

This appendix contains specific City of Sheridan information to support the Yamhill County Multi-Jurisdictional Hazard Mitigation Plan update.

This section supports the City of Sheridan’s planning process by listing Steering Committee membership, documenting public outreach efforts, and summarizing the review and incorporation of existing plans, studies, and reports used to develop this MHMP.

DMA 2000 Requirements: Planning Process

Multi-Jurisdictional Planning Participation

Requirement §201.6(a)(3): Multi-jurisdictional plans (e.g., watershed plans) may be accepted, as appropriate, as long as each jurisdiction has participated in the process ... Statewide plans will not be accepted as multi-jurisdictional plans.

Element

- Does the new or updated plan describe how each jurisdiction participated in the plan’s development?
- Does the updated plan identify all participating jurisdictions, including new, continuing, and the jurisdictions that no longer participate in the plan?

Planning Process

Requirement §201.6(b): An open public involvement process is essential to the development of an effective plan.

Documentation of the Planning Process

Requirement §201.6(b): In order to develop a more comprehensive approach to reducing the effects of natural disasters, the planning process shall include:

Element

- An opportunity for the public to comment on the plan during the drafting stage and prior to plan approval;
- An opportunity for neighboring communities, local and regional agencies involved in hazard mitigation activities, and agencies that have the authority to regulate development, as well as businesses, academia, and other private and nonprofit interests to be involved in the planning process; and
- Review and incorporation, if appropriate, of existing plans, studies, reports, and technical information.

Requirement §201.6(c)(1): [The plan shall document] the planning process used to develop the plan, including how it was prepared, who was involved in the process, and how the public was involved.

Element

- Does the plan provide a narrative description of the process followed to prepare the new or updated plan?
- Does the new or updated plan indicate who was involved in the planning process? (For example, who led the development at the staff level and were there any external contributors such as contractors? Who participated on the plan committee, provided information, reviewed drafts, etc.?)
- Does the new or updated plan indicate how the public was involved? (Was the public provided an opportunity to comment on the plan during the drafting stage and prior to the plan approval?)
- Does the new or updated plan discuss the opportunity for neighboring communities, agencies, businesses, academia, nonprofits, and other interested parties to be involved in the planning process?
- Does the planning process describe the review and incorporation, if appropriate, of existing plans, studies, reports, and technical information?
- Does the updated plan document how the planning team reviewed and analyzed each section of the plan and whether each section was revised as part of the update process?

Source: FEMA, July 2008.

The City of Sheridan is dedicated to mitigating potential natural and technological hazard threats to its population and infrastructure. To fulfill that goal, the City organized a Hazard Mitigation Plan development Steering Committee dedicated to identifying hazard threats and developing actions that can be taken to mitigate damage and life losses from those threats.

Table H-1 contains the City’s Steering Committee participant list to augment the Yamhill County MHMP planning elements.

Table H-1. City of Sheridan Steering Committee	
Name	Agency/Department/Affiliation
Yvonne Hamilton	Deputy City Recorder
Frank Sheridan	City Manager
Lonnie Hinchcliff	Director of Public Works

Table H– 2 contains the summary of the City’s public involvement and planning meeting activities.

Table H-2. City of Sheridan Public Involvement Mechanisms	
Mechanism	Description
April Kickoff Newsletter	Explained plan development process and solicited input and comments.
Website “	We provide info gleaned from FEMA on the web along with some information specific to the area.
Newsletter Distribution	Highlights some specific areas and refers to City website.
Community Meeting	Outreach to various groups within the community.
August 15, 2008 Countywide Public Meeting, 10 a.m., 2 p.m., Yamhill County Public Works Auditorium, McMinnville, OR	Presented draft risk assessment results and provided opportunity to comment.
August 18, 2008 Countywide Public Meeting, 6 p.m., Yamhill County Public Works Auditorium, McMinnville, OR	Presented draft risk assessment results and provided opportunity to comment.

CAPABILITY ASSESSMENT

Table H-3, H-4, and H-5 contain the City’s resources used to support planning activities.

Table H-3. City of Sheridan Legal and Regulatory Resources Available for Hazard Mitigation		
Regulatory Tool	Name	Effect on Hazard Mitigation
Plans	Emergency Operations Plan (2006)	Identifies emergency planning, policies, procedures, and response to extraordinary emergency situations associated with natural disasters, technological incidents, and national security emergencies.
	Comprehensive Plans	Guides governance, development, land-use, and floodplain management
	FEMA Flood Mitigation Plan	2/3 of Sheridan is within the 100 year floodplain. Plan includes ordinances and requirements to carefully evaluate development and restrict floodplain changes.
	Sheridan Area Waste Treatment Management Plan	Sheridan is designate as a Sewerage Works Implementation Agency. This plan delineates responsibility for waste management an essential aspect for ensuring waste is not sited near water sources, minimized environmental impact, and health and safety of community.
	Sheridan Transportation System Plan	Designates arterial, collector, and local street and proposed street to prioritize street development and maintenance.
Programs	National Flood Insurance Program (NFIP)	Makes affordable flood insurance available to homeowners, business owners, and renters in participating communities. In exchange, those communities must adopt and enforce minimum floodplain management regulations to reduce the risk of damage from future floods.
	CRS Community	Has rating of 8-effective floodplain ordinances reduce flood impact and shows community is effectively striving to mitigate flood damages.
Policies (Municipal Codes)	Title 7 Emergency Organization and Functions	Provides for the preparation and carrying out of plans for the protection of persons and property within the County in the event of an emergency. Provides information concerning known hazards
	Title 8.70 Hazardous Materials Releases	Provides procedure for coordination among various agencies in the event of hazardous materials releases. Provides information concerning known hazards
	Development Code	Development Codes in Comp Plan. Regulates building and land-use development within hazard areas.
	Subdivision Ordinances	Establishes regulations and standard for subdividing and land partitioning within the City. Transportation improvements, public facilities and services, energy conservation and recreational standards are specifically addressed during the review procedure for a subdivision plat or partitioning request.
	Zoning Ordinances	Implementation of various community resource policies restricting development within hazard areas

Table H-3. City of Sheridan Legal and Regulatory Resources Available for Hazard Mitigation

Regulatory Tool	Name	Effect on Hazard Mitigation
Policies (Municipal Codes)	Site Design Review	Evaluates commercial and industrial development impact to community resources. Ensures aesthetically pleasing, sited to efficiently use public services, and planning actions to best benefit the community, and ensures sustainability from hazards
	Building Codes	Help to assure safety housing by defining standard for structural strength and standards for fire, safety, plumbing and electrical installation.
	Agency Review and Coordination	Ensures buildings comply with established codes to ensure sustainability from hazards
	Mobile Homes and Mobile Home Parks	Standards and restrictions pertaining to mobile homes and mobile home parks locations. Ensures they are not sited within hazard zones and ensures they resist damages from known hazards.

Table H-4. City of Sheridan Administrative and Technical Resources for Hazard Mitigation	
Staff/Personnel Resources	Department/Division Position
Planner(s) or engineer(s) with knowledge of land development and land management practices	Contract engineer; planner contract - Jim Jenks Mid-Willamette council of Governments
Engineer(s) or professional(s) trained in construction practices related to buildings and/or infrastructure	Yes, Murray Smith and Assoc, PE
Planner(s) or engineer(s) with an understanding of manmade or natural hazards	Yes
Floodplain manager	Jim Jenks (City Planner & Floodplain Manager)
Personnel skilled in GIS and/or HAZUS-MH	No
Director of Emergency Services	Frank Sheridan (City Manager)
Finance (grant writers, purchasing)	Joel Wade (Finance Director) Contract out grant writing
Public Information Officers	Frank Sheridan

Table H-5. City of Sheridan Financial Resources for Hazard Mitigation	
Financial Resources	Effect on Hazard Mitigation
General funds	Limited
Authority to levy taxes for specific purposes	Vote of citizens
Incur debt through general obligation bonds	Up to \$50,000 then a vote of the people
Incur debt through special tax and revenue bonds	Revenue bonds, Enterprise funds for water and sewer, don't think can incur debt through special tax
Incur debt through private activity bonds	Economic Development through the State
Hazard Mitigation Grant Program (HMGP)	FEMA funding which is available to local communities after a Presidentially-declared disaster. It can be used to fund both pre- and post-disaster mitigation plans and projects.
Pre-Disaster Mitigation (PDM) grant program	FEMA funding which available on an annual basis. This grant can only be used to fund pre-disaster mitigation plans and projects only.
Flood Mitigation Assistance (FMA) grant program	FEMA funding which is available on an annual basis. This grant can be used to mitigate repetitively flooded structures and infrastructure to protect repetitive flood structures.
United State Fire Administration (USFA) Grants	The purpose of these grants is to assist state, regional, national or local organizations to address fire prevention and safety. The primary goal is to reach high-risk target groups including children, seniors and firefighters.
Fire Mitigation Fees	Finance future fire protection facilities and fire capital expenditures required because of new development within Special Districts.

HAZARD IDENTIFICATION AND SCREENING

The following section defines hazard identification as stipulated in DMA 2000 and its implementing regulations.

DMA 2000 Requirements: Risk Assessment: Identifying Hazards
Identifying Hazards
Requirement §201.6(c)(2)(i): [The risk assessment shall include a] description of the type of all natural hazards that can affect the jurisdiction.
Element
<ul style="list-style-type: none"> ■ Does the new or updated plan include a description of the types of all natural hazards that affect the jurisdiction?
Source: FEMA, July 2008.

The City of Sheridan’s Steering Committee determined that the following hazards could potentially threaten the community. Those hazards identified with an (*) are newly identified by the county as part of the update process – those identified with an (x) are specific to the City of Sheridan.

