

# City of Salem

## NATURAL HAZARDS MITIGATION PLAN

**2023 Update is underway, and  
your input is needed!**

**DRAFT 1: RISK ASSESSMENT is  
now available.**

Please provide comments to  
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by June 23, 2023

### Questions?



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## SECTION 3: MITIGATION STRATEGY

The Mitigation Strategy establishes a policy framework and implementation pathway for reducing risk from natural hazards over the long term. This section outline outlines Salem’s strategy to reduce or avoid long-term vulnerabilities to the identified hazards. Specifically, this section presents a mission, goals, and mitigation actions to reduce risk of damage from these hazards. The NHMP Steering Committee reviewed and updated the mission, goals and action items documented in this plan. Additional planning process documentation is in Appendix B, Planning Process.

### Mitigation Mission

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

The mission of the Salem NHMP is:

***Identify and minimize risks and impacts to our community from natural hazards.***

The NHMP Steering Committee reviewed the previous plans mission statement and agreed to revise the mission to align with other community objectives. Moreover, the revision of the mission statement intends to include the whole community. The Steering Committee believes the concise nature of the mission statement allows for a comprehensive approach to mitigation planning.

### Mitigation Goals

Mitigation plan goals are more specific statements of direction that Salem 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 particular action items. The goals listed here serve as checkpoints as agencies and organizations begin implementing mitigation action items.

Public participation was a key aspect in developing the plan goals. Meetings with the project Steering Committee, stakeholder interviews and public workshops all served as methods to obtain input and priorities in developing goals for reducing risk and preventing loss for natural hazards in Salem.

The Salem NHMP Steering Committee reviewed the previous plan goals in comparison to the State Natural Hazard Mitigation Plan (2020) goals. Like the mission statement revision, the Steering Committee determined they would revise and expand their existing goals based on the consideration and sensitivity of the whole community and climate -altered future.

All the plan 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. The *2023 Salem NHMP* goals are as follows:

**Goal 1:** Develop and implement mitigation activities to protect human life in the context of a climate-altered future.

**Goal 2:** Strive to protect existing buildings and infrastructure from the impacts of natural hazards.

**Goal 3:** Develop and implement strategies and policies to promote more resilient future development, infrastructure, and systems.

**Goal 4:** Strengthen communication, plan, practice, and coordinate emergency services among local, county, and regional governments and the private sector.

**Goal 5:** Enhance community resilience, including economic continuity and recovery, to reduce the impacts of natural hazards and promote efficient and effective recovery.

**Goal 6:** Preserve and rehabilitate natural systems to serve natural hazard mitigation functions and protect natural resources.

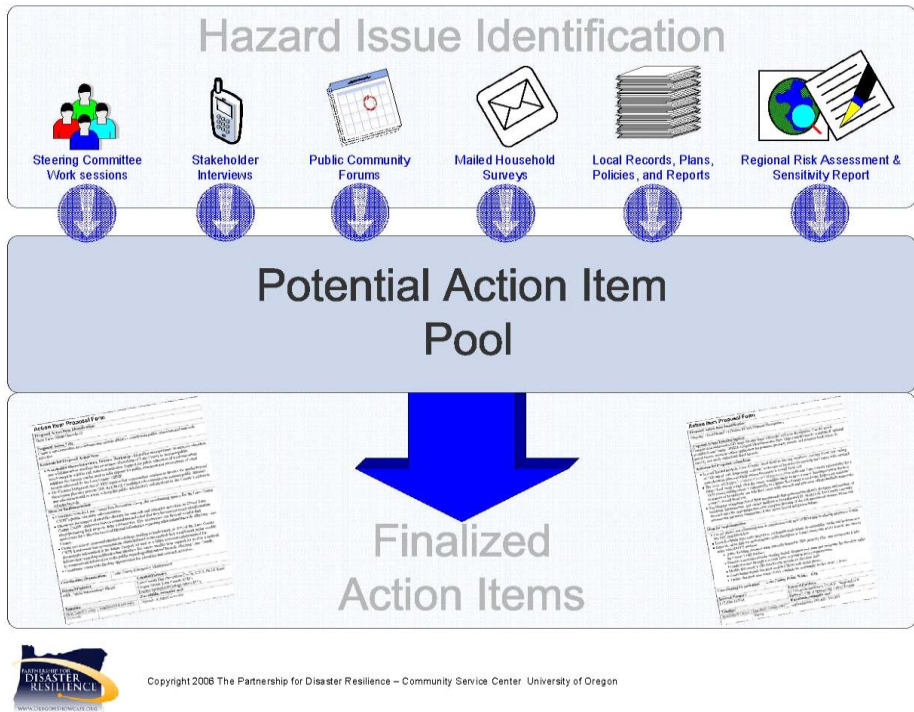
**Goal 7:** Develop programs to promote social resilience within the community recognizing that our most vulnerable communities are often those who have been historically underserved and marginalized, especially among those most vulnerable to natural hazards.

## **Mitigation Actions**

### **Development Process**

Mitigation actions are specific actions, projects, activities, or processes that Salem is considering implementing to reduce risk to people, property, and the environment from the impacts of natural hazard events. Therefore, mitigation actions identified through the planning process are an important part of the NHMP. The development of action items was a multi-step, iterative process that involved brainstorming, discussion, review, and revisions. Action items can be developed through several sources. Figure 3-1 illustrates some of these sources.

**Figure 3-I Develop of Action Items**



Some of the action items were first created during the 2017 NHMP planning processes. Additional actions were created during the current NHMP review process. Much of this work occurred during the sixth, seventh, and eighth Steering Committee meetings held on February 21, 2023, April 19, 2023, and May 31, 2023. During these processes, the Steering Committees considered growth and changes in development patterns, considered local vulnerable populations, facilities, and infrastructure in respect to each identified hazard. Discussions involved potential actions to mitigate impacts to the vulnerable areas. The Oregon Department of Land Conservation and Development (DLCD) provided guidance in the development of action items by presenting and discussing actions that were used in other communities. DLCDC also took note of ideas that came up in Steering Committee meetings and drafted specific actions that met the intent of the Steering Committee. All actions were then reviewed by the Steering Committee, discussed at length, and revised as necessary before becoming a part of this document.

One of the first steps was to discuss the status of the mitigation actions from the *2017 City of Salem NHMP*. The Steering Committee went through each mitigation action and ascertained if the action was completed or in progress.

- *Completed mitigation actions* are accomplishment and were removed from the table.
- *No longer included mitigation actions* were removed from the table due to resource constraints or other factors.
- *Mitigation actions that were retained* were retained in full or modified to reflect the current situation more accurately.
- During this process, *new mitigation actions* were also identified.

Table 3-1 and Table 3-2 list each of the 2023 mitigation actions along with prioritization. Table 3-3 lists the status of each of the 2017 City of Salem NHMP mitigation actions. A selection of the 2023 mitigation actions is detailed in mitigation action item worksheets located in Appendix A. These worksheets identify the rationale for the project ideas for implementation, and potential coordinating and partner organizations. The action items worksheets are intended to assist plan holders to seek grant funding by summarizing mitigation actions in a manner that summarizes each project.

## **Action Item Worksheets**

A selection of the mitigation actions identified in Table 3-1 and Table 3-2, have a corresponding action item form describing the activity, identifying the rationale for the project, identifying potential ideas for implementation, and assigning coordinating and partner organizations. The action item forms can assist the community in pre-packaging potential projects for grant funding. The form components are described below and are in Appendix A-1, *Priority Action Items* and Appendix A-2, *Action Item Pool*.

### Action Item

Each action item includes a brief description of the proposed action.

### Alignment with Plan Goals

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.

### Alignment with Existing Plans/Policies

This 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. Salem currently addresses statewide planning goals and legislative requirements through their comprehensive land use plans, capital improvement plans, mandated standards, and building codes. To the extent possible, the jurisdictions will work to incorporate the mitigation action items into existing programs and procedures.

Many of the recommendations contained in the Salem NHMP are consistent with the goals and objectives of the existing plans and policies. Where possible, Salem will implement the recommendations and actions contained in the NHMP through existing plans and policies. Plans and policies already in existence have support from residents, businesses, and policy makers. Many land-use, comprehensive, and strategic plans get updated regularly, and can adapt easily to changing conditions and needs.<sup>1</sup> Implementing the action items contained in the NHMP through such plans and policies increases their likelihood of being supported and implemented.

### 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

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<sup>1</sup> Ibid

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 the risk assessment (Section 2) and elsewhere in this plan.

### Implementation through Existing Programs

For each mitigation action, the Mitigation Action Form asks for some ideas for implementation, which serve as the starting point for taking action. This information offers a transition from theory to practice. Ideas for implementation could include: (1) collaboration with relevant organizations, (2) alignment with the community priority areas, (3) applications to new grant programs, (4) tax incentives, (5) human resources, (6) education and outreach, (7) research, and (8) physical manipulation of buildings and infrastructure. This component of the mitigation action is dynamic, since some ideas may prove to not be feasible, and new ideas may be added during the plan maintenance process. When a mitigation action is implemented, more work may be needed to determine the exact course of action.

The Salem NHMP includes a range of mitigation actions that, when implemented, will reduce loss from hazard events in the city. Within the NHMP, FEMA requires the identification of existing programs that might be used to implement these action items. The City of Salem currently addresses statewide planning goals and legislative requirements through their comprehensive land use plans, capital improvements plans, mandated standards and building codes. Plans and policies already in existence have support from residents, businesses, and policy makers. Many land use, comprehensive, and strategic plans are updated regularly, and can adapt easily to changing conditions and needs. Implementing the NHMP's mitigation actions through such plans and policies increases their likelihood of being supported and implemented. Salem will work to incorporate the mitigation actions into existing programs and procedures.

### Ideas for Implementation

The ideas for implementation offer a transition from theory to practice and serve as a starting point for taking action. 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. When an action is implemented, more work will probably be needed to determine the exact course of action.

### Coordinating Organization

The coordinating organization is a 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.

### Partner Organizations

The internal and external organizations listed in the forms 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 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 (special districts, etc.).

### Potential Funding Sources

The steering committee has identified potential funding sources for each priority action item (listed on Action Item Form within Appendices A-1 and A-2). Example funding sources can include: the federal Pre-Disaster Mitigation and Flood 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 also have multiple funding sources.

### Estimated Cost

Where possible, an estimate of the cost for implementing the action item is included.

### Timeline

Action items include short, mid-, and long-term activities. Each action item includes an estimate of the timeline for implementation. **Short-term action items (ST)** are activities that may be implemented with existing resources and authorities within two years. **Mid-Term action items (MT)** may require new or additional resources and/or authorities and may take from three to five years to implement. **Long-term action items (LT)** will require new or additional resources and/or authorities and likely will occur after the next update cycles (five or more years to implement). **Ongoing** action items signify that work has begun and will either exist over an indefinite timeline, or an extended timeline, where possible specific measurable objectives are included.

### Action Item Status

As action items are implemented or new ones are created during the plan maintenance process, it is important to indicate the status of the action item—whether it is **new** (created during this plan update cycle), **ongoing** (created in a previous planning process with some work accomplished), **deferred** (these actions have yet to see any significant work begin), or **complete** (these actions are considered accomplished and are listed in Appendix B). Documenting the status of the action will make reviewing and updating the mitigation Plan easier during the plan’s five-year update and can be used as a benchmark for progress.

## **Mitigation Action Tables**

The Mitigation Actions Tables portray the overall action plan framework and identify links between the plan goals, partnerships (coordination and partner organizations), and actions. The tables document a description of the action, the level of priority, the coordinating

organization, partner organizations, timeline, and the plan goals addressed. Refer to Appendix A Mitigation Action Worksheets for detailed information about each mitigation action.

For the 2023 City of Salem NHMP, mitigation action priority was evaluated based on the mitigation goals and risk assessment results and with consideration and sensitivity of the whole community and climate-altered future

#### *2023 Priority Actions*

Action items identified through the planning process are an important part of the mitigation plan. Action items are detailed recommendations for activities that local departments, citizens, and others could engage in to reduce risk. Due to resource constraints, Salem is listing a set of high priority actions (Table 3-1) to focus attention on an achievable set of high leverage activities over the next five-years. Detailed implementation information for each priority action is listed in Appendix A-1. This plan identifies priority actions based on an evaluation of high impact hazards, resource availability and FEMA identified best practices.

#### *2023 Action Item Pool*

The action item pool (Table 3-2) presents a list of lower priority mitigation actions. Most of these actions carry forward from prior versions of this plan. This expanded list of actions is available for local consideration as resources, capacity, technical expertise, and/or political will become available. Appendix A-1, *Priority Action Items*, and Appendix A-2, *Action Item Pool*, provide detailed information about each of the priority action items (and some of the other actions). A blank action item form is included for use by the NHMP committee as additional action items are considered for implementation (Appendix A-3).

#### *2017 Action Status*

Table 3-3 is a summary of changes that includes the status and explanation of the *2017 City of Salem NHMP* mitigation actions as provided by the NHMP Steering Committee during the 2022-2023 NHMP planning process. The decisions to retain, modify, or remove the mitigation actions were also discussed at Steering Committee meetings. Follow up discussions occurred by email. This table has been refined to include an overall summary of the discussions. There is a column entitled “Priority” which identifies the priority of the mitigation actions in the *2017 City of Salem NHMP*. In that NHMP, several of them were listed with a priority rating.



