

# Section 4: Multi Hazard Updates

## Multi-Hazard Action Items (MH)

Multi-hazard action items are those activities that pertain to more than one of the hazards in this NHMP.

**MH#1: Integrate the goals and action items from the Clackamas County Natural Hazard Mitigation Plan into existing regulatory documents and programs, where appropriate.**

*Ideas for Implementation:*

1. Use the mitigation plan to help the county's Comprehensive Land Use Plan meet State Land Use Planning Goal 7, designed to protect life and property from natural disasters and hazards through planning strategies that restrict development in areas of known hazards;
2. Integrate the county's mitigation plan into current capital improvement plans; and
3. Partner with other organizations and agencies with similar goals to promote building codes that are more disaster resistant at the state level.

**Coordinating Organization:** Hazard Mitigation Advisory Committee  
**Plan Goals Addressed:** Partnerships and Implementation  
**Multi-Jurisdictional:** Canby, Milwaukie, Lake Oswego, Gladstone, West Linn  
**Priority:** High

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**MH#2: Identify and pursue funding opportunities to develop and implement local and county mitigation activities.**

*Ideas for Implementation:*

1. Develop incentives for local governments, citizens, and businesses to pursue hazard mitigation projects;
2. Allocate county resources and assistance to mitigation projects when possible; and
3. Partner with other organizations and agencies in Clackamas County to identify grant programs and foundations that may support mitigation activities.

**Coordinating Organization:** County Dept. of Transportation and Development, County Emergency Management  
**Plan Goals Addressed:** Partnerships and Implementation  
**Multi-Jurisdictional:** Canby, Milwaukie, Lake Oswego, Gladstone, West Linn  
**Priority:** High

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**MH#3: Establish a formal role for the Clackamas County Natural Hazards Mitigation Committee to develop a sustainable process for implementing, monitoring, and evaluating countywide mitigation activities.**

***Ideas for Implementation:***

1. Establish clear roles for participants, meeting regularly to pursue and evaluate implementation of mitigation strategies;
2. Oversee implementation of the mitigation plan;
3. Establish measurable standards to evaluate mitigation policies and programs and provide a mechanism to update and revise the mitigation plan;
4. Monitor hazard mitigation implementation by jurisdictions and participating organizations through surveys and other reporting methods;
5. Develop updates for the Natural Hazards Mitigation Action Plan based on new information;
6. Conduct a full review of the Natural Hazards Mitigation Action Plan every 5 years by evaluating mitigation successes, failures, and areas that were not addressed; and
7. Provide training for Committee members to remain current on developing issues in the natural hazard loss reduction field.

**Coordinating Organization:** Hazard Mitigation Advisory Committee

**Plan Goals Addressed:** Partnerships and Implementation

**Priority:** Medium

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**MH#4: Identify, improve, and sustain collaborative programs focusing on the real estate and insurance industries, public and private sector organizations, and individuals to avoid activity that increases risk to natural hazards.**

***Ideas for Implementation:***

1. Distribute information about flood, fire, earthquake, and other forms of natural hazards insurance to property owners in areas identified to be at risk through hazard mapping;
2. Develop a one-page handout on types of insurance and deliver through county utility or service agencies;
3. Educate individuals and businesses on the benefit of engaging in mitigation activities such as developing impact analyses;
4. Pinpoint areas of high risk and transfer the cost of risk to property owners through insurance (rather than to the public);
5. Encourage the development of unifying organizations to ensure communication and dissemination of natural hazard mitigation information;
6. Identify activities for private sector and citizen involvement such as nonstructural seismic daycare retrofits; and
7. Continue development of the Regional Emergency Preparedness Calendar.

**Coordinating Organization:** County Emergency Management, County

Public and Government Relations, County  
Economic Development  
**Plan Goals Addressed:** Protect Life and Property, Public Awareness,  
Partnerships and Implementation  
**Multi-Jurisdictional:** Canby, Milwaukie, Lake Oswego, Gladstone,  
West Linn  
**Priority:** High

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**MH#5: Develop public and private partnerships to foster natural hazard mitigation program coordination and collaboration in Clackamas County.**

***Ideas for Implementation:***

1. Work with city governments to develop local Natural Hazards Mitigation Plans that are consistent with the goals and framework of the County Plan;
2. Identify all organizations within Clackamas County that have programs or interests in natural hazards mitigation;
3. Involve private businesses throughout the county in mitigation planning;
4. Improve communication between ODOT and county road departments, and work together to prioritize and identify strategies to deal with road problems; and
5. Establish protocol for communication electric providers and the Department of Transportation and Development to assure rapid restoration of transportation capabilities.

**Coordinating Organization:** County Emergency Management, County  
Economic Development, County Dept. of  
Transportation and Development  
**Plan Goals Addressed:** Partnerships and Implementation  
**Multi-Jurisdictional:** Canby, Milwaukie, Lake Oswego, Gladstone,  
West Linn  
**Priority:** Medium

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**MH#6: Develop inventories of at-risk buildings and infrastructure and prioritize mitigation projects.**

***Ideas for Implementation:***

1. Identify critical facilities at risk from natural hazards events;
2. Develop strategies to mitigate risk to these facilities, or to utilize alternative facilities should natural hazards events cause damages to the facilities in question;
3. Incorporate the building inventory developed by the Department of Geology and Mineral Industries (Dec. 2002) into the hazard assessment; and
4. Identify bridges at risk from flood or earthquake hazards, identify enhancements, and implement projects needed to reduce the risks.

