Emergency Management will review and submit the plan to the Federal Emergency Management Agency (FEMA--Region X) for review. This review addresses the federal criteria outlined in the FEMA Interim Final Rule 44 CFR Part 201. Upon acceptance by FEMA, the County will adopt the plan via resolution. At that point the County will gain eligibility for the Pre-Disaster Mitigation Grant Program, the Hazard Mitigation Grant Program funds, and Flood Mitigation Assistance program funds. Following County adoption, the participating jurisdictions should adopt their addendums.

Convener

The Board of County Commissioners (BCC) will adopt the Clackamas County Natural Hazards Mitigation Plan, and the Hazard Mitigation Advisory Committee will take responsibility for plan implementation. The County Administrator or designee will serve as the plan convener to facilitate the Hazard Mitigation Advisory Committee meetings, and will assign tasks such as updating and presenting the Plan to the members of the committee.

Roles and responsibilities of the convener include:

- Coordinate and document ongoing meetings;
- Serve as the plan's contact person between the Steering Committee and key plan stakeholders;
- Identify emergency management-related funding sources for natural hazard mitigation projects; and
- Coordinate the plan update process.

Plan implementation and evaluation will be a shared responsibility among all of the Hazard Mitigation Advisory Committee members.

Coordinating Body

A Clackamas County Hazard Mitigation Advisory Committee (HMAC) serves as the coordinating body for the mitigation plan and is responsible for coordinating implementation of Plan action items and undertaking the formal review process. The BCC will assign representatives from county agencies, including, but not limited to, the current Hazard Mitigation Advisory Committee members.

Roles and responsibilities of the HMAC include:

- Attending future meetings;
- Prioritizing projects and recommending funding for natural hazard risk reduction projects;
- Participation in the plan update process;
- Documenting successes and lessons learned;
- Evaluating and updating the Natural Hazards Mitigation Plan following a disaster;
- Evaluating and updating the Natural Hazards Mitigation Plan in accordance with the prescribed maintenance schedule; and
- Development and coordination of ad hoc and/or standing subcommittees as needed.

HMAC MEMBERS

The following organizations were represented and served on the Steering Committee during the development of the Clackamas County multi-jurisdictional Natural Hazards Mitigation Plan:

- Clackamas County Departments
- Incorporated Cities within Clackamas County
- Clackamas Fire District #1
- Tualatin Valley Fire and Rescue (TVF&R)
- Clackamas Soil Water Conservation District
- Rivergrove Water District
- Clackamas Providers
- Hoodland Fire
- Oregon Department of Forestry (ODF)

University of Oregon's Community Service Center

- Oregon Partnership for Disaster Resilience (OPDR)
- Resource Assistance for Rural Environments (RARE)

To make the coordination and review of the Clackamas County multi-jurisdictional Natural Hazard Mitigation Plan as broad and useful as possible, the HMAC will engage additional stakeholders and other relevant hazard mitigation organizations and agencies to implement the identified action items. Specific organizations have been

identified as either internal or external partners on the individual action item forms found in Appendix A.

Plan Maintenance

Plan maintenance is a critical component of the natural hazard mitigation plan. Proper maintenance of the plan ensures that this plan will maximize the County's and city/special district's efforts to reduce the risks posed by natural hazards. This section was developed by the University of Oregon's Partnership for Disaster Resilience and includes a process to ensure that a regular review and update of the plan occurs. The Steering Committee and local staff are responsible for implementing this process, in addition to maintaining and updating the plan through a series of meetings outlined in the maintenance schedule below.

Semi-Annual Meetings

The Committee will meet on a semi-annual basis to complete the following tasks. During the first meeting the Committee will:

- Review existing action items to determine appropriateness for funding;
- Educate and train new members on the plan and mitigation in general;
- Identify issues that may not have been identified when the plan was developed; and
- Prioritize potential mitigation projects using the methodology described below.

During the second meeting of the year the Committee will:

- Review existing and new risk assessment data;
- Discuss methods for continued public involvement; and
- Document successes and lessons learned during the year.

The county's Hazard Mitigation Coordinator will host a meeting once a year with the city leads for participating jurisdictions. This meeting is an opportunity for the cities to report back to the county on progress that has been made towards their Natural Hazard Mitigation Plan Addenda. This meeting will also serve as a means for the Hazard Mitigation Coordinator to provide information regarding potential funding sources for mitigation projects, as well as provide additional support for the cities steering committees.