**Table 3-I 2023 Salem High Priority Action Items**

Mitigation Action ID	Mitigation Action Title	Lead Entity	Partners Organization(s)	Timeline	NHMP Goals
<b>Priority Actions</b>					
<b>Multi-Hazard</b>					
MH #1	Identify, map, and periodically revisit network of critical routes. Identify street segments prone to flooding. Consider bridge age and condition within critical routes.	Salem Public Works, Salem Emergency Management	Salem Emergency Management, Cherriots, Neighborhood Associations, civic leadership groups	0-2 years	2, 3, 5
MH #6	Identify and plan to strengthen or replace unsafe public structures (especially facilities critical to disaster and post-disaster planning/response).	Salem Public Works	Salem Fire , Police , Community Development, Urban Development, and Administrative Services; FEMA, ODOT	Ongoing	1, 2, 3, 5
MH #7	Maintain, improve, and test Salem's alert and warning systems to notify residents of incidents involving natural hazards and hazardous materials. Continue to educate the community about the systems value.	Salem Emergency Management	City Departments, ODOT, FEMA, OSHA	Ongoing	3, 4, 5, 7
MH #10	Conduct assessments of the short- and long-term needs for infrastructure to improve access to critical facilities and support systems for functional needs populations in the event of a hazard.	Salem Emergency Management	Salem Housing Authority, Salem Community Development, Marion County Emergency Management, Neighborhood Associations, Faith-Based Organizations, Oregon DHS, Non-Profits	Ongoing	1, 3, 4, 5, 7
MH #11	Plan for a network of neighborhood resilience hubs, indoor gathering places that can function as community centers, cooling centers, food distribution, places to access electricity during power outages, evacuation sites, day cares, and community learning centers	Salem Public Works, Salem Emergency Management, Salem Community Services	OPRD/State Fair, Marion County, Polk County, Oregon Joint Operation Center and National Guard, Salem-Keizer School District, Neighborhood Associations, Faith-Based Organizations, Non-Profits	3-5 years	1, 4, 5, 7
MH #12	Engage faith communities, social service agencies, nonprofits and neighborhood associations in building community resilience.	Salem Emergency Management	Salem Public Works and Community Development, Neighborhood Associations, Faith-Based Organizations, Non-Profits	0-2 years	4, 5, 7
MH #13	Analyze how historical inequities may make certain populations more vulnerable to inadequate transportation options in the event of an emergency. Incorporate best practices into emergency plans to ensure all users have adequate transportation options in emergency contexts.	Salem Public Works	Mid-Willamette Valley Council of Governments, ODOT, Marion County, Polk County	0-2 years	4, 5, 7

Source: Salem NHMP Steering Committee, updated 2023

Action ID Key: MH=Multi-hazard, AI=Air Quality, DR=Drought, EQ = Earthquake, EH=Extreme Heat, FL = Flood, LS=Landslide, HM=Hazardous Materials Incident, VE=Volcano Event, WQ=Water Quality/Emergency, WD=Windstorm, WT=Winter Storm, WF=Wildfire

**Table 3-2 2023 Salem Action Item Pool**

Mitigation Action ID	Mitigation Action Title	Lead Entity	Partners Organization(s)	Timeline	NHMP Goals
<b>Action Item Pool</b>					
<b>Multi-Hazard</b>					
MH #2	Coordinate with the Capitol Planning Commission to integrate natural hazard mitigation into State and City respective capital improvements.	Salem Community Development	FEMA, OEM, Capitol Planning Commission	Ongoing	3, 4
MH #3	Maintain an inventory of the number and type of critical facilities within the community that are at reasonable risk for each hazard type.	Salem Emergency Management	Salem GIS, FEMA	Ongoing	2, 3, 5
MH #4	Maintain public outreach materials for all natural hazard risks addressed in the Salem Natural Hazards Mitigation Plan. Materials should include mitigation actions residents and businesses can implement to reduce their risk to natural hazards, and where they can obtain more detailed natural hazard information.	Salem Emergency Management, Salem Community Development, Salem Public Works	Salem Community Development and Public Works, FEMA, OSP, OEM, DOGAMI, DLCD	Ongoing	1, 3, 4, 5, 7
MH #5	Ensure Unified Development Code (UDC) updates consider specific hazards and help to mitigate risk for future development in identified/mapped high hazard areas.	Salem Public Works, Salem Community Development	DLCD, FEMA	Ongoing	1, 2, 3, 5, 6, 7
MH #8	Continue to follow and enforce regulations pertaining to hazard resistant construction-methods (wind, winter storm, landslide, etc.) where possible to reduce damage to utilities and critical facilities. In part, this may be accomplished by encouraging electric utility providers to convert existing overhead lines to underground lines.	Salem Public Works	Salem Community Development, Emergency Management, and GIS, and Public Utility Commission, utility and communication companies	Ongoing	1, 2, 3, 4, 5
MH #9	Ensure City planning documents and regulations align with regard to natural hazards mitigation and the actions in the Natural Hazards Mitigation Plan, particularly State Planning Goal 7.	Salem Community Development, Salem Public Works	Salem Emergency Management, Public Works, and City Administration, FEMA, American Planning Association, OEM, DLCD	Ongoing	3, 4
MH #14	Coordinate with the Council of Water Leaders to maintain strong partnerships in the watershed and allow rapid response to emerging issues and challenges.	Salem Public Works	Salem Emergency Management and Community Development, Salem Water Control District, municipal water providers, Tribes, city and county governments, nonprofits, businesses, interest groups, irrigators, state and federal agencies, elected officials	Ongoing	3, 4

**Table 3-2 2023 Salem Action Pool (continued)**

Mitigation Action ID	Mitigation Action Title	Lead Entity	Partners Organization(s)	Timeline	NHMP Goals
<b>Action Item Pool</b>					
<b>Multi-Hazard</b>					
MH #15	Conduct strategic public outreach and update information on website to provide residents with information about proper tree care and planning criteria in order to reduce tree-related hazards and encourage planting of climate appropriate trees to maintain a healthy and diverse tree canopy in Salem.	Salem Public Works	Salem Fire Department, ODOT, Portland General Electric, Salem Electric	Ongoing	1, 3, 4, 5, 7
<b>Air Quality</b>					
No specific action item developed for this hazard. See multi-hazard actions for applicable mitigation strategies.					
<b>Drought</b>					
DR #1	Update and continue to implement the North Santiam Watershed Drought Contingency Plan.	Salem Public Works	Marion County, Santiam Water Control District, City of Stayton, Linn Soil & Water Conservation District, Marion Soil & Water Conservation District, Norpac Foods, Inc., North Santiam Watershed Council, ODA, DEQ, ODF	0-2 years	1, 3, 4, 6
DR #2	Continue to promote water conservation to protect potable water supply and reduce impacts during drought through existing conservation programs and plans, such as the Clean Streams program, Drought Contingency Plan, Water Management and Conservation Plan, as well as any new initiatives.	Salem Public Works	North Santiam Watershed Council, Glenn Gibson Watershed Council, Marion and Polk Soil and Water Conservation Districts	Ongoing	1, 3, 4, 5, 7
DR #3	Expand the water conservation content on the website with an emphasis on providing more educational links and more information on water-efficient irrigation practices. Update water conservation brochures.	Salem Public Works	Salem Community Development	0-2 years	4, 5
See multi-hazard actions for additional applicable mitigation strategies.					
<b>Earthquake</b>					
EQ #1	Identify, inventory, and mitigate (as prioritization and resources allow) critical facilities and utilities that require seismic retrofit (consider structural and non-structural retrofit options).	Salem Emergency Management	Salem Public Works and Community Development, Salem-Keizer School District, FEMA, OEM, DOGAMI	Ongoing	2, 3, 5
EQ #2	Stay informed of the school districts plans about the identification and prioritization of school district facility retrofits and upgrades.	Salem Emergency Management	Salem Community Development, Salem-Keizer School District, private schools, Chemeketa Community College, Willamette University, Corban University, EMA, OEM, DOGAMI	Ongoing	2, 4
See multi-hazard actions for additional applicable mitigation strategies.					

**Table 3-2 2023 Salem Action Pool (continued)**

Mitigation Action ID	Mitigation Action Title	Lead Entity	Partners Organization(s)	Timeline	NHMP Goals
<b>Action Item Pool</b>					
<b>Extreme Heat</b>					
No specific action item developed for this hazard. See multi-hazard actions for applicable mitigation strategies.					
<b>Flood</b>					
FL #1	Update, maintain, and implement flood actions via a floodplain management plan in accordance with FEMA's Community Rating System guidelines.	Salem Public Works	Salem Emergency Management, Salem Fire Departments, Salem Operations and Engineering, FEMA, DLCD	Ongoing	3, 4, 5
FL #2	Improve and maintain the City of Salem's National Flood Insurance Program (NFIP) Community Rating System (CRS) rating in order to reduce flood risk and NFIP premiums.	Salem Public Works	Salem Community Development, Marion and Polk Counties, FEMA, DLCD, OEM	Ongoing	2, 3, 4, 5, 6, 7
See multi-hazard actions for additional applicable mitigation strategies.					
<b>Landslide</b>					
LS #1	Maintain landslide overlay maps using Light Detection and Ranging (LIDAR) data.	Salem Public Works	Salem GIS, FEMA, NOAA, DLCD, DOGAMI, City of Keizer and City of Turner, Marion County, Polk County	Ongoing	4
LS #2	Utilize the updated regional landslide risk maps (DOGAMI O-16-02) to identify hazard areas and collaborate with the Oregon Department of Geology and Mineral Industries to work on landslide risk reduction efforts; determine areas and buildings at risk to landslides; and incorporate and utilize updated data when reviewing development applications.	Community Development	Salem GIS and Mapping, Emergency Management, DOGAMI, DLCD	Ongoing	2, 3, 4
See multi-hazard actions for additional applicable mitigation strategies.					

**Table 3-2 2023 Salem Action Pool (continued)**

Mitigation Action ID	Mitigation Action Title	Lead Entity	Partners Organization(s)	Timeline	NHMP Goals
<b>Action Item Pool</b>					
<b>Volcano</b>					
VO #1	Evaluate the impact of ash fall-out on HVAC systems in critical facilities. City could benefit from a quick sheet on this topic; guidance to contractors for maintenance.	Emergency Management	All city departments, DEQ, DOGAMI	3-5 years	2, 3, 4
See multi-hazard actions for additional applicable mitigation strategies.					
<b>Water Quality/Emergency</b>					
No specific action item developed for this hazard. See multi-hazard actions for applicable mitigation strategies.					
<b>Windstorm</b>					
No specific action item developed for this hazard. See multi-hazard actions for applicable mitigation strategies.					
<b>Winter Storm</b>					
No specific action item developed for this hazard. See multi-hazard actions for applicable mitigation strategies.					
<b>Wildfire</b>					
WF #1	Conduct wildfire prevention outreach, as outlined in the Marion County and Polk County (West Salem) Community Wildfire Protection Plans (CWPPs), to residents near the wildland-urban interface.	Salem Fire Department	Salem Public Works, Community Development, and Police Departments, ODF, Marion County Rural Fire District, Salem Suburban Fire District, Neighborhood Associations.	Ongoing	1, 2, 4, 5, 7
See multi-hazard actions for additional applicable mitigation strategies.					

Source: Salem Steering Committee, updated 2023

Action ID Key: MH=Multi-hazard, DR=Drought, EQ = Earthquake, EH=Extreme Heat, FL = Flood, LS=Landslide, HM=Hazardous Materials Incident, VE=Volcano Event, WD=Windstorm, WT=Winter Storm, WF=Wildfire

**Table 3-3 2017 Salem NHMP Action Status**

Mitigation Action ID	Priority	Mitigation Action Title	Lead Entity	Partners Organization(s)	Timeline	Status/Changes
<b>Multi-Hazard</b>						
MH #1	High	Identify and Designate Priority Transportation Routes.	Salem Public Works	Emergency Management, ODOT	Mid Term (3-5 Years)	Completed in 2020/Removed
MH #2	Action Pool	Coordinate with the Capitol Planning Commission to integrate natural hazard mitigation into State and City respective capital improvements.	Salem Community Development	Natural Hazards Mitigation Committee, FEMA, OEM, Campital Projects Advisory Board	Ongoing	Ongoing/Retained
MH #3	Action Pool	Develop an inventory of the number and type of critical facilities within the community that are at reasonable risk for each hazard type.	Salem Emergency Management	Natural Hazards Mitigation Committee, GIS, IT, FEMA	Short Term (0-2 years)	Ongoing/Modified
MH #4	Action Pool	Develop public outreach materials for all natural hazard risks addressed in the Salem Natural Hazards Mitigation Plan. Materials should include mitigation actions residents and businesses can implement to reduce their risk to natural hazards, and where they can obtain more detailed natural hazard information.	Salem Emergency Management, Salem Community Development, Salem Public Works	Salem Public Works, Community Development, FEMA, Oregon State Police, OEM, DLCD, DOGAMI	Ongoing	Completed/Modified as ongoing
MH #5	Action Pool	Include a post-disaster recovery and mitigation annex/appendix in the Salem Emergency Operations Plan that encourages property owners to incorporate retrofitting and mitigation measures in recovery efforts.	Salem Emergency Management	Natural Hazards Mitigation Committee, FEMA, Oregon State Police, OEM	Short Term (0-2 years)	Not Completed/Removed
MH #6	Action Pool	Ensure Unified Development Code (UDC) updates consider specific hazards when updating the Salem code for mitigating the location of future development in identified/mapped high hazard areas.	Salem Community Development	Salem Public Works, Natural Hazards Mitigation Committee, DLCD, FEMA	Ongoing	Ongoing/Retained
MH #7	Action Pool	Strengthen or replace unsafe public structures (especially facilities critical to disaster and post-disaster planning/response).	Salem Public Works	Salem Fire , Police , Community Development, Urban Administrative Services, FEMA, ODOT	Long Term (5+ years)	Progressing/Modified as ongoing
MH #8	Action Pool	Continue developing alert and warning systems to notify residents of incidents involving natural hazards and hazardous materials.	Salem Emergency Management	Salem Public Works, Police, GIS and Mapping, ODOT, FEMA, OSHA	Ongoing	Completed/Modified as ongoing

