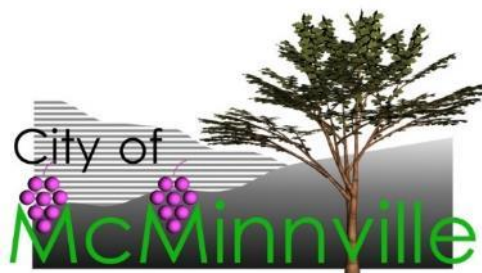


City of McMinnville Addendum to the Yamhill County Multi-Jurisdictional Hazard Mitigation Plan



Photo Credits: Gary Halvorson, Oregon State Archives

Effective: December 22, 2020 through December 21, 2025



Prepared for:
City of McMinnville

Prepared by:
University of Oregon
Institute for Policy Research and Engagement
Oregon Partnership for Disaster Resilience

Planning grant funding provided by:



FEMA

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and

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FEMA

January 20, 2021

The Honorable Casey Kulla
Chair Kulla, Yamhill County Board of Commissioners
535 NE 5th St.
McMinnville, Oregon 97128

Dear Chair Kulla:

On December 22, 2020, the U.S. Department of Homeland Security's Federal Emergency Management Agency (FEMA) Region 10, approved the Yamhill County Hazard Mitigation Plan as a multi-jurisdictional local plan as outlined in Code of Federal Regulations Title 44 Part 201. This approval provides the below jurisdictions eligibility to apply for the Robert T. Stafford Disaster Relief and Emergency Assistance Act's, Hazard Mitigation Assistance grants projects through December 21, 2025, through your state:

Yamhill County	City of Amity	City of Carlton	City of Dayton
City of McMinnville	City of Newberg	City of Sheridan	City of Yamhill

FEMA individually evaluates all application requests for funding according to the specific eligibility requirements of the applicable program. Though a specific mitigation activity or project identified in the plan may meet the eligibility requirements, it may not automatically receive approval for FEMA funding under any of the aforementioned programs.

Approved mitigation plans may be eligible for points under the National Flood Insurance Program's Community Rating System (CRS). For additional information regarding the CRS, please visit: www.fema.gov/national-flood-insurance-program-community-rating-system or contact your local floodplain manager. Over the next five years, we encourage your communities to follow the plan's schedule for monitoring and updating, and to develop further mitigation actions. To continue eligibility, jurisdictions must review, revise as appropriate, and resubmit the plan within five years of the original approval date.

If you have questions regarding your plan's approval or FEMA's mitigation grant programs, please contact Joseph Murray, Planner with Oregon Office of Emergency Management, at (503) 378-2911, who locally coordinates and administers these efforts.

Sincerely,

Kristen Meyers, Director
Mitigation Division

Enclosure

cc: Amie Bashant, Oregon Office of Emergency Management

EG:vl

RESOLUTION NO. 2020 – 67

A Resolution Adopting the City of McMinnville Representation in the Updates to the Yamhill County Multi-Jurisdictional Natural Hazards Mitigation Plan

RECITALS:

Whereas, the City of McMinnville recognizes the threat that natural hazards pose to people, property and infrastructure within our community; and

Whereas, undertaking hazard mitigation actions will reduce the potential for harm to people, property and infrastructure from future hazard occurrences; and

Whereas, an adopted Natural Hazards Mitigation Plan is required as a condition of future funding for mitigation projects under multiple FEMA pre- and post-disaster mitigation grant programs; and

Whereas, the City of McMinnville has fully participated in the FEMA prescribed mitigation planning process to prepare the *Yamhill County, Multi-Jurisdictional Natural Hazard Mitigation Plan*, which has established a comprehensive, coordinated planning process to eliminate or minimize these vulnerabilities; and

Whereas, the City of McMinnville has identified natural hazard risks and prioritized a number of proposed actions and programs needed to mitigate the vulnerabilities of the City of McMinnville to the impacts of future disasters within the *Yamhill County, Multi-Jurisdictional Natural Hazard Mitigation Plan*; and

Whereas, these proposed projects and programs have been incorporated into the *Yamhill County, Multi-Jurisdictional Natural Hazard Mitigation Plan* that has been prepared and promulgated for consideration and implementation by the cities of Yamhill County; and

Whereas, the Oregon Office of Emergency Management and Federal Emergency Management Agency, Region X officials have reviewed the *City of McMinnville addendum* to the *Yamhill County Multi-Jurisdictional Natural Hazard Mitigation Plan* and pre-approved it (dated, September 10, 2020) contingent upon this official adoption of the participating governments and entities; and

Whereas, the NHMP is comprised of comprised of three volumes: Volume I: Basic Plan, Volume II: Jurisdictional Addenda, and Volume III: Appendices, collectively referred to herein as the NHMP; and

Whereas, the NHMP is in an on-going cycle of development and revision to improve its effectiveness; and

Whereas, City of McMinnville adopts the NHMP and directs the staff to develop, approve, and implement the mitigation strategies and any administrative changes to the NHMP.

NOW, THEREFORE, BE IT RESOLVED BY THE COMMON COUNCIL OF THE CITY OF McMinnville, OREGON, as follows:

1. That the City of McMinnville adopts *the Yamhill County Multi-Jurisdictional Natural Hazards Mitigation Plan* as an official plan; and
2. That the City of McMinnville will submit this Adoption Resolution to the Oregon Office of Emergency Management and Federal Emergency Management Agency, Region X officials to enable final approval of the *Yamhill County Multi-Jurisdictional Natural Hazards Mitigation Plan*.
3. That this resolution shall take effect immediately upon passage and shall continue in full force and effect until revoked or replaced

Adopted by the Common Council of the City of McMinnville at a regular meeting held the 8th day of December 2020 by the following votes:

Ayes: Drabkin, Garvin, Geary, Menke, Peralta, Stassens

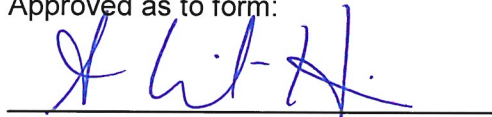
Nays: _____

Approved this 8th day of December 2020.



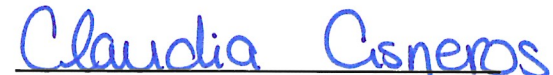
MAYOR

Approved as to form:



City Attorney

Attest:



City Recorder

**A RESOLUTION BY THE MCMINNVILLE WATER AND LIGHT COMMISSION
ADOPTING THE CITY OF MCMINNVILLE REPRESENTATION IN THE
UPDATES TO THE YAMHILL COUNTY MULTI-JURISDICTIONAL NATURAL
HAZARD MITIGATION PLAN**

WHEREAS, the City of McMinnville, a municipal corporation of the State of Oregon, acting by and through its Water and Light Commission (“McMinnville Water and Light Commission”) is responsible for the management of the water, electric, and fiber-optic systems of McMinnville; and

WHEREAS, the McMinnville Water and Light Commission recognizes the threat that natural hazards pose to people, property and infrastructure within our community; and

WHEREAS, undertaking hazard mitigation actions will reduce the potential for harm to people, property and infrastructure from future hazard occurrences; and

WHEREAS, an adopted Natural Hazard Mitigation Plan (NHMP) is required as a condition of future funding for mitigation projects under multiple FEMA pre- and post-disaster mitigation grant programs; and

WHEREAS, by participation of its professional management staff on the McMinnville NHMP Steering Committee, and review of the addendum in the commission meeting record of November 17, 2020, the McMinnville Water and Light Commission has fully participated in the FEMA prescribed mitigation planning process to prepare the *City-of-McMinnville addendum to the Yamhill County, Multi-Jurisdictional Natural Hazard Mitigation Plan*, which has established a comprehensive, coordinated planning process to eliminate or minimize these vulnerabilities; and

WHEREAS, in the addendum the McMinnville Water and Light Commission and the McMinnville City Council have identified natural hazard risks and prioritized a number of proposed actions and programs needed to mitigate the vulnerabilities of the City of McMinnville to the impacts of future disasters within the *Yamhill County, Multi-Jurisdictional Natural Hazard Mitigation Plan*; and

WHEREAS, these proposed projects and programs have been incorporated into the *Yamhill County, Multi-Jurisdictional Natural Hazard Mitigation Plan* that has been prepared and promulgated for consideration and implementation by the cities of Yamhill County; and

WHEREAS, the Oregon Office of Emergency Management and Federal Emergency Management Agency, Region X officials have reviewed the *City-of-McMinnville addendum* to the *Yamhill County Multi-Jurisdictional Natural Hazard Mitigation Plan* and pre-approved it (dated, September 10, 2020) contingent upon this official adoption of the participating governments and entities;

WHEREAS, the NHMP is comprised of three volumes: Volume I: Basic Plan, Volume II: Jurisdictional Addenda, and Volume III: Appendices, collectively referred to herein as the NHMP; and

WHEREAS, the NHMP is in an on-going cycle of development and revision to improve its effectiveness; and

WHEREAS, the McMinnville Water and Light Commission adopts the NHMP and directs its general manager to develop, approve, and implement the mitigation strategies and any administrative changes to the NHMP.

NOW, THEREFORE, BE IT RESOLVED, that the McMinnville Water and Light Commission adopts *the City-of-McMinnville addendum to the Yamhill County Multi-Jurisdictional Natural Hazard Mitigation Plan, as set forth in the commission meeting record of November 17, 2020*, as an official plan; and

BE IT FURTHER RESOLVED, that the McMinnville Water and Light Commission will submit this Adoption Resolution to the Oregon Office of Emergency Management and Federal Emergency Management Agency, Region X officials to enable final approval of the *Yamhill County Multi-Jurisdictional Natural Hazard Mitigation Plan*.

Adopted this 17 day of November, 2020



Mayor and ex-officio member of the Water and Light Commission

ATTEST:


Clerk of the Commission

Date: 11/30/20

Purpose

This is an update of the McMinnville addendum to the Yamhill County Multi-Jurisdictional Natural Hazard Mitigation Plan (NHMP). This addendum supplements information contained in Volume I (Basic Plan) which serves as the NHMP foundation, and Volume III (Appendices) which provide additional information. This addendum meets the following requirements:

- Multi-Jurisdictional **Plan Adoption** §201.6(c)(5),
- Multi-Jurisdictional **Participation** §201.6(a)(3),
- Multi-Jurisdictional **Mitigation Strategy** §201.6(c)(3)(iv), and
- Multi-Jurisdictional **Risk Assessment** §201.6(c)(2)(iii).

Updates to McMinnville's addendum are further discussed throughout the NHMP, and within Volume III, Appendix B, which provides an overview of alterations to the document that took place during the update process.

The City of McMinnville and the McMinnville Water and Light Commission (collectively "the City" or "McMinnville") adopted their addendum to the Yamhill County Multi-jurisdictional NHMP on **December 8 and November 17, 2020** respectively. FEMA Region X approved the Yamhill County NHMP and the City's addendum on **December 22, 2020**. With approval of this NHMP the City is now eligible to apply for the Robert T. Stafford Disaster Relief and Emergency Assistance Act's hazard mitigation project grants through **December 21, 2025**.

Mitigation Plan Mission

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

The City concurs with the mission statement developed during the Yamhill County planning process (Volume I, Section 3):

To promote public policy and mitigation activities which will enhance the safety to life and property 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 sustainable community.

Mitigation Plan Goals

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

The City concurs with the goals developed during the Yamhill County planning process (Volume I, Section 3). All NHMP goals are important and are listed below in no order of priority. Establishing community priorities within action items neither negates nor eliminates any goals, but it establishes which action items to consider implementing first, should funding become available.

Below is a list of the NHMP goals:

GOAL 1: EMERGENCY OPERATIONS

- Coordinate natural hazard mitigation activities, where appropriate, with emergency operations plans and procedures and with other agencies.

GOAL 2: EDUCATION AND OUTREACH

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

GOAL 3: PARTNERSHIPS

- Develop effective partnerships with public and private sector organizations and significant agencies and businesses for future natural hazard mitigation efforts.
- Coordinate natural hazard mitigation actions between the County and local jurisdictions to create more cohesive and effective hazard mitigation efforts.

GOAL 4: PREVENTIVE

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

GOAL 5: NATURAL RESOURCES UTILIZATION

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

GOAL 6: IMPLEMENTATION

- Implement strategies to mitigate the effects of natural hazards and increase the quality of life and resilience of economies in Yamhill County.

GOAL 7: DEVELOPMENT

- Communities appropriately apply development standards that consider the potential impacts of natural hazards.

GOAL 8: DOCUMENTATION

- Document and evaluate progress in achieving hazard mitigation strategies and action items.

Process and Participation

This section of the NHMP addendum addresses 44 CFR 201.6(a)(3), *Participation*.

In addition to establishing a comprehensive community-level mitigation strategy, the Disaster Mitigation Act of 2000 (DMA2K), and the regulations contained in 44 CFR 201, require that jurisdictions maintain an approved NHMP to receive federal funds for mitigation projects. Local adoption, and federal approval of this NHMP ensures that the city will remain eligible for pre-, and post-disaster mitigation project grants.

The Oregon Partnership for Disaster Resilience (OPDR) at the University of Oregon's Institute for Policy Research and Engagement (IPRE) collaborated with the Oregon Office of Emergency Management (OEM), Yamhill County, and McMinnville to update their NHMP. This project is funded through the Federal Emergency Management Agency's (FEMA) Hazard Mitigation Grant Program for DR-4328 (HMGP-DR-4328-OR-5-P). Members of the McMinnville NHMP Steering committee also participated in the County NHMP update process (Volume III, Appendix B).

The Yamhill County NHMP, and McMinnville addendum, are the result of a collaborative effort between citizens, public agencies, non-profit organizations, the private sector, and regional organizations. The McMinnville NHMP Steering Committee guided the process of developing the NHMP.

Convener and Committee

The McMinnville Community Development Director serves as the NHMP addendum convener. The convener of the NHMP will take the lead in implementing, maintaining, and updating the addendum to the Yamhill County NHMP in collaboration with the designated convener of the Yamhill County NHMP (Yamhill County Emergency Manager).

Representatives from the City of McMinnville Steering Committee met formally, and informally, to discuss updates to their addendum (Volume III, Appendix B). The steering committee reviewed, and revised the City's addendum, with focus on the NHMP's risk assessment, and mitigation strategy (action items).

This addendum reflects decisions made at the designated meetings, and during subsequent work, and communication with Yamhill County Emergency Manager, and OPDR. The changes are highlighted with more detail throughout this document, and within Volume III, Appendix B. Other documented changes include a revision of the City's risk assessment, and hazard identification sections, action items, and community profile.

The McMinnville steering committee was comprised of the following representatives:

- Convener, Mike Bisset, Community Development Director
- Jenny Berg, Library Director
- James Burke, McMinnville Water & Light, Water Division Director
- Scott Burke, Information Technology Director
- John Dietz, McMinnville Water & Light, General Manager
- David Koch, City Attorney
- Leland Koester, Wastewater Services Manager
- Rich Leipfert, Fire Chief
- David Renshaw, Superintendent

- Heather Richards, Planning Director
- Scott Rosenbalm, McMinnville Water & Light, Electric Division Director
- Matt Scales, Chief of Police
- Larry Sherwood, Engineering Technician and Inspector
- Jeff Towery, City Manager

Public Participation

Public participation was achieved by posting the NHMP publicly and providing community members the opportunity to make comments and suggestions during the review process. Community members were also provided an opportunity for comment via a survey administered by IPRE (Volume III, Appendix F). During the City public review period (Attachment B) there were no comments provided.

Implementation and Maintenance

The City Council and the Water and Light Commission will be responsible for adopting the McMinnville addendum to the Yamhill County NHMP. This addendum designates the steering committee, and a convener to oversee the development, and implementation of action items. Because the City addendum is part of the County's multi-jurisdictional NHMP, the City will look for opportunities to partner with the County. The City's steering committee will convene after re-adoption of the McMinnville NHMP addendum on an annual schedule. The County is meeting on a semi-annual basis and will provide opportunities for the cities to report on NHMP implementation, and maintenance during their meetings. The Community Development Director will serve as the convener and will be responsible for assembling the steering committee. The steering committee will be responsible for:

- Reviewing existing action items to determine suitability of funding;
- Reviewing existing, and new risk assessment data to identify issues that may not have been identified at NHMP creation;
- Educating, and training new steering committee members on the NHMP, and mitigation actions in general;
- Assisting in the development of funding proposals for priority action items;
- Discussing methods for continued public involvement; and
- Documenting successes, and lessons learned during the year.

The convener will also remain active in the County's implementation, and maintenance process (Volume I, Section 4).

The City will utilize the same action item prioritization process as the County (Volume I, Section 4).

Implementation through Existing Programs

This NHMP is strategic and non-regulatory in nature, meaning that it does not necessarily set forth any new policy. It does, however, provide: (1) a foundation for coordination and collaboration among agencies and the public in the city; (2) identification and prioritization of future mitigation activities; and (3) aid in meeting federal planning requirements and qualifying for assistance programs. The mitigation plan works in conjunction with other city plans and programs including the Comprehensive Land Use Plan, Capital Improvements Plan, and Building Codes, as well as the [Yamhill County NHMP](#), and the [State of Oregon NHMP](#).