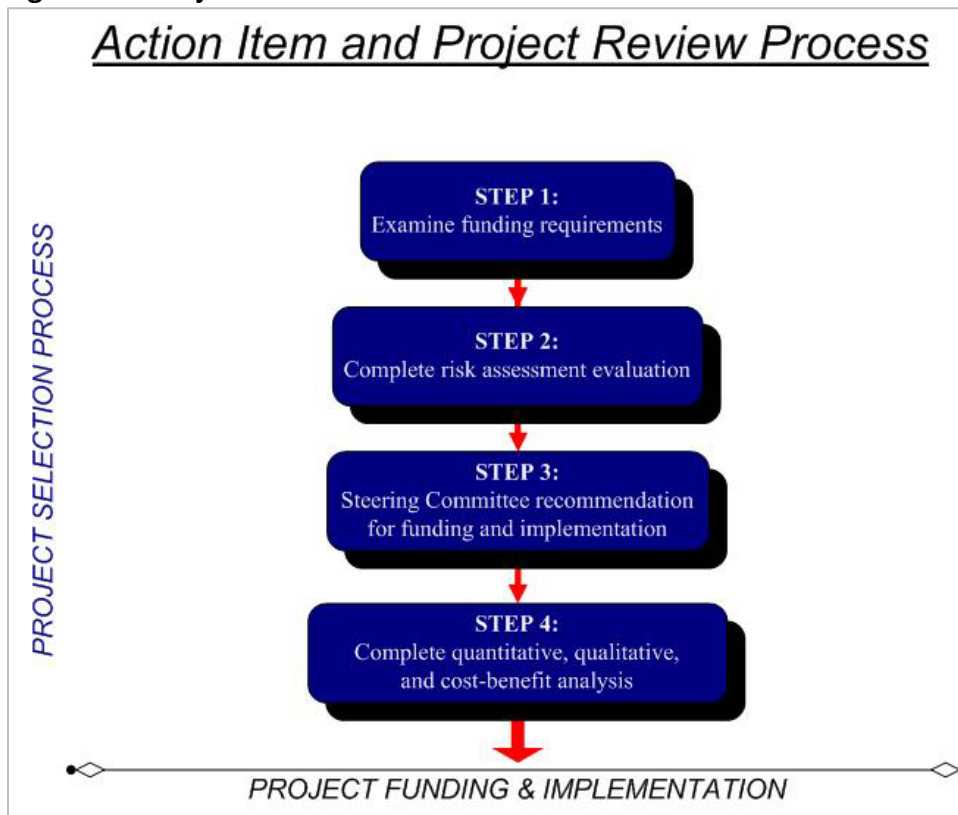
The convener will be responsible for documenting the outcome of the semi-annual meetings in Appendix B: Planning and Public Process. The process the coordinating body will use to prioritize mitigation projects is detailed in the section below. The plan's format allows the county and participating jurisdictions to review and update sections when new data becomes available. New data can be easily incorporated, resulting in a natural hazards mitigation plan that remains current and relevant to the participating jurisdictions.

PROJECT PRIORITIZATION PROCESS

Section III describes the process the HMAC used to establish the current prioritization of action items. Understanding that priorities may change over time depending on new events or resource availability, the Disaster Mitigation Act of 2000 requires that jurisdictions identify a process for future action item prioritization. Potential mitigation activities often come from a variety of sources; therefore the project prioritization process needs to be flexible. Projects may be identified by committee members, local government staff, other planning documents, or the risk assessment.

Figure 4.1 illustrates a project development and prioritization process the HMAC can use in the future.

Figure 4.1: Project Prioritization Process



Source: Community Service Center's Partnership for Disaster Resilience at the University of Oregon, 2008.

STEP 1: EXAMINE FUNDING REQUIREMENTS

The first step in prioritizing the plan's action items is to determine which funding sources are open for application. Several funding sources may be appropriate for the county's proposed mitigation projects. Examples of mitigation funding sources include but are not limited to: FEMA's Pre-Disaster Mitigation competitive grant program (PDM), Flood Mitigation Assistance (FMA) program, Hazard Mitigation Grant Program (HMGP), National Fire Plan (NFP), Community Development Block Grants (CDBG), local general funds, and private foundations, among others. Please see Appendix E Grant Programs for a more comprehensive list of potential grant programs.

Because grant programs open and close on differing schedules, the coordinating body will examine upcoming funding streams' requirements to determine which mitigation activities would be eligible. The coordinating body may consult with the funding entity, Oregon Emergency Management, or other appropriate state or regional organizations about project eligibility requirements. This examination of funding sources and requirements will happen during the coordinating body's semi-annual plan maintenance meetings.

STEP 2: COMPLETE RISK ASSESSMENT EVALUATION

The second step in prioritizing the plan's action items is to examine which hazards the selected actions are associated with and where these hazards rank in terms of community risk. The coordinating body will determine whether or not the plan's risk assessment supports the implementation of eligible mitigation activities. This determination will be based on the location of the potential activities, their proximity to known hazard areas, and whether community assets are at risk. The coordinating body will additionally consider whether the selected actions mitigate hazards that are likely to occur in the future, or are likely to result in severe / catastrophic damages.

