

Executive Summary

What is the Mitigation Plan?

The Yamhill County Natural Hazards Mitigation Plan includes resources and information that will assist county residents, public and private sector organizations and other interested people in participating in natural hazard mitigation activities.

The key activities are summarized in a five-year action plan. The Five-Year Action Plan Matrix lists the activities that will assist Yamhill County in reducing risk and preventing loss from future natural hazard events. The action items address multi-hazard issues, as well as activities for flood, landslide, wildfire, severe winter storm, windstorm, drought, and earthquake.

What is the Plan's Mission?

The mission of the Yamhill County Natural Hazards Mitigation Plan is to reduce risk, prevent loss and protect life, property and the environment from natural hazard events through coordination and cooperation among public and private partners. This can be achieved by increasing public awareness, documenting the resources for risk reduction and loss prevention, and identifying activities that will guide the county towards building a safer community.

Who Participated in Developing the Plan?

The Mitigation Plan is the result of a collaborative planning effort between Yamhill County citizens, public agencies, non-profit organizations, the private sector, and federal, state and regional organizations. The project steering committee was comprised of representatives from the following organizations:

- Yamhill County Emergency Management
- Yamhill County Department of Planning and Development
- Yamhill County Public Works
- Yamhill County Health and Human Services
- Yamhill County Administrative Services
- Yamhill County Information & Geographic Systems
- McMinnville Fire Department
- Polk County Emergency Management
- Oregon Emergency Management

What are Plan Goals?

Plan goals are broad statements of direction and help focus future efforts. Goals are important because they are a bridge between the far-reaching, overall mission and the individual action items, or activities, identified to reduce Yamhill County's risk

from flood, landslide, wildfire, severe winter storm and windstorm, seismic, drought and volcanic events.

Plan goals were formulated through research, reviewing other local mitigation goals, and through steering committee work sessions. Goals were further refined by the steering committee subsequent to the Yamhill County Natural Hazards Mitigation Plan Open House held April 20 2005, where the county received public input.

Goal #1: EMERGENCY OPERATIONS

Goal Statement: Coordinate natural hazard mitigation activities, where appropriate, with emergency operations plans and procedures and with various other agencies, as appropriate.

Goal #2: EDUCATION AND OUTREACH

Goal Statement: Develop and implement education and outreach programs to increase public awareness of the risks associated with natural hazards.

Goal #3: PARTNERSHIPS

Goal Statement: Develop effective partnerships with public and private sector organizations and significant agencies and businesses for future natural hazard mitigation efforts.

Goal #4: PREVENTIVE

Goal Statements:

- Develop and implement activities to protect human life, commerce, and property from natural hazards.
- Reduce losses and repetitive damage for chronic hazard events while promoting insurance coverage for catastrophic hazards.

Goal #5: NATURAL RESOURCES UTILIZATION

Goal Statement: Link natural resources management, land use planning, and watershed planning with natural hazard mitigation activities to protect natural systems and allow them to serve natural hazard mitigation functions.

Goal #6: IMPLEMENTATION

Goal Statement: Implement strategies to mitigate the effects of natural hazards.

What are Action Items?

Action items are more specific than goals. Action items are defined activities or strategies meant to achieve the plan goals. One action item might address several plan goals. There are some action items that are considered “multi-hazard” action items because the scope of the activities apply to all natural hazards rather than a narrower scope that applies to one natural hazard in particular. The action items

are organized in the Executive Summary into a matrix, which lists all of the multi-hazard and hazard-specific action items included in the mitigation plan.

The matrix identifies action items determined through meetings with the project steering committee, local, regional, state and federal programs, stakeholder input and input from attendees of the county's open house for the plan. Activities within the matrix may be considered for funding through federal and state programs, and through the Federal Emergency Management Agency's Hazard Mitigation Grant Program, should funds be made available. The matrix includes the following five elements for each action item to help ensure implementation of the activities:

1. Coordinating organization(s)
2. Partner organizations (Internal and External)
3. Timeline
4. Notes and implementation ideas
5. Plan goals addressed.

The **coordinating organization** is the agency or public/private sector organization that is willing and able to organize resources, find appropriate funding and oversee activity implementation, monitoring and evaluation. Coordinating organizations may include local, county or regional agencies and public/private sector organizations that are in relative proximity to the county to be able to implement activities and programs.

Partner organizations are those agencies or public/private sector organizations that will assist the coordinating organization in implementing action items by providing relevant resources. Partner organizations may include regional, state and federal agencies, as well as local and county public and private sector organizations.

The partner organizations listed in the Yamhill County Natural Hazards Mitigation Plan are potential partners recommended by the project steering committee, but not necessarily contacted during the development of the mitigation plan. Partner organizations should be contacted by the coordinating organization to establish commitment of time and/or resources to action items.

The **timeline** for action items is divided into short-term and long-term activities.

- *Short-term action items* are activities that agencies and organizations are capable of implementing within their existing resources and authorities during a one to two-year period. Usually, only county agencies are listed as coordinating organizations. Occasionally, federal and state agencies, local governments, and other organizations may be included as potential cooperating partners in implementing the activity.
- *Long-term action items* are actions that will require new or additional resources or authorities to implement, and those actions that will occur within three to five years.

Each action item includes **notes** and/or **implementation ideas**, which may include grant programs, or human and organizational resources. The individual hazard sections detail this information for each action item. The matrix includes the page number within the Mitigation Plan where the more detailed information can be found.

