



Regional NHMP Analysis

Regional Facts

Total Population

2.4 Million

2018 ACS Estimate

Land Area

4,419 mi²

GIS derived

Urban

70% > 10%

Population

Land Area

Rural

30% > 90%

Population

Land Area

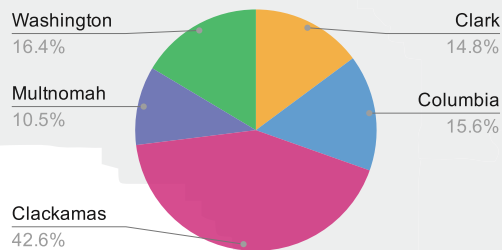
Density

3,732/mi²

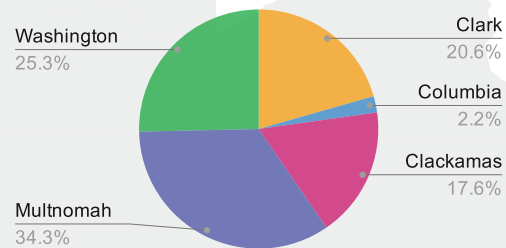
Density

174/mi²

Land Area by County

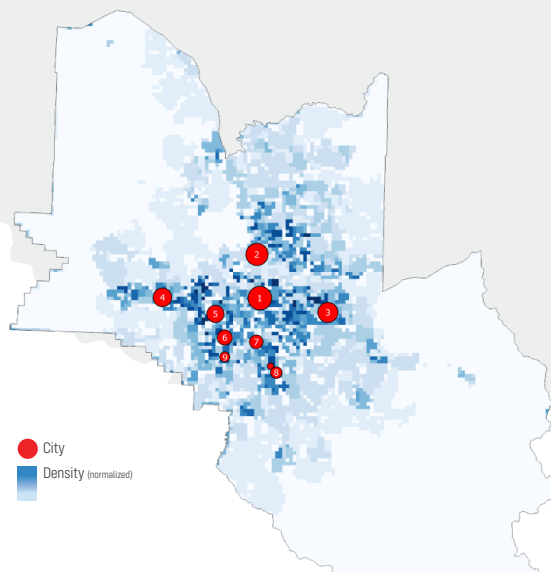


Population % by County



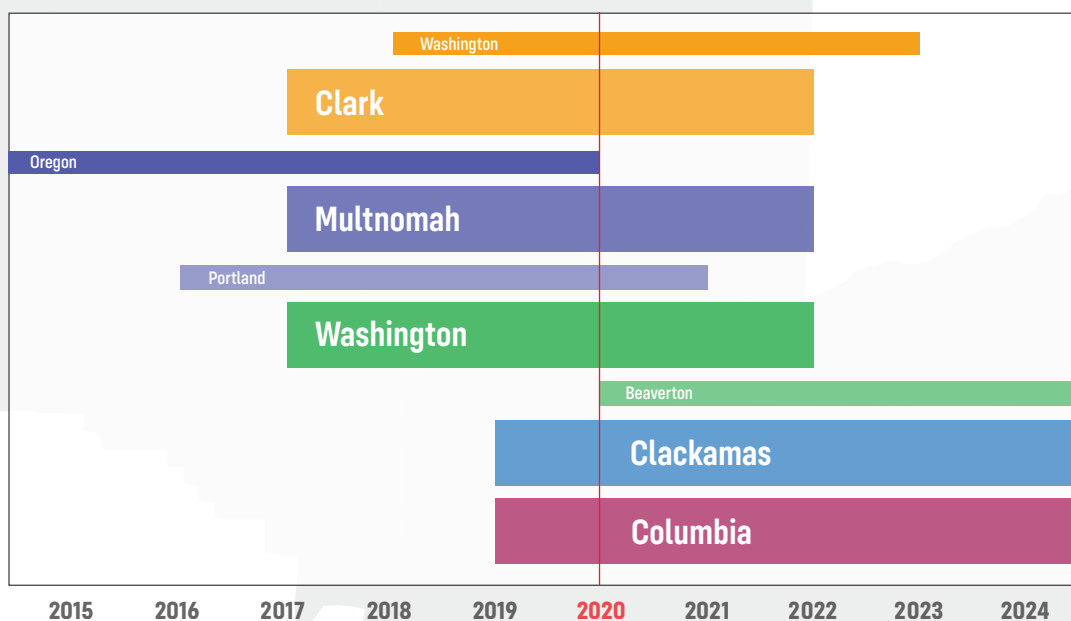
10 > 56%
Cities Population

1. Portland
2. Vancouver (WA)
3. Gresham
4. Hillsboro
5. Beaverton
6. Tigard
7. Lake Oswego
8. Oregon City
9. Tualatin
10. West Linn

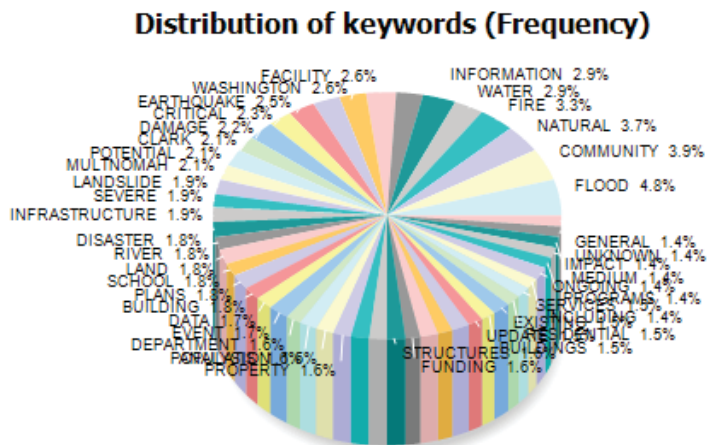
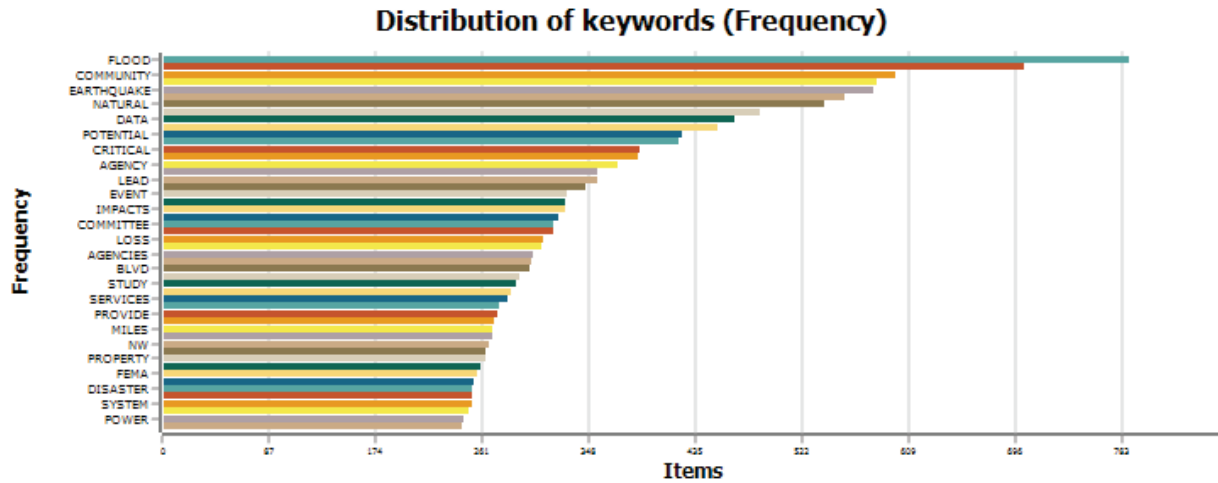




