Emergency Preparedness: an Update from 2020

Introduction

In 2020, the League of Women Voters of Lane County published *Seismic Risk and Readiness*, detailing local threats from the Cascadia Subduction Zone (CSZ) and other hazards. That report highlighted Oregon's vulnerability and the long path to resilience. While much remains the same, new data and priorities have emerged since then. The table below summarizes key shifts.

Information: 2020 vs. 2025

Topic	2020 Understanding	2025 Update
Cascadia Subduction Zone (CSZ)	Estimated recurrence every 350–500 years; last major event in 1700.	Refined to 300–600 years. Emphasis now includes full-margin and partial rupture risk.
Self-Sufficiency Guidance	3–7 days often cited, with some pushing for 2 weeks.	Updated recommendation: 2+ weeks of supplies (water, food, meds for people and pets) in urban areas, 21-days in rural areas and 4-weeks on the coast.
CERT Volunteers	1,500 trained, 250 credentialed.	More hybrid trainings and efforts to diversify participation have been made but lack of clear organization, direction, and leadership.
Emergency Alerts	Community Emergency Notification System (CENS) promoted.	OR-Alert is now the statewide system; Lane Alerts in Lane County. ShakeAlert also in place for quake warnings and WatchDuty for wildfires.
Digital Go-Bags	Suggested storing emergency contacts on phones.	Expanded to include cloud and paper backups for key documents, pre-downloading emergency and first aid apps, and extra battery backups.
Neighborhood Prep	Map Your Neighborhood encouraged.	Replaced with Be 2 Weeks Ready individual preparedness program; radio communications and mutual aid now emphasized.
Dams and Flood Risk	Cougar noted, similar to dams in Japan.	Cougar, Lookout Point, Hills Creek deemed high-priority seismic risks; determined by the # of people in the inundation zone - not the integrity of the dam, as some assume.
Hospitals	Described as 96-hour autonomous with seismic upgrades.	McKenzie-Willamette closure risk leaves RiverBend as sole full-service hospital; surge and access challenges. Plans stress mobile units, alternative sites, and medical sheltering.

Water Access	Eugene Water and Electric Board (EWEB) emergency water stations in planning.	EWEB added over 40 million gallons of safe, seismic-ready storage to supply. Stations now operational in several locations; water purification stressed.
Power Resilience	Smart meter pilot programs in place.	Smart meters widely deployed; microgrid and backup systems expanding.
Volcanic Risk	Four volcanoes rated very high threat in Oregon.	No imminent eruption signs; monitoring and education ongoing. A lahar, flow of mud and lava, from Three Sisters would likely impact the upper McKenzie in Lane County.

This 2025 update broadens from a seismic lens to the bigger picture of how preparedness and response function across all government levels, how they are funded, and how reduced federal support affects Oregon. Preparedness is also framed as vital for sustaining democratic continuity.

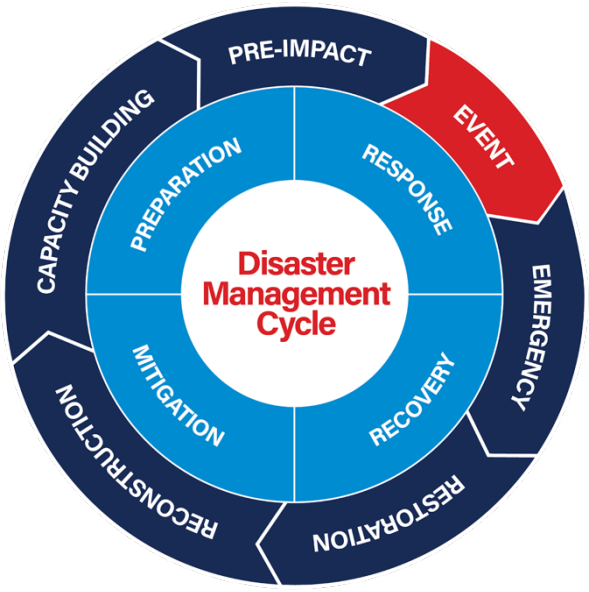
Climate Change, Disasters, and the Polycrisis

Climate change amplifies overlapping disasters: reduced snowpack, drought, wildfires, prolonged smoke, landslides, floods, and coastal erosion. These hazards often cascade (e.g., wildfire followed by landslide), requiring climate-informed hazard mitigation, infrastructure upgrades, and adaptive land-use policy.

