

Appendix D:

City of Damascus

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 Damascus Addendum to the Clackamas County Natural Hazard Mitigation Plan (Damascus 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 Damascus Addendum and will ensure that the City of Damascus 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 Damascus 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 Damascus 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, delete paragraph 1 following the “Participants in Planning Process” subsection and replace with:

~~Representatives from the Sandy Emergency Operations Center Group (SEOC) served as steering committee members for the City of Damascus’s natural hazards mitigation planning process.~~

Representatives from the city of Damascus’ Natural Features Topic Specific Team (TST) served as steering committee members for the City of Damascus’s natural hazards mitigation planning process.

On Page 4, following the “Planning Process” subsection, insert the following section:

2012 Update Planning Process

The RARE Participant and Clackamas County Emergency Management developed and facilitated one plan update meeting with the Natural Features Topic Specific Team on June 13, 2012. Please see Appendix B for the meeting agenda and minutes.

2012 Natural Features Steering Committee members included:

- Bruce Adams, Natural Features TST
- John Ferguson, Natural Features TST
- Andrew Jackman, City Councilor
- Barb Ledbury, City Councilor
- Erika Palmer, Damascus Senior Planner

NHMP Update Meeting - June 13, 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, and will now all 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 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 3, delete paragraph 2 of the "Participants in Planning Process" subsection, and insert the following language:

~~The Sandy Emergency Operations Center Group is a standing committee comprised of emergency first responders, CERT and NERT team members, city staff from Damascus and Sandy, and representatives from a number of citizen groups. Additionally, Damascus and Sandy share a number of common stakeholders due to their close proximity to one another. As such, natural hazards mitigation planning meetings for both Damascus and Sandy occurred in tandem via standing SEOC meetings.~~

The Damascus Natural Features Topic Specific Team (TST), or another committee or group to be appointed or convened by the city will oversee the update, implementation, and maintenance of the Natural Hazards Mitigation Plan.

On Page 8, second paragraph following the "Plan Maintenance" subsection, delete the following sentence and replace with:

Semi Annual Meetings

~~The Natural Features TST will meet on a semi-annual basis to complete the following tasks. During the first meeting, the committee will:~~

Annual Meeting

The Natural Features TST or another committee or group appointed or convened by the city 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 “Plan Maintenance” subsection, delete the following sentence:

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

On Page 8, before paragraph 1 following the set of bullets under the “Plan Maintenance” 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 appropriate city designated committee 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, third paragraph following the “Plan Maintenance” subsection, delete the first sentence and replace with the following sentence:

~~*The convener will be responsible for documenting the outcome of the semi-annual meetings.*~~

The convener will be responsible for documenting the outcome of the annual meeting, as well as the meeting with the county’s Hazard Mitigation Coordinator.

Section 2: Community Profile

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

On Page 20, under the “Critical Facilities” subsection, add the following bullets:

- *Clackamas Fire District #1 Station 172nd*
- *Encompass Urgent Care*

On Page 20, under the “Critical Facilities” subsection, delete the following bullet and replace with:

- ~~*Damascus Emergency Operations Center (EOC) located at City Hall*~~
- *Damascus Emergency Operations Center (EOC) located at City Hall**

**Future Location of Damascus’ new EOC will be the Public Works Building*

On Page 21, under the “Critical Infrastructure” subsection, add the following bullets:

- *Hoffmeister Road*

On Page 21, under the Church section of the “Essential Facilities” subsection, add the following bullets:

- Christ the Vine Lutheran Church
- Trinity Church

On Page 21, under the “Economic Assets/Population Centers” subsection, add the following bullets:

- *Nature’s Country Store*
- *Leo Gentry Nursery*

On Page 21, after “Economic Assets/Population Centers” subsection, add the following new section:

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

- *New Park/Open Space on Vogel Road*
- *Trillium Creek Park*
- *Damascus Civic Park*
- *Clackamas River*

On Page 21, following the “Environmental Assets” subsection, add the following new section:

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

- *LKQ Automotive*
- *Cement Factory*

Section 3: Risk Assessment

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

On Page 32, Paragraph 6 of the “Flood” subsection, add the following bullet for flood mitigation actions:

- *Any development must be evaluated by a licensed hydrologist or civil engineer to determine the quantities of increased surface runoff water from the development. Water runoff must be detained or infiltrated on site so that no increase in runoff into drainage ways or onto other properties results from the development as compared to the pre-development state. In addition the detention or infiltration of water is to be evaluated by a license engineering*

geologist, geotechnical engineer, or hydrologist to determine its impact on slope stability.