Plan goals addressed identifies the plan goal(s) each action item addresses. The Yamhill County Natural Hazards Mitigation Plan has six plan goals, and associated goal statements, to meet the overall mission of *promote sound public policy designed to protect people, critical and essential facilities, infrastructure, utilities, private property, and the environment from natural hazards. The plan fosters partnerships, coordinated implementation and funding, public awareness, and the development of multi-objective strategies for mitigation*

What are the acronyms used in the plan?

ARC	American Red Cross
ARES	Amateur Radio Emergency Services
BLM	Bureau of Land Management (United States)
CDBG	Community Development Block Grant
CERT	Community Emergency Response Team
CVO	Cascade Volcano Observatory (USGS)
DEQ	Department of Environmental Quality (State of Oregon)
DLCD	Department of Land Conservation & Development (State of Oregon)
DOGAMI	Department of Geology & Mineral Industries (State of Oregon)
DSL	Department of State Lands (State of Oregon)
EDA	Economic Development Administration (United States)
FAA	Federal Aviation Administration (United States)
FD	Fire Department
FEMA	Federal Emergency Management Agency (United States)
FHWA	Federal Highway Administration (United States)
FIRM	Flood Insurance Rate Map
FSA	Farm Services Agency (United States)
GIS	Geographic Information System
GPS	Global Positioning System
HMGP	Hazard Mitigation Grant Program

HUD	Housing & Urban Development (United States)
IBHS	Institute of Business & Home Safety
IISOI	Insurance & Information Services of Oregon & Idaho
MWVCOG	Mid-Willamette Valley Council of Governments
NCDC	National Climate Data Center
NFIP	National Floodplain Insurance Program
NOAA	National Oceanic & Atmospheric Administration
NRCS	Natural Resources Conservation Service
NWS	National Weather Service
OAWU	Oregon Association of Water Utilities
OCS	Oregon Climate Service (State of Oregon)
ODF	Oregon Department of Forestry
ODOT	Oregon Department of Transportation
OECD	Oregon Economic & Community Development Department
OEM	Office of Emergency Management (Oregon State Police)
OSP	Oregon State Police
OSSPAC	Oregon Seismic Safety Policy Advisory Commission
OSU	Oregon State University
PGE	Portland General Electric
PSU	Portland State University
RFPD	Rural Fire Protection District
SBA	Small Business Administration (United States)
SWCD	Soil & Water Conservation District
UGB	Urban Growth Boundary
UO	University of Oregon
USACE	United States Army Corps of Engineers
USFS	United States Forest Service
USGS	United States Geological Survey
WRD	Water Resources Department (State of Oregon)

Natural Hazard	Action Item	Coordinating Organization	Partner Organizations	Timeline	Action Item Notes	Plan Goals Addressed					
						Emergency Operations	Education and Outreach	Partnerships	Preventive	Natural Resources Utilization	Implementation
Multi-Hazard #1	Provide assistance to incorporated communities and special districts in development of Natural Hazards Mitigation Plans.	Emergency Management	Planning Division, MWVCOG, city emergency mgt. agencies, Red Cross, emergency response agencies, OEM, FEMA	1 to 2 years, on-going		✓	✓	✓	✓		✓
Multi-Hazard #2	Consider the goals and action items from the Yamhill County Natural Hazard Mitigation Plan for implementation in other county documents and programs, where appropriate.	Steering Committee		Annually, on-going		✓	✓	✓	✓	✓	✓
Multi-Hazard #3	Evaluate the effectiveness of existing programs and identify shortcomings in natural hazard mitigation. Balance the objectives of program goals with natural hazard mitigation.	Emergency Management	Planning Division, Public Works Department	1 to 3 years, on-going					✓		✓

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						Emergency Operations	Education and Outreach	Partnerships	Preventive	Natural Resources Utilization	Implementation
Multi-Hazard #4	Identify funding opportunities for developing and implementing local and county mitigation activities	Steering Committee	Planning Department, OEM, FEMA, IISOI	1 to 2 years		✓	✓	✓	✓		✓
Multi-Hazard #5	Develop a process for the Yamhill County Natural Hazards Mitigation Plan Steering Committee to assist in implementing, monitoring, and evaluating countywide mitigation activities.	Steering Committee		1 year – upon adoption of the plan.			✓	✓	✓		✓
Multi-Hazard #6	Determine the impact that each natural hazard could have on the priority transportation routes to and from emergency facilities and first responder sites.	Emergency Management	Fire and police departments, and other 'first responders.'	On-going (every 5 years)		✓		✓	✓		✓
Multi-Hazard #7	Identify collaborative programs that recognize ways to decrease the risks of natural hazards.	Emergency Management	Planning Dept., Chambers of Commerce	1 to 2 years		✓	✓	✓	✓	✓	✓

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						Emergency Operations	Education and Outreach	Partnerships	Preventive	Natural Resources Utilization	Implementation
Multi-Hazard #8	Develop public and private partnerships to foster natural hazard mitigation program coordination and collaboration in Yamhill County.	Emergency Management	Planning Department	On-going			✓	✓	✓		✓
Multi-Hazard #9	Develop GIS inventories of essential facilities, at-risk buildings and infrastructure and prioritize mitigation projects.	County and cities' emergency management	GIS, Planning & Public Works Depts., ODOT, city planning & public works depts., utility companies, emergency response agencies, MWVCOG, ODF, BLM, USFS	1 to 2 years, on-going			✓	✓	✓		✓
Multi-Hazard #10	Strengthen emergency services preparedness and response by linking emergency services with natural hazard mitigation programs, and enhance public education on a regional scale.	Emergency Management	Planning & Public Works Depts., cities, ODOT	3 to 5 years		✓	✓		✓		✓