The mitigation actions described herein (and priority actions in Attachment A) are intended to be implemented through existing plans and programs within the city. Plans and policies already in existence have support from residents, businesses and policy makers. Where possible, McMinnville will implement the NHMP's recommended actions through existing plans and policies. 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. Implementation opportunities are further defined in action items when applicable.

Future development without proper planning may result in worsening problems associated with natural hazards. McMinnville's acknowledged comprehensive plan is the City of McMinnville Comprehensive Plan. The City implements the plan through the Community Development Code.

McMinnville currently has the following plans that relate to natural hazard mitigation. For a complete list visit the City's [website](#):

- Comprehensive Plan (Volume 1, [Volume 2](#), Volume 3)
- [McMinnville Municipal Code](#)
 - Title 13 Public Utilities
 - Title 15 Building and Construction
 - Title 17 Zoning ([17.48 – Flood Area Zone](#), [17.53 Land Division Standards](#))
- Building Code, [2017 Oregon State Building Code](#) based on 2015 International Residential Code (IRC), and 2012 International Building Code (*to be updated to the 2020 Oregon State Building Code, anticipated October 2020*)
- [Emergency Operations Plan](#) (2010)
- [Public Facility Plan](#) (1995)
- [Transportation System Plan](#) (2010)
- [Conveyance System Master Plan](#) (2008)
- Water Master Plan (2010)
- [Storm Drainage Master Plan](#) (2009)
- Electric System Planning Study (2015)
- [Water Reclamation Facilities Plan](#) (2009)
- McGuire Emergency Action Plan (2018)
- Fire District Seismic Assessment (2018)
- Facilities Assessment (2018)
- [Highway 18/99w South Interchange Access Management Plan](#) (2002)
- [McMinnville Westside Bicycle and Pedestrian Plan](#) (1995)
- [Downtown Improvement Plan](#) (2000)
- [Northeast Gateway Plan](#) (2012)
- [Urban Renewal Plan](#) (2013)
- [Economic Development Strategic Plan](#) (2019)
- McMinnville Water & Light COOP (2018)

Other plans:

- [Yamhill County Community Wildfire Protection Plan](#) (2009, revised Nov. 2015)

Government Structure

The McMinnville City Charter establishes a Mayor-Council form of government, which vests policy authority in a volunteer City Council, and administrative authority for day-to-day operations in an appointed, professional City Manager. The McMinnville City Council consists of a Mayor and six Councilors (two from each ward) who serve four-year terms. The Council meets at least once per month at City Hall. The agenda of each meeting includes time for citizen comment. The city charter vest authority over the water and electric systems of the city in the Water and Light Commission (MW&L). The Commission consists of the mayor and four commissioners whom are appointed to four-year terms by the mayor and approved by the city council. The commission meets at least once per month.

The City of McMinnville currently has the following departments which have a role in natural hazard mitigation:

City Manager office provides strategic planning, budget and finance, and development of public policy recommendations to the City Council.

Community Development is composed of the airport, public works, engineering, and wastewater treatment facilities. Together the departments are responsible for maintaining and operating many of the basic urban services including the City's buildings and fleet (equipment), parks, streets, stormwater system, and wastewater system. The Public Works Department is responsible for the city's [Snow & Ice Response Plan](#).

Planning services include all long range and current planning for new development, as well as the City's flood plain management zone. Planning is also responsible for implementation of the Comprehensive Plan. The planning department also includes the building division which reviews and inspects commercial, industrial, and residential developments.

Police services include law enforcement activities and emergency management (emergency preparedness, mitigation, response and recovery efforts for McMinnville during emergencies, disasters, or disruptions).

Fire provides emergency services including fire suppression, emergency medical response, hospital ambulance transportation, water and dive rescue operations, hazardous materials incidents, and disaster response. Non-emergency services include fire prevention and inspection services, code enforcement, public safety education services/CPR training, fire extinguisher use, residential safety surveys, home fire escape planning, emergency and disaster preparedness planning and training for citizens (CERT), and fire and life safety education in McMinnville schools.

McMinnville Water & Light (MW&L) provides water, power, and fiber to the greater McMinnville area. A general manager oversees daily operations, budgets, finances, and advises the commission on strategic planning. MW&L serves approximately 17,000 electrical customers, 12,000 water customers, and fiber to the City of McMinnville and McMinnville School District facilities. MW&L's electric utility encompasses approximately 75 square miles, has 7 electric sub-stations (11 power transformers), 332 miles of primary distribution lines (55% overhead, 45% underground), and a 115 KV transmission line (5.6 miles). The water utility owns 6350 acres of watershed in the Coast Mountain Range where McGuire and Haskins Reservoirs are located (3.5 billion gallons capacity). Water from McGuire and Haskins Reservoirs is treated at the Norman Scott Water Treatment Plant, which operates

24 hours a day/365 days per year and has the capacity to treat up to 22 million gallons of water per day. After treatment, water is stored in four water reservoirs with storage capacity of 22.7 million gallons.

Continued Public Participation

An open public involvement process is essential to the development of an effective NHMP. To develop a comprehensive approach to reducing the effects of natural disasters, the planning process shall include opportunities for the public, neighboring communities, local, and regional agencies, as well as, private, and non-profit entities to comment on the NHMP during review.¹ Keeping the public informed of efforts to reduce its risk to future natural hazard events is important for successful NHMP implementation, and maintenance. As such, the City is committed to involving the public in the NHMP review and update process (Volume I, Section 4). The City posted the plan update for public comment before FEMA approval, and after approval will maintain the plan on the City's website:

<https://www.mcminnvilleoregon.gov/>.

NHMP Maintenance

The Yamhill County NHMP, and City addendum will be updated every five years in accordance with the update schedule outlined in the Disaster Mitigation Act of 2000. During the County NHMP update process, the City will also review, and update its addendum (Volume I, Section 4). 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 NHMP 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 NHMP 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 NHMP.

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

Mitigation Strategy

This section of the NHMP addendum addresses 44 CFR 201.6(c)(3)(iv), *Mitigation Strategy*.

The City's mitigation strategy (action items) were first developed during the 2019-2020 NHMP planning process and will be revised during subsequent NHMP updates. During these processes, the steering committee assessed the City's risk, identified potential issues, and developed a mitigation strategy (action items).

Priority Action Items

Table MA-1 presents a list of mitigation actions. The steering committee decided to modify the prioritization of action items in this update to reflect current conditions (risk assessment), needs, and capacity. High priority actions are shown in **bold** text with grey highlight. The City will focus their attention, and resource availability, upon these achievable, high leverage, activities over the next five-years. Although this methodology provides a guide for the steering committee in terms of implementation, the steering committee has the option to implement any of the action items at any time. This option to consider all action items for implementation allows the committee to consider mitigation strategies as new opportunities arise, such as capitalizing on funding sources that could pertain to an action item that is not currently listed as the highest priority. Refer to Attachment A for detailed information for each high priority action. Full text of the plan goals referenced in Table MA-1 is located on page MA-2.

Table MA-I McMinnville Action Items

Natural Hazard Action ID	Action Item	Coordinating Organization (Lead)	Partners	Potential Funding	Cost	Timing	Plan Goals Addressed							
							Goal 1	Goal 2	Goal 3	Goal 4	Goal 5	Goal 6	Goal 7	Goal 8
Multi-Hazard Actions														
Multi-Hazard #1	Develop, enhance, and implement public education and information materials concerning mitigation, preparedness and safety procedures for identified natural hazards.	Emergency Management, MW&L	Planning, Public Works, Fire, Police	General fund, grants	L	Ongoing	✓	✓	✓			✓	✓	
Multi-Hazard #2	Incorporate mitigation planning provisions into community planning processes such as comprehensive, capital improvement, land use, transportation plans, zoning ordinances, community development practices, etc.	Planning	Engineering, MW&L	General fund, utility rates	L	Short	✓			✓	✓	✓	✓	
Multi-Hazard #3	Identify critical facilities without emergency power and encourage these facilities to secure emergency power to mitigate power outage events due to natural hazard events. Consider outreach to private property owners.	MW&L	Fire, Police, Public Works, School District	General fund, utility rates	H	Medium	✓		✓		✓	✓	✓	
Multi-Hazard #4	Construct resilient above ground and underground power grid to reduce power line failure during severe wind or winter ice storm events.	MW&L	Public Works, Planning, Developers	Utility rates, private investment	H	Medium	✓		✓	✓	✓		✓	

Natural Hazard Action ID	Action Item	Coordinating Organization (Lead)	Partners	Potential Funding	Cost	Timing	Plan Goals Addressed							
							Goal 1	Goal 2	Goal 3	Goal 4	Goal 5	Goal 6	Goal 7	Goal 8
Multi-Hazard #5	Retrofit critical structures to protect them from seismic, floods, high winds, earthquakes, or other natural hazards.	MW&L	Public Works, Fire, Police, School District	General fund, utility rates, grants	H	Long			✓	✓		✓	✓	✓
Multi-Hazard #6	Develop and maintain GIS mapped critical facility inventory	Engineering, MW&L	Planning, Fire, Police	General fund, grants	L	Short	✓	✓	✓	✓		✓		✓
Multi-Hazard #7	Develop and maintain GIS mapped hazard areas within the UGB.	Engineering, MW&L	Planning, Fire, Police	General fund, grants	L	Short	✓	✓	✓	✓		✓		✓
Multi-Hazard #8	Develop & construct multi-jurisdictional fuel station and mobile fuel capabilities	Engineering, MW&L	Planning, Fire, Police	MW&L, general fund	H	Short	✓	✓	✓	✓		✓		✓
Multi-Hazard #9	Develop & construct redundant community water source and supply	MW&L	Engineering, other cities, Yamhill Co.	Utility rates	H	Long	✓	✓	✓	✓		✓		✓
Multi-Hazard #10	Establish a process to coordinate with state and Federal agencies to maintain up-to-date hazard data, maps and assessments.	Planning	MW&L, Fire, Police, Public Works	General funds, grants	L	Short	✓	✓	✓	✓		✓		✓
Multi-Hazard #11	Limit (e.g. reduced density, etc.) or prohibit development in high hazard areas.	Planning	Engineering	General funds	L	Ongoing		✓	✓	✓		✓	✓	✓
Multi-Hazard #12	Encourage mitigation practices in developments at risk to natural hazards.	Planning	Engineering	General funds	L	Ongoing	✓	✓	✓	✓		✓		✓

Natural Hazard Action ID	Action Item	Coordinating Organization (Lead)	Partners	Potential Funding	Cost	Timing	Plan Goals Addressed							
							Goal 1	Goal 2	Goal 3	Goal 4	Goal 5	Goal 6	Goal 7	Goal 8
Multi-Hazard #13	Promote resilience, response, mitigation, and recovery planning for local businesses to continue operating after a disaster.	Administration	Planning, Public Works, Police, Fire, MW&L, Chamber, MDA, MEDP	General funds, grants, private investment	L	Ongoing	✓	✓	✓	✓		✓	✓	✓

Drought Actions

No actions Identified at this time

Earthquake Actions

Earthquake #1	Complete inventory and seismic assessment of critical facilities.	Engineering, MW&L	School District, Fire District, Planning	General funds, utility fees, grants	H	Short	✓	✓	✓		✓	✓	✓
Earthquake #2	Seismically retrofit (structural and nonstructural) identified high risk critical facilities and infrastructure to meet life safety standards in order to continue operations post-earthquake.	Engineering, MW&L	School District, Fire District, Planning	General fund, utility fees, grants	H	Long	✓	✓	✓		✓	✓	✓
Earthquake #3	Complete inventory & seismic assessment of public and commercial buildings that may be particularly vulnerable to earthquake damage.	Engineering, MW&L	Chamber, property owners	General fund, utility fees, grants	H	Short	✓	✓	✓		✓	✓	✓
Earthquake #4	Conduct outreach & training of local builders, architects, engineers and inspectors to develop post-earthquake building evaluation resources	Planning	Professional organization, contractors	General fund, permit fees	L	Ongoing	✓	✓	✓		✓	✓	✓

Natural Hazard Action ID	Action Item	Coordinating Organization (Lead)	Partners	Potential Funding	Cost	Timing	Plan Goals Addressed							
							Goal 1	Goal 2	Goal 3	Goal 4	Goal 5	Goal 6	Goal 7	Goal 8
Earthquake #5	Educate property owners about structural and non-structural retrofitting of vulnerable buildings and encourage retrofit.	Planning	FEMA, DLCD, OEM	General fund, permit fees	L	Ongoing		✓	✓	✓				
Earthquake #6	Develop an outreach program to educate and encourage homeowners and tenants to secure furnishings, storage cabinets, and utilities to prevent injuries and damage.	Planning	FEMA, DLCD, OEM	General fund, permit fees	L	Ongoing		✓	✓	✓				
Flood Actions														
Flood #1	Ensure continued compliance in the National Flood Insurance Program (NFIP) through enforcement of local floodplain management ordinances.	Planning	Administration, Engineering	General fund	L	Ongoing	✓	✓	✓	✓	✓	✓	✓	✓
Flood #2	Work with FEMA to update FIRMs. Request DOGAMI debris flow and lidar data be included in FIRM updates. Use the updated FIRMS for land use and mitigation planning.	Planning	Public Works, FEMA, DOGAMI, DLCD	General fund, HMA	M	Mid-Term	✓		✓	✓		✓		✓
Flood #3	Inventory and improve drainage (e.g., culverts) to increase drainage capacity and efficiency.	Engineering	Planning, private developers	Stormwater utility fees, private investment	H	Long	✓		✓	✓		✓		✓
Flood #4	Develop and maintain GIS mapped critical facility inventory for all structures and residential and commercial buildings located within 100-year and 500-year floodplains.	Planning	Public Works, Engineering	Stormwater utility fees	L	Short Term	✓		✓	✓		✓		✓

Natural Hazard Action ID	Action Item	Coordinating Organization (Lead)	Partners	Potential Funding	Cost	Timing	Plan Goals Addressed							
							Goal 1	Goal 2	Goal 3	Goal 4	Goal 5	Goal 6	Goal 7	Goal 8
Flood #5	Establish flood mitigation priorities for critical facilities and residential and commercial buildings located within the 100- year floodplain using survey elevation data.	Engineering	Planning, Administration	General fund, HMA	H	Long Term			✓	✓		✓		✓
Landslide Actions														
Landslide #1	Utilize technology, geologic resources and other available data (such as DOGAMI LIDAR data) to identify and map potential areas for landslides - high, moderate and low.	Planning	DOGAMI, Engineering, MW&L	General fund, utility fees, grants	M	Short	✓	✓	✓			✓		✓
Landslide #2	Develop a process to limit future development in high landslide potential areas - permitting, geotechnical review, soil stabilization techniques, etc.	Planning	Engineering, MW&L	General fund, utility fees, grants	M	Short		✓		✓	✓	✓	✓	✓
Landslide #3	Development in steeply-sloped areas (greater than 15%) should be subject to specific development requirements to control erosion.	Planning	Engineering, MW&L	General fund, utility fees, grants	L	Short		✓	✓	✓		✓		✓
Landslide #4	Complete an inventory of locations where critical facilities, other buildings and infrastructure may be subject to landslides.	Planning	Engineering, MW&L	General fund, utility fees, grants	M	Short			✓	✓	✓	✓		✓
Severe Weather Actions (Windstorm and Winter Storms – Snow/Ice)														
Severe Weather #1	Develop and implement programs to coordinate maintenance and mitigation activities to reduce risk to public infrastructure from severe winter storms.	Public Works	Engineering, MW&L	Utility fees	M	Ongoing		✓	✓	✓		✓		✓

Natural Hazard Action ID	Action Item	Coordinating Organization (Lead)	Partners	Potential Funding	Cost	Timing	Plan Goals Addressed							
							Goal 1	Goal 2	Goal 3	Goal 4	Goal 5	Goal 6	Goal 7	Goal 8
Severe Weather #2	Review critical facilities and government building energy efficiency, winter readiness, and electrical protection capability. Identify, prioritize, and implement infrastructure upgrade or retrofit project prioritization and development.	Engineering, MW&L	Planning, Fire, Police, School District	General funds, utility fees, grants	H	Medium		✓		✓		✓		✓
Severe Weather #3	Develop, implement, and maintain jurisdictional debris management plans	Public Works	MW&L, Planning, County EM	General funds, utility fees, grants	M	Short		✓	✓	✓		✓		✓
Severe Weather #4	Implement tree clearing mitigation programs to keep trees from threatening lives, property, and public infrastructure from severe weather events.	Public Works, MW&L	Planning, property owners	General funds, utility fees, grants	M	Ongoing		✓	✓	✓	✓	✓		✓
Volcanic Event Actions														
Volcanic Event #1	Evaluate ash impact on utility infrastructure, transportation network, public facilities, including the airport, and develop mitigation actions.	Engineering	Public works, airport, MW&L, Police, Fire	General funds, utility fees, grants	M	Medium				✓	✓	✓		✓
Wildfire Actions														
Wildfire #1	Coordinate wildfire mitigation action items through the Yamhill County Community Wildfire Protection Plan.	Fire	Planning, Emergency Management	General fund, ODF, grants	M	Ongoing	✓	✓	✓	✓	✓	✓	✓	✓
Wildfire #2	Provide wildland fire information in an easily distributed format for all residents.	Fire	Planning, Emergency	General fund, utility fees	L	Ongoing	✓	✓	✓			✓		✓

Natural Hazard Action ID	Action Item	Coordinating Organization (Lead)	Partners	Potential Funding	Cost	Timing	Plan Goals Addressed							
							Goal 1	Goal 2	Goal 3	Goal 4	Goal 5	Goal 6	Goal 7	Goal 8
			Management, MW&L											
Wildfire #3	Develop, implement, and enforce vegetation management codes/plans to reduce wildfire risk.	Planning, Fire	Public Works, MW&L	General fund, grants	L	Short		✓	✓	✓	✓	✓	✓	✓
Wildfire #4	Conduct residential audits for wildland and building fire hazard identification then develop an outreach program to disseminate the findings.	Fire	Planning, Public Works, MW&L	General fund, grants	L	Short		✓	✓	✓	✓	✓	✓	✓

Source: City of McMinnville steering committee, 2020.

