

Appendix D: Action Item Worksheets

Drought # 1

Proposed Action Item:		Alignment with Plan Goals:	
Partner with Marion County to support local agencies' training on water conservation measures.		<i>Goal 1: Public Awareness</i> <i>Goal 2: Education</i> <i>Goal 3: Preventative</i> <i>Goal 5: Partnerships and Coordination</i>	
Rationale for Proposed Action Item:			
Droughts often affect entire regions, and partnering with Marion County's existing efforts on water conservation provides a unified approach to conserving water at a regional rather than a local level.			
Ideas for Implementation:			
Develop water conservation informational brochures in partnership with Marion County Public Works.			
Disseminate water conservation brochures through water bills, the Woodburn website, local cable TV, and at the planning and public works counters, and local schools.			
Bilingual information can be disseminated using city staff that serve as liaisons to the Hispanic community. Bilingual organizations that can disseminate information to Hispanics include Nuevo Amanecer, the Salud Medical Center, and the radio station La Pantera.			
Coordinating Organization:		Woodburn Public Works	
Internal Partners:		External Partners:	
Code Enforcement, Community Development		Homeowners Associations, Downtown Association, School district, Nuevo Amanecer, Marion County Public Works, Salud Medical Center	
Timeline:		If available, estimated cost:	
<u>Short Term</u> (0-2 years)	<u>Long Term</u> (2-4 or more years)		
<u>Ongoing</u>			
Form Submitted by:		Woodburn Steering Committee	

Earthquake # 1

Proposed Action Item:		Alignment with Plan Goals:	
Encourage reduction of nonstructural and structural earthquake hazards in homes, schools, businesses, and government offices through public education.		Goal 1: Public Awareness Goal 2: Education Goal 3: Preventative	
Rationale for Proposed Action Item:			
<p>Seismic hazards pose a real and serious threat to many communities in Oregon, requiring local governments, planners, and engineers to consider their community’s safety. Earthquake damage occurs because we have built structures that cannot withstand severe shaking. Buildings, ports, and lifelines (highways, telephone lines, gas, water, etc.) suffer damage in earthquakes. Damage and loss of life can be very severe if structures are not designed to withstand shaking, are on ground that amplifies shaking, or ground which liquefies due to shaking.¹</p> <p>Nonstructural retrofits protect building contents with little cost and effort. Examples of retrofits include:</p> <ul style="list-style-type: none"> • Securing water heaters, large appliances, bookcases, pictures and bulletin boards; • Latching cabinet doors; and • Using safety film on windows. <p>The Disaster Mitigation Act of 2000 requires communities to identify mitigation actions that address new and existing buildings and infrastructure [201.6(c)(3)(ii)]. Encouraging reduction of nonstructural and structural earthquake hazards will prevent damage to existing buildings and infrastructure.</p>			
Ideas for Implementation:			
<p>Develop informational brochures about individual mitigation opportunities and post on the city’s website, include in the water bill, and make available on the front counters at the police and public works departments. Include recommendations regarding non-structural retrofits in these brochures. Other opportunities to disseminate information include advertising on Woodburn transit or putting information on the local cable station.</p> <p>Implement non-structural retrofit of City Hall offices and/or work spaces.</p> <p>Distribute a “Homeowner’s Guide to Non-Structural Retrofit” (or something similar) found here: http://www.seattle.gov/DPD/cms/groups/pan/@pan/@emergprep/documents/web_informational/dpds_005877.pdf</p>			
Coordinating Organization:		Woodburn Public Works	
Internal Partners:		External Partners:	
Building Official (Community Development),		Building supply/home improvement businesses, School District, cable station, Chamber of Commerce, Marion County	
Timeline:		If available, estimated cost:	
<u>Short Term</u> (0-2 years)	<u>Long Term</u> (2-4 or more years)		
<u>ongoing</u>			
Form Submitted by:		Woodburn Steering Committee	

¹ State of Oregon Enhanced Natural Hazards Mitigation Plan, Earthquake Chapter.

Earthquake #2

Proposed Action Item:		Alignment with Plan Goals:	
Complete inventory of high-risk buildings, critical facilities, and infrastructure that may be particularly vulnerable to earthquake damage.		Goal 3: Preventative	
Rationale for Proposed Action Item:			
<p>Woodburn has many unreinforced masonry buildings, especially in the historic downtown area, and older homes that may be vulnerable to earthquakes. Prominent historic buildings include the old City Hall, the Library, and the Settlemeir House. The Woodburn Steering Committee also believes there are fragile water lines downtown that may disrupt water distribution to residents. Communication systems, transportation corridors, and business/industrial centers may also be vulnerable to seismic activity. Completing an inventory of high-risk buildings, critical facilities, and infrastructure will help to identify vulnerable systems and to prioritize new projects.</p> <p>The Disaster Mitigation Act of 2000 requires communities to identify mitigation actions that address new and existing buildings and infrastructure [201.6(c)(3)(ii)]. Completing an inventory of high-risk buildings, critical facilities, and infrastructure is the first step to identifying vulnerable resources in the community and potential mitigation strategies.</p>			
Ideas for Implementation:			
<p>Develop a map of buildings over a certain age as a first step to developing an inventory.</p> <p>Assess buildings visually to determine earthquake vulnerability. Consider using the methodology developed by the Department of Geologic and Mineral Industries (DOGAMI) to conduct rapid visual assessments of buildings.</p> <p>Seek funding for buildings considered a high risk of collapse. Use FEMA’s procedures document for developing scopes of work for seismic structural & non-structural retrofit projects.</p> <p>If a building is in the urban renewal area, make UR funding available for retrofit and use it as an incentive for property owners.</p>			
Coordinating Organization:		Community Development	
Internal Partners:		External Partners:	
Public Works, Fire		Landlord associations, Downtown Association, Historical Society, School Districts, Chemeketa (Resource center), FEMA, DOGAMI	
Timeline:		If available, estimated cost:	
Short Term (0-2 years)	Long Term (2-4 or more years)		
	2 years		
Form Submitted by:		Woodburn Steering Committee	

Earthquake #3

Proposed Action Item:		Alignment with Plan Goals:	
Evaluate the structural integrity of city-owned buildings.		<i>Goal 3: Preventative</i>	
Rationale for Proposed Action Item:			
<p>The city of Woodburn owns approximately 8-10 buildings and has several rental properties. Evaluating the structural integrity of city-owned buildings will help to identify seismic issues and can inform new mitigation strategies to seismically retrofit buildings.</p> <p>City owned-buildings and facilities should be resilient to natural hazards to ensure continuous service during and after disasters. After Hurricane Katrina, the Harrison County, Alabama Recovery Plan noted the following: "It is important that critical facilities function during and after disasters. Local units of government want to insure continuous service by strengthening essential facilities such as fire stations, city halls, shelters, and police stations."² Evaluating the structural integrity of city-owned buildings can identify seismic issues and will help in developing mitigation strategies to prevent future damage to life and property and maintain continuous city services.</p> <p>The Disaster Mitigation Act of 2000 requires communities to identify mitigation actions that address new and existing buildings and infrastructure [201.6(c)(3)(ii)]. Evaluating the structural integrity of existing city-owned buildings will assist in developing appropriate earthquake mitigation strategies for these buildings.</p>			
Ideas for Implementation:			
<p>Identify structural evaluation as a project that should be included in the Woodburn Capital Improvements Plan.</p> <p>Use the inventory developed in earthquake action item # 2 to identify buildings to assess.</p> <p>Seek funding for buildings considered a high risk of collapse. Use FEMA's procedures document for developing scopes of work for seismic structural & non-structural retrofit projects.</p> <p>If a building is in the urban renewal area, make UR funding available for retrofit and use it as an incentive for property owners.</p>			
Coordinating Organization:		Public Works	
Internal Partners:		External Partners:	
Building official, all city departments and their occupants.		FEMA, DOGAMI	
Timeline:		If available, estimated cost:	
Short Term (0-2 years)	Long Term (2-4 or more years)		
	Ongoing		
Form Submitted by:		Woodburn Steering Committee	

² Source: Harrison County Community Recovery Plan. August 2006. FEMA ESF-14 in support of the state of Mississippi. p. 61.