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						Emergency Operations	Education and Outreach	Partnerships	Preventive	Natural Resources Utilization	Implementation
Multi-Hazard #11	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	School districts, facility safety personnel; Willamette ESD	Emergency Management, CERT, Planning & Building Depts., Health Department, emergency response agencies, Red Cross, utilities, MWVCOG, OEM, FEMA, media	On-going			✓	✓	✓	✓	✓
Multi-Hazard #12	Sustain a public awareness campaign about natural hazards	Emergency Management	Public Works, Planning Division, Red Cross, CERT, MWVCOG, school districts, emergency response agencies, utility companies, media, FEMA, OEM,	On-going			✓	✓	✓		✓
Multi-Hazard #13	Sustain an education and outreach program for local jurisdictions and assist them in developing emergency operations, public information and hazard mitigation plans.	Emergency Management	Planning Division, City emergency mgt. agencies, Red Cross, emergency response agencies, MWVCOG, OEM, FEMA	1 to 2 years, on-going		✓	✓	✓	✓		✓

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						Emergency Operations	Education and Outreach	Partnerships	Preventive	Natural Resources Utilization	Implementation
Multi-Hazard #14	Review and update the Yamhill County Emergency Operations Plan and the Natural Hazards Mitigation Plan on an annual basis. Conduct a complete review of the plans and have them officially promulgated by the BOC every five years.	Emergency Management	County Departments, Steering Committee, city emergency mgt. agencies, Red Cross, Yamhill Fire Defense Board, NWS, utilities, law enforcement agencies, OSP, emergency response agencies, MWVCOG, ODOT, ARES	1 to 5 years, on-going		✓	✓	✓	✓	✓	✓
Multi-Hazard #15	Make the Yamhill County Emergency Operations Plan and the Natural Hazards Mitigation Plan, and other resources on hazard planning/mitigation available to the public electronically.	Emergency Management & Planning Division	County Webmaster	1 to 2 years		✓	✓				
Multi-Hazard #16	Promote hazard-resistant utility construction and maintenance methods.	MWVCOG	County & city emergency management agencies, ARES, utility companies	3 to 5 years			✓		✓	✓	✓

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						Emergency Operations	Education and Outreach	Partnerships	Preventive	Natural Resources Utilization	Implementation
Multi-Hazard #17	Develop a system for data collection for undeclared natural hazard events.	Emergency Management	IISOL, Building Division, GIS, farm services, insurance companies	3 to 5 years		✓	✓	✓	✓		✓
Multi-Hazard #18	Improve coordination of and evaluate technical and engineering gaps in response service for natural hazard events. Develop a long-term recovery plan for Yamhill County from the effects of natural hazards.	Emergency Management	USGS, DOGAMI, neighboring counties' emergency mgt., Red Cross, hospitals, Army National Guard	1 to 5 years		✓		✓			
Short-Term Flood #1	Develop better flood warning systems	Emergency Management, Public Works	Planning Division, Yamhill Basin Council, Yamhill SWCD, cities, OSU Extension, USGS, WRD, DSL, OEM, USACE, private river gauges	1 to 2 years		✓		✓	✓		✓
Short-Term Flood #2	Maintain an inventory of all permitted dams built for flood control purposes in the county.	Emergency Management	Yamhill Basin Council, USACE, WRD, DEQ, ODFW, NRCS	1 to 2 years		✓		✓		✓	

Natural Hazard	Action Item	Coordinating Organization	Partner Organizations	Timeline	Action Item Notes	Plan Goals Addressed					
						Emergency Operations	Education and Outreach	Partnerships	Preventive	Natural Resources Utilization	Implementation
Short-Term Flood #3	Implement the steps needed for Yamhill County to become a participant in the NFIP's Community Rating System	Yamhill County	Planning, Emergency Management, cities, DLCD, FEMA, OEM, OECD	1 to 3 years				✓	✓	✓	✓
Long-Term Flood #1	Update and improve the FIRM maps for Yamhill County as funding becomes available.	Community Development / Planning	GIS, DLCD, FEMA	3 to 5 years				✓	✓	✓	✓
Long-Term Flood #2	Enhance data and mapping for floodplain information in the county, and identify and map flood prone areas outside of designated floodplains.	GIS, Public Works, cities	County Planning, Emergency Management, NRCS, Yamhill SWCD, FEMA	3 to 5 years				✓	✓	✓	
Long-Term Flood #3	Seek funding to train elected officials and recorders in small towns who have no emergency management background.	Emergency Management	Fire Defense Board, OEM, FEMA	On-going			✓	✓			

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						Emergency Operations	Education and Outreach	Partnerships	Preventive	Natural Resources Utilization	Implementation
Long-Term Flood #4	Provide flood event education and outreach to households and businesses.	Yamhill County	Planning, GIS, Assessor's Office, Emergency Management; IISOI; Yamhill Basin Council; Yamhill SWCD; DLCD; OEM; cities; OECDD	On-going			✓	✓		✓	✓
Long-Term Flood #5	Seek funding to retrofit culverts in Yamhill County with pipes designed for 50 to 100-year flood intervals.	Public Works	Planning, Emergency Management, cities, DSL, ODFW, USFWS, Yamhill SWCD, Yamhill Basin Council, OSU Extension	1 to 3 years				✓	✓	✓	✓