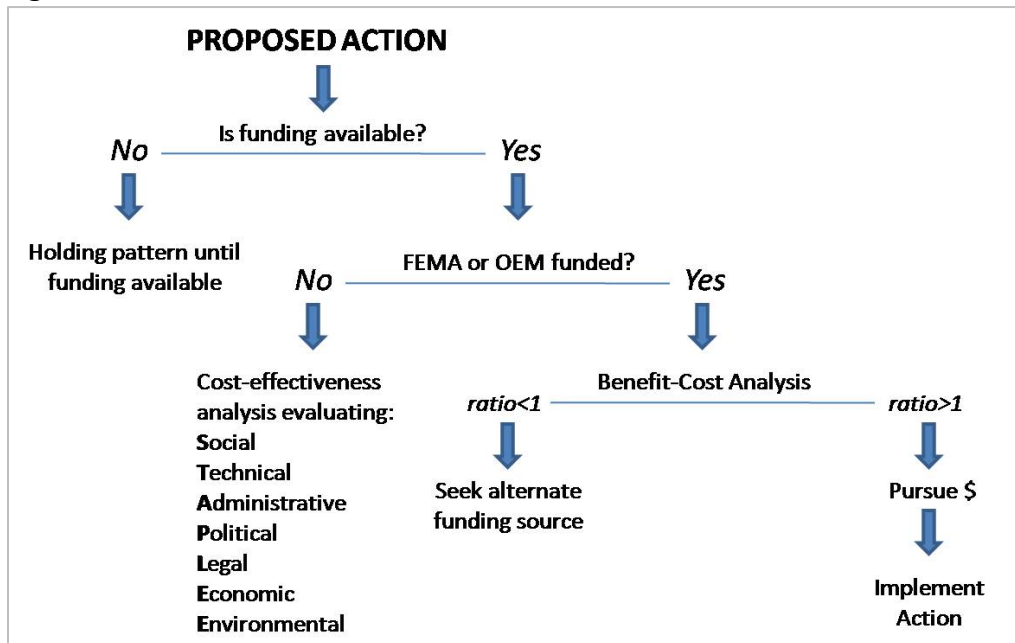
STEP 3: COMMITTEE RECOMMENDATION

Based on the steps above, the coordinating body will recommend which mitigation activities should be moved forward. If the coordinating body decides to move forward with an action, the coordinating organization designated on the action item form will be responsible for taking further action and, if applicable, documenting success upon project completion. The coordinating body will convene a meeting to review the issues surrounding grant applications and to share knowledge and/or resources. This process will afford greater coordination and less competition for limited funds.

STEP 4: COMPLETE QUANTITATIVE AND QUALITATIVE ASSESSMENT, AND ECONOMIC ANALYSIS

The fourth step is to identify the costs and benefits associated with the selected natural hazard mitigation strategies, measures or projects. Two categories of analysis that are used in this step are: (1) benefit/cost analysis, and (2) cost-effectiveness analysis. Conducting benefit/cost analysis for a mitigation activity assists in determining whether a project is worth undertaking now, in order to avoid disaster-related damages later. Cost-effectiveness analysis evaluates how best to spend a given amount of money to achieve a specific goal. Determining the economic feasibility of mitigating natural hazards provides decision makers with an understanding of the potential benefits and costs of an activity, as well as a basis upon which to compare alternative projects. Figure 4.2 shows decision criteria for selecting the appropriate method of analysis.

Figure 4.2: Benefit Cost Decision Criteria



Source: Community Service Center's Partnership for Disaster Resilience at the University of Oregon, 2010.

If the activity requires federal funding for a structural project, the Committee will use a Federal Emergency Management Agency-approved cost-benefit analysis tool to evaluate the appropriateness of the activity. A project must have a benefit/cost ratio of greater than one in order to be eligible for FEMA grant funding.

For non-federally funded or nonstructural projects, a qualitative assessment will be completed to determine the project's cost effectiveness. The committee will use a multivariable assessment technique called STAPLE/E to prioritize these actions. STAPLE/E stands for Social, Technical, Administrative, Political, Legal, Economic, and Environmental. Assessing projects based upon these seven variables can help define a project's qualitative cost effectiveness. The STAPLE/E technique has been tailored for use in natural hazard action item prioritization by the Partnership for Disaster Resilience at the University of Oregon's Community Service Center. See Appendix C: Economic Analysis for a description of the STAPLE/E evaluation methodology.

Continued Public Involvement & Participation

The participating jurisdictions are dedicated to involving the public directly in the continual reshaping and updating of the Clackamas County multi-jurisdictional Natural Hazard Mitigation Plan. Although members of the Steering Committee represent the public to some extent, the public will also have the opportunity to continue to provide feedback about the Plan.