**Coordinating Organization:** County Emergency Management, County Dept. of Transportation and Development, County Geographic Information Systems

**Plan Goals Addressed:** Protect Life and Property, Partnerships and Implementation

**Multi-Jurisdictional:** Canby, Milwaukie, Lake Oswego, Gladstone, West Linn

**Priority:** High

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**MH#7: Strengthen emergency services preparedness and response by linking emergency services with natural hazard mitigation programs, and enhancing public education on a regional scale.**

***Ideas for Implementation:***

1. Develop a program to encourage private property owners to upgrade their bridges to support weight of fire trucks and emergency vehicles;
2. Encourage individual and family preparedness through public education projects such as safety fairs;
3. Identify opportunities for partnering with citizens, private contractors, and other jurisdictions to increase availability of equipment and manpower for efficiency of response efforts;
4. Work with Community Planning Organizations (CPO's) and other neighborhood groups to establish community response teams; and
5. Familiarize public officials of requirements regarding public assistance for disaster response.

**Coordinating Organization:** County Emergency Management, County Department of Development and Transportation

**Plan Goals Addressed:** Emergency Services

**Multi-Jurisdictional:** Canby, Milwaukie, Lake Oswego, Gladstone, West Linn

**Priority:** High

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**MH#8: Develop, enhance, and implement education programs aimed at mitigating natural hazards, and reducing the risk to citizens, public agencies, private property owners, businesses, and schools.**

***Ideas for Implementation:***

1. Make the Clackamas County Natural Hazards Mitigation Plan available to the public by publishing the plan electronically on the county and emergency management websites
- ✓ Enhance C-map capabilities by creating a website that includes information specific to Clackamas County residents, including site-specific hazards information, building codes information, insurance companies that provide earthquake insurance for county residents, and educational information on damage prevention.

- ✓ Develop a web page to facilitate Internet discussions and information sharing.
- 2. Develop and complete a baseline survey to gather perceptions of private citizens and the business community regarding natural hazard risks and identify mitigation needs. Repeat the survey in five years to monitor successes and failures of natural hazard mitigation programs;
- 3. Develop outreach programs to business organizations that must prepare for flooding events;
- 4. Develop adult and child educational programs to be used by local radio and cable stations;
- 5. Use local radio and cable stations as a conduit for advertising public forums;

**Education**

- 6. Develop curriculum for school programs and adult education on reducing risk and preventing loss from natural hazards;
- 7. Conduct natural hazards awareness programs in schools and community centers;
- 8. Conduct workshops for public and private sector organizations to raise awareness of mitigation activities and programs; and
- 9. Develop outreach materials for mitigation, preparedness, response and recovery.

**Coordinating Organization:** Public and Government Relations, County  
 Geographic Information Systems, County  
 Social Services  
**Plan Goals Addressed:** Public Awareness, Protect Life and Property  
**Multi-Jurisdictional:** Canby, Milwaukie, Lake Oswego, Gladstone,  
 West Linn  
**Priority:** High

**MH#9: Use technical knowledge of natural ecosystems and events to link natural resource management and land use organizations to mitigation activities and technical assistance.**

*Ideas for Implementation:*

- 1. Review ordinances that protect natural systems and resources to mitigate for natural hazards for possible enhancements;
- 2. Pursue vegetation and restoration practices that assist in enhancing and restoring the natural and beneficial functions of the watershed; and
- 3. Develop education and outreach programs that focus on protecting natural systems as a mitigation activity.

**Coordinating Organization:** County Dept. of Transportation and  
 Development, Water Environment Services  
**Plan Goals Addressed:** Natural Systems  
**Multi-Jurisdictional:** Canby, Milwaukie, Lake Oswego, Gladstone,  
 West Linn  
**Priority:** Medium

**MH#10: Incorporate the Regional Emergency Transportation Routes developed by the Regional Emergency Managers Group (REMG) into appropriate planning documents.**

***Ideas for Implementation:***

1. Coordinate the maintenance of emergency transportation routes through communication among the County Roads Department, neighboring jurisdictions, and the Oregon Department of Transportation.

2.

**Coordinating Organization:** County Emergency Management, County Roads, ODOT, REMG

**Plan Goals Addressed:** Protect life and property, Partnerships and Implementation, Emergency Services

**Priority:** Medium

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**MH #11: Enhance strategies for debris management.**

***Ideas for Implementation:***

1. Work with Metro to complete a regional debris management plan; and
2. Identify local resources available to implement debris management plan.

**Coordinating Organization:** County Emergency Management, County Community Environment, County Roads, Metro, RMG

**Plan Goals Addressed:** Partnerships and Implementation, Emergency Services, Natural Systems

**Multi-Jurisdictional:** Canby, Milwaukie, Lake Oswego, Gladstone, West Linn

**Priority:** High