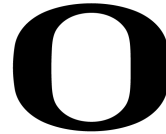




2023 Polk County Natural Hazard Mitigation Plan Update Meeting #2

Wednesday, May 10, 2023

Welcome!



UNIVERSITY OF
OREGON

Institute for Policy
Research and Engagement



Meeting #2 Goals & Objectives

- ▷ Share future climate projections for Polk County
- ▷ Consider climate projections in the context of the types of natural hazards in the plan
- ▷ Discuss vulnerable populations to account for in the plan
- ▷ Give a brief overview of Community Lifelines

Agenda

- ▷ **Introductions**
- ▷ Future Climate Projects Presentation
- ▷ Project Progress
- ▷ Natural Hazards in Plan
- ▷ Vulnerable Populations
- ▷ Community Lifelines
- ▷ Wrap Up & Next Steps



Introductions

1) Name → 2) Organization

Next Up

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Erica Fleishman

Director of the Oregon Climate
Change Research Institute and
Professor, Oregon State University

Next Up

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Project Progress

- ▶ New project available at:
<https://www.polkconhmp2023.com/>
- ▶ Thanks for filling out surveys, Polk County, Independence, and Monmouth!
 - ▶ Dallas and Falls City, please fill out surveys at:
 - ▶ tinyurl.com/PolkNHMPActions (or submit spreadsheet/Council agenda item with this info)
 - ▶ tinyurl.com/PolkNHMPSurvey

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Hazard Vulnerability Assessment (2017)

Hazard	History	Probability	Vulnerability	Maximum Threat	Total Threat Score	Hazard Rank	
Windstorm	20	70	40	100	230	# 1	<i>Top Tier</i>
Winter Storm	20	70	40	100	230	# 1	
Flood - Riverine	20	70	25	50	165	#3	<i>Middle Tier</i>
Earthquake - Cascadia	2	35	25	100	162	#4	
Earthquake - Crustal	2	35	25	100	162	#4	
Drought	10	35	25	90	160	#6	
Wildfire (WUI)	10	35	25	50	120	#7	<i>Bottom Tier</i>
Landslide	8	70	5	10	93	#8	
Volcano	2	7	25	50	84	#9	

OEM Methodology

- ▶ **HISTORY** is the record of previous occurrences.
 - LOW = Zero to One event past 100 years (1 to 3 points)
 - MODERATE = Two to Three events in past 100 years (4 to 7 points)
 - HIGH = Four or more events in past 100 years (8 to 10 points)
 - Weight Factor: x2

- ▶ **PROBABILITY** is the likelihood of future occurrences within a specified period of time.
 - LOW = one incident likely within 75 to 100 years scores (1 to 3 points)
 - MODERATE = one incident likely within 35 to 75 years scores (4 to 7 points)
 - HIGH = one incident likely within 10 to 35 years scores (8 to 10 points)
 - Weight Factor: x5

OEM Methodology (cont'd)

- ▶ **VULNERABILITY** is the percentage of population and property likely to be affected under an “average” occurrence of the hazard.
 - LOW = less than 1% affected (1 to 3 points)
 - MODERATE = between 1 and 10% affected (4 to 7 points)
 - HIGH = more than 10% affected (8 to 10 points)
 - Weight Factor: x10

- ▶ **MAXIMUM THREAT** is the highest percentage of population and property that could be impacted by the worst-case scenario.
 - LOW = Less than 5% affected (1 to 3 points)
 - MODERATE = 5 to 25% affected (4 to 7 points)
 - HIGH = more than 25% affected (8 to 10 points)
 - Weight Factor: x7