<i>Natural Hazards</i>	
Flood	X
Winter Storm	X
Landslide	X
Fire (Wildland/Urban)	X
Earthquake	X
Volcano*	X
Wind	X
Erosion*	
ENSO (El Niño / La Niña)*	
Expansive Soils*	
Drought	X
<i>Technological Hazards</i>	
Dam Failure*	X
Disruption of Utility and Transportation Systems*	X
Hazardous Materials*	X
Terrorism*	
Infectious Disease Epidemic*	

OVERVIEW OF VULNERABILITY ANALYSIS

This section summarizes community specific vulnerability information for the City of Sheridan to augment the MHMP development process. It comprises:

- An identification of the types and numbers of existing vulnerable buildings, infrastructure, and critical facilities and, if possible, the types and numbers of vulnerable future development.
- Estimate of potential dollar losses to vulnerable structures and the methodology used to prepare the estimate.
- Assess each jurisdiction's risks where they vary from the risks facing the entire planning area.

The following defines vulnerability analysis as stipulated in DMA 2000 and its implementing regulations.

DMA 2000 Requirements: Risk Assessment, Assessing Vulnerability, Overview

Assessing Vulnerability: Overview

Requirement §201.6(c)(2)(ii): [The risk assessment shall include a] description of the jurisdiction's vulnerability to the hazards described in paragraph (c)(2)(i) of this section. This description shall include an overall summary of each hazard and its impact on the community.

Element

- Does the new or updated plan include an overall summary description of the jurisdiction's vulnerability to each hazard?
- Does the new or updated plan address the impact of each hazard on the jurisdiction?

Source: FEMA, July 2008.

DMA 2000 Requirements: Risk Assessment, Assessing Vulnerability, Addressing Repetitive Loss Properties

Assessing Vulnerability: Addressing Repetitive Loss Properties

Requirement §201.6(c)(2)(ii): [The risk assessment]must also address National Flood Insurance Program (NFIP) insured structures that have been repetitively damaged by floods.

Element

- Does the new or updated plan describe vulnerability in terms of the types and numbers of repetitive loss properties located in the identified hazard areas?

DMA 2000 Recommendations: Risk Assessment, Assessing Vulnerability, Identifying Structures

Assessing Vulnerability: Identifying Structures

Requirement §201.6(c)(2)(ii)(A): The plan should describe vulnerability in terms of the types and numbers of existing and future buildings, infrastructure, and critical facilities located in the identified hazard area.

Element

- Does the new or updated plan describe vulnerability in terms of the types and numbers of existing buildings, infrastructure, and critical facilities located in the identified hazard areas?
- Does the new or updated plan describe vulnerability in terms of the types and numbers of future buildings, infrastructure, and critical facilities located in the identified hazard areas?

Source: FEMA, July 2008.

The City of Sheridan actively participates in FEMA's National Flood Insurance Program (NFIP) and has implemented floodplain policies, regulations, and ordinances to protect their threatened population and infrastructure to assure NFIP compliance.

The City’s Mitigation Strategy identified and analyzed potential flood mitigation actions that would fulfill NFIP initiatives, specifically addressing repetitive loss (RL) properties to assure an effective flood mitigation program.

DMA 2000 Recommendations: Risk Assessment, Assessing Vulnerability, Estimating Potential Losses

Assessing Vulnerability: Estimating Potential Losses

Requirement §201.6(c)(2)(ii)(B): [The plan should describe vulnerability in terms of an] estimate of the potential dollar losses to vulnerable structures identified in paragraph (c)(2)(i)(A) of this section and a description of the methodology used to prepare the estimate.

Element

- Does the new or updated plan estimate potential dollar losses to vulnerable structures?
- Does the new or updated plan describe the methodology used to prepare the estimate?

Source: FEMA, July 2008.

DMA 2000 Recommendations: Multi-Jurisdictional Risk Assessment

Assessing Vulnerability: Multi-Jurisdictional Risk Assessment

Requirement §201.6(c)(2)(iii): For multi-jurisdictional plans, the risk assessment must assess each jurisdiction's risks where they vary from the risks facing the entire planning area

Element

- Does the new or updated plan include a risk assessment for each participating jurisdiction as needed to reflect unique or varied risks?

Source: FEMA, July 2008.

VULNERABILITY ANALYSIS

Asset Inventory

Asset inventory is the first step of a vulnerability analysis. Assets within the City that may be affected by hazard events include population, residential and nonresidential buildings, critical facilities, and infrastructure.

The asset inventory delineates the City’s existing building and infrastructure assets and insured values and are identified in detail in Tables H-6A, H- 6B, and H-7.

Tables H-8, H-9, and H-10 portray the City’s critical infrastructure numbers and values, and their potential vulnerability by hazard type.

The City of Sheridan seeks to protect its population by supporting Yamhill County and Oregon State initiatives, ordinances, building codes, and development regulations. One of the most important initiatives is to prohibit or not allow future development of buildings, infrastructure and critical facilities in identified high hazard areas. Any essential infrastructure component will undergo stringent review to ensure potential hazard risk will be mitigated.

Population and Building Stock

Population data listed in Table H-6A were obtained from the 2000 U.S. Census and Portland State University. It comprises census block level data, and estimates from university conducted community research.

The City’s existing building and infrastructure and insured values are identified in Tables H-6A, H-6B, and H-7.

Table H-6A. City of Sheridan Estimated Population and Building Inventory				
Population			Residential Buildings	
2000 Census	Estimated 2005 Census	Estimated 2007 Census²	Total Building Count	Total Value of Buildings (\$)¹
3,570	5,785	5,865	1,364	153,782,529 ²

Source: FEMA HAZUS-MH, Version 2006 and U.S. Census 2000.

¹ Average insured structural value of all residential buildings (including single-family dwellings, mobile homes, etc., is \$109,400 per structure).

² Portland State University (PSU) 2007 Oregon Population Report.

Table H-6B. City of Sheridan NFIP Insurance Report								
City of	Total Premiums (\$)	Policies A-Zone	Total Policies	Total Coverage (\$)	Average Premium (\$)	Total Claims Since 1978	Total Paid Since 1978 (\$)	Rep Loss Properties²
Sheridan	338,952	489	525	75,368,400	645.62	52	761,088	1

Source: FEMA NFIP Insurance Report June 23, 2008

FEMA SQANet.

²Content and building claims.

Table H-7. City of Sheridan Critical Facilities and Infrastructure

Facility Type	Name / Number	Address	Value ¹
Government	Sheridan City Hall	120 SW Mill St.	\$135,139.00
	Public Works Department	358 NW Washington St.	Unknown
	Sheridan Post Office	148 SE Harney St.	Unknown
	Other Sheridan Assets	Unknown	\$1,042,574.00
Emergency Response	City of Sheridan Fire Department	230 SW Mill St.	Unknown
	City of Sheridan Police Department		Unknown
Educational	Faulconer-Chapman School (K-8)	332 SW Cornwall St.	Unknown
	Sheridan High School (9-12)	433 S. Bridge St.	\$202,895.00
	Opportunity House (9-12)	437 S. Bridge St.	Unknown
	Sheridan Japanese School (4-12)	430 SW Monroe St.	Unknown
	The Delphian School (Private Boarding School [K-12])	20950 SW Rock Creek Road	Unknown
	West Valley Academy (1-12)	9015 DeJong Road, Sheridan	Unknown
Health Care	Sheridan Care Center (Intermediate Care)	411 SE Sheridan Rd.	Unknown
Community	Sheridan City Park	NE Yamhill St. by Blair St.	Unknown
	Edward R Moore Park		Unknown
	Municipal Pool ?		Unknown
	Sheridan Public Library	142 NW Yamhill St.	Unknown
	Greencrest Memorial Park (Cemetery)	108 NW Lincoln St.	Unknown
	Masonic Cemetery	At end NW Evans St.	Unknown
	William Savage House		Unknown
	Walter Sleepy House		Unknown
	Traveler's Home (formerly Savage-Mendenhall-Seth House)	147 NE Yamhill St.	Unknown
	Seventh-Day Adventist Church	940 W. Main St.	Unknown
	Church of the Nazarene	917 S. Bridge St.	\$35,309.00
	Open Door Community Church	339 NW Sheridan St.	\$136,510.00
	Good Shepherd Church	127 NE Hill St.	Unknown
	New Hope Christian Church	919 SW 2nd St.	Unknown
	First Christian Church	121 NE Yamhill St.	Unknown
	Trinity Lutheran Church	311 SE Schley St.	\$98,610.00
	Mennonite Church	240 SW Madison St.	Unknown
	Sheridan Methodist Church	234 N. Bridge St.	\$91,715.00
	Kingdom Hall of Jehovah's Witnesses	825 W. Main St.	\$32,918.00

Table H-7. City of Sheridan Critical Facilities and Infrastructure

Facility Type	Name / Number	Address	Value ¹
	Baptist Church	643 E. Main St.	\$56,594.00
	Sheridan Sun Newspaper	147 NE Yamhill St.	Unknown
State and Federal Highways	State Highway 18	4 miles	
Railroads	Willamette & Pacific Railroad	2.75 miles	
Bridges	Sheridan Bride over the Sough Yamhill River Bridge		Unknown
Transportation Facilities- Listed as Utilities under Critical Facilities Folder	Sheridan Airport (small airport)	21821 SW Rock Cr Rd	Unknown
	Yamhill Community Action Program (handicapped and elderly)	800 NE 2nd St., McMinnville	Unknown
	Greyhound Bus Service		Unknown
	Taylor Lumber Site RR Spur	22100 SW Rock Creek Rd	Unknown
	Industrial Area RR Spur		Unknown
Utilities	South Yamhill River Water Supply & Treatment		Unknown
	Sheridan Area Waste Treatment Plant		Unknown
	United Telephone Co of the Northwest		Unknown
	Lift Station		Unknown

Sources:

FEMA HAZUS-MH, local jurisdictions.

