

Appendix B: City of Canby

Addendum to the Clackamas County Natural Hazards Mitigation Plan 2012 Amendments and Update

The Oregon Partnership for Disaster Resilience prepared this Appendix to the City of Canby Addendum to the Clackamas County Natural Hazard Mitigation Plan (Canby Addendum) as part of the 2011-12 update to the Clackamas County Natural Hazard Mitigation Plan. Upon local adoption, the appendix will become part of the Canby Addendum and will ensure that the City of Canby maintains FEMA Pre-Disaster Mitigation Program eligibility as well as compliance with the Clackamas County NHMP.

This appendix is organized according to the sections outlined in the Canby Addendum. A description of each section is presented below with proposed changes and updates following each.

Section 1: Planning Process

The planning process section of the Canby Addendum describes the activities used by the steering committee and community to develop the plan. Updates to the Planning Process section are as follows:

On Page 3, following Section 1.2 “2009 Plan Update,” insert the following section:

1.3 2012 Addendum Update

In accordance with the county’s 2012 multi-jurisdictional Natural Hazards Mitigation Plan update process, the City of Canby participated in the update of their 2009 addendum. By doing so, Canby will now be aligned with the county, and will update their NHMP in five years.

2012 Committee members included:

- *Barbara Benson, Canby Utility*
- *Matilda Deas, City of Canby – Development Services, Planning*
- *Shane J Hester, City of Canby – Streets*
- *Jerry Nelzen, City of Canby*
- *Kim Scheafer, City of Canby*
- *Jorge Tro, Canby Police Department*

Planning Process

The RARE Participant and Clackamas County Emergency Management developed and facilitated one plan update meeting with the EMC on June 13, 2012. Please see Appendix A for the meeting agenda and minutes.

NHMP Update Meeting - June 13, 2012: The RARE participant worked with the city lead to convene the steering committee and meet to review and update the city's Natural Hazards Mitigation Plan Addendum. Because the county is in the process of updating their NHMP, each of the cities were required to update their addendums, regardless of when their plan was last updated or developed. As part of this meeting, the steering committee reviewed the county's updated hazard assessment and made necessary changes to their hazard assessment, if necessary. The committee also reviewed their list of community assets to determine if any new additions or changes needed to be made. The committee also reported on progress made to the action items listed in the current NHMP. The committee reviewed the mitigation strategy and plan implementation and maintenance pieces and made changes if necessary.

On Page 8, Paragraph 2 following the "Formal Review Process" subsection, delete the paragraph and replace with the following paragraph:

Semi Annual Meetings

~~*The EMC will meet on a semi annual basis to review, implement and update information in the addendum. During the first meeting, the EMC will:*~~

Annual Meeting

The EMC will meet once a year. The meeting will be coordinated by the convener. This meeting will debrief on the previous hazard seasons and prepare for the upcoming hazard seasons. In addition to debriefing and preparing for the upcoming hazard seasons, the committee will:

On Page 8, first sentence following the first set of bullets under the "Formal Review Process" subsection, delete the following sentence:

~~*During the second meeting of each year, the committee will:*~~

On Page 8, following the set of bullets under the "Formal Review Process" subsection, insert the following paragraph:

The convener, or city lead designee, will be responsible for meeting annually with the county Hazard Mitigation Coordinator. This meeting will provide a chance for each of the city leads to meet together and discuss updates and progress with the Hazard Mitigation Coordinator. The convener will report back to the EMC with information gathered. The Coordinator will be responsible for setting up the meeting, and providing the city leads with updates on new studies or potential funding opportunities for mitigation projects.

On Page 8, delete Paragraph 3 of the "Formal Review Process" subsection, and insert the following:

~~The Canby Police Department will be responsible for organizing, facilitating, and documenting the outcomes of semi-annual meetings.~~

The Canby Police Department will be responsible for organizing, facilitating, and documenting the outcomes of the annual meetings.

On Page 10, delete the following sentence from Paragraph 2 of the “Continued Public Involvement & Participation” subsection:

~~If resources become available, the EMC will create a brochure to advertise and describe the plan to the public.~~

Section 2: Community Profile

The community profile section of the Canby Addendum describes a variety of community characteristics specific to the City of Canby. Given the limited amount of time that has elapsed since the community profile was developed, no changes are required or proposed.