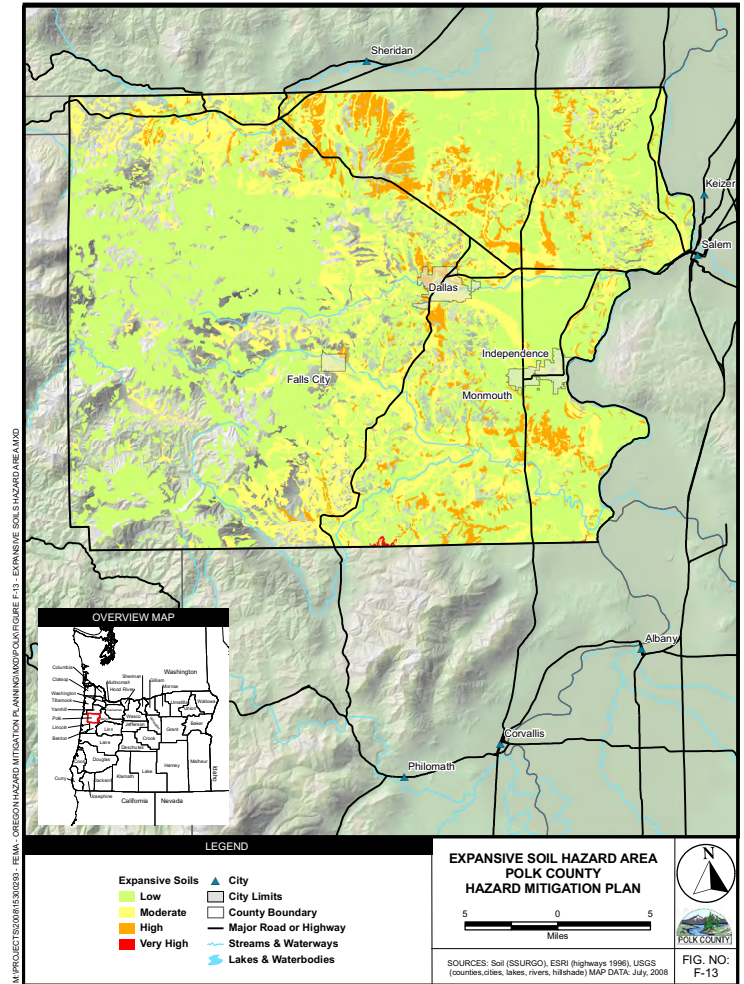
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*Extreme Heat will be added in 2023 NHMP

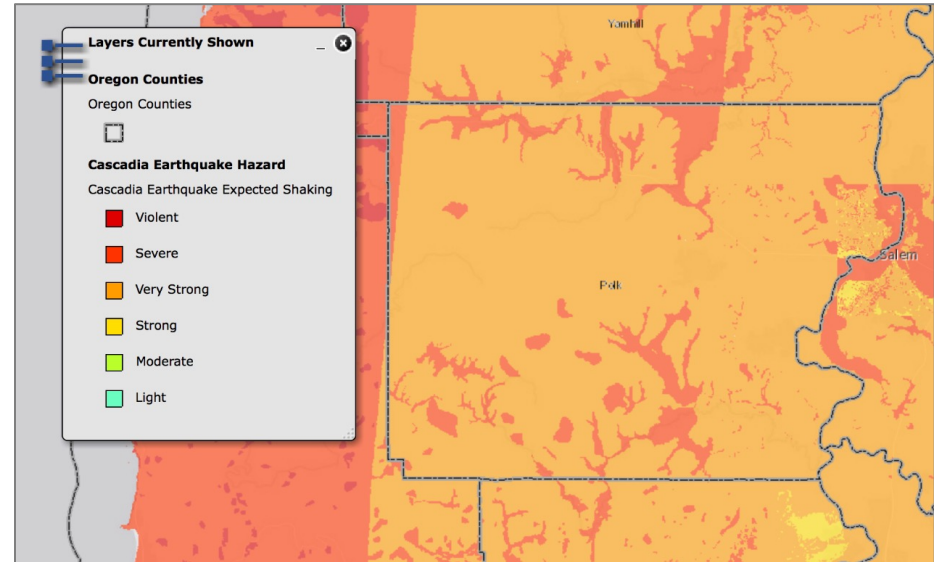
Drought

- ▷ Worse in El Niño, shrink-swell may harm roads and other infrastructure
- ▷ Disaster declarations since last plan: 0
- ▷ 2017 Plan
 - Probability: Moderate
 - Vulnerability: Moderate
 - Ranked 6th of 9 hazards



Earthquake

- ▶ 2 types: crustal and Cascadia
- ▶ 37% chance of Cascadia quake in the next 50 years
- ▶ Disaster declarations since last plan: 0
- ▶ 2017 Plan
 - Probability: Moderate
 - Vulnerability: Moderate
 - Ranked 4th of 9 hazards



Extreme Heat

- ▷ Definitions differ
 - Ready.gov: a period of high heat and humidity with temperatures above 90° for at least 2-3 days
 - Oregon OSHA: Heat index > 80°
- ▷ Disaster declarations since last plan: 2
(Summer 2021, Summer 2022)
- ▷ New to 2023 Plan