Note: Full text of the plan goals referenced in this table is located on page MA-2.

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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 local level rationale for the identified mitigation strategies (action items) is presented herein, and within Volume I, Section 2, and Volume III, Appendix C. The risk assessment process is graphically depicted in Figure MA-1. Ultimately, the goal of hazard mitigation is to reduce the area of risk, where hazards overlap vulnerable systems.

Figure MA-1 Understanding Risk



Hazard Analysis

The McMinnville steering committee developed their hazard vulnerability assessment (HVA), using their previous HVA, and the County’s HVA as a reference. Changes from their previous HVA and the County’s HVA were made where appropriate to reflect distinctions in vulnerability, and risk from natural hazards unique to McMinnville, which are discussed throughout this addendum.

Table MA-2 shows the HVA matrix for McMinnville listing each hazard 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 sense of hazard priorities but does not predict the occurrence of a hazard.

One catastrophic hazard (Cascadia Subduction Zone earthquake) and two chronic hazards (winter storm and windstorm) rank as the top hazard threats to the City (Top Tier). The wildfire, drought, and crustal earthquake hazards comprise the next highest ranked hazards (Middle Tier), while the flood, landslide, and volcanic event hazards comprise the lowest ranked hazards (Bottom Tier).

Table MA-2 Hazard Analysis Matrix

Hazard	Maximum		Total Threat Score	Hazard Rank	Hazard Tiers		
	History	Vulnerability				Threat	Probability
Winter Storm	16	40	80	56	192	#1	Top Tier
Earthquake - Cascadia	6	45	100	35	186	#2	
Windstorm	16	25	70	56	167	#3	
Wildfire	6	20	80	35	141	#4	Middle Tier
Drought	8	15	50	56	129	#5	
Earthquake - Crustal	6	25	70	21	122	#6	
Flood	8	15	40	49	112	#7	Bottom Tier
Landslide	6	15	50	35	106	#8	
Volcanic Event	4	10	30	7	51	#9	

Source: McMinnville steering committee, 2019-2020.

Table MA-3 categorizes the probability, and vulnerability scores from the hazard analysis for the City and compares the results to the assessment completed by the Yamhill County steering committee. Variations between the City, and County are noted in **bold** text within the city ratings.

Table MA-3 Probability and Vulnerability Comparison

Hazard	McMinnville		Yamhill County	
	Probability	Vulnerability	Probability	Vulnerability
Drought	High	Low	High	Moderate
Earthquake - Cascadia	Moderate	High	Moderate	High
Earthquake - Crustal	Low	Moderate	Low	Moderate
Flood	Moderate	Low	High	High
Landslide	Moderate	Low	High	Low
Volcanic Event	Low	Low	Low	Low
Wildfire	Moderate	Moderate	Low	Low
Windstorm	High	Moderate	High	Moderate
Winter Storm	High	High	High	High

Source: McMinnville and Yamhill County steering committee, 2019-2020.

Community Characteristics

Table MA-4 and the following section provides information on City specific demographics, and assets. 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. Between 2012 and 2019 the City grew by 1,495 people (5%).² According to the State's official coordinated population forecast, between 2019 and 2040 the City's population is forecast to grow by 38% to 46,956.³ *Note: the State is currently updating the official forecast and the proposed 2040 population is 42,457 which represents a 25% increase from 2019 population.*⁴ Median household income increased by 12% between 2012 and 2017.⁵

New development has complied with the standards of the [Oregon Building Code](#), and the city's development code including their floodplain ordinance.

Economy

The City of McMinnville is in the south-central portion of Yamhill County. McMinnville's commercial areas developed along primary routes and residential development followed nearby (see Figure MA-2).

McMinnville is the largest incorporated community in Yamhill County. There is significant economic activity happening within the City, making it a desirable place to live, work, and visit. Most workers residing in the city (62%, 9,291 people) travel outside of the city for work primarily to the Portland metro area, Salem, and Newberg.⁶ A significant population of people travel to the city for work, (77% of the workforce, 6,613 people) primarily from Salem, Portland metro area, Newberg, Sheridan, Dayton, Lafayette, Dundee, and Amity.

McMinnville residents are employed in a variety of occupations including professional (18%), management, business, and financial operations (14%), production (12%), office and administrative support (11%), and transportation and material moving (9%) occupations.⁷

The largest employers in the city as of 2019 are [employer (# of employees)]: Willamette Valley Medical Center (473), Linfield College (413), Cascade Steel Rolling Mills Inc. (408), Meggitt Polymers & Composites (377), Betty Lou's, Inc. (243), Oregon Mutual Insurance Company (191), World Class Technology (152), Skyline Homes (125), Wal-mart Stores, Inc. (109), Freelin Wade (108), and Northwest Unmanned Aviation Vehicles (NWUAV; 108).

² Portland State University, Population Research Center, "Annual Population Estimates", 2019.

³ Portland State University, Population Research Center, "Oregon Population Forecast Program Cycle 1 (2014-2017)". 2017.

⁴ Portland State University, Population Research Center, "Oregon Population Forecast Program Cycle 2 (2018-2020)". 2020 (proposed).

⁵ Social Explorer, Table T57, U.S. Census Bureau, 2013-2017 and 2008-2012 American Community Survey Estimates.

⁶ U.S. Census Bureau. LEHD Origin-Destination Employment Statistics (2002-2017). Longitudinal-Employer Household Dynamics Program, accessed on April 25, 2020 at <https://onthemap.ces.census.gov>.

⁷ Social Explorer, Table A17008, U.S. Census Bureau, 2013-2017 American Community Survey Estimates.

Table MA-4 Community Characteristics

Population Characteristics		
2012 Population	32,435	
2019 Population	33,930	
2040 Forecasted Pop. [Proposed]*	46,956 [42,457]	
Race (non-hispanic) and Ethnicity (Hispanic)		
White		72%
Black/ African American		1%
American Indian and Alaska Native		< 1%
Asian		2%
Native Hawaiian and Other Pacific Islander		< 1%
Some Other Race		< 1%
Two or More Races		3%
Hispanic or Latino		22%
Limited or No English Spoken	2,803	9%
Vulnerable Age Groups		
Less than 15 Years	7,180	22%
65 Years and Over	5,608	17%
Disability Status		
Total Population	5,687	17%
Children	602	7%
Seniors	2,108	39%
Income Characteristics		
Households by Income Category		
Less than \$15,000	1,339	11%
\$15,000-\$29,999	2,059	17%
\$30,000-\$44,999	1,916	16%
\$45,000-\$59,999	1,905	15%
\$60,000-\$74,999	1,216	10%
\$75,000-\$99,999	1,646	13%
\$100,000-\$199,999	1,893	15%
\$200,000 or more	402	3%
Median Household Income	\$50,299	
Poverty Rates		
Total Population	5,173	16%
Children	1,731	22%
Seniors	249	5%
Housing Cost Burden		
Owners with Mortgage	1,201	16%
Renters	2,539	51%

Source: U.S. Census Bureau, 2013-2017 American Community Survey; Portland State University, Population Research Center, "Annual Population Estimates", 2019. Portland State University, Population Research Center, "Oregon Population Forecast Program Cycle 1 (2014-2017)". 2017. and "Oregon Population Forecast Program Cycle 2 (2018-2020)". 2020 (proposed).

Housing Characteristics		
Housing Units		
Single-Family	8,382	64%
Multi-Family	3,007	23%
Mobile Homes	1,700	13%
Year Structure Built		
Pre-1970	2,866	22%
1970-1989	4,075	31%
1990-2009	5,799	44%
2010 or later	349	3%
Housing Tenure and Vacancy		
Owner-occupied	7,362	56%
Renter-occupied	5,014	38%
Seasonal	77	1%
Vacant	636	5%

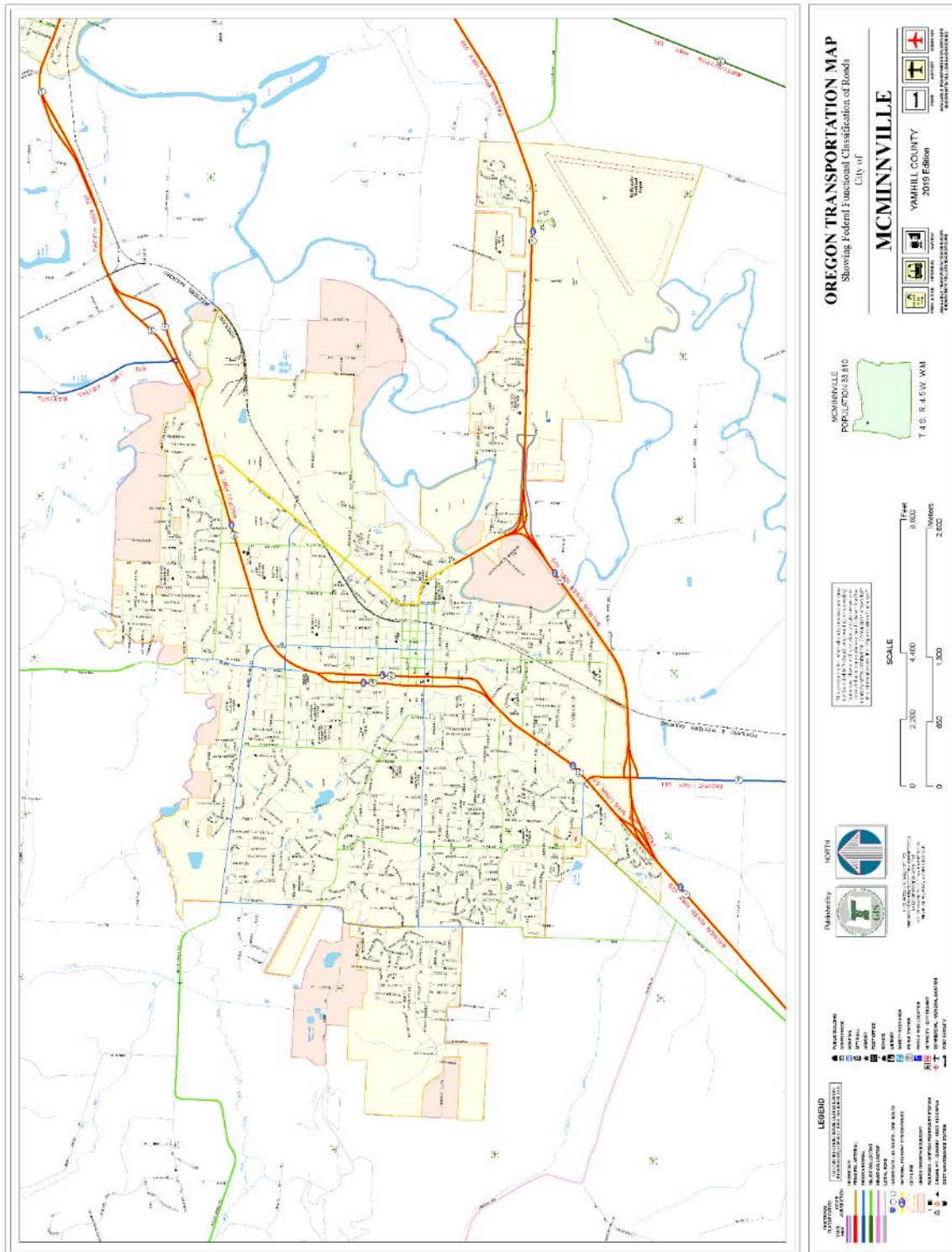
The Willamette River is approximately 6 miles east of the city and there are three drainage basins within the city: North Yamhill River, South Yamhill River, Baker Creek, North and West Cozine Creek.

McMinnville is generally flat with more hilly areas to the west. Its soils are moderately well-drained to well drained silt loams primarily of the Amity and Woodburn series. The area that is not urbanized is cultivated or comprised of small grains, grass, pasture plant, scattered Oak, and Douglas Fir.

McMinnville's temperatures range from a monthly average low of 34-38°F in the winter months to average highs of 75-83°F in the summer months. The coolest months are December-February and the warmest months are July and August. The average annual precipitation is about 42 inches and approximately 73% falls between November and March.

The City has an educated population with 86% of residents 25 years, and older holding a high school degree, 24% have a bachelor's degree or higher. The McMinnville School District has a 91% graduation rate as of 2019. McMinnville includes industrial and commercial development but is zoned primarily residential.

Figure MA-2 Oregon Transportation Map: City of McMinnville



Source: Oregon Department of Transportation

Community Assets

This section outlines the resources, facilities, and infrastructure that, if damaged, could significantly impact the public safety, economic conditions, and environmental integrity of McMinnville.

Critical facilities and infrastructure are those that support government and first responders' ability to act in an emergency. They are a top priority in any comprehensive hazard mitigation plan. These include locally designated shelters and other essential assets, such as fire stations, and water and wastewater treatment facilities (see Table MA-5). **Essential facilities and infrastructure** are those that support the continued delivery of key government services, and/or that may significantly impact the public's ability to recover from the emergency. These facilities may include: City buildings and other public facilities such as schools. MW&L infrastructure and facilities are shown on pages MA-26 to 27.

It is important to note that the facilities identified as "critical" and "essential" are characterized differently than the structural code that identifies buildings as "essential" and "non-essential." The structural code uses different language and criteria and therefore have completely different meanings than the buildings identified in this addendum.

Table MA-5 Critical and Essential Facilities

Facility Name	Address	
Government See Table MA-6 for information on seismic vulnerability.		
City Hall	230 NE 2nd St.	Critical
Community Development Center	231 NE 5th St.	Essential
Public Works	1900 NE Riverside Drive	Critical
Water Reclamation Facility (back up EOC)	3500 NE Clearwater Drive	Critical
Civic Hall	200 NE 2nd Street	Essential
Library	225 NW Adams	Essential
Community Center (Shelter)	600 NE Evans	Critical
McMinnville Senior Center (Shelter)	2250 NE McDaniel Lane	Critical
Collections Shop	3450 NE Clearwater Drive	Critical
See section below for information on Water and Wastewater Infrastructure		
Yamhill County Facilities		
Yamhill County Sheriff's Office / Jail	535 NE 5th St.	Critical
Yamhill County Emergency Management	414 NE Evans Street	Critical
Yamhill County Public Works	2060 NE Lafayette Ave	Critical
Yamhill County Fairgrounds (Shelter)	2070 NE Lafayette Ave	Critical
Riverbend Landfill / Waste Management (private)	13469 SE Hwy 18 (outside city)	Critical
Oregon State Facilities		
ODOT Maintenance Station	1502 Hwy 99W	Critical
Emergency Response		
McMinnville Police Department (EOC)	121 SW Adams St.	Critical

McMinnville Fire Department	175 SE 1st St.	Critical
Yamhill Communications Agency (YCOM)	121 SW Adams	Critical
Oregon State Facilities		
Oregon State Police/FAA	3975 NE Cirrus Ave	Critical
McMinnville Armory	333 Armory Way	Critical
Educational (Public)		
McMinnville SD 40 (Admin Office)	800 NE Lafayette Ave	Essential
Grandhaven Elementary School	3200 NE McDonald Ln.	Essential
Columbus Elementary School	1600 SW Fellows	Essential
Memorial Elementary School	501 W 14th St.	Essential
Newby Elementary School	1125 W 2nd St.	Essential
Sue Buel Elementary	1985 SE Davis	Essential
Duniway Middle School (Shelter)	575 NW Michelbook Ln.	Critical
Patton Middle School (Shelter)	1175 E 19th St.	Critical
McMinnville High School (Shelter)	615 E 15th St.	Critical
Educational (Private/Charter/Montessori, etc.)		
McMinnville Adventist Christian School	1349 NW Elm St.	Essential
St James Catholic School (Shelter)	206 NE Kirby St.	Critical
St John Lutheran School	2142 NE McDonald Ln.	Essential
Bethel Christian School	325 NW Baker Creek Rd.	Essential
International Community School	533 NW Adams St.	Essential
McMinnville Montessori School	1101 SE Brooks St.	Essential
Colleges/Universities		
Linfield College	900 SE Baker St.	
Chemeketa Community College	288 NE Norton	
Medical Care Facilities		
McMinnville Immediate Health Care	207 NE 19th St	Critical
Physicians Medical Center	2435 NE Cumulus Ave	Critical
Virginia Garcia Memorial Health Center	115 NE May Lane	Critical
West Hills Healthcare Clinic	2163 NW 2nd St	Critical
Willamette Valley Medical Center	2700 SE Stratus Avenue	Critical
Community Assets		
First Baptist Church (Shelter)	125 SE Cowls St	Critical
Hillside Retirement Community (Shelter)	900 NW Hill Road	Critical
Seventh Day Adventist Church (Shelter)	1500 Old Sheridan Road	Critical
True Vine Christian Fellowship (Shelter)	118 NE 4th St	Critical
Transportation		
First Student Inc. (school busses)	1936 NE Lafayette Ave	Critical
Yamhill County Transit Center	800 NE 2nd St	Critical

Transportation/Infrastructure

Mobility plays an important role in McMinnville, and the daily experience of its residents, and businesses. Motor vehicles represent the dominant mode of travel through, and within McMinnville. McMinnville is served by Yamhill County Transit among other transit providers.