To ensure that these opportunities will continue, the County and participating jurisdictions will:

- Post copies of their plans on corresponding websites and in local libraries;

- Place articles in the local newspaper directing the public where to view and provide feedback;
- Use existing newsletters such as schools and utility bills to inform the public where to view and provide feedback; and
- Continue to host a booth at the Clackamas County Fair on an annual basis and will present information about hazard mitigation. For example, on August 29, 2012, Clackamas County Emergency Management set up a looped PowerPoint presentation regarding the plan update process at the fair booth. In addition, CCEM staffed the booth and were available to answer questions and engage interested members of the public directly. The county will continue to employ direct outreach strategies such as this at future county wide events.
- Clackamas County Emergency Management will continue to utilize their social media platforms to involve the public. For example, during the plan update process, the county made posts to Facebook encouraging the public to follow the link provided by the Oregon Partnership for Disaster Resilience, and provide comments and feedback on the draft NHMP. The county will continue to employ social media platforms to engage the public about hazard mitigation.

In addition to the involvement activities listed above, the county's multi-jurisdictional Natural Hazard Mitigation Plan has been archived and posted on the Partnership website via the University of Oregon Libraries' Scholar's Bank Digital Archive.

Five-Year Review of Plan

This plan will be updated every five years in accordance with the update schedule outlined in the Disaster Mitigation Act of 2000. The Clackamas County Natural Hazards Mitigation Plan is due to be updated in the fall of 2017. The convener will be responsible for organizing the coordinating body to address plan update needs. The coordinating body will be responsible for updating any deficiencies found in the plan, and for ultimately meeting the Disaster Mitigation Act of 2000's plan update requirements.

The following 'toolkit' can assist the convener in determining which plan update activities can be discussed during regularly-scheduled plan maintenance meetings, and which activities require additional meeting time and/or the formation of sub-committees.

Mitigation Plan Update Checklist			
<i>Question</i>	<i>Yes</i>	<i>No</i>	<i>Plan Update Action</i>
Is the planning process description still relevant?			Modify this section to include a description of the plan update process. Document how the planning team reviewed and analyzed each section of the plan, and whether each section was revised as part of the update process. (This toolkit will help you do that).
Do you have a public involvement strategy for the plan update process?			Decide how the public will be involved in the plan update process. Allow the public an opportunity to comment on the plan process and prior to plan approval.
Have public involvement activities taken place since the plan was adopted?			Document activities in the "planning process" section of the plan update
Are there new hazards that should be addressed?			Add new hazards to the risk assessment section
Have there been hazard events in the community since the plan was adopted?			Document hazard history in the risk assessment section
Have new studies or previous events identified changes in any hazard's location or extent?			Document changes in location and extent in the risk assessment section
Has vulnerability to any hazard changed?			Document changes in vulnerability in the risk assessment section
<i>Have development patterns changed? Is there more development in hazard prone areas?</i>			
<i>Do future annexations include hazard prone areas?</i>			
<i>Are there new high risk populations?</i>			
<i>Are there completed mitigation actions that have decreased overall vulnerability?</i>			
Did the plan document and/or address National Flood Insurance Program repetitive flood loss properties?			Document any changes to flood loss property status

OVER→

Mitigation Plan Update Checklist			
<i>Question</i>	<i>Yes</i>	<i>No</i>	<i>Plan Update Action</i>
Did the plan identify the number and type of existing and future buildings, infrastructure, and critical facilities in hazards areas?			1) Update existing data in risk assessment section or 2) determine whether adequate data exists. If so, add information to plan. If not, describe why this could not be done at the time of the plan update
Did the plan identify data limitations?			If yes, the plan update must address them: either state how deficiencies were overcome or why they couldn't be addressed
Did the plan identify potential dollar losses for vulnerable structures?			1) Update existing data in risk assessment section or 2) determine whether adequate data exists. If so, add information to plan. If not, describe why this could not be done at the time of the plan update
Are the plan goals still relevant?			Document any updates in the plan goal section
What is the status of each mitigation action?			Document whether each action is completed or pending. For those that remain pending explain why. For completed actions, provide a 'success' story.
Are there new actions that should be added?			Add new actions to the plan. Make sure that the mitigation plan includes actions that reduce the effects of hazards on both new and existing buildings.
Is there an action dealing with continued compliance with the National Flood Insurance Program?			If not, add this action to meet minimum NFIP planning requirements
Are changes to the action item prioritization, implementation, and/or administration processes needed?			Document these changes in the plan implementation and maintenance section
Do you need to make any changes to the plan maintenance schedule?			Document these changes in the plan implementation and maintenance section
Is mitigation being implemented through existing planning mechanisms (such as comprehensive plans, or capital improvement plans)?			If the community has not made progress on process of implementing mitigation into existing mechanisms, further refine the process and document in the plan.

This page left intentionally blank.