**Table 3-3 2017 Salem NHMP Action Status (continued)**

Mitigation Action ID	Priority	Mitigation Action Title	Lead Entity	Partners Organization(s)	Timeline	Status/Changes
<b>Multi-Hazard</b>						
MH #9	Action Pool	Enhance hazard resistant construction methods (wind, winter storm, landslide, etc.) where possible to reduce damage to utilities and critical facilities. In part, this may be accomplished by encouraging electric utility providers to convert existing overhead lines to underground lines.	Salem Public Works	Salem Community Development , Emergency Management, GIS and Mapping, Public Utilities Commission, Pacific Power	Ongoing	Ongoing/Retained
MH #10	Action Pool	Integrate the Mitigation Plan findings into planning and regulatory documents and programs including the Comprehensive Plan (particularly Goal 7).	Salem Community Development	Salem Public Works, Emergency Management, City Administration	Ongoing	Ongoing/Retained
MH #11	Action Pool	Participate in assessments of the short and long term needs for sheltering access and functional needs populations for all hazards.	Salem Emergency Management	Marion County, Salem Community Development, Oregon Department of Human Services	Short Term (0-2 years)	Progressing/Modified as ongoing
<b>Drought</b>						
DR #1	Action Pool	Complete and implement the North Santiam Drought Contingency Plan	Salem Public Works	City Departments, Marion County Emergency Management, Santiam Water Control District, City of Stayton, Linn Soil & Water Conservation District, Norpac Foods, Inc., ODA, DEQ, ODF, North Santiam Watershed Council	Short Term (0-2 years)	Completed in 2017/Modified with plan update
<b>Earthquake</b>						
EQ #1	High	Develop an inventory of un-reinforced masonry structures and develop appropriate mitigation action items to reduce the impacts of seismic events.	Salem Community Development Department	Urban Development, Public Works, Fire, FEMA, DOGAMI	Mid Term (3-5 Years)	Not Completed/Removed
EQ #2	High	Identify, inventory, and mitigate (as prioritization and resources allow) critical facilities and utilities that require seismic retrofit (consider structural and non-structural retrofit options).	Salem Emergency Management	Natural Hazards Mitigation Committee, Community Development Department, Public Works, FEMA, OEM, DOGAMI, School Districts	Ongoing	Ongoing/Retained
EQ #3	High	Create a bridge prioritization inventory based on major lifeline routes including state highways, routes, and major road arteries.	Salem Public Works/GIS	Salem Emergency Management, ODOT	Mid Term (3-5 Years)	Completed/Modified as multi-hazard action
EQ #4	High	Collaborate with SEDCOR to develop relevant public-private partnerships with businesses that can contribute to mitigation, response, and recovery.	Salem Public Works	Urban Development, Marion County Emergency Management, SEDCOR, Regional Solutions, UO EDAUC	Mid Term (3-5 Years)	Not Completed/Removed

**Table 3-3 2017 Salem NHMP Action Status (continued)**

Mitigation Action ID	Priority	Mitigation Action Title	Lead Entity	Partners Organization(s)	Timeline	Status/Changes
<b>Earthquake</b>						
EQ #5	High	Partner with the school districts to help identify and prioritize seismic retrofits to school district facilities.	Salem Emergency Management	Natural Hazards Mitigation Committee, Salem Community Development, FEMA, OEM, DOGAMI, Salem-Keizer School District, private schools, Chemeketa C.C., Willamette University, Corban University	Short Term (0-2 years)	Progressing/Modified as ongoing
<b>Extreme Heat</b>						
EH #1	No specific action item developed for this hazard. See multi-hazard actions for applicable mitigation strategies.					
<b>Flood</b>						
FL #1	Action Pool	Update, maintain, and implement flood actions via a floodplain management plan in accordance with FEMA's Community Rating System guidelines.	Salem Public Works	Salem Emergency Management, Fire, Operations and Engineering, FEMA, DLCD, NFIP, Floodplain Management Committee	Ongoing	Completed in 2018/Modified as ongoing
FL #2	Action Pool	Improve the City of Salem's National Flood Insurance Program (NFIP) Community Rating System (CRS) rating in order to reduce flood risk and NFIP premiums.	Salem Public Works	Salem Community Development, DLCD, NFIP, FEMA, Marion and Polk Counties	Ongoing	Completed/Modified as ongoing
<b>Landslide</b>						
LS #1	Action Pool	Map areas of landslide risk adjacent to the North Santiam River (upstream of the Geren Island water intake structures) and areas impacted by a catastrophic failure of the Detroit or Big Cliff Dams.	Salem Public Works	Salem Community Development, DOGAMI, US Army Corp, DLCD, FEMA, BLM, USFS	Long Term (5+ years)	Partially Completed/Removed
LS #2	Action Pool	Update landslide overlay maps using Light Detection and Ranging (LIDAR) data.	Salem Public Works	Natural Hazards Mitigation Committee, GIS and Mapping, FEMA, NOAA, DLCD, DOGAMI, Cities of Keizer and Turner, Marion and Polk Counties	Long Term (5+ years)	Completed/ Modified as ongoing
LS #3	Action Pool	Utilize the updated regional landslide risk maps (DOGAMI O-16-02) to identify hazard areas and collaborate with the Oregon Department of Geology and Mineral Industries to work on landslide risk reduction efforts; determine areas and buildings at risk to landslides; and propose Comprehensive Plan and land use policies accordingly.	Salem Community Development	Salem GIS and Mapping, Emergency Management, DOGAMI, DLCD	Short Term (0-2 years)	Progressing/Modified as ongoing



**Table 3-3 2017 Salem NHMP Action Status (continued)**

Mitigation Action ID	Priority	Mitigation Action Title	Lead Entity	Partners Organization(s)	Timeline	Status/Changes
<b>Volcano</b>						
VE #1		No specific action item developed for this hazard. See multi-hazard actions for applicable mitigation strategies				
<b>Windstorm</b>						
WD #1	Action Pool	Partner with public and private utilities to educate the public about hazardous trees and the damage they can cause in the event of a windstorm.	Salem Public Works	Salem Community Services, Parks Operations, Fire Department, ODOT, Portland General Electric, Electric Utilities	Ongoing	Ongoing/Modified as a multi-hazard action
<b>Winter Storm</b>						
WT #1	Action Pool	Partner with public and private utilities to educate the public about hazardous trees and the damage they can cause in the event of a winter storm.	Salem Public Works	Salem Community Services, Parks Operations, Fire Department, ODOT, Portland General Electric, Electric Utilities	Ongoing	Ongoing/Modified as a multi-hazard action
<b>Wildfire</b>						
WF #1	Action Pool	Conduct wildfire prevention outreach, as outlined in the Marion County and Polk County (West Salem) Community Wildfire Protection Plans (CWPPs), to residents near the wildland-urban interface.	Salem Fire Department	Salem Public Works, Community Development, Police, Community Services, ODF, Marion County Fire District #1, Salem Suburban Fire District, Neighborhood Associations	Ongoing	Completed/Retained as ongoing
<b>Hazardous Materials Incident</b>						
HM #1	Action Pool	Map facilities that handle or contain hazardous materials, rank them based on their level of risk, and refine response strategies for each situation in the event of an accident.	Salem Fire Department	Salem Emergency Management, Public Works, OSHA, Chamber of Commerce, Neighborhood Associations, ODOT, OEM, Oregon State Police, Oregon State Fire Marshall	Short Term (0-2 years)/Ongoing	Not Completed/Removed

Source: Salem Steering Committee, updated 2023

Action ID Key: MH=Multi-hazard, DR=Drought, EQ = Earthquake, EH=Extreme Heat, FL = Flood, LS=Landslide, HM=Hazardous Materials Incident, VE=Volcano Event, WD=Windstorm, WT=Winter Storm, WF=Wildfire

## Integration

To achieve risk reduction, it is necessary to consider natural hazards mitigation in common planning processes, from land use regulation to infrastructure planning to emergency response.

## Governmental and Institutional Capacity

In addition to the Emergency Management department, most departments within County and City governance structures have some degree of responsibility in building overall community resilience. Each plays a role in ensuring that jurisdiction functions and normal operations resume after an incident, and the needs of the population are met. Salem has the capacity for mitigation action through the following departments.

**Fire Department:** The City of Salem Fire Department operates within their protection area and is an all-hazard response agency that has been trained to mitigate emergencies involving fire, hazardous materials, and technical rescue (including rope rescue, water, confined space building collapse, and trench rescue). Emergency medical services and medical response are also a fundamental responsibility of the Salem Fire Department, and providers respond to a wide variety of medical calls, ranging from minor medical assistance to life-threatening events.

**Police Department:** The Salem Police Department provides law enforcement and public safety services to the City of Salem. As an agency, the Police Department's vision is to be the recognized leader of police practices through innovation, equipment, technology, and training in order to fight crime, enhance trust, and protect our community.

**Community Development Department:** The Community Development Department works to ensure the strength of the Salem community at the neighborhood level and citywide through support for planning and civic involvement, permitting, inspecting and, where needed, protecting historic community resources and providing library services. The Community Development Department includes the Building and Safety Division and Planning Division. The Building and Safety Division is responsible for the consistent application of building codes in construction and remodeling. The Planning Division aims to enhance the quality of life for residents and to promote a livable, vibrant city by facilitating and implementing the community's vision for Salem. City Planners can also provide information about protection of vegetation and trees along waterways and tree removal, including within the mapped floodplain.

**Public Works Department:** Salem's Public Works Department plans, constructs, and maintains the City's infrastructure including water supply systems, stormwater drainage system, wastewater treatment system, transportation systems, and park systems. In addition, the Public Works Development Services Division administers floodplain regulations.

**Urban Development Department:** The Urban Development staff administers programs and services that promote awareness of economic and community development programs, services, and economic incentives offered by the City of Salem and Urban

Renewal Agency (URA); leverages (URA)/City funds against available area sources for economic development activities; and works with economic development partners and the development community to actively promote investment in the Salem community.

**Salem-Keizer Public Schools, Oregon School District 24J:** Founded in 1855, the district is in the cities of Salem and Keizer. Educating more than 40,000 students in 65 schools, the district is the second-largest school district in Oregon. They hold institutional capacity for resilience to natural hazards through their facilities management personnel under the guidance of their elected School Boards.

**Salem Municipal Airport (McNary Field):** Owned and operated by the City of Salem, the airport is located approximately two miles from downtown Salem and is conveniently located at the juncture of Interstate 5 and State Highway 22. The 751-acre airport is home to more than 130 aircraft hangars and businesses, as well as the Oregon National Guard's Army Aviation Support Facility. There are currently no commercial flights operating from Salem.

**Salem Area Mass Transit District/Cherriots:** Cherriots is a public agency providing bus service over a 76 square mile area in Salem, Keizer, and the mid-Willamette Valley. The transit district was formed in 1979. The transit district also operates Cherriots LIFT, a paratransit service for individuals who cannot safely and independently use our regular bus service.

Other city social and transportation services are listed below in the section on Community Organizations and Programs.

## Existing Plans and Policies

The City of Salem has existing authorities, policies, programs and resources in place. Integrating the existing capacity of local governments into the planning process improves the ability of local governments to implement the NHMP and to reduce risk of damage from natural hazards.

Communities often have existing plans and policies that guide and influence land use, land development, and population growth. Such existing plans and policies can include comprehensive plans, zoning ordinances, and technical reports or studies. Plans and policies already in existence have support from residents, businesses, and policy makers. Many land-use, comprehensive, and strategic plans get updated regularly, and can adapt to changing conditions and needs.

The *2023 City of Salem NHMP* includes a range of recommended Mitigation Actions that, when implemented, may reduce Salem's vulnerability to natural hazards. These recommendations are intended to be consistent with the goals and objectives of the city's existing plans, policies and programs. Linking existing plans and policies to the NHMP helps identify what resources already exist that can be used to implement the Mitigation Actions identified in the *2023 City of Salem NHMP*. Implementing Mitigation Actions through existing plans, policies and programs increases their likelihood of being supported and maximizing the city's resources. Incorporating the NHMP into the Comprehensive Plan strengthens the provisions within the plan. Revising zoning regulations to identify hazardous areas through overlay zones where proscribed

standards for safe development are required is another method of utilizing existing methods of regulating development to implement the Mitigation Actions of the NHMP.

Table 3-4, identifies the existing types of plans and implementing codes into which natural hazard mitigation goals, objectives, and actions may be integrated.