Infrastructure that provides critical and essential services include:

Railroads

Railroads are major providers of regional and national cargo and trade flows. Railroads run through the Northern Willamette region provide vital transportation links from the Pacific to the rest of the country. The Portland & Western (PNWR) provides freight service to/from the city. There is no passenger rail service in the city.

Rails are sensitive to icing from the winter storms that can occur in the Northern Willamette region. For industries in the region that utilize rail transport, these disruptions in service can result in economic losses. The potential for rail accidents caused by natural hazards can also have serious implications for the local communities if hazardous materials are involved.

Airports

The city has no commercial service airports, however Portland International Airport (PDX), the largest and busiest airport in the state, is in nearby Multnomah County. There is one public airport: McMinnville Municipal Airport located in the southeast portion of the City along the Salmon River Hwy (OR 18)/SE McMinnville Bypass.

Roads/Seismic lifelines

Oregon Highway 99W is the major north-south transportation route, and Oregon Highway 18 (Salmon River Highway) is the major east-west transportation route, through the city. Oregon Highway 47, 2nd Street, Wallace Road, Hill Road, Baker Street, Fellows Street, and Lafayette Avenue are other major transit routes in the city (see Figure MA-2).

Seismic lifeline routes help maintain transportation facilities for public safety and resilience in the case of natural disasters. Following a major earthquake, it is important for response and recovery agencies to know which roadways are most prepared for a major seismic event. The Oregon Department of Transportation has identified lifeline routes to provide a secure lifeline network of streets, highways, and bridges to facilitate emergency services response after a disaster.⁸

System connectivity and key geographical features were used to identify a three-tiered seismic lifeline system. Routes identified as Tier 1 are considered the most significant and necessary to ensure a functioning statewide transportation network. The Tier 2 system provides additional connectivity to the Tier 1 system, it allows for direct access to more locations and increased traffic volume capacity. The Tier 3 lifeline routes provide additional connectivity to the systems provided by Tiers 1 and 2.

The Lifeline Routes in McMinnville:

⁸ Oregon Department of Transportation. Oregon Seismic Lifeline Evaluation, Vulnerability Synthesis, and Identification, *Oregon Seismic Lifeline Routes*, May 15 2012. Page 6-4 figure 6-1. Accessed September 12, 2019.

- Tier I: Hwy 18 southwest of McMinnville, Hwy 99W northeast of McMinnville.
- Tier II: Hwy 99W south of McMinnville
- Tier III: None

Bridges

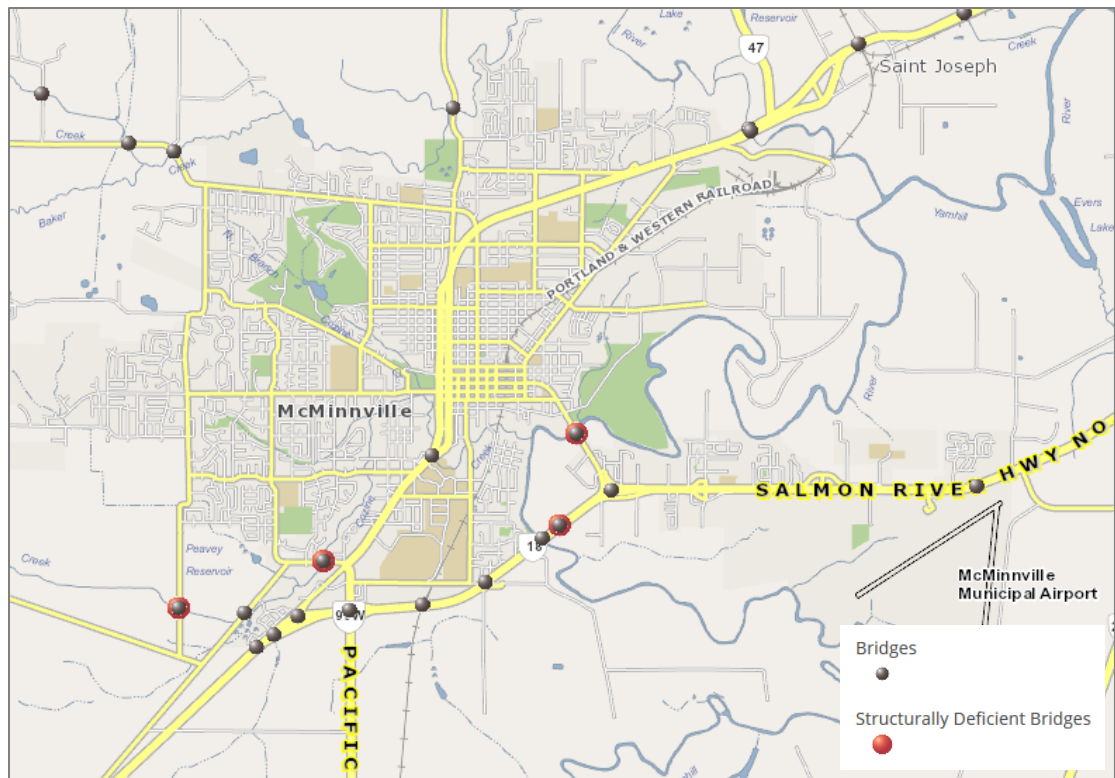
Because of earthquake risk, the seismic vulnerability of the city’s bridges is an important issue. Non-functional bridges can disrupt emergency operations, sever lifelines, and disrupt local and freight traffic. These disruptions may exacerbate local economic losses if industries are unable to transport goods. Bridges within the city that are critical or essential include (see Figure MA-3):

- Old Sheridan Rd (City)
- Cozine Creek, Old Sheridan Rd (ODOT 00315F) – *structurally deficient*
- 3 Mile Lane Bridge (ODOT) – *structurally deficient*
- Hwy 99 north (ODOT)
- Hwy 99 south (ODOT)
- Hwy 18-S. Yamhill River (ODOT 08492) - *structurally deficient*
- Hwy 18-S. Yamhill floodplain (ODOT 06758) *structurally deficient*

Overpasses

- 3 Mile Lane over Hwy 18 (ODOT)
- Hwy 18 off ramp over Hwy 18 (ODOT)
- Hwy 18 over RR crossing (ODOT)
- Booth Bend Road over Hwy 18 (ODOT)
- Hwy 99 over Hwy 18 (ODOT)

Figure MA-3 Oregon Bridges and Structurally Deficient Bridges



Source: Oregon Department of Transportation, ODOT TransGIS, accessed April 27, 2020

Utility lifelines are the resources that the public relies on daily such as, electricity, fuel and communication lines. If these lines fail or are disrupted, the essential functions of the community can become severely impaired. Utility lifelines are closely related to physical infrastructures, like dams and power plants, as they transmit the power generated from these facilities.

Generally, the network of electricity transmission lines running throughout the city is operated by McMinnville Water & Light. The Williams Gas Pipeline provides natural gas that is delivered to customers in the city by Northwest Natural Gas. These lines may be vulnerable as infrequent natural hazards, like earthquakes, could disrupt service to natural gas consumers across the region.

The city water, wastewater, and stormwater (culvert) systems include the following:

McMinnville Water and Light Infrastructure

- McMinnville Water & Light, Office, 855 NE Marsh Ln, Essential
- McGuire Dam/Reservoir, 28656 NW Meadowlake Rd, Yamhill (outside City), Critical
- Haskins Dam, 23130 NW Haskins Cr Rd, Yamhill (outside City), Critical
- Fox Ridge Reservoirs, 12300 NW Fox Ridge Rd (outside City), Critical
- Water Treatment Plant, 23100 NW Haskins Cr Rd, Yamhill (outside City), Critical
- High Heaven Lookout, 6660 NW High Heaven Rd, Critical
- Baker Creek substation, 1901 NW Baker Creek Rd, Essential
- Booth Bend substation, 4591 SE Booth Bend Rd, Essential
- Cascade substation, 3250 NE Hwy 99W, Essential
- East McMinnville substation, 1880 NE Riverside Dr, Essential
- Gormley substation, 10120 Hwy 18, Essential
- Walnut City substation, 1945 NW 2nd St, Essential

Wastewater Infrastructure

- Wastewater Treatment Plant, 3500 NE Clearwater Drive, Critical
- Wastewater Diversion Structure, 1900 NE Riverside Drive, Critical
- Wastewater Lafayette Overflow 1220 NE Lafayette Ave, Critical
- Wastewater Outfall-Yamhill River 5115 NE Riverside Drive, Critical
- 3-Mile Lane #1 Pump Station (PS), 2005 NE Cumulus Way, Critical
- 3-Mile Lane #3 PS, 3305 NE 3-Mile Lane, Critical
- Autumn Ridge PS, 599 NE Summerfield Street, Critical
- Cozine PS, 325 SE Irvine, Critical
- Cozine Woods PS, 1355 SW Old Sheridan, Critical
- Crestbrook PS, 1045 NW Baker Crest Ct., Critical
- Kathleen Manor PS, 1835 SW Alexandria, Critical
- Morgan Lane PS, 1655 SE Morgan Lane, Critical
- Northeast PS, 3395 NE Daffodil Dr., Critical
- Oregon Street PS, 200 SE Oregon Street, Critical
- Raw Sewage PS & diversion structure, 1950 NE Riverside Drive, Critical
- Riverside Drive PS, 4015 NE Riverside Drive, Critical
- Westside PS, 2850 NE Baker Street, Critical

Culverts

- 2nd Street, Critical
- Elmwood, Critical
- Michelbook, Critical
- Davis Street, Critical
- Ford Street, Essential
- Fellows Street, Critical
- Fleishauer Lane, Essential
- Cypress Street, Essential

Environmental Assets/Parks:

Environmental assets are those parks, green spaces, wetlands, and rivers that provide an aesthetic, and functional ecosystem services for the community include:

Bend-O-River Mini-Park	Riverside Drive Dog Park
Chegwyn Farms Neighborhood Park	Rotary Nature Preserve at Tice Woods
City Park	Taylor Park
Discovery Meadows Community Park	Thompson Park
Galen McBee Airport Park	West Hills Neighborhood Park
Heather Hollow	West McMinnville Linear Park
Joe Dancer Park	Westside Bicycle/Pedestrian
Kingwood Mini-Park	Greenway
Kiwanis Park	Wortman Park
North Evans Mini-Park	Jay Pearson Park)

Vulnerable Populations:

Vulnerable populations, including seniors, disabled citizens, women, and children, as well those people living in poverty, often experience the impacts of natural hazards and disasters more acutely. Populations that have special needs or require special consideration include:

Child Care Facilities

Bear Hugs Child Development Center	Madrona Childcare
Calico Cat Childcare	Nadines Childcare
Care for Kids	Noah's Ark Daycare
Carolyns Childcare	St James School Extended Care
Chysalis Children	Tender Loving Childcare
Grandma Chris Preschool and Daycare	Trinity Learning Center
Happy Face Daycare	Trinity Learning Daycare Center
Head Start of Yamhill Co McMinnville Ctr	Vickies Daycare
Helping Hands Daycare	West Hills Daycare
Little Friends of Hope Daycare	

Adult Care Facilities

Alterra Villas McMinnville	Brookdale Senior Living-Villa McMinnville
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Community Homecare Willamette Valley
Courtyard at Hillside Memory Care
Harmony Living
Life Care Center of McMinnville
Oakwood Home Services
Osprey Court Memory Care Community

Osprey Pointe Assisted Living Community
Parkland Village Assisted Living
Rock of Ages Mennonite Home
United Homecare Services
Virginia Garcia Memorial Health Center
Wynwood of McMinnville

Community, Cultural, and Historic Assets

The cultural and historic heritage of a community is more than just tourist charm. For families that have lived in the city for generations and new resident alike, it is the unique places, stories, and annual events that make McMinnville an appealing place to live. The cultural and historic assets are both intangible benefits and obvious quality-of-life-enhancing amenities. Because of their role in defining and supporting the community, protecting these resources from the impact of disasters is important. The following community, cultural, and historic resources can be found in the City:

Downtown McMinnville National
Register Historic District
Evergreen Aviation Museum

Northwest Senior & Disability Services
YCAP
Yamhill County Gospel Mission

A complete list of historic resources is located on the City website: [Link](#)

Hazard Characteristics

Drought

The steering committee determined that the City's probability for drought is **high**, and that their vulnerability to drought is **low**.

Volume I, Section 2 describes the characteristics of drought hazards, history, as well as the location, extent, and probability of a potential event. The spring/summer of 2018 was particularly dry period for the City. Due to the climate of Yamhill County, past, and present weather conditions have shown an increasing potential for drought.

The City of McMinnville is provided water by McMinnville Water and Light (MW&L) which owns 6,350 acres of watershed in the Coast Mountain Range approximately 9 miles northwest of the City. Water from the McGuire and Haskins Reservoirs (combined 3.5 billion gallons capacity) is treated at the water treatment facility that can treat up to 22 million gallons per day (mgd). Following treatment water flows via two 24-inch and 16-inch water transmission mains to four (4) water storage reservoirs (22.7 million gallons capacity) at Fox Ridge west of the city. MW&L has approximately 21 miles of transmission pipeline ranging from 16-inch to 48-inch and about 157 miles of distribution pipeline ranging in size from 2-inch to 36-inch.

MW&L has enough capacity to meet current and anticipated future demand.

For more information on McMinnville's water supply visit their website: <https://www.mc-power.com/>

Vulnerability Assessment

Due to insufficient data and resources, McMinnville is currently unable to perform a quantitative risk assessment, or exposure analysis, for this hazard. 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 McMinnville'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.

The city's existing water supply is most vulnerable to wildfire which may impact the MW&L watershed and is increased during periods of drought. The MW&L water transmission and distribution lines are vulnerable to seismic activity that could cause them to fail. There is a low chance that dams at McGuire and Haskins Reservoirs could be impacted by seismic activity.

Mitigation Activities

The City provides information on water conservation to McMinnville water customers. The City engages in other water conservation measures including water line leak detection and repair, replacement of deteriorating pipe, and replacement/repair of older and under-registering water meters and reducing dead end lines in order to increase water circulation throughout the system.

McMinnville Codes Pertaining to Droughts

The following McMinnville codes, plans, and policies pertain to droughts:

1. McMinnville Comprehensive Plan.
2. McMinnville Municipal Code
3. MW&L provides information on water conservation to residential customers ([link](#)).

Please review Volume I, Section 2 for additional information on this hazard.

Earthquake (Cascadia Subduction Zone)

The steering committee determined that the City's probability for a Cascadia Subduction Zone (CSZ) earthquake is **moderate** and that their vulnerability to a CSZ earthquake is **high**.

Volume I, Section 2 describes the characteristics of earthquake hazards, history, as well as the location, extent, and probability of a potential event. Generally, an event that affects the County is likely to affect McMinnville as well. The causes, and characteristics of an earthquake event are appropriately described within the Volume I, Section 2 as well as the location, and extent of potential hazards. Previous occurrences are well documented within Volume I, Section 2, and the community impacts described by the County would generally be the same for McMinnville as well.