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Long-Term Flood #6	Coordinate with Yamhill SWCD, DOGAMI and NOAA to identify funding sources for further study of the gravel accumulations in the Willamette River at Lambert Bend.	Yamhill SWCD, DOGAMI, NOAA	Planning, Emergency Management, DSL, ODFW, DEQ, Yamhill Basin Council, OSU Extension	1 to 3 years	Gravel accumulations near Lambert Bend have altered the stream flow and continue to erode the riverbank in this area. Approximately 200 acres of land and two gravel operations are at risk of significant losses unless some type of solution is developed. The Willamette River floodplain is vital to both agricultural and aggregate industries.			✓	✓	✓	✓
Long-Term Flood #7	Mitigate repetitive flood loss properties.	Cities in Yamhill County, Yamhill County	Tax Assessor, FEMA, OEM	On-going				✓	✓		✓
Short-Term Landslide #1	Improve knowledge of landslide hazard areas and understanding of vulnerability and risk to life and property in hazard-prone areas.	Emergency Management	GIS, Public Works and Planning Departments; DOGAMI; ODF; cities	2 years			✓	✓	✓		✓

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						Emergency Operations	Education and Outreach	Partnerships	Preventive	Natural Resources Utilization	Implementation
Short-Term Landslide #2	Encourage construction, site location and design that can be applied to steep slopes to reduce the potential threat of landslides.	Emergency Management, Building and Public Works	Planning, DLCD, cities, IBHS	1 to 3 years			✓	✓	✓	✓	✓
Short-Term Landslide #3	Identify safe evacuation routes in high-risk debris flow and landslide areas.	Public Works	Emergency Management, GIS, ODOT; adjacent counties, DOGAMI	2 years		✓		✓	✓		
Short-Term Landslide #4	Compile relative landslide risk maps for Yamhill County.	GIS	Emergency Management, Planning, Public Works and Assessor's Office; USFS, BLM, water systems, utilities, forest industries; DOGAMI	Depending on DOGAMI funding in this biennium	DOGAMI will make the final determination of "further review areas" for rapidly moving landslides as required by Oregon Senate Bill 12.	✓	✓	✓	✓		
Short-Term Landslide #5	Increase public education related to landslide hazards by distributing DOGAMI landslide informational brochure.	Emergency Management	Planning and Public Works, city emergency managers, DOGAMI, OEM, DLCD	1 to 2 years	DOGAMI produced an information brochure on landslide hazards.		✓	✓			

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						Emergency Operations	Education and Outreach	Partnerships	Preventive	Natural Resources Utilization	Implementation
Long-Term Landslide #1	Evaluate current landslide warning systems to ensure effectiveness and efficiency and increase coordination between local jurisdictions and ODF for landslide warning systems.	Emergency Management	Planning, builders, developers, property owners, ODF, BLM	On-going		✓	✓		✓		
Long-Term Landslide #2	Mitigate activities in identified potential and historical landslide areas through public outreach.	Planning, Emergency Management	Public Works, ODF, cities, mortgage companies	3 to 5 years; on-going			✓	✓	✓		✓
Long-Term Landslide #3	Increase coordination between local jurisdictions, emergency responders, homeowners and ODF for landslide warning systems.	Emergency Management	Planning and Building Departments, city planning departments	3 to 5 years		✓	✓		✓	✓	✓
Long-Term Landslide #4	Investigate the development and implementation of a county landslide ordinance.	Planning	Emergency Management, GIS and Public Works, DOGAMI, ODF	3 to 5 years					✓	✓	

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						Emergency Operations	Education and Outreach	Partnerships	Preventive	Natural Resources Utilization	Implementation
Long-Term Landslide #5	Protect existing development in landslide-prone areas.	Emergency Management	Planning, DLCD, OEM, FEMA, ODF, cities	On-going			✓	✓	✓	✓	✓
Long-Term Landslide #6	Maintain public and private drainage systems	Public Works	GIS and Planning, cities, BLM	On-going			✓	✓	✓	✓	✓
Short-Term Wildfire #1	Work with the Yamhill Fire Defense Board in the review of plans and inspection of structures, access and water supply for fire code compliance.	Building Department	Public Works and Planning, Emergency Management, Yamhill Fire Defense Board, State Fire Marshal	1 year; on-going	Construction plans for commercial and industrial structures are reviewed, not residential plans. Identification of areas with lack of experienced fire staff to review plans may be necessary.			✓	✓	✓	
Short-Term Wildfire #2	Develop a Community Wildfire Protection Plan for susceptible urban/wildland interface areas in Yamhill County.	Emergency Management	Planning, Public Works, GIS, Yamhill Fire Defense Board, State Fire Marshal, ODF	1 to 2 years		✓		✓	✓		