Understanding the Emergency Management Lifecycle

Disasters vary in scope. Crises (like power outages) use local resources; emergencies (e.g., wildfires) may trigger local declarations; disasters (like major floods) exceed local capacity; catastrophes (like a CSZ quake) can collapse governance entirely. Emergency management follows a continuous cycle:

- **Preparedness:** Plans, training, drills, public outreach
- **Response:** Immediate life-saving actions
- **Recovery:** Restoring services and rebuilding
- **Mitigation:** Reducing future risks (e.g., retrofits, fuel reduction)



This framework is reinforced by templates, guides, and standardized training (including the National Incident Management System), which give local and state agencies a shared structure and common language to coordinate effectively when disasters strike.

Inclusive Emergency Messaging and Planning

Emergency response must account for all residents, including people with disabilities, limited English proficiency, and others with access and functional needs such as the unhoused. The CMIST Framework (Communication, Medical, Independence, Supervision, and Transportation) is used by some emergency planners and public information officers to address these needs across all phases of the emergency management life cycle. Inclusive planning improves outcomes for the entire community by reducing confusion, speeding evacuation, and ensuring equitable access to life-saving resources.

Government Roles, Funding, and Our Responsibilities

Emergency management in the U.S. operates through a layered system involving federal, state, and local partners, each with distinct responsibilities and funding mechanisms.

Federal Role

The U.S. disaster system dates back to the early 1800s in civil defense. The Federal Emergency Management Agency (FEMA), formally created in 1979, is rooted in laws such as the Stafford Act and the Post-Katrina Emergency Management Reform Act with a mandate to:

1. Coordinate assistance when disasters exceed local and state capacity.
2. Administer preparedness, mitigation, and recovery grants.
3. Provide national planning frameworks, technical guidance, and training.

Federal agencies like the National Oceanic and Atmospheric Administration (NOAA), the United States Geological Survey (USGS), and the Department of the Interior fund research, hazard monitoring, and preparedness education, often via competitive grants to state agencies and universities.

State of Oregon Responsibilities and Funding

Under ORS 401, the Oregon Department of Emergency Management (ODEM) coordinates preparedness, mitigation, and response, operating the State Coordination Center and passing through federal funds. State appropriations and federal grants support operations.

County and City Responsibilities and Funding

Under ORS 401.305, counties ***shall*** and cities ***may***:

- Maintain and regularly update Emergency Operations Plans.
- Appoint trained emergency managers to coordinate disaster readiness and response.
- Declare local emergencies when incidents exceed the capacity of normal operations, and coordinate with the ODEM and FEMA for support.

Counties also manage local hazard mitigation plans, operate emergency operations centers, and maintain public alert systems like Lane Alerts.

Local emergency management is funded through a mix of local budgets and state/federal grants. These grant streams are often competitive and require matching funds, so the ability of a county to leverage them depends on local budget priorities and staffing.

Educational and Research Partners

The University of Oregon and Oregon State University are key partners in advancing Oregon's resilience. Their research spans hazard science, wildfire management, biomass utilization, and tsunami modeling, with both institutions incorporating Indigenous stewardship, ecological restoration, and hazard mapping to improve statewide readiness. Oregon State University also works closely with the Oregon Department of Geology and Mineral Industries (DOGAMI) to strengthen geological hazard preparedness and inform community planning.

How Emergency Declarations Work and Unlock Funding

Emergency declarations are legal tools that activate funding mechanisms and expand authority for resource deployment at every level of government.

1. Local Declaration: Issued by a city or county when an incident exceeds local capacity.

- Authorizes the use of emergency funds within the jurisdiction.
- Allows for temporary changes to local codes (e.g., zoning waivers for shelters).
- Triggers eligibility to request assistance from the state.

2. State Declaration: Issued by the Governor when:

- Multiple jurisdictions are affected, or
- The scale of damage exceeds what any single jurisdiction can manage.
- Activates the State Emergency Operations Plan.
- Unlocks access to state disaster funds and statewide mutual aid networks.