Within the Northern Willamette Valley are that includes Yamhill County, two potential faults and/or zones can generate high-magnitude earthquakes. These include the Cascadia

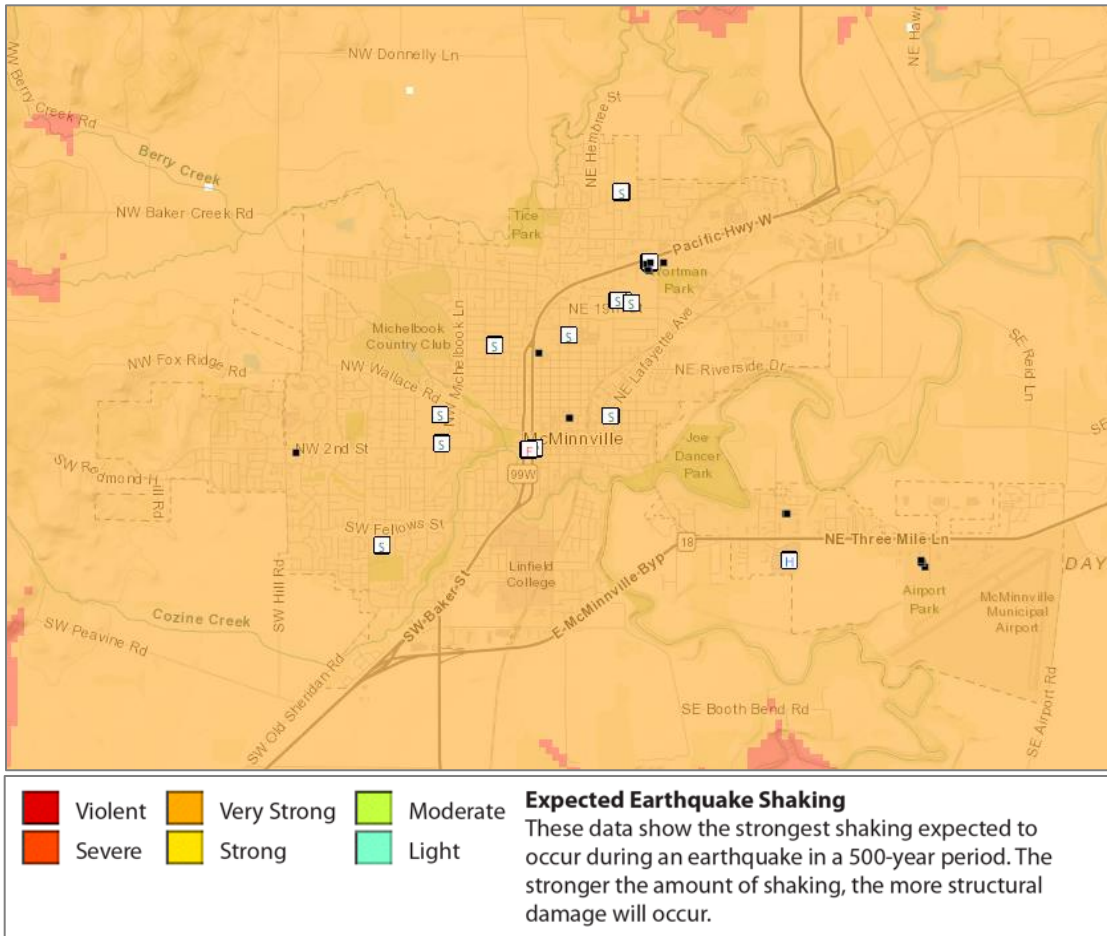
Subduction Zone and the Gales Creek-Newberg-Mt. Angel Structural Zone (including the Newberg Fault).

Cascadia Subduction Zone

The Cascadia Subduction Zone is a 680-mile-long zone of active tectonic convergence where oceanic crust of the Juan de Fuca Plate is subducting beneath the North American continent at a rate of 4 cm per year. Scientists have found evidence that 11 large, tsunami-producing earthquakes have occurred off the Pacific Northwest coast in the past 6,000 years. These earthquakes took place roughly between 300 and 5,400 years ago with an average occurrence interval of about 510 years. The most recent of these large earthquakes took place in approximately 1700 A.D.⁹

Figure MA-4 displays relative shaking hazards from a Cascadia Subduction Zone earthquake event. As shown in the figure, most of the City is expected to experience very strong (orange) shaking in a CSZ event.

Figure MA-4 Cascadia Subduction Zone Expected Shaking



Source: [Oregon HazVu: Statewide Geohazards Viewer \(DOGAMI\)](#)
 Note: To view detail click the link above to access Oregon HazVu.

⁹ The Cascadia Region Earthquake Workgroup, 2005. Cascadia Subduction Zone Earthquakes: A magnitude 9.0 earthquake scenario. <http://www.crew.org/PDFs/CREWSubductionZoneSmall.pdf>

The city's proximity to the Cascadia Subduction Zone, potential slope instability, and the prevalence of certain soils subject to liquefaction, and amplification combine to give the City a high-risk profile. Due to the expected pattern of damage resulting from a CSZ event, the Oregon Resilience Plan divides the State into four distinct zones, and places McMinnville within the "Valley Zone" (Valley Zone, from the summit of the Coast Range to the summit of the Cascades). Within the Northwest Oregon region, damage, and shaking is expected to be strong, and widespread - an event will be disruptive to daily life, and commerce, and the main priority is expected to be restoring services to business and residents.

Earthquake (Crustal)

The steering committee determined that the City's probability for a crustal earthquake is **low** and that their vulnerability to crustal earthquake is **moderate**.

Volume I, Section 2 describes the characteristics of earthquake hazards, history (see below), as well as the location, extent, and probability of a potential event. Generally, an event that affects the County is likely to affect McMinnville as well. The causes, and characteristics of an earthquake event are appropriately described within Volume I, Section 2 as well as the location, and extent of potential hazards. Previous occurrences are well-documented within Volume I, Section 2, and the community impacts described by the County would generally be the same for McMinnville as well.

The 1993 Scotts Mill earthquake impacted McMinnville including damaging beyond repair the former building located where Columbus Elementary is now (constructed in 1995).

Figure MA-5 shows a generalized geologic map of the McMinnville area that includes the areas for potential regional active faults, earthquake history (1971-2008), and soft soils (liquefaction) hazard. The figure shows the areas of greatest concern within the City limits as red and orange. Except for portions of the west hills all the city is within the moderate earthquake liquefaction hazard zone. Areas just outside the UGB to the north and south are within the high earthquake liquefaction hazard zone. These areas are also in moderate and high landslide hazard zones and may be prone to earthquake induced landslides (see Figure MA-7).

Vulnerability Assessment (subduction zone and crustal)

Due to insufficient data and resources, McMinnville is currently unable to perform a quantitative risk assessment for this hazard.

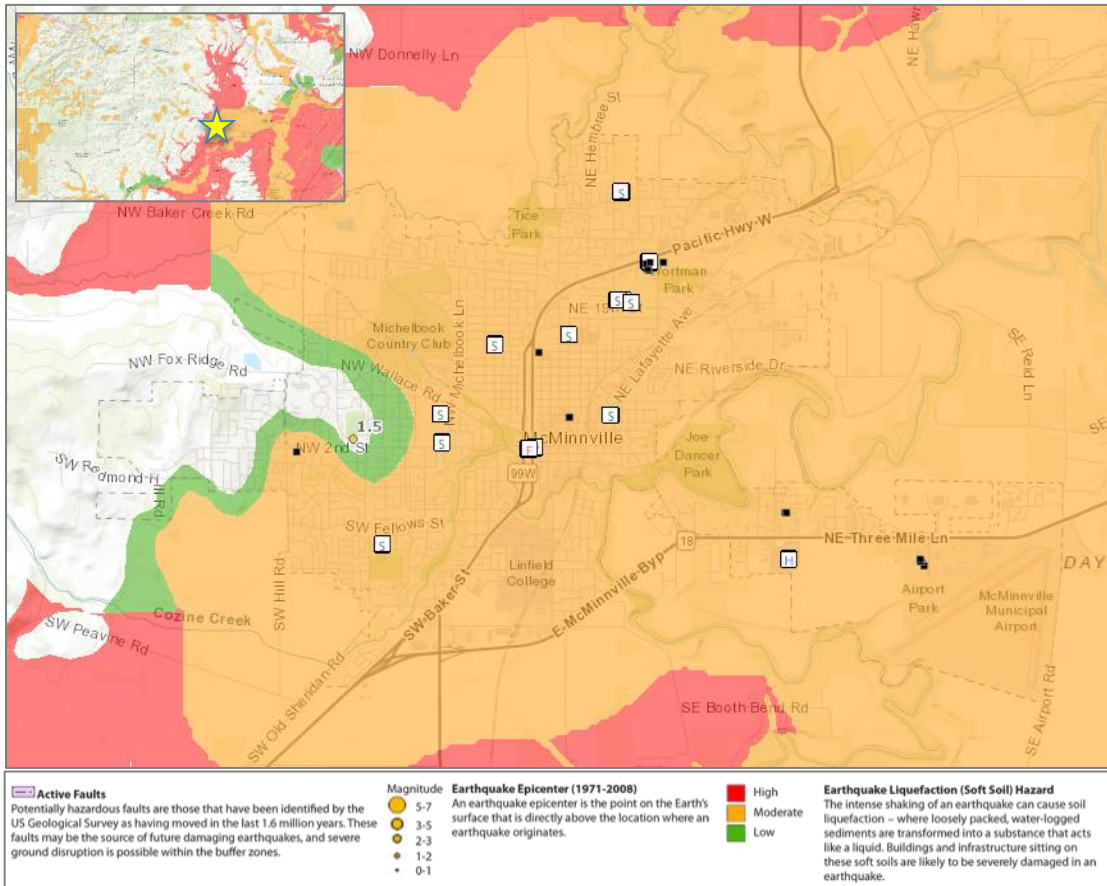
The western portion of Yamhill County is likely to experience higher levels of shaking than the eastern portion, as a result of its proximity to the Cascadia Subduction Zone.

The City of McMinnville is in the south-central portion of Yamhill County, in a region likely to experience strong shaking should a subduction zone or significant crustal earthquake occur. 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.

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.

Utility systems will be significantly damaged, including damaged buildings, and damage to utility infrastructure, including water treatment plants, and equipment at high voltage substations (especially 230 kV or higher which are more vulnerable than lower voltage substations). Buried pipe systems will suffer extensive damage with approximately one break per mile in soft soil areas. There would be a much lower rate of pipe breaks in other areas. Restoration of utility services will require substantial mutual aid from utilities outside of the affected area. Transportation systems (bridges, pipelines) are also likely to experience significant damage. There is a low probability that a major earthquake will result in failure of upstream dams.

Figure MA-5 Active Crustal Faults, Epicenters (1971-2008), and Soft Soils



Source: [Oregon HazVu: Statewide Geohazards Viewer \(DOGAMI\)](#)

Note: To view detail click the link above to access Oregon HazVu.

Building codes were implemented in Oregon in the 1970s, however, stricter standards did not take effect until 1991 and early 2000s. As noted in the community characteristics section (Table MA-4), approximately 53% of residential buildings were built prior to 1990, which increases the City’s vulnerability to the earthquake hazard. Information on specific public buildings’ (schools and public safety) estimated seismic resistance, determined by DOGAMI in 2007, is shown in Table MA-6; each “X” represents one building within that ranking category. Of the facilities evaluated by DOGAMI, that have not been retrofitted, using their Rapid Visual Survey (RVS), one building has very high (100% chance) collapse potential and two (2) school buildings have a high (greater than 10% chance) collapse potential.

Table MA-6 Rapid Visual Survey Scores

Facility	Site ID*	Level of Collapse Potential			
		Low (<1%)	Moderate (>1%)	High (>10%)	Very High (100%)
Schools					
District Offices (Cook Elem.) (800 NE Lafayette Ave)	Yamh_sch10	Seismic retrofit per local bond			
Columbus Elementary (1600 SW Fellows)	Yamh_sch26	X			
Grandhaven Elementary (3200 NE McDonald Ln)	Yamh_sch23	X			
Memorial Elementary (501 W 14 th St)	Yamh_sch11		SRGP 2015-17 Phase II: \$692,688		
Newby Elementary (1125 W 2 nd St)	Yamh_sch12		SRGP 2015-17 Phase II: \$420,187		
Duniway Middle (575 Michelbook Ln)	Yamh_sch02	X			
Patton Middle (1175 E 19 th St)	Yamh_sch14		X	X,X	
McMinnville High (615 E 15 th St)	Yamh_sch15				X
Public Safety					
Fire Department (175 E 1 st St)	Yamh_fir06		X		
Oregon State Police (EOC) (130 NE Baker St)	Yamh_pol08		X		
Yamhill Co. Sheriff's Office (535 NE 5 th St)	Yamh_pol02			X	
ODOT Maintenance Station (1502 N Hwy 99W)	Yamh_pol06		X		
Hospital					
Willamette Valley Medical Center (2700 SE Stratus Ave)	Yamh_hos01	X			

Source: [DOGAMI 2007. Open File Report 0-07-02. Statewide Seismic Needs Assessment Using Rapid Visual Assessment.](#) “*” – Site ID is referenced on the [RVS Yamhill County Map](#)

Note: The McMinnville Police Department was not assessed. The ODOT Maintenance Station was previously the Newberg-Dundee Police and 911 Call Center. Sue Buell Elementary was built in 2006 and not assessed. The District offices were previously Cook Elementary.

Mitigation Activities

Earthquake mitigation activities listed here include current mitigation programs and activities that are being implemented by McMinnville agencies or organizations.

A primary mitigation objective is to construct or upgrade critical and essential facilities and infrastructure to withstand future earthquake events. Seismic retrofit grant awards per the

[Seismic Rehabilitation Grant Program](#)¹⁰ have been funded to retrofit Adams School, McMinnville School District (2015-17, Phase II, grant award, \$1,500,000), Memorial Elementary, McMinnville School District (2015-17, Phase II, grant award, \$692,688), and Newby Elementary, McMinnville School District (2015-17, Phase II, grant award, \$420,187). Cook Elementary/School District Offices were retrofitted per a local bond in 2017. The McMinnville Fire Department has undergone a Level II seismic analysis in preparation for future seismic retrofit work.

The City of McMinnville fire department [website refers to](#) the Yamhill County [Community Emergency Response Team](#) (CERT) program that trains members in mitigation as well as preparedness and response. The City's Emergency Management Program works with community groups, businesses, residential facilities, and public and private schools in promoting earthquake preparedness and mitigation.

McMinnville Codes Pertaining to Earthquakes

The following McMinnville codes, plans, and policies pertain to earthquakes:

1. McMinnville Comprehensive Plan (*under contract to update in 2020*). The updated plan includes a Natural Hazards Inventory and Management Program Recommendations including information on earthquake and other geologic hazards impacting the city.
2. The City of McMinnville enforces the [Oregon Building Code](#) which includes provisions for earthquakes.

Please review Volume I, Section 2 for additional information on this hazard.

Flood

The steering committee determined that the City's probability for flood is **moderate** and that their vulnerability to flood is **low**.

Volume I, Section 2 describes the characteristics of flood hazards, history, as well as the location, extent, and probability of a potential event. Portions of McMinnville have areas of floodplains (special flood hazard areas, SFHA). These include areas include along the Yamhill River (South and North) and the West and North Forks of Cozine Creek, and Baker Creek (Figure MA-6).

For mitigation planning purposes, it is important to recognize that flood risk for a community is not limited only to areas of mapped floodplains. Other portions of McMinnville outside of the mapped floodplains may also be at relatively high risk from over bank flooding from streams too small to be mapped by FEMA or from local storm water drainage.

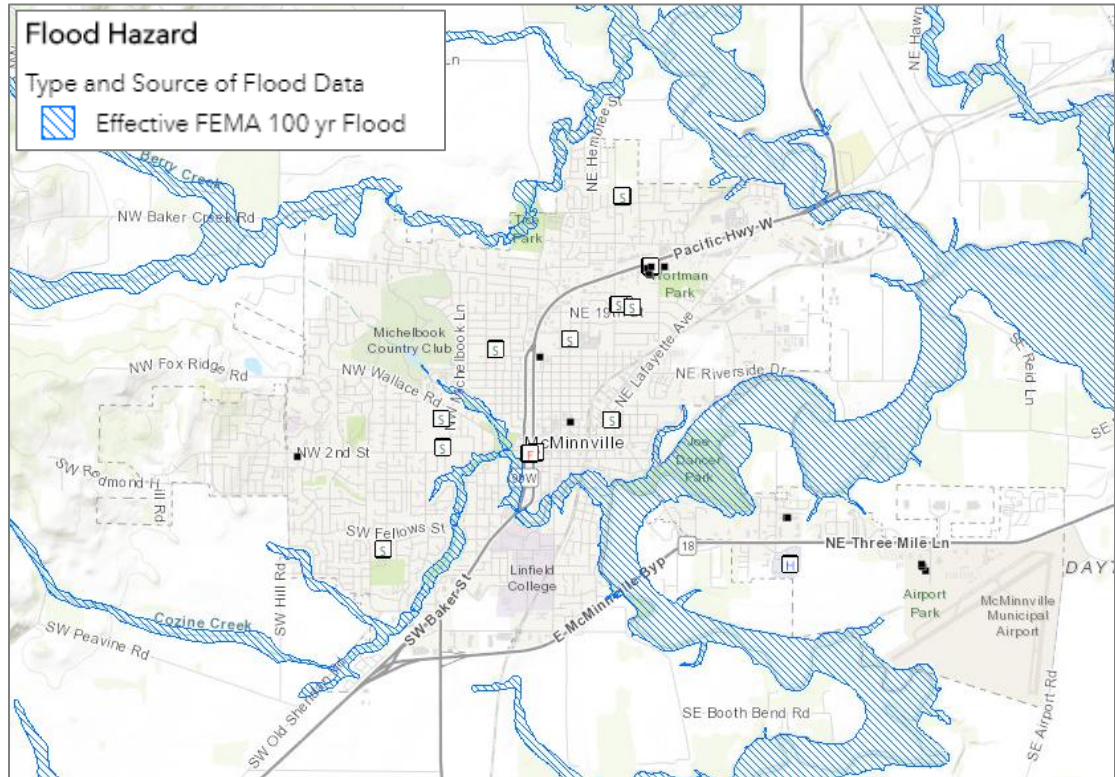
Floods can have a devastating impact on almost every aspect of the community, including private property damage, public infrastructure damage, and economic loss from business interruption. It is important for the City to be aware of flooding impacts and assess its level

¹⁰ The Seismic Rehabilitation Grant Program (SRGP) is a state of Oregon competitive grant program that provides funding for the seismic rehabilitation of critical public buildings, particularly public schools and emergency services facilities.

of risk. The City has been proactive in mitigating flood hazards by purchasing floodplain property.

