

CITY OF LA PINE ADDENDUM

Introduction

This document serves as the City of La Pine's Addendum to the Deschutes County Natural Hazards Mitigation Plan (NHMP). The City's Addendum is considered part of the County's multi-jurisdictional plan, and meets the following requirements: (1) Multi-jurisdictional Plan Adoption §201.6(c)(5), (2) Multi-jurisdictional Participation §201.6(a)(3), (3) Multi-Jurisdictional Risk Assessment §201.6(c)(2) (iii), and (4) Multi-jurisdictional Mitigation Strategy §201.6(c)(3)(iv).

A description of the city specific planning and adoption process follows, along with detailed community specific action items; for detailed information see Volume IV, Appendix B. Information about the city's risk relative to the County's risk to natural hazards is documented in this addendum's Hazard Analysis and Issue Identification section. The section considers how the city's risk differs from or matches that of the County's; additional information on Risk Assessment is provided within Volume I, Section 2 of this NHMP.

How was the Plan Developed?

The NHMP was developed by the Deschutes County Natural Hazards Mitigation Plan steering committee, while this addendum was created by the City of La Pine steering committee. The Deschutes County Emergency Manager was designated as the NHMP's convener and will take the lead in implementing, maintaining and updating the plan. Locally, City Planning Staff and the City Manager's office convened a steering committee for the purpose of developing the city's addendum.

The local steering committee was closely involved throughout the development of the plan and served as the local oversight body for the plan's development. The local steering committee met on one occasion: April 8th, 2021 (see Appendix B for more information). Steering committee members contributed data and reviewed, and provided guidance towards the community profile, risk assessment, mitigation strategy (action items), and implementation and maintenance plan. The addendum reflects effort from the formal meeting and during subsequent informal meetings between members of the steering committee and with Central Oregon Intergovernmental Council (COIC) facilitators.

An open public involvement process is essential to the development of an effective plan. In order to develop a comprehensive approach to reducing the effects of natural disasters, the planning process should include opportunities for the public, neighboring communities, local and regional agencies, as well as private and nonprofit entities to comment on the plan.¹ COIC provided a publicly accessible project webpage for the general public in order to make meeting materials and contact information available throughout the update process. In addition,

¹ Code of Federal Regulations, Chapter 44. Section 201.6, subsection (b). 2015

Deschutes County and the City of La Pine provided press releases on their websites to encourage the public to offer feedback on the plan update.

In addition, COIC administered a public opinion survey to obtain additional input from the public regarding the County's risks, vulnerabilities, hazards history, and mitigation strategies. See Volume IV, Appendix F for more information.

Updating the mitigation plan is a requirement to gain eligibility for the Federal Emergency Management Agency's Pre-Disaster Mitigation, Hazard Mitigation, and Flood Mitigation Assistance grant Programs. This project is funded through the Federal Emergency Management Agency's (FEMA) FY12 Pre-Disaster Mitigation Competitive Grant Program (PDMC – PL-10-OR-2012-002).

The La Pine Addendum to the Deschutes County NHMP was adopted on [DATE] and approved by FEMA on [DATE]. The Deschutes MNHMP was approved by FEMA on [DATE], the plan is effective for Deschutes County and La Pine through [DATE].

For more information on the composition of the steering committee and the process see this NHMP's Volume I, Acknowledgements and Executive Summary, and Volume IV, Appendix B.

Action Item Matrix

The City's action items were first developed through a two-stage process in 2015 by the local steering committee, facilitated by Oregon Partnership for Disaster Resilience (OPDR). In 2021, the local steering committee, facilitated by COIC, updated the status of existing action items and added one new action item. In addition, there are 23 County Action Items that include La Pine as an "Affected Jurisdiction." For additional information see the discussion near the end of this document.

The City's actions are listed below in matrix format. For more detailed information on each action, see the action forms within Attachment 1 of this addendum.

Table LA-1 City of La Pine Action Items

2021 Action Item	High Priority	Mitigation Action Title	Lead Organization	Partner Organization(s)	Timeline	Status
Multi-Hazard #1 <i>(previously Winter Storm #1)</i>		Support local electric cooperative and seek funding to protect highest risk utility lines. Harden key infrastructure.	City Administration, Public Works	Internal: Planning External: Deschutes County, MidState Electric Cooperative	Long-Term	Ongoing
Multi-hazard #2	X	Explore options to create a cluster sewer system for La Pine and the area of the county between La Pine and Sunriver.	City Administration, Public Works	Internal: Planning, Finance, Legal External: DEQ, Deschutes County	Short-Term	Removed
Multi-hazard #3	X	Improve existing sewer effluent leach field to mitigate concerns due to high groundwater.	City Administration, Public Works	Internal: Planning External: DEQ, Deschutes County	Short-Term	Removed
Drought #1	X	Improve water supply and delivery systems to reduce vulnerability by acquiring additional water rights and providing a second water line from the city's reservoir, wells, and pumps. Improvements should be designed to accommodate drought events.	City Administration and Public Works: Contract Legal services	Internal: Planning Department, Finance Department External: OWRD, DEQ, EPA, Deschutes County	Long-Term	Ongoing
Flood #1		Identify drainage areas to provide better stormwater drainage in core area due to rain or snow events.	City Administration, Public Works	Internal: Planning External: DEQ, Deschutes County	Long-Term	Complete
Wildfire #1	X	Support projects to reduce fuel inside and adjacent to city to provide buffer zones around populated areas.	City Administration, Public Works, Fire Department	Internal: Planning External: Deschutes County	Ongoing	Removed
NEW Wildfire #2	X	Support projects to reduce risk of hazardous wildfires inside and adjacent to city in wildland-urban interface areas by: a. Improving forest health & resiliency b. Hardening communities and structures c. Fire prevention d. Suppression support	City Administration, Public Works, Fire Department	Internal: Planning External: Deschutes County, USFS/BLM, City	Ongoing	New

Source: City of La Pine NHMP Steering Committee, 2021

How Will the Plan be Implemented?

The City Council will be responsible for adopting the City of La Pine addendum to the Deschutes County NHMP. This addendum designates a coordinating body and a convener to oversee the development and implementation of action items. Because the city addendum is considered part of the County plan, the city will look for opportunities to partner with the County to maintain the plan, and coordinate mitigation efforts through the implementation of action items, etc. The City’s steering committee will convene after re-adoption of the City of La Pine addendum annually with the County every spring. For more details on the meeting schedule and process, see Volume I, Section 4. The City Manager or their designee will serve as the convener and will be responsible for convening the local steering committee. The convener will also remain active in the County’s planning process. The steering committee will seek to involve senior staff and decision makers throughout the duration of the five-year implementation and maintenance of the NHMP addendum.

Implementation through Existing Programs

Many of the Natural Hazards Mitigation Plan’s recommendations are consistent with the goals and objectives of the city’s existing plans and policies. Where possible, the City of La Pine will implement the NHMP’s recommended actions through existing plans and policies. Plans and policies already in existence have support from local residents, businesses, and policy makers. Many land-use, comprehensive, and strategic plans get updated regularly, allowing them to adapt to changing conditions and needs. Implementing the NHMP’s action items through such plans and policies increases their likelihood of being supported and implemented.

The City of La Pine currently has the following plans that relate to natural hazard mitigation:

Table LA-2 Existing Plans

Jurisdiction	Document	Year
City of La Pine	Comprehensive Plan	2018
City of La Pine	Development Code (Flood, Section 9.12)	2012
City of La Pine	Transportation System Plan	2013
City of La Pine	Greater La Pine CWPP	2020
City of La Pine	Water System Capital Facilities Plan	2016

Source: City of La Pine, 2021

The steering committee and the community’s leadership have the option to add or implement action items at any time. This allows the steering committee to consider mitigation strategies as new opportunities arise, such as funding for action items that may not be of the highest priority. When new actions are identified, they should be documented using an action item form (see Attachment 2). Once a proposed action form has been submitted to the convener, the action will become part of the City’s addendum.

Continued Public Participation

Keeping the public informed of the city's efforts to reduce the city's risk to future natural hazards events is important for successful plan implementation and maintenance. The city is committed to involving the public in the plan review and updated process. The City Addendum along with the County Plan will be posted on-line on COIC's website (<https://www.coic.org/emergency-preparedness/natural-hazard-mitigation-plans/deschutes-county-nhmp/>), as well as the County and City websites, so that the public may view the plan at any time.

