

## Section 1: City of Coburg



Version 4.0 (October 2023 – October 2028)

Developed as an annex to the Lane County Multi-Jurisdictional  
Natural Hazard Mitigation Plan

## Section 1.1: Natural Hazard Mitigation Meetings and Work Sessions

Development of the City of Coburg’s materials for the Natural Hazard Mitigation Plan involved participation by city, public works, school district, county emergency management, fire district, and law enforcement staff. The process followed FEMA’s prescribed model for organizing resources, identifying hazards, evaluating risk, identifying mitigation actions, and prioritizing mitigation projects. For additional details regarding the planning process, please refer to Section 6 of Volume I.

**Table 1.1: Planning Team for City of Coburg**

Title	Contact number	Agency
Mayor	541-682-7850	City of Coburg
City Administrator	541-682-7871	City of Coburg
Chief of Police	541-682-7853	City of Coburg
Coburg Rural Fire District Chief	541-686-1573	Coburg Rural Fire District
Coburg Public Works Director	541-682-7857	City of Coburg
Emergency Management Coordinator	541-682-7850	City of Coburg

Source: City of Coburg

### Individual City Work Sessions

Work sessions with individual cities were conducted following the initial project orientation meeting and intervening months between general planning group meetings. These individual work sessions are displayed in Table 1.2.

**Table 1.2: Individual Work Sessions for City of Coburg**

Date	Location	Meeting/Work Session Topic
February 22, 2023	City Hall	Distribute existing Annex plan to planning team for input.
March 13, 2023	City Hall	Group reviewed and updated project scopes.
May 4, 2023	City Hall	Meeting with Hannah Shafer for hazard quantification process.

Subject matter discussed during work sessions included an overview of the plan and projects contained in the existing plan. This review resulted in the evaluation and removal of some projects from the original plan. It also allowed the group to decide what remaining projects would be updated with the new costs associated with them. Systems and concepts considered included infrastructure resiliency, safeguarding the transportation network, city planning, floodplain management, public safety, and securing public and private facilities.

## Section 1.2: Hazard Quantification

Coburg is most at risk from winter storm, extreme weather, and earthquake. The city faces moderate risk from windstorm and somewhat moderate risk from flood and drought. Coburg faces lower risk from volcano, landslide, and wildfire. Table 1.3 summarizes hazard quantification results, followed by a discussion of Coburg’s local risk profile for each hazard.

**Table 1.3: Coburg Hazard Quantification Results**

Hazard Type / Weight Factor (WF)	History WF x 2	Probability WF x 7	Vulnerability WF x 5	Maximum Threat WF x 10	Raw Score	Weighted Score	Weighted Score Rank
Winter Storm	8	9	8	10	35	219	1
Extreme Weather	8	9	8	8	33	199	2
Earthquake	3	4	10	10	27	184	3
Windstorm	8	8	8	5	29	162	4
Flood	2	4	8	5	19	122	5
Drought	0	5	3	7	15	120	6
Volcano	0	2	2	1	5	34	7
Landslide	0	1	3	2	4	30	8
Wildfire	0	0	2	1	3	20	9

Source: City of Coburg Natural Hazard Mitigation Team

### Section 1.2.1: Individual Hazard Discussions

Nine (9) natural hazards were elevated posing some degree of risk to Coburg. These hazards included all those included in the County’s Base Plan (Volume I) except for tsunami.

#### Winter Storm

December 5, 2016, a localized sleet storm resulted in 14 traffic accidents on I-5 near Coburg. The series of individual incidents unfolded over a 45-minute timeframe resulting in virtual closure of the interstate for approximately two (2) hours. Minor injuries were reported. Winter storms resulting in snow or ice storms on the floor of the Willamette Valley in Lane County have occurred in 1950, 1968, 1969, 1971, 1989, 1993, 1996, 1997, 2001, 2003, 2004, 2005, 2008, 2010, and 2019. These events generally fall into two (2) categories: events of snow and ice at low elevation due to very cold air trapped at the surface, and regional cold air systems. Most events seeing snow and ice on the valley floor are created by cold air trapped at the surface, with warmer, moister air at elevation. These events often occur as rain events at higher elevations.