Section 3: Hazard Assessment

The hazard assessment section of the Canby Addendum provides information on identifying hazards based on their geographic location, probability, and intensity; vulnerability assessment and inventory of community assets, and; a risk analysis estimating potential losses from each hazard. Based on new information compiled during the Clackamas County NHMP update process, updates to the Canby Addendum include the following:

On Page 27, list of Critical Facilities under section “Community Assets: Vulnerability Assessment” delete the following bullet and replace with:

- ~~Fire Station 62 (EOC #1)~~
- *Fire Station 62 (EOC #2)*

On Page 27, list of Critical Facilities under section “Community Assets: Vulnerability Assessment” delete the following bullet and replace with:

- ~~City of Canby Public Works Building (EOC #2)~~
- *City of Canby Public Works Building (EOC #3)*

On Page 27, list of Critical Facilities under section “Community Assets: Vulnerability Assessment” delete the following bullet and replace with:

- ~~Canby Police Department~~
- *Canby Police Department (EOC #1)*

On Page 27, list of Critical Facilities under section “Community Assets: Vulnerability Assessment” delete the following bullet and replace with:

- ~~Fire Station 65 (EOC #3)~~

- *Fire Station 65*

On Page 27, list of Critical Facilities under section “Community Assets: Vulnerability Assessment” add the following bullet:

- *Development Services Building*

On Page 27, list of Essential Facilities under section “Community Assets: Vulnerability Assessment” delete the following bullet:

- ~~*Riverside School*~~

On Page 27, list of Essential Facilities under section “Community Assets: Vulnerability Assessment” add the following bullets:

- *Baker Prairie School*
- *Canby Center*
- *St. Patricks Church*

On Page 28, list of Vulnerable Populations under section “Community Assets: Vulnerability Assessment” delete the following bullet and replace with:

- ~~*Willamette Falls Health Center*~~
- *Providence Health Center*

On Page 28, list of Cultural or Historic Assets under section “Community Assets: Vulnerability Assessment” delete the following bullet and replace with:

- ~~*Clackamas County Fairgrounds*~~
- *Clackamas County Event Center*

On Page 28, list of Cultural or Historic Assets under section “Community Assets: Vulnerability Assessment” delete the following bullets:

- ~~*Barlow House*~~
- ~~*Macksburg Church*~~
- ~~*Three Rivers Farm*~~
- ~~*Riverside School*~~

On Page 29, list of Economic Assets/Population Centers under section “Community Assets: Vulnerability Assessment” delete the following bullets:

- ~~*Canby Grove*~~
- ~~*Pat's Acres Race Track*~~

On Page 29, list of Economic Assets/Population Centers under section “Community Assets: Vulnerability Assessment” add the following bullet:

- *Pioneer Pump*

On Page 29, list of Economic Assets/Population Centers under section “Community Assets: Vulnerability Assessment” delete the following bullet and replace with:

- ~~Canby Fairgrounds~~
- Clackamas County Event Center

On Page 29, list of Environmental Assets under section “Community Assets: Vulnerability Assessment” add the following bullet:

- Emerald Park

Section 4: Natural Hazards

The Natural Hazards section of the Canby Addendum describes the types, causes, characteristics and relative risk posed by each individual natural hazard for the city of Canby. Based on new information compiled during the Clackamas County NHMP update process, updates to the Canby Addendum include the following:

On Page 33, delete the last sentence of Paragraph 1 of the “Flood Mitigation Project” section and replace with:

~~Willow Creek Wetlands also assist in reducing flood waters by increasing the infiltration capacity of the soils in the area.~~

Willow Creek wetlands also assist in reducing flood waters by increasing the infiltration capacity of the soils in this area; this has become a public works project area focused on clearing the area weekly.

On Page 34, insert the following sentence at the end of Paragraph 1 of the “Flood Mitigation Action Items” subsection:

The updated action items detailing progress up to 2012 can be found in Appendix B of this plan.

On Page 34, Remove all of the action items following Paragraph 1 of the “Flood Mitigation Action Items” subsection and move them to Appendix B.