¹Estimated and/or insured structural value for critical facilities and estimated values for critical infrastructure.

NA = Not Available.

Vulnerability Analysis

The vulnerability analysis development process is thoroughly discussed in the Yamhill County MHMP, Section 6, which generated the following Hazard Exposure Analysis Overviews. Tables H-8, H-9, and H-10 depict in tabular form results obtained from the GIS analysis depicted in hazard figures located in Appendix K.

Table H-8. City of Sheridan Potential Hazard Exposure Analysis Overview-Population and Buildings							
			Population	Buildings			
				Residential		Non-Residential	
Hazard Type	Hazard Area	Methodology	Number	Number	Value (\$)¹	Number	Value (\$)¹
Flood	Moderate	500-year floodplain	--	1050	114,870,000	10	unknown
	High	100-year floodplain	--	1029	112,572,600	10	unknown
Winter Storm		descriptive	5,785	1,364	149,221,600	10	unknown
Landslide	Moderate	14-32 degrees	--	599	65,530,600	2	unknown
	High	>32 degrees	--	100	10,940,000	--	--
Wildland Fire	Moderate	Moderate fuel rank	--	1,116	122,090,400	10	unknown
	High	High fuel rank	--	883	96,600,200	10	unknown
	Very High	Very high fuel rank	--	281	30,741,400	1	unknown
	Extreme	Extreme fuel rank	--	--	--	--	--
Earthquake	Strong	9-20% (g)	5,785	1,364	149,221,600	10	unknown
	Very strong	>20-40% (g)	--	--	--	--	--
	Severe	>40-60% (g)	--	--	--	--	--
Volcano		descriptive	5,785	1,364	149,221,600	10	unknown
Wind		descriptive	5,785	1,364	149,221,600	10	unknown
Drought		descriptive	--	--	--	--	--
Dam Failure	Significant	NID	--	--	--	--	--
Disruption of Utility and Transportation Systems		descriptive	--	--	--	--	--
Hazardous Material Event	1/4-mile buffered transportation routes	1/4-mile buffered transportation routes	--	940	102,836,000	10	unknown
	1/4-mile buffered EHS sites	1/4-mile buffered EHS sites	--	--	--	--	--

¹ Average insured structural value of all residential buildings (including single-family dwellings, mobile homes, etc., is \$109,400 per structure). Note-population by parcel was not available at the time this document was prepared. Once this data is available, a useful analysis of population and residential structures by hazard can easily be completed. 0.25 mile-buffered EHS sites were not calculated due to the use of census block level data.

Table H-9. City of Sheridan Potential Hazard Exposure Analysis Overview-Critical Facilities

			Government		Emergency Response		Educational		Care		Community	
Hazard Type	Hazard Area	Methodology	No.	Value (\$)¹	No.	Value (\$)¹	No.	Value (\$)¹	No.	Value (\$)¹	No.	Value (\$)¹
Flood	Moderate	500-year floodplain	--	--	--	--	--	--	--	--	5	35K
	High	100-year floodplain	3	135K	2	unknown	4	203K	1	unknown	16	452K
Winter Storm		descriptive	4	1.2M	2	unknown	6	203K	1	unknown	21	452K
Landslide	Moderate	14-32 degrees	--	--	--	--	1	unknown	--	--	4	134K
	High	>32 degrees	--	--	--	--	--	--	--	--	--	--
Wildland Fire	Moderate	Moderate fuel rank	3	135K	2	unknown	5	203K	1	unknown	17	452K
	High	High fuel rank	2	unknown	1	unknown	2	unknown	--	--	12	318K
	Very High	Very high fuel rank	--	--	--	--	--	--	--	--	2	57K
	Extreme	Extreme fuel rank	--	--	--	--	--	--	--	--	--	--
Earthquake	Strong	9-20% (g)	--	--	--	--	--	--	--	--	--	--
	Very strong	>20-40% (g)	--	--	--	--	--	--	--	--	--	--
	Severe	>40-60% (g)	--	--	--	--	--	--	--	--	--	--
Volcano		descriptive	4	1.2M	2	unknown	6	203K	1	unknown	21	452K
Wind		descriptive	4	1.2M	2	unknown	6	203K	1	unknown	21	452K
Drought		descriptive	4	1.2M	2	unknown	6	203K	1	unknown	21	452K
Dam Failure		Inundation area	--	--	--	--	--	--	--	--	--	--
Disruption of Utility and Transportation Systems		descriptive	4	1.2M	2	unknown	6	203K	1	unknown	21	452K
Hazardous Material Event	1/4-mile buffered transportation routes	1/4-mile buffered transportation routes	3	135K	2	unknown	5	203K	1	unknown	16	452K
	1/4-mile buffered EHS sites	1/4-mile buffered EHS sites	3	135K	2	unknown	6	203K	1	unknown	17	452K

Table H-10 City of Sheridan Potential Hazard Exposure Analysis Overview-Critical Infrastructure

			Highways		Railroads		Bridges		Transportation Facilities		Utilities		Dams	
Hazard Type	Hazard Area	Methodology	Miles	Value (\$) ¹	Miles	Value (\$) ¹	No.	Value (\$) ¹	No.	Value (\$) ¹	No.	Value (\$) ¹	No.	Value (\$) ¹
Flood	Moderate	500-year floodplain	--	--	--	--	--	--	--	--	--	--	--	--
	High	100-year floodplain	--	--	--	--	1	unknown	--	--	1	unknown	--	--
Winter Storm		descriptive	4	unknown	2.75	unknown	1	unknown	5	unknown	4	unknown	--	--
Landslide	Moderate	14-32 degrees	--	--	--	--	1	unknown	1	unknown	--	--	--	--
	High	>32 degrees	--	--	--	--	--	--	--	--	--	--	--	--
Wildland Fire	Moderate	Moderate fuel rank	--	--	1	unknown	1	unknown	3	unknown	1	unknown	--	--
	High	High fuel rank	--	--	--	--	1	unknown	3	unknown	--	--	--	--
	Very High	Very high fuel rank	--	--	--	--	1	unknown	--	--	--	--	--	--
	Extreme	Extreme fuel rank	--	--	--	--	--	--	--	--	--	--	--	--
Earthquake	Strong	9-20% (g)	--	--	--	--	--	--	--	--	--	--	--	--
	Very strong	>20-40% (g)	--	--	--	--	--	--	--	--	--	--	--	--
	Severe	>40-60% (g)	--	--	--	--	--	--	--	--	--	--	--	--
Volcano		descriptive	4	unknown	2.75	unknown	1	unknown	5	unknown	4	unknown	--	--
Wind		descriptive	4	unknown	2.75	unknown	1	unknown	5	unknown	4	unknown	--	--
Drought		descriptive	4	unknown	2.75	unknown	1	unknown	5	unknown	4	unknown	--	--
Dam Failure ⁽¹⁾		Inundation area	--	--	--	--	--	--	--	--	--	--	--	--
Disruption of Utility and Transportation Systems		descriptive	4	unknown	2.75	unknown	1	unknown	5	unknown	4	unknown	--	--
Hazardous Material Event ⁽²⁾	1/4-mile buffered transportation routes	1/4-mile buffered transportation routes	1	unknown	1	unknown	1	unknown	3	unknown	1	unknown	--	--
	1/4-mile buffered EHS sites	1/4-mile buffered EHS sites	1	unknown	1	unknown	1	unknown	3	unknown	1	unknown	--	--

SUMMARY OF VULNERABILITIES AND IMPACTS TO IDENTIFIED HAZARDS

The following section describes each hazard and the community's vulnerabilities and impacts from natural hazards in addition to technological and manmade hazards identified in the 2009 Yamhill County MHMP.

The following is derived from the best available data for facility locations and values. In many cases, values were unavailable, and therefore the totals listed below should be considered incomplete and likely less than the actual costs associated with the respective hazards.

Flood

FEMA FIRMs were used to outline the 100-year and 500-year floodplains for the City of Sheridan. The 100-year floodplain delineates an area of high risk, while the 500-year floodplain delineates an area of moderate risk.

In the City of Sheridan, 1,029 residential structures (value \$112.6M), ten non-residential structures (value unknown), three government facilities (value \$135K), two emergency response facilities (values unknown), four educational facilities (value \$203K), one care facility (value unknown), 16 community facilities (value \$452K), one bridge (value unknown), and one utility (value unknown) are located within the boundaries of the 100-year floodplain and therefore accorded a high flood risk.

The 500-year floodplain contains 1,050 residential structures (value \$114.9M), ten non-residential structures (value unknown) and five community facilities (value \$35K) with a moderate flood risk.

Winter Storm

Winter storms have widespread impacts that are most often the result of the ice, cold, high winds and flooding they bring. Damage to facilities and infrastructure can be severe, depending on the intensity of the storm event.

Since winter storms are regional events, the entire City of Sheridan can be equally affected. Therefore 5,785 residents, 1,364 residential structures (value \$149.2M), 10 non-residential structures (value unknown), four government facilities (value \$1.2M), two emergency response facilities (value unknown), six educational facilities (value \$203K), one care facility (value unknown), 21 community facilities (value \$452K), four highway segments (value unknown), 2.75 railroad segments (value unknown), one bridge (value unknown), five transportation facilities (value unknown), and four utilities (value unknown) are at risk.

Landslide

The potential impacts from landslides can be widespread. Potential debris flows and landslides can impact transportation and rail routes, utility systems, and water and waste treatment infrastructure along with public, private, and business structures located adjacent to steep slopes, along riverine embankments, or within alluvial fans or natural drainages. Response and recovery efforts will likely vary from minor cleanup to more extensive utility system rebuilding. Utility disruptions are usually local and terrain dependent. Damages may require reestablishing electrical, communication, and gas pipeline connections occurring from specific breakage points.