**Table 3-4 City of Salem NHMP Supported Plans and Policies**

Document	Year
Natural Hazards Mitigation Plan	2023, 2017 previous
Salem Emergency Management Plan	2023, 2018/2020 Previous
Salem Fire Department Standards of Cover, 2018-2023	2018
Salem Area Comprehensive Plan	2022
Salem Revised Code	2017 recodified
Title V, Community Development Standards	
Title VI, Wastewater, Water and Stormwater	
Title VII, Permits, Streets and Public Ways	
Title X, Unified Development Code	
Salem Climate Action Plan	2021
2021 Inventory of Community Greenhouse Gas Emissions	2023, 2019 previous
Salem's Community Energy Strategy	2010
Salem Floodplain Management Plan	2018
Salem Transportation System Plan	2020
Salem Comprehensive Park System Plan	2013
Salem Historic Preservation Plan 2020-2030	2020
Salem Water Management and Conservation Plan	2019
Salem Water System Master Plan	1994
Stormwater Master Plan	2020
Stormwater Drainage Basin Plans	2019
Battle Creek Basin Plan	
Mill Creek Basin Plan	
Pringle Creek Basin Plan	
Sheltering Crisis Response	2022

Document	Year
Snow and Ice Control Plan	2019
Community Forestry Strategic Plan	2013
Salem Strategic Plan 2021-2026	2021, 2017 previous
Salem Municipal Airport Master Plan	2012
Franzen Dam Emergency Operations Plan	2019
Croft Reservoir Dam Emergency Operation Plan	2018
North Santiam Watershed Council North Santiam Watershed Drought Contingency Plan	2018, update in process
Marion County Community Wildfire Protection Plan	2017

Source: 2023 Salem NHMP Steering Committee

## Community Organizations and Programs

In planning for natural hazard mitigation, it is important to know what social systems exist within the community because of their existing connections to the public. The counties and cities can use existing social systems as resources for implementing such communication-related activities because these service providers already work directly with the public on several issues, one of which could be natural hazard preparedness and mitigation. Appendix C, Community Profile, provides a comprehensive list of community organizations and programs, and offers a more thorough explanation of how existing community organizations and programs can be utilized for hazard mitigation.

## APPENDIX A-I: PRIORITY ACTION ITEMS

Table A-1 lists priority actions for the 2023 Salem Natural Hazard Mitigation Plan.

The action item worksheets that follow Table A-1 present specific information for each action item. Additional action items and worksheets are located within [Appendix A-2: Action Item Pool](#).

**Table A-I High Priority NHMP Actions**

Mitigation Action ID	Mitigation Action Title
<b>Priority Actions</b>	
<b>Multi-Hazard</b>	
MH #1	Identify, map, and periodically revisit network of critical routes. Identify street segments prone to flooding. Consider bridge age and condition within critical routes.
MH #6	Identify and plan to strengthen or replace unsafe public structures (especially facilities critical to disaster and post-disaster planning/response).
MH #7	Maintain, improve, and test Salem's alert and warning systems to notify residents of incidents involving natural hazards and hazardous materials. Continue to educate the community about the systems value.
MH #10	Conduct assessments of the short- and long-term needs for infrastructure to improve access to critical facilities and support systems for functional needs populations in the event of a hazard.
MH #11	Plan for a network of neighborhood resilience hubs, indoor gathering places that can function as community centers, cooling centers, food distribution, places to access electricity during power outages, evacuation sites, day cares, and community learning centers
MH #12	Engage faith communities, social service agencies, nonprofits and neighborhood associations in building community resilience.
MH #13	Analyze how historical inequities may make certain populations more vulnerable to inadequate transportation options in the event of an emergency. Incorporate best practices into emergency plans to ensure all users have adequate transportation options in emergency contexts.

Source: Salem NHMP Steering Committee (2023)

# Priority Action Item Worksheets

Action Item: Multi-Hazard #1		Alignment with Plan Goals:	
Identify, map, and periodically revisit network of critical routes. Identify street segments prone to flooding. Consider bridge age and condition within critical routes.		Goals 2, 3 and 5	
Alignment with Existing Plans/Policies:			
Transportation System Plan (2020)			
Rationale for Proposed Action Item:			
Salem’s arterial street system connects people to critical facilities as well as providing emergency response and evacuation routes in the event of natural hazards. Planning for and maintaining a robust network of critical routes supports the health and safety of the community. Identification of transportation improvement projects for both existing and new facilities should take into consideration the function of the street as a critical route for emergency management purposes. Data available to support this analysis includes identification of street segments that are prone to flooding and information gained through bridge inspection reports. Future transportation projects should consider opportunities to reduce the potential for critical routes to be blocked during major floods or other hazards.			
Ideas for Implementation:			
Work with City GIS experts to develop and maintain up to date maps and data related to critical routes network. Share with appropriate departments and agencies.			
Coordinating Organization:		Public Works	
Internal Partners:		External Partners:	
Emergency Management		Cherriots, Neighborhood Associations, civic leadership groups	
Potential Funding Sources:		Estimated cost:	Timeline:
Local Funding Resources		TBD	<input type="checkbox"/> Ongoing <input checked="" type="checkbox"/> Short Term (0-2 years) <input type="checkbox"/> Mid-Term (3-5 years) <input type="checkbox"/> Long-Term (5+ years)
Form Submitted by:	Salem Natural Hazards Mitigation Committee (2023)		
Action Item Status:	New		

<b>Action Item: Multi-Hazard #6</b>		<b>Alignment with Plan Goals:</b>	
Identify and plan to strengthen or replace unsafe public structures (especially facilities critical to disaster and post-disaster planning/ response).		Goals 1, 2, 3 and 5	
<b>Alignment with Existing Plans/Policies:</b>			
<b>Rationale for Proposed Action Item:</b>			
<ul style="list-style-type: none"> <li>• The Disaster Mitigation Act of 2000 requires communities to assess their vulnerability to natural hazards, particularly by identifying the types and number of buildings, infrastructure, and critical facilities that could be affected.</li> <li>• It is important that critical facilities function during and after disasters. Strengthening all essential facilities will improve recovery capacity and reduce risk and loss of life.</li> <li>• Retrofitting of vital infrastructure, such as schools and community buildings, provides important improvements that reduce hazard exposure and the cost and time associated with recovery.</li> </ul>			
<b>Ideas for Implementation:</b>			
<ul style="list-style-type: none"> <li>• Develop formal agreements with internal and external partners who could assist the partners in collaborating and sharing the responsibility of natural hazard mitigation. Such actions to form collaborative partnerships and commitments to mitigation can assist Salem in reducing its risk to the natural hazards addressed by the Natural Hazards Mitigation Plan.</li> <li>• Conduct structural and non-structural retrofits of critical facilities to reduce the impacts of a natural hazard.</li> <li>• Conduct a cost-benefit analysis to assess whether the cost of mitigation improvements to critical facilities balance with the benefits to be gained.</li> <li>• Create proposals to reinforce buildings so they can withstand an earthquake and thereby reduce vulnerability risks; ORS 455.447 regulates vulnerable building retrofits.</li> </ul>			
<b>Coordinating Organization:</b>		Public Works	
<b>Internal Partners:</b>		<b>External Partners:</b>	
Fire Department, Police Department, Community Development, Urban Development, Administrative Services		FEMA, ODOT	
<b>Potential Funding Sources:</b>		<b>Estimated cost:</b>	<b>Timeline:</b>
FMA, HMGP, BRIC, SRGP, Local Funding Resources,		TBD	<input checked="" type="checkbox"/> Ongoing <input type="checkbox"/> Short Term (0-2 years) <input type="checkbox"/> Mid-Term (3-5 years) <input type="checkbox"/> Long-Term (5+ years)
<b>Form Submitted by:</b>	Salem Natural Hazards Mitigation Committee		
<b>Action Item Status:</b>	Ongoing, revised from 2017 version of the NHMP as an ongoing action		



<b>Action Item: Multi-Hazard #7</b>		<b>Alignment with Plan Goals:</b>
Maintain, improve, and test Salem’s alert and warning systems to notify residents of incidents involving natural hazards and hazardous materials. Continue to educate the community about the systems value.	Goals 3, 4, 5 and 7	
<b>Alignment with Existing Plans/Policies:</b>		
<b>Rationale for Proposed Action Item:</b>		
<ul style="list-style-type: none"> <li>Alert and warning systems can provide a life-saving service to residents in the event of a natural or manmade disaster. Natural and manmade disasters can occur at any time, often unannounced, putting people at risk. Developing alert and warning systems can reduce the risk of exposure to natural hazard incidents and hazardous materials spills and help to save lives and property.</li> <li>Alert and warning system have significant relevance to hazardous materials accidents. Hazardous materials are located near businesses and residences in Salem as well as along major transportation routes. Trucking routes along the I-5 corridor and Highway 22 may also contain hazardous materials because there are no restrictions on the type of cargo that travels over these routes which run through residential and commercial areas in the city. In addition, the heavily traveled railroad line near the Capital area has approximately 12,000 cars of hazardous materials running through the area each year. Accidents in businesses or on any of the above routes can have an adverse impact on the quality of life and economy of the city and the state; significant events have already occurred in Salem in 1976 and along the I-5 corridor. Alert and warning systems can help to prevent larger accidents from occurring and help to save lives and property.</li> </ul>		
<b>Ideas for Implementation:</b>		
<ul style="list-style-type: none"> <li>Continue to enforce the Salem Fire Prevention Code to regulate hazardous materials.</li> <li>Develop strategies in local building codes and zoning ordinances to reduce the impact of natural hazard and manmade hazard events on buildings and infrastructure.</li> <li>Continue to develop a reverse 9-11 system to alert nearby residents and businesses of natural hazard events or hazardous materials accident.</li> <li>Develop improved maps to locate areas vulnerable to natural hazard events and hazardous materials.</li> </ul>		
<b>Coordinating Organization:</b>	Emergency Management	
<b>Internal Partners:</b>	<b>External Partners:</b>	
Public Works, Police Department, GIS and Mapping Departments	ODOT, FEMA, OSHA	
<b>Potential Funding Sources:</b>	<b>Estimated cost:</b>	<b>Timeline:</b>
FEMA, Local Funding Resources	TBD	<input checked="" type="checkbox"/> Ongoing <input type="checkbox"/> Short Term (0-2 years) <input type="checkbox"/> Mid-Term (3-5 years) <input type="checkbox"/> Long-Term (5+ years)
<b>Form Submitted by:</b>	Salem Natural Hazards Mitigation Committee	
<b>Action Item Status:</b>	Ongoing, revised from 2017 version of the NHMP	

<b>Action Item: Multi-Hazard #10</b>		<b>Alignment with Plan Goals:</b>	
Conduct assessments of the short- and long-term needs for infrastructure to improve access to critical facilities and support systems for functional needs populations in the event of a hazard.		Goals 1, 3, 4, 5 and 7	
<b>Alignment with Existing Plans/Policies:</b>			
Salem EOP, Marion County EOP, Marion County NHMP			
<b>Rationale for Proposed Action Item:</b>			
<p>Marion County and City of Salem have been conducting an ongoing effort to address functional needs populations. This action acknowledges the success of that work and acknowledges that additional effort is needed. Functional needs populations are an identified priority for the city and county. Salem will participate with the county's corresponding NHMP action (Marion County 2022 NHMP Priority Action #2017 MH-04).</p>			
<b>Ideas for Implementation:</b>			
Interviews, focus groups and data analysis.			
<b>Coordinating Organization:</b>		Emergency Management	
<b>Internal Partners:</b>		<b>External Partners:</b>	
Salem Housing Authority, Community Development		Marion County Emergency Management, Oregon DHS, Faith-Based Organizations, Non-Profits	
<b>Potential Funding Sources:</b>		<b>Estimated cost:</b>	<b>Timeline:</b>
Local Funding Resources, Americorps/ Resource Assistance for Rural Environments		TBD	<input checked="" type="checkbox"/> Ongoing <input type="checkbox"/> Short Term (0-2 years) <input type="checkbox"/> Mid-Term (3-5 years) <input type="checkbox"/> Long-Term (5+ years)
<b>Form Submitted by:</b>	Salem Natural Hazards Mitigation Committee		
<b>Action Item Status:</b>	Ongoing, revised from 2017 version of the NHMP		

<b>Action Item: Multi-Hazard #11</b>		<b>Alignment with Plan Goals:</b>	
Plan for a network of neighborhood resilience hubs, indoor gathering places that can function as community centers, cooling centers, food distribution, places to access electricity during power outages, evacuation sites, day cares, and community learning centers		Goals 1, 4, 5 and 7	
<b>Alignment with Existing Plans/Policies:</b>			
Salem Comprehensive Plan, Salem Climate Action Plan			
<b>Rationale for Proposed Action Item:</b>			
Salem is growing in population and size. Planning and collaboration with agency/community partners can help to identify locations and potential operational needs for establishing facilities across the city where people can access vital services in times of emergency			
<b>Ideas for Implementation:</b>			
<b>Coordinating Organization:</b>		Emergency Management	
<b>Internal Partners:</b>		<b>External Partners:</b>	
Public Works, Community Services		OPRD/State Fair, Marion & Polk Counties, Oregon Joint Operation Center and National Guard, Salem-Keizer School District, Neighborhood Associations, Faith-Based Organizations, Non-Profits	
<b>Potential Funding Sources:</b>		<b>Estimated cost:</b>	<b>Timeline:</b>
Local Funding Resources, HMGP, BRIC		TBD	<input type="checkbox"/> Ongoing <input type="checkbox"/> Short Term (0-2 years) <input checked="" type="checkbox"/> Mid-Term (3-5 years) <input type="checkbox"/> Long-Term (5+ years)
<b>Form Submitted by:</b>	Salem Natural Hazards Mitigation Committee (2023)		
<b>Action Item Status:</b>	New		

