

## **5.0 PLAN ADOPTION, MAINTENANCE and IMPLEMENTATION**

### **5.1 Overview**

For a hazard mitigation plan to be effective, it has to be implemented gradually over time, as resources become available, continually evaluated and periodically updated. Only through developing a system which routinely incorporates logical thinking about hazards and cost-effective mitigation measures into ongoing public- and private-sector decision making will the mitigation action items in this document be accomplished effectively. The following sections depict how Multnomah County has adopted and will implement and maintain the vitality of the Multnomah County Natural Hazard Mitigation Plan.

### **5.2 Plan Adoption**

FEMA approval of the 2012 Multnomah County Hazard Mitigation Plan was received on June 5, 2012. FEMA approval means that Multnomah County's Hazard Mitigation Plan meets national standards and that the County will continue to be eligible for hazard mitigation funding from FEMA's mitigation grant programs.

The Multnomah County Hazard Mitigation Plan was adopted by the Multnomah County on June 21, 2012, making this the effective date of the plan. The adoption resolution is included in the appendix at the end of this chapter.

Multnomah County has the necessary human resources to ensure the Plan continues to be an active planning document. County staff members from many departments have been active in the preparation of the plan and have gained an understanding of the process and the desire to keep it up to date and useful.

Recent major high-profile disasters and the growing understanding of the threats posed to Multnomah County from natural hazards, have kept the interest in hazard mitigation planning and implementation alive at the County Commissioner level, at the County staff level, among private sector entities and among the citizens of Multnomah County.

### **5.3 Implementation**

#### **5.3.1 Coordinating Body**

The Multnomah County Emergency Management Leadership Team will coordinate the implementation of the plan and be responsible for periodic monitoring, evaluating and updating the plan. The County will continue to provide staffing to accomplish the mitigation plan monitoring, evaluating, and updating. The existing active interest in mitigation and emergency planning that exists within Multnomah

County will help to ensure the successful implementation of the plan over the coming years.

### **5.3.2 Integration Into Ongoing Programs, Policies and Practices**

The mission statement, objectives, goals and action items outlined in Chapter 4 of the Multnomah County Hazard Mitigation Plan provide a strong framework and guidance for the identified mitigation priorities for Multnomah County. However, the Mitigation Plan is a guidance document, not a regulatory document; and thus implementation of the objectives, goals and action items can be accomplished most effectively by fully integrating this guidance into ongoing county-wide programs, policies and practices.

The updated hazard, vulnerability and risk assessments and the updated and re-prioritized mitigation action items in the 2012 Multnomah County Hazard Mitigation Plan provide a solid foundation for incorporating mitigation planning and implementation into ongoing programs, policies and practices, as listed below with the responsible Multnomah County Departments:

- Capital Improvement Program
- Multnomah County Community Wildfire Protection Plan
- Climate Action Plan
- Safety Program
- Facilities Maintenance plan
- Multnomah County Emergency Management Strategic Plan
- Multnomah County Recovery Plan (under development)
- Land Use Planning

All of the above ongoing programs, policies and practice mesh with and support the Hazard Mitigation Plan's primary goals of protecting life and property from natural disasters. An important contribution from the 2012 update of the Multnomah County Hazard Mitigation Plan is the updated hazard information, which will be incorporated into the plans referenced above to provide a more accurate basis for emergency planning, post-disaster recovery planning, the Multnomah County Safety Program, and Multnomah County's other related planning efforts.

Information in the above plans was incorporated into the 2012 update of the Multnomah County Hazard Mitigation Plan, including:

- CWPP *Fire Severity Zone*
- FEMA-mapped floodplains,
- Seismic report data in the Facilities Maintenance plan,
- Land use planning and zoning, and

- Capital improvement planning for many departments.

### **5.3.3 Cost Effectiveness of Mitigation Projects**

As Multnomah County and other entities, public or private, within the county consider whether or not to undertake specific mitigation projects or evaluate how to decide between competing mitigation projects, they must answer questions that don't always have obvious answers, such as:

What is the nature of the hazard problem?

How frequent and how severe are hazard events?

Do we want to undertake mitigation measures?

What mitigation measures are feasible, appropriate and affordable?

How do we prioritize between competing mitigation projects?

Are our mitigation projects likely to be eligible for FEMA funding?