Natural Hazard	Action Item	Coordinating Organization	Partner Organizations	Timeline	Action Item Notes	Plan Goals Addressed					
						Emergency Operations	Education and Outreach	Partnerships	Preventive	Natural Resources Utilization	Implementation
Short-Term Wildfire #3	Advocate water storage facilities with fire-resistant electrical pump systems in developments not connected to a community water/hydrant system.	Yamhill Fire Defense Board, State Fire Marshal	Building and Planning Departments, ODF	On-going		✓			✓	✓	✓
Short-Term Wildfire #4	Continue to promote public awareness campaigns for individual property owners living in the wildland/urban interface (WUI).	Emergency Management	Planning, city emergency management, media, OEM, FEMA, DLCD, State Fire Marshal, ODF, insurance and real estate industries, ODA, Oregon Garden, State Fair, Yamhill SWCD	1 to 5 years; On-going		✓	✓	✓	✓	✓	
Short-Term Wildfire #5	Seek funding and labor opportunities to staff fuel-reduction projects throughout wildfire hazard-prone areas in Yamhill County.	Emergency Management	GIS, Yamhill Fire Defense Board, State Fire Marshal, ODF, BLM, USFS, Confederated Tribes of Grand Ronde, Yamhill SWCD	2 years			✓		✓	✓	
Short-Term Wildfire #6	Create incentives and assist landowners in reducing fuel loads on private property.	Emergency Management	Planning; Yamhill Fire Defense Board, State Fire Marshal, ODF, insurance companies	1 to 2 years			✓	✓	✓	✓	

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						Emergency Operations	Education and Outreach	Partnerships	Preventive	Natural Resources Utilization	Implementation
Short-Term Wildfire #7	Increase communication, coordination and collaboration between wildland/urban interface property owners, city and county planners, and fire prevention crews and officials to address inherent risks in wildland/urban interface areas, existing mitigation (prevention/protection) measures, and federal mitigation assistance programs.	Planning, Building	Emergency Management, Yamhill Fire Defense Board, ODF, State Fire Marshal, Oregon Garden, OSU Extension, BLM, Timber Industry	1 to 5 years; On-going		✓	✓	✓	✓	✓	✓
Short-Term Wildfire #8	Seek improved information gathering and distribution and technology for enhancing fire identification, initial response and evacuation if necessary.	Emergency Management	GIS and Planning, State Fire Marshal, ODF, Yamhill Fire Defense Board, Confederated Tribes of Grand Ronde	1 to 3 years		✓	✓	✓	✓	✓	✓

Natural Hazard	Action Item	Coordinating Organization	Partner Organizations	Timeline	Action Item Notes	Plan Goals Addressed					
						Emergency Operations	Education and Outreach	Partnerships	Preventive	Natural Resources Utilization	Implementation
Short-Term Wildfire #9	Enhance emergency services to increase the efficiency of wildfire response and recovery activities.	Yamhill Fire Defense Board	Public Works, State Fire Marshal, ODF; telephone companies	2 years		✓		✓	✓		
Short-Term Wildfire #10	Educate agency personnel on federal cost-share and grant programs, fire protection agreements, and other related federal programs so the full array of assistance available to local agencies is understood.	Yamhill Fire Defense Board, Emergency Management	State Fire Marshal, ODF, FEMA	1 to 2 years		✓	✓	✓			✓
Short-Term Wildfire #11	Identify funding for and develop an inventory of alternative firefighting water sources and encourage the development of additional sources.	Emergency Management	Yamhill Fire Defense Board, State Fire Marshal, OAWU, irrigation districts, Yamhill SWCD, NRCS, Yamhill Basin Council, cities	1 to 2 years		✓		✓	✓	✓	

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						Emergency Operations	Education and Outreach	Partnerships	Preventive	Natural Resources Utilization	Implementation
Short-Term Wildfire #12	Identify funding for and develop an inventory of firefighting hardware to be better prepared when attacking wildfires.	Emergency Management	Yamhill Fire Defense Board, ODF, USFS, BLM	1 to 2 years		✓		✓			
Short-Term Wildfire #13	Identify funding for and develop wildland fire training for fire districts near and/or within WUI communities.	Emergency Management	Yamhill Fire Defense Board, State Fire Marshal, ODF, USFS, BLM	1 to 2 years		✓	✓		✓		
Long-Term Wildfire #1	Promote the expansion of rural fire districts.	Yamhill Fire Defense Board, County Assessor	Emergency Management, Yamhill Rural Fire Districts, State Fire Marshal, ODF	On-going		✓		✓	✓		
Long-Term Wildfire #2	Look for solutions to protect structures located outside of fire districts through partnerships, grant funding or expansion of fire district services.	Emergency Management	State Fire Marshal, Yamhill Fire Defense Board, ODF, Confederated Tribes of Grand Ronde	On-going		✓	✓	✓	✓	✓	

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						Emergency Operations	Education and Outreach	Partnerships	Preventive	Natural Resources Utilization	Implementation
Long-Term Wildfire #3	Reduce wildfire fuels.	Emergency Management	Planning, Yamhill Fire Defense Board, ODF, State Fire Marshal, BLM, USFS, Confederated Tribes of Grand Ronde	3 to 5 years		✓	✓	✓	✓	✓	✓
Long-Term Wildfire #4	Promote and continue support of agricultural uses that reduce fuel loads in WUI areas.	Yamhill SWCD	Planning, NRCS, Yamhill Basin Council, OSU Extension, ODF, ODA, DEQ	On-going			✓	✓	✓	✓	✓
Long-Term Wildfire #5	Maintain and further develop interagency and private industry relationships for continuing strong fire response in Yamhill County.	Emergency Management	Public Works, Yamhill Fire Defense Board, State Fire Marshal, USFS, BLM, Confederated Tribes of Grand Ronde, timber industry, jobs in the woods programs	On-going			✓	✓	✓	✓	