Initial debris clearing from emergency routes and high traffic areas may be required. Water and waste water utilities may need treatment to quickly improve water quality by reducing excessive water turbidity and reestablishing waste disposal capability.

USGS elevation datasets were used to determine the landslide hazard areas within the City of Sheridan. Risk was assigned based on slope angle. A slope angle less than 14 degrees was assigned a low risk, a slope angle between 14 and 32 degrees was assigned a medium risk, and a slope angle greater than 32 degrees was assigned a high risk.

Using these guidelines, the City of Sheridan has 599 residential structures (value \$65.5M), two non-residential structures (value unknown), one educational facility (value unknown), four community facilities (value \$134K), one transportation facility (value unknown) and one bridge (value unknown) located in areas of moderate risk.

There are 100 residential structures (value \$10.9M) and no identified critical facilities located in areas of high risk.

Wildland Fires

Wildland fire hazard areas were identified using a model incorporating slope, aspect, and fuel load. South-facing, steep, and heavily vegetated areas were assigned the highest fuel values while areas with little slope and natural vegetation were assigned the lowest fuel values. Fuel ranks of moderate, high, very high, and extreme were assigned to the entire region based on the results of this modeling.

The City of Sheridan has critical facilities and infrastructure located within areas with moderate, high, and very high fuel ranks. Moderate fuel rank areas contain 1,116 residential structures (value \$122M), ten non-residential structures (value unknown), three government facilities (value \$135K), two emergency response facilities (value unknown), five educational facilities (value \$203K), one care facility (value unknown), 17 community facilities (value \$452K), one bridge (value unknown), three transportation facilities (value unknown), one railroad (value unknown), and one utility (value unknown).

High fuel rank areas contain 883 residential structures (value \$96.6M), ten non-residential structures (value unknown), two government facilities (value unknown), one emergency response facility (value unknown), two educational facilities (values unknown), 12 community facilities (value \$318K), three transportation facilities (value unknown), and one bridge (value unknown).

Very high fuel rank areas contain 281 residential structures (value \$30.7M), one non-residential structures (value unknown), two community facilities (value \$57K), and one bridge (value unknown).

Earthquake

Based on PGA shake maps produced by the USGS, the western portion of Yamhill County is likely to experience higher levels of shaking than the eastern portion, as a result of its proximity to the Cascadia Subduction Zone. Ground movement in both areas, however, is likely to cause damage to weak, unreinforced masonry buildings, and to induce small landslides along unstable

slopes. As well as landslide, earthquakes can trigger other hazards such as dam failure and disruption of transportation and utility systems.

The City of Sheridan is in the eastern portion of Yamhill County, in a region likely to experience strong shaking should a subduction zone earthquake occur. In contrast, the western portion of the county is likely to experience very strong shaking. This rating represents the peak acceleration of the ground caused by the earthquake, and for a strong designation corresponds to 9-20 percent of the acceleration of gravity.

The entire City of Sheridan can be equally affected by strong shaking earthquakes. Therefore 5,785 residents, 1,364 residential structures (value \$149.2M), 10 non-residential structures (value unknown), four government facilities (value \$1.2M), two emergency response facilities (value unknown), six educational facilities (value \$203K), one care facility (value unknown), 21 community facilities (value \$452K), four highway segments (value unknown), 2.75 railroad segments (value unknown), one bridge (value unknown), five transportation facilities (value unknown), and four utilities (value unknown) are at risk.

Volcano

As discussed in Chapter 5, volcanic activity is most likely to impact Yamhill County and the City of Sheridan in the form of ashfall or tephra. Damage is likely to result from volcanic eruption columns and clouds which contain volcanic gases, minerals, and rock. The columns and clouds form rapidly and extend several miles above an eruption. Solid particles within the clouds present a serious aviation threat, and can distribute acid rain as sulfur dioxide gas mixes with water. Additionally, these particles can create a risk of suffocation as carbon dioxide is heavier than air and collects in valleys and depressions threatening human and animals. They further pose a toxic threat from fluorine which clings to ash particles potentially poisoning grazing livestock and contaminating domestic water supplies.

However, due to the nature of the hazard, it is impossible to predict the location or extent of future events with any probability, although it can be assumed that the entire population is equally at risk. This includes 5,785 residents, 1,364 residential structures (value \$149.2M), 10 non-residential structures (value unknown), four government facilities (value \$1.2M), two emergency response facilities (value unknown), six educational facilities (value \$203K), one care facility (value unknown), 21 community facilities (value \$452K), four highway segments (value unknown), 2.75 railroad segments (value unknown), one bridge (value unknown), five transportation facilities (value unknown), and four utilities (value unknown).

Wind

Many buildings, utilities and transportation systems in open areas, natural grasslands, or agricultural lands are especially vulnerable to wind damage. Impacts associated with wind can include damage to power lines, trees, and structures, and can also cause temporary disruptions of power. Additionally, high winds can cause significant damage to forestlands.

All areas within the City of Sheridan are equally at risk of a windstorm event. Therefore 5,785 residents, 1,364 residential structures (value \$149.2M), 10 non-residential structures (value unknown), four government facilities (value \$1.2M), two emergency response facilities (value unknown), six educational facilities (value \$203K), one care facility (value unknown), 21

community facilities (value \$452K), four highway segments (value unknown), 2.75 railroad segments (value unknown), one bridge (value unknown), five transportation facilities (value unknown), and four utilities (value unknown) are at risk.

Drought

State-wide droughts have historically occurred in Oregon, and as it is a region-wide phenomenon, all residents are equally at risk. Structural damage from drought is not expected; rather the risks apply to humans and resources. Industries important to the City of Sheridan's local economy such as agriculture, fishing, and timber have historically been affected, and any future droughts would have tangible economic and potentially human impacts.

Dam Failure

Dam inundation data is unavailable for Yamhill County, therefore it is not possible to assess the impacts due to dam failure in this region using that method. However, the City of Sheridan has done extensive research to determine the impacts of a dam failure at the Stony Mountain Impoundment Facility, located 10 miles outside of town.

The City of Sheridan's Stony Mountain Impoundment Facility is a spring-fed reservoir retained by a reinforced earthen dam with an emergency spillway that empties into La Toutena Mary Creek. The dam embankment, if breached, will spill into a La Toutena Mary Creek tributary, and the flood hydrograph will travel 3.37 miles to the La Toutena Mary Creek and East Creek confluence, with an additional 3.15 miles to East Creek's confluence with Willamina Creek. Based on a clear day piping failure stimulated by the City of Sheridan, if the dam embankment was breached, it would take approximately 35 minutes for the dammed water to travel the 3.37 miles to the East Creek confluence and an additional 100 minutes to travel to the Willamina Creek confluence.

Under normal conditions, the flood wave would start with approximately 10,670 cubic feet per second (cfs) at the dam and end with approximately 1,090 cfs at Willamina Creek. Due to the limited size of the watershed, the limited inflow to the reservoir, and the height of the dam compared to the emergency spillway (1,657 feet vs. 1,653 feet), an overtopping failure is unlikely. Thus, a catastrophic failure of the dam would not present a threat to human life downstream. Neither the road nor any residential structures would likely be inundated by the flood wave generated by a piping failure.

Even when the clear-day scenario was tested using more extreme assumptions, such as increased water levels, a dam failure still did not pose a threat to residential structures. Possible developments that could cause piping failure include rapid drawdown, seismic activity, or slope failure. As water flows through the dam, the passage could continue to grow as material is eroded away. Eventually the size of the passage could compromise the structural integrity of the dam and cause it to collapse. (City of Sheridan Dam Failure Analysis, 2007)

Disruption of Utility and Transportation Systems

Transportation system disruption impacts range from effects on life, health, and safety (in the form of emergency vehicle mobility, access to hospitals, access to evacuation routes, and access to vital supplies if transport is seriously disrupted for an extended period) to the economic effects

of delays, lost commerce, and lost time. Similarly, disruption of utility systems can affect Yamhill County and the City of Sheridan at the level of commerce and recreation as well as at the level of fundamental health and safety. Countywide and citywide disruptions are likely to impact all residents equally. Structural damage from disruption to these systems is not expected; rather the risks apply to residents and those traveling in the area.

Hazardous Material Event

The National Response Center and the EPA’s Environmental Facts Multisystem Query were used to locate hazardous waste handling facilities and businesses that generate hazardous waste from their activities. Transportation routes likely to carry hazardous waste were examined, and all facilities within a 0.25 miles of a transportation route and an EHS site considered at risk.

There are 940 residential structures (value \$102.8M), ten non-residential structures (value unknown), three government facilities (value \$135K), two emergency response facilities (values unknown), five educational facilities (value \$203K), one care facility (value unknown), 16 community facilities (value \$452K), three transportation facilities, one highway, one railroad, one bridge, and one utility (values unknown) are located within the 0.25 mile risk area.

Three government facilities (value \$135K), two emergency response facilities (values unknown), six educational facilities (value \$203K), one care facility (value unknown), 17 community facilities (value \$452K), three transportation facilities, one highway, one railroad, one bridge, and one utility (values unknown) are within the 0.25 mile-buffered EHS zone.

MITIGATION STRATEGY

IDENTIFYING MITIGATION ACTIONS

The following section defines mitigation action identification and analysis as stipulated in DMA 2000 and its implementing regulations.

DMA 2000 Requirements: Mitigation Strategy - Identification and Analysis of Mitigation Actions

Identification and Analysis of Mitigation Actions

Requirement §201.6(c)(3)(ii): [The mitigation strategy shall include a] section that identifies and analyzes a comprehensive range of specific mitigation actions and projects being considered to reduce the effects of each hazard, with particular emphasis on new and existing buildings and infrastructure.