<b>Action Item: Multi-Hazard #12</b>		<b>Alignment with Plan Goals:</b>	
Engage faith communities, social service agencies, nonprofits and neighborhood associations in building community resilience.		Goals 4, 5 and 7	
<b>Alignment with Existing Plans/Policies:</b>			
Salem Comprehensive Plan, Salem Climate Action Plan			
<b>Rationale for Proposed Action Item:</b>			
<p>Targeted communication/engagement can help ensure emergency preparedness/resiliency messaging is reaching the greatest amount of people (including underrepresented communities) most impacted by climate change and natural hazards. Can help Salem and partners collect critical feedback on concerns and needs in the community.</p>			
<b>Ideas for Implementation:</b>			
<b>Coordinating Organization:</b>		Emergency Management	
<b>Internal Partners:</b>		<b>External Partners:</b>	
Public Works, Community Development		Neighborhood Associations, Faith-Based Organizations, Non-Profits	
<b>Potential Funding Sources:</b>		<b>Estimated cost:</b>	<b>Timeline:</b>
FEMA, Local Funding Resources		TBD	<input type="checkbox"/> Ongoing <input type="checkbox"/> Short Term (0-2 years) <input checked="" type="checkbox"/> Mid-Term (3-5 years) <input type="checkbox"/> Long-Term (5+ years)
<b>Form Submitted by:</b>	Salem Natural Hazards Mitigation Committee (2023)		
<b>Action Item Status:</b>	New		

<b>Action Item: Multi-Hazard #13</b>		<b>Alignment with Plan Goals:</b>	
Analyze how historical inequities may make certain populations more vulnerable to inadequate transportation options in the event of an emergency. Incorporate best practices into emergency plans to ensure all users have adequate transportation options in emergency contexts.		Goals 4, 5 and 7	
<b>Alignment with Existing Plans/Policies:</b>			
Transportation System Plan (2020)			
<b>Rationale for Proposed Action Item:</b>			
Historical inequities directly impact transportation access for traditionally marginalized populations. This is a barrier for those populations in non-emergency situations, and surely would be in emergency situations as well. Salem is committed to removing that barrier in both emergency and non-emergency situations.			
<b>Ideas for Implementation:</b>			
Use tract-level census data to ascertain how and where transportation inequities exist in Salem. Develop a scoring system to identify which tracts are most vulnerable and elevate equity to a higher percentage when scoring potential transportation projects.			
<b>Coordinating Organization:</b>		Public Works	
<b>Internal Partners:</b>		<b>External Partners:</b>	
		MWVCOG, ODOT, Marion County, Polk County	
<b>Potential Funding Sources:</b>		<b>Estimated cost:</b>	<b>Timeline:</b>
		TBD	<input type="checkbox"/> Ongoing <input checked="" type="checkbox"/> Short Term (0-2 years) <input type="checkbox"/> Mid-Term (3-5 years) <input type="checkbox"/> Long-Term (5+ years)
<b>Form Submitted by:</b>	Salem Natural Hazards Mitigation Committee (2023)		
<b>Action Item Status:</b>	New		

## APPENDIX A-2: ACTION ITEM POOL

Table A-2 and the subsequent action item forms, are the complete list of non-priority actions for the 2023 Salem NHMP.

**Table A-2 Action Item Pool**

Mitigation Action ID	Mitigation Action Title
<b>Action Item Pool</b>	
<b>Multi-Hazard</b>	
MH #2	Coordinate with the Capitol Planning Commission to integrate natural hazard mitigation into State and City respective capital improvements.
MH #3	Maintain an inventory of the number and type of critical facilities within the community that are at reasonable risk for each hazard type.
MH #4	Maintain public outreach materials for all natural hazard risks addressed in the Salem Natural Hazards Mitigation Plan. Materials should include mitigation actions residents and businesses can implement to reduce their risk to natural hazards, and where they can obtain more detailed natural hazard information.
MH #5	Ensure Unified Development Code (UDC) updates consider specific hazards and help to mitigate risk for future development in identified/mapped high hazard areas.
MH #8	Continue to follow and enforce regulations pertaining to hazard resistant construction-methods (wind, winter storm, landslide, etc.) where possible to reduce damage to utilities and critical facilities. In part, this may be accomplished by encouraging electric utility providers to convert existing overhead lines to underground lines.
MH #9	Ensure City planning documents and regulations align with regard to natural hazards mitigation and the actions in the Natural Hazards Mitigation Plan, particularly State Planning Goal 7.
MH #14	Coordinate with the Council of Water Leaders to maintain strong partnerships in the watershed and allow rapid response to emerging issues and challenges.
MH #15	Conduct strategic public outreach and update information on website to provide residents with information about proper tree care and planning criteria in order to reduce tree-related hazards and encourage planting of climate appropriate trees to maintain a healthy and diverse tree canopy in Salem.

Source: Salem NHMP Steering Committee (2023)

**Table A-3 Action Item Pool (Continued)**

Mitigation Action ID	Mitigation Action Title
<b>Action Item Pool</b>	
<b>Air Quality</b>	
No specific action item developed for this hazard. See multi-hazard actions for applicable mitigation strategies.	
<b>Drought</b>	
DR #1	Update and continue to implement the North Santiam Watershed Drought Contingency Plan.
DR #2	Continue to promote water conservation to protect potable water supply and reduce impacts during drought through existing conservation programs and plans, such as the Clean Streams program, Drought Contingency Plan, Water Management and Conservation Plan, as well as any new initiatives.
DR #3	Expand the water conservation content on the website with an emphasis on providing more educational links and more information on water-efficient irrigation practices. Update water conservation brochures.
See multi-hazard actions for additional applicable mitigation strategies.	
<b>Earthquake</b>	
EQ #1	Identify, inventory, and mitigate (as prioritization and resources allow) critical facilities and utilities that require seismic retrofit (consider structural and non-structural retrofit options).
EQ #2	Stay informed of the school districts plans about the identification and prioritization of school district facility retrofits and upgrades.
See multi-hazard actions for additional applicable mitigation strategies.	
<b>Extreme Heat</b>	
No specific action item developed for this hazard. See multi-hazard actions for applicable mitigation strategies.	
<b>Flood</b>	
FL #1	Update, maintain, and implement flood actions via a floodplain management plan in accordance with FEMA’s Community Rating System guidelines.
FL #2	Improve and maintain the City of Salem’s National Flood Insurance Program (NFIP) Community Rating System (CRS) rating in order to reduce flood risk and NFIP premiums.
See multi-hazard actions for additional applicable mitigation strategies.	

**Table A-4 Action Item Pool (Continued)**

Mitigation Action ID	Mitigation Action Title
<b>Action Item Pool</b>	
<b>Landslide</b>	
LS #1	Maintain landslide overlay maps using Light Detection and Ranging (LIDAR) data.
LS #2	Utilize the updated regional landslide risk maps (DOGAMI O-16-02) to identify hazard areas and collaborate with the Oregon Department of Geology and Mineral Industries to work on landslide risk reduction efforts; determine areas and buildings at risk to landslides; and incorporate and utilize updated data when reviewing development applications.
See multi-hazard actions for additional applicable mitigation strategies.	
<b>Volcano</b>	
VO #1	Evaluate the impact of ash fall-out on HVAC systems in critical facilities. City could benefit from a quick sheet on this topic; guidance to contractors for maintenance.
See multi-hazard actions for additional applicable mitigation strategies.	
<b>Water Quality/Emergency</b>	
No specific action item developed for this hazard. See multi-hazard actions for applicable mitigation strategies.	
<b>Windstorm</b>	
No specific action item developed for this hazard. See multi-hazard actions for applicable mitigation strategies.	
<b>Winter Storm</b>	
No specific action item developed for this hazard. See multi-hazard actions for applicable mitigation strategies.	
<b>Wildfire</b>	
WF #1	Conduct wildfire prevention outreach, as outlined in the Marion County and Polk County (West Salem) Community Wildfire Protection Plans (CWPPs), to residents near the wildland-urban interface.
See multi-hazard actions for additional applicable mitigation strategies.	

Source: Salem NHMP Steering Committee (2023)



<b>Action Item: Multi-Hazard #2</b>		<b>Alignment with Plan Goals:</b>
Coordinate with the Capitol Planning Commission to integrate natural hazard mitigation into State and City respective capital improvements.		Goals 3 and 4
<b>Alignment with Existing Plans/Policies:</b>		
<b>Rationale for Proposed Action Item:</b>		
<ul style="list-style-type: none"> <li>The Capitol Planning Commission (<a href="#">SB 671, 2009 Session</a>) is identified as the main body to implement the State of Oregon capital improvement projects within the greater Salem area. A similar responsibility rests with the Salem Public Works Department in the development and implementation of Salem’s Capital Improvements Program (CIP).</li> <li>It is important that natural hazard mitigation be integrated into both the State’s and Salem’s Capital Improvement Program so that critical public facilities, including government buildings, are constructed to function during and after natural disasters. Local units of government want to ensure continuous service by strengthening essential facilities. Ensuring continuous service will assist residents in recovering from a natural disaster as well as make the process easier.</li> <li>The Disaster Mitigation Act of 2000 requires communities to maintain the Hazard Mitigation Plan by having local governments incorporate the requirements of the mitigation plan into other planning mechanisms [201.6(c)(4)(ii)]. Coordinating mitigation activities with other planning activities will help local governments incorporate mitigation into other plans and policies currently being developed. Coordination will also reduce duplication of planning efforts, strengthening the overall mitigation planning process.</li> </ul>		
<b>Ideas for Implementation:</b>		
<ul style="list-style-type: none"> <li>Determine what roles the Capitol Planning Commission plays in mitigating natural hazards, especially for State of Oregon properties or others in Salem for which it has jurisdiction.</li> <li>Review action items and discuss which ones can be integrated into Capital Improvement Programs for Salem.</li> <li>Inventory critical facilities that may be potentially vulnerable to a natural disaster and present these to the Capitol Planning Commission for their review.</li> <li>Include members of the Capitol Planning Commission in the NHMP Committee meetings</li> <li>Realign or replace roads and utilities when feasible in the course of regularly scheduled replacement to reduce the impact of natural hazard events on new development.</li> <li>Explore the possibility of undergrounding utilities that are vulnerable to severe weather.</li> </ul>		
<b>Coordinating Organization:</b>	Community Development Department	
<b>Internal Partners:</b>	<b>External Partners:</b>	
Natural Hazard Mitigation Committee	FEMA, OEM, Capitol Planning Commission	
<b>Potential Funding Sources:</b>	<b>Estimated cost:</b>	<b>Timeline:</b>
Local Funding Resources	TBD	<input checked="" type="checkbox"/> Ongoing <input type="checkbox"/> Short Term (0-2 years) <input type="checkbox"/> Mid-Term (3-5 years) <input type="checkbox"/> Long-Term (5+ years)
<b>Form Submitted by:</b>	Salem Natural Hazards Mitigation Committee	
<b>Action Item Status:</b>	Ongoing, revised from 2017 version of the NHMP	

<b>Action Item: Multi-Hazard #3</b>		<b>Alignment with Plan Goals:</b>	
Maintain an inventory of the number and type of critical facilities within the community that are at reasonable risk for each hazard type.		Goals 2, 3 and 5	
<b>Alignment with Existing Plans/Policies:</b>			
Emergency Operations Plan, Comprehensive Plan			
<b>Rationale for Proposed Action Item:</b>			
<ul style="list-style-type: none"> <li>• Many older commercial buildings in Salem are vulnerable to damage in the event of a natural disaster. This could have significant impacts on Salem’s economy. Identifying and retrofitting buildings that are susceptible to a natural disaster will reduce the vulnerability of the buildings in the event of a natural disaster and improve the resiliency of Salem’s local economy.</li> <li>• OEM’s checklist for local mitigation plans includes the need to estimate the type and number of structures within the community at risk for each hazard type, including residences, businesses, critical facilities (hospitals, fire stations, and storage sites for hazardous materials), and infrastructure (e.g., roads and utilities). There also needs to be a map of repetitive flood loss properties (extent of flooding, no evaluation of cost of property damage) and discussion of potential mitigation activities for these properties.</li> <li>• The Disaster Mitigation Act of 2000 requires communities to identify actions and projects that reduce the effects of hazards on the community, particularly to buildings and infrastructure [201.6(c)(3)(ii)]. Inventorying important historic and cultural resources and identifying their vulnerability to natural hazards will help to develop mitigation actions that reduce Salem’s overall vulnerability to natural hazards.</li> </ul>			
<b>Ideas for Implementation:</b>			
<ul style="list-style-type: none"> <li>• Determine vulnerabilities of community structures to natural hazards</li> <li>• Identify appropriate mitigation measures to help preserve structures within the community that are at risk for each hazard type.</li> <li>• Create an electronic data base which illustrates an inventory of the number and type of structures within the community that are at risk for each hazard type.</li> <li>• Identify significant cultural and historic resources, whether on the national register or not, that are worthy of additional protection.</li> </ul>			
<b>Coordinating Organization:</b>		Public Works	
<b>Internal Partners:</b>		<b>External Partners:</b>	
Natural Hazards Mitigation Committee, GIS, IT		FEMA	
<b>Potential Funding Sources:</b>		<b>Estimated cost:</b>	<b>Timeline:</b>
Local Funding Resources		TBD	<input checked="" type="checkbox"/> Ongoing <input type="checkbox"/> Short Term (0-2 years) <input type="checkbox"/> Mid-Term (3-5 years) <input type="checkbox"/> Long-Term (5+ years)
<b>Form Submitted by:</b>	Salem Natural Hazards Mitigation Committee		
<b>Action Item Status:</b>	Retained, revised from 2017 version of the NHMP as an ongoing action		