NHMP Regional Plan Cycle (State, County, City)



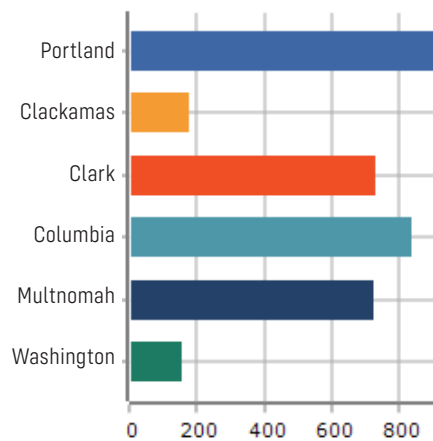
Composite Word Frequency Analysis for all NHMPs



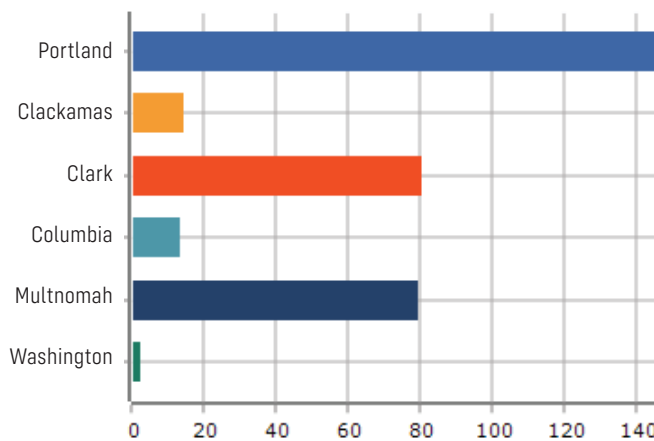


Regional NHMP Analysis

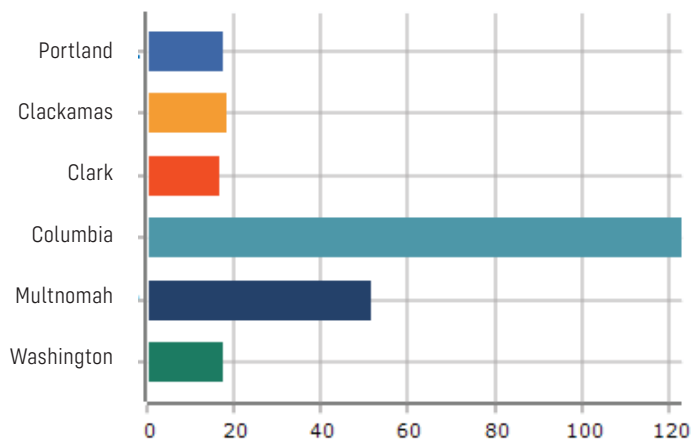
All Hazard Keywords



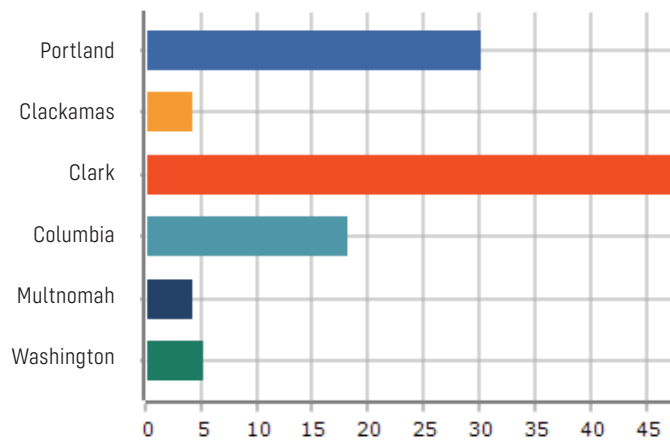
Severe Weather



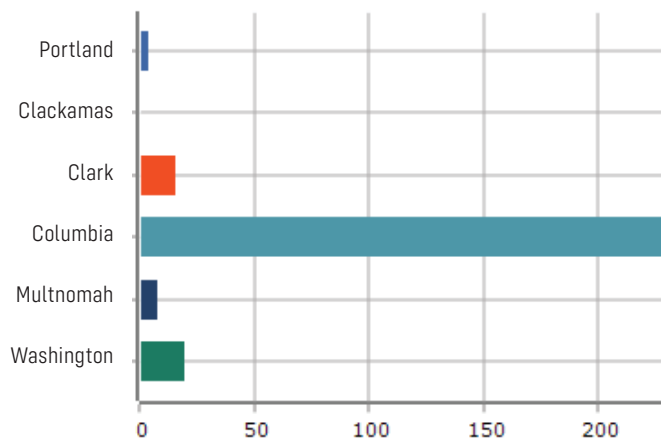
Winter Storm



Ash Fall

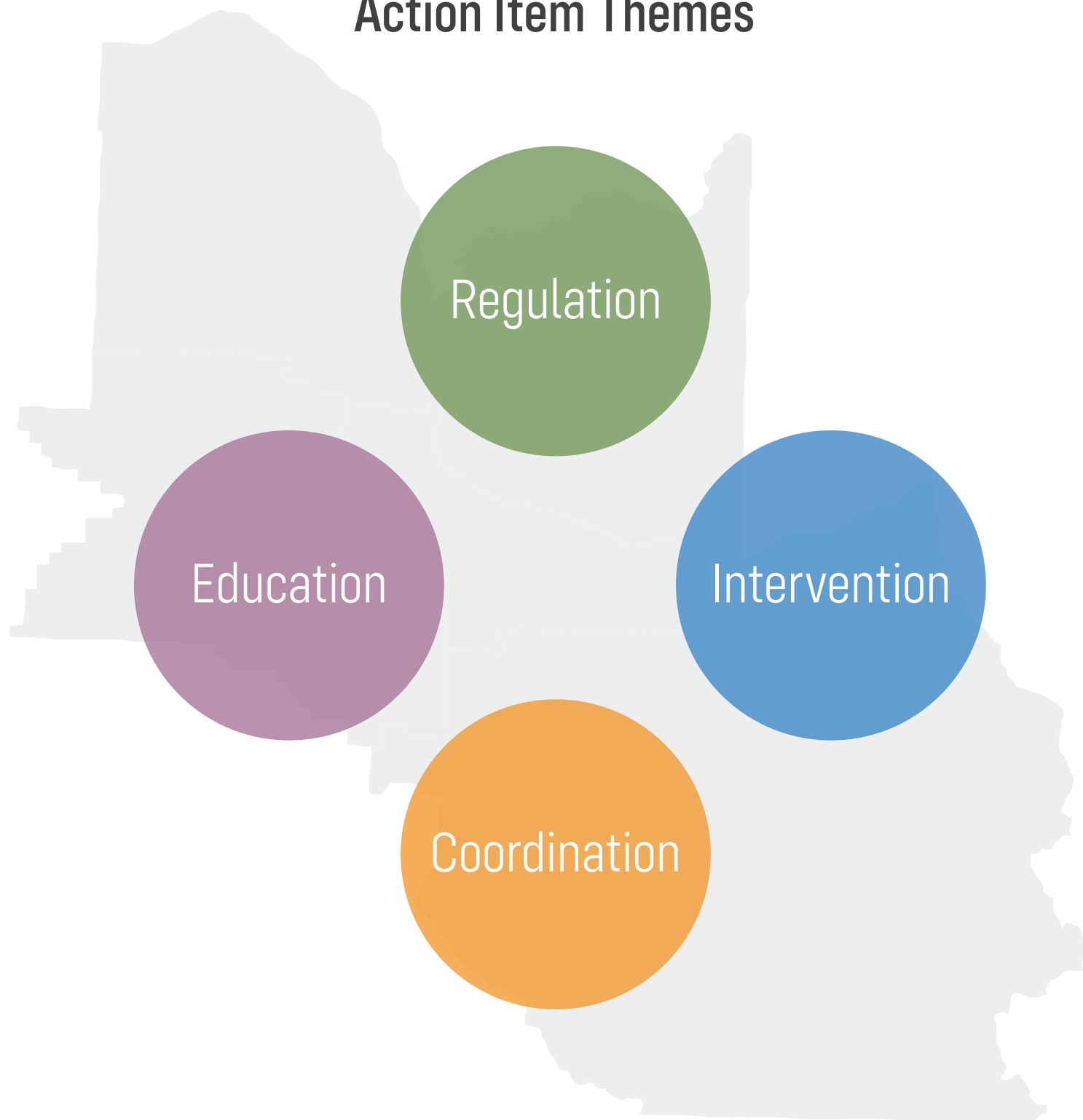


Wildland Fire





High-Level Action Item Themes





Regulation

- Update building codes and permitting process to reflect NHMP findings (i.e. seasonal construction restrictions, low impact standards)
- Create and revise ordinances to reduce risk
- Inspect new construction to ensure compliance
- Limit activity in known hazard areas
