

**COMMENTS & RESPONSES:
DRAFT 2015 Oregon Natural Hazard Mitigation Plan – Version Posted August 6, 2014**

#	COMMENTER	COMMENT	RESPONSE
1	<p>Matt McRae City of Eugene - City Manager's Office Climate and Energy Analyst (and Project Manager for Eugene/Springfield NHMP update)</p>	<p>Topic: Heat Wave Summary: I encourage DLCD to include Heat Wave as a new natural hazard to mitigate for in this update of the state NHMP Explanation: The Oregon Climate Adaptation Framework identifies as Risk #1 "Increase in average annual air temperatures and likelihood of extreme heat events." The draft NHMP has incorporated every natural hazard mentioned in the OCAF except heat wave. On page 23 of the draft, Heat Wave is specifically called out in the footnote "Heat waves are not identified as a natural hazard in the current natural hazard mitigation plan." I understand that it is not currently considered to be a major concern, however, given that it is projected to be a risk of concern, I don't understand why Heat Wave wouldn't be incorporated into the NHMP update as a hazard to begin planning for, particularly given the fact that some of the actions that could mitigate heat events in urban areas (increasing tree canopy, increasing light-colored roofing and paving) are not especially expensive to achieve but are implemented over a long timeframe and do take several decades to become effective. The 2003 heat wave http://en.wikipedia.org/wiki/2003_European_heat_wave that killed tens of thousands in Western Europe suggests this is a hazard that can strike unexpectedly with extremely severe consequences. Some of the conditions that resulted in a high death toll in Europe mirror conditions in Oregon communities, and include: a) a population inexperienced with extreme heat, b) low rates of air-conditioning, and c) heat waves not considered in hazard planning.</p>	<p>This issue has been raised but not yet resolved. Including a new natural hazard in the Oregon NHMP is a major decision that must be carefully considered and decided by the State Interagency Hazard Mitigation Team (IHMT). The issue cannot be addressed during this update, but is anticipated to be addressed during the next update cycle. The Oregon Health Authority does address heat wave as a public health hazard. http://public.health.oregon.gov/Preparedness/Prepare/Pages/PrepareForExtremeHeat.aspx</p>
2	<p>Matt McRae City of Eugene - City Manager's Office Climate and Energy Analyst (and Project Manager for Eugene/Springfield NHMP update)</p>	<p>Topic: Drought Summary: I encourage DLCD to include climate projections within the description of Drought in the State Risk Assessment and Regional Risk Assessment. Explanation: The discussion of drought that begins on page 47 contains extensive explanation of the history of drought in the state. The section discussing probability of drought (page 55) does not mention the expected increase in frequency of drought due to climate change. While the climate change impact on drought is discussed in the section on climate change, it would be useful to restate the connection within the discussion of Drought specifically, to remind readers that the probability is expected to change.</p>	<p>As you note, climate change and its impact on drought is discussed in the State Risk Assessment's section, <i>Introduction to Climate Change</i> and in each Regional Risk Assessment's <i>Summary</i>, but not in the State and Regional <i>Probability</i> sections. While we are striving to eliminate redundancy in the 2015 Oregon NHMP, we agree that there is value in restating the connection between future climate conditions and drought in the <i>Probability</i> section of the State Risk Assessment and will do so. However, because the most reliable information on climate change to date is at the state level, it would be misleading to include climate change in the regional <i>Probability</i> sections.</p>
3	<p>Matt McRae City of Eugene - City Manager's Office Climate and Energy Analyst (and Project Manager for Eugene/Springfield NHMP update)</p>	<p>Topic: Dust Storms, Flood, Wildfire, Landslides Summary: Similar to Drought, I encourage DLCD to include discussion of climate change impacts on the probability of these hazards within the discussion of probability of each hazard. Explanation: DLCD has taken a huge and important step in including climate change into the state NHMP (starting at pg 17). Thank you. The stand-alone section on climate change is clear and helpful, but I believe the connections and impacts would be better understood if the climate projections for each hazard were integrated and discussed within the description of the history and probability for each hazard (climate change is currently not mentioned at all within these discussions). Doing so will a) remind readers that the probability of these hazards is expected to change, b) call attention to the correlation between climate change and natural hazards for any</p>	<p>Similar to drought, we will restate the connection between future climate conditions and the remaining applicable hazards (those other than earthquake, tsunami, volcano, and windstorm) in the <i>Probability</i> section of the State Risk Assessment. Thank you for recognizing the step forward we have taken by introducing climate change in this NHMP update. We agree that it would be ideal to more fully integrate and discuss climate change within each of the State and Regional Risk Assessments' <i>Hazard</i> sections (including <i>Analysis and Characterization</i>, <i>Historical Events</i>, and <i>Probability</i> subsections) and hope to have the data and resources to do so at the time of the next update.</p>