<b>Action Item: Multi-Hazard #4</b>		<b>Alignment with Plan Goals:</b>
Maintain public outreach materials for all natural hazard risks addressed in the Salem Natural Hazards Mitigation Plan. Materials should include mitigation actions residents and businesses can implement to reduce their risk to natural hazards, and where they can obtain more detailed natural hazard information.	Goals 1, 3, 4, 5 and 7	
<b>Alignment with Existing Plans/Policies:</b>		
<b>Rationale for Proposed Action Item:</b>		
<ul style="list-style-type: none"> <li>• Conducting public outreach campaigns raises awareness about natural hazards and helps illustrate what residents and businesses can do to reduce the impact of a natural disaster on their properties, thereby significantly reducing the impact of a natural disaster on Salem.</li> <li>• Several natural hazards, such as severe weather, earthquakes, and floods, have the potential for disrupting transportation services and isolating rural residents from basic services and needs. Salem residents need to be educated about the dangers that natural hazards pose and what actions they can take to mitigate the impact hazards on the community.</li> <li>• The Disaster Mitigation Act of 2000 requires communities to identify comprehensive actions and projects that reduce the effects of a hazard on the community [201.6(c)(3)(ii)].</li> </ul>		
<b>Ideas for Implementation:</b>		
<ul style="list-style-type: none"> <li>• Conduct public outreach campaigns, such as articles in the newspaper or through brochures instructing residents and businesses about the risks natural hazards pose and mitigation actions they can implement.</li> <li>• Coordinate with other groups conducting other emergency management activities to assist in conducting public outreach campaigns, developing emergency kits, and educating residents and businesses about other mitigation activities</li> <li>• Develop handouts that inform residents and businesses about natural hazard risk, appropriate mitigation actions that can be implemented, and where citizens can obtain further information.</li> <li>• Create an online informational website where residents and businesses can be educated about appropriate mitigation actions residents and businesses can implement to reduce the impact of natural hazards</li> <li>• Work with local real estate trade associations to prepare informational handouts advising property owners of natural hazard risks in their area and measures they can implement to reduce their risk of exposure.</li> </ul>		
<b>Coordinating Organization:</b>	Emergency Management	
<b>Internal Partners:</b>	<b>External Partners:</b>	
Community Development Department, Public Works	FEMA, Oregon State Police, Oregon Department of Emergency Management, DOGAMI, DLCD	
<b>Potential Funding Sources:</b>	<b>Estimated cost:</b>	<b>Timeline:</b>
Local Funding Resources, FEMA, DLCD, DOGAMI	TBD	<input checked="" type="checkbox"/> Ongoing <input type="checkbox"/> Short Term (0-2 years) <input type="checkbox"/> Mid-Term (3-5 years) <input type="checkbox"/> Long-Term (5+ years)
<b>Form Submitted by:</b>	Salem Natural Hazards Mitigation Committee	
<b>Action Item Status:</b>	Retained, revised from 2017 version of the NHMP as an ongoing action	

<b>Action Item: Multi-Hazard #5</b>		<b>Alignment with Plan Goals:</b>
Ensure Unified Development Code (UDC) updates consider specific and help to mitigate risk for future development in identified/mapped high hazard areas.		Goals 1, 2, 3, 5, 6 and 7
<b>Alignment with Existing Plans/Policies:</b>		
<b>Rationale for Proposed Action Item:</b>		
<ul style="list-style-type: none"> <li>• Goal 7 of Oregon's Land Use Planning Goals requires that local governments "adopt or amend, as necessary, based on the evaluation of risk, plan policies and implementing measures... [that prohibit] the siting of essential facilities, major structures, hazardous facilities and special occupancy structures, as defined in the state building code (ORS 455.447(1) (a)(b)(c) and (e)), in identified hazard areas..."</li> <li>• The Disaster Mitigation Act of 2000 requires communities to identify actions and projects that reduce the effects of hazards on the community [201.6(c)(3)(ii)]. Adjusting the Salem code to move future development from identified/mapped hazards areas will reduce the vulnerability of new development to natural hazards.</li> </ul>		
<b>Ideas for Implementation:</b>		
<ul style="list-style-type: none"> <li>• Consider transferring development rights from high hazard areas to safer areas, especially in those areas where the risk to people and property cannot be mitigated.</li> <li>• Address high hazard areas and consider measures for mitigating the location of future development in these areas during the update of the Salem code.</li> </ul>		
<b>Coordinating Organization:</b>	Salem Community Development and Public Works	
<b>Internal Partners:</b>	<b>External Partners:</b>	
Natural Hazards Mitigation Committee	DLCD, FEMA	
<b>Potential Funding Sources:</b>	<b>Estimated cost:</b>	<b>Timeline:</b>
Local Funding Resources, DLCD Technical Assistance Grant	TBD	<input checked="" type="checkbox"/> Ongoing <input type="checkbox"/> Short Term (0-2 years) <input type="checkbox"/> Mid-Term (3-5 years) <input type="checkbox"/> Long-Term (5+ years)
<b>Form Submitted by:</b>	Salem Natural Hazards Mitigation Committee	
<b>Action Item Status:</b>	Ongoing, revised from 2017 version of the NHMP	

<b>Action Item: Multi-Hazard #8</b>		<b>Alignment with Plan Goals:</b>
Continue to follow and enforce regulations pertaining to hazard resistant construction methods (wind, winter storm, landslide, etc.) where possible to reduce damage to utilities and critical facilities. In part, this may be accomplished by encouraging electric utility providers to convert existing overhead lines to underground lines.		Goals 1, 2, 3, 4 and 5
<b>Alignment with Existing Plans/Policies:</b>		
Transportation Plan, Community Wildfire Protection Plans (Marion and Polk)		
<b>Rationale for Proposed Action Item:</b>		
Downed power lines result in power failures and block critical transportation routes. The loss of electric power for a long period of time (more than 72 hours) can lead to failures of multiple critical systems including health care, water filtration, wastewater treatment, communications, transportation, and others. Impassable roadways from downed lines also inhibit emergency response and restoration of critical services, such as drinking water and health care, and is particularly problematic if fuel for backup generators cannot be delivered. The hazards most likely to impair surface transportation and disrupt electric service are severe winter storm (snow, ice, downed trees, utility pole, and wire failures) and earthquake (downed trees, utility pole and wire failures).		
<b>Ideas for Implementation:</b>		
Over the next five years: a) Develop a list of key backbone transmission and distribution routes that serve critical customers and enable efficient restoration to the broader distribution system; b) Develop a long-term plan to underground, relocate, or “harden” key electric distribution lines along critical corridors (including feasibility assessment and prioritization); c) Seek funds and opportunities to relocate power poles and power lines, or harden existing facilities, where feasible and appropriate, to reduce blockage of roadways and to reduce risk of outages from natural disasters; and d) Continue to enhance wind and winter storm resistant construction methods where possible to reduce damage to utilities and critical facilities.		
<b>Coordinating Organization:</b>	Public Works	
<b>Internal Partners:</b>	<b>External Partners:</b>	
Community Development, Emergency Management, GIS	Public Utility Commission, Utility and communication companies	
<b>Potential Funding Sources:</b>	<b>Estimated cost:</b>	<b>Timeline:</b>
HMGP, BRIC, Electric Utilities, Local Funding Resources	TBD	<input checked="" type="checkbox"/> Ongoing <input type="checkbox"/> Short Term (0-2 years) <input type="checkbox"/> Mid-Term (3-5 years) <input type="checkbox"/> Long-Term (5+ years)
<b>Form Submitted by:</b>	Salem Natural Hazards Mitigation Committee (2017)	
<b>Action Item Status:</b>	Ongoing, revised from 2017 version of the NHMP as an ongoing action	

<b>Action Item: Multi-Hazard #9</b>		<b>Alignment with Plan Goals:</b>	
Ensure City planning documents and regulations align with regard to natural hazards mitigation and the actions in the Natural Hazards Mitigation Plan, particularly State Planning Goal 7.		Goals 3 and 4	
<b>Alignment with Existing Plans/Policies:</b>			
Action proposes integration with relevant existing plans and policies, including Salem’s comprehensive plan.			
<b>Rationale for Proposed Action Item:</b>			
<p>The federal Disaster Mitigation Act of 2000 requires communities to describe a process by which local governments incorporate the requirements of the mitigation plan into other planning mechanisms, when appropriate.</p> <p>Every five years, natural hazard mitigation plans must be updated and resubmitted for approval to continue to be eligible for mitigation project grant funding. The updated plan must explain how the local government incorporated the mitigation plan into other planning mechanisms, when appropriate, as a demonstration of progress in local mitigation efforts. This action item serves as a reminder to the Natural Hazards Mitigation Plan committee that efforts must be made to integrate the requirements of the mitigation plan into other planning mechanisms.</p>			
<b>Ideas for Implementation:</b>			
<p>Local government functions provide a myriad of methods in which to implement actions identified in the mitigation strategy. Among them is the comprehensive plan. Others include, but are not limited to, the following: sustainability programs, capital improvement plans, redevelopment plans, post-disaster redevelopment or recovery plans, regional development plans, flood mitigation plans, college campus plans, etc. (see FEMA’s Local Mitigation Planning Handbook, March 2013).</p> <p>Conduct an ‘audit’ of the Salem Comprehensive Plan (specifically, Goal 7). Determine whether information needs to be (or can be) updated by content within the natural hazards mitigation plan or otherwise. Develop a strategy and timeline for updating Goal 7 content. Ideally, integration should happen as a dedicated component of future comprehensive plan or natural hazards mitigation plan updates.</p> <p>Inventory and review other local plans to identify gaps, weaknesses, or opportunities for enhancing plan integration.</p>			
<b>Coordinating Organization:</b>		Community Development	
<b>Internal Partners:</b>		<b>External Partners:</b>	
Emergency Management, Public Works, City Administration		FEMA, American Planning Association, DLCDC, OEM	
<b>Potential Funding Sources:</b>		<b>Estimated cost:</b>	<b>Timeline:</b>
Local Funding Resources, DLCDC Technical Assistance Grants		TBD	<input checked="" type="checkbox"/> Ongoing <input type="checkbox"/> Short Term (0-2 years) <input type="checkbox"/> Mid-Term (3-5 years) <input type="checkbox"/> Long-Term (5+ years)
<b>Form Submitted by:</b>	Salem Natural Hazards Mitigation Committee		
<b>Action Item Status:</b>	Ongoing, revised from 2017 version of the NHMP as an ongoing action		

<b>Action Item: Multi-Hazard #14</b>		<b>Alignment with Plan Goals:</b>	
Coordinate with the Council of Water Leaders to maintain strong partnerships in the watershed and allow rapid response to emerging issues and challenges.		Goals 3 and 4	
<b>Alignment with Existing Plans/Policies:</b>			
North Santiam Watershed Drought Contingency Plan, Salem Climate Action Plan, Salem Clean Streams program			
<b>Rationale for Proposed Action Item:</b>			
The Council of Water Leaders, created in 2022, is a forum that creates a pathway to improve water management in the North Santiam Basin by providing decision-makers with the latest information about water issues and increasing coordination among organizations			
<b>Ideas for Implementation:</b>			
<b>Coordinating Organization:</b>		Public Works	
<b>Internal Partners:</b>		<b>External Partners:</b>	
Emergency Management, Community Development		Santiam Water Control District, municipal water providers, Tribes, city and county governments, nonprofits, businesses, interest groups, irrigators, state and federal agencies, and elected officials.	
<b>Potential Funding Sources:</b>		<b>Estimated cost:</b>	<b>Timeline:</b>
			<input checked="" type="checkbox"/> Ongoing <input type="checkbox"/> Short Term (0-2 years) <input type="checkbox"/> Mid-Term (3-5 years) <input type="checkbox"/> Long-Term (5+ years)
<b>Form Submitted by:</b>	Salem Natural Hazards Mitigation Committee (2023)		
<b>Action Item Status:</b>	New		