In addition, natural hazards information dissemination is conducted throughout the year when opportunities present themselves via the city offices and website.

Plan Maintenance

The Deschutes County Natural Hazards Mitigation Plan will be updated every five years in accordance with the update schedule outlined in the Disaster Mitigation Act of 2000. During the County plan update process, the city will also review and update its addendum. The convener will be responsible for convening the steering committee to address the questions outlined below.

- Are there new partners that should be brought to the table?
- Are there new local, regional, state, or federal policies influencing natural hazards that should be addressed?
- Has the community successfully implemented any mitigation activities since the plan was last updated?
- Have new issues or problems related to hazards been identified in the community?
- Are the actions still appropriate given current resources?
- Have there been any changes in development patterns that could influence the effects of hazards?
- Have there been any significant changes in the community's demographics that could influence the effects of hazards?
- Are there new studies or data available that would enhance the risk assessment?
- Has the community been affected by any disasters? Did the plan accurately address the impacts of this event?

These questions will help the steering committee determine what components of the mitigation plan need updating. The steering committee will be responsible for updating any deficiencies found in the plan.

The remainder of this addendum includes three sections:

1. Community Profile and Asset Identification,
2. Hazard Identification and Risk Assessment, and
3. Mitigation Strategy section.

COMMUNITY PROFILE ASSET IDENTIFICATION

This section provides city specific asset identification. For information on the characteristics of La Pine, in terms of geography, environment, population, demographics, employment and economics, as well as housing and transportation see Volume IV, Appendix C, *Community Profile*. Many of these community characteristics can affect how natural hazards impact communities and how communities choose to plan for natural hazard mitigation. Considering the city specific assets during the planning process can assist in identifying appropriate measures for natural hazard mitigation.

We live in a place with a varied geography and communities. We would like to recognize and acknowledge the indigenous land of the Confederated Tribes of Warm Springs, Molalla, Paiute, Klamath, Modok, Yahooskin Band of Snake Indians, and Tribes of Middle Oregon. We want to recognize the people that came before us and honor their traditions and stewardship of the land. Acknowledgement is a simple, powerful way of showing respect for Indigenous People's history and culture.

Asset Identification

The following assets were identified by the steering committee in 2021:

Critical and Essential Facilities

- Deschutes County Sheriff's Office Emergency Management has access to an inventory of critical and essential facilities.

Deschutes County, State, and Federal Critical and Essential Facilities (located in La Pine):

- Deschutes County Sheriff's Office Substation – 51340 US-97

Special Districts with Offices in La Pine

- Midstate Electric Cooperative, Inc. – 16755 Finley Butte Road
- La Pine Rural Fire Protection District
 - Station 101 (Main) - 51550 Huntington Road
 - Station 103 – 15990 Burgess Road

La Pine School District

- La Pine Elementary School – 51615 Coach Road
- Rosland Elementary School – 52350 Yaeger Way
- La Pine Middle School – 16360 First Street
- La Pine Senior High School – 51633 Coach Road

Social Service Providers

- Please see <https://www.thrivecentraloregon.org/services> for a comprehensive list of resource providers throughout Central Oregon, including La Pine.

Population

La Pine's estimated population as of December 15, 2020 is 2,005 people. The city's population has grown an estimated 370 people or 23.0% since the 2010 Census.² La Pine's acknowledged Coordinated Population Forecast is 2,352 people by the year 2025, which represents an increase of 682 people or 41% between 2013 and 2025.³

Land Use

The City of La Pine incorporated in 2006 and it's acknowledged comprehensive plan is the "City of La Pine Comprehensive Plan". The Oregon Land Conservation and Development Commission first acknowledged the plan in 2010. The City implements the plan through the La Pine Development Code, which was last updated in 2020. The current zoning map for La Pine can be found at the City of La Pine's Planning Commission [webpage](#).

La Pine has lower property values, as measured against the other incorporated communities of Deschutes County, and a high demand for a greater variety of housing and employment. Recent development trends include establishment of an Urban Renewal District in 2014, and the rapid expansion of platted and recorded subdivisions and accompanying single family and multifamily developments

Parks and Open Space

The La Pine Park and Recreation District operates and maintains ten parks, open spaces, and facilities.⁴ The city's parks include Audia Park, Finley Butte Sports Complex, La Pine Community Park, Frontier Heritage Park, Leona Park, Rosland Campground and the John C. Johnson building, La Pine Community Center, and the La Pine Skate Park. Additionally the La Pine Senior Activity Center is another community asset that is maintained under a community 501(c)3.

Economy

La Pine is the smallest city in Deschutes County and has the lowest rate of growth, however, the population is expected to grow by 40% by 2032. The community is dominated by small employers and the La Pine Industrial Park contains over 150 available acres of state-certified, shovel-ready parcels.⁵

² Portland State University, Population Research Center, "Annual Population Estimates", 2010, 2020.

³ 2018-2068 Coordinated Population Forecast for Deschutes County – 2018

⁴ La Pine Park and Recreation Website: <http://www.lapineparks.org>, accessed April 5, 2021.

⁵ State of Oregon Employment Department: News.

(<https://www.qualityinfo.org/documents/10182/73818/Labor+Force+and+Unemployment+by+Area?version=1.88>)

The seasonally adjusted unemployment rate for Deschutes County was 6.8% in December 2020. The number of employed persons was 90,278, and the civilian labor force was 96,841.⁶

Cultural and Historic Resources

The sites and structures listed below (Table LA-3) represent the city’s official list of historic places compiled by the city and County, and approved by the Oregon Land Conservation and Development Commission.

Table LA-3 List of Historic and Cultural Resources – City of La Pine

Historic Site/ Name	Location
Pioneer Hall/ La Pine Commercial Club/ Little Deschutes Grange 939	51518 Morson Street
Improved Order of Red Men Cemetery (La Pine Cemetery)	17200 Reed Road

Source: City of La Pine Comprehensive Plan (2018)

⁶ <https://www.edcoinfo.com/>, accessed April 5, 2021.

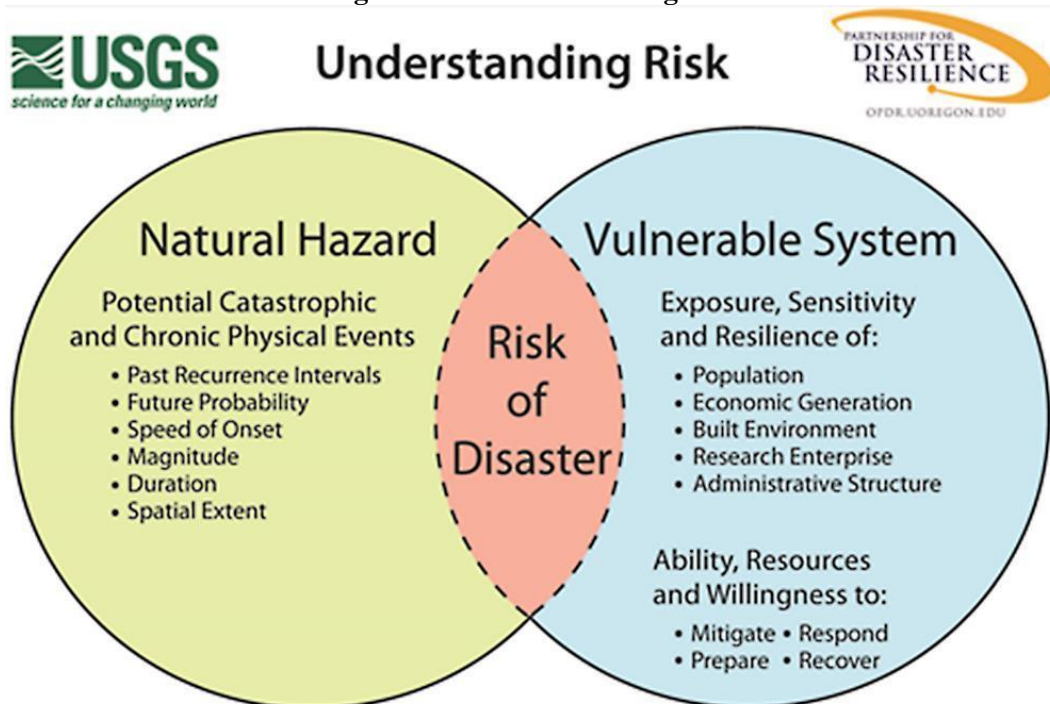
RISK ASSESSMENT

This section of the NHMP addendum addresses 44 CFR 201.6(b)(2) - Risk Assessment. In addition, this chapter can serve as the factual basis for addressing Oregon Statewide Planning Goal 7 – Areas Subject to Natural Hazards. Assessing natural hazard risk has three phases:

- **Phase 1:** Identify hazards that can impact the jurisdiction. This includes an evaluation of potential hazard impacts – type, location, extent, etc.
- **Phase 2:** Identify important community assets and system vulnerabilities. Example vulnerabilities include people, businesses, homes, roads, historic places and drinking water sources.
- **Phase 3:** Evaluate the extent to which the identified hazards overlap with, or have an impact on, the important assets identified by the community.