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		readers who may have (inadvertently?) skipped the climate change discussion at the front, and, c) help to normalize the idea that hazard planning is also climate preparation planning; It will create familiarity with the concepts and remind readers and practitioners that this is just something we plan for now...	
4	Matt McRae City of Eugene - City Manager's Office Climate and Energy Analyst (and Project Manager for Eugene/Springfield NHMP update)	Topic: Climate adaptation vs. climate preparation Summary: I encourage DLCD to adopt the term climate preparation within the discussion of climate change. Explanation: The best term to use is still a bit of a discussion within the climate adaptation/preparation community, but for the most part I see the profession moving to using the term "preparation" as opposed to "adaptation". I believe "preparation" suggests a more proactive approach to the problem. While the state Adaptation Framework clearly sets a precedent for what term to use, I believe the terms are adequately interchangeable now - and I don't think the term preparation will be confusing for readers.	While we understand the reasons for transitioning the term <i>climate adaptation</i> to <i>climate preparation</i> , because the state Climate Change Adaptation Framework and other climate change messaging at the state level is framed and referenced using <i>climate change adaptation</i> , we will continue using <i>adaptation</i> at this time. We will consider moving to <i>preparation</i> for the next Oregon NHMP update.
5	Matt McRae City of Eugene - City Manager's Office Climate and Energy Analyst (and Project Manager for Eugene/Springfield NHMP update)	Topic: Flooding and Dam Safety Summary: I encourage DLCD to separate Flood from Dam Failure within the State Risk Assessment Explanation: These two hazards are VERY different and should be handled and mitigated for in VERY different ways. Including Dam Failure within the Flood Risk description causes confusion. In our experience in Eugene/Springfield, many conflate the two and having them separated within the state NHMP (as they are within local NHMPs) could help reduce confusion.	We agree that dam failure is not a natural hazard. However, it can occur as a result of an earthquake and does cause flooding. FEMA asked that we address it briefly in this draft as a hazard secondary to earthquakes and as a type of flooding.
6	Matt McRae City of Eugene - City Manager's Office Climate and Energy Analyst (and Project Manager for Eugene/Springfield NHMP update)	Topic: Mitigation Action specificity Summary: I encourage DLCD to lead by example by creating mitigation actions that are specific, measurable, achievable, realistic, and time-based Explanation: In my opinion, above all, actions need to be specific, measureable, and have a time-based component (deadline). Making the actions in the state plan meet this standard provides local mitigation planners with the best possible examples. Priority #4 in the state NHMP, for example, "Complete statewide resilience initiatives: Implement measures to improve the reliability of critical services" would benefit from clearer description of "resilience initiatives" and a deadline for completion	In reviewing and editing current mitigation actions and drafting new ones, we have made a concerted effort to meet the SMART (<u>S</u> pecific, <u>M</u> easureable, <u>A</u> chievable, <u>R</u> ealistic, and <u>T</u> ime-oriented) criteria for the "priority" actions. Mitigation actions are still being reviewed and revised, and we intend for the final "priority" actions to meet the SMART criteria. The "ongoing" actions do not have a deadline and therefore will not meet all the SMART criteria.
7	Matt McRae City of Eugene - City Manager's Office Climate and Energy Analyst (and Project Manager for Eugene/Springfield NHMP update)	Topic: Number of mitigation actions Summary: It's hard to know what actions are a priority when there are hundreds of mitigation actions - I encourage DLCD to refine and hone the number of actions Explanation: The draft NHMP has some 250 or 300 mitigation actions (or more? I didn't count them all - I'm estimating based on 100 pages of actions and two to five actions per page). It makes it very difficult to understand where the State's real mitigation priorities lie. Our local NHMP is challenged with the same problem - too many mitigation options and not enough prioritization. I hope the	Our intention was to have fewer mitigation actions than the approximately 150 in the current Oregon NHMP (2012 Plan). However, two primary issues have caused the number of mitigation actions to increase rather than decrease: making them SMART and including ongoing actions. First, to make existing actions SMART, we broke down those that were vague or multi-part into their basic components. This caused some actions to multiply, sometimes as much as 4 to 1. The trade-off for this is that determining when actions are completed will be straightforward. Second, we recognized that many of the state's mitigation actions are ongoing or repetitive

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	NHMP update)	State will lead the way for the rest of us by either reducing the number of actions or providing very clear delineation about the "top 10" versus the "wish list".	<p>programs or activities, and should be identified, but separately from those that are time-oriented. Therefore, we created two mitigation action tables, <i>Priority</i> and <i>Ongoing</i> and again, tried to ensure that each “priority” action is SMART. “Ongoing” actions cannot meet all the SMART criteria because they do not have a deadline. A third table, <i>Removed</i>, was established for actions that are completed or will not be completed for various reasons. Each table is currently about 30 pages to accommodate all required information. The trade-off for this is a meaningful degree of transparency.</p> <p>The mitigation actions on the <i>Priority</i> table have been scored and ranked according to the STAPLEE criteria (<u>S</u>ocial, <u>T</u>echnical, <u>A</u>ministrative, <u>P</u>olitical, <u>L</u>egal, <u>E</u>conomic, and <u>E</u>nvironmental) suggested by FEMA and the federal statutory criteria (technically feasible, environmentally sound, and cost-effective) as well as other factors. They are numbered in priority order according to their ranking. The February 2015 Draft Oregon NHMP has 78 Priority and 71 Ongoing mitigation actions, for a total of 149, similar to the 2012 Plan.</p>