Flood

▷ Most risk:

Rivers: Willamette, Luckiamute, Little Luckiamute, and Yamhill

Creeks: North and South Ash, Berry, Gold, Gooseneck, Maxfield, Mill, Pedee, Rickreall, Ritner, Rowell, Salt, Soap, and Teal creeks

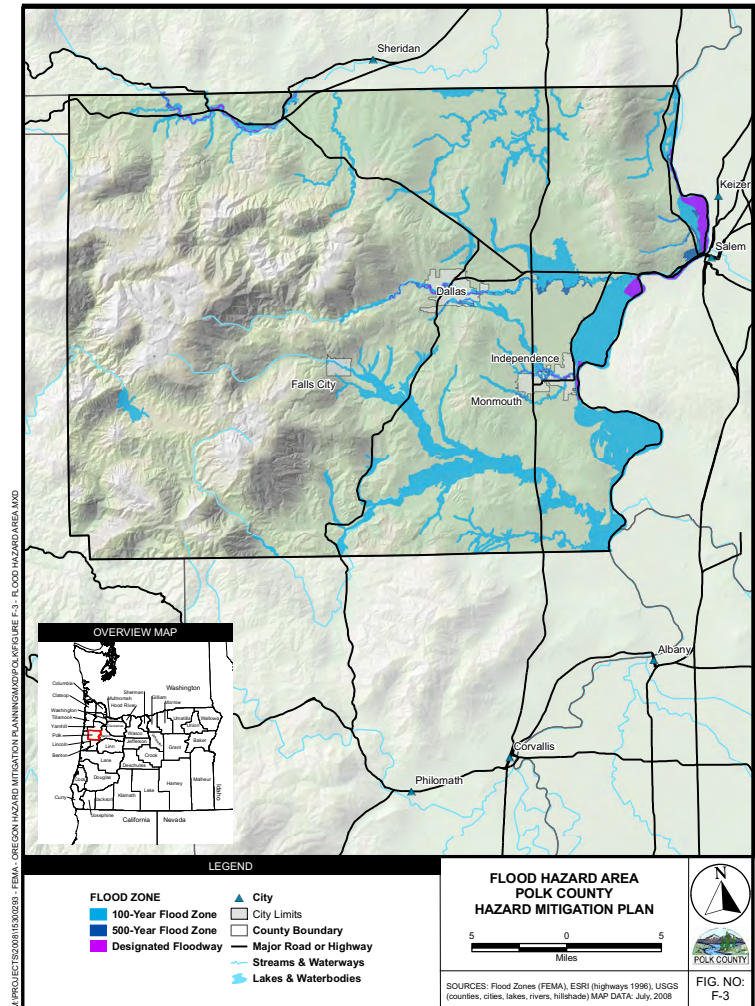
▷ Disaster declarations since last plan: 0