The information presented below, along with hazard specific information presented elsewhere in this addendum, within the Hazard Annexes (Volume II), and community characteristics presented in the Community Profile (Appendix C), will be used as the local level rationale for the risk reduction actions identified in this addendum. The risk assessment process is graphically depicted in Figure LA-1 below. Ultimately, the goal of hazard mitigation is to reduce the area where hazards overlap vulnerable systems.

Figure LA-1 Understanding Risk



Source: Oregon Partnership for Disaster Resilience

Hazard Analysis Methodology

This NHMP utilizes a hazard analysis methodology that was first developed by FEMA circa 1983, and gradually refined by the Oregon Military Department’s Office of Emergency Management over the years.

The methodology produces scores that range from 24 (lowest possible) to 240 (highest possible). Vulnerability and probability are the two key components of the methodology. Vulnerability examines both typical and maximum credible events, and probability endeavors to reflect how physical changes in the jurisdiction and scientific research modify the historical record for each hazard. Vulnerability accounts for approximately 60% of the total score, and probability approximately 40%.

This method provides the jurisdiction with a sense of hazard priorities, or relative risk. It doesn't predict the occurrence of a particular hazard, but it does "quantify" the risk of one hazard compared with another. By doing this analysis, planning can first be focused where the risk is greatest.

In this analysis, severity ratings and weight factors are applied to the four categories of history, vulnerability, maximum threat (worst-case scenario), and probability as shown in the table below. See Volume I, Section 3 (Risk Assessment) for more information.

Hazard Analysis

On April 8th, 2021, the City of La Pine addendum steering committee developed their hazard vulnerability assessment (HVA), using the County’s HVA as a reference. Changes from the County’s HVA were made where appropriate to reflect distinctions in vulnerability and risk from natural hazards unique to the City of La Pine, which are discussed throughout this addendum.

Table LA-4 shows the HVA matrix for La Pine showing each hazard listed in order of rank from high to low. For local governments, conducting the hazard analysis is a useful step in planning for hazard mitigation, response, and recovery. The method provides the jurisdiction with a sense of hazard priorities, but does not predict the occurrence of a particular hazard.

Table LA-4 Hazard Analysis Matrix – City of La Pine

Hazard	Maximum				Total Threat Score	Hazard Rank	
	History	Vulnerability	Threat	Probability			
Wildfire	20	50	100	70	240	# 1	Top Tier
Winter Storm	18	50	100	70	238	# 2	
Windstorm	18	50	50	70	188	# 3	
Volcano	2	50	100	21	173	# 4	
Drought	10	20	90	35	155	# 5	Middle Tier
Earthquake (Cascadia)	2	40	100	7	149	# 6	Tier
Flood	8	50	30	14	102	# 7	
Earthquake (Crustal)	4	20	80	14	118	# 8	Bottom Tier
Landslide	2	5	10	7	24	# 9	

Source: City of La Pine NHMP Steering Committee, 2021.

Three chronic hazards (wildfire, winter storm, and windstorm) and one catastrophic hazard (volcano) rank as the top four hazard threats to the city (Top Tier). The drought and Cascadia earthquake hazards comprise the next two highest ranked hazards (Middle Tier), while the

flood, crustal earthquake, and landslide hazards comprise the lowest ranked hazards (Bottom Tier).

Table LA-5 categorizes the probability and vulnerability scores from the hazard analysis for the city and compares the results to the assessment completed by the Deschutes County NHMP Steering Committee (areas of differences are noted with **bold** text within the city ratings).

Table LA-5 Probability and Vulnerability Comparison

Hazard	La Pine		County	
	Probability	Vulnerability	Probability	Vulnerability
Drought	Moderate	Moderate	High	Low
Earthquake (Cascadia)	Low	High	Low	High
Earthquake (Crustal)	Low	Moderate	Low	Moderate
Flood	Low	High	High	Low
Landslide	Low	Low	Moderate	Low
Volcano	Low	High	Low	High
Wildfire	High	High	High	High
Windstorm	High	High	High	High
Winter Storm	High	High	High	High

Source: City of La Pine NHMP Steering Committee and Deschutes County NHMP Steering Committee, 2021.

Drought

A drought is a period of drier than normal conditions that results in water-related problems. Drought occurs in virtually every climatic zone, but its characteristics vary significantly from one region to another. Drought is a temporary condition; it differs from aridity, which is restricted to low rainfall regions and is a permanent feature of climate. The extent of drought events depends upon the degree of moisture deficiency, and the duration and size of the affected area. Typically, droughts occur as regional events and often affect more than one city and County.

The steering committee determined that the city’s probability for drought is **moderate** (which is lower than the County’s rating) and that their vulnerability to drought is **moderate** (which is higher than the County’s rating).

The City has two water supply wells (Wells 1A and 2B), both located adjacent to the 1.2 million gallon (MG) reservoir on Finley Butte Road (Finley Butte Reservoir). Each well has a pumping capacity of 650 gallons per minute (gpm). The wells are located on City-owned property, approximately 1.5 miles east of La Pine. According to well log data, the wells are 252 and 254 feet deep, respectively, and have been the sole water source for the City (formerly the La Pine Water District) for the past 13 years. When pump tested, the wells were each capable of providing 1,300 gpm of water, with drawdown depths of 24 and 13 feet, respectively. If both wells are pumped at the same time, at the capacity of 650 gpm each of the wells will experience a drawdown of 5 ft. but then recover at a static level within 7 minutes. If demands require utilizing both wells at once, the City should closely monitor the impacts to static water levels in the aquifer.⁷

⁷ La Pine Water System Study Update 2016, accessed April 5, 2021

The City's wells are not located in an area designated by the Oregon Water Resources Department (OWRD) as critical groundwater or groundwater limited. The City of La Pine holds several water rights issued by the State of Oregon for its groundwater sources. For Wells 1A and 2B, a secondary application has been submitted, but the City must provide 405.2 mitigation credits before a permit will be issued. The City also holds a permit for Well 1 and Well 2 located at the City of La Pine's wastewater treatment facility. This water is currently allowed for irrigation use only.⁸

Both Wells 1A and 2b are supported by a single unit backup power source on site. Impacts from a prolonged drought are likely to include an increased demand for water for irrigation and fire prevention and control. The city currently provides information to residents on how to conserve water and has a curtailment plan for critical emergencies that may include curtailing outside watering and mandate voluntary water reduction measures.

For more information on the Drought Hazard (including history and extent) see the Drought Annex in Volume II.

Earthquake

Oregon and the Pacific Northwest in general are susceptible to earthquakes from four sources: 1) the off-shore Cascadia Fault Zone; 2) deep intraplate events within the subducting Juan de Fuca Plate; 3) shallow crustal events within the North American Plate; and 4) earthquakes associated with volcanic activity.⁹

The areas most susceptible to ground amplification and liquefaction have young, soft alluvial sediments, found along river and stream channels. The extent of the damage to structures and injury and death to people will depend upon the type of earthquake, proximity to the epicenter and the magnitude and duration of the event.

The steering committee HVA evaluated both crustal earthquakes and a Cascadia earthquake. The steering committee determined that the city's probability of experiencing a crustal earthquake is **low** (which is the same as the County's rating) and that their vulnerability to a crustal earthquake is **moderate** (which is the same as the County's rating). The steering committee determined that the city's (and State's) probability of experiencing a Cascadia earthquake is **low** (which is the same as the County's rating) and that their vulnerability to a Cascadia earthquake is **high** (which is the same as the County's rating).