On Page 32, Last paragraph of the “Flood” subsection, delete the paragraph and replace with the following paragraph:

~~The SEOC estimates that the probability of future flooding events in Damascus is ‘high,’ meaning one event is likely to occur within a 10 to 35 year period. The SEOC additionally estimates that the city’s vulnerability to flooding events is ‘moderate’ meaning 1-10% of the city’s population and/or assets could be affected in a major flood event. Both ratings are in agreement with the county’s probability and vulnerability estimates.~~

The Natural Features Topic Specific Team (TST) estimates the probability of future flooding events in Damascus is ‘high’ meaning one event is likely to occur within a 10 to 35 year period. This estimate is in agreement with the county’s ‘high’ probability ranking. The Natural Features Topic Specific Team (TST) estimates the city’s vulnerability to flooding events is ‘high,’ meaning more than 10% of the city’s population and/or assets could be affected in a major flood event. This is higher than the county’s ‘moderate’ vulnerability ranking.

On Page 33, Paragraph 4 of the “Landslide” subsection, delete the paragraph and replace with the following paragraph:

~~The SEOC estimates the probability of future landslide events is ‘high,’ meaning one event is likely to occur within a 10 to 35 year period. This estimate is in agreement with the county’s ‘high’ probability estimate. The SEOC additionally estimates that Damascus has a ‘moderate’ vulnerability to landslide hazards. A ‘moderate’ ranking means that between 1-10% of the population and/or community assets could be affected by a landslide event. The city’s vulnerability estimate is higher than the county’s ‘low’ vulnerability rating due to potential impacts described below.~~

The Natural Features Topic Specific Team (TST) estimates the probability of future landslide events is ‘high,’ meaning one event is likely to occur within a 10 to 35 year period. This estimate is in agreement with the county’s ‘high’ probability estimate. The Natural Features Topic Specific Team (TST) additionally estimates that Damascus has a ‘high’ vulnerability to landslide hazards. A ‘high’ ranking means that more than 10% of the population and/or community assets could be affected by a landslide event. The city’s vulnerability estimate is higher than the county’s ‘low’ vulnerability rating due to potential impacts described below.

On Page 34, delete the second bullet of Paragraph 9 of the “Landslide” subsection, and insert the following:

~~Before a building permit or other land use approval is issued, the slope conditions should be verified by subsurface exploration. If the slopes are found to be unstable, analysis and mitigation measures should be made in conjunction with a Geotechnical Engineer (GE) using Oregon State Board of Geologist Examiners (OSBGE) guidelines and the Oregon State Board of Examiners for Engineering and Land Surveying (OSBEELS) standards of care for engineering practice. (pg. 18).~~

Before a building permit or other land use approvals is issued, the existing slope conditions and the impacts on slopes from the development should be evaluated by a slope stability study. If slopes are found to be potentially unstable in their existing undeveloped condition or if development might result in slopes becoming unstable, analysis and mitigation measures should be made in conjunction with a Geotechnical Engineer (GE) using Oregon State Board of Geologist Examiners (OSBGE) guidelines and the Oregon State Board of Examiners for Engineering and Land Surveying (OSBEELS) standards of care for engineering practice. (pg. 18).

On Page 35, end of Paragraph 9 of the “Landslide” subsection, add the following bullets:

- *Preliminary geologic assessment prior to development should include more than just a visual evaluation. It should also include a review of available geologic literature, aerial photography and LiDAR mapping where available.*
- *Before a building permit is issued slope conditions are required to be verified by subsurface exploration per the plan. There should also be requirements for laboratory testing of soils and for a slope stability analysis to be performed.*

On Page 36, Paragraph 4 of the “Wildfire” subsection, delete the following paragraph and insert the following:

~~*The SEOC estimates the probability of future wildfire events to be ‘moderate,’ meaning one event is likely within a 35 to 75 year period. This is in agreement with the county’s ‘moderate’ probability rating. The SEOC additionally ranked the city’s vulnerability to wildfires as ‘high,’ meaning more than 10% of the population and community assets would be affected by a major wildfire event. This is higher than the county’s ‘moderate’ rating.*~~

The Natural Features Topic Specific Team (TST) estimates the probability of future wildfire events to be ‘moderate,’ meaning one event is likely within a 35 to 75 year period. This is in agreement with the county’s ‘moderate’ probability rating. The Natural Features Topic Specific Team (TST) additionally ranked the city’s vulnerability to wildfires as ‘high,’ meaning more than 10% of the population and community assets would be affected by a major wildfire event. This is higher than the county’s ‘moderate’ rating.