Earthquake # 4

Proposed Action Item:		Alignment with Plan Goals:	
Require new city facilities to exceed the minimum structural requirements for seismic loading.		Goal 3: Preventative	
Rationale for Proposed Action Item:			
<p>City owned-buildings and facilities should be resilient to natural hazards to ensure continuous service during and after disasters. After Hurricane Katrina, the Harrison County, Alabama Recovery Plan noted the following: "It is important that critical facilities function during and after disasters. Local units of government want to insure continuous service by strengthening essential facilities such as fire stations, city halls, shelters, and police stations."³ By requiring new city facilities to exceed the minimum structural requirements for seismic loading, the city of Woodburn will be more resilient to earthquake events.</p> <p>The Disaster Mitigation Act of 2000 requires communities to identify mitigation actions that address new buildings and infrastructure [201.6(c)(3)(ii)]. Requiring new city facilities to exceed the minimum structural requirements for seismic loading can significantly reduce the city's vulnerability to earthquakes and prevent future damage to life and property.</p>			
Ideas for Implementation:			
Consult with Federal Emergency Management Agency (FEMA) and Oregon Emergency Management (OEM) to determine strategies for exceeding the minimum structural requirements for seismic loading.			
Coordinating Organization:		Public Works	
Internal Partners:		External Partners:	
Community Development		FEMA, OEM, DOGAMI	
Timeline:		If available, estimated cost:	
<u>Short Term</u> (0-2 years)	<u>Long Term</u> (2-4 or more years)		
<u>2 years</u>			
Form Submitted by:		Woodburn Steering Committee	

³ Source: Harrison County Community Recovery Plan. August 2006. FEMA ESF-14 in support of the state of Mississippi. p. 61.

Earthquake # 5

Proposed Action Item:		Alignment with Plan Goals:	
Seek funding to further assess the “probability of collapse” for Lincoln Elementary, Washington Elementary, Nellie Muir Elementary, French Prairie, and Woodburn High School, and William P. Lord High School.		Goal 3: Preventative Goal 4: Funding and Implementation Goal 7: Emergency Services	
Rationale for Proposed Action Item:			
<p>In 2007, the Department of Geology and Mineral Industries (DOGAMI) conducted a seismic needs assessment for public school buildings, acute inpatient care facilities, fire stations, police stations, sheriffs’ offices, and other law enforcement agency buildings.⁴ Buildings were ranked for their “probability of collapse” due to the maximum possible earthquake for any given area. Woodburn schools noted in the report include: Lincoln Elementary and Washington Elementary Schools (Very High); French Prairie Middle School and Nellie Muir Elementary (High); William P Lord High School and Woodburn High School (Moderate). All these schools house hundreds of children during the day and several schools can serve as emergency shelters. Verifying a school’s “probability of collapse” will help to develop mitigation strategies that can prevent injuries and strengthen buildings that serve as community shelters.</p> <p>The Disaster Mitigation Act of 2000 requires communities to identify mitigation actions that address new and existing buildings and infrastructure [201.6(c)(3)(ii)]. Further assessing the probability of collapse will help to address the vulnerability of existing school buildings.</p>			
Ideas for Implementation:			
<p>Develop a bond measure to conduct structural integrity assessments. Contract with an engineer to assess and produce a report for each of the buildings.</p> <p>Publicize and improve awareness of the earthquake risk using existing education and outreach efforts.</p> <p>Use FEMA’s procedures document for developing scopes of work for seismic structural and non-structural retrofit projects.</p>			
Coordinating Organization:		Woodburn School District	
Internal Partners:		External Partners:	
Public Works, Community Development		OEM, DOGAMI, Marion County Building	
Timeline:		If available, estimated cost:	
Short Term (0-2 years)	Long Term (2-4 or more years)		
	3-5 years		
Form Submitted by:		Woodburn Steering Committee	

⁴ McConnell, Vicki S. Department of Geology and Mineral Industries. *Statewide Seismic Needs Assessment: Implementation of Oregon 2005 Senate Bill 2 Relating to Public Safety, Earthquakes, and Seismic Rehabilitation of Public Buildings.* 2007. <http://www.oregongeology.com/sub/projects/rvs/OFR-007-02-SNAA-onscreen.pdf>.

Earthquake # 6

Proposed Action Item:		Alignment with Plan Goals:	
Update comprehensive plan to reflect the latest information on seismic hazards.		<i>Goal 3: Preventative</i> <i>Goal 5: Partnerships and Coordination</i> <i>Goal 6: Natural Resources Utilization</i>	
Rationale for Proposed Action Item:			
<p>Woodburn’s Comprehensive Plan provides the legal framework and long-term vision for implementing plans and land use regulations. Regarding natural hazards, the Comprehensive Plan includes policies that regulate development in the floodplain, but it does not include any information on earthquake hazards. Updating the plan to reflect the latest seismic hazard information will provide a policy framework for addressing the earthquake hazard.</p> <p>Statewide Planning Goal 2 (Land Use Planning) requires local governments to create comprehensive plans that “shall include identification of issues and problems, inventories, and other factual information for each applicable statewide planning goal...” Furthermore, Goal 7 of Oregon’s Land Use Planning Goals requires that local governments "shall adopt comprehensive plans (inventories, policies, and implementing measures) to reduce risk to people and property from natural hazards." Updating Woodburn’s Comprehensive Plan to address new seismic information will meet Oregon’s statewide land use planning goal requirements.</p> <p>The Risk Assessment section of this mitigation plan estimates Woodburn has a high probability of an earthquake recurring and a high vulnerability to earthquakes. The vulnerabilities identified by the Woodburn Steering Committee include potential damage to school buildings, historic and unreinforced masonry buildings, and critical infrastructure such as roads and water pipelines. Updating the comprehensive plan to reflect this new information will establish a policy framework for addressing these issues.</p>			
Ideas for Implementation:			
<p>Review latest vulnerability assessment information and policies that address seismic hazards. Information can be obtained from the risk assessment portion of this mitigation plan and from the Oregon Department of Geology and Mineral Industries (DOGAMI).</p> <p>Incorporate new seismic information during the period review of the Woodburn Comprehensive Plan.</p>			
Coordinating Organization:		Community Development	
Internal Partners:		External Partners:	
Public Works		DOGAMI, FEMA, OEM	
Timeline:		If available, estimated cost:	
<u>Short Term</u> (0-2 years)	<u>Long Term</u> (2-4 or more years)		
<u>2 years</u>			
Form Submitted by:		Woodburn Steering Committee	

Earthquake # 7

Proposed Action Item:		Alignment with Plan Goals:	
Encourage residents and commercial businesses to purchase earthquake insurance.		<i>Goal 1: Public Awareness</i> <i>Goal 2: Education</i> <i>Goal 3: Preventative</i> <i>Goal 4: Funding and Implementation</i>	
Rationale for Proposed Action Item:			
<p>Earthquake insurance can minimize the overall monetary damage to property caused by an earthquake. By encouraging homeowners, commercial businesses, and the city government to purchase earthquake insurance, the monetary impact of an earthquake can be significantly reduced.</p> <p>The Disaster Mitigation Act of 2000 requires communities to identify mitigation actions that address new and existing buildings and infrastructure [201.6(c)(3)(ii)]. Encouraging residents and commercial businesses to purchase earthquake insurance can reduce the monetary impact to earthquake damage on new and existing buildings.</p>			
Ideas for Implementation:			
<p>Provide earthquake insurance information to Woodburn residents and to the Chamber of Commerce.</p> <p>Coordinate with insurance companies and organizations such as the Insurance Information Service of Oregon and Idaho (IISOI) to produce and distribute earthquake insurance information.</p> <p>Make contacts with insurance industry representatives to keep current about their requirements, rates, and plans.</p> <p>Work with real estate industry representatives to educate them about what types of structures are resistant to earthquakes.</p> <p>Include information on the city's website.</p>			
Coordinating Organization:		Community Development	
Internal Partners:		External Partners:	
Public Works		Insurance Companies, Woodburn Chamber of Commerce	
Timeline:		If available, estimated cost:	
Short Term (0-2 years)	Long Term (2-4 or more years)		
	ongoing		
Form Submitted by:		Woodburn Steering Committee	

Earthquake # 8

Proposed Action Item:		Alignment with Plan Goals:	
Install automatic shut-off valves in all city facilities that use natural gas.		<i>Goal 3: Preventative</i>	
Rationale for Proposed Action Item:			
<p>The city of Woodburn uses natural gas in many of its facilities and does not have automatic shut-off valves in these facilities. Installing automatic shut-off valves can prevent natural gas leaks if a gas line is broken in an earthquake, reducing the risk of damage to life and property.</p> <p>The Risk Assessment section of this mitigation plan estimates Woodburn has a high probability of an earthquake recurring. The most recent earthquake that impacted Woodburn is the March 1993 Scotts Mills earthquake which damaged unreinforced masonry buildings, caused chemical spills when chemical products fell off store shelves and mixed together, and damaged the second story of Washington Elementary School. Another earthquake could cause similar damage to natural gas lines. Automatic shut-off valves could prevent future damage to buildings caused by natural gas leaks.</p> <p>The Disaster Mitigation Act of 2000 requires communities to identify mitigation actions that address new and existing buildings and infrastructure [201.6(c)(3)(ii)]. Installing automatic shut-off valves in all city facilities that use natural gas can prevent damage to existing buildings and infrastructure by reducing the likelihood of a gas leak.</p>			
Ideas for Implementation:			
<p>Inventory all natural gas lines in city-owned facilities.</p> <p>Identify manufacturers of automatic natural gas shut-off valves and investigate whether they are appropriate technologies for the city of Woodburn.</p> <p>Use FEMA's procedures document for developing scopes of work for seismic structural and non-structural retrofit projects.</p>			
Coordinating Organization:		Public Works	
Internal Partners:		External Partners:	
Community Development-Building Division		FEMA, OEM	
Timeline:		If available, estimated cost:	
<u>Short Term</u> (0-2 years)	<u>Long Term</u> (2-4 or more years)		
2 years			
Form Submitted by:	Woodburn Steering Committee		