3. Federal Disaster Declaration: Requested by the governor, after the state's resources are overwhelmed, and issued by the President under the Stafford Act. This is the critical gateway to:

- **Public Assistance (PA)** – Funding to repair or replace public infrastructure. For Lane County, eligibility requires demonstrating roughly $1.8 million in damages, while Oregon statewide must show about $7.5 million.
- **Individual Assistance (IA)** – Aid for displaced households and survivors.
- **Hazard Mitigation Grant Program (HMGP)** – Funds to reduce risk from future disasters.
- **Small Business Administration (SBA) Loans** – Low-interest loans for residents and businesses, including additional funds for mitigation.
- Deployment of federal personnel, equipment, and specialized teams.

Why Emergency Declarations Matter:
Without these declarations, most federal and state disaster relief funds cannot legally be released. For example:

- Local governments can spend their own emergency reserves without a declaration but cannot tap state or federal disaster funds.
- A state declaration is required before state disaster recovery funds and mutual aid are mobilized.
- A federal declaration is the only way to access FEMA's large-scale recovery and mitigation programs.

In other words, no declaration = no external disaster money. This is why timely, well-documented declarations are essential. Delays can slow the arrival of life-saving resources, reimbursements for response costs, and funding for rebuilding.

Federal Funding Dependence and Policy Shifts

In 2025, federal capacity to support the emergency management lifecycle was sharply reduced. The Building Resilient Infrastructure and Communities (BRIC) program was canceled, Emergency Management Performance Grant (EMPG) reimbursements were frozen, and nearly 20% of FEMA's workforce was laid off. At the same time, a new Executive Order on federal grant administration introduced stricter eligibility rules, shorter application timelines, and higher local cost-share requirements.

These changes have had a cascading effect across the entire preparedness and response system. Educational partners have seen hazard research projects delayed, field data collection postponed, and community training programs cut back. Specialized labs and equipment, which are often maintained through federal grants, now face uncertain futures, reducing the ability to provide timely hazard modeling, emergency simulations, and workforce training. Consulting firms specializing in the field are laying off staff due to a lack of projects.

The impacts are equally severe for counties, cities, and community-based organizations. Community outreach efforts, CERT training expansions, and resilience hub development have been scaled back or canceled.

The combined effect of funding cuts, policy changes, and workforce losses has weakened the national safety net, placing greater pressure on local governments, educational partners, and communities to fill the gaps. In this environment, individual preparedness is no longer optional; it is a core element of resilience, ensuring that households can withstand disruptions and reduce the burden on strained public systems when disaster strikes.

Protecting Elections During Emergencies

The erosion of federal support has implications not only for disaster response but also for democratic continuity. Elections are critical civic infrastructure, and protecting them during emergencies is central to maintaining public trust. Federal agencies such as the Cybersecurity and Infrastructure Security Agency (CISA) safeguard election systems from cyber and physical

threats, while the U.S. Election Assistance Commission sets standards for secure voting systems and funds security upgrades.

In Oregon, the Secretary of State and county clerks oversee the vote-by-mail system, ensuring ballot access even in the face of wildfires, floods, or other disasters. County emergency managers work alongside election officials to relocate drop sites, extend deadlines, or deploy mobile voting options when needed. These measures are integrated into Continuity of Operations planning, guaranteeing that disasters do not prevent citizens from exercising their right to vote. In this sense, preparedness extends beyond physical safety and infrastructure resilience; it is also about preserving democratic processes during emergencies.

Community and Individual Preparedness

While government agencies coordinate disaster response, fund key programs, and maintain critical infrastructure, every household and neighborhood must be ready to operate independently for days, or even weeks, when disaster strikes.

Lane County and much of Oregon face a recurring set of hazards: earthquakes, tsunamis, wildfires, floods, and severe winter storms. Preparing for these threats requires a two-pronged approach: preparedness, which focuses on immediate readiness to respond, and mitigation, which reduces long-term risks and impacts.

Mitigation at the Household and Neighborhood Level

Individual preparedness is not just about protecting yourself; it is a civic responsibility that strengthens community resilience, eases the burden on emergency services, and speeds recovery for everyone.

Earthquake Preparedness:

- Strap water heaters to walls.
- Secure heavy furniture and appliances.
- Retrofit foundations to prevent structural failure.

Wildfire Preparedness:

- Create at least a 5-foot nonflammable zone around your home.
- Maintain roofs and gutters, install ember-resistant vent covers, and choose fire-resistant siding.
- Trim lower tree limbs (first 6 feet for tall trees) and keep crowns spaced at least 10 feet apart within 100 feet of structures.
- Plant fire-resistant, drought-tolerant species and regularly remove dead vegetation.
- Coordinate with neighbors—wildfire often spreads house-to-house.