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						Emergency Operations	Education and Outreach	Partnerships	Preventive	Natural Resources Utilization	Implementation
Long-Term Wildfire #6	Seek funding to develop and implement or enhance existing outreach and education programs aimed at mitigating wildfire hazards and reducing or preventing the exposure of citizens, public agencies, private property owners, and businesses to natural hazards.	Emergency Management	Planning, Yamhill Fire Defense Board, school districts, OEM, ODF, cities	On-going			✓	✓	✓	✓	✓
Long-Term Wildfire #7	Encourage development and dissemination of maps relating to fire hazards to help educate and assist builders and homeowners in being engaged in wildfire mitigation activities, and to help guide emergency services during response.	Emergency Management	GIS and Planning, State Fire Marshal, Yamhill Fire Defense Board, ODF, DLCD, cities, insurance industry, National Fire Protection Association, utilities	1 to 3 years			✓	✓	✓	✓	✓

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						Emergency Operations	Education and Outreach	Partnerships	Preventive	Natural Resources Utilization	Implementation
Long-Term Wildfire #8	Encourage implementation of wildfire mitigation activities consistent with the goals of promoting sustainable ecological management and community stability.	Emergency Management	Public Works, Yamhill Fire Defense Board, ODF, Yamhill SWCD, Yamhill Basin Council, utilities, Confederated Tribes of the Grand Ronde, land managers	1 to 5 years; on-going			✓	✓	✓	✓	✓
Short-Term Severe Winter Storm #1	Develop and implement or enhance strategies for debris management due to severe winter storms.	Road Division of Public Works	GIS, Planning, Administrative Services Director; CERT communities	2 years		✓	✓	✓	✓	✓	✓
Short-Term Severe Winter Storm #2	Develop and implement programs to coordinate maintenance and mitigation activities to reduce risk to public infrastructure from severe winter storms.	Emergency Management	Community Development/Planning, Public Works, cities, utilities	2 years		✓		✓		✓	✓
Short-Term Severe Winter Storm #3	Seek funding to acquire necessary emergency back-up power systems for all RFPD facilities and other identified critical facilities.	Emergency Management	Administrative Services Director, Yamhill Fire Defense Board	1 to 2 years		✓		✓			✓

Natural Hazard	Action Item	Coordinating Organization	Partner Organizations	Timeline	Action Item Notes	Plan Goals Addressed					
						Emergency Operations	Education and Outreach	Partnerships	Preventive	Natural Resources Utilization	Implementation
Long-Term Severe Winter Storm #1	Increase and maintain public awareness of severe winter storms and the benefits of mitigation activities through education aimed at households and businesses and increase targeting of special needs populations.	Emergency Management	Community Development, utilities, cities, American Red Cross, St. Vincent DePaul, Churches, Oregon voluntary organizations active in disaster, Fire Districts	1 to 2 years; on-going		✓	✓	✓	✓	✓	✓
Long-Term Severe Winter Storm #2	Enhance weather monitoring to attain earlier severe winter storm warnings.	Emergency Management	NWS, OCS; ARES	On-going			✓		✓		✓
Long-Term Severe Winter Storm #3	Develop and implement programs to keep trees from threatening lives, property, and public infrastructure as a result of severe weather events.	Emergency Management	GIS, Public Works and Community Development Departments; overhead utilities; cities	On-going				✓	✓	✓	

Natural Hazard	Action Item	Coordinating Organization	Partner Organizations	Timeline	Action Item Notes	Plan Goals Addressed					
						Emergency Operations	Education and Outreach	Partnerships	Preventive	Natural Resources Utilization	Implementation
Long-Term Severe Winter Storm #4	Develop and maintain comprehensive impact database and, when possible, map and publicize historical severe weather events in Yamhill County.	Yamhill County	Community Development and GIS, cities, NWS, NOAA, ODOT, OCS, overhead utilities	On-going	ID hazardous areas for the public so precautions can be taken. Information about county road icing and road closures due to snow or other severe winter storm events may already exist within county offices, yet it can be mapped and disseminated countywide to make residents knowledgeable about severe winter (and windstorm) events.		✓	✓	✓	✓	
Long-Term Severe Winter Storm #5	Support/encourage electrical utilities through public incentives/partnerships to use underground construction methods where possible to reduce power outages from severe winter storms.	Emergency Management	Community Development and GIS, cities, overhead utilities	On-going				✓	✓		

Natural Hazard	Action Item	Coordinating Organization	Partner Organizations	Timeline	Action Item Notes	Plan Goals Addressed					
						Emergency Operations	Education and Outreach	Partnerships	Preventive	Natural Resources Utilization	Implementation
Long-Term Severe Winter Storm #6	Promote the benefits of tree-trimming and tree replacement programs and help coordinate local efforts by public and private agencies.	Public Works (Road Division)	GIS, Emergency Management, utility and telecommunications companies, ODOT, city public works, BLM, timber industries	3 to 5 years	Overhead utilities' tree-trimming and tree replacement programs provide tree maintenance benefits to local communities. The utilities could benefit in turn from cooperation with public and private foresters in harvest plans located adjacent to roads and/or power line easements.		✓	✓		✓	
Long-Term Severe Winter Storm #7	Encourage harvesting of trees along utility and road corridors, preventing potential winter storm damage.	Public Works (Road Division)	Emergency Management, cities, utilities, FEMA, ODFW, DSL, BLM, ODOT, timber industries	On-going					✓	✓	✓
Long-Term Severe Winter Storm #8	Encourage right-of-way coordination, education and management between property owners, utility operators, and government agencies.	Public Works (Road Division)	GIS; Planning; Building, ODOT; BLM; timber industries; utility operators; county residents	On-going				✓	✓	✓	✓