Sixty-percent of La Pine's building stock was built after 1990 and the codification of seismic codes. La Pine's soil characteristics lends itself to liquefaction susceptibility and is expected to experience very strong to violent shaking in an earthquake event (see Volume II, Tables II-5 and II-6). As such, the city's vulnerability to earthquakes is higher than other areas of the County because of the area's geology; however, the city's relatively new infrastructure and buildings are relatively resistant to earthquake shaking. The city considers itself to have high vulnerability to a Cascadia earthquake event due to secondary effects of the hazard, including access to transportation routes, energy resources, communications, and the need to assist with refugees of the damage that is expected west of the Cascades.

⁸ City of La Pine Website, accessed April 5, 2021.

⁹ Taylor, George H. and Chris Hannan. The Oregon Weather Book. Corvallis, OR: Oregon State University Press. 1999

Information on specific buildings' estimated seismic resistance, determined by DOGAMI in 2007, is shown in Tables LA-6 below. The table displays the rankings of all facilities within the city's jurisdiction; each "X" represents one building within that ranking category. These scores have not been updated since 2007, but any new buildings can be assumed "low" risk given new building codes.

Of the school facilities evaluated by DOGAMI using RVS, all three have buildings with very high (100% chance) collapse potential. Of the public safety facilities evaluated, two (2) have very high (100% chance) collapse potential; including the La Pine RFPD and the Deschutes County Sheriff's Office.

Table LA-6 Rapid Visual Survey Scores

Facility	Level of Collapse Potential			
	Low (< 1%)	Moderate (>1%)	High (>10%)	Very High (100%)
Schools				
La Pine Elementary School (51615 Coach Rd, La Pine)				X
La Pine Middle School (16360 First St, La Pine)	X			X
La Pine Senior High School (51633 Coach Rd, La Pine) - Addition Classroom (Aug. 2010)	X			X
Public Safety				
La Pine RFPD (51550 Huntington Way, La Pine)	X			X
La Pine RFPD (15990 Burgess Rd, La Pine)			X	
Deschutes County Sherriff's Office (51340 HWY 97, La Pine)				X

Source: DOGAMI 2007. Open File Report 0-07-02. Statewide Seismic Needs Assessment Using Rapid Visual Assessment.

The County and cities have opted to create one action item for all the facilities that have a "high" or "very high" rating (see Appendix A). The buildings with 'high' or 'very high' collapse potential include multiple education facilities located throughout the city, all of which can play a key role in/during disaster events or during long-term recovery.

For more information on the Earthquake Hazard (including history and extent) see the Earthquake Annex in Volume II.

Flood

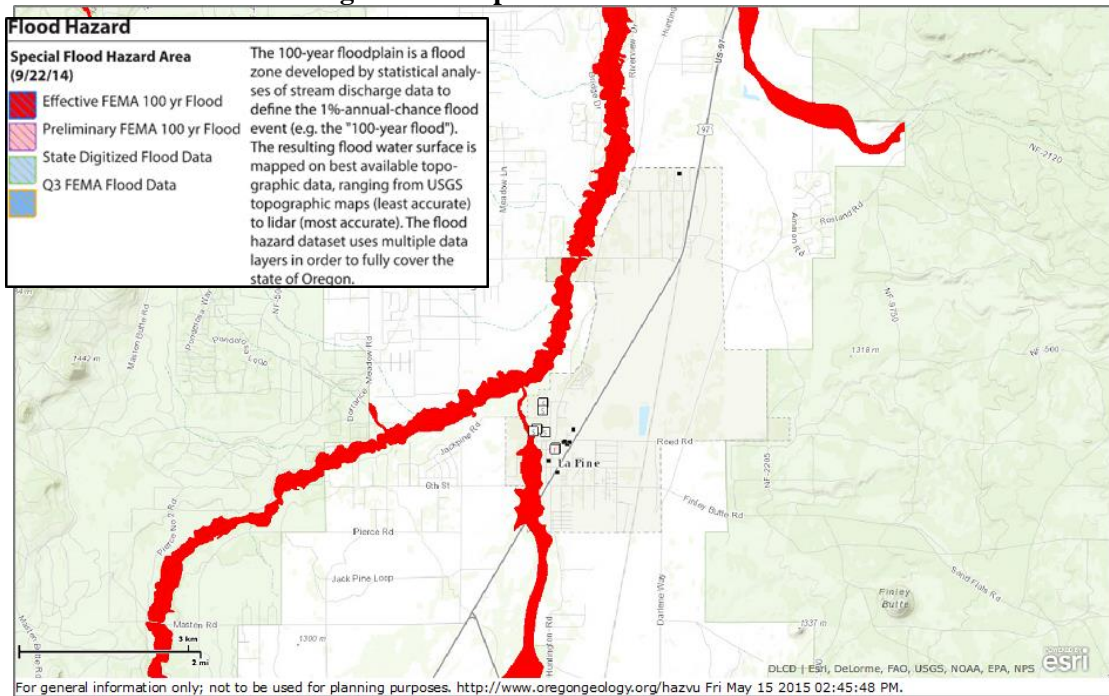
Flooding results when rain and snowmelt creates water flow that exceeds the carrying capacity of rivers, streams, channels, ditches, and other watercourses. In Oregon, flooding is most common from October through April when storms from the Pacific Ocean bring intense rainfall.

Most of Oregon’s destructive natural disasters have been floods.¹⁰ Flooding can be aggravated when rain is accompanied by snowmelt and frozen ground; the spring cycle of melting snow is the most common source of flood in the region. The principal types of flood that occur in La Pine include: spring/snowmelt flooding, warm winter rain-on-snow flooding, ice jams, flash floods, and dam failure.

The steering committee determined that the city’s probability for flood is **low** (which is lower than the County’s rating) and that their vulnerability to flood is **high** (which is higher than the County’s rating).

The city’s principal flood concern is from the Little Deschutes River which passes through the southwest corner of the city and has a flood season that extends from October through June (the majority of the large events occur from April through June). The largest flood event occurred in December 1964, with a peak discharge of 3,660 cfs about 1.5 miles north of La Pine; this event was considered a 500-year flood event (0.2-percent-annual-chance-flood).¹¹ The next two largest flood events occurred in June 1950 and May 1956 both with discharges of 1,320 cfs (25-year flood occurrence interval). These floods were considered nuisance floods and did not cause significant damage in part due to the undeveloped character of the floodplain. La Pine has a portion of its community that is developed near the special flood hazard area, however, the development is outside of the floodplain (see Figures LA-2 below).

Figure LA-2 Special Flood Hazard Area



Source: Oregon HazVu: Statewide Geohazards Viewer (HazVu), accessed May 15, 2015

¹⁰ Taylor, George H. and Chris Hannan. *The Oregon Weather Book*. Corvallis, OR: Oregon State University Press. 1999

¹¹ Deschutes County Flood Insurance Study (2007)

National Flood Insurance Program (NFIP)

The Deschutes County Flood Insurance Rate Maps (FIRMs) were modernized in 2007. The table below shows that as of November 2014, La Pine has one (1) National Flood Insurance Program (NFIP) policy in force for a single-family home and has zero (0) paid claims. The city has not had a Community Assistance Visit (CAV) and is not a member of the Community Rating System (CRS). Additionally, the community repetitive flood loss record for La Pine does not include any repetitive flood loss, or severe repetitive flood loss, buildings and has not had any repetitive loss claims.

Table LA-7 Flood Insurance Detail

Jurisdiction	Current FIRM Date	Initial FIRM Date	Total Policies	Pre-FIRM Policies	Policies by Building Type				Minus Rated A Zone
					Single Family	2 to 4 Family	Other Residential	Non-Residential	
La Pine	9/28/2007	9/28/2007	1	1	1	0	0	0	0

Jurisdiction	Insurance in Force	Total Paid Claims	Pre-FIRM Claims Paid	Substantial Damage Claims	Repetitive Loss Buildings	Severe Repetitive Loss Buildings	Total Paid Amount	CRS Class Rating	Last CAV

Source: Information compiled by Department of Land Conservation and Development, November 2014.

For more information on the Flood Hazard (including history and extent) see the Flood Annex in Volume II.