▷ 2017 Plan

Probability: High

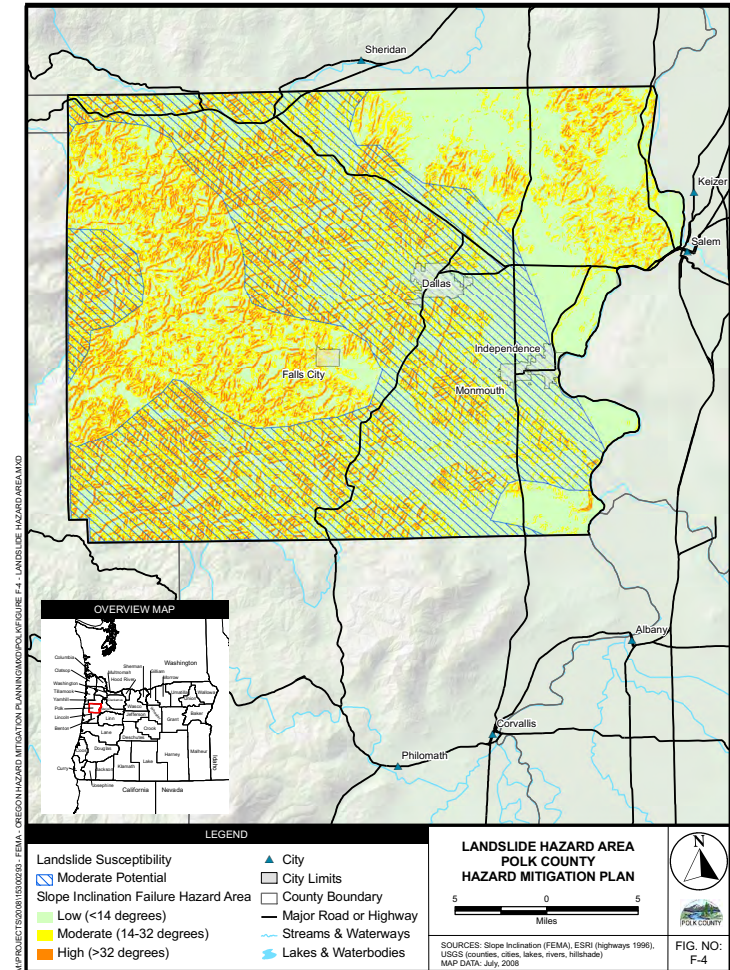
Vulnerability: Moderate

Ranked 3rd of 9 hazards



Landslide

- ▶ Higher probability to the county's west, but still potential for infrastructure damage
- ▶ Disaster declarations since last plan: 0
- ▶ 2017 Plan
 - Probability: High
 - Vulnerability: Low
 - Ranked 8th of 9 hazards



Volcano

- ▷ Potential:

Mount Jefferson, Mount Hood and Mount Saint Helens, Three Sisters, Mount Bachelor, and the Newberry Crater areas

- ▷ Ashfall would be biggest threat

- ▷ Disaster declarations since last plan: 0

- ▷ 2017 Plan

 - Probability: Low

 - Vulnerability: Moderate

 - Ranked 9th of 9 hazards

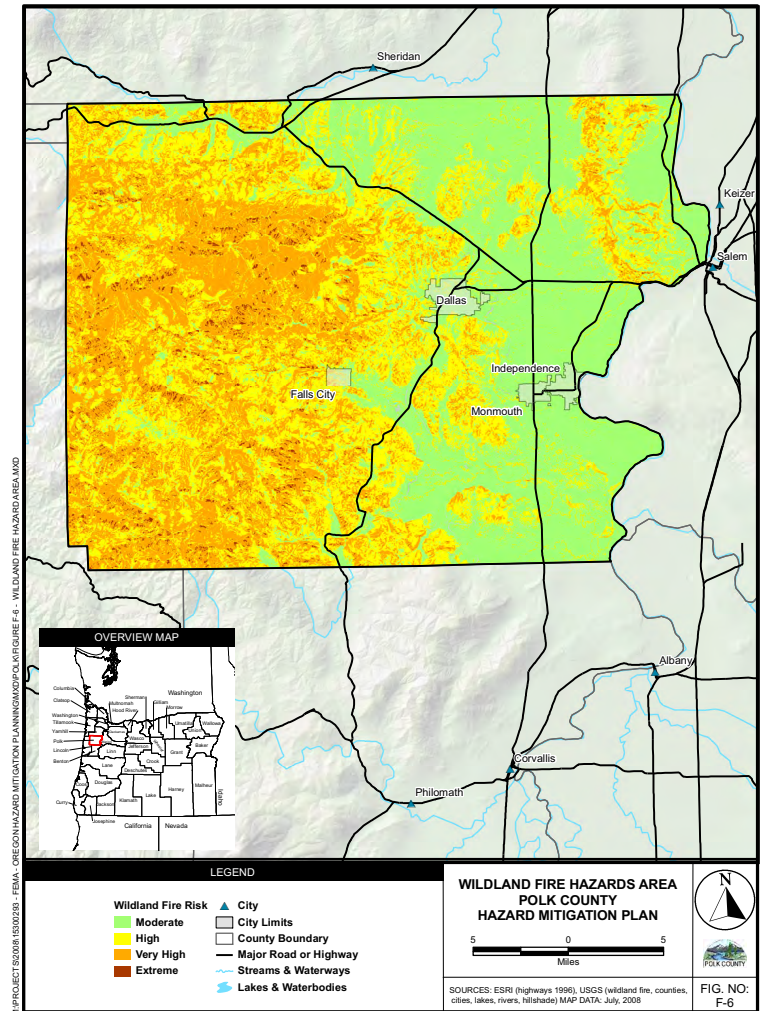
Wildfire

- ▷ Disaster declarations since last plan: 0

Wildfire threat declarations:
Summer-Fall 2021

Late Summer-Fall 2022

- ▷ 2017 Plan
Probability: Moderate
Vulnerability: Moderate
Ranked 7th of 9 hazards