The economic losses due to business closures often total more than the initial property losses that result from flood events. Business owners, and their employees are significantly impacted by flood events. Direct damages from flooding are the most common impacts, but indirect damages, such as diminished clientele, can be just as debilitating to a business.

Figure MA-6 Special Flood Hazard Area- update



Source: [Oregon HazVu: Statewide Geohazards Viewer \(DOGAMI\)](#)
Note: To view detail click the link above to access Oregon HazVu.

Vulnerability Assessment

Due to insufficient data and resources, McMinnville is currently unable to perform a quantitative risk assessment for this hazard. FEMA FIRMs were used to outline the 100-year and 500-year floodplains for the City of McMinnville. The 100-year floodplain delineates an area of high risk, while the 500-year floodplain delineates an area of moderate risk. There is no residential development within the floodplain. Commercial and industrial development is largely on higher ground outside of the special flood hazard area (SFHS). Localized flooding can occur due to various factors including blocked stream channels or storm drains.

National Flood Insurance Program (NFIP)

FEMA's Flood Insurance Study (FIS), and Flood Insurance Rate Maps (FIRMs) are effective as of March 2, 2010. Table MA-7 shows that as of August 2019, McMinnville has 29 National Flood Insurance Program (NFIP) policies in force. Of those, four (4) are for properties that were constructed before the initial FIRMs. McMinnville's last Community Assistance Visit (CAV) was November 13, 1997. The City does not participate in the Community Rating

System (CRS). The table shows that most flood insurance policies are for residential structures, single-family homes, and there is one non-residential property insured. There has been one (1) paid flood insurance claims for \$223. The City complies with the NFIP through enforcement of their flood damage prevention ordinance and their floodplain management program.

Table MA-7 Flood Insurance Detail

	Yamhill County	McMinnville
Effective FIRM and FIS	3/2/2010	3/2/2010
Initial FIRM Date	-	12/1/1982
Total Policies	446	29
Pre-FIRM Policies	153	4
Policies by Building Type		
Single Family	401	28
2 to 4 Family	14	0
Other Residential	10	0
Non-Residential	21	1
Minus Rated A Zone	72	0
Insurance in Force	\$100,617,300	\$8,452,700
Total Paid Claims	81	1
Pre-FIRM Claims Paid	68	1
Substantial Damage Claims	3	0
Total Paid Amount	\$1,166,076	\$223
Repetitive Loss Structures	4	0
Severe Repetitive Loss Properties	1	0
CRS Class Rating	-	NP
Last Community Assistance Visit	-	11/13/1997

Source: Department of Land Conservation and Development, August 2019. Repetitive Flood Loss information provided by FEMA correspondence on September 10, 2020. NP = Not Participating

The Community Repetitive Loss record for McMinnville identifies no Repetitive Loss Properties¹¹ or Severe Repetitive Loss Properties¹².

Mitigation Activities

Flood mitigation activities listed here include current mitigation programs and activities that are being implemented by McMinnville agencies or organizations.

¹¹ A Repetitive Loss (RL) property is any insurable building for which two or more claims of more than \$1,000 were paid by the National Flood Insurance Program (NFIP) within any rolling ten-year period, since 1978. A RL property may or may not be currently insured by the NFIP.

¹² A Severe Repetitive Loss (SRL) property is a single family property (consisting of 1 to 4 residences) that is covered under flood insurance by the NFIP, and has incurred flood-related damage for which 4 or more separate claims payments have been paid under flood insurance coverage, with the amount of each claim payment exceeding \$5,000, and with cumulative amount of such claims payments exceeding \$20,000; or for which at least 2 separate claims payments have been made with the cumulative amount of such claims exceeding the reported value of the property.

McMinnville Codes Pertaining to Flooding

The following McMinnville codes, plans, and policies pertain to flooding:

1. McMinnville Comprehensive Plan (*under contract to update in 2020*). The updated plan includes a Natural Hazards Inventory and Management Program Recommendations including information on flood hazards impacting the city.
2. McMinnville Municipal Code [17.48 – Flood Area Zone](#). This portion of the Community Development Code implements the Goal 7 policies of the Comprehensive Plan and regulates development within the floodplain.

Please review Volume I, Section 2 for additional information on this hazard.

Landslide

The steering committee determined that the City's probability for landslide is **moderate** and that their vulnerability to landslide is **low** for the city as a whole, but that there were sections of the West Hills within the city limits that have high probability of landslides and the vulnerability to people and property in this section of the city is high.

Volume I, Section 2 describes the characteristics of landslide hazards, history, as well as the location, extent, and probability of a potential event within the region.

Landslide susceptibility exposure for McMinnville is shown in Figure MA-7. Approximately 8% of McMinnville has very high or high, and approximately 12% moderate, landslide susceptibility exposure.¹³ In general, the areas of greater risk are located adjacent to rivers and creeks (including the South Yamhill River and Cozine Creek). The area of the city that has the highest landslide susceptibility is in the west hills that has high and moderate landslide susceptibility (extending beyond the UGB and to the north and south along NW Fox Ridge Road in the north and SW Redmond Hill Road in the south). This area is sparsely developed currently which reduces the city's vulnerability, however, there is land within the city's UGB in this region. Development in these areas should consider strategies to reduce landslide hazard risk, including the prohibition of development in the highest risk areas. Please see the DLCD and DOGAMI publication [Preparing for Landslide Hazards, A Land Use Guide for Oregon Communities](#) (October 2019).

Potential landslide-related impacts are adequately described within Volume I, Section 2, and include infrastructure damages, economic impacts (due to isolation, and/or arterial road closures), property damages, and obstruction to evacuation routes. Rain-induced landslides, and debris flows can potentially occur during any winter, and thoroughfares beyond City limits are susceptible to obstruction as well. There are two mapped historic landslides in the city adjacent to the Cozine Creek: (1) south end of SE Evans St, damages included a broken 21-inch sanitary sewer trunk line that was replaced, and (2) northeast of Oak Grove Way east of SE Baker St, damages included a 1,000 gallon gasoline tank that was relocated.

The most common type of landslides are slides caused by erosion. Slides move in contact with the underlying surface, are generally slow moving, and can be deep. Rainfall-initiated

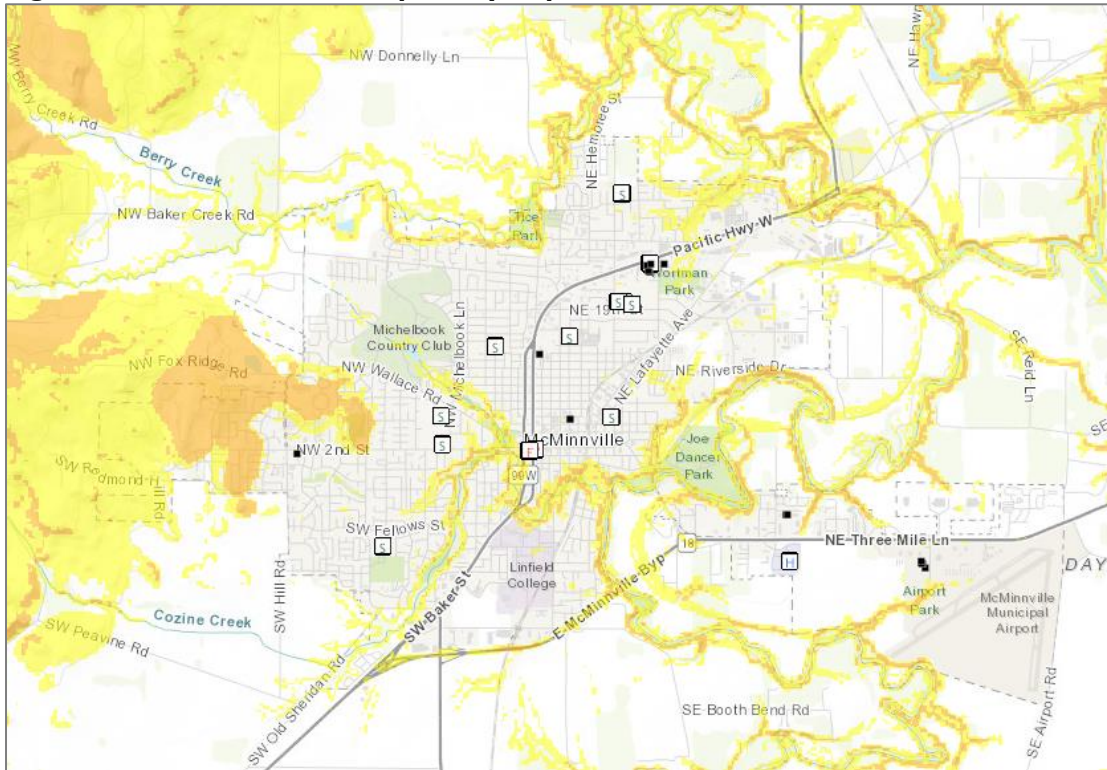
¹³ DOGAMI. [Open-File Report, O-16-02](#), *Landslide Susceptibility Overview Map of Oregon* (2016)

landslides tend to be smaller; while earthquake induced landslides may be quite large. All soil types can be affected by natural landslide triggering conditions.

Vulnerability Assessment

Due to insufficient data and resources, McMinnville is currently unable to perform a quantitative risk assessment for this hazard. DOGAMI completed a statewide landslide susceptibility assessment in 2016 ([O-16-02](#)), general findings from that report are provided above and within Figure MA-7.

Figure MA-7 Landslide Susceptibility Exposure



Low	Landsliding unlikely. Areas classified as Landslide Density = Low (less than 7%) and areas classified as Slopes Prone to Landsliding = Low.
Moderate	Landsliding possible. Areas classified as Landslide Density = Low to Moderate (less than 17%) and areas classified as Slopes Prone to Landsliding = Moderate OR areas classified as Landslide Density = Moderate (7%-17%) and areas classified as Slopes Prone to Landsliding = Low.
High	Landsliding likely. Areas classified as Landslide Density = High (greater than 17%) and areas classified as Slopes Prone to Landsliding = Low and Moderate OR areas classified as Landslide Density = Low and Moderate (less than 17%) and areas classified as Slopes Prone to Landsliding = High.
Very High	Existing landslides Landslide Density and Slopes Prone to Landsliding data were not considered in this category. Note: the quality of landslide inventory (existing landslides) mapping varies across the state.

Source: [Oregon HazVu: Statewide Geohazards Viewer \(DOGAMI\)](#)
 Note: To view detail click the link above to access Oregon HazVu

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 wastewater utilities may need treatment to quickly improve water quality by reducing excessive water turbidity and reestablishing waste disposal capability.

Mitigation Activities

Landslide mitigation activities listed here include current mitigation programs and activities that are being implemented by the City of McMinnville agencies or organizations.

City of McMinnville Codes Pertaining to Landslides

The following McMinnville codes, plans, and policies pertain to landslides:

1. McMinnville Comprehensive Plan (*under contract to update in 2020*). The updated plan includes a Natural Hazards Inventory and Management Program Recommendations including information on landslide and other geologic hazards impacting the city.
2. The City of McMinnville enforces the [Oregon Building Code](#) which includes provisions that address the potential for geologic hazards including landslides.

Please review Volume I, Section 2 for additional information on this hazard.

Severe Weather

Severe weather can account for a variety of intense, and potentially damaging hazard events. These events include windstorms and winter storms. The following section describes the unique probability, and vulnerability of each identified weather hazard.

Windstorm

The steering committee determined that the City's probability for windstorm is **high** and that their vulnerability to windstorm is **moderate**.

Volume I, Section 2 describes the characteristics of windstorm hazards, history, as well as the location, extent, and probability of a potential event within the region. Because windstorms typically occur during winter months, they are sometimes accompanied by flooding and winter storms (ice, freezing rain, and very rarely, snow). Other severe weather events that may accompany windstorms, including thunderstorms, hail, lightning strikes, and tornadoes are generally negligible for McMinnville.

Volume I, Section 2 describes the impacts caused by windstorms, including power outages, downed trees, heavy precipitation, building damages, and storm-related debris. Additionally, transportation, and economic disruptions result as well.

Damage from high winds generally has resulted in downed utility lines, and trees usually limited to several localized areas. Electrical power can be out anywhere from a few hours to several days. Outdoor signs have also suffered damage. If the high winds are accompanied by rain (which they often are), blowing leaves, and debris clog drainage-ways, which in turn may cause localized urban flooding.

Please review Volume I, Section 2 for additional information on this hazard.

Winter Storm (Snow/Ice)

The steering committee determined that the City's probability for winter storm is **high** and that their vulnerability to winter storm is **high**.

Volume I, Section 2 describes the characteristics of winter storm hazards, history, as well as the location, extent, and probability of a potential event within the region. 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 the City typically originate in the Gulf of Alaska or in the central Pacific Ocean. These storms are most common from November through March.

Vulnerability Assessment

Due to insufficient data and resources, McMinnville is currently unable to perform a quantitative risk assessment, or exposure analysis, for the windstorm and winter storm hazards. All areas within the City of McMinnville are equally at risk of a windstorm or winter storm event.

Mitigation Activities

The City works to mitigate problems regarding windstorm and winter storm issues when they arise. Mitigation activities listed here include current mitigation programs and activities that are being implemented by McMinnville agencies or organizations.

- ODOT is responsible for plowing, sanding, and de-icing state managed roads including: OR 99W within city limits.
- The City is responsible for plowing, sanding and de-icing designated roadways as per the City's [Snow and Ice Response Plan](#).
- The City requires that all new utility lines, cables or wires, on new development be placed underground.
- The City provides education on winter weather preparedness
- The City encourages property owners to trim hazard trees, and to maintain trees within public rights-of-way. Utility companies maintain trees along their utility easements.

City of McMinnville Codes Pertaining to Windstorms and Winter Storms

The following McMinnville codes, plans, and policies pertain to windstorms and winter storms:

1. The City of McMinnville Municipal Code Title 13 Public Utilities provides standards for public infrastructure and utilities.
2. The City of McMinnville enforces the [Oregon Building Code](#) which regulates building material requirements and includes provisions for windstorms and winter storms.

Please review Volume I, Section 2 for additional information on this hazard.

Volcanic Event

The steering committee determined that the City's probability for a volcanic event is **low** and that their vulnerability to a volcanic event is **low**.

Volume I, Section 2 describes the characteristics of volcanic hazards, history, as well as the location, extent, and probability of a potential event within the region. Generally, an event

that affects the Eastern portion of the County is likely to affect McMinnville as well. Several volcanoes are located near McMinnville, the closest of which are Mount Hood, Mount Adams, Mount Saint Helens, Mount Rainier, and the Three Sisters.

Due to McMinnville's relative distance from volcanoes, the city is unlikely to experience the immediate effects that eruptions have on surrounding areas (i.e., mud and debris flows, or lahars). Although the City of McMinnville is unlikely to experience lahars or lava flows, tephra (sand- sized or finer particles of volcanic rock that is ejected rapidly into the air from volcanic vents) drifts downwind from the explosions and can form a blanket-like deposit of ash. The eruption of Mount St. Helens in 1980, for example, coated the Willamette Valley with a fine layer of ash. If Mount Hood erupts, however, the city could experience a heavier coating of ash. Tephra is a public health threat, and can damage agriculture and transportation systems (i.e., aircraft and on- the-ground vehicles). Tephra can also clog drainage systems and create major debris management problems. Within McMinnville, public health would be a primary concern, and keeping transportation routes open/accessible would be important as well.

Vulnerability Assessment

Due to insufficient data and resources, McMinnville is currently unable to perform a quantitative risk assessment, or exposure analysis, for this hazard.

Mitigation Activities

The existing volcanic event hazard mitigation activities are conducted at the county, regional, state, and federal levels and are described in the Yamhill County NHMP.

City of McMinnville Codes Pertaining to Volcanic Events

The City does not have specific codes, plans, or policies that pertain to volcanic events:

Please review Volume I, Section 2 for additional information on this hazard.