Natural Hazard	Action Item	Coordinating Organization	Partner Organizations	Timeline	Action Item Notes	Plan Goals Addressed					
						Emergency Operations	Education and Outreach	Partnerships	Preventive	Natural Resources Utilization	Implementation
Long-Term Severe Winter Storm #9	Encourage harvesting of trees that are blown down during a winter storm.	Emergency Management	Planning and Public Works, cities, utilities, FEMA, ODFW, DSL, BLM, ODOT, timber industries	On-going					✓	✓	
Short-Term Windstorm #1	Develop and implement programs to keep trees from threatening lives, property and public infrastructure during windstorm events.	Public Works and Community Development	GIS, cities, USFS, BLM, State Parks, utility providers	2 years		✓	✓	✓	✓	✓	✓
Short-Term Windstorm #2	Develop and implement or enhance strategies for debris management and/or removal after windstorm events.	Emergency Management	Public Works, ODOT, cities, regional recycling facilities	2 years		✓		✓	✓	✓	✓
Short-Term Windstorm #3	Maintain tree trimming for above-ground power lines.	Public Works	Emergency Management, overhead utilities, cities	On-going		✓		✓	✓	✓	✓
Long-Term Windstorm #1	Map and publicize locations around Yamhill County with the highest incidence of extreme windstorms.	Emergency Management	Planning, GIS, FEMA, NCDC, OCS, NWS	5 years					✓	✓	

Natural Hazard	Action Item	Coordinating Organization	Partner Organizations	Timeline	Action Item Notes	Plan Goals Addressed					
						Emergency Operations	Education and Outreach	Partnerships	Preventive	Natural Resources Utilization	Implementation
Long-Term Windstorm #2	Support/encourage electrical utilities to use underground construction methods where possible to reduce power outages from windstorms.	Public Works	GIS, Emergency Management, utility companies	On-going					✓	✓	
Long-Term Windstorm #3	Increase public awareness of windstorm mitigation activities.	Emergency Management	Planning, utilities, cities, FEMA	On-going		✓	✓		✓	✓	
Long-Term Windstorm #4	Support/encourage contractors, homeowners and electrical utilities to use windstorm resistant construction methods where possible to reduce damage and power outages from windstorms.	Building Department	Planning Department, cities, utilities	5 years			✓		✓		
Long-Term Windstorm #5	Develop and implement programs to keep trees from threatening lives, property and public infrastructure during windstorm events.	Public Works	Planning, utilities, cities	On-going					✓	✓	

Natural Hazard	Action Item	Coordinating Organization	Partner Organizations	Timeline	Action Item Notes	Plan Goals Addressed					
						Emergency Operations	Education and Outreach	Partnerships	Preventive	Natural Resources Utilization	Implementation
Long-Term Windstorm #6	Identify trees that are potentially susceptible to wind throw.	Planning Department	Emergency Management, GIS, cities, overhead utilities	On-going					✓	✓	
Long-Term Windstorm #7	Encourage critical facilities to secure emergency power.	Emergency Management	Community Development, cities, neighboring counties, Yamhill Fire Defense Board, police stations, water systems	On-going		✓		✓		✓	✓
Long-Term Windstorm #8	Encourage harvesting of trees along utility and road corridors, preventing potential windstorm damage.	Emergency Management	Planning, Public Works, cities, utilities, FEMA, USFS, ODFW, DSL, BLM, ODOT, forest products industries	On-going					✓	✓	
Long-Term Windstorm #9	Encourage harvesting of trees that are blown down during a windstorm	Emergency Management	Planning, Public Works, cities, utilities, FEMA, USFS, ODFW, DSL, BLM, ODOT, forest products industries	On-going					✓	✓	

Natural Hazard	Action Item	Coordinating Organization	Partner Organizations	Timeline	Action Item Notes	Plan Goals Addressed					
						Emergency Operations	Education and Outreach	Partnerships	Preventive	Natural Resources Utilization	Implementation
Long-Term Windstorm #10	Increase and maintain public awareness of severe windstorms and the benefits of mitigation activities through education aimed at households and businesses; increase targeting of special needs populations.	Emergency Management	Community Development, utilities, cities, American Red Cross, St. Vincent DePaul, Churches, ARES, Yamhill Fire Defense Board	On-going			✓	✓	✓		
Short-Term Drought #1	Support the technical services provided by county-based agencies on effective methods of water use curtailment.	Yamhill SWCD, Yamhill Basin Council, OSU Extension Service	Planning, Emergency Management, NRCS, WRD, water systems	2 years; on-going			✓	✓	✓	✓	✓
Short-Term Drought #2	Encourage local governments to inter-tie water systems.	Yamhill County, MWVCOG	Planning, Public Works, McMinnville Water & Light, Valley View Water Company, cities and rural communities; OECDD, Rural Development (funding sources), WRD, ODFW, PUC, NRCS, Yamhill SWCD, BLM	2 years; on-going				✓	✓		✓