Flood #1

Proposed Action Item:		Alignment with Plan Goals:	
Widen culverts near Wiffle Park and Gatch Street between Lincoln Street and Hardcastle Avenue.		<i>Goal 3: Preventative</i> <i>Goal 5: Partnerships and Coordination</i>	
Rationale for Proposed Action Item:			
<p>The Woodburn Steering Committee identified the culverts near Wiffle Park and Gatch Street, between Lincoln Street and Hardcastle Avenue, as being too small, which in heavy downpours can lead to localized flooding. In addition, yard debris can back up into the culverts further exacerbating flooding problems. Widening the culverts can significantly reduce the localized flooding hazard.</p> <p>The Disaster Mitigation Act of 2000 requires communities to identify mitigation actions that address new and existing buildings and infrastructure [201.6(c)(3)(ii)]. Widening the culverts between Lincoln Street and Hardcastle Avenue will improve the local infrastructure and reduce the impact of flooding on surrounding properties and infrastructure.</p>			
Ideas for Implementation:			
<p>Coordinate implementation of the action item with the Woodburn Public Facilities Plan guidelines.</p> <p>Seek funding from FEMA and Oregon Emergency Management to assist in widening culverts.</p>			
Coordinating Organization:		Public Works	
Internal Partners:		External Partners:	
Community Services, Community Development		Corps of Engineers, FEMA, OEM	
Timeline:		If available, estimated cost:	
Short Term (0-2 years)	Long Term (2-4 or more years)		
	Ongoing		
Form Submitted by:		Woodburn Steering Committee	

Flood #2

Proposed Action Item:		Alignment with Plan Goals:	
Implement mitigation action items in the Public Facilities Plan.		<i>Goal 5: Partnerships and Coordination</i>	
Rationale for Proposed Action Item:			
<p>The Woodburn Public Facilities Plan identifies major infrastructure projects necessary to serve the year 2020 projected population of 34,9191 and examines the effect on utility and transportation infrastructure resulting from 2005 expansion of the Urban Growth Boundary (UGB) of the City of Woodburn. The Public Facilities Plan also includes projects aimed at reducing the flood hazard in the city (see pages 29-30). Implementing projects in the Public Facilities Plan will further reduce the impact of floods on community.</p> <p>The Disaster Mitigation Act of 2000 requires communities to identify mitigation actions that address new and existing buildings and infrastructure [201.6(c)(3)(ii)]. Implementing projects in the Public Facilities Plan will prevent floods from damaging existing buildings and infrastructure.</p>			
Ideas for Implementation:			
<p>Coordinate steering committee efforts for implementing the Woodburn Natural Hazards Mitigation Plan with efforts to implement projects in the Public Facilities Plan.</p> <p>Incorporate new action items relating to floods in the city's Capital Improvement Plan</p>			
Coordinating Organization:		Public Works	
Internal Partners:		External Partners:	
Community Services, Community Development			
Timeline:		If available, estimated cost:	
Short Term (0-2 years)	Long Term (2-4 or more years)		
	ongoing		
Form Submitted by:		Woodburn Steering Committee	

Flood #3

Proposed Action Item:		Alignment with Plan Goals:	
Partner with the county to conduct workshops for target audiences on National Flood Insurance Programs, mitigation activities, and potential assistance from FEMA's Flood Mitigation Assistance and Hazard Mitigation Grant Programs.		Goal 1: Public Awareness Goal 2: Education Goal 3: Funding and Implementation Goal 5: Partnerships and Coordination	
Rationale for Proposed Action Item:			
<p>The National Flood Insurance Program (NFIP), Flood Mitigation Assistance (FMA) Program, and Hazard Mitigation Grant Program (HMGP) provide financial assistance to property owners for reducing the impact of floods. The NFIP provides flood insurance to property owners, and the FMA and HMGP provide funding for flood mitigation projects. Partnering with Marion County to conduct workshops for target audiences on these programs will provide a coordinated county-wide effort to raise awareness of the flood hazard, and educate the public on mitigation strategies that will reduce the impact of floods. Partnering with Marion County can also reduce the cost involved in hosting these workshops.</p> <p>The city of Woodburn has 48 flood insurance policy holders and has experienced 3 property losses due to flooding. The claims for these three property losses totaled \$14,780. Furthermore, the city of Woodburn has a high probability of flood recurring and a moderate vulnerability to floods. Conducting workshops together with Marion County on the NFIP, FMA, and HMGP programs can further reduce property losses due to flooding in Woodburn and reduce the city's vulnerability.</p>			
Ideas for Implementation:			
<p>Have the Woodburn City Council promote this effort publicly.</p> <p>Bilingual information can be disseminated using city staff that serve as liaisons to the Hispanic community. Bilingual organizations that can disseminate information to Hispanics include Nuevo Amanecer, the Salud Medical Center, and the radio station La Pantera.</p> <p>Press releases into the paper can inform residents, property owners, and businesses.</p> <p>Include information about the financial aspects of building (and rebuilding) in the floodplain;</p> <p>Include information on using low-impact development standards on private property;</p> <p>Present information on how other communities have addressed building in the floodplain.</p> <p>Selected target audiences can include: realtors, lending institutions, surveyors, engineers, and government agencies.</p>			
Coordinating Organization:		City Administrator	
Internal Partners:		External Partners:	
IT Department, Community Development		Woodburn Independent, CERT Team, FEMA, Nuevo Amanecer, Salud Medical Center, La Pantera, OEM, Marion County	
Timeline:		If available, estimated cost:	
Short Term (0-2 years)	Long Term (2-4 or more years)		
	2 year		
Form Submitted by:		Woodburn Steering Committee	

Flood #4

Proposed Action Item:		Alignment with Plan Goals:	
Continue compliance with the National Flood Insurance Program (NFIP) through the enforcement of local floodplain ordinances.		Goal 3: Preventative Goal 5: Partnerships and Coordination Goal 6: Natural Resources Utilization	
Rationale for Proposed Action Item:			
<p>The National Flood Insurance Program provides communities with federally backed flood insurance to homeowners, renters, and business owners, provided that communities develop and enforce adequate floodplain management ordinances. The benefits of adopting NFIP standards for communities are a reduced level of flood damage in the community and stronger buildings that can withstand floods. According to the NFIP, buildings constructed in compliance with NFIP building standards suffer approximately 80 percent less damage annually than those not built in compliance.</p> <p>The Disaster Mitigation Act of 2000 requires communities to identify mitigation actions that address new and existing buildings and infrastructure [201.6(c)(3)(ii)]. Continued participation in the NFIP will help reduce the level of flood damage to new and existing buildings in communities while providing homeowners, renters and business owners additional flood insurance protection.</p>			
Ideas for Implementation:			
<ul style="list-style-type: none"> • Community Assistance Visits (CAV) are scheduled visits to communities participating in the NFIP for the purpose of: 1) conducting a comprehensive assessment of the community's floodplain management program; 2) assisting the community and its staff in understanding the NFIP and its requirements; and 3) assisting the community in implementing effective flood loss reduction measures when program deficiencies or violations are discovered. Actively participate with DLCD and FEMA during Community Assistance Visits. • Conduct an assessment of the floodplain ordinances to ensure they reflect current flood hazards and situations, and meet NFIP requirements. • Coordinate with the county to ensure that floodplain ordinances and NFIP regulations are maintained and enforced. Continue to assess the need for updated ordinances. • Mitigate areas that are prone to flooding and/or have the potential to flood. 			
Coordinating Organization:		Community Development	
Internal Partners:		External Partners:	
Public Works		FEMA, DLCD, Marion County Planning Department	
Timeline:		If available, estimated cost:	
<u>Short Term</u> (0-2 years)	<u>Long Term</u> (2-4 or more years)		
	<u>Ongoing</u>		
Form Submitted by:		Woodburn Steering Committee	