<b>Action Item: Multi-Hazard #15</b>		<b>Alignment with Plan Goals:</b>	
Conduct strategic public outreach and update information on website to provide residents with information about proper tree care and planning criteria in order to reduce tree-related hazards and encourage planning of climate appropriate trees to maintain a healthy and diverse tree canopy in Salem.		Goals 1, 3, 4, 5 and 7	
<b>Alignment with Existing Plans/Policies:</b>			
<b>Rationale for Proposed Action Item:</b>			
<ul style="list-style-type: none"> <li>While trees can be hazards during windstorms or winter storms, this is usually due to the wrong tree being planted in the wrong place or improper care of the tree. Trees are important for combating heat islands, they moderate air temperatures, clean our air and water, slow stormwater, and stabilize soils, just to name a few benefits. The goal should not be to warn people of the hazards of trees during storms, but rather to teach people how to maintain healthy and resilient trees.</li> <li></li> </ul>			
<b>Ideas for Implementation:</b>			
<ul style="list-style-type: none"> <li>Work with the community and Salem Public Works Department to identify areas that are prone to damage from nearby trees and perform the necessary maintenance or removal of those trees.</li> </ul>			
<b>Coordinating Organization:</b>	Public Works		
<b>Internal Partners:</b>		<b>External Partners:</b>	
Fire Department		ODOT, Portland General Electric, Salem Electric	
<b>Potential Funding Sources:</b>		<b>Estimated cost:</b>	<b>Timeline:</b>
Local Funding Resources, Utilities		TBD	<input checked="" type="checkbox"/> Ongoing <input type="checkbox"/> Short Term (0-2 years) <input type="checkbox"/> Mid-Term (3-5 years) <input type="checkbox"/> Long-Term (5+ years)
<b>Form Submitted by:</b>	Salem Natural Hazards Mitigation Committee 2023		
<b>Action Item Status:</b>	Ongoing Windstorm and Winter Storm action, revised to a Multi-Hazard action from 2017 version of the NHMP		



<b>Action Item: Drought #1</b>		<b>Alignment with Plan Goals:</b>
Update and continue to implement the North Santiam Drought Watershed Contingency Plan		Goals 1, 3, 4 and 6
<b>Alignment with Existing Plans/Policies:</b>		
North Santiam Watershed Drought Contingency Plan, Salem Water Master Plan, Comprehensive Plan, Salem Water Management and Conservation Plan		
<b>Rationale for Proposed Action Item:</b>		
<p>Water availability is an increasing concern in Salem and Marion County. The ongoing water contingency planning effort is an innovative and successful collaboration between numerous local and regional partners. The effort is already resulting in significant mitigation benefits across Marion County.</p>		
<b>Ideas for Implementation:</b>		
Complete updating existing plan, adopt and begin to implement the updated plan.		
<b>Coordinating Organization:</b>	Public Works	
<b>Internal Partners:</b>	<b>External Partners:</b>	
City Departments	Marion County (Emergency Management), Santiam Water Control District, City of Stayton, Linn Soil & Water Conservation District, Marion Soil & Water Conservation District, Norpac Foods, Inc., North Santiam Watershed Council, Oregon Department of Agriculture, Oregon Department of Environmental Quality, Oregon Department of Forestry	
<b>Potential Funding Sources:</b>	<b>Estimated cost:</b>	<b>Timeline:</b>
Bureau of Reclamation, Local Funding Resources	TBD	<input type="checkbox"/> Ongoing <input checked="" type="checkbox"/> Short Term (0-2 years) <input type="checkbox"/> Mid-Term (3-5 years) <input type="checkbox"/> Long-Term (5+ years)
<b>Form Submitted by:</b>	Salem Natural Hazards Mitigation Committee	
<b>Action Item Status:</b>	Ongoing, revised from 2017 version of the NHMP	

<b>Action Item: Drought #2</b>		<b>Alignment with Plan Goals:</b>
Continue to promote water conservation to protect potable water supply and reduce impacts during drought through existing conservation programs and plans, such as the Clean Streams program, Drought Contingency Plan, Water Management and Conservation Plan, as well as any new initiatives.		Goals 1, 3, 4, 5 and 7
<b>Alignment with Existing Plans/Policies:</b>		
Salem Comprehensive Plan, Salem Climate Action Plan, North Santiam Watershed Drought Contingency Plan, Salem Water Management and Conservation Plan, Clean Streams program		
<b>Rationale for Proposed Action Item:</b>		
In the midst of ever-increasing demands on water sources and changing weather patterns due to climate change, it is important to promote water conservation and plan and prepare for times of water scarcity. The City of Salem’s primary drinking water source is located on the North Santiam River outside of Stayton, and water is distributed to the City via a network of pipes. As the population of Salem continues to grow, so does the importance of water conservation to ensure that supply can continue to meet demand.		
<b>Ideas for Implementation:</b>		
Continue working on and expanding efforts related the Drought Contingency Plan, Water Management and Conservation Plan, and the Stormwater Quality group’s Clean Streams Program, ensuring that plans are implemented and information is shared with stakeholders and the public. Collaborate with partners like Glenn Gibson Watershed Council, North Santiam Watershed Council, Marion Soil and Water Conservation District, Polk SWCD, and others to share information and develop programs to promote water conservation. Continue to participate in groups like the Council of Water Leaders and Partners of the North Santiam to identify opportunities to protect and conserve water at the source.		
<b>Coordinating Organization:</b>	Public Works	
<b>Internal Partners:</b>	<b>External Partners:</b>	
Emergency Management, City Departments	North Santiam Watershed Council, Glenn Gibson Watershed Council, Marion and Polk Soil and Water Conservation Districts	
<b>Potential Funding Sources:</b>	<b>Estimated cost:</b>	<b>Timeline:</b>
FEMA, Local Funding Resources	TBD	<input checked="" type="checkbox"/> Ongoing <input type="checkbox"/> Short Term (0-2 years) <input type="checkbox"/> Mid-Term (3-5 years) <input type="checkbox"/> Long-Term (5+ years)
<b>Form Submitted by:</b>	Salem Natural Hazards Mitigation Committee (2023)	
<b>Action Item Status:</b>	New	

<b>Action Item: Drought #3</b>		<b>Alignment with Plan Goals:</b>	
Expand the water conservation content on the website with an emphasis on providing more educational links and more information on water-efficient irrigation practices. Update water conservation brochures		Goals 4 and 5	
<b>Alignment with Existing Plans/Policies:</b>			
Salem Water Management and Conservation Plan			
<b>Rationale for Proposed Action Item:</b>			
Encouraging residents to conserve water and reducing use of water for landscape irrigation will help reduce overall water use and hopefully keep more water in reserve for essential uses during emergencies. One of the primary venues we have for helping residents conserve water is through public education campaigns, including having useful/relevant information on our website.			
<b>Ideas for Implementation:</b>			
Review and update/refine website content related to water use, conservation strategies, and water source. Include educational links to good relevant outside sources of information. Provide ideas for actions that residents can take to help conserve water, highlighting any incentive or assistance programs available locally through organizations like Marion SWCD, Polk SWCD, NRCS, Watershed Councils, etc. Update water conservation brochures to make sure that info is highly relevant and easily digestible/implementable.			
<b>Coordinating Organization:</b>		Public Works	
<b>Internal Partners:</b>		<b>External Partners:</b>	
Community Development			
<b>Potential Funding Sources:</b>		<b>Estimated cost:</b>	<b>Timeline:</b>
FEMA, Local Funding Resources		TBD	<input type="checkbox"/> Ongoing <input checked="" type="checkbox"/> Short Term (0-2 years) <input type="checkbox"/> Mid-Term (3-5 years) <input type="checkbox"/> Long-Term (5+ years)
<b>Form Submitted by:</b>	Salem Natural Hazards Mitigation Committee (2023)		
<b>Action Item Status:</b>	New		

<b>Action Item: Earthquake #1</b>		<b>Alignment with Plan Goals:</b>
Identify, inventory, and mitigate (as prioritization and resources allow) critical facilities and utilities that require seismic retrofit (consider structural and non-structural retrofit options).		Goals 2, 3 and 5
<b>Alignment with Existing Plans/Policies:</b>		
<b>Rationale for Proposed Action Item:</b>		
<ul style="list-style-type: none"> <li>The Salem Natural Hazards Mitigation Committee noted that certain critical facilities have a high vulnerability for seismic events. Seismically retrofitting these facilities will significantly reduce their vulnerability in the event of an earthquake.</li> <li>Oregon Senate Bill 3 (2005) enabled the state to develop a grant program to seismically rehabilitate critical public facilities. Conducting an inventory of critical facilities early will assist communities in obtaining funding.</li> <li>The Disaster Mitigation Act of 2000 requires communities to identify comprehensive actions that protect new and existing buildings [201.6(c)(3)(ii)]. Seismically retrofitting existing critical facilities, including reservoirs and pump stations, will help Salem reduce their vulnerability to seismic events.</li> <li>The Department of Geology and Mineral Industries (DOGAMI) Statewide Seismic Needs Assessment completed in 2007 of educational and emergency service facilities in Salem identified 53 structures with a high or very high likelihood of collapse in the event of a major earthquake. facilities should be retrofitted accordingly to reduce the likelihood of collapse should an earthquake occur. (See Section 2 for a list of retrofitted facilities)</li> </ul>		
<b>Ideas for Implementation:</b>		
<ul style="list-style-type: none"> <li>Use DOGAMI's Seismic Needs Assessment of buildings in Salem to identify and prioritize buildings vulnerable to seismic events. Seek additional information from DOGAMI, if vulnerable reservoirs and pump stations are not included in the Seismic Needs Assessment.</li> <li>Coordinate with OEM and FEMA to determine funding for conducting seismic retrofit of buildings.</li> </ul>		
<b>Coordinating Organization:</b>	Emergency Management	
<b>Internal Partners:</b>	<b>External Partners:</b>	
Natural Hazards Mitigation Committee, Community Development Department, Public Works	FEMA, OEM, DOGAMI, School Districts	
<b>Potential Funding Sources:</b>	<b>Estimated cost:</b>	<b>Timeline:</b>
HMGP, BRIC, Local Funding Resources, SRGP	TBD	<input checked="" type="checkbox"/> Ongoing <input type="checkbox"/> Short Term (0-2 years) <input type="checkbox"/> Mid-Term (3-5 years) <input type="checkbox"/> Long-Term (5+ years)
<b>Form Submitted by:</b>	Salem Natural Hazards Mitigation Committee	
<b>Action Item Status:</b>	Ongoing, revised from 2017 version of the NHMP	

<b>Action Item: Earthquake #2</b>		<b>Alignment with Plan Goals:</b>
Stay informed of the school districts plans about the identification and prioritization of school district facility retrofits and upgrades.		Goals 2 and 4
<b>Alignment with Existing Plans/Policies:</b>		
<b>Rationale for Proposed Action Item:</b>		
<ul style="list-style-type: none"> <li>• Due to the high concentration of students and the relative vulnerability of that population, schools have large negative impacts from seismic events. Seismically retrofitting these facilities will significantly reduce their vulnerability in the event of an earthquake.</li> <li>• Oregon Senate Bill 3 (2005) enables the Oregon Office of Emergency Management to develop a grant program to seismically rehabilitate critical public facilities. While the grant program is still being developed, conducting an inventory of critical facilities early will assist communities in obtaining funding once the grant program is in place.</li> <li>• The Department of Geology and Mineral Industries (DOGAMI) Statewide Seismic Needs Assessment completed in 2007 of educational facilities in the state of Oregon identified 48 school structures with a high or very high likelihood of collapse in the event of a major earthquake. These facilities should be retrofitted accordingly to reduce the likelihood of collapse in the event of an earthquake.</li> <li>• The Disaster Mitigation Act of 2000 requires communities to identify comprehensive actions that protect new and existing buildings [201.6(c)(3)(ii)]. Seismically retrofitting existing critical facilities, including reservoirs and pump stations and especially schools, will help Salem reduce their vulnerability to seismic events.</li> </ul>		
<b>Ideas for Implementation:</b>		
<ul style="list-style-type: none"> <li>• Use DOGAMI’s Seismic Needs Assessment of Salem school facilities to identify and prioritize school district facilities that are vulnerable to seismic events.</li> <li>• Educate school district officials about the effectiveness of natural hazard mitigation actions.</li> <li>• Coordinate with OEM and FEMA to seek funding for conducting seismic retrofit of buildings.</li> <li>• Engage the members of the school district with the Salem Natural Hazards Mitigation Committee.</li> </ul>		
<b>Coordinating Organization:</b>	Emergency Management	
<b>Internal Partners:</b>	<b>External Partners:</b>	
Natural Hazards Mitigation Committee, Community Development Department,	FEMA, OEM, DOGAMI, Salem-Keizer School District, private schools, Chemeketa C.C., Willamette University, Corban University	
<b>Potential Funding Sources:</b>	<b>Estimated cost:</b>	<b>Timeline:</b>
HMGP, BRIC, Local Funding Resources, SRGP	TBD	<input checked="" type="checkbox"/> Ongoing <input type="checkbox"/> Short Term (0-2 years) <input type="checkbox"/> Mid-Term (3-5 years) <input type="checkbox"/> Long-Term (5+ years)
<b>Form Submitted by:</b>	Salem Natural Hazards Mitigation Committee	
<b>Action Item Status:</b>	Ongoing, revised from 2017 version of the NHMP	

<b>Action Item: Flood #1</b>		<b>Alignment with Plan Goals:</b>	
Update, maintain, and implement flood actions via a floodplain management plan in accordance with FEMA's Community Rating System guidelines.		Goals 3, 4 and 5	
<b>Alignment with Existing Plans/Policies:</b>			
Salem Floodplain Management Plan			
<b>Rationale for Proposed Action Item:</b>			
Floodplain management for Salem is unique and warrants a separate public process to identify specific action items. Factors include involvement in the Community Rating System, Endangered Species Act and compliance with existing adopted plans.			
<b>Ideas for Implementation:</b>			
Continue 10-step process identified by FEMA. Salem's Public Works department completed a final Floodplain Management Plan in April 2018. In addition to this plan needing occasional updating and maintenance, the plan's Action Plan will need implementation.			
<b>Coordinating Organization:</b>		Public Works	
<b>Internal Partners:</b>		<b>External Partners:</b>	
Emergency Management, Fire, Operations and Engineering		FEMA, DLCDC, National Flood Insurance Program, Floodplain Management Committee	
<b>Potential Funding Sources:</b>		<b>Estimated cost:</b>	<b>Timeline:</b>
Local Funding Resources, DLCDC Technical Assistance Grant		TBD	<input checked="" type="checkbox"/> Ongoing <input type="checkbox"/> Short Term (0-2 years) <input type="checkbox"/> Mid-Term (3-5 years) <input type="checkbox"/> Long-Term (5+ years)
<b>Form Submitted by:</b>	Salem Natural Hazards Mitigation Committee		
<b>Action Item Status:</b>	Ongoing, revised from 2017 version of the NHMP		