Landslide

A landslide is any detached mass of soil, rock, or debris that falls, slides or flows down a slope or a stream channel. Landslides are classified according to the type and rate of movement and the type of materials that are transported. In a landslide, two forces are at work: 1) the driving forces that cause the material to move down slope, and 2) the friction forces and strength of materials that act to retard the movement and stabilize the slope. When the driving forces exceed the resisting forces, a landslide occurs.

The steering committee determined that the city's probability for landslide is **low** (which is lower than the County's rating) and that their vulnerability to landslide is **low** (which is the same as the County's rating).

The city has had no problems with landslides in city limits in known history and is located in a generally stable area.

For more information on the Landslide Hazard (including history and extent) see the Landslide Annex in Volume II.

Volcano

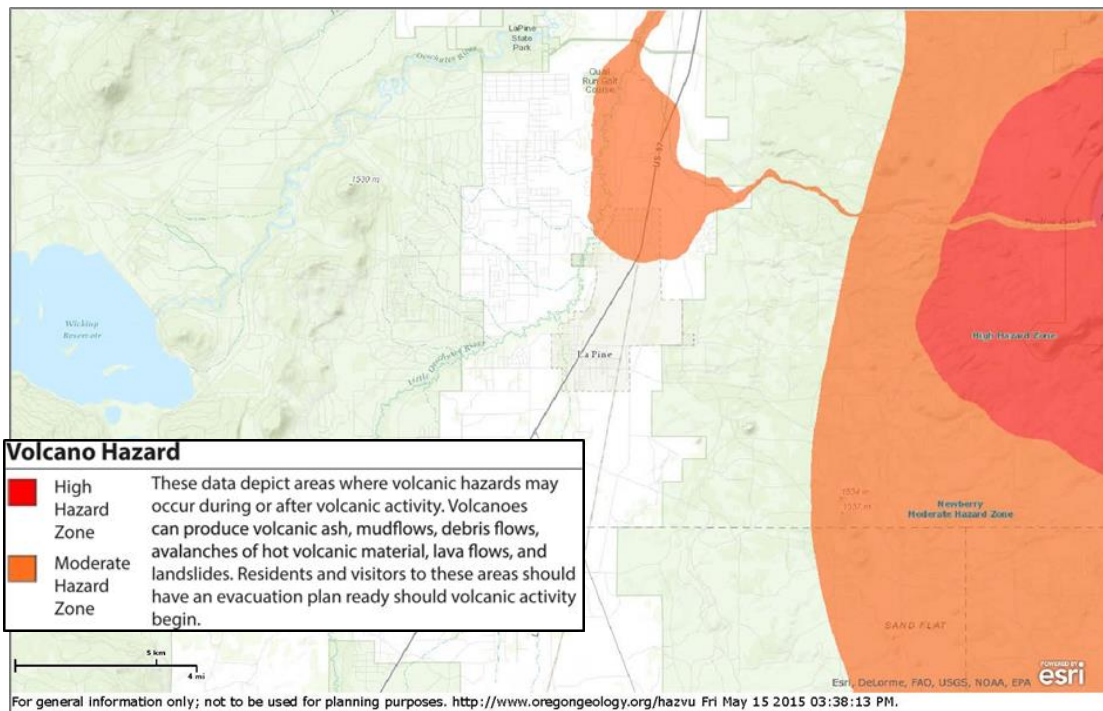
The Pacific Northwest lies within the "ring of fire", an area of very active volcanic activity surrounding the Pacific Basin. Volcanic events occur regularly along the ring of fire, in part because of the movement of the Earth's tectonic plates. Volcanic events have the potential to

coincide with numerous other hazards including ash fall, earthquakes, lava flows, pyroclastic flows, lahars, and debris flows, and landslides.

The steering committee determined that the city’s probability for volcanic events is **low** (which is the same as the County’s rating) and that their vulnerability to volcanic events is **high** (which is the same as the County’s rating).

Were a volcanic event to occur in the Cascades region of Oregon, La Pine could be at risk for ash fall, regional lava flows, and lahars, depending on the severity of the event and the direction of the wind. Due to La Pine’s proximity to Newberry Crater, in relation to other areas within eastern Oregon, the effects of a volcanic event may be more disruptive to normal business, economic activity, and health than to other regions of the County. Figure LA-3 shows the regional volcano hazards that indicate that La Pine is within a moderate hazard zone; see also Figure II-16 within Volume II, *Hazard Annexes*.

Figure LA-3 Volcano Hazards



Source: Oregon HazVu: Statewide Geohazards Viewer (HazVu), accessed May 15, 2015

For more information on the Volcano Hazard (including history and extent) see the Volcano Annex in Volume II.

Wildfire

Wildfires occur in areas with large amounts of flammable vegetation that require a suppression response due to uncontrolled burning. Fire is an essential part of Oregon’s ecosystem, but can also pose a serious threat to life and property particularly in the state’s growing rural communities. Wildfire can be divided into three categories: interface, wildland, and firestorms. The increase in residential development in interface areas has resulted in greater wildfire risk.

Fire has historically been a natural wildland element and can sweep through vegetation that is adjacent to a combustible home. New residents in remote locations are often surprised to learn that in moving away from built-up urban areas, they have also left behind readily available fire services providing structural protection.

The steering committee determined that the city's probability for wildfire is **high** (which is the same as the County's rating) and that their vulnerability to wildfire is **high** (which is the same as the County's rating).

Wildfires occur regularly in the vicinity of La Pine; recent fires that have significantly impacted La Pine include the Bridge Dive in 2019 (12 acres, 2 structures), Burgess Road in 2018 (3 acres, 1 structure) and in 2013 (168 acres), Park Fire in 2005 (139 acres), Davis Lake in 2003 (21,181 acres), Crane Complex in 2001 (713 acres), and Pine Forest in 2001 (120 acres); for a complete list of recent large wildfires see Table II-7 and Figure II-19) within Volume II, Hazard Annex. The Greater La Pine Country Community Wildfire Protection Plan (CWPP, 2020) relies upon (1) the Oregon Department of Forestry Assessment of Risk Factors and (2) the classification ratings of individual areas under the Oregon Forestland-Urban Interface Fire Protection Act of 1997 (Senate Bill 360) to determine fire risk within the Greater La Pine Wildland-Urban Interface (WUI). According to the Senate Bill 360 ratings the City of La Pine WUI (see map in Attachment 3) rated as High to Extreme fire risk; and according to the ODF Assessment the City of La Pine WUI is rated with a **high** probability of wildfire risk occurring and **high** vulnerability¹². The City of La Pine is rated as a "Higher" (Next Highest Priority) Risk Priority Community for hazardous fuel treatments within the CWPP.¹³ For more information on wildfire risk and fuels reduction projects see the Greater La Pine Country CWPP and visit the Project Wildfire website: <http://www.projectwildfire.org/>.

For more information on the Wildfire Hazard (including history and extent) see the Wildfire Annex in Volume II and the Greater La Pine Country CWPP.

Windstorm

Winds associated with thunderstorms are short-lived, but strong winds not associated with thunderstorms can last several hours. Although windstorms can affect the entirety of Deschutes County, they are especially dangerous in developed areas with significant tree stands and major infrastructure, especially above ground utility lines. A windstorm will frequently knock down trees and power lines, damage homes, businesses, public facilities, and create tons of storm related debris.

The steering committee determined that the city's probability for windstorm is **high** (which is the same as the County's rating) and that their vulnerability to windstorm is **high** (which is the same as the County's rating).

Historical wind events have uprooted trees, damaged roofs and windows, and damaged utility lines. Windstorms have not caused disastrous local damage but are a persistent problem. Windstorms are often associated with microbursts (thunderstorms). A primary windstorm

¹² The ODF Assessment takes into account the likelihood of a fire occurring, hazard rating, protection capability, human and economic values protected, structural vulnerability to determine the overall score. For detailed information review the CWPP available on the Project Wildfire website: <http://www.projectwildfire.org/>

¹³ Greater La Pine Country CWPP, 2020.

vulnerability for the community is damage to utility lines, including fiber optics, which are key to the economic sectors of the community.

For more information on the Windstorm Hazard (including history and extent) see the Windstorm Annex in Volume II.

Winter Storm

Severe winter storms can consist of rain, freezing rain, ice, snow, cold temperatures, and wind. They originate from troughs of low pressure offshore that ride along the jet stream during fall, winter, and early spring months. Severe winter storms affecting Deschutes County typically originate in the Gulf of Alaska or in the central Pacific Ocean. These storms are most common from November through March.