Like most cities Coburg contains an extensive network of above ground electrical lines vulnerable to damage from falling limbs and trees during winter storms. Recent history of winter storms has been frequent including notable damage and power loss in 2014 and 2015. The February 2014 storm caused a power outage that lasted three (3) days. Wind is often a contributing factor in winter storms. A warming center has been established in Eugene to provide shelter for vulnerable populations in cold weather. Probability is considered high that patterns of previous occurrences will continue. Overall population potentially affected by winter storm is high since impacts are not geographically contained. Transportation and roadways are vulnerable to closure during winter storms, though the city benefits from primarily level terrain. Maximum threat is high however due to threat of structural damage directly related to winter weather (cold, snow, ice), and difficulty in accessing needed public services. See also winter storm hazard profile in Section 2 of Volume I.

### ***Extreme Weather***

Extreme weather is a new natural hazard included in the Lane County MNHMP. Recent occurrences of heat waves in Coburg demonstrate the potential for extreme weather to be a reoccurring and life-threatening hazard. Extreme heat, for example, describes either a singular instance of dangerous temperatures occurring on a given day or a prolonged period of high temperatures over several days, typically if temperatures exceed a heat index of 90 degrees Fahrenheit. Coburg presents increased risk of extreme heat due to its geographic location in the Willamette Valley, where air settles between the Coast and the Cascade ranges and becomes stagnant. In recent years, the valley region experienced temperatures between 90 and 100 degrees. History, probability, vulnerability, and maximum threat are all high due to these factors.

Locally, the city is home to the Coburg Historic District, which is on the U.S. National Register of Historic Places. A significant number of homes and businesses in Coburg are either historic or older and lack adequate or efficient accommodations for an extreme weather event. The city's concern is for residents in homes that cannot withstand either: excessive heat that would make them susceptible to heat stroke and/or excessive cold accompanied with power outages. Along with older homes, there are also two (2) mobile home parks and two (2) RV parks located in Coburg that are also vulnerable during extreme weather events. See Section 2 of Volume I for a detailed history of extreme heat in Lane County as a whole.

### ***Earthquake***

Earthquake is somewhat unique as it occurs much less frequently but has potential for significant damage and disruption. From a geographic standpoint, occurrence would presumably affect the entire city uniformly. History of occurrence dates back over long-time scales, with the most recent (minor) event occurring in Sweet Home, which is 37 miles northeast of Coburg. On October 7th, 2022, a 4.4 magnitude earthquake occurred in Sweet Home. Only a few residents in the Coburg/Eugene area felt shaking and no damage or injuries were reported. Considered at a different scale, a Cascadia Subduction Zone (CSZ) earthquake event is a very large, Pacific Northwest regional event, due to a 600-mile-long subduction zone fault line approximately 70 miles off the Oregon Coast. While the source of this earthquake is quite distant to Coburg, the magnitude and scope of this hazard will impact all of Oregon.

Probability of earthquakes is low in any given year. Vulnerability is complex to assess due to varying standards of construction, but newer construction is considered relatively sound. Maximum threat is expected to involve minor-moderate damage to numerous structures. Importance of resiliency of infrastructure is notable. See also earthquake hazard profile in Section 2 of Volume I.

### **Windstorm**

Like winter storms, windstorms can frequently impact above ground electrical lines vulnerable to damage from falling limbs and trees. For Lane County at large, the two-year interval sustained wind speeds range from about 37 to 47 miles per hour (mph), generally too low to cause significant damages. The 50-year occurrence wind speeds range from 62 to 75 mph. These more damaging windstorms can be expected in intervals averaging a few decades. The windstorm in February 2002 snapped 30 to 40 powerlines, impacting residents and businesses in Coburg.

Probability is considered high that patterns of previous occurrences will continue. Overall vulnerability is considered high; roadways are notably vulnerable to closure, like winter storms due to falling limbs, trees, and snapped powerlines. The Columbus Day storm of 1962 can serve as an example for maximum threat, with winds measured at 86 mph in Eugene and presumably similar in Coburg. A windstorm of similar magnitude to the Columbus Day Storm could potentially damage numerous of homes and businesses in city, either by direct structural damage, falling trees, or wind-blown debris. Due to its location on eastern slope of the Coburg foothills the city may have a slight protective factor from extreme wind as compared to fully exposed areas. See also the windstorm hazard profile in Section 2 of Volume I.

