

# Appendix C: City of Molalla

## 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 Molalla Addendum to the Clackamas County Natural Hazard Mitigation Plan (Molalla 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 Molalla Addendum and will ensure that the City of Molalla 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 Molalla 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 Molalla 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 6, following the “Planning Process” subsection, insert the following language:

#### ***2012 Update Planning Process***

*The RARE Participant and Clackamas County Emergency Management developed and facilitated one plan update meeting with the Hazard Mitigation Advisory Committee on May 30, 2012. Please see Appendix A for the meeting agenda and minutes.*

*2012 Committee members included:*

- *Ellen Barnes, City of Molalla, City Manager*
- *Glen Boreth, City of Molalla, Citizen/Molalla Planning Commission*
- *Laura Comstock, Clackamas County Emergency Management/RARE*
- *Rod Lucich, Molalla Police Department, Police Chief*
- *Deborah Rogge, City of Molalla, Council President*
- *Grant Sharp, City of Molalla, Planning*
- *Vince Stafford, Molalla Fire Department, Fire Chief*

*NHMP Update Meeting - May 30, 2012: The 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. This is to ensure that the county and all of the cities are on the same timeline. Now the county and all of the cities will update their NHMP's in 5 years. As part of this meeting, the steering committee reviewed the county's updated hazard assessment and made necessary changes to the city's hazard assessment. The committee also reviewed the list of community assets to determine if any 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 necessary changes.*

On Page 8, first line following "Implementing the Plan" subsection, delete sentence and replace with the following sentence:

~~*After the plan is locally reviewed and deemed complete, the planning director will submit the plan to the state hazard mitigation officer at Oregon Emergency Management.*~~

*After the plan is locally reviewed and deemed complete, the city manager will submit the plan to the state hazard mitigation officer at Oregon Emergency Management.*

On Page 9, first paragraph following the "Coordinating Body" subsection, delete sentence one and replace with the following sentence:

~~*The Planning Commission, in addition to two representatives from the police and fire departments, will serve as the coordinating body for Molalla's Natural Hazards Mitigation Plan Addendum.*~~

*A new committee, the Hazard Mitigation Advisory Committee (HMACH), was formed and delegated to be the coordinating body for the Molalla's Natural Hazards Mitigation Plan Addendum.*

On Page 9, second full paragraph under the "Coordinating Body" subsection, delete sentence one and replace with the following sentence.

~~*To make the coordination and review of the Molalla Addendum as broad and useful as possible, the Planning Commission will engage additional stakeholders and other relevant hazard mitigation organizations and agencies to implement the identified action items.*~~

*To make the coordination and review of the Molalla Addendum as broad and useful as possible, the Hazard Mitigation Advisory Committee will engage additional stakeholders and other relevant hazard mitigation organizations and agencies to implement the identified action items.*

On Page 9, first paragraph following the "Convener" subsection, delete sentence one and replace with the following sentence:

~~*The planning director will serve as the plan's convener.*~~

*Molalla's City Manager will serve as the plan's convener.*

On Page 10, second paragraph following the "Plan Maintenance" subsection, delete the entire paragraph and replace with the following paragraph:

*Semi Annual Meetings*

*The Planning Commission will meet on a semi annual basis to maintain and update the city's natural hazards mitigation plan. Meetings will be held at the first of the year in January, and again in June. The Planning Commission will draw from the following agenda items when developing future meeting topics:*

*Annual Meeting*

*The HMAC 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, possible agenda items may include:*

On Page 10, third bullet under Semi-Annual Meetings subsection, delete the "[continue to]".

On Page 10, sixth bullet under Semi-Annual Meetings subsection, delete the sentence and replace with the following sentence:

*Update the community profile's census data following the 2010 census.*

*Update the community profile with most current population and other demographic data.*

On Page 11, second full paragraph under "Five-Year Plan Update" subsection, delete the second, third and fourth sentences and replace with the following:

*Because this is an addendum to the Clackamas County Natural Hazards Mitigation Plan, the addendum must be updated in conjunction with the county's five year plan update schedule. As such, Molalla must update this addendum by September 2012 (and then again five years thereafter). Sufficient time should be allotted for plan update activities and FEMA review, meaning the city should begin the plan update process by September 2011.*

*As such, Molalla must update this addendum by September 2017. Sufficient time should be allotted for plan update activities and FEMA review, meaning the city should begin the plan update process by September 2016.*