Element

- Does the new or updated plan identify and analyze a comprehensive range of specific mitigation actions and projects for each hazard?
- Do the identified actions and projects address reducing the effects of hazards on new buildings and infrastructure?
- Do the identified actions and projects address reducing the effects of hazards on existing buildings and infrastructure?

Source: FEMA, July 2008.

The Steering Committee assessed whether to adopt Yamhill County’s mitigation goals listed in Table H-11, or to revise them to more fully meet the City’s needs. The City then proceeded to evaluate potential mitigation actions after finalizing the mitigation goals.

Mitigation actions are activities, measures, or projects that help achieve the goals of a mitigation plan. Table H-12 depicts the City’s “considered” mitigation actions developed during this mitigation planning process. The revised list in Table H-14 delineates those actions the City will strive to implement within this five year planning cycle.

DMA 2000 Requirements: Mitigation Strategy - National Flood Insurance Program (NFIP) Compliance

National Flood Insurance Program (NFIP) Compliance

Requirement §201.6(c)(3)(ii): [The mitigation strategy] must also address the jurisdiction’s participation in the National Flood Insurance Program (NFIP), and continued compliance with NFIP requirements, as appropriate.

Element

- Does the new or updated plan describe the jurisdiction(s) participation in the NFIP?
- Does the mitigation strategy identify, analyze and prioritize actions related to continued compliance with the NFIP?

Source: FEMA, July 2008.

The City of Sheridan actively participates in FEMA’s National Flood Insurance Program (NFIP) and have implemented floodplain policies, regulations, and ordinances to protect their threatened population and infrastructure to assure NFIP compliance.

The City’s Mitigation Strategy identified and analyzed potential flood mitigation actions that would fulfill NFIP initiatives, specifically addressing repetitive loss (RL) properties. They subsequently selected and prioritized City appropriate actions to assure an effective flood mitigation program.

MITIGATION GOALS AND ACTION ITEMS CONSIDERED

Table H-11. 2006 Yamhill County Mitigation Goals-Considered	
Goal Number	Goal Description
1	EMERGENCY OPERATIONS <i>Goal Statement:</i> Coordinate natural hazard mitigation activities, where appropriate, with emergency operations plans and procedures and with various other agencies, as appropriate.
2	EDUCATION AND OUTREACH <i>Goal Statement:</i> Develop and implement education and outreach programs to increase public awareness of the risks associated with natural hazards.
3	PARTNERSHIPS <i>Goal Statement:</i> Develop effective partnerships with public and private sector organizations and significant agencies and businesses for future natural hazard mitigation efforts.
4	PREVENTIVE <i>Goal Statements:</i> - 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.
5	NATURAL RESOURCES UTILIZATION <i>Goal Statement:</i> 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.
6	IMPLEMENTATION <i>Goal Statement:</i> Implement strategies to mitigate the effects of natural hazards.

Table H-12. City of Sheridan Mitigation Actions Considered

Hazard	Status	Comment	Description
Natural Hazards			
Multi-Hazard (MH)			
MH	<i>Ongoing</i>		Develop and incorporate building ordinances commensurate with building codes to reflect survivability from wind, seismic, fire, and other hazards to ensure occupant safety.
MH	<i>Ongoing</i>		Review ordinances and develop outreach programs to assure mobile homes and manufactured buildings are protected from severe wind and flood hazards. (Anchoring, elevation, and other methods as applicable)
MH	<i>Ongoing</i>		Review ordinances and develop outreach programs to assure above ground fuel oil and propane tanks are properly anchored and hazardous materials are properly stored and protected from known natural hazards such as seismic or flooding events.
MH	<i>Ongoing</i>		Cross reference and incorporate mitigation planning provisions into all community planning processes such as comprehensive, capital improvement, land use, transportation plans, etc to demonstrate multi-benefit considerations and facilitate using multiple funding source consideration.
MH	<i>Ongoing</i>		Develop and incorporate mitigation provisions and recommendations into zoning ordinances and community development processes to maintain the floodway and protect critical infrastructure and private residences from other hazard areas.
MH	Consider		Increase power line wire size and incorporate quick disconnects (break away devices) to reduce ice load and wind storm power line failure during severe wind or winter ice storm events.
MH	<i>Ongoing</i>		Purchase and install generators with main power distribution disconnect switches for identified and prioritized critical facilities susceptible to short term power disruption. (i.e. first responder and medical facilities, schools, correctional facilities, and water and sewage pump stations, etc.)
MH	Consider		Install lightening rods and lightening grade surge protection devices on critical electronic components such as warning systems, communications equipment, and computers for critical facilities.
MH	<i>Ongoing</i>		Develop, produce, and distribute information materials concerning mitigation, preparedness, and safety procedures for all natural hazards.
MH	<i>Ongoing</i>		Explore the need for, develop, and implement hazard zoning ordinances for high-risk hazard area land-use.
MH	<i>Ongoing</i>		Identify and list repetitively flooded structures and infrastructures, analyze the threat to these facilities, and prioritize mitigation actions to acquire, relocate, elevate, and/or flood proof to protect the threatened population.
MH	<i>Ongoing</i>		Install storm shutters, hurricane clips, bracing systems etc. to meet or exceed applicable building codes while reducing disaster damages.
MH	<i>Ongoing</i>		Perform hydrologic and hydraulic engineering, and drainage studies and analyses. Use information obtained for feasibility determination and project design. This information should be a key component, directly related to a proposed project.
MH	Consider		Develop vegetation projects to restore clear cut and riverine erosion damage and to increase landslide susceptible slope stability.

Table H-12. City of Sheridan Mitigation Actions Considered

Hazard	Status	Comment	Description
MH	<i>Ongoing</i>		Retrofit structures to protect them from seismic, floods, high winds, earthquakes, or other natural hazards.
MH	Consider		Acquire, demolish, or relocate structures from hazard prone area. Property deeds shall be restricted for open space uses in perpetuity to keep people from rebuilding in hazard areas.
MH	Consider		Harden utility headers located along river embankments to mitigate potential flood, debris, and erosion damages.
MH	Consider		Establish a formal role for the jurisdictional Hazard Mitigation Planning Committees to develop a sustainable process to implement, monitor, and evaluate citywide mitigation actions.
MH	Consider		Identify and pursue funding opportunities to implement mitigation actions.
MH	Consider		Develop public and private sector partnerships to foster hazard mitigation activities.
MH	Ongoing		Integrate the Mitigation Plan findings into planning and regulatory documents and programs and into enhanced emergency planning.
Flood			
Flood	Consider		Work with the County's GIS staff to develop and maintain GIS mapped critical facility inventory for all structures located within 100-year and 500-year floodplains.
Flood	Consider		Work with the County's GIS staff to develop and maintain GIS mapped inventory, and develop prioritized list of residential and commercial buildings within 100-year and 500-year floodplains.
Flood	Consider		Work with the County's GIS staff to develop and maintain GIS mapped inventory of repetitive loss properties to include the types and numbers of properties.
Flood	Consider		Develop and implement mitigation actions for repetitive loss properties.
Flood	Consider		Establish flood mitigation priorities for critical facilities and residential and commercial buildings located within the 100-year floodplain using survey elevation data.
Flood	Consider		Implement mitigation measures identified by critical facilities' owners, and other facility owners, to protect facilities located within the 100-year floodplain.
Flood	Consider		Develop and maintain an inventory of locations subject to frequent storm water flooding based on most current USACOE flood data.
Flood	Consider		Request DOGAMI debris flow and lahar data be included in FIRM updates. Use the updated FIRMS for land use and mitigation planning.
Flood	Consider		Determine and implement most cost beneficial and feasible mitigation actions for locations with repetitive flooding and significant damages or road closures.
Flood	<i>Ongoing</i>		Develop an outreach program to educate public concerning NFIP participation benefits, floodplain development, land use regulation, and NFIP flood insurance availability to facilitate continued compliance with the NFIP.
Flood	<i>Ongoing</i>		Develop, implement, and enforce floodplain management ordinances.
Flood	Consider		Develop outreach program to educate residents concerning flood proofed water and sewer system installation.
Flood	Consider		Acquire, relocate, elevate, or otherwise flood-proof identified properties.
Flood	Consider		Acquire, relocate, elevate, or otherwise flood-proof critical facilities.
Flood	<i>Ongoing</i>		Install new streamflow and rainfall measuring gauges.