Flood #5

Proposed Action Item:		Alignment with Plan Goals:	
Update the city's Flood Insurance Rate Maps (FIRM) as funding becomes available.		Goal 3: Preventative Goal 5: Partnerships and Coordination Goal 6: Natural Resources Utilization	
Rationale for Proposed Action Item:			
<p>The city of Woodburn has Flood Insurance Rate Maps (FIRM) effective as of January 2003. While these FIRM maps are accurate, the city continues to grow into their Urban Growth Boundary into areas that have not been sufficiently mapped. Updating the FIRM when funding becomes available will help to understand the flood vulnerability to areas that have not yet been mapped.</p> <p>The Disaster Mitigation Act of 2000 requires communities to identify mitigation actions that address new and buildings and infrastructure [201.6(c)(3)(ii)]. Updating Woodburn's FIRM will help to reduce the impact of floods on new buildings and infrastructure in areas that have not been mapped or yet developed.</p>			
Ideas for Implementation:			
<p>Coordinate with FEMA to identify areas that need to be mapped as the city grows into the urban growth boundary (UGB).</p> <p>Seek funding from FEMA to update Woodburn's FIRMs. If there are areas that need to be revised for the flood map, complete the MT-2 Forms Package (Application Forms for Conditional Letters of Map Revision and Letters of Map Revision). The forms and instructions are designed to assist requesters (community officials or individuals via community officials) in gathering the data that the FEMA needs to determine whether the effective NFIP map and Flood Insurance Study report for a community should be revised.</p>			
Coordinating Organization:		Public Works	
Internal Partners:		External Partners:	
Community Development		FEMA, Corps of Engineers OEM	
Timeline:		If available, estimated cost:	
<u>Short Term</u> (0-2 years)	<u>Long Term</u> (2-4 or more years)		
	<u>3 years</u>		
Form Submitted by:		Woodburn Steering Committee	

Volcano #1

Proposed Action Item:		Alignment with Plan Goals:	
Identify critical facilities and equipment that can be damaged by ashfall, and develop mitigation activities to prevent damage to these facilities.		<i>Goal 3: Preventative</i> <i>Goal 7: Emergency Services</i>	
Rationale for Proposed Action Item:			
<p>Due to Woodburn’s distance from volcanoes, the city is unlikely to experience the immediate effects that eruptions have on surrounding areas (i.e., mud and debris flows, or lahars). Depending on wind patterns, however, the city may experience ashfall. The eruption of Mount St. Helens in 1980, for example, coated the Willamette Valley with a fine layer of ash.</p> <p>Tephra is a public health threat, and can damage agriculture and transportation systems (i.e., aircraft and on-the-ground vehicles). Tephra can also clog drainage systems and create major debris management problems. Within Woodburn, public health would be a primary concern, and keeping transportation routes open/accessible would be important as well.</p> <p>The Disaster Mitigation Act of 2000 requires communities to identify mitigation actions that address new and buildings and infrastructure [201.6(c)(3)(ii)]. Identifying critical facilities and equipment that can be damaged by ashfall and developing mitigation activities will reduce the impact of the volcanic hazard.</p>			
Ideas for Implementation:			
<p>Collaborate and exchange experiences and knowledge among facility managers of critical industries in the county to reduce the impact of ashfall on their sites (from the Marion County NHMP)</p> <p>Review and upgrade existing Building Codes to address potential damage to structures from earthquake and volcanic eruption.</p> <p>Evaluate capability of water treatment plant to deal with high turbidity from ashfall and upgrade treatment facility as necessary.</p> <p>Coordinate mitigation efforts with the response plan.</p> <p>Develop and inventory of filters for equipment.</p>			
Coordinating Organization:		Public Works-Facilities Maintenance	
Internal Partners:		External Partners:	
All city department		Marion County Emergency Management, SEDCOR, Major Industries, DOGAMI, USFS, USGS-CVO	
Timeline:		If available, estimated cost:	
<u>Short Term</u> (0-2 years)	<u>Long Term</u> (2-4 or more years)		
2 years			
Form Submitted by:		Woodburn Steering Committee	

Windstorm #1

Proposed Action Item:		Alignment with Plan Goals:	
Educate the public about the benefits of proper tree pruning and care in preventing damage during windstorms.		<i>Goal 1: Public Awareness</i> <i>Goal 2: Education</i> <i>Goal 3: Preventative</i>	
Rationale for Proposed Action Item:			
<p>High winds can topple trees and break limbs which in turn can result in power outages and disrupt telephone, computer, and TV and radio service. Street trees in downtown Woodburn are particularly vulnerable to damaging utilities and property. Educating property owners about how to properly prune their trees to prevent power outages and damage to their property can help reduce impacts of windstorm events.</p> <p>Woodburn has experienced severe wind storm events in the past and is vulnerable to windstorm events. A major windstorm that occurred in March 2008 caused approximately \$15,000 in damage. Furthermore, the wind storm risk assessment notes that Woodburn’s probability of a windstorm recurring is high and the city’s vulnerability to windstorm events is also high. Educating the public about the benefits of proper tree pruning and care will help to reduce the city’s vulnerability to windstorm events.</p> <p>The Disaster Mitigation Act of 2000 requires communities to identify mitigation actions that address existing buildings and infrastructure [201.6(c)(3)(ii)]. Educating the public about the benefits of proper tree pruning and care will prevent damage to existing buildings and infrastructure such as power lines.</p>			
Ideas for Implementation:			
<p>Coordinate efforts with Woodburn’s urban forest program</p> <p>Post information regarding tree pruning on the website city’s website</p> <p>Do a public service announcement in the paper</p> <p>Include videos on the web on how to properly prune your trees and care for them to prevent damage to property</p> <p>Partner with La Pantera, a Hispanic radio station in Woodburn, to disseminate information to the Hispanic population in Woodburn.</p> <p>Partner with businesses such as Al’s Gardening to help educate people about pruning and proper tree care.</p>			
Coordinating Organization:		Public Works	
Internal Partners:		External Partners:	
Community Development, Information Technology		Homeowners association, landlords, School District, local media, Al’s Gardening	
Timeline:		If available, estimated cost:	
<u>Short Term</u> (0-2 years)	<u>Long Term</u> (2-4 or more years)		
2 years			
Form Submitted by:	Woodburn Steering Committee		

Windstorm #2

Proposed Action Item:		Alignment with Plan Goals:	
Educate the community about the risk of downed power lines, aerial power lines in the vicinity of trees, and preparedness measures to take in the event of a power outage.		Goal 1: Public Awareness Goal 2: Education Goal 3: Preventative	
Rationale for Proposed Action Item:			
<p>High winds can topple trees and break limbs which in turn can result in downed power lines and power outages. Street trees in downtown Woodburn are particularly vulnerable to damaging aerial power lines, putting community members at risk. Damaging windstorms that cause extended power outages can also disrupt businesses and critical facilities such as hospitals and care centers. Educating the community about the risk of downed power lines and preparedness measures community members can take in the event of a power outage will reduce the impact of power outages on the community.</p> <p>Woodburn has experienced severe wind storm events in the past and is vulnerable to windstorm events. A major windstorm that occurred in March 2008 caused approximately \$15,000 in damage. Furthermore, the wind storm risk assessment notes that Woodburn's probability of a windstorm recurring is high and the city's vulnerability to windstorm events is also high. Given these high probability and vulnerability ratings, Woodburn is also susceptible to experiencing downed power lines and extended power outages. Educating the community about the risk of downed power lines and developing appropriate preparedness measures for power outages will raise awareness about the risks of downed power lines and reduce the community's overall vulnerability to power outages.</p> <p>The city has vulnerable youth and elderly populations, many of whom are especially vulnerable to power outages and lack backup sources of heat and water.</p>			
Ideas for Implementation:			
<p>Use existing brochures and public outreach activities to disseminate information to community members. These include brochures available to the public in the Community Development Department.</p> <p>Post information on the city's website about the risk of downed power lines and preparedness measures that community members can take in the event of a power outage.</p> <p>Bilingual information can be disseminated using city staff that serve as liaisons to the Hispanic community. Bilingual organizations that can disseminate information to Hispanics include Nuevo Amanecer, the Salud Medical Center, and the radio station La Pantera.</p>			
Coordinating Organization:		Public Works	
Internal Partners:		External Partners:	
Community Development		PGE, FEMA	
Timeline:		If available, estimated cost:	
<u>Short Term</u> (0-2 years)	<u>Long Term</u> (2-4 or more years)		
2 years			
Form Submitted by:		Woodburn Steering Committee	

Windstorm # 3

Proposed Action Item:		Alignment with Plan Goals:	
Require new city facilities to exceed the minimum structural requirements for wind loading.		<i>Goal 3: Preventative</i>	
Rationale for Proposed Action Item:			
<p>Woodburn has experienced severe wind storm events in the past and is vulnerable to windstorm events. A major windstorm that occurred in March 2008 caused approximately \$15,000 in damage. Furthermore, the wind storm risk assessment notes that Woodburn’s probability of a windstorm recurring is high and the city’s vulnerability to windstorm events is also high. Requiring new city facilities to exceed the minimum structural requirements for wind loading will increase the ability of city facilities to withstand hazard events and reduce the city’s vulnerability.</p> <p>The Disaster Mitigation Act of 2000 requires communities to identify mitigation actions that address new and existing buildings and infrastructure [201.6(c)(3)(ii)]. Requiring new city facilities to exceed the minimum structural requirements for wind loading will reduce the vulnerability of new city facilities to windstorms.</p>			
Ideas for Implementation:			
<p>Review the existing minimal structural requirements for wind loading on all city facilities and develop measures to increase the minimum structural requirements for wind loading.</p> <p>Coordinate efforts with Woodburn Community Development Department-Building Division to assess structural requirements for wind loading.</p> <p>Consult with the Federal Emergency Management Agency or Oregon Emergency Management to develop strategies for increasing the minimum structural requirements for wind loading.</p>			
Coordinating Organization:		Public Works	
Internal Partners:		External Partners:	
Community Development-Building Division		FEMA, OEM	
Timeline:		If available, estimated cost:	
<u>Short Term</u> (0-2 years)	<u>Long Term</u> (2-4 or more years)		
	3 years		
Form Submitted by:		Woodburn Steering Committee	