On Page 37, delete the section title and replace with the following:

~~—— **3.4 Severe Storms: Wind and Winter**~~

3.4 Severe Storms: Wind, Winter, and Extreme Heat

On Page 37, Paragraph 3 of the “Severe Storms: Wind, Winter, and Extreme Heat” subsection, delete the first sentence of the paragraph and replace with the following:

~~*The SEOC estimates that the probability of severe wind and winter storm events is ‘high,’ meaning one event is likely within a 10 to 35 year period.*~~

The Natural Features Topic Specific Team (TST) estimates that the probability of severe wind and winter storm events is 'high,' meaning one event is likely within a 10 to 35 year period.

On Page 37, Paragraph 3 of the “Severe Storms: Wind, Winter, and Extreme Heat” subsection, delete the fourth sentence of the paragraph and replace with the following:

~~*The SEOC estimates a ‘moderate’ vulnerability to wind and winter storms, meaning 1-10% of the population and community assets could be affected by a severe event.*~~

The Natural Features Topic Specific Team (TST) estimates a ‘moderate’ vulnerability to wind and winter storms, meaning 1-10% of the population and community assets could be affected by a severe event.

On Page 38, after Paragraph 3 of the “Severe Storms: Wind, Winter, and Extreme Heat” subsection, insert the following paragraph:

Extreme heat has a very low threat in Damascus. The Natural Features Topic Specific Team (TST) estimates the probability for future extreme heat events is ‘low,’ meaning one incident is likely within a 75 to 100 year period. This estimate is in accordance with 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 agreement with the county’s rating.

On Page 39, Last paragraph of the “Earthquake” subsection, delete the last paragraph and replace with the following:

~~*The SEOC ranks the probability of future earthquake events as ‘high,’ meaning one event is likely within a 10 to 35 year period. This estimate is the same as the country’s ‘high’ probability estimate. The SEOC ranked the vulnerability to earthquakes as ‘high,’ meaning more than 10% of the population and assets would likely be affected in a major event. This is also in agreement with the county’s ‘high’ vulnerability estimate.*~~

The Natural Features Topic Specific Team (TST) ranks the probability of future earthquake events as ‘moderate,’ meaning one event is likely within a 35 to 75 year period. This estimate is the higher than the country’s ‘low’ probability estimate. The Natural Features Topic Specific Team (TST) ranked the vulnerability to earthquakes as ‘high,’ meaning more than 10% of the population and assets would likely be affected in a major event. This is in agreement with the county’s ‘high’ vulnerability estimate.

On Page 41, Paragraph 5 of the “Volcano” section, delete the following sentences, and replace with:

~~*Clackamas County estimates a low probability that volcanic eruptions will occur in the future and a high vulnerability to volcanic events. Both ratings are true for the city of Damascus as well.*~~

The Natural Features Topic Specific Team (TST) estimates that the city of Damascus has a 'low' probability that volcanic eruptions will occur, meaning, one incident is likely within a 75 to 100 year period. This is in agreement with the county's 'low' rating. Additionally, the Natural Features Topic Specific Team (TST) estimates a 'high' vulnerability to volcanic eruptions, meaning more than 10% of the population and infrastructure is likely to be affected. This is higher than the county's 'moderate' rating.

On Page 41, 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 Damascus. 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 Damascus was determined using scientific data, historical occurrences, and local knowledge. The Natural Features Topic Specific Team (TST) 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 Natural Features Topic Specific Team (TST) estimates that Damascus has a 'low' vulnerability to drought conditions, meaning less than 1% of the population could be affected in a large-scale regional event. This is also in agreement with 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 Damascus 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. Damascus will partner with Clackamas County, however, on the implementation of mitigation strategies that benefit both jurisdictions.

Section 4: Action Items

The action items section of the Damascus 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 Damascus Addendum include the following:

On Page 47, Paragraph 1 of the “Action Items” subsection, delete the last sentence of the paragraph and replace with the following:

~~Full action item worksheets are located in Appendix A of this addendum.~~

The full action item worksheets with updated progress for 2012 are located in Appendix A of this addendum.

On Page 43, Paragraph 2 of the “Action Items” subsection, delete the first two sentences of the paragraph and replace with the following:

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

Note: the City of Damascus 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.

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