### **Flood**

Flood is a geographically contained hazard and widespread impacts in Coburg are unlikely. Neighborhood flooding issues can be found to the south and southwest of the city, though most of the potentially affected land is primarily used as agricultural land. History of flooding is low and future probability is moderate. Overall vulnerability is high as the floodplain boundary is within the corporate city boundary in the southwest corner of the city. This includes the area of Abby Road where several residential homes have been built. Maximum threat scores are somewhat lower than the assessed vulnerability due to elevation changes moving to the north and west, and the land is currently being used for agricultural purposes with fewer impacts to residents. Coburg Bottom Loop Road is frequently inundated per reports from local police and fire departments. This, and other anecdotal reporting, leads to the conclusion that the current (1999) Flood Maps of the area may be inaccurate and in need of updating. See also the flood hazard profile in Section 2 of Volume I.

### **National Flood Insurance Program**

The City of Coburg is a formal NFIP program participant in good standing and considers continued participation as integral to future flood mitigation efforts. Participation consists of adoption and maintenance of Flood Insurance Rate Maps (FIRMs) which define Special Flood Hazard Areas (SFHAs) and maintenance of an ordinance regulating future development in SFHAs. The Flood Insurance Rate Map Community Number for Coburg is **410119**. Compliance with the program is pursuant to the City of Coburg's floodplain ordinance.

Statistics as reported by FEMA on the NFIP Bureau Net for the period of January 1, 1978, through January 1, 2023, are as follows:

**NFIP Policies in Force**

Policies in Force: **3**  
 Insurance in Force: **\$1,250,000**  
 Premium in Force: **\$2,274**

**Insurance Claim Data**

Total Losses: **3**  
 Closed Losses: **3**  
 Open Losses: **0**  
 CWOP Losses: **0**

**Total Payments: \$7,301**

**Data Definitions**

**Policies in Force** – Policies in force on the "as of" date of the report.

**Insurance in Force** – The coverage amounts for policies in force.

**Premium in Force** – The premium paid for policies in force.

**Total losses** – All losses submitted regardless of the status.

**Closed losses** – Losses that have been paid.

**Open losses** – Losses that have not been paid in full.

**CWOP losses** – Losses that have been closed without payment.

**Total Payments** – Total amount paid on losses.

**Drought**

Drought is neither life threatening nor presents a direct risk to structures but does involve potential for significant disruption if dramatic water shortages were to develop. Drought can exacerbate wildfire risk as related hazards, and a water shortage would likely affect the entire city uniformly. History and probability are considered relatively low. Vulnerability is relatively low as Coburg is close to two (2) major sources of water, the Willamette and McKenzie Rivers, helping to maintain redundancy to its water supply network. Maximum threat is moderate if an event occurred where all water supply systems go were to become inoperable or water supply unexpectedly ran short. See also drought hazard profile in Section 2 of the Volume I.

**Volcano**

Volcano is like earthquake in that it occurs very infrequently. Coburg is situated approximately 60 miles from the closest volcano source, far enough to minimize probable impacts to minor ash-fall across the city if wind patterns allow. History, probability, and vulnerability are relatively low, maximum threat is also considered low. See also volcano hazard profile in Section 2 of Volume I.

**Landslide**

Landslide is considered to have very low history, probability, and vulnerability rankings, as the majority of Coburg is situated on level terrain. Maximum threat is similarly low. Coburg, due to its flat terrain, may be susceptible to liquefaction hazard in the event of an earthquake centered nearby, or more potentially in a CSZ earthquake event. See also landslide hazard profile in Section 2 of Volume I.

**Wildfire**

Coburg is home to the Coburg Fire Department, a member of the Lane County Fire Defense Board. The wildland urban interface (WUI) is not significant in the city due to the fact it is situated in an agricultural farmland use area. Grassfires do occur, and orchards area located near the city. However, these small fires have not been a significant hazard in the past, leading to the very low historical scoring. Probability, vulnerability, and maximum threat are all similarly low. It must be noted however, there is currently no fire suppression east of I-5, east of the city. See also wildfire hazard profile in Section 2 of Volume I.