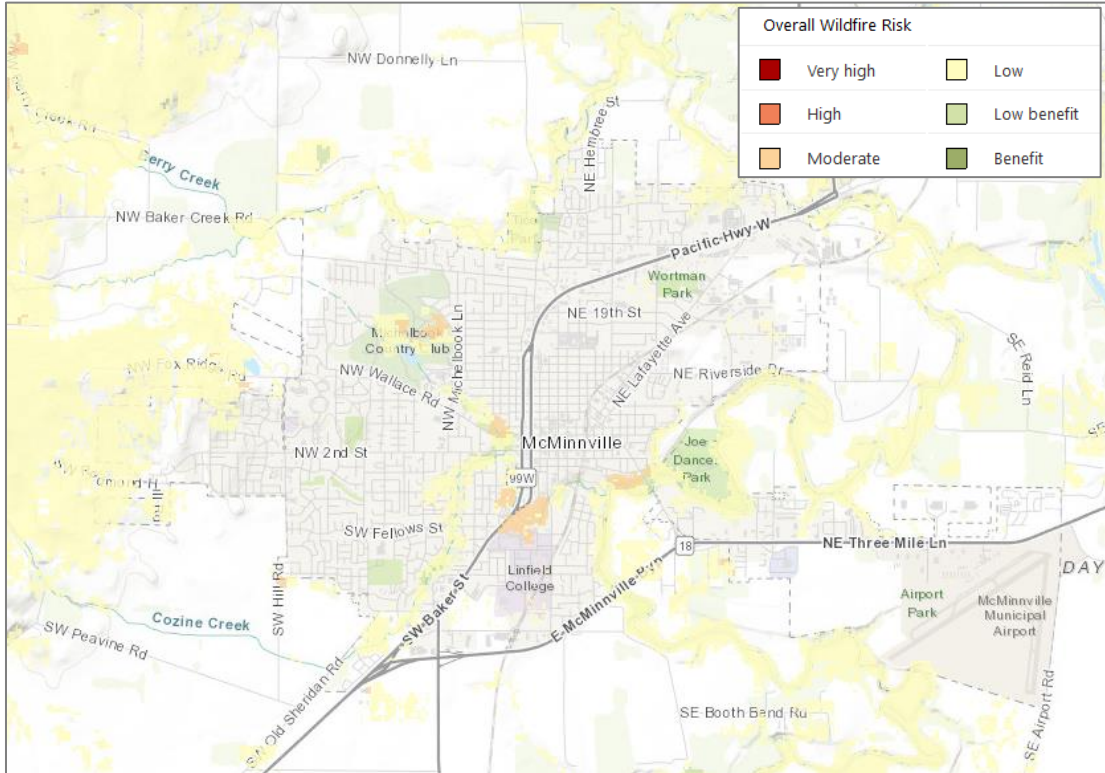
Wildfire

The steering committee determined that the City's probability for wildfire is **moderate** and that their vulnerability to wildfire is **moderate**.

The [Yamhill County Community Wildfire Protection Plan \(CWPP\)](#) was completed in August 2009 and revised in 2015. The CWPP is hereby incorporated into this NHMP addendum by reference, and it will serve as the wildfire section for this addendum.

Volume I, Section 2 describes the characteristics of wildland fire hazards, history, as well as the location, extent, and probability of a potential event within the region. The location, and extent of a wildland fire vary depending on fuel, topography, and weather conditions. Weather, and urbanization conditions are primarily at cause for the hazard level. McMinnville has not experienced a wildfire within City limits. The city is surrounded by developed land, rivers, and/or irrigated agricultural land. However, some wooded areas are a concern in the case of a wildfire event, particularly in the western part of the city. Figure MA-8 shows overall wildfire risk in McMinnville.

Figure MA-8 Overall Wildfire Risk



Source: [Oregon Wildfire Risk Explorer](#), date accessed April 27, 2020.

There have been several small wildfires in and surrounding the city since 1992. One 13-acre human caused wildfire occurred in the northeastern section of the city in 2015, in 2017 a wheat field caught fire near the Grandhaven Development, and in 2019 a 40-acre human caused fire occurred off Baker Creek Rd in the western part of the city. Additional, small wildfire have occurred (usually human caused) adjacent to the city and within the watershed.

The forested areas within, and surrounding McMinnville are interface areas. These areas are characterized by varying housing structures (often large houses on small lots, some with shake roofs), natural, and ornamental vegetation, and topography that may increase the risk for wildfire spreading (particularly to the north and northeast).

Most of the city has less severe (low) wildfire burn probability that includes expected flame lengths less than four feet under normal weather conditions.¹⁴ However, conditions vary widely and with local topography, fuels, and local weather (including wind) conditions. Under warm, dry, windy, and drought conditions expect higher likelihood of fire starts, higher intensity, more ember activity, and a more difficult to control wildfire that will include more fire effects and impacts. The potential community impacts, and vulnerabilities described in Volume I, Section 2 are generally accurate for the City as well. McMinnville's fire response is provided by the McMinnville Fire Department. The CWPP assesses wildfire risk, maps wildland urban interface areas, and includes actions to mitigate wildfire risk (all

¹⁴ [Oregon Wildfire Risk Explorer](#),

identified actions are outside the city limits). However, several identified projects are located within, or near, the city's watershed including moderate priority hazard fuel reduction projects in the Baker Creek Area and Fox Ridge Area, and a high priority defensible space project Eagle Point Way. The City will update the City's wildfire risk assessment if the CWPP presents better data during future updates (an action item is included to participate in future updates to the CWPP).

Vulnerability Assessment

Due to insufficient data and resources, McMinnville is currently unable to perform a quantitative risk assessment for this hazard. The city's biggest wildfire vulnerability is in the west area of the city and adjoining lands and within the city's 6,350-acre watershed, owned McMinnville Water and Light (MW&L), located about 9 miles west of the city in the Coast Mountain Range. Overall, the watershed has low to moderate wildfire risk, however, the forested areas have the potential for large wildfires and a wildfire within the watershed could impact the city's water supply and quality.

Property can be damaged or destroyed with one fire as structures, vegetation, and other flammables easily merge to become unpredictable, and hard to manage. Other factors that affect ability to effectively respond to a wildfire include access to the location, and to water, response time from the fire station, availability of personnel, and equipment, and weather (e.g., heat, low humidity, high winds, and drought).

Exposed infrastructure including wastewater main lines, major water lines, natural gas pipeline and fiber optic lines are buried, decreasing their vulnerability to damage from wildfire hazards. However, wildfire conditions could potentially limit or delay access for the purposes of operation or repair.

The Oregon Wildfire Risk Explorer provides detail on the potential impact to structure from wildfire as shown in Figure MA-9, darker areas have higher potential impacts if fire ignites nearby. The areas of greater risk are generally located west of the city that are hillier and that are more heavily vegetated and forested.

Mitigation Activities

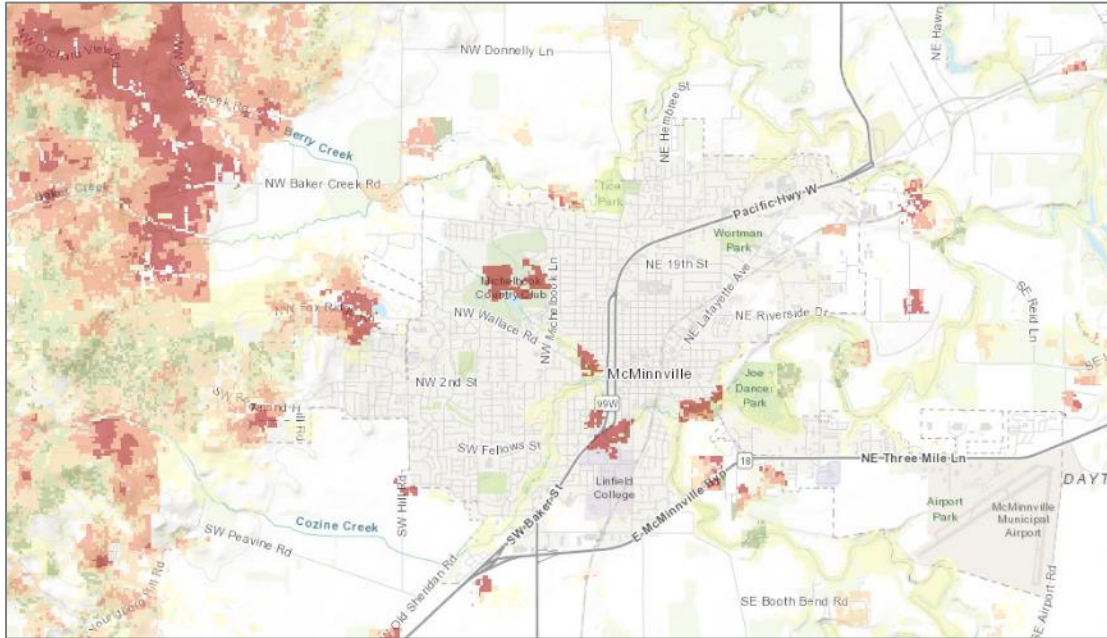
The McMinnville Fire Department works to mitigate problems regarding wildfire issues when they arise. Wildfire mitigation activities listed here include current mitigation programs and activities that are being implemented by McMinnville agencies or organizations. The Oregon Department of Forestry provides fire protection for the McMinnville Watershed.

City of McMinnville Codes Pertaining to Wildfires

The following McMinnville codes, plans, and policies pertain to wildfires:

1. McMinnville Comprehensive Plan (*under contract to update in 2020*). The updated plan includes a Natural Hazards Inventory and Management Program Recommendations including information on wildfire hazards impacting the city.
2. The City of McMinnville Municipal Code Title 13 provides standards for public infrastructure and utilities.
3. The City of McMinnville enforces the [Oregon Building Code](#) which regulates building material requirements and includes provisions for fires.

Figure MA-9 Overall Potential Impact



Source: [Oregon Wildfire Risk Explorer](#), date accessed April 27, 2020.

Please review the [Yamhill County Community Wildfire Protection Plan \(CWPP\)](#) and Volume I, Section 2 for additional information on this hazard.

ATTACHMENT A: ACTION ITEM FORMS

Table MA-1 provides a summary list of 2020 NHMP Actions for the city. Each high priority 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 below.

ALIGNMENT WITH EXISTING PLANS/POLICIES

The City NHMP includes a range of action items that, when implemented, will reduce loss from hazard events in the City. Within the plan, FEMA requires the identification of existing programs that might be used to implement these action items. The City addresses statewide planning goals and legislative requirements through its comprehensive land use plan, capital improvements plan, mandated standards and building codes. To the extent possible, the City will work to incorporate the recommended mitigation action items into existing programs and procedures. Each action item identifies related existing plans and policies.

STATUS/RATIONALE FOR PROPOSED ACTION ITEM

Action items should be fact-based and tied directly to issues or needs identified throughout the planning process. Action items can be developed at any time during the planning process and can come from several sources, including participants in the planning process, noted deficiencies in local capability, or issues identified through the risk assessment. The rationale for proposed action items is based on the information documented in this addendum and within Volume I, Section 2. The worksheet provides information on the activities that have occurred since the previous plan for each action item.

IDEAS FOR IMPLEMENTATION

The ideas for implementation offer a transition from theory to practice and serve as a starting point for this plan. This component of the action item is dynamic, since some ideas may prove to not be feasible, and new ideas may be added during the plan maintenance process. Ideas for implementation include such things as collaboration with relevant organizations, grant programs, tax incentives, human resources, education and outreach, research, and physical manipulation of buildings and infrastructure.

COORDINATING (LEAD) ORGANIZATION:

The coordinating organization is the public agency with the regulatory responsibility to address natural hazards, or that is willing and able to organize resources, find appropriate funding, or oversee activity implementation, monitoring and evaluation.

INTERNAL AND EXTERNAL PARTNERS:

The internal and external partner organizations listed in the Action Item Worksheets are potential partners recommended by the project steering committee but not necessarily

contacted during the development of the plan. The coordinating organization should contact the identified partner organizations to see if they are capable of and interested in participation. This initial contact is also to gain a commitment of time and/or resources toward completion of the action items.

Internal partner organizations are departments within the City or other participating jurisdiction that may be able to assist in the implementation of action items by providing relevant resources to the coordinating organization.

External partner organizations can assist the coordinating organization in implementing the action items in various functions and may include local, regional, state, or federal agencies, as well as local and regional public and private sector organizations.

PLAN GOALS ADDRESSED:

The plan goals addressed by each action item are identified as a means for monitoring and evaluating how well the mitigation plan is achieving its goals, following implementation.

TIMELINE:

All broad scale action items have been determined to be ongoing, as opposed to short (0 to 2 years), medium (2-5 years), or long (6 or more years). This is because the action items are broad ideas, and although actions may be implemented to address the broad ideas, the efforts should be ongoing.

POTENTIAL FUNDING SOURCE

Where possible potential funding sources have been identified. Example funding sources may include: Federal Hazard Mitigation Assistance programs, state funding sources such as the Oregon Seismic Rehabilitation Grant Program, or local funding sources such as capital improvement or general funds. An action item may include several potential funding sources.

ESTIMATED COST

A rough estimate of the cost for implementing each action item is included. Costs are shown in general categories showing low, medium, or high cost. The estimated cost for each category is outlined below:

Low - Less than \$50,000

Medium - \$50,000 – \$100,000

High - More than \$100,000

Multi-Hazard #1

Proposed Action Item:		Alignment with Plan Goals:	
Develop, enhance, and implement public education and information materials concerning mitigation, preparedness and safety procedures for identified natural hazards.		Goal 1, Goal 2, Goal 3, Goal 6, Goal 8	
Alignment with Existing Plans/Policies:			
Emergency Operations Plan			
2020 Status/Rationale for Proposed Action Item:			
<p>The natural hazard sections of the City's addendum (Volume II) to the Yamhill Co. NHMP and Yamhill County's risk assessment (Volume I, Section 2 and Volume III, Appendix C) identify vulnerable populations and property within the various identified hazard areas. Increasing public outreach to educate residents about their risk to natural hazards affecting their community as well as what to do in the event of a natural hazard will help decrease their vulnerability to natural hazards.</p> <p>The Disaster Mitigation Act of 2000 requires communities to identify how the community will continue to involve the public in the plan maintenance process [201.6(c)(4)(iii)]. Educating landowners on how to mitigate the effects of natural hazards helps keep the public informed of what is being done with the plan, how the City is working to mitigate its risk to natural hazards, and allows for feedback and suggestions from the public for improving, updating, and maintaining the plan.</p>			
Ideas for Implementation:			
<p>Distribution of natural hazard information describing dangers and evacuation routes for visitors to McMinnville and continued educational outreach for residents and business owners.</p> <p>Update brochures with new information provided as part of reports provided by DOGAMI, ODF, DLCD, and FEMA (among others).</p> <p>Identify and use existing mechanisms for public outreach (e.g., SWCD, NRCS, watershed councils, OSU Extension, etc.).</p>			
Coordinating Organization:		Emergency management, MW&L	
Internal Partners:		External Partners:	
Planning, Public Works, Fire, Police		OEM, DLCD, FEMA, DOGAMI	
Potential Funding Sources:		Estimated cost:	Timeline:
General fund, grants		Low	<input type="checkbox"/> Short (0-2 years) <input type="checkbox"/> Medium (2-5 years) <input type="checkbox"/> Long (6+ years) <input checked="" type="checkbox"/> Ongoing
Form Submitted by:	2019-20 NHMP Steering Committee		
Priority:	High		

Multi-Hazard #2

Proposed Action Item:		Alignment with Plan Goals:	
Incorporate mitigation planning provisions into community planning processes such as comprehensive, capital improvement, land use, transportation plans, zoning ordinances, community development practices, etc.		Goal 1, Goal 4, Goal 5, Goal 6, Goal 7, Goal 8	
Alignment with Existing Plans/Policies:			
Comprehensive Plan, Development Code, Master Plans (Water/Wastewater), Transportation System Plan			
2020 Status/Rationale for Proposed Action Item:			
<p>Comprehensive plans provide the framework for the physical design of a community. They shape overall growth and development while addressing economic, environmental and social issues. Oregon’s statewide goals are accomplished through local comprehensive plans. State Law requires local governments to adopt a comprehensive plan and the zoning and land-division ordinances needed to put the plan into action.</p> <p>Integration of NHMPs into comprehensive plans and other plans will help to reduce a community’s vulnerability to natural hazards, support in mitigation activities, help to increase the speed in which action items are implemented and therefore the speed in which communities recover from natural disasters.</p> <p>Integration of NHMPs into local plans gives the action items identified in the NHMP legal status for guiding local decision-making regarding land use and/ or capital expenditures. .</p>			
Ideas for Implementation:			
<p>Conduct a policy crosswalk of the NHMP, the comprehensive plan, and other planning documents, to identify areas of possible integration.</p> <p>Integrate natural hazards information and policies into the comprehensive plan and other plans.</p> <p>Engage in collaborative planning and integration.</p> <p>Coordinate future NHMP and comprehensive plan reviews and updates.</p>			
Coordinating Organization:		Planning	
Internal Partners:		External Partners:	
Engineering, MW&L		DOGAMI, DLCD, OEM	
Potential Funding Sources:		Estimated cost:	Timeline:
General fund, DLCD technical assistance grant		Low	<input checked="" type="checkbox"/> Short (0-2 years) <input type="checkbox"/> Medium (2-5 years) <input type="checkbox"/> Long (6+ years) <input type="checkbox"/> Ongoing
Form Submitted by:	2019-20 NHMP Steering Committee		
Priority:	High		