Table H-12. City of Sheridan Mitigation Actions Considered

Hazard	Status	Comment	Description
Flood	<i>Ongoing</i>		Develop, or revise, adopt, and enforce storm water ordinances and regulations to manage run-off from new development, including buffers and retention basins.
Flood	Consider		Dry flood proof non-residential structures.
Flood	Consider		Dry flood proof historic structures.
Flood	<i>Ongoing</i>		Increase culvert size to increase its drainage efficiency.
Flood	Consider		Install debris cribs over culvert inlets to prevent inflow of coarse bed-load and light floating debris.
Flood	Consider		Construct debris deflectors to deflect the major portion of debris away from culvert entrances and bridge piers. They are normally "V" shaped.
Flood	Consider		Install debris fins upstream of a culvert to align debris so that the debris will pass through a drainage opening without clogging the inlet. They are sometimes used on bridge piers to deflect drifting materials.
Flood	Consider		Create detention storage basins, ponds, reservoirs etc. to allow water to temporarily accumulate to reduce pressure on culverts and low water crossings. Water ultimately returning to its watercourse at a reduced flow rate.
Flood	<i>Ongoing</i>		Construct an emergency spillway at a dam or other structure to relieve excess water contained during high flow periods to reduce dam failure potential.
Flood	Consider		Construct floodwalls around the perimeter of a "facility" and extending above the highest flood elevation to keep floodwaters away from the facility. Floodwalls can be made from gabion baskets, concrete, large riprap, etc. Floodwalls should be used with caution as they can also act as a catchment preventing drainage away from the facility.
Flood	Consider		Install triangular or circular flow deflectors on or immediately upstream from bridge footings to deflect water flow and reduce flow velocities preventing footing scour.
Flood	Consider		Construct low water crossings in a road prism to carry flood flows from an intermittent drainage
Flood	Consider		Construct a high water overflow crossing to carry flood flows from over bank areas.
Flood	Consider		Create relief drainage ditch opening using a culvert, bridge, or multiple culverts; to relieve rapid water accumulation during high water flow events.
Flood	Consider		Modify existing culverts by developing a ring compression, by flattening, or beveling the end of a circular culvert to match the angle of the embankment. May need to install flanges to stiffen the beveled section of the culvert.
Flood	Consider		Construct spur dikes along the embankments to direct flood flows into a bridge opening or away from a continuous impact site.
Flood	Consider		Construct concrete wing walls at culvert or bridge entrances and outlets to direct water flow into their openings
Flood	<i>Ongoing</i>		Provide flood protection to mitigate damage and contamination of wastewater treatment systems.
Flood	<i>Ongoing</i>		Develop and implement flood risk reduction program and outreach efforts considering upstream storage, channel improvements, and flood walls or levee construction.
Flood	Consider		Install dry-hydrants at strategic locations throughout community
Flood	Consider		Coordinate sewer lagoon overflow issues from Willamina sewage treatment plant
Flood	Consider		Upgrade protection to sewer pump stations
Flood	Consider		Upgrade protection to sewer plant and sewer plant emergency generators

Table H-12. City of Sheridan Mitigation Actions Considered

Hazard	Status	Comment	Description
Flood	Consider		Replace or retrofit force mains to protect river from waster water spillage
Flood	Consider		Improve sewer lagoon overflow protection from heavy rain
Flood	Consider		Mitigate inflow and infiltration into sanitary sewer main lines
Winter Storm (WS)			
Winter Storm	Consider		Develop and implement strategies and educational outreach programs for debris management from severe winter storms.
Winter Storm	Consider		Develop and implement programs to coordinate maintenance and mitigation activities to reduce risk to public infrastructure from severe winter storms.
Winter Storm	Consider		Update or develop, implement, and maintain jurisdictional debris management plans.
Winter Storm	<i>Ongoing</i>		Develop critical facility list needing emergency back-up power systems, prioritize, seek funding and implement mitigation actions.
Winter Storm	Consider		Develop and maintain severe winter storm public outreach program defining mitigation activity benefits through educational outreach aimed at households and businesses while targeting of special needs populations.
Winter Storm	Consider		Develop and implement tree clearing mitigation programs to keep trees from threatening lives, property, and public infrastructure from severe weather events.
Winter Storm	<i>Ongoing</i>		Develop, implement, and maintain partnership program with electrical utilities to use underground utility placement methods where possible to reduce or eliminate power outages from severe winter storms. Consider developing incentive programs.
Winter Storm	<i>Ongoing</i>		Develop personal use and educational outreach training for a “safe tree harvesting” program. Implement along utility and road corridors, preventing potential winter storm damage.
Winter Storm	<i>Ongoing</i>		Purchase NOAA Weather radios and develop a web portal linking residents to various weather information sites. (NWS, FEMA, The Weather Channel).
Winter Storm	Consider		Develop outreach program with school district contests having students develop, display, and explain mitigation projects or initiatives.
Winter Storm	Consider		Develop early warning test program partnering with NOAA, City Police, Fire Departments, and Volunteer Fire Department to coordinate tests.
Winter Storm	<i>Ongoing</i>		Implement and enforce the most current Uniform International, and State, Building Codes to ensure structures can withstand winter storm hazards such as high winds, rain, water and snow.
Winter Storm	Consider		Increase power line wire size and incorporate quick disconnects (break away devices) to reduce ice load power line severe wind or winter ice storm event failure.
Winter Storm	<i>Ongoing</i>		Review critical facilities and government building energy efficiency, winter readiness, and electrical protection capability. Identify, prioritize, and implement infrastructure upgrade or rehabilitation project prioritization and development.
Landslide			
Landslide	Consider		Complete a landslide location inventory, identify threatened critical facilities and other buildings and infrastructure.
Landslide	Consider		Develop prioritized list of mitigation actions for threatened critical facilities and other buildings or infrastructure.

Table H-12. City of Sheridan Mitigation Actions Considered

Hazard	Status	Comment	Description
Landslide	<i>Ongoing</i>		Develop process to limit future development in high landslide potential areas (permitting, geotechnical review, soil stabilization techniques, etc).
Landslide	<i>Ongoing</i>		Update the storm water management plan to include regulations to control runoff, both for flood reduction and to minimize saturated soils on steep slopes that can cause landslides.
Landslide			Develop comprehensive geological landslide and rockslide prone area maps.
Landslide	<i>Ongoing</i>		Develop a vegetation management plan addressing slope-stabilizing root strength while facilitating precipitation containment.
Landslide	Consider		Develop, implement and enforce property development landslide risk assessment procedures to identify potential facility vulnerability.
Wildland Fire			
Wildland fire	Consider		Identify critical facilities and vulnerable populations based on mapped high hazard areas.
Wildland fire	Consider		Identify evacuation routes away from high hazard areas and develop outreach program to educate the public concerning warnings and evacuation procedures.
Wildland fire	Consider		Develop Community Wildland Fire Protection Plans for all at-risk communities.
Wildland fire	Consider		Hold FireWise workshop to educate residents and contractors concerning fire resistant landscaping.
Wildland fire	Consider		Develop a plan to assist rural residents to evacuate through the city
Wildland fire	Consider		Provide wildland fire information in an easily distributed format for all residents.
Wildland fire	Consider		Schedule and perform government facility "fire drills" at least twice per year.
Wildland fire	<i>Ongoing</i>		Develop, adopt, and enforces burn ordinances that require burn permits, restricts campfires, and controls outdoor burning.
Earthquake			
Earthquake	Consider		Develop outreach program to educate and encourage home landscape cleanup (defensible space) and define debris disposal programs.
Earthquake	Consider		Supplement State Seismic Needs Analysis data (schools, fire, law enforcement). Complete inventory of public and commercial buildings that may be particularly vulnerable to earthquake damage.
Earthquake	Consider		Identify high seismic hazard areas; develop a wood-frame residential building inventory and an outreach program to educate population concerning facilities particularly vulnerable to earthquake damage, such as pre-1940s homes and homes with cripple wall foundations.
Earthquake	Consider		Disseminate FEMA pamphlets to educate and encourage homeowners concerning seismic structural and non-structural retrofit benefits.
Earthquake	Consider		Retrofit important public facilities with significant seismic vulnerabilities, such as unreinforced masonry construction.
Earthquake	Consider		Work with the county and state Departments of Transportation to identify bridges that are not seismically adequate for lifeline transportation routes.
Earthquake	<i>Ongoing</i>		Update existing (or adopt the most current) Uniform Building Code
Earthquake	<i>Ongoing</i>		Implement and enforce the Uniform, International, and State Building Codes.
Earthquake	<i>Ongoing</i>		Inspect and/or certify all new construction.

Table H-12. City of Sheridan Mitigation Actions Considered

Hazard	Status	Comment	Description
Earthquake	Consider		Develop public outreach program to train earthquake safety; perform drop-cover-hold drills at schools and public facilities.
Earthquake	Consider		Develop outreach program to educate population concerning household, business, and public facility mitigation measures. For example, staff public information tables at fairs, safety events, and festivals.
Earthquake	Consider		Develop outreach program to educate residents concerning benefits of increased seismic resistance and modern building code compliance during rehabilitation or major repairs for residences or businesses.
Earthquake	Consider		Inspect, prioritize, and retrofit any critical facility or public infrastructure that does not meet current Building Codes.
Earthquake	Consider		Identify and prioritize a list of critical facilities with unreinforced masonry problems including non-structural projects such as brick chimney bracing or replacement, water heater bracing, and anchoring, etc.
Earthquake	Consider		Evaluate critical public facility seismic performance for fire stations, public works buildings, potable water systems, wastewater systems, electric power systems, and bridges within the jurisdiction.
Earthquake	Consider		Develop outreach program for educating private facilities concerning alternative or emergency power source acquisition to enable them to deliver food, fuel, and medical services during disaster emergency response and recovery efforts.
Earthquake	Consider		Encourage utility companies to evaluate and harden vulnerable infrastructure elements for sustainability.
Earthquake	Consider		Develop partnerships to mitigate hazards that result in jurisdictional facility lifeline or emergency transportation route closures.
Earthquake	Consider		Identify critical facilities and vulnerable populations based on mapped high hazard areas.
Volcano			
Volcano	Consider		Update public emergency notification procedures and develop an outreach program for ash fall events.
Volcano	Consider		Update emergency response planning and develop client focused outreach program for ash fall events affecting river, air, and highway transportation, and industrial facilities and operations.
Volcano	Consider		Evaluate capability of water treatment plants to deal with high turbidity from ash falls, update emergency response plans, and upgrade treatment facilities' physical plant to deal with ash falls. Prioritize and initiate actions to fill capability gaps.
Volcano	Consider		Evaluate ash impact on storm water drainage system and develop mitigation actions.
Wind			
Wind	<i>Ongoing</i>		Review ordinances and develop outreach programs to assure mobile homes and manufactured buildings are protected from severe wind and flood hazards. (Anchoring, elevation, siting, and other methods as applicable)
Wind	Consider		Identify and prioritize critical facilities' overhead utilities that could be placed underground to reduce power disruption from wind storm / tree blow down damage.
Wind	<i>Ongoing</i>		Revise requirements to place utilities underground to reduce power disruption from wind storm / tree blow down damage when upgrading or during new development.
Wind	Consider		Increase power line wire size and incorporate quick disconnects (break away devices) to reduce ice load power line failure during severe wind or winter ice storm events.
Expansive Soils			
Expansive Soils	<i>Ongoing</i>		Review construction codes to require non-absorbent fill soils that slope away from foundations for a minimum of five feet to prevent ponding and water retention.