**New Development in Hazard Areas**

There was significant growth in housing units for the most recent five-year period. Areas on west side of the city are designated as Special Flood Hazard Areas (SFHAs) and development was kept out of these areas. Much of the newest construction is in urbanized areas with adequate drainage and floor elevations to mitigate potential flooding impacts. Recent development is also located away from steep slopes with proper construction techniques to mitigate seismic and landslide factors. For new development the potential for wildfire impacts is relatively low and enforcement of building codes makes major wind impacts a generally negligible concern.

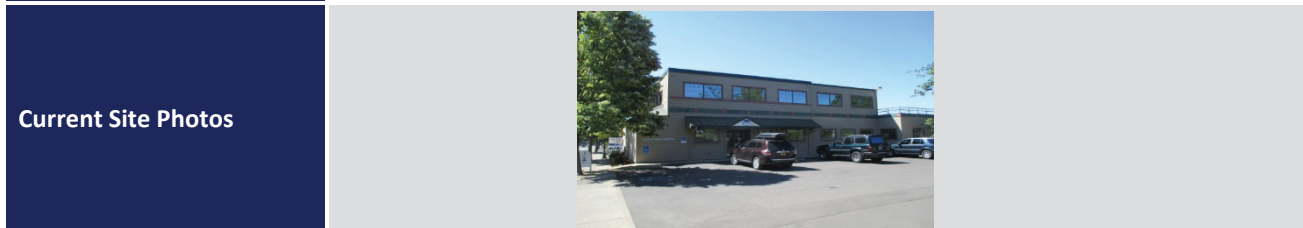
**Section 1.3: Mitigation Action Items**

This section describes mitigation projects identified by Coburg during the planning process. See Section 4 of Volume I for additional information regarding mitigation action item methodology and prioritization.

<b>Mitigation Action Item (a)</b>	<b>Retrofit or replace existing 500,000-gallon water supply tanks for seismic and flood mitigation. Install additional 750,000-gallon elevated reservoir for fire suppression and general resiliency.</b>
<b>Location</b>	TBD
<b>Coordinating Agencies</b>	Coburg Public Works
<b>Implementation Timeframe</b>	18-24 months
<b>Estimated Cost</b>	est. \$10.2 million (Tank Rehabilitation \$2.2 million, 750K Gallon Elevated Reservoir \$8 million)
<b>Potential Funding Sources</b>	HUD-CDBG, OR-SRGP, HMGP, PDM, FEMA PA-106
<b>Hazards Mitigated</b>	Earthquake, Urban Fire
<b>Comments</b>	Seismic rehabilitation – Existing Water Tanks Installation of new elevated reservoir



<b>Mitigation Action Item (b)</b>	<b>City Hall Seismic Assessment</b>
<b>Location</b>	City Hall
<b>Coordinating Agencies</b>	Coburg Public Works, City Council
<b>Implementation Timeframe</b>	12 months
<b>Estimated Cost</b>	\$45,000 - \$75,000
<b>Potential Funding Sources</b>	HUD-CDBG, OR-SRGP, HMGP, PDM, FEMA PA-106
<b>Hazards Mitigated</b>	Earthquake (structural damage prevention)
<b>Comments</b>	Assessment for Seismic rating