Multnomah County recognizes that benefit-cost analysis is a powerful tool that can help communities provide solid, defensible answers to these difficult socio-political-economic-engineering questions. Benefit-cost analysis is required for all FEMA-funded mitigation projects, under both pre-disaster and post-disaster mitigation programs. Thus, communities seeking FEMA funding must understand benefit-cost analysis. However, regardless of whether or not FEMA funding is involved, benefit-cost analysis provides a sound basis for evaluating and prioritizing possible mitigation projects for any natural hazard. Thus, Multnomah County will use benefit-cost analysis and related economic tools, such as cost-effectiveness evaluation, to the extent practicable in prioritizing and implementing mitigation actions. See Appendix 2 Principles of Benefit-Cost Analysis for further details on the benefit-cost analysis process.

Multnomah County has used and will continue to use benefit-cost analysis in two important ways:

- To help prioritize mitigation actions, once specific projects are defined in sufficient detail, including at least conceptual designs and preliminary cost estimates.
- To support applications for FEMA mitigation grants.

### **5.3. 4 STAPLE/E Approach**

Multnomah County has used and will continue to use the STAPLE/E approach to help evaluate potential mitigation actions. Using STAPLE/E criteria, mitigation activities can be evaluated quickly in a systematic fashion based on the Social, Technical, Administrative, Political, Legal, Economic, and Environmental (STAPLE/E) considerations and opportunities for implementing particular mitigation action items in Multnomah County. The STAPLE/E approach is very

helpful for assessing the viability of mitigation projects and supplements the risk and economic results from benefit-cost analyses.

The following synopsis outlines each of the elements of the STAPLE/E Approach

**Social:**

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

**Technical:**

- 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 goals?

**Administrative:**

- Is the action implementable?
- 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:**

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

**Legal:**

- Who is 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 County be liable for action or lack of action?
- Will the activity be challenged?

**Economic:**

- 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 City?
- What burden will this action place on the tax base or economy?
- What are the budget and revenue effects of this activity?
- Does the action contribute to other 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:**

- 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?

**5.4 Prioritization of Mitigation Actions**

Implementation of any of the mitigation actions listed in the 2012 Multnomah County Hazard Mitigation Plan is contingent upon resource availability, including both staff and financial resources. Thus, it is impossible to prioritize the mitigation action items exactly. The following multi-faceted approach has been used to prioritize the mitigation action items:

- The highest priority action items address the highest priority goals – including Reduce the Threats to Life Safety and Reduce the Threats to Buildings, Facilities and Infrastructure.
- The highest priority action items thus are for the hazards which pose the greatest threats to Multnomah County: earthquakes, volcanic events (lahars), floods, wildland/urban interface fire and and landslides/mudslides.
- Within the groups of action items – multi-hazard and hazard-specific, the relative priority has been determined by consensus of the Hazard Mitigation Planning Team, including the STAPLE/E approach and benefit-cost analysis as noted below.
- The STAPLE/E approach was used as a screening tool to ensure that each proposed mitigation action item was feasible for each of the STAPLE/E criteria.

- Multnomah County recognizes the importance of benefit-cost analysis not only for FEMA grant applications, but also to help prioritize between competing mitigation projects regardless of the funding source. Benefit-cost analysis is predominantly applicable to physical mitigation measures such as seismic retrofits, flood mitigation projects, fuel reduction measures for wildland/urban interface fires and so on. Benefit-cost analysis is generally not applicable to mapping, risk assessments, code enhancement and other types of measures. The importance of benefit-cost analysis is recognized not only in this section but also elsewhere in the 2012 Multnomah County Hazard Mitigation Plan including:
  - Chapter 1, Section 1.7 – The Role of Benefit-Cost Analysis in Mitigation Planning,
  - Chapter 5, Section 5.3.3 – Cost Effectiveness of Mitigation Projects, and
  - Appendix 2 – Principles of Benefit-Cost Analysis.

The above multi-faced approach to prioritize mitigation action items is a good faith effort to establish priorities. However, the principal constraint for the implementation of each of these action items is the availability of resources – both staff time and financial resources – as necessary for implementation. Thus, Multnomah County’s prioritization of action items is necessarily flexible. If resources become available for a lower priority mitigation item before funds are available for a higher priority action item, then the lower priority mitigation item will be implemented.

This realistic, flexible approach is necessary to achieve the paramount reason for mitigation planning - to gradually reduce risk in Multnomah County over time as resources to implement mitigation actions become available.