Table H-12. City of Sheridan Mitigation Actions Considered

Hazard	Status	Comment	Description
Expansive Soils	<i>Ongoing</i>		Require building design, engineering, and construction processes that address expansive soil conditions at potentially affected building sites.
Expansive Soils	Consider		Plant trees a distance equal to their mature height away from a structure built on expansive soils. Minimum distance from foundation is 15 feet.
Expansive Soils	<i>Ongoing</i>		Require road design, engineering, and construction processes that address expansive soil conditions. Water absorption prevention, impermeable membrane, soil compaction, and drainage methods need to be considered once geologic studies determine soil composition.
Drought	Consider		Develop inventory of low moisture tolerant crops to reduce drought impact to agricultural lands. Promote outreach programs that address soil health and soil moisture preservation.
Drought			
Drought	Consider		Develop outreach agricultural programs that promote reducing topsoil loss during drought conditions and to encourage soil moisture level monitoring to help minimize crop loss.
Drought	Consider		Develop educational programs and initiatives related to water conservation and irrigation during drought periods.
Dam Failure			
Dam Failure	Consider		Prepare high resolution dam failure inundation area maps; use to update emergency response plans and public notification.
Dam Failure	Consider		Evaluate the adequacy of dike systems or holding ponds for both floods and earthquakes and implement mitigation measures as necessary.
Disruption of Utilities and Transportation Systems (DUTS)			
DUTS	Consider		Develop outreach program to educate and encourage residents to maintain several days of emergency supplies for power outages or road closures.
DUTS	Consider		Review and update emergency response plans for utility disruptions.
DUTS	Consider		Review and update emergency response plans for transportation route disruptions.
DUTS	<i>Ongoing</i>		Identify and prioritize all “jurisdiction owned” & “non-jurisdiction owned” critical facilities that have backup power and emergency operations plans.
Hazardous Materials (HAZMAT)			
HAZMAT	<i>Ongoing</i>		Purchase backup power systems for all identified critical facilities.
HAZMAT	<i>Ongoing</i>		Annually review and update HAZMAT inventories and ensure that emergency responders are trained for site-specific incidents.
HAZMAT	<i>Ongoing</i>		Enhance emergency planning, emergency response training, and equipment acquisition to address hazardous materials incidents for emergency and first responders and public works staff.
HAZMAT	Consider		Train Public Works staff to identify extremely hazardous substances (EHS) and to follow EMS protocols.
HAZMAT	Consider		Develop outreach program to educate the public regarding chemical hazards, safe handling, storage, and disposal procedures.
HAZMAT	Consider		Research, develop, and implement methods to protect waterways from hazardous materials events.
HAZMAT	Consider		Prepare a site-specific summary of hazardous materials used, stored, and commonly transported in the jurisdictional area.

Table H-12. City of Sheridan Mitigation Actions Considered

Hazard	Status	Comment	Description
			The summary should include mapped facility locations with a hazardous materials inventory, emergency response protocols, and mitigation actions.
HAZMAT	Consider		Implement a business registration program with supplemental hazardous materials identification
HAZMAT	Consider		Upgrade physical security, detection, and response capability for critical facilities using information obtained from hazard assessments and risk analysis. Include water systems and any high-profile facilities such as jurisdiction water systems, sewer systems, electrical substations, major timber industry facilities, and sites with large quantities of hazardous substances (HS) and extremely hazardous substances (EHS).
HAZMAT	<i>Ongoing</i>		Develop an outreach program to educate residents to be alert to activities that could lead to a terrorist threat

EVALUATING AND PRIORITIZING MITIGATION ACTIONS

The following section defines mitigation action evaluation and implementation as stipulated in DMA 2000 and its implementing regulations.

DMA 2000 Requirements: Mitigation Strategy - Implementation of Mitigation Actions

Implementation of Mitigation Actions

Requirement: §201.6(c)(3)(iii): [The mitigation strategy section shall include] an action plan describing how the actions identified in section (c)(3)(ii) will be prioritized, implemented, and administered by the local jurisdiction. Prioritization shall include a special emphasis on the extent to which benefits are maximized according to a cost benefit review of the proposed projects and their associated costs.

Element

- Does the new or updated mitigation strategy include how the actions are prioritized? (For example, is there a discussion of the process and criteria used?)
- Does the new or updated mitigation strategy address how the actions will be implemented and administered, including the responsible department, existing and potential resources, and the timeframe to complete the action?
- Does the new or updated prioritization process include an emphasis on the use of a cost-benefit review to maximize benefits?
- Does the updated plan identify the completed, deleted, or deferred mitigation actions as a benchmark for progress, and if activities are unchanged (i.e., deferred), does the updated plan describe why no changes occurred?

Source: FEMA, July 2008.

The Steering Committee evaluated and prioritized each of the mitigation actions to determine which considered actions would be included in the Mitigation Action Plan. The Committee then determined the responsible agency and potential funding sources. The Mitigation Action Plan represents mitigation projects and programs to be implemented through the cooperation of multiple entities.

The City of Sheridan Steering Committee evaluated the simplified STAPLEE evaluation criteria (shown below) and the Benefit-Cost Analysis Fact Sheet (Appendix P) for prioritizing its “considered” mitigation actions listed in Table H-12. The Steering Committee determined that the committee consisted of sufficient expertise to select those mitigation actions that would most benefit the City without using the STAPLEE-E evaluation tool.

Upon review, the Steering Committee assigned a high priority ranking to actions that best fulfill the goals of the MHMP and are appropriate and feasible for the City and responsible entities to implement during the 5-year lifespan of this version of the MHMP. As such, the Steering Committee determined that only the existing and new mitigation actions that received a high priority ranking would be included in the countywide Mitigation Action Plan. Table H-14 depicts the City’s mitigation actions grouped by hazard and in descending priority order within each hazard.

MITIGATION GOALS AND ACTIONS PRIORITIZED & ASSIGNED

The City of Sheridan reviewed the Yamhill County goals and modified them to better suite the City's needs and subsequently adopted the Goals in Table H-13 for the current planning period.

Table H-13. City of Sheridan's Mitigation Goals	
Goal Number	Goal Description
1	EMERGENCY OPERATIONS <i>Goal Statement:</i> Coordinate natural hazard mitigation activities, where appropriate, with emergency operations plans and procedures and with various other agencies, as appropriate.
2	EDUCATION AND OUTREACH <i>Goal Statement:</i> Develop and implement education and outreach programs to increase public awareness of the risks associated with natural hazards.
3	PARTNERSHIPS <i>Goal Statement:</i> Develop effective partnerships with public and private sector organizations and significant agencies and businesses for future natural hazard mitigation efforts.
4	PREVENTIVE <i>Goal Statements:</i> - 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.
5	NATURAL RESOURCES UTILIZATION <i>Goal Statement:</i> 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.
6	IMPLEMENTATION <i>Goal Statement:</i> Implement strategies to mitigate the effects of natural hazards.

IMPLEMENTING A MITIGATION ACTION PLAN

The following section defines the mitigation action identification process for each participating jurisdiction as stipulated in DMA 2000 and its implementing regulations.

DMA 2000 Requirements: Mitigation Strategy-Identification of Multi-Jurisdictional Mitigation Actions
<p>Identification of Multi-Jurisdictional Mitigation Actions</p> <p>Requirement §201.6(c)(3)(iv): For multi-jurisdictional plans, there must be identifiable action items specific to the jurisdiction requesting FEMA approval or credit of the plan.</p> <p>Element</p> <ul style="list-style-type: none"> ■ Does the new or updated plan include identifiable action items for each jurisdiction requesting FEMA approval of the plan? ■ Does the updated plan identify the completed, deleted or deferred mitigation actions as a benchmark for progress, and if activities are unchanged (i.e., deferred), does the updated plan describe why no changes occurred? <p>Source: FEMA, July 2008.</p>

Table H-14 displays the City of Sheridan’s Mitigation Action Plan matrix that lists mitigation actions by hazard and are only prioritized within each hazard, not in total. Each mitigation action will be implemented and administered by the applicable managing department, agency, or responsible entity.