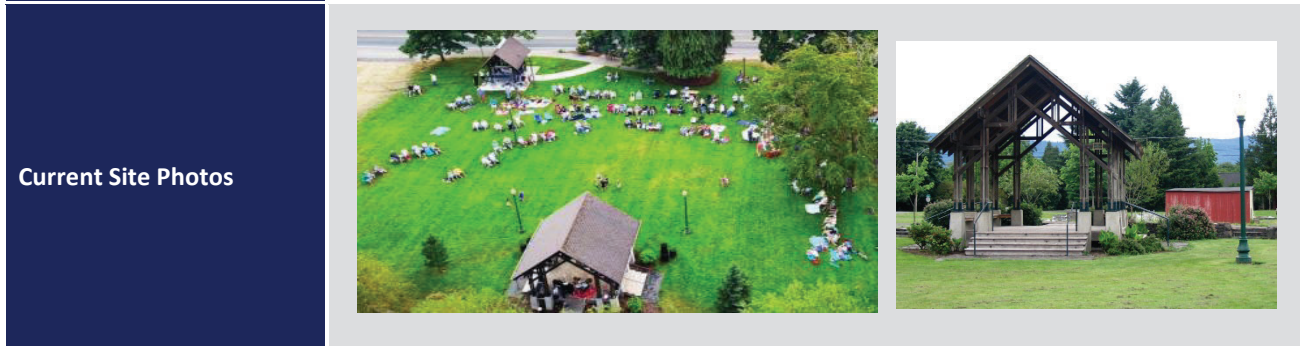


<b>Mitigation Action Item (c)</b>	<b>Enhancements for Community Emergency Center</b>
<b>Location</b>	City Hall
<b>Coordinating Agencies</b>	Coburg Public Works, City Council
<b>Implementation Timeframe</b>	12-18 months
<b>Estimated Cost</b>	\$200,000
<b>Potential Funding Sources</b>	HUD-CDBG, OR-SRGP, HMGP, PDM, FEMA PA-106
<b>Hazards Mitigated</b>	Extreme Weather, Wildfire Smoke (public safety, heating/cooling center, clean air center)
<b>Comments</b>	Upgrade the air handling units and facility to provide a reliable heating/cooling center, clean air center, and shelter during extreme weather events.






<b>Mitigation Action Item (d)</b>	<b>Storm hardening for a community staging area/shelter. City Park upgrades, installation of a restroom to serve as sheltering/staging area in the park.</b>
<b>Location</b>	Coburg City Park (Pavilion Park)
<b>Coordinating Agencies</b>	Coburg Public Works
<b>Implementation Timeframe</b>	12 – 18 Months
<b>Estimated Cost</b>	\$185,000
<b>Potential Funding Sources</b>	HUD-CDBG, OR-SRGP, HMGP, PDM, FEMA PA-106
<b>Hazards Mitigated</b>	Earthquake, Flood, Winter storm, Windstorm, Dam failure, HazMat incident
<b>Comments</b>	Installation of a restroom and providing a staging/shelter area for community.



<b>Mitigation Action Item (e)</b>	<b>Stormwater Master Plan</b>
<b>Location</b>	City of Coburg
<b>Coordinating Agencies</b>	Coburg Public Works
<b>Implementation Timeframe</b>	12 months
<b>Estimated Cost</b>	\$60,000
<b>Potential Funding Sources</b>	FEMA HMA
<b>Hazards Mitigated</b>	Earthquake, Flood, HazMat incident
<b>Comments</b>	Deliberate planning enables funding and project opportunities that will help to check stormwater runoff and treat it before it enters nearby waterways. Promotes innovative land use practices and city programs that over time improve water quality. Planning to



increase the planting of appropriate trees, open spaces, wetlands, and vegetated planters benefits the community through cost-effective practices, increasing property values, and increasing revenues from tourism.

## Section 1.4: Plan Implementation and Maintenance

In keeping with standard practices to ensure incorporation of overall goals and strategies of the Natural Hazard Mitigation Plan, the City of Coburg natural hazard mitigation team members will be invited to participate in future development or existing plan update committees. Additionally, this Natural Hazard Mitigation Plan will be cited as a technical reference for future updates. Planning documents and mechanisms applicable to this process may include the following:

**City of Coburg Comprehensive Plan**

**Capital Improvement Plans**

**Emergency Management Plan**

**City of Coburg Floodplain Development Ordinance**

**Building Code**

**Subdivision Code**

**Erosion Control**

**Stormwater Management Plan**

Additionally, progress to implement this plan will be monitored on an ongoing basis by city staff and administration. The planning process is essential in identifying weaknesses and strengths inherent in the community, and cooperatively enables coordination with various agencies and jurisdictions that might not otherwise occur. Continuing this cooperative and interactive process is exemplified by the planning process. Annual reviews and updates under a 5-year cycle will be pursued. Using these methods, the overarching goal of a stronger, safer, more resilient community can be attained.