Severe Winter Storm #1

Proposed Action Item:		Alignment with Plan Goals:	
Educate homeowners about choosing ice and windstorm-resistant trees and landscaping practices to reduce tree-related hazards in future ice storms.		<i>Goal 1: Awareness</i> <i>Goal 2: Education</i> <i>Goal 3: Preventative</i>	
Rationale for Proposed Action Item:			
<p>The Woodburn risk assessment for severe winter storms notes that Woodburn has a high probability and high vulnerability to winter storm events. The most recent major winter storms occurred in January/February 2008 and in December 2008/January 2009. During both winter storms, the governor declared a state of emergency in Marion County and in surrounding counties. Trees are especially vulnerable to ice storms because ice buildup can cause tree limbs to break, downing power lines and blocking roadways. Educating homeowners about choosing ice and windstorm resistant trees, and implementing landscaping practices that reduce tree-related hazards in future ice storms, can reduce the likelihood of damage to trees in a severe winter storm event.</p> <p>The Disaster Mitigation Act of 2000 requires communities to identify mitigation actions that address new and existing buildings and infrastructure [201.6(c)(3)(ii)]. Educating homeowners about choosing ice and windstorm resistant trees and landscaping practices can reduce tree-related hazards to buildings and infrastructure.</p>			
Ideas for Implementation:			
<p>Use existing brochures and public outreach activities to disseminate information to community members. These include providing brochures at the Community Development Department.</p> <p>Post information on the city’s website about ice and windstorm resistant trees and landscaping practices.</p> <p>Post a public service announcement in the local paper.</p> <p>Partner with businesses such as Al’s Gardening to help educate people about ice and windstorm resistant trees and landscaping practices.</p> <p>Bilingual information can be disseminated using city staff that serve as liaisons to the Hispanic community. Bilingual organizations that can disseminate information to Hispanics include Nuevo Amanecer, the Salud Medical Center, and the radio station La Pantera.</p>			
Coordinating Organization:		Public Works	
Internal Partners:		External Partners:	
Community Development-Planning Division		Al’s Gardening, local media organizations, FEMA, OEM	
Timeline:		If available, estimated cost:	
Short Term (0-2 years)	Long Term (2-4 or more years)		
2 years			
Form Submitted by:		Woodburn Steering Committee	

Severe Winter Storm #2

Proposed Action Item:		Alignment with Plan Goals:	
Educate citizens about ways to weatherize their homes, as well as safe emergency heating equipment.		Goal 1: Public Awareness Goal 2: Education Goal 3: Preventative	
Rationale for Proposed Action Item:			
<p>The Woodburn risk assessment for severe winter storms notes that Woodburn has a high probability and high vulnerability to winter storm events. The most recent major winter storms occurred in January/February 2008 and in December 2008/January 2009. During both winter storms, the governor declared a state of emergency in Marion County and in surrounding counties. Severe winter storms can bring extreme cold, snow, and ice, causing power outages and breaks in uninsulated water lines. Power outages can lead to heat loss, potentially harming citizens. Educating citizens about ways to weatherize their homes, as well as safe emergency heating equipment, can reduce the effects of extreme cold and inform residents of how to heat their homes in the event of a power outage.</p> <p>The Disaster Mitigation Act of 2000 requires communities to identify mitigation actions that address new and existing buildings and infrastructure [201.6(c)(3)(ii)]. Educating citizens about ways to weatherize their homes, as well as safe emergency heating equipment will improve the safety of community members but also protect existing buildings from damage due to severe winter storms.</p> <p>Woodburn has vulnerable youth and elderly populations, many of whom are especially vulnerable to power outages and lack backup sources of heat and water. Educating these citizens about ways to weatherize their homes and safe emergency heating equipment they can use will reduce the vulnerability of these populations.</p>			
Ideas for Implementation:			
<p>Coordinate efforts with home improvement businesses to educate citizens about weatherizing homes and providing safe emergency heating equipment.</p> <p>Coordinate education efforts with Northwest Natural gas to education citizens about weatherization.</p> <p>Coordinate with the Woodburn Fire District to develop a list of emergency heating information.</p> <p>Advertize weatherization tax credits to serve as an incentive for people to weatherize their homes and reduce their heating bills.</p>			
Coordinating Organization:		Public Works	
Internal Partners:		External Partners:	
Woodburn Fire District, Community Development-Planning Division		Chamber of Commerce, local building supply, lumber businesses, Oregon Department of Energy, Civic Groups, Chemeketa, Northwest Natural Gas	
Timeline:		If available, estimated cost:	
Short Term (0-2 years)	Long Term (2-4 or more years)		
	3 years		
Form Submitted by:		Woodburn Steering Committee	

Multi-Hazard #1

Proposed Action Item:		Alignment with Plan Goals:	
Develop a voluntary registry of populations that may need particular assistance in an emergency situation.		<i>Goal 1: Preventative</i> <i>Goal 7: Emergency Services</i>	
Rationale for Proposed Action Item:			
<p>Woodburn has a large population of senior citizens, the very young, and Hispanics, all of which may need special assistance in an emergency situation or require additional outreach efforts. Developing a voluntary registry of populations that may need particular assistance in an emergency will help in outreach and mitigation efforts for a variety of natural hazards. Furthermore, a registry would assist in communications between emergency responders.</p> <p>Woodburn is vulnerable to a number of natural hazards. According to Woodburn’s risk assessment, the city has a high probability and vulnerability rating to wind storms and winter storms; a high probability and moderate vulnerability to flood; and a high probability to the earthquake hazard. Developing a voluntary registry of vulnerable populations can help to mitigate the impacts of these hazards on these populations and provide assistance in responding to these hazards.</p>			
Ideas for Implementation:			
<p>Use teletend, a telephone service for the elderly, to develop an initial registry of elderly populations who are in need.</p> <p>Work with churches, schools, and Nuevo Amanecer, a Hispanic housing development, to identify people who should be on the registry.</p> <p>Use the registry information to develop a map of vulnerable populations and where they are located.</p>			
Coordinating Organization:		Community Services	
Internal Partners:		External Partners:	
Community Development-Planning Division, Fire District, Police Department		Churches, Emergency Services, NORCOM, Chemeketa Community College	
Timeline:		If available, estimated cost:	
<u>Short Term</u> (0-2 years)	<u>Long Term</u> (2-4 or more years)		
<u>2 years</u>			
Form Submitted by:		Woodburn Steering Committee	

Multi-Hazard #2

Proposed Action Item:		Alignment with Plan Goals:	
Further develop risk assessment maps to show areas at risk for all hazards.		<i>Goal 3: Preventative</i> <i>Goal 6: Natural Resources Utilization</i>	
Rationale for Proposed Action Item:			
<p>Developing risk assessment maps that show areas at risk for all hazards can improve land use planning efforts in the city of Woodburn and can prevent future damage to property caused by natural hazard events. Woodburn is growing into vacant farmland within the urban growth boundary and these areas have not been adequately mapped, especially for floods. Earthquake data also shows that Woodburn is vulnerable to earthquake events. Developing risk assessment maps to show areas at risk for hazards will prevent damage to buildings and infrastructure in these areas.</p> <p>The Disaster Mitigation Act of 2000 requires communities to identify mitigation actions that address new buildings and infrastructure [201.6(c)(3)(ii)]. Developing risk assessment maps showing the hazard risk for all hazards can reduce the impact to new buildings and infrastructure.</p>			
Ideas for Implementation:			
Coordinate with the Department of Geologic and Mineral Industries (DOGAMI), the Federal Emergency Management Agency (FEMA), and Oregon Emergency Management (OEM) to develop risk assessment maps.			
Coordinating Organization:		Woodburn Public Works-Information Technology	
Internal Partners:		External Partners:	
Community Development-Planning Division, GIS		DOGAMI, FEMA, OEM	
Timeline:		If available, estimated cost:	
<u>Short Term</u> (0-2 years)	<u>Long Term</u> (2-4 or more years)		
	4 years		
Form Submitted by:		Woodburn Steering Committee	