<b>Action Item: Flood #2</b>		<b>Alignment with Plan Goals:</b>
Improve and maintain the City of Salem’s National Flood Insurance Program (NFIP) Community Rating System (CRS) rating in order to reduce flood risk and NFIP premiums.		Goals 2, 3, 4, 5, 6 and 7
<b>Alignment with Existing Plans/Policies:</b>		
<b>Rationale for Proposed Action Item:</b>		
<ul style="list-style-type: none"> <li>The National Flood Insurance Program's (NFIP) Community Rating System (CRS) is a voluntary incentive program that recognizes and encourages community floodplain management activities that exceed the minimum NFIP requirements. As a result, insurance premiums under the NFIP are discounted to reflect the reduced flood risk resulting from the community actions meeting the three goals of the CRS: (1) reduce flood losses; (2) facilitate accurate insurance rating; and (3) promote the awareness of flood insurance.</li> <li>In late 2021, FEMA upgraded Salem from Class 5 to Class 4 CRS program. Implementing action items to improve the CRS rating will significantly reduce NFIP premiums on structures located within the floodplain.</li> <li>The Disaster Mitigation Act of 2000 requires communities to identify mitigation actions that address existing buildings and infrastructure [201.6(c)(3)(ii)]. Maintaining the status of the Community Rating System program can help the community to enhance mitigation efforts and decrease the vulnerability to floods. In addition, the Flood Mitigation Assistance Program requires that communities maintain their compliance with the NFIP.</li> </ul>		
<b>Ideas for Implementation:</b>		
<ul style="list-style-type: none"> <li>Coordinate with the Department of Land Conservation and Development (DLCD) and FEMA to maintain the Community Rating System.</li> <li>Educate businesses and homeowners currently under the NFIP program about the CRS program and any mitigation actions they can implement to reduce their insurance premiums.</li> <li>Identify homes not in the NFIP that should have flood insurance.</li> <li>Develop mitigation activities to address repetitive and single loss flood properties in Salem.</li> </ul>		
<b>Coordinating Organization:</b>	Public Works	
<b>Internal Partners:</b>	<b>External Partners:</b>	
Community Development	DLCD, National Flood Insurance Program, FEMA, Marion and Polk Counties	
<b>Potential Funding Sources:</b>	<b>Estimated cost:</b>	<b>Timeline:</b>
Local Funding Resources	TBD	<input checked="" type="checkbox"/> Ongoing <input type="checkbox"/> Short Term (0-2 years) <input type="checkbox"/> Mid-Term (3-5 years) <input type="checkbox"/> Long-Term (5+ years)
<b>Form Submitted by:</b>	Salem Natural Hazards Mitigation Committee	
<b>Action Item Status:</b>	Ongoing, revised from 2017 version of the NHMP	

<b>Action Item: Landslide #1</b>		<b>Alignment with Plan Goals:</b>
Maintain landslide overlay maps using Light Detection and Ranging (LIDAR) data.		Goal 4
<b>Alignment with Existing Plans/Policies:</b>		
<b>Rationale for Proposed Action Item:</b>		
<ul style="list-style-type: none"> <li>LIDAR (Light Detection and Ranging) is a new tool that can provide very precise, accurate, and high-resolution images of the surface of the earth, vegetation, and the built environment. The data are collected with aircraft-mounted lasers capable of recording elevation measurements at a rate of 2,000 to 5,000 pulses per second and have a vertical precision of 15 centimeters (6 inches). LIDAR mapping increases the ability to identify areas that are prone to landslides.</li> <li>In 2007, the Oregon Legislature Assembly directed DOGAMI to extend LIDAR collection efforts throughout the state. The goal is to provide high-quality LIDAR coverage for the entire state.</li> </ul>		
<b>Ideas for Implementation:</b>		
<ul style="list-style-type: none"> <li>Contact DOGAMI and provide a map of Salem along with an estimate of available funding.</li> <li>Seek funding opportunities with DOGAMI to conduct LIDAR mapping for Salem.</li> <li>Once mapping is complete assess the need to update landslide ordinances.</li> <li>Explore potential cost-sharing agreements with Keizer, Turner, Marion and Polk Counties for LIDAR mapping of the entire Salem-Keizer urbanized area.</li> </ul>		
<b>Coordinating Organization:</b>	Public Works Department	
<b>Internal Partners:</b>	<b>External Partners:</b>	
Natural Hazards Mitigation Committee, City of Salem GIS technicians	FEMA, NOAA, DLCD, DOGAMI, Keizer, Turner, Marion County, Polk County	
<b>Potential Funding Sources:</b>	<b>Estimated cost:</b>	<b>Timeline:</b>
HMGP, BRIC, Risk MAP, Local Funding Resources		<input checked="" type="checkbox"/> Ongoing <input type="checkbox"/> Short Term (0-2 years) <input type="checkbox"/> Mid-Term (3-5 years) <input type="checkbox"/> Long-Term (5+ years)
<b>Form Submitted by:</b>	Salem Natural Hazards Mitigation Committee	
<b>Action Item Status:</b>	Ongoing, revised from 2017 version of the NHMP as an ongoing action	



<b>Action Item: Landslide #2</b>		<b>Alignment with Plan Goals:</b>	
Utilize the updated regional landslide risk maps (DOGAMI O-16-02) to identify hazard areas and collaborate with the Oregon Department of Geology and Mineral Industries to work on landslide risk reduction efforts; determine areas and buildings at risk to landslides and incorporate and utilize updated data when reviewing development applications.		Goal 2, 3 and 4	
<b>Alignment with Existing Plans/Policies:</b>			
Comprehensive plans, Lidar data available from DOGAMI			
<b>Rationale for Proposed Action Item:</b>			
<p>The risk assessment identified the potential for landslides to cause damage to buildings and infrastructure within Salem; landslides may cause road closures and interruptions to utility services. The risk assessment also identified previous incidents of landslides that affected the city. Road closures sometimes force residents to find alternate transportation routes. Review and monitor existing public infrastructure to identify specific exposure to landslide risk.</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 existing public infrastructure with exposure to landslide risk will allow the implementation of mitigation measures to reduce this risk.</p>			
<b>Ideas for Implementation:</b>			
Utilize the Landslide Susceptibility Map and Data (DOGAMI O-16-02) to perform landslide risk analysis. Use the new information to prioritize risk reduction actions. Perform risk reduction. Update/ develop Landslide Ordinances as applicable			
<b>Coordinating Organization:</b>		Community Development	
<b>Internal Partners:</b>		<b>External Partners:</b>	
GIS and Mapping, Emergency Management		DOGAMI, DLCD	
<b>Potential Funding Sources:</b>		<b>Estimated cost:</b>	<b>Timeline:</b>
Risk MAP, BRIC, HMGP, Local Funding Resources		TBD	<input checked="" type="checkbox"/> Ongoing <input type="checkbox"/> Short Term (0-2 years) <input type="checkbox"/> Mid-Term (3-5 years) <input type="checkbox"/> Long-Term (5+ years)
<b>Form Submitted by:</b>	Salem Natural Hazards Mitigation Committee		
<b>Action Item Status:</b>	Ongoing, revised from 2017 version of the NHMP		

<b>Action Item: Volcano #1</b>		<b>Alignment with Plan Goals:</b>
Evaluate the impact of ash fall-out on HVAC systems in critical facilities. The City of Salem could benefit from a quick sheet on this topic; guidance to contractors for maintenance.		Goals 2, 3 and 4
<b>Alignment with Existing Plans/Policies:</b>		
Emergency Operations Plan		
<b>Rationale for Proposed Action Item:</b>		
<p>Because volcano ash has not affected Salem since the 1980's, no planning has occurred on the effect it might have on the HVAC systems. The use of HVAC systems is extensive throughout Salem. These systems are much more complicated today than they were in the 1980's, and for the most part cannot be shut down with the pull of a switch. Salem needs to have a better understanding of the response procedures at each facility and then how we will recover from an event.</p>		
<b>Ideas for Implementation:</b>		
<p>Use the NHMP to identify where volcano ash might most likely come from and affect the City of Salem.  Determine when it might most likely take place.  Evaluate each facility to determine where ash might most likely impact that facility.  Determine what mitigation action might need to be taken for each facility.  Perhaps prepare a 2-page flyer that outlines what the public, building maintenance, or contractors maintaining the city's facilities should do in this sort of emergency.</p>		
<b>Coordinating Organization:</b>	Emergency Management	
<b>Internal Partners:</b>	<b>External Partners:</b>	
All City Departments	DEQ, DOGAMI	
<b>Potential Funding Sources:</b>	<b>Estimated cost:</b>	<b>Timeline:</b>
Local Funding Resources, FEMA	TBD	<input type="checkbox"/> Ongoing <input type="checkbox"/> Short Term (0-2 years) <input checked="" type="checkbox"/> Mid-Term (3-5 years) <input type="checkbox"/> Long-Term (5+ years)
<b>Form Submitted by:</b>	Salem Natural Hazards Mitigation Committee (2023)	
<b>Action Item Status:</b>	New	

<b>Action Item: Wildfire #1</b>		<b>Alignment with Plan Goals:</b>
Conduct wildfire prevention outreach, as outlined in the Marion County and Polk County (West Salem) Community Wildfire Protection Plans (CWPPs), to residents near the wildland-urban interface.		Goals 1, 2, 4, 5 and 7
<b>Alignment with Existing Plans/Policies:</b>		
<b>Rationale for Proposed Action Item:</b>		
<ul style="list-style-type: none"> <li>The Oregon Department of Forestry (ODF) completed a Communities at Risk Assessment for Salem that shows areas in northwest and south Salem that are at high risk to wildfire events. These areas are just outside of Salem but are vulnerable to wildfire events that could impact residents within the city. Conducting wildfire prevention outreach to residents near these areas can significantly reduce the vulnerability of the neighborhoods to wildfire events.</li> <li>Interviews with Salem Fire Department staff indicate that the areas with the highest risk have the steepest slopes, the right fuels, and high valued property. The areas outlined by the ODF Communities at Risk Assessment show that many of the areas at risk are near steep slopes and have combustible fuels. Conducting wildfire prevention outreach can help to reduce vulnerability of residents to wildfire events.</li> <li>The Marion County and Polk County CWPPs outline strategies for conducting wildfire prevention outreach to residents living in the wildland-urban interface. Conducting wildfire prevention outreach using the CWPP will help to integrate mitigation into existing plans and policies as required by the Disaster Mitigation Act of 2000 [201.6(c)(4)(ii)].</li> <li>The Disaster Mitigation Act of 2000 requires communities to identify mitigation actions that address new and existing buildings and infrastructure [201.6(c)(3)(ii)]. Conducting wildfire prevention outreach measures will help to protect new and existing buildings from wildfire.</li> </ul>		
<b>Ideas for Implementation:</b>		
<ul style="list-style-type: none"> <li>The Marion and Polk County CWPPs contain several action items for reducing the impacts of wildfire on communities throughout the city, including actions to conduct public outreach about fuels reduction and defensible space. Using these action items can assist in reducing the impact of wildfire on Salem.</li> <li>Coordinate with responsible agencies listed in the CWPPs to implement action items.</li> </ul>		
<b>Coordinating Organization:</b>	Salem Fire Department	
<b>Internal Partners:</b>	<b>External Partners:</b>	
Public Works and Community Development Departments, Police Department, Community Services	Oregon Department of Forestry, Marion County Fire District #1, Salem Suburban Fire District, Neighborhood Associations	
<b>Potential Funding Sources:</b>	<b>Estimated cost:</b>	<b>Timeline:</b>
Local Funding Resources, ODF	TBD	<input checked="" type="checkbox"/> Ongoing <input type="checkbox"/> Short Term (0-2 years) <input type="checkbox"/> Mid-Term (3-5 years) <input type="checkbox"/> Long-Term (5+ years)
<b>Form Submitted by:</b>	Salem Natural Hazards Mitigation Committee	
<b>Action Item Status:</b>	Ongoing, revised from 2017 version of the NHMP	

## APPENDIX A-3: ACTION ITEM FORM

<b>Action Item:</b>		<b>Alignment with Plan Goals:</b>	
<b>Alignment with Existing Plans/Policies:</b>			
<b>Rationale for Proposed Action Item:</b>			
<b>Ideas for Implementation:</b>			
<b>Coordinating Organization:</b>			
<b>Internal Partners:</b>		<b>External Partners:</b>	
<b>Potential Funding Sources:</b>		<b>Estimated cost:</b>	<b>Timeline:</b>
			<input type="checkbox"/> Ongoing <input type="checkbox"/> Short Term (0-2 years) <input type="checkbox"/> Mid-Term (3-5 years) <input type="checkbox"/> Long-Term (5+ years)
<b>Form Submitted by:</b>			
<b>Action Item Status:</b>			