Free defensible space assessments are available at OregonDefensibleSpace.org.

Evacuation Readiness and Alerts
Go-bags and evacuation plans are essential for all households. Evacuation readiness is guided by Oregon's three-level alert system:

- **Level 1 – Be Ready**: Prepare and monitor conditions.
- **Level 2 – Be Set**: Be ready to leave at a moment's notice.
- **Level 3 – Go Now**: Evacuate immediately.

Residents are urged to sign up for Lane Alerts and use emergency apps such as Genasys Protect (evacuation zone mapping), WatchDuty (real-time wildfire alerts), ShakeAlert (earthquake early warning), and the FEMA App (national hazard information). Together, these tools can reduce confusion, speed decision-making, and shorten evacuation alert times by up to 20 minutes, critical in fast-moving disasters. For additional situational awareness, residents can go to Lane County's Emergency Management website or monitor the Oregon State Fire Marshal's incident blog, local fire district pages, and emergency radio stations (KLCC 89.7 FM, KPNW 1120 AM, KUGN 590 AM).

In any emergency, whether wildfire, flood, or earthquake, you may have to evacuate with little warning. A go-bag should sustain each household member for at least 72 hours, with two to three weeks of supplies recommended in rural areas.

Suggested go-bag contents:

- Water, nonperishable food, medications, and prescription details
- First aid kit, flashlights, radios, battery packs/chargers
- Weather-appropriate clothing and sturdy shoes
- Copies of important documents
- Pet supplies: food, water, medications, leashes, and records

Financial Preparedness: Insurance and Documentation

Disasters have a financial dimension that often goes overlooked until recovery begins. More than 60% of American homeowners are underinsured by 20% or more, leaving them vulnerable to rebuilding shortfalls.

Key steps:

- Review your policy to ensure coverage matches current rebuilding costs (currently $300–$350 per sq. ft. in Eugene, often higher after major disasters).
- Check for inflation protection and whether your policy pays replacement cost rather than depreciated value for contents.
- Maintain a home inventory—videos, photos, or spreadsheets with model numbers and receipts all help maximize claims.
- Store critical records (IDs, deeds, insurance documents, wills, medical directives, pet records) in waterproof containers, encrypted drives, or secure cloud storage.

- Understand your Additional Living Expenses (ALE) coverage—most policies limit to one year, extended to two years in declared state emergencies.
- If coverage is unaffordable, compare multiple quotes, seek discounts, or explore the Oregon Fair Plan or surplus lines insurers.

Local Resources and Infrastructure

Disaster preparedness in Lane County relies on access to critical infrastructure, accurate information, and strong community networks. Together, these systems help residents survive immediate disruptions and speed recovery.

Critical Infrastructure

The Eugene Water & Electric Board (EWEB) operates seven emergency water stations, each supplying two gallons per person per day after a major earthquake, with maps and instructions available online. To reduce wildfire ignition risk, EWEB and Lane Electric Cooperative use automated "reclosers" that cut power when hazards threaten lines, improving safety and reliability.

Roads, bridges, and evacuation corridors are critical during disasters, but many key routes in Lane County, such as Highways 126, 58, and I-5, are vulnerable to wildfire closures, landslides, or earthquake damage. ODOT has flagged dozens of western Oregon bridges as at risk in a Cascadia quake, which could isolate communities. Resilience efforts include seismic retrofits, vegetation management, and alternate route planning. Residents can monitor real-time conditions through ODOT's TripCheck (www.tripcheck.com), which provides closures, detours, chain requirements, and traffic cameras statewide.

Community Engagement and Volunteer Networks

Preparedness is strongest when neighbors are connected and trained before disaster strikes. Lane County supports this through:

- **CERT (Community Emergency Response Team):** Offers free hybrid and online training in disaster response, light search and rescue, and damage assessment.
- **Red Cross Volunteer Network:** Requires advance registration for deployment during emergencies.
- **Lane County Community Organizations Active in Disaster (COAD):** Brings together a broad array of community organizations to foster an effective response to the people of Lane County in times of disaster.
- **Emergency Amateur Radio Volunteers**: Provide training for amateur radio operators to provide communication if cell towers are down or traditional communication methods are not working. EugeneEmComm and Lane County Amateur Radio Emergency Service are the most active.