Multi-Hazard #6

Proposed Action Item:		Alignment with Plan Goals:	
Develop and maintain GIS mapped critical facility inventory.		Goal 1, Goal 2, Goal 3, Goal 4, Goal 6, Goal 8	
Alignment with Existing Plans/Policies:			
2020 Status/Rationale for Proposed Action Item:			
<p>McMinnville’s addendum and Yamhill County’s risk assessment identify limited properties located in hazards areas. Improving technology, particularly GIS and communications, for the identification of vulnerable facilities will help decrease their vulnerability to natural hazards.</p> <p>The Disaster Mitigation Act of 2000 requires communities to identify how the community will continue to involve the public in the plan maintenance process [201.6(c)(4)(iii)]. Improving technology capacity will allow more widespread dissemination of information, thus assisting in keeping residents informed of what is being done with the plan, how the City is working to mitigate its risk to natural hazards and allowing for feedback and suggestions from the public for improving, updating, and maintaining the plan.</p>			
Ideas for Implementation:			
<p>Identify and map critical facilities and identify the location and extent of hazard areas and establish a factual base to support implementation of future mitigation measures; and</p> <p>Analyze the risk of these areas to property, and infrastructure.</p>			
Coordinating Organization:		Engineering, MW&L	
Internal Partners:		External Partners:	
Planning, Fire, Police		DOGAMI, DLCD, ODF, other state and federal agencies	
Potential Funding Sources:		Estimated cost:	Timeline:
General fund, grants		Low	<input checked="" type="checkbox"/> Short (0-2 years) <input type="checkbox"/> Medium (2-5 years) <input type="checkbox"/> Long (6+ years) <input type="checkbox"/> Ongoing
Form Submitted by:	2019-20 NHMP Steering Committee		
Priority:	High		

Multi-Hazard #7

Proposed Action Item:		Alignment with Plan Goals:	
Develop and maintain GIS mapped hazard areas within the UGB.		Goal 1, Goal 2, Goal 3, Goal 4, Goal 6, Goal 8	
Alignment with Existing Plans/Policies:			
Comprehensive Plan			
2020 Status/Rationale for Proposed Action Item:			
<p>The Risk Assessment section of the McMinnville NHMP addendum identifies the potential hazard risk areas within the city.</p> <p>The Disaster Mitigation Act of 2000 requires communities to identify actions and projects that reduce the effects of hazards on both new and existing buildings and infrastructure [201.6(c)(3)(ii)]. Identifying and mapping existing areas with exposure to profiled natural hazard risk will allow for better understanding of the areas at risk and for the implementation of mitigation measures to reduce this risk.</p>			
Ideas for Implementation:			
<p>Collect existing available GIS data for profiled natural hazards from state and federal partners. Data is available for geohazards on the DOGAMI website publications search: https://www.oregongeology.org/pubs/pubsearch.htm</p>			
Coordinating Organization:		Engineering, MW&L	
Internal Partners:		External Partners:	
Planning, Fire, Police		DOGAMI, USGS, FEMA, DLCD, ODF	
Potential Funding Sources:		Estimated cost:	Timeline:
General fund, grants		Low	<input checked="" type="checkbox"/> Short (0-2 years) <input type="checkbox"/> Medium (2-5 years) <input type="checkbox"/> Long (6+ years) <input type="checkbox"/> Ongoing
Form Submitted by:		2019-20 NHMP Steering Committee	
Priority:		High	

Multi-Hazard #8

Proposed Action Item:		Alignment with Plan Goals:	
Develop & construct multi-jurisdictional fuel station and mobile fuel capabilities.		Goal 1, Goal 2, Goal 3, Goal 4, Goal 6, Goal 8	
Alignment with Existing Plans/Policies:			
2020 Status/Rationale for Proposed Action Item:			
A multi-jurisdictional fueling station coupled with mobile fueling capacity will provide more reliable and redundant fuel supply to participating partners during emergency response operations.			
Ideas for Implementation:			
McMinnville Water & Light is advancing plans to construct a fueling station during fiscal year 2021 and is working with the City regarding its ability to participate.			
Coordinating Organization:		Engineering, MW&L	
Internal Partners:		External Partners:	
Planning, Fire, Police		ODOT, Yamhill Co, other cities in Yamhill County	
Potential Funding Sources:		Estimated cost:	Timeline:
General fund, MW&L		High	<input checked="" type="checkbox"/> Short (0-2 years) <input type="checkbox"/> Medium (2-5 years) <input type="checkbox"/> Long (6+ years) <input type="checkbox"/> Ongoing
Form Submitted by:	2019-20 NHMP Steering Committee		
Priority:	High		

Multi-Hazard #1 I

Proposed Action Item:		Alignment with Plan Goals:	
Limit (e.g. reduced density, etc.) or prohibit development in high hazard areas.		Goal 2, Goal 3, Goal 4, Goal 6, Goal 7, Goal 8	
Alignment with Existing Plans/Policies:			
Comprehensive Plan, Development Code, Strategic Plan			
2020 Status/Rationale for Proposed Action Item:			
The Disaster Mitigation Act of 2000 requires communities to identify actions and projects that reduce the effects of hazards on both new and existing buildings and infrastructure [201.6(c)(3)(ii)]. Limiting and prohibiting development in high hazards zones will reduce risk to people and property.			
Ideas for Implementation:			
Complete, adopt and implement the “McMinnville Area Natural Hazards Inventory and Management Program Recommendations” plan, which will include an inventory of natural hazards based on available mapping sources; consider alternative management options; and suggest policy and mapping amendments to the McMinnville Comprehensive Plan to systematically address McMinnville’s mappable natural hazards.			
Coordinating Organization:		Planning	
Internal Partners:		External Partners:	
Engineering		DLCD	
Potential Funding Sources:		Estimated cost:	Timeline:
General fund		Low	<input checked="" type="checkbox"/> Short (0-2 years) <input type="checkbox"/> Medium (2-5 years) <input type="checkbox"/> Long (6+ years) <input type="checkbox"/> Ongoing
Form Submitted by:		2019-20 NHMP Steering Committee	
Priority:		High	

Multi-Hazard #12

Proposed Action Item:		Alignment with Plan Goals:	
Encourage mitigation practices in developments at risk to natural hazards.		Goal 1, Goal 2, Goal 3, Goal 4, Goal 6, Goal 8	
Alignment with Existing Plans/Policies:			
Comprehensive Plan, Development Code, Strategic Plan			
2020 Status/Rationale for Proposed Action Item:			
The Disaster Mitigation Act of 2000 requires communities to identify actions and projects that reduce the effects of hazards on both new and existing buildings and infrastructure [201.6(c)(3)(ii)]. Encouraging the use of mitigation techniques to limit risk to natural hazards will reduce risk to people and property.			
Ideas for Implementation:			
Complete, adopt and implement the “McMinnville Area Natural Hazards Inventory and Management Program Recommendations” plan, which will include an inventory of natural hazards based on available mapping sources; consider alternative management options; and suggest policy and mapping amendments to the McMinnville Comprehensive Plan to systematically address McMinnville’s mappable natural hazards.			
Coordinating Organization:		Planning	
Internal Partners:		External Partners:	
Engineering		DLCD	
Potential Funding Sources:		Estimated cost:	Timeline:
General fund		Low	<input checked="" type="checkbox"/> Short (0-2 years) <input type="checkbox"/> Medium (2-5 years) <input type="checkbox"/> Long (6+ years) <input type="checkbox"/> Ongoing
Form Submitted by:	2019-20 NHMP Steering Committee		
Priority:	High		

Earthquake #1

Proposed Action Item:		Alignment with Plan Goals:	
Complete inventory and seismic assessment of critical facilities.		Goal 2, Goal 3, Goal 4, Goal 6, Goal 7, Goal 8	
Alignment with Existing Plans/Policies:			
2020 Status/Rationale for Proposed Action Item:			
<p>Currently, all new facilities must comply with and meet seismic standards. If someone moves into an old building, they must upgrade to current standards.</p> <p>DOGAMI did a windshield survey of schools, fire stations, police, and city halls (2007 RVS). The focus was on action of existing buildings and information was shared with participants.</p> <p>Seismic resiliency is a component of MW&L's collection system and the city's wastewater treatment facility master plans. Upgrades are constructed as opportunity and funding allow.</p>			
Ideas for Implementation:			
<p>Provide information to government building and school facility managers and teachers on nonstructural mitigation techniques including: securing bookcases, filing cabinets, light fixtures, and other objects that can cause injuries and block exits;</p> <p>Encourage facility managers, business owners, and teachers to refer to FEMA's practical guidebook: Reducing the Risks of Nonstructural Earthquake Damage;</p> <p>Encourage homeowners and renters to use Is Your Home Protected from Earthquake Disaster? A Homeowner's Guide to Earthquake Retrofit (IBHS) for economic and efficient mitigation techniques;</p> <p>Use the FEMA 154 seismic evaluations generated by DOGAMI to prioritize critical and essential buildings for upgrades;</p> <p>Explore partnerships to provide retrofitting classes for homeowners, renters, building professionals, and contractors; and</p> <p>Target development located in potential fault zones or in unstable soils for intensive education and retrofitting resources.</p>			
Coordinating Organization:		Engineering, MW&L	
Internal Partners:		External Partners:	
Fire, Planning		School district	
Potential Funding Sources:		Estimated cost:	Timeline:
General fund, utility fees, HMA grants		High	<input checked="" type="checkbox"/> Short (0-2 years) <input type="checkbox"/> Medium (2-5 years) <input type="checkbox"/> Long (6+ years) <input type="checkbox"/> Ongoing
Form Submitted by:	2019-20 NHMP Steering Committee		
Priority:	High		

Landslide #2

Proposed Action Item:		Alignment with Plan Goals:	
Develop a process to limit future development in high landslide potential areas - permitting, geotechnical review, soil stabilization techniques, etc.		Goal 2, Goal 4, Goal 5, Goal 6, Goal 7, Goal 8	
Alignment with Existing Plans/Policies:			
Comprehensive Plan, Development Code, Strategic Plan			
2020 Status/Rationale for Proposed Action Item:			
The Disaster Mitigation Act of 2000 requires communities to identify actions and projects that reduce the effects of hazards on both new and existing buildings and infrastructure [201.6(c)(3)(ii)]. Identifying existing landslide hazard areas will allow for a better understanding of the area at risk and the implementation of mitigation measures to reduce this risk.			
Ideas for Implementation:			
Complete, adopt and implement the “McMinnville Area Natural Hazards Inventory and Management Program Recommendations” plan, which will include an inventory of natural hazards based on available mapping sources; consider alternative management options; and suggest policy and mapping amendments to the McMinnville Comprehensive Plan to systematically address McMinnville’s mappable natural hazards.			
Incorporate relevant aspects of the DLCD Landslide Land Use Guide (“ Preparing for Landslide Hazards, A Land Use Guide for Oregon Communities ”)			
Coordinating Organization:		Planning	
Internal Partners:		External Partners:	
Engineering, McMinnville Water & Light		DLCD, DOGAMI	
Potential Funding Sources:		Estimated cost:	Timeline:
General fund, Utility Fees, grants		Medium	<input checked="" type="checkbox"/> Short (0-2 years) <input type="checkbox"/> Medium (2-5 years) <input type="checkbox"/> Long (6+ years) <input type="checkbox"/> Ongoing
Form Submitted by:	2019-20 NHMP Steering Committee		
Priority:	High		

Wildfire #1

Proposed Action Item:		Alignment with Plan Goals:	
Coordinate wildfire mitigation action items through the Yamhill County Community Wildfire Protection Plan.		Goal 1, Goal 2, Goal 3, Goal 4, Goal 5, Goal 6, Goal 7, Goal 8	
Alignment with Existing Plans/Policies:			
Yamhill County CWPP			
2020 Status/Rationale for Proposed Action Item:			
The wildfire mitigation action items provide direction on specific activities that organizations and residents in McMinnville/Yamhill County can take to reduce wildfire hazards.			
Ideas for Implementation:			
Implement high and medium priority projects including defensible space and fuels reduction projects identified in the CWPP.			
Coordinating Organization:		Fire	
Internal Partners:		External Partners:	
Planning, Emergency Management, MW&L		ODF, USFS, Fire Defense Board	
Potential Funding Sources:		Estimated cost:	Timeline:
General fund, ODF grants		Medium to High	<input type="checkbox"/> Short (0-2 years) <input type="checkbox"/> Medium (2-5 years) <input type="checkbox"/> Long (6+ years) <input checked="" type="checkbox"/> Ongoing
Form Submitted by:	2019-20 NHMP Steering Committee		
Priority:	High		

Wildfire #2

Proposed Action Item:		Alignment with Plan Goals:	
Provide wildland fire information in an easily distributed format for all residents.		Goal 1, Goal 2, Goal 3, Goal 6, Goal 8	
Alignment with Existing Plans/Policies:			
2020 Status/Rationale for Proposed Action Item:			
<p>The natural hazard sections of the City’s addendum (Volume II) to the Yamhill Co. NHMP and Yamhill County’s risk assessment (Volume I, Section 2 and Volume III, Appendix C) identify vulnerable populations and property within the wildfire hazard area. Increasing public outreach to educate residents about their risk to natural hazards affecting their community as well as what to do in the event of a natural hazard will help decrease their vulnerability to natural hazards.</p> <p>The Disaster Mitigation Act of 2000 requires communities to identify how the community will continue to involve the public in the plan maintenance process [201.6(c)(4)(iii)]. Educating landowners on how to mitigate the effects of natural hazards helps keep the public informed of what is being done with the plan, how the City is working to mitigate its risk to natural hazards, and allows for feedback and suggestions from the public for improving, updating, and maintaining the plan.</p>			
Ideas for Implementation:			
<p>Distribution of wildfire hazard information describing dangers and evacuation routes for visitors to McMinnville and continued educational outreach for residents and business owners.</p> <p>Update brochures with new information provided as part of reports provided by Firewise, ODF, DOGAMI, DLCD, and FEMA (among others).</p> <p>Identify and use existing mechanisms for public outreach (e.g., SWCD, NRCS, watershed councils, OSU Extension, etc.).</p>			
Coordinating Organization:		Fire	
Internal Partners:		External Partners:	
Planning, Emergency Management, MW&L		ODF, USFS, Fire Defense Board	
Potential Funding Sources:		Estimated cost:	Timeline:
General fund, utility fees		Low	<input type="checkbox"/> Short (0-2 years) <input type="checkbox"/> Medium (2-5 years) <input type="checkbox"/> Long (6+ years) <input checked="" type="checkbox"/> Ongoing
Form Submitted by:	2019-20 NHMP Steering Committee		
Priority:	High		

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ATTACHMENT B: PUBLIC INVOLVEMENT SUMMARY

Members of the steering committee provided edits and updates to the NHMP prior to the public review period as reflected in the final document.

To provide the public information regarding the draft NHMP addendum, and provide an opportunity for comment, an announcement (see text below) was placed on the city's website and an email contact was provided for public comment. The press release was also provided to the local newspaper (News Register) and was posted on the city's social media pages (Facebook, Instagram).

During the public review period there were no comments provided.

The screenshot displays the City of McMinnville website. The header includes the city name and navigation links: Home, Contact Us, Code Compliance & Community Relations, and a language selection dropdown. A red navigation bar contains links for GOVERNMENT, BUSINESS, COMMUNITY, and I WANT TO, along with a search bar. The main content area features a large green heading: "Press Release for McMinnville addendum to the Yamhill County Multi-Jurisdictional Natural Hazard Mitigation Plan Update – Notice and Opportunity for Public Comment". Below this, a "Supporting Documents" section lists two files: "Press Release - McMinnville seeks additional public input on update to Natural Hazard Mitigation Plan (41 KB)" and "City of McMinnville Addendum to the Yamhill County Multi-Jurisdictional Hazard Mitigation Plan - DRAFT (10 MB)". On the right side, there is a "Community" section with a "Get Involved!" button and a "Contact Information" box listing Noelle Amaya, Community Engagement & Public Affairs, with contact details: 231 NE 5th Street, McMinnville, OR 97128, 503-435-0402, and a link to "View Full Contact Details".



PRESS RELEASE

DATE: June 29, 2020

SUBJECT: Press Release for McMinnville addendum to the Yamhill County Multi-Jurisdictional Natural Hazard Mitigation Plan Update – Notice and Opportunity for Public Comment

For Immediate Release

McMinnville seeks additional public input on update to Natural Hazard Mitigation Plan

(McMinnville, OR) – McMinnville is in the process of updating their existing Natural Hazard Mitigation Plan (NHMP). This work is being performed in cooperation with the University of Oregon’s Institute for Policy Research and Engagement - Oregon Partnership for Disaster Resilience and the Oregon Military Department’s Office of Emergency Management utilizing funds obtained from the Federal Emergency Management Agency’s (FEMA) Pre-Disaster Mitigation Grant Program. With re-adoption of the plan, McMinnville will regain its eligibility to apply for federal funding towards natural hazard mitigation projects. This local planning process includes a wide range of representatives from city and county government, emergency management personnel, and outreach to members of the public in the form of an electronic survey.

A natural hazard mitigation plan provides communities with a set of goals, action items, and resources designed to reduce risk from future natural disaster events. Engaging in mitigation activities provides jurisdictions with a number of benefits, including reduced loss of life, property, essential services, critical facilities, and economic hardship; reduced short-term and long-term recovery and reconstruction costs; increased cooperation and communication within the community through the planning process; and increased potential for state and federal funding for recovery and reconstruction projects.

An electronic version of the updated draft McMinnville NHMP addendum will be available for formal public comment beginning June 29, 2020. To view the draft please visit the “Latest News” section of the City’s website: <https://www.mcminnvilleoregon.gov/>

If you have any questions regarding the McMinnville NHMP addendum or the update process in general, please contact: Mike Bisset, Community Development Director at (503) 434-7312 or mike.bisset@mcminnvilleoregon.gov; or Michael Howard, Assistant Program Director for the Oregon Partnership for Disaster Resilience at mrhoward@uoregon.edu.

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