The steering committee determined that the city's probability for winter storm is **high** (which is the same as the County's rating) and that their vulnerability to winter storm is **high** (which is the same as the County's rating).

La Pine is located near the eastern slope of the Cascade Mountain Range. Major winter storms can and have occurred in the La Pine area, and while they typically do not cause significant damage; they are frequent and have the potential to impact economic activity. Road closures on Highway 97, or the passes to the Willamette Valley (Highways 58, 20, and 26), due to winter weather are a common occurrence and can interrupt commuter and large truck traffic. The city budgets funds for seasonal winter storm needs, such as clearing roads.

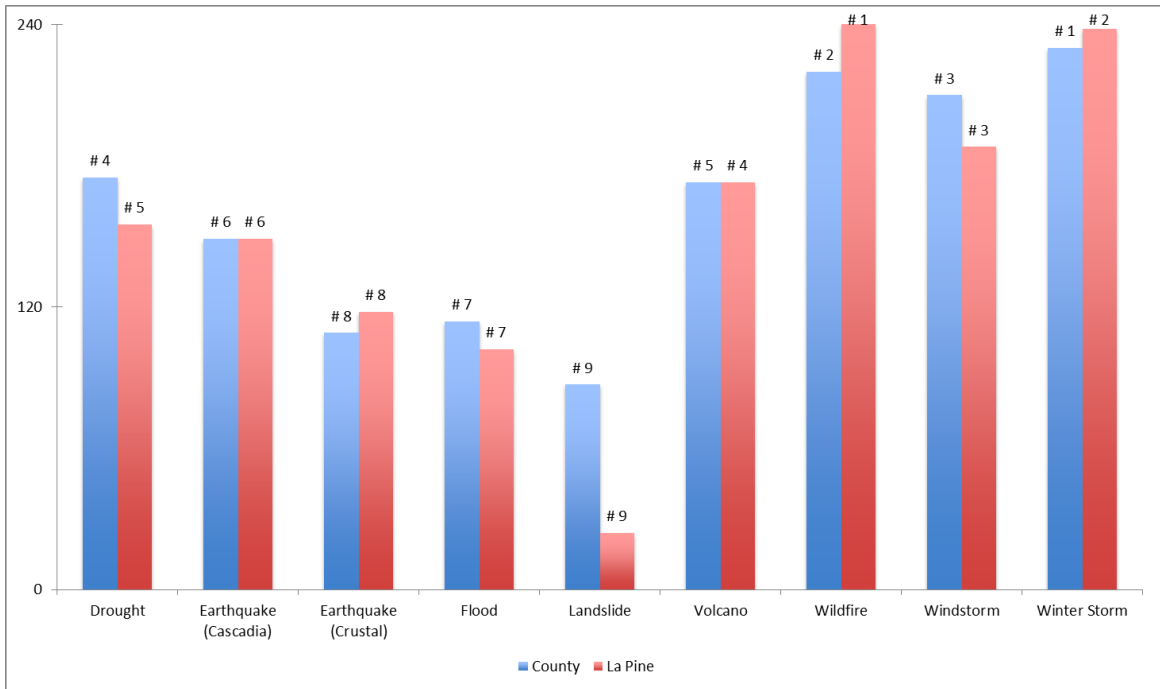
For more information on the Winter Storm Hazard (including history and extent) see the Winter Storm Annex in Volume II.

Summary

The figure below presents a summary of the hazard analysis for the City of La Pine and compares the results to the assessment completed by the Deschutes County NHMP Steering Committee.

In terms of history, probability, vulnerability, and maximum threat, the hazard analysis for the city overall rated their threat to the crustal earthquake, wildfire, and winter storm hazards higher than the County; and the drought, flood, landslide, and windstorm hazards were rated lower than the County. All other hazards were rated the same as the County's ratings.

Figure LA-4 Overall Hazard Analysis Comparison – La Pine and Deschutes County



Source: City of La Pine NHMP Steering Committee and Deschutes County NHMP Steering Committee, 2021.

Mitigation Plan Mission

The plan mission states the purpose and defines the primary functions of Deschutes County's NHMP. It is intended to be adaptable to any future changes made to the plan and need not change unless the community's environment or priorities change.

The mission of the Deschutes County NHMP is:

To promote sound public policy designed to protect people, critical facilities, infrastructure, property, and the environment from natural hazards.

This can be achieved by increasing public awareness, documenting the resources for risk reduction and loss-prevention, and identifying activities to guide the County towards building a safer, more disaster resistant community.

The La Pine steering committee reviewed the 2021 NHMP plan mission statement and agreed it accurately describes the overall purpose and intent of this plan. The steering committee believes the concise nature of the mission statement allows for a comprehensive approach to mitigation planning.

Mitigation Plan Goals

Mitigation plan goals are more specific statements of direction that Deschutes County citizens, and public and private partners can take while working to reduce the County's risk from natural hazards. These statements of direction form a bridge between the broad mission statement and particular action items. The goals listed here serve as checkpoints as agencies and organizations begin implementing mitigation action items.

The La Pine Addendum steering committee reviewed and agreed to the 2021 Deschutes County NHMP plan goals. All the plan goals are important and are listed below in no particular order of priority. Establishing community priorities within action items neither negates nor eliminates any goals, but it establishes which action items to consider to implement first, should funding become available. Below is a list of the 2021 NHMP goals:

Goal 1 - Protect life and reduce injuries resulting from natural hazards.

Goal 2 - Minimize property damage from natural hazards.

Goal 3 - Minimize damage to critical or essential infrastructure and services from natural hazards.

Goal 4 - Enhance the ability of Deschutes County's economy to rebound quickly from the effects of natural hazard events.

Goal 5 - Minimize project impacts to the environment and utilize natural solutions to protect people and property from natural hazards.

Goal 6 - Enhance the County's capability to implement a comprehensive County wide natural hazards mitigation strategy.

Goal 7 - Motivate the "whole community" to build resilience and mitigate against the effects of natural hazards through engagement, listening, learning, information- sharing, and funding opportunities.

Goal 8 - Eliminate development within mapped hazardous areas where the risks to people and property cannot be practicably mitigated.

Goal 9 - Minimize damage to historic and cultural resources from natural hazards.

Goal 10 - Enhance communication, collaboration, and coordination among agencies at all levels of government, sovereign tribal nations, and the private sector to mitigate natural hazards.

Goal 11 - Mitigate the inequitable impacts of natural hazards by prioritizing and directing resources and investments to build resilience in the most vulnerable populations and the communities least able to respond and recover.

Goal 12 - Develop, integrate, and align natural hazards mitigation and climate adaptation efforts based on the evolving understanding of the interrelationships between climate change and climate-related natural hazard events.

Goal 13 - Reduce repetitive and severe repetitive flood losses.

Goal 14 - Minimize or eliminate potential impacts from dams posing the greatest risk to people, property, and infrastructure.

(Note: although numbered the goals are not prioritized.)

Mitigation Plan Action Items

Short- and long-term action items identified through the planning process are an important part of the mitigation plan. Action items are detailed recommendations for activities that local departments, citizens and others could engage in to reduce risk. They address both multi-hazard (MH) and hazard-specific issues. Action items can be developed through a number of sources such as steering committee work sessions, stakeholder input, etc. The figure below illustrates some of these sources. A description of how the plan's mitigation actions were developed is provided below.

Action Item Worksheets

Each action item has a corresponding action item worksheet describing the activity, identifying the rationale for the project, identifying potential ideas for implementation, and assigning coordinating and partner organizations. The action item worksheets can assist the community in pre-packaging potential projects for grant funding. The worksheet components are described within Volume I, Section 3 (Mitigation Strategy). The City specific action item worksheets are located in Attachment 1, *Action Item Forms*.

The City is also a party to several actions described in the County NHMP; each jurisdiction listed on the County Action Item forms as an “Affected Jurisdiction” will contribute to and work towards completion of that action as it pertains to their jurisdiction. There are 23 County Action Items that include La Pine as an “Affected Jurisdiction”. For detailed information on each County level action item form see Volume I, Section 3, *Mitigation Strategy* and Volume IV, Appendix A, *Action Item Forms*.