Windstorm

- ▷ Short duration event involving straight-line winds and/or gusts in >50 mph
- ▷ Disaster declarations since last plan: 0
- ▷ 2017 Plan
 - Probability: High
 - Vulnerability: High
 - Ranked 1st of 9 hazards (tied with winter storm)

Winter Storm

- ▷ Concerns: high winds, rain, snow, and ice

- ▷ Disaster declarations since last plan: 3

February 2021 (federally declared)

Late December 2021-January 2022

Late December 2022-January 2023

- ▷ 2017 Plan

 - Probability: High

 - Vulnerability: High

 - Ranked 1st of 9 hazards (tied with windstorm)

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Vulnerable populations often include:

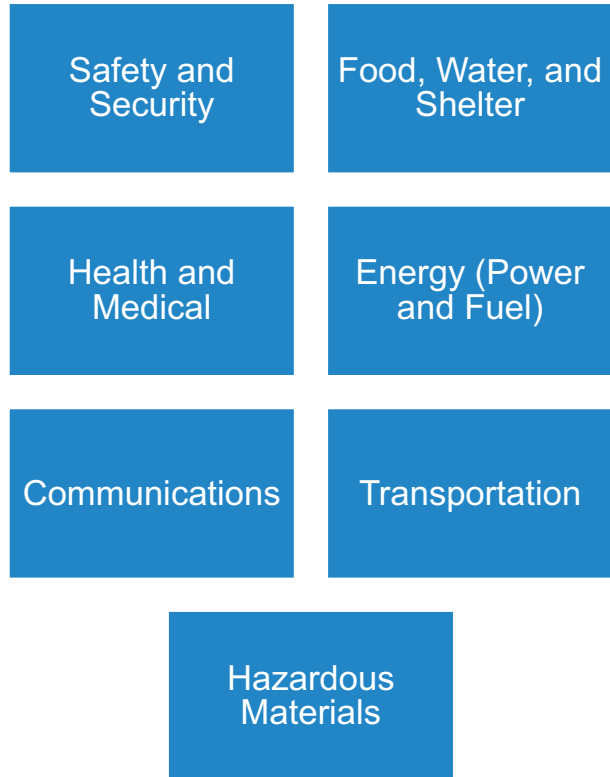
- ▷ Low-income residents, senior citizens, farmworkers, parents and caretakers, unhoused populations, mobile home residents, and speakers of languages other than English
- ▷ What other social vulnerabilities should we plan for in Polk County?

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Community Lifelines



- ▷ FEMA: “A community lifeline enables the continuous operation of critical business and government functions and is essential to human health and safety or economic security.”
- ▷ We’ll discuss these more, especially in our meetings with each jurisdiction

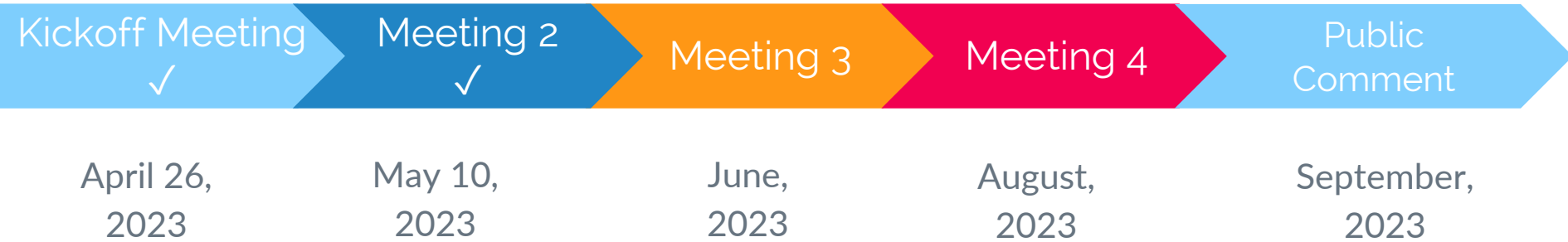
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First

Update Phase



Second

Review Phase



*OEM and FEMA Reviews can take up to 45 days but may be shorter (especially for OEM's review).

Thanks!

Any questions?

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Credits

Special thanks to:

- ▶ [SlidesCarnival](#) for the presentation template
- ▶ Gary Halvorson, Oregon State Archives, for the Polk County photographs