## **5.5 Plan Maintenance**

### **5.5.1 Periodic Monitoring, Evaluation and Updating**

Multnomah County has developed a process for regularly reviewing and updating the Natural Hazard Mitigation Plan. The Emergency Management Leadership Team will review the plan every six months from the date that the 2012 plan is effective as well as after significant disaster events affecting Multnomah County. The Emergency Management Leadership Team will be responsible for tracking the progress of the mitigation actions in the Plan. These reviews will provide opportunities to incorporate new information into the Plan and remove outdated items and completed actions. This will also be the time to recognize the success of the community in implementation of action items. The Emergency Management Leadership Team will assess whether and to what extent:

1. Do the plans goals, objectives and action items still address current and future expected conditions?

2. Do the mitigation action items accurately reflect Multnomah County's current conditions and mitigation priorities?
3. Have the technical hazard, vulnerability and risk data been updated or changed?
4. Are current resources adequate for implanting Multnomah County's Hazard Mitigation Plan? If not are there other resources that may be available?
5. Are there any problems or impediments to implementation? If so, what are the solutions?
6. Have other agencies, partners, and the public participated as anticipated? If no, what measures can be taken to facilitate participation?
7. Have there been changes in federal and/or state laws pertaining to hazard mitigation in Multnomah County?
8. Have the FEMA requirements for the maintenance and updating of hazard mitigation plans changed?
9. What can Multnomah County learn from declared federal and/or state hazard events in communities that share similar characteristics to Multnomah County, such as population, geographical area, land use mix, and hazard vulnerability?
10. How have previously implemented mitigation measures performed in recent hazard events? This may include assessment of mitigation action items similar to those contained in this Plan, but where hazard events occurred outside of Multnomah County.

The Emergency Management Leadership Team will review the results of these Natural Hazard Mitigation Plan assessments, identify corrective actions and make recommendations, if necessary, to the County Commissioners for actions that may be necessary to bring the Mitigation Plan back into conformance with the stated goals and objectives.

The Multnomah County Emergency Management Office will have lead responsibility for the formal updates of the plan every five years. The formal update process will be initiated at least two years before the five-year anniversary of FEMA approval of the Multnomah County Mitigation Plan, to allow ample time for robust participation by stakeholders and the public and for updating data, maps, goals, objectives and action items. All revisions of the Plan will be taken to the County Commissioners for formal acknowledgement as part of Multnomah County's Plan maintenance and implementation program.

### **5.5.2 Continued Public Involvement and Participation**

Implementation of the mitigation actions identified in the Plan must continue to engage not only County staff but also the entire community. Multnomah County is committed to involving the public directly in the ongoing review and updating of the Natural Hazard Mitigation Plan.

This public involvement process will include public participation in the monitoring, evaluation and updated processes outlined in the previous section and intensify as the 2016 update process is begun and completed.

The 2012 Multnomah County Hazard Mitigation Plan will be available on the County's website and hard copies will be placed in all County libraries. The existence and locations of these hard copies will be posted on the County's website along with contact information so that people can direct comments, suggestions and concerns to the Emergency Management Leadership Team.

A press release requesting public comments will be issued after each major update and also whenever additional public inputs are deemed necessary. The press release will direct people to the website and other locations where the public can review proposed updated versions of the plan. This process will provide the public with accessible and effective means to express their concerns, opinions, ideas about any updates/changes that are proposed to the mitigation plan.

The Multnomah County Emergency Management office will ensure that the resources are available to publicize the press releases and maintain public participation through web pages, public access channels and newspapers as deemed appropriate.



# APPENDIX

## BEFORE THE BOARD OF COUNTY COMMISSIONERS FOR MULTNOMAH COUNTY, OREGON

### RESOLUTION NO. 2012-090

Adopting the 2012 Multnomah County Natural Hazard Mitigation Plan

#### The Multnomah County Board of Commissioners Finds:

- a. The Federal Stafford Act requires the creation of a local natural hazard mitigation plan.
- b. The plan:
  - analyzes groups of natural hazards that have historically occurred in the County and makes a projection of where such hazards may occur in the future;
  - takes into consideration County activity in the areas of zoning, land use planning, and conservation;
  - determines the magnitude of damage that such future hazards may inflict;
  - determines what infrastructure is at risk of such hazards;
  - describes mitigation projects which, when carried out, will lessen the chance for damage or destruction due to a natural disaster or emergency; and
  - allows the County to apply for Pre Disaster Mitigation funding.
- c. This plan updates the plan previously adopted by Resolution 05-073.

#### The Multnomah County Board of Commissioners Resolves:

1. To adopt the attached 2012 Multnomah County Natural Hazard Mitigation Plan.
2. To submit the Plan for approval to the State of Oregon and the Federal Emergency Management Agency.

ADOPTED this 21<sup>st</sup> day of June 2012.



BOARD OF COUNTY COMMISSIONERS  
FOR MULTNOMAH COUNTY, OREGON

  
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Jeff Cogen, Chair

REVIEWED:

JENNY M. MORF, COUNTY ATTORNEY  
FOR MULTNOMAH COUNTY, OREGON

By   
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Jenny M. Morf, County Attorney