YAMHILL COUNTY NATURAL HAZARD MITIGATION PLAN UPDATE

Brian Young
Yamhill County Emergency Manager

August 28, 2019
Background

The Federal Emergency Management Agency (FEMA) requires that counties and cities update their NHMP every five (5) years to be eligible for Hazard Mitigation Assistance funds (44 CFR 201). Yamhill County last updated its FEMA compliant Natural Hazard Mitigation Plan on November 5 of 2014, and thus must have a FEMA compliant NHMP approved by FEMA and adopted locally by November 4 of 2019 to remain eligible for Hazard Mitigation Assistance funding. Having an updated NHMP will allow Yamhill County to continue its efforts to reduce risks to hazards through proactive mitigation planning, projects and policy.
Project

The purpose of this project is to:
(1) update the existing Yamhill County NHMP,
(2) improve the risk assessment section through updating the county and city hazards and vulnerabilities,
(3) streamline the plan for better usability where possible. When implemented, the benefits of an updated NHMP include reduced loss of life and property and decreased long-term economic losses due to reduced recovery and reconstruction costs.

By updating the NHMP, Yamhill County will not only remain eligible for FEMA Hazard Mitigation Assistance funds but will also be a more secure place for industry, citizens, business, and beyond through focused attention on local mitigation actions and investments.
Partnerships

One of the most important aspects of creating a countywide Natural Hazards Mitigation Update is receiving and interpreting data from the local municipalities to accurately represent the unique needs and intricacies of each city. The 2019 Yamhill County NHMP will work closely with the cities to address vulnerable populations, critical communities, public health, geologic risks, climate-specific challenges, critical facilities, and other highly vulnerable entities. This will be an ongoing effort throughout the NHMP update process that will involve multiple community workshops, outreach efforts, and city-specific data analysis.

Participating Cities from 2014:
Amity, Dayton, Dundee, Lafayette, Newberg, Sheridan, Willamina, & Yamhill

Cities invited to participate in this update:
McMinnville and Carlton

Special districts invited to participate:
Fire Districts, Soil and Water Conservation Districts, Sewer and Water Districts, utilities
Planning

NATURAL HAZARDS
# HVA: 2017 - Rank Order

<table>
<thead>
<tr>
<th>Threat Event / Hazard</th>
<th>Yamhill County</th>
<th>OEM Threat Analysis</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>HAZARD RISK ASSESSMENT MODEL</td>
<td>History</td>
</tr>
<tr>
<td></td>
<td>Severity</td>
<td>Weight Factor</td>
</tr>
<tr>
<td>Earthquake - Cascadia (3-5min)</td>
<td>9</td>
<td>2</td>
</tr>
<tr>
<td>Flood - Riverine</td>
<td>9</td>
<td>2</td>
</tr>
<tr>
<td>Winter Storm</td>
<td>9</td>
<td>2</td>
</tr>
<tr>
<td>Windstorm</td>
<td>9</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Drought</td>
<td>4</td>
<td>2</td>
</tr>
<tr>
<td>Earthquake - Crustal (1 min)</td>
<td>4</td>
<td>2</td>
</tr>
<tr>
<td>Landslide/Debris Flow</td>
<td>8</td>
<td>2</td>
</tr>
<tr>
<td>Wildfire</td>
<td>4</td>
<td>2</td>
</tr>
<tr>
<td>Volcano</td>
<td>2</td>
<td>0</td>
</tr>
</tbody>
</table>
Planning

DROUGHT
2017 Hazard Analysis
Probability: Moderate (2019: High)
Vulnerability: Moderate
Drought Declared 1992 – All State

EARTHQUAKE
2017 Hazard Analysis
- Cascadia Subduction Zone
  Probability: High (2019 Moderate)
  Vulnerability: High
- Crustal
  Probability: Moderate
  Vulnerability: Low (Moderate)

FLOOD
2017 Hazard Analysis
Probability: High
Vulnerability: High
FEMA FIRM: March 2, 2010

LANDSLIDE
2017 Hazard Analysis
Probability: High
Vulnerability: Low

VOLCANO
2017 Hazard Analysis
Probability: (Low)
Vulnerability: (Moderate)

WILDFIRE
2017 Hazard Analysis
Probability: Moderate
Vulnerability: Moderate

WINDSTORM
2017 Hazard Analysis
Probability: High
Vulnerability: Moderate

WINTER STORM
2017 Hazard Analysis
Probability: High
Vulnerability: High
Planning

Understanding Risk

Natural Hazard
- Potential Catastrophic and Chronic Physical Events
  - Past Recurrence Intervals
  - Future Probability
  - Speed of Onset
  - Magnitude
  - Duration
  - Spatial Extent

Vulnerable System
- Exposure, Sensitivity and Resilience of:
  - Population
  - Economic Generation
  - Built Environment
  - Academic and Research Functions
  - Cultural Assets
  - Infrastructure

Risk of Disaster
- Ability, Resources and Willingness to:
  - Mitigate
  - Respond
  - Prepare
  - Recover

Source: USGS- Oregon Partnership for Disaster Resilience Research Collaboration, 2006
Planning

MITIGATION

- Hazard Mitigation Planning: Act Before Disaster Strikes
- Mitigation: any sustained action taken to reduce or eliminate long-term risk to life and property from a hazard event
- Strategies: Policy Changes, Education and Outreach, Capital Projects
Planning

RISK REDUCTION & MITIGATION PAYS!

