

GOAL 7



NATURAL
HAZARDS

STATEWIDE PLANNING

GOAL 7:

To protect people and property from natural hazards.

CLATSOP COUNTY GOAL 7:

To protect people and property in Clatsop County from natural hazards.

OVERVIEW

Statewide Planning Goal 7 requires local comprehensive plans to address Oregon's natural hazards. Protecting people and property from natural hazards requires knowledge, planning, coordination, and education. Goal 7 requires local governments to adopt inventories, policies and implementing measures to reduce risk to people and property from the following natural hazards:

- Floods (coastal and riverine)
- Landslides
- Earthquakes and related hazards
- Tsunamis
- Coastal erosion
- Wildfires

Goal 7 also allows local governments to plan for other natural hazards specific to their jurisdictions. In 2021, the County completed an update of its Multi-Jurisdictional Natural Hazards Mitigation Plan (MJNHMP). This plan also analyzes the County's risk from drought, volcanic ash fall and wind/winter storms and provides recommended mitigation actions. In addition to the above natural hazards, Clatsop County Goal 7 incorporates these three additional hazards and associated mitigation actions identified in the 2021 MJNHMP.

Clatsop County has been planning for some of Oregon's natural hazards for over 40 years. River and coastal floods, landslide, wildfires, and coastal erosion are a consistent presence in Oregon and in Clatsop County. In recent years, more awareness has been developing about the possibility of a major earthquake and tsunami from the Cascadia Subduction Zone (CSZ). Good planning ensures buildings and people are not placed in harm's way. Planning, especially for the location of essential services like schools, hospitals, fire and police stations, is done with sensitivity to the potential impact of nearby hazards. Natural hazard mitigation is defined as permanently reducing or alleviating the losses of life, property and injuries from natural hazards through long-

CLATSOP COUNTY COMPREHENSIVE PLAN

and short-term strategies. Natural hazard mitigation planning is a process that identifies actions to reduce the dangers to life and property from natural hazard events.

In order to address natural hazards in its comprehensive land use plan the County must adopt a natural hazard inventory, and supporting plans and policies. Clatsop County Goal 7 incorporates the risk assessment and recommended risk-reduction actions identified in the 2021 MJNHMP. The 2021 MJNHMP aligns with the goals of the comprehensive plan and helps Clatsop County meet the requirements of statewide Goal 7.

Population demographics are also a factor in assessing a community's vulnerability to disaster because development patterns, economic characteristics, age, race, health, and wealth all may contribute to vulnerability and resilience. While natural hazards can cause losses to nearly anyone, the adverse impacts of natural hazards often disproportionately impact people who are already vulnerable, underserved, or disadvantaged by one or more risk factors. Vulnerable populations are those groups that possess specific characteristics that inhibit their ability to prepare for, respond to, or recover from a disaster. In addition, people from non-white or non-able-bodied populations may be considered "underserved." Vulnerable and underserved populations are more likely to have unique needs, and combinations of needs, that put them at risk of being victims of a disaster. Understanding trends in these factors will support the County's ability to plan, regulate, and effectively serve populations in need. It is vital to provide education and support to vulnerable and underserved groups to ensure equitable engagement in natural hazards decision-making processes, as well as emergency preparedness and response efforts.

In Clatsop County two departments focus on natural hazards planning: Emergency Management and Community Development. State and federal partners with the County in the natural hazards planning area include:

- Oregon Department of Emergency Management (OEM)
- Oregon Department of Land Conservation and Development (DLCD)
- Oregon Department of Geology and Mineral Industries (DOGAMI)
- Oregon Climate Change Research Institute (OCCRI)
- Federal Emergency Management Agency (FEMA)

Clatsop County Public Works and law enforcement have primary roles during and post-disaster. Increasing informed and appropriate public participation in the natural hazards planning process, emergency preparedness, and response is crucial to achieving the County's natural hazard goal.