Natural Hazard	Action Item	Coordinating Organization	Partner Organizations	Timeline	Action Item Notes	Plan Goals Addressed					
						Emergency Operations	Education and Outreach	Partnerships	Preventive	Natural Resources Utilization	Implementation
Long-Term Drought #1	Support local agencies' training on water conservation measures to farmers and ranchers, including drought management practices for crops and livestock.	Yamhill SWCD	Planning, OSU Extension Service, NRCS, Yamhill Basin Council, Farm Bureau, ODA, WRD, ODFW	1 to 2 years; on-going			✓	✓	✓	✓	✓
Long-Term Drought #2	Support the technical service and low-interest loans provided to farmers and ranchers so that they can develop livestock watering systems.	Yamhill SWCD	ODA, WRD, OECDD, DEQ, ODFW, NRCS, OSU Extension Service	On-going	Livestock water systems provide additional options for farmers and ranchers to provide drinking water, and can sometimes also improve riparian habitat. 3 types of systems: 1) controlled access (to a river or stream); 2) gravity flow; and 3) pressure systems run by pumps sometimes powered by wind or solar electricity.		✓		✓		✓

Natural Hazard	Action Item	Coordinating Organization	Partner Organizations	Timeline	Action Item Notes	Plan Goals Addressed					
						Emergency Operations	Education and Outreach	Partnerships	Preventive	Natural Resources Utilization	Implementation
Long-Term Drought #3	Encourage storage of water, especially off-stream storage.	Public Works	GIS, Planning, OSU Extension Service, Yamhill Basin Council, NRCS, Yamhill SWCD, ODA, WRD, DSL, ODFW, DEQ	On-going				✓	✓	✓	✓
Long-Term Drought #4	Support agencies' determination of locations for additional aquifer studies that might lead to greater water supplies and help determine funding sources for the studies.	Public Works	Planning and GIS, Yamhill SWCD, WRD, ODA, DEQ, ODFW, OECDD, DOGAMI, DLCD	3 to 5 years	Studying alternative sources may reveal under-utilized water resources and other information useful to water managers.			✓		✓	
Short-Term Earthquake #1	Integrate new earthquake hazard mapping data for Yamhill County and improve technical analysis of earthquake hazards.	GIS	Public Works, Planning, Emergency Management, OSU, USGS, BLM, MWVCOG, OEM, FEMA, DOGAMI	2 years			✓	✓	✓	✓	

Natural Hazard	Action Item	Coordinating Organization	Partner Organizations	Timeline	Action Item Notes	Plan Goals Addressed					
						Emergency Operations	Education and Outreach	Partnerships	Preventive	Natural Resources Utilization	Implementation
Short-Term Earthquake #2	Encourage reduction of nonstructural and structural earthquake hazards in homes, schools, businesses and government offices.	Emergency Management	Building and Planning, city building officials, school districts, builders' associations, IBHS, Red Cross, DOGAMI, IISOI, OSSPAC, Yamhill Fire Defense Board, FEMA, OEM	1 to 2 years; on-going		✓			✓	✓	✓
Short-Term Earthquake #3	Encourage purchase of earthquake hazard insurance by forming partnerships with the insurance and real estate industries.	Emergency Management	IISOI through local insurance agencies, mortgage companies, Insurance and real estate industries, DOGAMI	On-going			✓		✓	✓	
Short-Term Earthquake #4	Maintain an inventory of all permitted dams in Yamhill County	Emergency Management	Watermasters, Yamhill Basin Council, WRD, McMinnville Power & Light	1 to 5 years			✓		✓	✓	
Short-Term Earthquake #5	Identify funding sources for and implement high priority structural and nonstructural retrofits of structures that are identified as seismically vulnerable.	Emergency Management	County Building, Planning and Assessor; IISOI; OSSPAC; Local Banks; Credit Unions; SBA; Rural Development (USDA); OECD; FEMA; OEM	1 to 2 years	Lack of capital to upgrade structures is a major reason why many public and privately owned buildings and bridges are not retrofitted to stricter seismic standards.		✓	✓			✓

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						Emergency Operations	Education and Outreach	Partnerships	Preventive	Natural Resources Utilization	Implementation
Long-Term Earthquake #1	Promote and continue building code standards.	Building Department	Planning, city planning departments, builders, developers, property owners	On-going			✓		✓	✓	
Long-Term Earthquake #2	Encourage seismic strength evaluations of critical facilities to identify vulnerabilities and to meet current seismic standards.	Emergency Management	Planning, Building, city planning departments, water service providers, OAWU, school districts, hospitals, ODOT, colleges and universities, dam/reservoir owners/managers, architects, Willamette ESD, Oregon Building Codes Division, WRD	On-going		✓	✓	✓	✓		✓
Long-Term Earthquake #3	Identify and enhance water, sewer, electric, gas and other utilities to improve their survivability in an earthquake.	Emergency Management	Planning, Building and Public Works; city planning departments; utilities	On-going			✓	✓	✓	✓	
Long-Term Earthquake #4	Encourage earthquake safety promotion and drills to community groups	Emergency Management	Planning, city planning departments, school districts, community organizations, Housing Authority	On-going		✓	✓	✓	✓	✓	

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						Emergency Operations	Education and Outreach	Partnerships	Preventive	Natural Resources Utilization	Implementation
Long-Term Earthquake #5	Improve local capabilities to perform earthquake building safety evaluations.	Emergency Management	Building Department, FEMA, OEM, Oregon Building Codes Division, IISOI	On-going					✓		✓