On Page 39, insert the following sentence at the end of Paragraph 1 of the “Landslide Mitigation Action Items” subsection:

The updated action item detailing progress up to 2012 can be found in Appendix B of this plan.

On Page 39, Remove the action item following Paragraph 1 of the “Landslide Mitigation Action Items” subsection and move it to Appendix B.

On Page 43, insert the following sentence at the end of Paragraph 1 of the “Wildfire Mitigation Action Items” subsection:

The updated action item detailing progress up to 2012 can be found in Appendix B of this plan.

On Page 43, Remove the action item following Paragraph 1 of the “Wildfire Mitigation Action Items” subsection and move it to Appendix B.

On Page 45, remove the section, “Severe Storms: Wind and Winter” and replace with:

~~***Severe Storms: Wind and Winter***~~

Severe Weather: Wind, Winter, and Extreme Heat

On Page 45, Paragraph 1 of the “Severe Weather: Wind, Winter, and Extreme Heat” subsection, delete the following sentence and insert the following:

~~*Clackamas County Natural Hazards Mitigation Plan adequately describes the location and extent of wind and winter storms.*~~

The Clackamas County Natural Hazards Mitigation Plan adequately describes the location and extent of windstorms, winter storms, and extreme heat events.

On Page 47, after Paragraph 6 of the “Severe Weather: Wind, Winter, and Extreme Heat” subsection, insert the following paragraph:

Extreme heat has a low threat in Canby. The EMC estimates the probability for future extreme heat events is ‘moderate,’ meaning one incident is likely within a 35 to 75 year period. This estimate is lower than the county’s ‘high’ rating. The vulnerability estimate of future extreme heat events is ‘moderate,’ meaning between 1% and 10% of the population and assets would be affected in a major event. This estimate is the same as the county’s ‘moderate’ rating.

On Page 47, remove the section, “Existing Severe Storm Mitigation Activities” and replace with:

~~***Existing Severe Storm Mitigation Activities***~~

Existing Severe Weather Mitigation Activities

On Page 47, insert the following sentence at the end of paragraph 1, “Existing Severe Weather Mitigation Activities”:

A forester is working with Canby Utility to plant proper trees and assisted in removing 5 hazardous trees. The forester works with the street trees and complies with city ordinances.

On Page 47, remove the section, “Severe Storm Mitigation Action Items” and replace with:

~~***Severe Storm Mitigation Action Items***~~

Severe Weather Mitigation Action Items

On Page 47, insert the following sentence at the end of Paragraph 1 of the “Severe Weather Mitigation Action Items” subsection:

The updated action item detailing progress up to 2012 can be found in Appendix B of this plan.

On Page 47, Remove the action item following Paragraph 1 of the “Severe Weather Mitigation Action Items” subsection and move it to Appendix B.

On Page 49, Paragraph 2 of the “Earthquake Hazard Assessment” subsection, delete the last sentence and replace with the following:

~~*This is in agreement with the county’s ‘high’ rating as well.*~~

This is higher than the county’s ‘moderate’ rating.

On Page 51, last sentence of the “Existing Earthquake Mitigation Activities” subsection, delete the following word and replace it with:

~~*Telecom*~~

Telcom

On Page 51, insert the following sentence at the end of Paragraph 1 of the “Earthquake Mitigation Action Items” subsection:

The updated action item detailing progress up to 2012 can be found in Appendix B of this plan.

On Page 51, Remove the action item following Paragraph 1 of the “Earthquake Mitigation Action Items” subsection and move it to Appendix B.

On Page 57, Paragraph 6 of the “Volcanic Eruption Hazard Assessment” subsection, delete the last sentence and replace with:

~~*This is in agreement with the county’s ‘high’ vulnerability rating as well.*~~

This is higher than the county’s ‘moderate’ vulnerability rating.

On Page 58, following the “Volcano” subsection, insert the following new “Drought” subsection:

Drought Profile

The Clackamas County Multi-Jurisdictional Natural Hazards Mitigation Plan adequately describes the causes and characteristics, history, location, extent and impacts of drought affecting the city of Canby. Descriptions of the drought hazard

can be found on pages DR-1 to DR-6 of the 2012 Clackamas County Natural Hazards Mitigation Plan update.