By combining individual readiness, neighborhood coordination, and the use of available tools and training, residents can reduce risk and enhance resilience.

Conclusion: Resilience as Democratic Continuity

Resilience is more than survival. It is the preservation of community cohesion, equitable recovery, and the ability to maintain democratic processes in times of crisis. Lane County's preparedness depends on coordinated governance, informed citizens, strong research partnerships, and proactive mitigation.

Discussion questions:

1. **Given that local governments already shoulder significant costs for emergency response, what specific capabilities, resources, or protections would be lost if the federal government further reduces its role in coordinating and funding disaster recovery?**

2. **In high-risk, wildfire-prone neighborhoods, should property owners be required to meet fire-resiliency standards, even if it means added costs or changes to their property? Who should be responsible for enforcing those standards, and how should conflicts between safety and property rights be resolved?**

3. **Which communities in Lane County are most likely to experience increased vulnerability due to emergencies and disasters? Which factors contribute to that risk?**

4. **With both hospitals located across the river from Eugene, an earthquake or flood could cut off access, and surge capacity is a challenge in any disaster. What can individuals do to prepare for their medical needs when professional care may be delayed or unavailable? What should the role of public health be in community preparedness and response?**

Resources

Earthquake & Seismic Preparedness

- U.S. Geological Survey. *Cascadia Subduction Zone Earthquakes.* https://www.usgs.gov/
- Oregon Department of Emergency Management. *ShakeAlert – Earthquake Early Warning.* https://www.oregon.gov/oem/hazardsprep/pages/orshakealert.aspx

Emergency Alerts & Evacuation

- OR-Alert. *Statewide Emergency Notification System.* https://oralert.gov/
- WatchDuty. *Wildfire Alerts App.* https://app.watchduty.org/
- Oregon Smoke Information. *Wildfire Smoke Updates.* https://www.oregonssmoke.org/
- FEMA App. *Mobile hazard alerts, preparedness checklists, and disaster resources.* https://www.fema.gov/mobile-app
- Genasys Protect. *Evacuation App.* *https://protect.genasys.com/download*

Preparedness Guidance

- Oregon Department of Emergency Management. *2 Weeks Ready.* https://www.oregon.gov/oem/hazardsprep/pages/2-weeks-ready.aspx
- FEMA. *Ready.gov: Make a Plan & Emergency Kit Checklist.* https://www.ready.gov/plan

Local Lane County Resources

- Eugene Water & Electric Board. *Emergency Water Stations.* https://www.eweb.org/projects/emergency-water-stations
- Eugene Community Emergency Response Team (CERT). *Training & Resources.* https://eugene-cert.com/
- Lane County Amateur Radio Emergency Service (ARES). *Emergency communications when cell networks are down.* https://www.laneares.org/
- Lane County COAD (Community Organizations Active in Disaster). https://www.lanecountycoad.org/
- Lane County Emergency Management. *Preparedness resources, alerts, and planning.* https://www.lanecountyor.gov/government/county_departments/emergency_management

Wildfire & Community Resilience

- Oregon State Fire Marshal. *Defensible Space Program.* https://oregondefensiblespace.org/
- Oregon State University Extension Service. *Emergency Preparedness.* https://extension.oregonstate.edu/families-health/emergency-prep

Acronyms

BRIC	Building Resilient Infrastructure and Communities
CENS	Community Emergency Notification System
CERT	Community Emergency Response Team
CISA	Cybersecurity and Infrastructure Security Agency
CMIST	Communication, Medical, Independence, Supervision, and Transportation
COAD	Lane County Community Organizations Active in Disaster
CSZ	Cascadia Subduction Zone
DOGAMI	Oregon Department of Geology and Mineral Industries
EMPG	Emergency Management Performance Grant
EWEB	Eugene Water and Electric Board
FEMA	Federal Emergency Management Agency
HMGP	Hazard Mitigation Grant Program
IA	Individual Assistance
NOAA	National Oceanic and Atmospheric Administration ORS Oregon Revised Statute
ODEM	Oregon Department of Emergency Management
ODOT	Oregon Department of Transportation
PA	Public Assistance
SBA	Small Business Administration
USGS	United States Geological Survey

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