- Update stormwater management plan
- Maintain debris management plan
- Identify stakeholders and target-areas
- Develop priority transportation/evacuation routes
- Delegate action item progress monitoring
- Federal policy compliance (NFIP)
- Emergency response planning
- Identify problematic drainage sites
- Preserve open space for floodplain mitigation



Coordination

- Resource assessment and pooling
- Inventory critical facilities and equipment
- Use current scientific data, i.e. DOGAMI, recent academic research
- Data sharing regionally (centralized portal)
- Integrate NHMP into Comprehensive Plan and other relevant plans (CWPP)
- Sync regional and state plan cycles
- Develop damage estimates
- Ash fall modeling with USGS CVO
- Identify hazmat locations
- Update GIS including Lidar, hazard risk profiles
- Pursue funding through grant writing (HMA, etc.)
- Link emergency services to NHMP
- Countywide resiliency planning
- Public/private partnerships (i.e. utilities)
- Hazard specific impact modeling



Education

- Hazard mitigation outreach strategy (training, demos, presentations)
- Develop accessible outreach materials to describe hazards and promote readiness, including community-level hazard summaries via interactive media
- Encourage purchase of flood, fire, and earthquake insurance
- Target socially vulnerable populations at greatest risk
- Early warning and real-time notification systems
- Public events to increase awareness
- Explanatory risk-related sign installation