***Whenever TBD is used, it means that a benefit/cost analysis will be completed as a project is developed to validate the most appropriate mitigation action.*

Table H-14. City of Sheridan Mitigation Action Plan Matrix						
Hazard	Description	Managing Department / Agency	Timeframe	Potential Funding Source(s)	Benefit-Costs / Technical Feasibility	Comments
Natural Hazards						
<i>Multi-Hazard (MH)</i>						
MH	Develop and incorporate building ordinances commensurate with building codes to reflect survivability from wind, seismic, fire, and other hazards to ensure occupant safety.	City Admin	Ongoing	General Fund	BC: TBD** TF: Yes	
MH	Complete critical facility data collection to allow a more thorough vulnerability analysis for the City’s infrastructure.	Administration	1-5 years	General Fund	BC: TBD TF: Yes	
MH	Review ordinances and develop outreach programs to assure manufactured buildings are protected from severe wind and flood hazards. (Anchoring, elevation, and other methods as applicable)	City Admin	Ongoing	General Fund, HMGP, HMA	BC: TBD** TF: Yes	
MH	Review ordinances and develop outreach programs to assure above ground fuel oil and propane tanks are properly anchored and hazardous materials are properly stored and protected from known natural hazards such as seismic or flooding events.	City Admin	Ongoing	General Fund, HMGP	BC: TBD** TF: Yes	
MH	Cross reference and incorporate mitigation planning provisions into all community planning processes such as comprehensive, capital improvement, land use, transportation plans, etc to demonstrate multi-benefit considerations and facilitate using multiple funding source consideration.	City Admin	Ongoing	General Fund	BC: TBD** TF: Yes	
MH	Develop and incorporate mitigation provisions and recommendations into zoning ordinances and community development processes to maintain the floodway and protect critical infrastructure and private residences from other hazard areas.	City Admin	Ongoing	General Fund	BC: TBD** TF: Yes	

Table H-14. City of Sheridan Mitigation Action Plan Matrix

Hazard	Description	Managing Department / Agency	Timeframe	Potential Funding Source(s)	Benefit-Costs / Technical Feasibility	Comments
MH	Purchase and install generators with main power distribution disconnect switches for identified and prioritized critical facilities susceptible to short term power disruption. (i.e. first responder and medical facilities, schools, correctional facilities, and water and sewage pump stations, etc.)	City Admin/Public Works	Ongoing	General Fund, HMGP, HSGP	BC: TBD** TF: Yes	
MH	Develop, produce, and distribute information materials concerning mitigation, preparedness, and safety procedures for all natural hazards.	City Admin	Ongoing	General Fund, HMGP, HMA, FMAP	BC: TBD** TF: Yes	
MH	Explore the need for, develop, and implement hazard zoning ordinances for high-risk hazard area land-use.	City Admin	Ongoing	General Fund	BC: TBD** TF: Yes	
MH	Identify and list repetitively flooded structures and infrastructures, analyze the threat to these facilities, and prioritize mitigation actions to acquire, relocate, elevate, and/or flood proof to protect the threatened population.	City Admin	Ongoing	General Fund, HMGP, HMA	BC: TBD** TF: Yes	
MH	Install storm shutters, hurricane clips, bracing systems etc. to meet or exceed applicable building codes while reducing disaster damages.	Public Works	Ongoing	General Fund, HMGP, HMA	BC: TBD** TF: Yes	
MH	Perform hydrologic and hydraulic engineering, and drainage studies and analyses. Use information obtained for feasibility determination and project design. This information should be a key component, directly related to a proposed project.	Public Works	Ongoing	General Fund	BC: TBD** TF: Yes	
MH	Retrofit structures to protect them from seismic, floods, high winds, earthquakes, or other natural hazards.	Public Works	Ongoing	General Fund, HMGP, HMA	BC: TBD** TF: Yes	
MH	Integrate the Mitigation Plan findings into planning and regulatory documents and programs and into enhanced emergency planning.	City Admin	Ongoing	General Fund	BC: TBD** TF: Yes	

Table H-14. City of Sheridan Mitigation Action Plan Matrix

Hazard	Description	Managing Department / Agency	Timeframe	Potential Funding Source(s)	Benefit-Costs / Technical Feasibility	Comments
<i>Flood</i>						
Flood	Develop an outreach program to educate public concerning NFIP participation benefits, floodplain development, land use regulation, and NFIP flood insurance availability to facilitate continued compliance with the NFIP.	City Admin	Ongoing	General Fund, HMA	BC: TBD** TF: Yes	
Flood	Install new streamflow and rainfall measuring gauges.	Public Works	Ongoing	General Fund, HMGP, HMA, NOAA/NWS	BC: TBD** TF: Yes	
Flood	Develop, or revise, adopt, and enforce storm water ordinances and regulations to manage run-off from new development, including buffers and retention basins.	City Admin/Public Works	Ongoing	General Fund	BC: TBD** TF: Yes	
Flood	Increase culvert size to increase its drainage efficiency.	City Admin/Public Works	Ongoing	General Fund, HMGP, HMA	BC: TBD** TF: Yes	
Flood	Construct an emergency spillway at a dam or other structure to relieve excess water contained during high flow periods to reduce dam failure potential.	City Admin/Public Works	Ongoing	General Fund, HMGP, HMA, DMS	BC: TBD** TF: Yes	
Flood	Provide flood protection to mitigate damage and contamination of wastewater treatment systems.	City Admin/Public Works	Ongoing	General Fund, HMGP, HMA	BC: TBD** TF: Yes	
Flood	Develop and implement flood risk reduction program and outreach efforts considering upstream storage, channel improvements, and flood walls or levee construction.	City Admin/Public Works	Ongoing	General Fund, HMGP, HMA	BC: TBD** TF: Yes	

Table H-14. City of Sheridan Mitigation Action Plan Matrix

Hazard	Description	Managing Department / Agency	Timeframe	Potential Funding Source(s)	Benefit-Costs / Technical Feasibility	Comments
<i>Winter Storm</i>						
Winter Storm	Develop critical facility list needing emergency back-up power systems, prioritize, seek funding and implement mitigation actions.	City Admin/Public Works	Ongoing	General Fund, HMGP, HMA	BC: TBD** TF: Yes	
Winter Storm	Develop, implement, and maintain partnership program with electrical utilities to use underground utility placement methods where possible to reduce or eliminate power outages from severe winter storms. Consider developing incentive programs.	City Admin/Public Works, Utility Companies	Ongoing	General Fund, Utility Co	BC: TBD** TF: Yes	
Winter Storm	Develop personal use and educational outreach training for a “safe tree harvesting” program. Implement along utility and road corridors, preventing potential winter storm damage.	Public Works	Ongoing,	General Fund, HMGP, HMA	BC: TBD** TF: Yes	
Winter Storm	Purchase NOAA Weather radios and develop a web portal linking residents to various weather information sites. (NWS, FEMA, The Weather Channel).	City Admin	Ongoing,	General Fund, NOAA/ NWS	BC: TBD** TF: Yes	
Winter Storm	Implement and enforce the most current Uniform International, and State, Building Codes to ensure structures can withstand winter storm hazards such as high winds, rain, water and snow.	City Admin/Public Works	Ongoing	General Fund	BC: TBD** TF: Yes	
Winter Storm	Review critical facilities and government building energy efficiency, winter readiness, and electrical protection capability. Identify, prioritize, and implement infrastructure upgrade or rehabilitation project prioritization and development.	City Admin/Public Works	Ongoing	General Fund, HMGP, HMA	BC: TBD** TF: Yes	
<i>Landslide</i>						
Landslide	Develop process to limit future development in high landslide potential areas (permitting, geotechnical review, soil stabilization techniques, etc).	City Admin	Ongoing	General Fund	BC: TBD** TF: Yes	
Landslide	Update the storm water management plan to include regulations to control runoff, both for flood reduction and to minimize saturated soils on steep slopes that can cause landslides.	City Admin/Public Works	Ongoing	General Fund, HMGP	BC: TBD** TF: Yes	

Table H-14. City of Sheridan Mitigation Action Plan Matrix

Hazard	Description	Managing Department / Agency	Timeframe	Potential Funding Source(s)	Benefit-Costs / Technical Feasibility	Comments
Landslide	Develop a vegetation management plan addressing slope-stabilizing root strength while facilitating precipitation containment.	City Admin/Public Works	Ongoing	General Fund	BC: TBD** TF: Yes	
<i>Wildland Fire</i>						
Wildland Fire	Develop, adopt, and enforces burn ordinances that require burn permits, restricts campfires, and controls outdoor burning.	City Admin/Fire District	Ongoing	General Fund, FMAP	BC: TBD** TF: Yes	
<i>Earthquake</i>						
Earthquake	Update existing (or adopt the most current) Uniform Building Code	City Admin	Ongoing	General Fund	BC: TBD** TF: Yes	
Earthquake	Implement and enforce the Uniform, International, and State Building Codes.	City Admin/Public Works	Ongoing	General Fund	BC: TBD** TF: Yes	
Earthquake	Inspect and/or certify all new construction.	City Admin/Public Works	Ongoing	General Fund	BC: TBD** TF: Yes	
<i>Wind</i>						
Wind	Review ordinances and develop outreach programs to assure mobile homes and manufactured buildings are protected from severe wind and flood hazards. (Anchoring, elevation, siting, and other methods as applicable)	City Admin/Public Works	Ongoing	General Fund	BC: TBD** TF: Yes	City Admin
Wind	Revise requirements to place utilities underground to reduce power disruption from wind storm / tree blow down damage when upgrading or during new development.	City Admin/Public Works	Ongoing	General Fund	BC: TBD** TF: Yes	City Admin
<i>Disruption of Utilities and Transportation Systems (DUTS)</i>						
DUTS	Identify and prioritize all “jurisdiction owned” & “non-jurisdiction owned” critical facilities that have backup power and emergency operations plans.	City Admin/Public Works	Ongoing	General Fund	BC: TBD** TF: Yes	City Admin

Table H-14. City of Sheridan Mitigation Action Plan Matrix

Hazard	Description	Managing Department / Agency	Timeframe	Potential Funding Source(s)	Benefit-Costs / Technical Feasibility	Comments
HAZMAT						
HAZMAT	Purchase backup power systems for all identified critical facilities.	City Admin/Public Works	Ongoing	General Fund, HSGP	BC: TBD** TF: Yes	
HAZMAT	Annually review and update HAZMAT inventories and ensure that emergency responders are trained for site-specific incidents.	City Admin/Public Works/ District	Ongoing	General Fund, HSEP, CSEEP, CERCLA, SARA	BC: TBD** TF: Yes	
HAZMAT	Enhance emergency planning, emergency response training, and equipment acquisition to address hazardous materials incidents for emergency and first responders and public works staff.	City Admin/Public Works/Fire District	Ongoing	General Fund, HSEP, CSEEP, CERCLA, SARA	BC: TBD** TF: Yes	
HAZMAT	Develop an outreach program to educate residents to be alert to activities that could lead to a terrorist threat	City Admin/Public Works	Ongoing	General Fund, HSEP	BC: TBD** TF: Yes	

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