## **Section 2: Community Profile**

The community profile section of the Molalla Addendum describes a variety of community characteristics specific to the City of Molalla. Based on new information compiled during the Clackamas County NHMP update process, updates to the Molalla Addendum include the following:

On Page 16, under section 2.2 Population & Demographics, replace the first paragraph with the following:

*Molalla has remained a small community since it was incorporated in 1913, but over the past twenty years, the city has grown significantly. In 2008, Molalla's population was estimated to be 7,590, an increase of 34.4% since 2000 and 109% since 1990 (see Table 2.1 below). Since 2000, the population of Molalla has increased about 3.7% annually.*

*Molalla has remained a small community since it was incorporated in 1913, but over the past twenty years, the city has grown significantly. In 2010, Molalla's population was estimated to be 8,108, an increase of 41% since 2000 and 120% since 1990 (see Table 2.1 below). Since 2000, the population of Molalla has increased an average of 3.4% annually.*

On Page 16, under section 2.2 Population & Demographics, replace the table with the following table:

**Table 2.1 Population Change from 1970 to 2008**

<b>Year</b>	<b>Molalla</b>	<b>Percent Change</b>	<b>Clackamas County</b>	<b>Percent Change</b>	<b>Oregon</b>	<b>Percent Change</b>
1970			166,088		2,091,533	
1980			241,919	45.7%	2,633,105	25.9%
1990	3,63		278,850	15.3%	2,842,321	7.9%
2000	5,64	55%	338,391	21.4%	3,421,399	20.4%
<b>2008 Estimate</b>	<b>7,590</b>	<b>34.4%</b>	<b>376,660</b>	<b>11.3%</b>	<b>3,791,075</b>	<b>10.8%</b>

**Table 2.1 Population Change from 1970 to 2010**

<b>Year</b>	<b>Molalla</b>	<b>Percent Change</b>	<b>Clackamas County</b>	<b>Percent Change</b>	<b>Oregon</b>	<b>Percent Change</b>
1970	2,005		166,088		2,091,533	
1980	2,992	49%	241,919	46%	2,633,105	26%
1990	3,683	23%	278,850	15%	2,842,337	8%
2000	5,734	56%	338,387	21%	3,421,437	20%
<b>2010 Estimate</b>	<b>8,108</b>	<b>41%</b>	<b>375,992</b>	<b>11%</b>	<b>3,831,074</b>	<b>12%</b>

On Page 16, the last paragraph on the page, replace sentences 5 and 6 with the following:

*In 2000, roughly 11.4% of the population was non white and almost 18.2% were disabled. Additionally, over 10% of the city's population, or 598 people, were 65 years or older (see Table 2.2 below).*

*In 2010, roughly 8.7% of the population was non-white. Additionally, approximately 10% of the city's population, or 797 people were 65 years of age or older (see Table 2.2 below).*

On Page 17, replace Table 2.2 with the following:

<b>Table 2.2 Population by Age, 2000</b>		
<b>Age Range</b>	<b>Total Persons</b>	<b>Percent of Population</b>
Under 5	568	10.1%
5 to 19	1,379	24.4%
20 to 44	2,222	39.3%
45 to 64	880	15.6%
65 and over	598	10.6%
<b>Total 5,64</b>	<b>7</b>	<b>100%</b>

<b>Table 2.2 Population by Age, 2010</b>		
<b>Age Range</b>	<b>Total Persons</b>	<b>Percent of Population</b>
Under 5	782	9.6%
5 to 19	1,924	23.7%
20 to 44	3,019	37.1%
45 to 64	1,586	19.6%
65 and over	797	9.8%
<b>Total</b>	<b>8,108</b>	<b>100%</b>

On Page 17, under section 2.3 Land Use & Development, first full paragraph, replace second to the last line with the following:

*~~Molalla also maintains an Urban Growth Boundary and an Urban Reserve Area.~~*

*Molalla also maintains an Urban Growth Boundary.*

On Page 17, under section 2.3 Land Use & Development, first full paragraph, replace the last line with the following:

*~~Please see the city's zoning map below on page 16.~~*

*Please see the city's zoning map on page 18.*

On Page 17, under section 2.3 Land Use & Development, delete the third paragraph and replace with the following:

*~~The City of Molalla is currently revising its Comprehensive Plan. The plan will outline where growth will occur. In 2009, the city completed residential and employment needs assessments for the years 2027 and 2058. There is a projected land deficit of 552 acres in 2027 and an additional 1,536 acres in 2058. The urban reserve area will need to be expanded to accommodate employment, residential, and~~*

~~school needs to meet projected growth. In total, the urban reserve area will need to encompass about two additional square miles of land. Of the additional land only some will be developable. Recently, the City of Molalla completed a natural features inventory that identified land that is unsuitable for development (i.e., steep slopes, floodplains, wetlands, etc.). The Comprehensive Plan outlines policies that prevent growth from occurring in unsuitable development areas.~~

The City of Molalla currently is revising its Comprehensive Plan. The plan will outline where growth will occur. Recently, the City of Molalla completed a natural features inventory that identified land that is unsuitable for development (i.e., steep slopes, floodplains, wetlands, etc.). The Comprehensive Plan will outline policies that prevent growth from occurring in unsuitable development areas.

Pages 19 and 20 are not included in document. Please renumber accordingly.

On Page 21, section 2.4 Housing, delete the second paragraph and replace with the following:

~~In 2000, Molalla had 2,027 housing units, 1,948 of which were occupied. Of the occupied housing units, 67% (1,306) were owner occupied and 33% (642 units) were renter occupied. Molalla also has a large number of older housing structures that may be vulnerable to earthquakes. Roughly half of all housing units were built before 1980 when more stringent seismic codes were put into place (see Table 2.3 below). Additionally, mobile homes represent 11.8% of Molalla's housing units (see Table 2.4 below).~~

In 2010, Molalla had 2,908 housing units, 2,884 of which were occupied. Of the occupied housing units, 72% (2,077) were owner-occupied and 28% (807 units) were renter-occupied. Molalla also has a large number of older housing structures that may be vulnerable to earthquakes. Roughly one third of all housing units were built before 1980 when more stringent seismic codes were put into place (see Table 2.3 below). Additionally, mobile homes represent 5% of Molalla's housing units (see Table 2.4 below).

On Page 21, under section 2.4 Housing, update tables 2.3 and 2.4 as follows:

**Table 2.3 Age of Housing Structures**

<b>Year Built</b>	<b>Number Structures</b>	<b>Percent of Structures</b>
2005 or later	153	5.3%
2000 to 2004	594	20.4%
1990 to 1999	746	25.7%
1980 to 1989	281	9.7%
1970 to 1979	587	20.2%
1960 to 1969	147	5.1%
1950 to 1959	69	2.4%
1940 to 1959	113	3.9%
1939 and earlier	218	7.5%

Source: US Census, 2010

**Table 2.4 Housing by Type, 2010**

<b>Housing type</b>	<b>Total Structures</b>	<b>Percent of Structures</b>
1-unit, detached	2,142	73.7%
1-unit, attached	-	NA
2 units	138	4.7%
3 or 4 units	128	4.4%
5 to 9 units	285	9.8%
10 to 19 units	28	1.0%
20 or more units	53	1.8%
Mobile home	134	4.6%
Boat, RV, van, etc.	-	NA
<b>Total</b>	<b>2,908</b>	<b>100.0%</b>

Source: US Census 2010

On Page 22, section 2.5 Employment and Economics, update Table 2.5 as follows:

**Table 2.5 City of Molalla Employment by Major Industry, 2010**

<b>Industry</b>	<b>Total Persons</b>	<b>Employed Percent</b>
Manufacturing	516	15.60%
Retail Trade	400	12.10%
Educational Services, health care, Social Services	362	11.00%
Construction	344	10.40%
Professional, scientific, and management, and administrative and waste management services	302	9.20%
Finance and insurance, and real estate and rental and leasing	265	8.00%
Wholesale trade	262	7.90%
Transportation and warehousing and utilities	246	7.50%
Other services, except public administration	221	6.70%
Arts, entertainment, and recreation and accommodation and food services	207	6.30%
Public administration	106	3.20%

<i>Agriculture, forestry, fishing, hunting and mining</i>	56	1.70%
<i>Information</i>	13	0.40%
<b><i>Civilian employed population 16 years and over</i></b>	<b>3,300</b>	<b>100%</b>

Source: US Census, 2010

On Page 22, section 2.5 Employment and Economics, replace the paragraph following Table 2.5 with the following:

~~*The five largest employers in Molalla include: Molalla School District, Floragon Forest Products, Safeway Stores, Scotts Hyponex Corporation, and Northwest Polymers.*~~

*The five largest employers in Molalla include: Molalla School District, Brentwood Industries, Molalla Communications, iMDS, and Northwest Polymers.*

On Page 22, section 2.6 Transportation and Commuting Patterns, replace the last sentence of the last paragraph as follows:

~~*Additionally, Highway 213 connects Molalla to the smaller adjacent unincorporated communities of Liberal and Mulino (north) as well as Marquam and Scotts Mills (south).*~~

*Additionally, Highway 213 connects Molalla to the smaller adjacent unincorporated communities of Liberal and Mulino (north) as well as Marquam and Scotts Mills (south).*

On Page 23, replace the last sentence of the first full paragraph as follows:

~~*The transportation map shown below on page 20 highlights the major transportation networks that run through Molalla.*~~

*The transportation map shown below on page 24 highlights the major transportation networks that run through Molalla.*

On Page 23, insert the following new subsection, “2.7 Community Assets” after subsection “2.6 Transportation and Commuting Patterns.”

### ***2.7 Community Assets***

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

***Critical Facilities & Infrastructure:*** *Those critical facilities and infrastructure necessary for emergency response efforts.*

- *City Hall and Police Department*
- *Molalla Main Fire Station (Station 82)(EOC)*



- *Transportation Networks: Highways 213 and 211*
- *Public Works*
- *Water Distribution/Drainage Infrastructure*
- *Sewage Infrastructure*
- *Bridges*
  - *Wagon Wheel Park Bridge*
  - *Milk Creek Bridge*
  - *Pudding River Bridge*
  - *Bridge over the Molalla River*
  - *Mulino Bridge*
  - *Feyer Park Bridge*
- *Communications Towers*
- *NW Natural Pipelines*
- *Power Substations*
- *Molalla Adult Community Center*
- *Molalla Medical (Urgent Care)*
- *Providence Medical*
- *Sewage Treatment Plant*
- *Hobart Oil*

**Essential Facilities:** *Those facilities and infrastructure that supplement response efforts.*

- *Granges*
  - *Foothills*
  - *Molalla Grange*
  - *South Molalla*
- *Moose Lodge*
- *Safeway*
- *High School Football Field*
- *Molalla Aquatic Center*
- *Molalla Public Library*
- *Molalla Communications Company*
- *Masonic Lodge*
- *Skydive Oregon Airport*
- *Churches*
  - *Molalla Assembly of God*
  - *Saint James Catholic Church*
  - *Molalla Christian Church*
  - *Church of Christ of Latter Day Saints*
  - *South Clackamas Community Church*
  - *Evangelical Church of North America*
  - *Molalla Four Square Church*
  - *Grace Lutheran Church*
  - *United Methodist Church*

- Church of the Nazarene
- Country Church
- Seventh-Day Adventist
- Schools
  - Molalla Elementary School
  - Rural Dell Elementary School
  - Molalla River Middle School
  - Molalla High School
  - Mulino Elementary

**Vulnerable Populations:** Locations serving populations that have special needs or require special consideration.

- Molalla Adult Community Center
- Assisted Living Facilities
  - Evergreen Court
  - Pheasant Pointe
  - Molalla Manor
  - Twin Firs Mobile Home Park
- Molalla Mobile Manor
- Child care centers
  - 24 Hours Child Care/Preschool
  - Early Horizons Preschool Childcare, Inc.
- Schools
  - Molalla Elementary School
  - Rural Dell Elementary School
  - Molalla River Middle School
  - Molalla High School
  - Mulino Elementary
- Plaza Los Robles (Spanish speaking)
- Cole Apartments (Spanish speaking)

**Economic Assets/ Population Centers:** **Economic Centers** are those businesses that employ large numbers of people and provide an economic resource to Molalla. If damaged, the loss of these economic centers could significantly affect economic stability and prosperity. **Population Centers** usually are aligned with economic centers and will be of particular concern for evacuation/notification during a hazard event.

**Economic Centers:**

- Molalla Buckaroo
- Brentwood Corp.
- International Forest Products Limited (Interfor)
- Molalla Redi-Mix
- Northwest Polymers
- Pacer Propane

- RGS Forest Products, Inc.
- IDMS
- Titanic Ice Co
- Molalla Market Center
- Bus Company – First Student
- Valley Dental
- Safeway Shopping Center
- IXL Propane
- Sause Marine Services, Inc.