Action Item Development Process

Development of action items was a multi-step, iterative process that involved brainstorming, discussion, review, and revisions by the steering committee. A number of actions identified by the County steering committee include the City as an affected jurisdiction; these actions are broad actions that include implementation components at both the County and city level. All actions were reviewed by the committee and revised as necessary before becoming a part of this document.

ATTACHMENT I: ACTION ITEM FORMS

Action Item Forms

The action item forms portray the overall action plan framework and identify linkages between the plan goals, partnerships (coordination and partner organizations), and actions. Table LA-8 provides a list of actions for the city. The pages that follow include individual forms for each mitigation action.

Table LA-8 Mitigation Actions

Action Item	High Priority	Timeline	Status	Related Hazards								
				Drought	Earthquake	Flood	Landslide	Volcano	Wildfire	Windstorm	Winter Storm	
MH #1		Long-Term	Ongoing							X	X	X
MH #2	X	Short-Term	Removed	X		X						
MH #3	X	Short-Term	Removed	X		X						
DR #1	X	Long-Term	Ongoing	X								
FL #1		Long-Term	Complete			X						
WF #1	X	Ongoing	Removed							X		
New WF #2	X	Ongoing	New							X		

Source: City of La Pine NHMP Steering Committee

Mitigation Action: Multi-Hazard #1 (Previously "Winter Storm #1")		Alignment with Plan Goals:		High Priority Action Item?	
Support local electric cooperative and seek funding to protect highest risk utility lines. Harden key infrastructure.		<input checked="" type="checkbox"/> 1	<input checked="" type="checkbox"/> 2	<input checked="" type="checkbox"/> 3	<input type="checkbox"/> 4
		<input type="checkbox"/> 5	<input type="checkbox"/> 6	<input checked="" type="checkbox"/> 7	<input type="checkbox"/> 8
		<input type="checkbox"/> 9	<input checked="" type="checkbox"/> 10	<input type="checkbox"/> 11	<input type="checkbox"/> Yes
Alignment with Existing Plans/Policies:					
Rationale for Proposal (Why is this important?):					
The La Pine area can experience large amounts of snowfall, which can place heavy loads on exposed utility infrastructure.					
Ideas for Implementation (How will it get done?):		Action Status Report			
Identify high-risk lines first and coordinate with local electric companies to bring attention to the need for hardening.		Ongoing (added in 2015). New transmissions have been built with fire resiliency codes in mind.			
Champion/ Responsible Organization:	City Administration and Public Works				
Internal Partners:		External Partners:			
Planning Department		Deschutes County , MidState Electric Cooperative			
Potential Funding Sources:		Estimated cost:	Timeline:		
State, SDCs, levies, LIDs, grants, etc.		TBD	<input type="checkbox"/> Ongoing <input type="checkbox"/> Short Term (1-2 years) <input checked="" type="checkbox"/> Long-Term (3-5 years)		
Form Submitted by:	2015 NHMP Committee				
Action Item Status:	Ongoing				

Mitigation Action: Multi-hazard #2 (What do we want to do?)		Alignment with Plan Goals:			High Priority Action Item?	
Explore options to create a cluster sewer system for La Pine and the area of the County between La Pine and Sunriver.		<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input checked="" type="checkbox"/> 3	<input type="checkbox"/> 4	<input checked="" type="checkbox"/> Yes
		<input type="checkbox"/> 5	<input type="checkbox"/> 6	<input checked="" type="checkbox"/> 7	<input type="checkbox"/> 8	
		<input type="checkbox"/> 9	<input checked="" type="checkbox"/> 10	<input type="checkbox"/> 11		
Alignment with Existing Plans/Policies:						
La Pine Wastewater, Deschutes County, and DEQ plans						
Rationale for Proposal (Why is this important?):						
The underground geological formations in and near La Pine contain areas that do not support long-term septic use. This can pollute groundwater and has the potential to create safety hazards.						
Ideas for Implementation (How will it get done?):			Action Status Report			
The City, County, and DEQ will need to collaborate and define a study to resolve this issue.			Removed (added in 2015). The City will no longer be pursuing a cluster sewer system for La Pine and the area of County between La Pine and Sunriver.			
Champion/ Responsible Organization:		City Administration, Public Works				
Internal Partners:			External Partners:			
Planning Department, Finance, Legal			DEQ, Deschutes County			
Potential Funding Sources:		Estimated cost:		Timeline:		
State of Oregon, Deschutes County		\$10-15 million		<input type="checkbox"/> Ongoing <input checked="" type="checkbox"/> Short Term (1-2 years) <input type="checkbox"/> Long-Term (3-5 years)		
Form Submitted by:	2015 NHMP Committee					
Action Item Status:	Removed					

Mitigation Action: Multi-hazard #3 (What do we want to do?)		Alignment with Plan Goals:			High Priority Action Item?	
Improve existing sewer effluent leach field to mitigate concerns due to high groundwater.		<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input checked="" type="checkbox"/> 3	<input checked="" type="checkbox"/> 4	<input checked="" type="checkbox"/> Yes
		<input checked="" type="checkbox"/> 5	<input type="checkbox"/> 6	<input checked="" type="checkbox"/> 7	<input type="checkbox"/> 8	
		<input type="checkbox"/> 9	<input checked="" type="checkbox"/> 10	<input type="checkbox"/> 11		
Alignment with Existing Plans/Policies:						
La Pine Waste Water System Capital Facilities Plan, January 2006						
Rationale for Proposal (Why is this important?):						
The underground geological formations in and near La Pine contain areas that do not support long-term septic use. This can pollute groundwater and has the potential to create safety hazards.						
Ideas for Implementation (How will it get done?):			Action Status Report			
The City, County, and DEQ will need to collaborate and define a study to resolve this issue.			Removed (added in 2015). This action item does not have application to our current system as the City uses facultative lagoons onsite.			
Champion/ Responsible Organization:		City Administration and Public Works				
Internal Partners:			External Partners:			
Planning Department			Deschutes County and DEQ			
Potential Funding Sources:		Estimated cost:		Timeline:		
SDCs, levies, LIDs, grants, etc.		TBD		<input type="checkbox"/> Ongoing <input checked="" type="checkbox"/> Short Term (1-2 years) <input type="checkbox"/> Long-Term (3-5 years)		
Form Submitted by:		2015 NHMP Committee				
Action Item Status:		Removed				

Mitigation Action: Drought #1 (What do we want to do?)		Alignment with Plan Goals:			High Priority Action Item?	
Improve water supply and delivery systems to reduce vulnerability by acquiring additional water rights and providing a second water line from the city's reservoir, wells, and pumps. Improvements should be designed to accommodate drought events.		<input checked="" type="checkbox"/> 1	<input checked="" type="checkbox"/> 2	<input checked="" type="checkbox"/> 3	<input type="checkbox"/> 4	<input checked="" type="checkbox"/> Yes
		<input checked="" type="checkbox"/> 5	<input type="checkbox"/> 6	<input type="checkbox"/> 7	<input type="checkbox"/> 8	
		<input checked="" type="checkbox"/> 9	<input checked="" type="checkbox"/> 10	<input type="checkbox"/> 11		
Alignment with Existing Plans/Policies:						
Water System Capital Facilities Plan (2016; currently being updated)						
Rationale for Proposal (Why is this important?):						
<p>There is one main line serving the city that is potentially vulnerable to natural hazards.</p> <p>The community is expected to grow and will need additional capacity to accommodate expected growth; additional systems should be developed to accommodate drought events.</p> <p>The Water System Capital Facilities Plan identifies additional water rights in the short-term of 0.67 cfs, and up to 2.032 cfs in the long-term to accommodate expected growth to operate both wells.</p>						
Ideas for Implementation (How will it get done?):			Action Status Report			
Master Plan updates will be scheduled and commensurate financing options clarified and implemented. This may include SDCs, levies, Local Improvement District bonding, grants, and other financing elements available to the city.			Ongoing (added in 2015). The Water System Plan was updated in 2016; La Pine has no potable secondary source due to mitigation questions.			
Champion/ Responsible Organization:		City Administration and Public Works: Contract Legal services				
Internal Partners:			External Partners:			
Planning Department, Finance Department			OWRD, DEQ, EPA, Deschutes County			
Potential Funding Sources:		Estimated cost:		Timeline:		
SDCs, levies, LIDs, grants, etc.		5,000,000.00		<input type="checkbox"/> Ongoing <input type="checkbox"/> Short Term (1-2 years) <input checked="" type="checkbox"/> Long-Term (3-5 years)		
Form Submitted by:		2015 NHMP Committee				
Action Item Status:		Ongoing				