2018 Report Findings:
- A dollar spent on mitigation saves society an average of $6.00
- Mitigation is sufficiently cost-effective to warrant federal funding on an ongoing basis both before disasters and during post-disaster recovery
Planning

**MITIGATION PLANNING OPPORTUNITIES**

- Awareness of risks, sensitivities, and vulnerabilities
- Reduce hazard impact
- Save lives, property and money
- New community partnerships
- Create more resilient communities
- Mitigation becomes a part of ordinary government business
- Support rapid recovery
- Receive federal funding
STEP 1: COMMUNITY PROFILE UPDATE

- Local geography
- Climate
- Population characteristics
  - Vulnerable
- Employment
- Economics
- Housing
- Transportation
- Infrastructure
- Cultural resources
- Government structure
Planning

STEP 2: NATURAL HAZARDS PROFILE

- Update hazard history
- Review hazard profiles
- Update hazard maps
- Hazard ID Plan Update Requirements
- Description of the hazard
- ID the location
- ID extent of hazard
- Provide information on previous occurrences and probability of future occurrences
Planning

STEP 3: RISK ASSESSMENT

- Risk Assessment: Identifies natural hazards and the community’s vulnerability to inform the mitigation strategy

- Natural Hazards Profile
- Community Profile

Risk Assessment

- Policy Crosswalk
- Action Items

Natural Hazards Mitigation Plan

Multi-jurisdictional Risk Assessment - §201.6(c)(2) (iii): For multi-jurisdictional plans, the risk assessment must assess each jurisdiction’s risks where they vary from the risks facing the entire planning area.
Planning

STEP 4: POLICY CROSSWALK

- Identifies elements of existing plans and policies that may support mitigation strategies
- Example plans:
  - Comprehensive plan
  - Capital improvement plan
  - Community wildfire protection plan
  - Parks and open space plan
  - Floodplain ordinances
  - Emergency operations plan
  - Stormwater mgmt plan
STEP 5: MITIGATION STRATEGY

- Community guide to address vulnerabilities and risks
- Action items

Multi-jurisdictional Mitigation Strategy - §201.6(c)(3) (iv): For multi-jurisdictional plans, there must be identifiable action items specific to the jurisdiction requesting FEMA approval or credit of the plan.
Planning

STEP 6: UPDATED NHMP

Multi-jurisdictional Participation - §201.6(a)(3) Multi-jurisdictional plans (e.g., watershed plans) may be accepted, as appropriate, as long as each jurisdiction has participated in the process.

Multi-jurisdictional Plan Adoption - §201.6(c)(5) For multi-jurisdictional plans, each jurisdiction requesting approval of the plan must document that it has been formally adopted.
Planning

NHMP CONTENTS

- Volume I – Basic Plan
  - Section 1: Introduction
  - Section 2: Risk Assessment
    - Hazard Annexes
  - Section 3: Mitigation Strategies
  - Section 4: Implementation and Maintenance
- Volume II – City Addenda
- Volume III - Appendices
PLAN MISSION AND GOALS

“To promote public policy and mitigation activities which will enhance the safety to life and property from natural hazards.”

Goals:
- Emergency Operations
- Education and Outreach
- Partnership
- Preventive
- Natural Resource Utilization
- Implementation
- Development
- Documentation
## Public Outreach

### Who is involved?
- Planning Team
- Stakeholders
- Public

### Activities:
- Community Events
- Interviews
- News Media
- Presentations to
- Governing bodies
- Questionnaires or
- Surveys
- Roundtables or Forums
- Social Media
- Websites

**What has worked in your community in the past?**
Public Outreach

Community Survey:
- Live for 3-weeks
- Distributed via social media


Thank you for taking the time to complete this survey! The Oregon Partnership for Disaster Resilience at the University of Oregon is working with community leaders in Yamhill County to update their Natural Hazard Mitigation Plan (NHMP).

Natural Hazard Mitigation plans outline community risk to natural hazards and potential actions that can reduce risks to people, property, and the local economy BEFORE the next hazard event (e.g., wildfire, winter storm, flood, earthquake, etc.) strikes.

To review the existing Yamhill County NHMP please click here.

We estimate that this survey should take about 10-15 minutes to complete.

Data from this survey directly informs the natural hazard planning process. Communities in Yamhill County can use this survey data to enhance action item rationale and ideas for implementation. This survey also provides Yamhill County and Cities with a better understanding of desired outreach strategies (sources and formats), a baseline understanding of what people have done to prepare for natural hazards, and desired individual and community strategies for risk reduction.

If you have questions regarding this survey, please click here to contact Michael Howard, with the University of Oregon’s Partnership for Disaster Resilience.

Your responses will remain anonymous and will not be linked to any personal information.
Timeline

• Kick-off Meeting July 17, 2019
• Vulnerability Assessment and Action Item Update – August 21, 2019
• Action Prioritization and Implementation and Maintenance – September 23, 2019
• Draft Plan for Public Review – End of September/early October
• Final Plan Submitted to FEMA for Review – Mid- to late October/November
Questions

Contact:
Brian Young
Yamhill County Emergency Manager
535 NE 5th St
McMinnville OR 97128
503-474-6300 (Office)
971-901-2068 (Cell)