Multi-Hazard #3

Proposed Action Item:		Alignment with Plan Goals:	
Establish mutual aid agreements between government agencies and commercial businesses in the event of an emergency (e.g., fuel, heavy equipment, food, etc.)		<i>Goal 5: Partnerships and Coordination</i>	
Rationale for Proposed Action Item:			
<p>Mutual aid agreements and assistance agreements are agreements between agencies, organizations, and jurisdictions that provide a mechanism to quickly obtain emergency assistance in the form of personnel, equipment, materials, and other associated services. The primary objective is to facilitate rapid, short-term deployment of emergency support prior to, during, and after an incident. (Source: FEMA NIMS Resource Center)</p> <p>Developing formal agreements with internal and external partners could assist the partners in collaborating and sharing the responsibility of natural hazard mitigation. Such actions to form collaborative partnerships and commitments to mitigation can assist the city in reducing its risk to the natural hazards addressed by the NHMP.</p>			
Ideas for Implementation:			
<p>Develop a continuity of operations plan for city functions. Identify opportunities for mutual-aid where needed.</p> <p>Develop formal agreements (such as Memorandums of Understanding, MOUs) with internal (departments) and external partners (e.g. non-profit organizations, cities, and state agencies) to work together on risk reduction efforts in the County.</p>			
Coordinating Organization:		Woodburn Public Works	
Internal Partners:		External Partners:	
Woodburn Administration, Woodburn Police, Fire District		Cities of Salem, Keizer, Silverton, Canby, Regional grocery providers (ie. Winco)	
Timeline:		If available, estimated cost:	
<u>Short Term</u> (0-2 years)	<u>Long Term</u> (2-4 or more years)		
	3 years		
Form Submitted by:		Woodburn Steering Committee	

Multi-Hazard #4

Proposed Action Item:		Alignment with Plan Goals:	
Encourage citizens to prepare and maintain 72-hour kits.		Goal 1: Public Awareness Goal 2: Education Goal 3: Preventative	
Rationale for Proposed Action Item:			
<p>Woodburn is vulnerable to a number of natural hazards that could disrupt services. According to Woodburn’s risk assessment, the city has a high probability and vulnerability rating to wind storms and winter storms; a high probability and moderate vulnerability to flood; and a high probability to the earthquake hazard. In a major disaster, utilities transportation networks, and businesses could be disrupted, and it may take days until vital services are restored. Preparing a 72 hour kit can help community members survive on their own without relying too heavily on emergency services.</p> <p>The Disaster Mitigation Act of 2000 requires that communities continue to involve the public beyond the original planning process [201.6(c)(4)(ii)]. Developing public education programs for hazard risk mitigation and preparedness would be a way to keep the public informed of, and involved in, the city’s actions to mitigate and prepare for hazards.</p>			
Ideas for Implementation:			
<p>Provide educational material and examples of how to assemble 72 hour kits to residents of the city and employees. Outreach and awareness campaigns need to be carefully organized and developed to ensure that residents receive critical information. Distribute information through the city’s newsletter, which is sent out every 2 months with water bills. Alternatively, post information about 72 hour kits on the city’s website.</p> <p>Information on preparing 72 hour kits can be found at www.72hours.org</p>			
Coordinating Organization:		Woodburn Fire District	
Internal Partners:		External Partners:	
Police Department, Community Development-Planning Division		FEMA, OEM	
Timeline:		If available, estimated cost:	
<u>Short Term</u> (0-2 years)	<u>Long Term</u> (2-4 or more years)		
<u>1 year</u>			
Form Submitted by:		Woodburn Steering Committee	

Multi Hazard # 5

Proposed Action Item:		Alignment with Plan Goals:	
Provide periodic first-aid and CPR classes to members of the public.		<i>Goal 1: Public Awareness</i> <i>Goal 2: Education</i> <i>Goal 3: Preventative</i>	
Rationale for Proposed Action Item:			
The Disaster Mitigation Act of 2000 requires that communities continue to involve the public beyond the original planning process [201.6(c)(4)(ii)]. Providing periodic first-aid and CPR classes to members of the public will continually engage the public in the importance of emergency management in the community.			
Ideas for Implementation:			
Organize regular workshops for first-aid classes and CPR classes to teach the public basic skills.			
Coordinate training efforts with Community Emergency Response Team (CERT) program to avoid duplication.			
Include information about hazard mitigation, preparedness, response, and recovery to teach a holistic understanding of emergency management and describe how they are interconnected.			
Consult with FEMA and Oregon Emergency Management (OEM) for training materials			
Coordinating Organization:		Fire District/Police Department	
Internal Partners:		External Partners:	
Community Development-Planning, Public Works		FEMA, OEM, Marion County, Red Cross	
Timeline:		If available, estimated cost:	
Short Term (0-2 years)	Long Term (2-4 or more years)		
2 years			
Form Submitted by:		Woodburn Steering Committee	

Multi-Hazard #6

Proposed Action Item:		Alignment with Plan Goals:
Develop a post-disaster redevelopment plan.		<i>Goal 7: Emergency Services</i>
Rationale for Proposed Action Item:		
<p>Achieving sustainability, which, in a disaster-related context, means the ability to survive future natural disasters with minimum loss of life and property, is the overarching goal of planning for post-disaster reconstruction. (Source: FEMA, “Policies for Guiding Planning for Post-Disaster Recovery and Reconstruction”)</p> <p>Public decisions taken in the heat of the emergency period immediately following a disaster often compromise significant opportunities to rebuild a safer community for the future. The pressure exerted by residents and property owners to have their disaster-stricken community rebuilt to its pre-disaster form and condition as quickly as possible remains a powerful factor in local, state, and federal emergency management to this day. There are ways to restrain such pressures and maintain mitigation and other post-disaster goals as high priorities during the process of long-term reconstruction even as the ashes, the rubble, and the water are receding or being cleared away. The secret lies in identifying in advance those decisions that will need to be made after a disaster that are most likely to have long-term repercussions for hazard mitigation. (Source: FEMA, “Policies for Guiding Planning for Post-Disaster Recovery and Reconstruction”)</p> <p>Pre-disaster and post-disaster mitigation should be two parts of a seamless whole in a sound plan for post-disaster recovery and reconstruction. The only difference, although it is often a major difference, is one of scale, of accelerating the pace with which existing mitigation plans are implemented, as a result of the influx of outside assistance. What is important about planning for post-disaster hazard mitigation is that the additional resources that facilitate local hazard mitigation in the aftermath of a disaster do not materialize by accident. Local governments manage to secure such resources in large part because they have planned to do so. (Source: FEMA, “Policies for Guiding Planning for Post-Disaster Recovery and Reconstruction”)</p>		
Ideas for Implementation:		
<p>Utilize the city’s natural hazards mitigation plan as a starting point for developing a long-term post-disaster recovery plan. Both plans should work from the same information, mission, and goals.</p> <p>Designate a recovery management team that is empowered to monitor the process and implement the community’s post-disaster recovery policies. This team should also serve as the post-disaster recovery planning team, and can/should include persons involved in pre-disaster mitigation planning efforts. Involve a wide range of stakeholders and community leaders/volunteers. Discuss post-disaster recovery planning at future mitigation plan meetings, including the 5-year update that’s scheduled to occur in conjunction with Marion County.</p> <p>Seek funding sources and/or outside assistance to help facilitate this process and the development of a post-disaster recovery plan.</p>		
Coordinating Organization:	Woodburn Natural Hazard Mitigation Steering Committee	
Internal Partners:	External Partners:	
Public Works, Community Development-Planning, Police Department, Fire District	FEMA, Oregon Emergency Management, Oregon Partnership for Disaster Resilience	
Timeline:	If available, estimated cost:	
<u>Short Term</u> (0-2 years)	<u>Long Term</u> (2-4 or more years)	
	<u>Ongoing</u>	

Form Submitted by:	Woodburn Steering Committee
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Multi-Hazard #7

Proposed Action Item:		Alignment with Plan Goals:	
Continue development of CERT teams to ease the load on emergency services following a disaster.		<i>Goal 5: Partnerships and Coordination</i> <i>Goal 7: Emergency Services</i>	
Rationale for Proposed Action Item:			
<p>The Community Emergency Response Team (CERT) Program educates people about disaster preparedness for hazards that may impact their area and trains them in basic disaster response skills, such as fire safety, light search and rescue, team organization, and disaster medical operations. Using the training learned in the classroom and during exercises, CERT members can assist others in their neighborhood or workplace following an event when professional responders are not immediately available to help. CERT members also are encouraged to support emergency response agencies by taking a more active role in emergency preparedness projects in their community. (Source: CERT website, http://www.citizencorps.gov/cert/). Woodburn has an active CERT program and further developing CERT teams can significantly ease the burden on emergency responders.</p> <p>Continuing the development of CERT teams, and coordinating these efforts with other mitigation, preparedness, and response efforts can lead to a more holistic emergency management approach that will make Woodburn more resilient to natural hazards.</p>			
Ideas for Implementation:			
<p>Seek funding to continue the development of CERT teams.</p> <p>Continue to distribute information about CERT through the city website, and post public announcements in newspapers.</p> <p>Conduct outreach efforts to Hispanics to encourage more bilingual CERT members. Bilingual information can be disseminated using city staff that serve as liaisons to the Hispanic community. Bilingual organizations that can disseminate information to Hispanics include Nuevo Amanecer, the Salud Medical Center, and the radio station La Pantera.</p>			
Coordinating Organization:		Woodburn Police Department	
Internal Partners:		External Partners:	
Woodburn Fire District, Community Development-Planning Division		FEMA, OEM, CERT Program,	
Timeline:		If available, estimated cost:	
<u>Short Term</u> (0-2 years)	<u>Long Term</u> (2-4 or more years)		
<u>2 years</u>			
Form Submitted by:		Woodburn Steering Committee	