Mitigation Action: Flood #1 (What do we want to do?)	Alignment with Plan Goals:			High Priority Action Item?	
Identify drainage areas to provide better stormwater drainage in the core area due to rain or snow events.	<input type="checkbox"/> 1	<input checked="" type="checkbox"/> 2	<input checked="" type="checkbox"/> 3	<input checked="" type="checkbox"/> 4	<input type="checkbox"/> Yes
	<input checked="" type="checkbox"/> 5	<input type="checkbox"/> 6	<input checked="" type="checkbox"/> 7	<input checked="" type="checkbox"/> 8	
	<input checked="" type="checkbox"/> 9	<input checked="" type="checkbox"/> 10	<input type="checkbox"/> 11		
Alignment with Existing Plans/Policies:					
Central Oregon Stormwater Manual, La Pine Code of Ordinances					
Rationale for Proposal (Why is this important?):					
By deliberately planning for stormwater management through improved drainage strategies, low impact development and green infrastructure, areas susceptible to drainage issues can be improved for reduced risk of flooding. These strategies could also be utilized to beautify areas with rain gardens, bioswales, etc.					
Ideas for Implementation (How will it get done?):		Action Status Report			
Closer coordination with developers in the design of onsite stormwater facilities. Identification of “problem areas” to focus resources for improvement; these areas could be used as demonstration/education sites for the public and developers.		Complete (added in 2015). In 2018-19: 1. The City installed a stormwater extension line along third street that travels east from Hwy. 97 and through the downtown core. This removes excess stormwater effluent, with a disbursement area located in the meadows west of the downtown core which mitigates both rain and snowmelt stormwater accumulation events. 2. The City, in concert with ODOT completed the HWY. 97 west side improvement project which included drywell installation and stormwater conveyance off of Hwy 97 which travels through the core of La Pine’s commercial district. 3. The City created on site retention for snowmelt in the downtown core with the creation of the pond/swale at the vacant 4 th . St. & Hwy. 97 property. This retention pond is used in winter months for the containment of snow removal in the downtown area, and will facilitate clearing of future accumulation events as the City implements its Transit Center project on the property.			
Responsible Organization:	City Administration and Public Works				
Internal Partners:		External Partners:			
Planning Department		Deschutes County and DEQ			
Potential Funding Sources:		Estimated cost:	Timeline:		
SDCs, levies, LIDs, grants, etc.		TBD	<input type="checkbox"/> Ongoing <input type="checkbox"/> Short Term (1-2 years) <input checked="" type="checkbox"/> Long-Term (3-5 years)		
Form Submitted by:	2015 NHMP Committee				

Action Item Status:	Complete		
Mitigation Action: Wildfire #1 (What do we want to do?)	Alignment with Plan Goals:		High Priority Action Item?
Support projects to reduce fuel inside and adjacent to city to provide buffer zones around populated areas.	<input checked="" type="checkbox"/> 1	<input checked="" type="checkbox"/> 2	<input checked="" type="checkbox"/> 3
	<input checked="" type="checkbox"/> 5	<input type="checkbox"/> 6	<input checked="" type="checkbox"/> 7
	<input checked="" type="checkbox"/> 9	<input checked="" type="checkbox"/> 10	<input type="checkbox"/> 11
	<input type="checkbox"/> 4	<input type="checkbox"/> 8	<input checked="" type="checkbox"/> Yes
Alignment with Existing Plans/Policies:			
La Pine Code of Ordinances			
Rationale for Proposal (Why is this important?):			
Wildfire has proven to be a significant natural hazard in Central Oregon, with thousands of acres burned every year. To minimize the risk of La Pine, its residents, and its structures from being impacted by a wildfire, fire fuels must be minimized to slow the spread of potential fires.			
Ideas for Implementation (How will it get done?):		Action Status Report	
Coordinate with County to continue thinning forests on the periphery of town. Code enforcement for overgrown properties.		Removed (added in 2015). This action item was removed and revised to more accurately reflect the ongoing mitigation work related to wildland fire prevention in the City of La Pine. See NEW Wildfire #1 for the revised action item.	
Champion/ Responsible Organization:	City Administration, Public Works, Fire Department		
Internal Partners:		External Partners:	
Planning Department		Deschutes County	
Potential Funding Sources:		Estimated cost:	Timeline:
Local funding resources, Project Wildfire, ODF		TBD	<input checked="" type="checkbox"/> Ongoing <input type="checkbox"/> Short Term (1-2 years) <input type="checkbox"/> Long-Term (3-5 years)
Form Submitted by:	2015 NHMP Committee		
Action Item Status:	Removed		

Mitigation Action: NEW Wildfire #2 (What do we want to do?)		Alignment with Plan Goals:	High Priority Action Item?
Support projects to reduce fuel inside and adjacent to city in wildland-urban interface areas by: a. Improving forest health & resiliency b. Hardening communities and structures c. Fire prevention d. Suppression support		<input checked="" type="checkbox"/> 1 <input checked="" type="checkbox"/> 2 <input checked="" type="checkbox"/> 3 <input type="checkbox"/> 4 <input checked="" type="checkbox"/> 5 <input type="checkbox"/> 6 <input checked="" type="checkbox"/> 7 <input type="checkbox"/> 8 <input checked="" type="checkbox"/> 9 <input checked="" type="checkbox"/> 10 <input type="checkbox"/> 11 <input type="checkbox"/> 12 <input type="checkbox"/> 13 <input type="checkbox"/> 14	<input checked="" type="checkbox"/> Yes
Alignment with Existing Plans/Policies:			
La Pine Code of Ordinances, Greater La Pine CWPP, Central Oregon Cohesive Strategy			
Rationale for Proposal (Why is this important?):			
Wildfire has proven to be a significant natural hazard in Central Oregon, with thousands of acres burned every year. To minimize the risks to La Pine, its residents, and its structures from the impacts of a wildfire, fire fuels must be minimized to slow the spread of potential fires.			
Ideas for Implementation (How will it get done?):		Action Status Report:	
1. Thinning, Prescribed Burns 2. Adopting wildfire building codes; Zoning - Adequate building separations; Maintaining private properties per WUI SB 360 Oregon Community Wildfire Protection Act of 1997 3. Community burn regulations; Fireworks ban – sales and private use; Underground utilities 4. City Water supply – Fire Hydrants		Added in 2021.	
Champion/ Responsible Organization:		City Administration, Public Works, Fire Department	
Internal Partners:		External Partners:	
Planning Department		Deschutes County, USFS/BLM, ODF, City of La Pine	
Potential Funding Sources:		Estimated cost:	Timeline:
Local funding resources, Project Wildfire, ODF, USFS, FEMA, NRCS		High – More than \$100,000	<input checked="" type="checkbox"/> Ongoing <input type="checkbox"/> Long-Term (3-5 years) <input type="checkbox"/> Medium (2-5 years) <input type="checkbox"/> Short Term (1-2 years)
Form Submitted by:	2021 NHMP Committee		
Action Item Status:	New		

ATTACHMENT 2: ACTION ITEM FORM TEMPLATE

Action Item: (What do we want to do?)	Alignment with Plan Goals:	High Priority Action Item?
	1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4 <input type="checkbox"/> 5 <input type="checkbox"/> 6 <input type="checkbox"/> 7 <input type="checkbox"/> 8 <input type="checkbox"/> 9 <input type="checkbox"/> 10 <input type="checkbox"/> 11 <input type="checkbox"/> 12 <input type="checkbox"/> 13 <input type="checkbox"/> 14 <input type="checkbox"/>	<input type="checkbox"/> Yes
Alignment with Existing Plans/Policies:		
Rationale for Proposed Action Item (why is it important?):		
Ideas for Implementation (how will it get done?):	Action Status Report	
Potential Funding Sources:	Estimated Cost:	Timeline:
		<input type="checkbox"/> Ongoing <input type="checkbox"/> Long (6+ years) <input type="checkbox"/> Medium (2-5 years) <input type="checkbox"/> Short (0-2 years)
Coordinating/Lead Organization:		
Internal Partners:	External Partners:	
Form Submitted by:		
Action Item Status		