Population Centers

- Schools
- Molalla School District
- Stone Place Apartments
- Fir Crest
- Big Meadows Subdivision
- Rondel Court
- Toliver Terrace
- Sunrise Acres
- Shalimar Estates
- Lexington Estates

**Environmental Assets:** *Environmental assets are those parks, green spaces, wetlands, and rivers that provide an aesthetic and functional service for the community.*

- Clark Park
- Ivor Davies Trail Park
- Leonard Long Park
- Sally Fox Park
- Billy Sheets Field
- The Molalla BMX Track
- Bohlander Field
- Rosse Posse Acres (Elk Farm)
- High School Sports Complex

**Hazardous Materials:** *Those sites that store, manufacture, or use potentially hazardous materials.*

- Gas Stations
- Pacer Propane
- IXL Propane
- IDMS
- Hobart Oil

- *Molalla Wastewater Treatment Plant*
- *Molalla Aquatic Center*
- *Molalla Water Treatment Plant*

Pages 25 and 26 are not included in document. Please renumber accordingly.

On Page 27, renumber the two remaining subsections under the “Community Profile” section as follows:

~~2.7 *Historic and Cultural Resources*~~

~~2.8 *Existing Plans and Policies*~~

2.8 *Historic and Cultural Resources*

2.9 *Existing Plans and Policies*

On Page 27, section 2.8 Existing Plans and Policies, change the Date of Last Revision of the Comprehensive Plan from “February 2010” to “June 1980”. Add the following sentence “Revisions to the City’s existing Comprehensive Plan are currently underway.”

On Page 28, section addressing Parks and Recreation Master Plan. Delete November 2008 as the Date of Last Revision and replace with “The City of Molalla is currently developing the Parks and Recreation Master Plan.”

## **Section 3: Risk Assessment**

The risk assessment section of the Molalla Addendum describes the types, causes, characteristics and relative risk posed by natural hazards on the City of Molalla. Based on new information compiled during the Clackamas County NHMP update process, updates to the Molalla Addendum include the following:

On Page 31, Paragraph 1 of the “Flood” subsection, delete the last sentence and insert the following:

~~*Potential flood related impacts are adequately described within the county’s plan, and apply to the City of Molalla as well.*~~

*Potential flood related impacts are adequately described within the county’s plan and apply to the City of Molalla as well. One event requires further explanation:*

- *January 2010: unusually heavy rains created flood conditions that resulted in flooded, impassable streets. Storm water surcharged the city’s sewer systems resulting in wastewater backup at several locations.*

On Page 31, section 3.1 Flood, the sixth paragraph beginning with “The Molalla Planning Commission...” ,first sentence, delete “The Molalla Planning Commission” and replace with “The Hazard Mitigation Advisory Committee” and the second sentence, delete “The Planning Commission” and replace with “The Committee”.

On Page 32, Paragraph 7 of the “Flood” subsection, delete #7:

*~~7) The city offers hazard mitigation training once a year for flood, fire, and earthquake. This training is open to the public and advertised through the Molalla Pioneer (newspaper) and email lists.~~*

On Page 32, Paragraph 7 of the “Flood” subsection, replace #8 with the following:

*~~8) Molalla has a Water System Master Plan and Storm Water Master Plan. Neither is available electronically.~~*

*7) Molalla has a Water System Master Plan and Storm Water Master Plan, which can be accessed electronically.*

On Page 33, Following the first sentence of Paragraph 1 “Flood Mitigation Action Items” insert the following:

*The full action item worksheets with updated progress for 2012 Flood Mitigation Action Items are located in Appendix A of this Addendum.*

On Page 33, remove all action items following the first paragraph (these items are provided in the Mitigation Action Items located in Appendix A).

On Page 34, remove all action items (these items are provided in the Mitigation Action Items located in Appendix A).