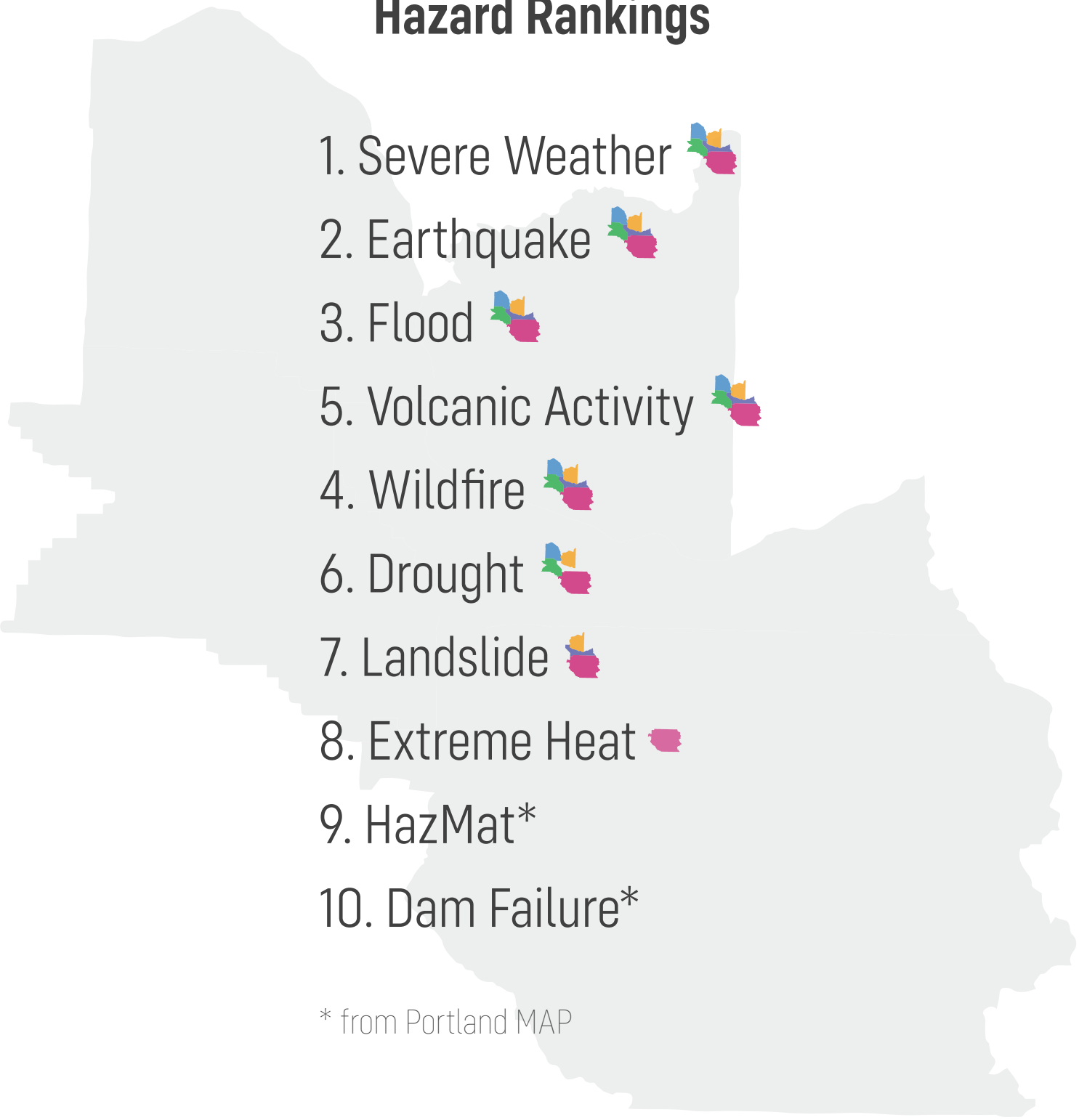


Intervention

- Establish system redundancies
- Land acquisition in known hazard areas
- Building retrofits and maintenance (structural and non-structural) (i.e. flood proofing, fire buffer)
- Relocation of at-risk critical facilities
- Backup power resources (i.e. generators)
- Install lightning rods to protect technology
- Erosion control in high-risk landslide areas (i.e. armor streambanks, stormwater management)
- Surface water and sewer system improvements
- Fuel reduction projects
- Seismic upgrades
- Harden utility infrastructure
- Tree safety measures



Current NHMP Hazard Rankings

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- A light gray silhouette of the state of Oregon serves as a background for the hazard rankings list. The list is positioned on the left side of the map, with each item followed by a small icon representing the hazard's regional distribution.
1. Severe Weather 
 2. Earthquake 
 3. Flood 
 5. Volcanic Activity 
 4. Wildfire 
 6. Drought 
 7. Landslide 
 8. Extreme Heat 
 9. HazMat*
 10. Dam Failure*

* from Portland MAP



What's Missing?

- Discussion of climate change
- Equity lens
- Hazards: Public health, Biological threats, Terrorism, Cyber attacks
- Failure to identify responsible agency/bureau
- Project cost estimates
- Actionable action items
- Living document, usability, web interface
- Goal-oriented planning, state "inheritance"