Multi-Hazard #8

Proposed Action Item:		Alignment with Plan Goals:	
Develop and equip emergency shelters to take care of residents and vulnerable populations such as the elderly, the very young, and visitors.		<i>Goal 3: Preventative</i> <i>Goal 7: Emergency Services</i>	
Rationale for Proposed Action Item:			
<p>In the event of a natural hazard emergency, residents as well as vulnerable populations, such as the very young, the elderly, and tourists, may need to seek shelter. The elderly, the very young, and tourists that visit the city are particularly vulnerable because they may require special accommodations. Developing and equipping emergency shelters for these populations are important to accommodate the broad range of populations found in Woodburn.</p> <p>Woodburn is vulnerable to a number of natural hazards. According to Woodburn’s risk assessment, the city has a high probability and vulnerability rating to wind storms and winter storms; a high probability and moderate vulnerability to flood; and a high probability to the earthquake hazard. Any of these natural hazard events could prompt residents and visitors to seek emergency shelter. Appropriately equipping emergency shelters for these populations is important to accommodate Woodburn’s broad range of population.</p>			
Ideas for Implementation:			
<p>Develop a list of emergency shelter needs for residents and vulnerable populations. Identify emergency shelters in the city and inventory the existing equipment and supplies in each shelter. Pre-position supplies at each City-owned public shelter, either within the structure or in a shipping container.</p> <p>To ensure a reliable power supply, provide an emergency generator and fuel tank at each public shelter.</p> <p>Coordinate efforts with the Red Cross.</p>			
Coordinating Organization:		Woodburn Police Department	
Internal Partners:		External Partners:	
Woodburn Fire District, Administrative, Public Works, Community Development-Planning		Woodburn School District, Chemeketa Community College, Oregon Emergency Management, FEMA, Red Cross	
Timeline:		If available, estimated cost:	
Short Term (0-2 years)	Long Term (2-4 or more years)		
	4 years		
Form Submitted by:		Woodburn Steering Committee	

Multi Hazard #9

Proposed Action Item:		Alignment with Plan Goals:	
Educate businesses and governmental organizations about the importance of continuity of operations plans to make them more resilient to natural hazards.		<i>Goal 3: Preventative</i> <i>Goal 5: Partnerships and Coordination</i>	
Rationale for Proposed Action Item:			
<p>Woodburn is vulnerable to a number of natural hazards that could affect the administration and management of local government and of local businesses. According to Woodburn’s risk assessment, the city has a high probability and vulnerability rating to wind storms and winter storms; a high probability and moderate vulnerability to flood; and a high probability to the earthquake hazard. Any of these natural hazard events could disrupt business and government activity. Educating businesses and governmental organizations about the importance of continuity of operations plans will encourage their development and assist in making local governments and businesses more disaster resilient.</p> <p>Research conducted by Richard Wilson has shown that staff turnover is likely to occur after a disaster. Veteran staff is critical after a disaster. It is important to prevent turnover so that existing personnel do not have to take on extra responsibilities during an already stressful time. Continuity planning can also help lessen turnover by ensuring competitive salaries and benefits and by reducing the amount of stress staff will have to endure.</p> <p>The Disaster Mitigation Act of 2000 requires communities to develop actions that reduce the impact of a natural hazard [201.6(c)(3)(ii)]. Educating businesses and governmental organizations about the importance of continuity of operations plans can encourage the development of plans and make businesses and governmental organizations more resilient to natural hazards.</p>			
Ideas for Implementation:			
<p>Host an Open for Business training workshop, developed by the Institute for Business and Home Safety (IBHS), to educate businesses on the importance of continuity of operations plans and how to develop a plan for their business.</p> <p>For governmental organizations, research and review completed continuity of operations plans to provide a foundation of expected content and issues to review.</p> <p>The COOP should ensure shelter housing for critical staff and family members such as city officials, public works employees, emergency response, and others.</p> <p>Assess and prioritize critical positions and resources vital to the continuance of important city functions.</p> <p>Incorporate COOP into the existing Emergency Operations Plans where applicable.</p>			
Coordinating Organization:		Woodburn Police Department/Chamber of Commerce	
Internal Partners:		External Partners:	
All city departments		IBHS, OEM, Marion County, FEMA	
Timeline:		If available, estimated cost:	
Short Term (0-2 years)	Long Term (2-4 or more years)		
	3 years		
Form Submitted by:		Woodburn Steering Committee	

Multi Hazard #10

Proposed Action Item:		Alignment with Plan Goals:	
Establish a template that documents the information FEMA wants on each hazard event.		<i>Goal 7: Emergency Services</i>	
Rationale for Proposed Action Item:			
<p>In the event of a natural disaster, FEMA requires that a Preliminary Damage Assessment (PDA) be conducted to determine the impact and magnitude of damage. The PDA summarizes resulting needs of individuals, businesses, public sector, and the community as a whole. The PDA is considered, along with several other factors, in determining whether a disaster is of a sufficient magnitude that the response is beyond the capabilities of the State and of the local governments, and that Federal assistance is necessary. The PDA is also used as a basis for a State governor's request for a major disaster or emergency declaration. (Source: "Preliminary Damage Assessments, www.fema.gov). Establishing a template that documents the information FEMA wants on each hazard event will assist in developing PDA's and guiding city officials as to what they should be measuring. Furthermore, a template will provide easy access to information regarding declared disaster events and ensure that the information recorded is consistent.</p>			
Ideas for Implementation:			
<p>Coordinate development of a template with different city departments including Police, Fire, and Public Works.</p> <p>Consult with Oregon Emergency Management and FEMA to determine whether the template meets the community's and FEMA's needs.</p>			
Coordinating Organization:		Community Development-Planning	
Internal Partners:		External Partners:	
Police, Fire, Public Works, Community Development-Planning		OEM, FEMA	
Timeline:		If available, estimated cost:	
<u>Short Term</u> (0-2 years)	<u>Long Term</u> (2-4 or more years)		
1 year			
Form Submitted by:		Woodburn Steering Committee	

Multi-Hazard #11

Proposed Action Item:		Alignment with Plan Goals:	
Obtain and use FEMA HAZUS-MH software.		<i>Goal 7: Emergency Services</i>	
Rationale for Proposed Action Item:			
<p>HAZUS-MH is a powerful risk assessment methodology for analyzing potential losses from floods, hurricane winds and earthquakes. In HAZUS-MH, current scientific and engineering knowledge is coupled with the latest geographic information systems (GIS) technology to produce estimates of hazard-related damage before, or after, a disaster occurs. Federal, State, and local government agencies can order HAZUS software free of charge from FEMA (Source: “HAZUS,” www.fema.gov). Using the HAZUS software can help to understand Woodburn’s vulnerability to floods and earthquakes and develop appropriate mitigation measures for the city. HAZUS-MH can also help to focus response and recovery efforts in the community as well.</p> <p>The Disaster Mitigation Act of 2000 requires communities to develop actions that reduce the impact of a natural hazard [201.6(c)(3)(ii)]. Obtaining and using FEMA HAZUS software will help to understand Woodburn’s vulnerability to floods and earthquakes and develop additional mitigation actions.</p>			
Ideas for Implementation:			
<p>Order the HAZUS-MH software free of charge from the FEMA Publication Warehouse. Information can be found here: http://www.fema.gov/plan/prevent/hazus/index.shtm. Federal, State, and local government agencies and the private sector can order this information.</p> <p>Consult with the Department of Geology and Mineral Industries (DOGAMI) who has used HAZUS-MH software for several counties and cities across Oregon.</p> <p>Use the results from the HAZUS software to update Woodburn’s vulnerability assessment and develop appropriate mitigation actions as needed.</p>			
Coordinating Organization:		Public Works	
Internal Partners:		External Partners:	
Police, Fire, Community Development		OEM, FEMA, DOGAMI, Marion County	
Timeline:		If available, estimated cost:	
<u>Short Term</u> (0-2 years)	<u>Long Term</u> (2-4 or more years)		
	<u>2 years</u>		
Form Submitted by:		Woodburn Steering Committee	