On Page 35, fourth paragraph, first sentence, delete “The city’s Planning Commission” and replace with “The Hazard Mitigation Advisory Committee (HMAC)” On Page 35, Paragraph 4 of the “Landslide” subsection, delete the last two sentences and replace with:

*~~Additionally, the Planning Commission estimates that the city has a ‘low’ vulnerability to landslides, meaning less than 1% of the population or community assets would be affected by a major landslide event. This is in agreement with the county’s vulnerability estimate.~~*

*Additionally, the HMAC estimates that the city has a ‘high’ vulnerability to landslides, meaning more than 10% of the population or community assets would be affected by a major landslide event. This is higher than the county’s ‘low’ vulnerability estimate.*

On Page 35, subsection Existing Landslide Mitigation Activities, bullet #1, first sentence, insert “proposed” between “The” and “Molalla Comprehensive Plan” ...

On Page 36, Following the “Landslide Mitigation Action Items” subsection, delete the entire paragraph and insert the following:

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

### **Landslide Mitigation Action Items**

The landslide mitigation action items provide direction on specific activities that organizations and residents in Molalla can undertake to reduce risk and prevent loss and damage from landslide events. The full action item worksheets for the 2012 Landslide Mitigation Action Items are located in Appendix A of this Addendum.

On Page 37, section 3.3 Wildfire, third full paragraph, second sentence, update page reference accordingly.

On Page 37, section 3.3 Wildfire, fourth full paragraph, delete the first, second and third sentences and replace as follows:

~~The Molalla Planning Commission estimates a 'moderate' probability that wildfires will occur in the future, meaning one incident is likely to occur within a 35-75 year period. This rating is in agreement with the county's probability estimate. The Planning Commission additionally estimates a 'high' vulnerability to wildfire events, meaning more than 10% of the population or community assets would be affected by a major wildfire event.~~

The Hazard Mitigation Advisory Committee estimates a 'moderate' probability that wildfires will occur in the future, meaning one incident is likely to occur within a 35-75 year period. This rating is in agreement with the county's probability estimate. The HMAC additionally estimates a 'high' vulnerability to wildfire events, meaning more than 10% of the population or community assets would be affected by a major wildfire event.

On Page 38, in paragraph 1 of the "Wildfire Mitigation Action Items" subsection insert the following after sentence 1:

*The full action item worksheets for the 2012 Wildfire Mitigation Action Items are located in Appendix A of this Addendum.*

On Page 38, remove all action items following paragraph 1 (these items are provided in the Mitigation Action Items located in Appendix A).

On Page 41, rename the "Severe Storms: Wind and Winter" subsection, to be:

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

*Severe Storms: Wind, Winter, and Extreme Heat*

On Page 41, third full paragraph, fourth sentence, replace "The Planning Commission" with "The Hazard Mitigation Advisory Committee".

On Page 41, fifth full paragraph, first sentence, replace “The Planning Commission” with “The Hazard Mitigation Advisory Committee”.

On Page 41, after Paragraph 5 of the “Severe Storms: Wind and Winter” subsection, insert the following paragraph:

*Extreme heat has a high threat in Molalla. The HMAC estimates the probability for future extreme heat events is ‘high,’ meaning one incident is likely within a 10 to 35 year period. This estimate is higher than the county’s ‘low’ 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 in accordance with the county’s ‘moderate’ rating.*

On Page 41, subsection Existing Severe Storm Mitigation Activities, bullet #1, delete the first sentence.

~~The city has snowplows and clears arterials first.~~

On Page 42, In paragraph 1 of the “Severe Storm Mitigation Action Items” subsection insert the following sentence after sentence 1:

*The full action item worksheets for the 2012 Severe Storm Mitigation Action Items are located in Appendix A of this Addendum.*

On Page 42, remove all action items following paragraph 1 (these items are provided in the Mitigation Action Items located in Appendix A).

On Page 44, Paragraph 4 of the “Earthquake” subsection, delete the first two sentences and replace with:

~~*The Planning Commission estimates a ‘high’ probability that an earthquake will occur, meaning one event is likely to happen within a 10-35 year period. This is in agreement with the county’s ‘high’ rating as well.*~~

*The HMAC estimates a ‘high’ probability that an earthquake will occur, meaning one event is likely to happen within a 10-35 year period. This is higher than the county’s ‘low’ rating.*

On Page 45, Paragraph 1 of the “Earthquake Mitigation Action Items” subsection, insert the following after the first sentence:

*The full action item worksheets for the 2012 Earthquake Mitigation Action Items are located in Appendix A of this Addendum.*

On Page 54, Paragraph 4 of the “Volcano” section, remove the following sentences and replace with:

~~*Clackamas County estimates a low probability that volcanic eruptions will occur in the future, meaning one event is likely within a 75 to 100 year period, and a high vulnerability to volcanic events, meaning more than 10% of the population or assets would be affected. Both ratings are true for the city of Molalla as well.*~~

*The HMAC estimates a 'low' probability for volcanic eruptions, meaning one event is likely to occur within a 75 to 100 year period. This is in agreement with the county's 'low' rating. Additionally, the HMAC estimates that the city of Molalla has a high vulnerability to volcanic eruptions, meaning more than 10% of the population and property are likely to be affected. This estimate is higher than the county's 'moderate' ranking.*

On Page 43, section 3.5 Earthquake, 6<sup>th</sup> paragraph, first sentence, update page reference accordingly.

On Page 44, first paragraph first sentence, delete "The Planning Commission" and replace with "The Hazard Mitigation Advisory Committee".

On Page 44, second paragraph first sentence, delete "The Planning Commission" and replace with "The Hazard Mitigation Advisory Committee".

On Page 44, subsection Earthquake Mitigation Action Items, add the following sentence after the first sentence.

*The full action item worksheets for the 2012 Severe Storm Mitigation Action Items are located in Appendix A of this Addendum.*

On Page 44, remove all action items following paragraph 2 (the section titled Earthquake Mitigation Action Items). (These items are provided in the Mitigation Action Items located in Appendix A).

On Page 55, Insert the following sentence at the end of the first paragraph of the "Multi-Hazard" subsection:

*The full action item worksheets for the 2012 Multi-Hazard Mitigation Action Items are located in Appendix A of this Addendum.*

On Page 55, remove all of the action items following Paragraph 1 of the "Multi-Hazard" subsection.

On Page 54, 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 Molalla. 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 Molalla was determined using scientific data, historical occurrences, and local knowledge. The HMAC 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 HMAC estimates that Molalla*



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 in 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 Molalla 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. Molalla will partner with Clackamas County, however, on the implementation of mitigation strategies that benefit both jurisdictions.

On Page 55, Delete the following title and renumber the subsection "Multi-Hazard" to be:

~~4.7 Multi-Hazard~~

3.7 Multi-Hazard

## **Section 4: Mitigation Planning Priority System**

The action items section of the Molalla Addendum describes detailed recommendations for activities that local departments, citizens and others could engage in to reduce risk. Based on new information compiled during the Clackamas County NHMP update process, updates to the Molalla Addendum include the following:

On Page 59, for the list of action items under the "Action Items" subsection, add the following bullets under "Multi-Hazard":

- *MH#6: Identify and encourage churches and other facilities to become certified Red Cross shelter sites and maintain a list of disaster shelters located throughout Molalla.*
- *MH#7: Identify and map out evacuation routes for all hazards.*

On Page 59, Delete the list of flood action items under the "Action Items" subsection, and insert the following numbered bullets:

- ~~*Evaluate flooding risk in areas being considered for future growth.*~~
- ~~*Obtain funding for implementing recommendations outlined in the Stormwater Master Plan.*~~
- ~~*Minimize overall impervious cover, and disconnect impervious areas.*~~
- ~~*Continue compliance with the National Flood Insurance Program through the enforcement of local floodplain management ordinances.*~~
- *FL#1: Evaluate flooding risk in areas being considered for future growth.*

- *FL #2: Obtain funding for implementing recommendations outlined in the Storm Water Master Plan.*
- *FL #3: Minimize overall impervious cover, and disconnect impervious areas.*
- *FL#4: Continue compliance with the National Flood Insurance Program through the enforcement of local floodplain management ordinances.*

On Page 59, for the list of action items under the “Action Items” subsection, insert the following bullets under “Flood”:

- *FL#5 Identify and locate a second, accessible water system.*

On Page 60, First paragraph after the bullets of the “Action Items” subsection, delete the first two sentences of the paragraph and replace with the following:

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

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

On Page 61, second paragraph, first sentence, remove “Hazard Mitigation Team (HMT) and replace with Hazard Mitigation Advisory Committee (HMAC).

On Page 61, remove reference to “HMT” and replace with “HMAC”.

Appendices, delete all references to “Lake Oswego” (also showing in the footer on some pages) and replace with “City of Molalla”.

If the Action Items are now identified as Appendix A, then need to rename the appendix for the Planning and Public Process.