The probability of drought in Canby was determined using scientific data, historical occurrences, and local knowledge. The EMC estimates the probability of drought to be 'moderate' meaning one incident is likely within a 35 to 75 year period. This is in agreement with the county's 'moderate' rating. The EMC estimates that Canby has a 'moderate' vulnerability to drought conditions, meaning between 1% and 10% of the population could be affected in a large-scale regional event. This is higher than the county's 'low' rating.

Drought Mitigation Activities

The existing drought hazard mitigation activities are conducted at the county, regional, state, and federal levels and are described in the Clackamas County Natural Hazards Mitigation Plan. As such, the information will not be repeated here.

Drought Mitigation Action Items

The city of Canby does not believe that implementing drought-related mitigation activities will be cost-effective at this time. As such, the city has not identified drought mitigation action items. Canby will partner with Clackamas County, however, on the implementation of mitigation strategies that benefit both jurisdictions.

On Page 59, Delete the following section at the end of Paragraph 1 of the “Multi-Hazard” section and replace with:

~~Multi-Hazard Action Items (MH)~~

~~*Multi-Hazard action items are those activities that pertain to all seven hazards in the mitigation plan: flood, landslide, wildfire, severe winter storm, windstorm, earthquake, and volcanic eruption.*~~

Multi-Hazards

Multi-Hazard action items are those activities that pertain to all seven hazards in the mitigation plan: flood, landslide, wildfire, severe winter storm, windstorm, extreme heat earthquake, and volcanic eruption. The updated action items detailing progress up to 2012 can be found in Appendix B of this plan.

On Page 59, Remove all of the action items following Paragraph 1 of the “Multi-Hazard Mitigation Action Items” subsection and move them to Appendix B.

Section 5: Mitigation Planning Priority System

The Mitigation Planning Priority Section of the Canby Addendum describes the project review and prioritization process for the action items outlined for each hazard in Appendix B: Action Items Worksheets. Based on new information

compiled during the Clackamas County NHMP update process, updates to the Canby Addendum include the following:

On Page 62, Insert a new section before the current, “5.1 Action Item Prioritization Methodology” to include:

5.1 Action Items

Action items are 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. Full action item descriptions with the 2012 updated progress are located in Appendix B of this addendum. Descriptions include ideas for implementation, and coordinating/partner organizations.

- *MH#1: Update and revise the Canby Emergency Operations Plan*
- *MH#2: Ensure there are adequate shelter facilities in hazard-free zones to serve Canby residents. Identify potential shelter sites and evaluate their relative structural risks/structural deficiencies. Seek funding for upgrades on shelter sites if needed.*
- *MH#3: Develop, enhance, and implement education programs designed to reduce the losses from natural hazards.*
- *MH#4: Integrate the goals and action items from the Canby Natural Hazard Mitigation Plan into existing regulatory documents and programs, where appropriate.*
- *MH#5: Improve the hazard Assessment in the Canby Natural Hazard Mitigation Plan.*
- *MH#6: Identify and pursue funding opportunities to develop and implement hazard mitigation activities.*
- *MH#7: Identify, plan, and establish an alternate potable water source on the Willamette River.*
- *FL#1: Evaluate & upgrade surface water management infrastructure and identify appropriate mitigation strategies.*
- *FL#2: Ensure continued compliance in the National Flood Insurance Program (NFIP) through enforcement of local floodplain management ordinances.*
- *FL#3: Identify mitigation strategies to address flooding issues in the bottom lands.*
- *LS#1: Reduce the vulnerability of property owners in landslide-prone areas.*
- *EQ#1: Conduct seismic evaluations and upgrades on identified critical/essential facilities & infrastructure from implementing appropriate structural and non-structural mitigation strategies.*
- *SS#1: Obtain funding to bury power lines subject to frequent failures to reduce power outages from the windstorm and severe winter storm hazard, where possible.*
- *WF#1: Promote fire-resistant strategies for new and existing developments.*

Note: the City of Canby does not believe that implementing drought and volcanic-related mitigation activities will be cost-effective at this time. As such, the city has not identified drought or volcanic-eruption mitigation action items.