Multi Hazard #12

Proposed Action Item:		Alignment with Plan Goals:	
Identify necessary warning system improvements.		<i>Goal 7: Emergency Services</i>	
Rationale for Proposed Action Item:			
<p>The Woodburn Steering Committee identified the need to improve warning systems in the city. These warning systems are necessary to let residents know of impending natural disasters or other emergency situations. Improving Woodburn’s warning systems should involve identifying the current warning systems, identifying areas where needs are not being met, and developing strategies for improving those systems or addressing those needs. Warning system evaluations should be conducted by the Police Department together with other departments to identify needs.</p>			
Ideas for Implementation:			
<p>Conduct an evaluation of the warning system to determine needs that are not being met.</p> <p>Consult with all city departments and with the county to develop recommendations for improvements.</p> <p>Coordinate the Woodburn warning system with Marion County’s warning systems and with NORCOM.</p> <p>Conduct public outreach efforts to make the public aware of warning systems in the community.</p>			
Coordinating Organization:		Police Department	
Internal Partners:		External Partners:	
Woodburn Fire Distric, Public Works		NORCOM, OEM, FEMA	
Timeline:		If available, estimated cost:	
<u>Short Term</u> (0-2 years)	<u>Long Term</u> (2-4 or more years)		
<u>2 years</u>			
Form Submitted by:		Woodburn Steering Committee	

Multi hazard #13

Proposed Action Item:		Alignment with Plan Goals:	
Improve communication equipment in City Hall and in city vehicles, and identify additional radio operators to serve as communication backup in an emergency.		Goal 7: Emergency Services	
Rationale for Proposed Action Item:			
<p>The city of Woodburn has identified a number of communication equipment and staff needs to provide effective emergency communication in the city. These needs include the following:</p> <ol style="list-style-type: none"> 1) Provide two-way radios in all city vehicles that do not current have them to provide reliable mobile communications links to the EOC. 2) Provide two-meter and 70 centimeter radio antennas at City Hall to enable amateur radio communications from City Hall and to allow City Hall to function as a backup or auxiliary EOC. 3) Provide a two-way radio at City Hall to secure a reliable communications link to city staff and the EOC and allow City Hall to function as a backup or auxiliary EOC. 4) Identify amateur radio operators who would be willing to provide communications in an emergency to provide a reliable communications link to the EOC or to report local conditions. <p>Implementing these needs will help to improve the communications capabilities of the city and assist in responding to an emergency.</p>			
Ideas for Implementation:			
<p>Seek state and federal funding to purchase radio equipment for city hall.</p> <p>Recruit amateur radio operators through newspaper ads.</p> <p>Coordinate efforts to improve communication services with the city's Emergency Operations Plan, currently being developed.</p> <p>Coordinate communications efforts with the county and other communities to pool resources and avoid duplicating efforts.</p>			
Coordinating Organization:		Police Department	
Internal Partners:		External Partners:	
Fire, Administrative Department, Public Works		NORCOM, OEM, FEMA	
Timeline:		If available, estimated cost:	
<u>Short Term</u> (0-2 years)	<u>Long Term</u> (2-4 or more years)		
<u>2 years</u>			
Form Submitted by:		Woodburn Steering Committee	

Multi Hazard #14

Proposed Action Item:		Alignment with Plan Goals:	
Ensure that all critical facilities have backup power and/or emergency operations plans to deal with power outages.		<i>Goal 7: Emergency Services</i>	
Rationale for Proposed Action Item:			
<p>Woodburn is vulnerable to a number of natural hazards that can cause power outages. According to Woodburn’s risk assessment, the city has a high probability and vulnerability rating to wind storms and winter storms; a high probability and moderate vulnerability to flood; and a high probability to the earthquake hazard. Ensuring that all critical facilities have backup power and/or emergency operations plans to deal with power outages will allow for continuous service.</p> <p>After hurricane Katrina, Harrison County Mississippi noted that "It is important that critical facilities function during and after disasters. Local units of government want to insure continuous service by strengthening essential facilities such as fire stations, city halls, shelters, and police stations. In addition, emergency backup generators should be provided to each critical facility."⁵ Ensuring that all critical facilities have backup power and/or emergency operations plans to deal with power outages will assist residents in recovering from a natural disaster as well as make the process easier.</p> <p>The Disaster Mitigation Act of 2000 requires communities to identify mitigation actions that address new and existing buildings and infrastructure [201.6(c)(3)(ii)]. Ensuring that all critical facilities have backup power and/or emergency operations plans to deal with power outages will help protect existing buildings and infrastructure and allow for continuous service.</p> <p>The Woodburn Steering Committee emphasized the need to replace the aging emergency generator at City Hall. Replacing the generator is necessary to ensure continuous emergency power to the data servers and the facilities located at City Hall.</p>			
Ideas for Implementation:			
<p>Conduct an assessment of critical facilities to determine their priority in an emergency and whether they should have backup generators and/or emergency operations plans.</p> <p>Seek funding from Federal and state resources to obtain generators and to develop emergency operations plans.</p> <p>Coordinate obtaining generators with planning efforts for developing the Woodburn Emergency Operations Plan.</p>			
Coordinating Organization:		Public Works	
Internal Partners:		External Partners:	
All city departments		FEMA, OEM	
Timeline:		If available, estimated cost:	
Short Term (0-2 years)	Long Term (2-4 or more years)		
	4 years		

⁵ Source: Harrison County Community Recovery Plan. August 2006. FEMA ESF-14 in support of the state of Mississippi. p. 61.

Form Submitted by:

Woodburn Steering Committee

Multi Hazard #15

Proposed Action Item:		Alignment with Plan Goals:	
Evaluate the City computer system, network, and website for its ability to function during an emergency.		<i>Goal 7: Emergency Services</i>	
Rationale for Proposed Action Item:			
<p>The city's computer system, network, and website are important for allowing continuous emergency service among city staff. Conducting an evaluation of the city's computer system and its network to determine the system's ability to function during an emergency will help identify computer and network issues that may need to be resolved. Example evaluations could include assessing how the computers and network function under heavy use; whether the city's website, which is an important communication medium, can handle a large number of users; and how the computers and network will function under backup power.</p> <p>After being hit by hurricane Katrina, Harrison County, MS, noted that "It is important that critical facilities function during and after disasters. Local units of government want to insure continuous service by strengthening essential facilities such as fire stations, city halls, shelters, and police stations. In addition, emergency backup generators should be provided to each critical facility."⁶ Evaluating the Woodburn's computer system, network, and website will ensure continuous service at the governmental level and will assist in providing an effective community response.</p>			
Ideas for Implementation:			
<p>Coordinate with all departments to evaluate the city's computer system, network, and website functions under stressful situations.</p> <p>Based on the evaluation, conduct a needs assessment for the city's computer and network systems.</p> <p>Conduct regular evaluations to ensure continuous service.</p>			
Coordinating Organization:		IT	
Internal Partners:		External Partners:	
Public Works, Police, Fire		OEM	
Timeline:		If available, estimated cost:	
<u>Short Term</u> (0-2 years)	<u>Long Term</u> (2-4 or more years)		
2 years			
Form Submitted by:		Woodburn Steering Committee	

⁶ Source: Harrison County Community Recovery Plan. August 2006. FEMA ESF-14 in support of the state of Mississippi. p. 61.

Multi Hazard #16

Proposed Action Item:		Alignment with Plan Goals:	
Identify mitigation projects that could be accomplished by volunteers or interns and involve them in the implementation process.		<i>Goal 4: Funding and Implementation</i>	
Rationale for Proposed Action Item:			
<p>The Woodburn Natural Hazards Mitigation Addendum to the Marion County Natural Hazards Mitigation Plan includes several natural hazards mitigation projects aimed at reducing Woodburn’s vulnerability. Furthermore, city staff have limited time and resources to implement these mitigation projects. Identifying mitigation projects that could be accomplished by volunteers or interns will reduce the workload on city staff and allow for more projects to be implemented. In addition, involving members of the public in mitigation can raise awareness of the importance of mitigation in saving lives and property.</p> <p>The Disaster Mitigation Act of 2000 requires that communities continue to involve the public beyond the original planning process [201.6(c)(4)(ii)]. Identifying mitigation projects that could be accomplished by volunteers or interns and involving them in the implementation process will raise awareness of mitigation among members of the public and help in their implementation.</p>			
Ideas for Implementation:			
<p>Use the external partners listed in each mitigation action item as a starting point for identifying volunteers and interns and/or service organizations that could assist in implementation.</p> <p>Create a volunteer coordinator position or use an existing volunteer coordinator to manage and train volunteers and interns.</p> <p>Develop work plans with tasks and deadlines for each identified action item.</p>			
Coordinating Organization:		Community Development-Planning	
Internal Partners:		External Partners:	
Public Works, Police Department, Fire District, Human Resources		OEM, Marion County, FEMA	
Timeline:		If available, estimated cost:	
Short Term (0-2 years)	Long Term (2-4 or more years)		
1 year			
Form Submitted by:		Woodburn Steering Committee	