A variety of rules, agencies, and background reports are relevant to natural hazards planning in Clatsop County, including the following:

Federal Emergency Management Agency (FEMA): FEMA provides grants for drafting and updating Natural Hazards Mitigation Plans (NHMPs). FEMA-approved NHMPs confer eligibility

GOAL 7: AREAS SUBJECT TO NATURAL HAZARDS

CLATSOP COUNTY COMPREHENSIVE PLAN

for hazard mitigation assistance through the Hazard Mitigation Grant Program (HMGP), the Pre-Disaster Mitigation Grant Program (PDM), the Flood Mitigation Assistance Program (FMA), and the Building Resilient Infrastructure and Communities (BRIC) program.

The Disaster Mitigation Act of 2000 (DMA 2000) is the federal basis for natural hazard mitigation planning grants and funding. State and local jurisdictions must have approved mitigation plans in place in order to qualify to receive post-disaster Hazard Mitigation Grant Program funds. DLCD implements the Goal 7 requirements in part by maintaining and updating Oregon’s Natural Hazards Mitigation Plan (“ONHMP”) and assisting local governments, tribes, and special districts to draft, maintain, and update their NHMPs. Clatsop County, cities, and other taxing districts worked with DLCD to update the County’s 2015 NHMP, resulting in the 2021 MJNHMP.

Clatsop County Multi-Jurisdictional Natural Hazards Mitigation Plan (MJNHMP) is a strategic planning document addressing hazards, vulnerability, and risk in Clatsop County. The MJNHMP fulfills FEMA requirements to ensure that Clatsop County is eligible for federal hazard mitigation grants. Relevant goals, objectives, and actions from that document have been incorporated into various sections of Goal 7. The document also highlights population demographic trends important to the County’s ability to effectively serve vulnerable and underserved populations

OCCRI - Future Climate Projections: Clatsop County (Feb. 2020): FEMA requires that NHMPs include a review of hazards in terms of potential climate impacts. The 2021 MJNHMP included a climate assessment specific to Clatsop County prepared by the Oregon Climate Change Research Institute (OCCRI) based at Oregon State University. OCCRI completed this report, entitled “Future Climate Projections: Clatsop County” (2020 OCCRI Report), in February 2020. The 2020 OCCRI Report states that effects of climate change are already apparent in Oregon. It indicates that climate change is expected to influence the likelihood of occurrence of existing natural hazard events such as heavy rains, river flooding, drought, heat waves, cold waves, wildfire, air quality, and coastal erosion and flooding. OCCRI’s report covers climate change projections related to natural hazards relevant to Clatsop County. The 2021 MJNHMP and CCCP Goal 7 incorporate and rely on this source for estimation of the impact of climate change on natural hazards.

County Plans and Policies related to hazard mitigation: Clatsop County’s Flood Hazard Overlay Zone and Floodplain Ordinance, Geologic Hazard Overlay Zone, and Beaches and Dune Overlay Zone each guide development in areas with identified hazards. The County’s Transportation System and Dredged Material Management Plans contain provisions for tsunami evacuation facilities and activities related to coastal erosion, respectively.

Statewide Land Use Planning Goals: Working in conjunction with Goal 7, statewide Goals 5 (Natural Resources, Scenic and Historic Areas, and Open Spaces), 16 (Estuarine Resources), 17 (Coastal Shorelands), 18 (Beaches and Dunes), and 19 (Ocean Resources) are particularly relevant to the management of hazards by local communities.

GOAL 7: AREAS SUBJECT TO NATURAL HAZARDS

CLATSOP COUNTY COMPREHENSIVE PLAN

Oregon Department of Geology and Mineral Industries (DOGAMI): DOGAMI provides ongoing scientific study of hazards, such as earthquakes and landslides, to help jurisdictions understand the risks and prepare mitigation strategies. The County currently utilizes DOGAMI Bulletins 74 and 79 to identify active landslides, inactive landslides, landslide topography and move movement topography.

OBJECTIVES AND POLICIES

- Objective 1:** To protect life and property and to reduce or prevent the risk of injury or death from natural hazards.
- Objective 2:** To reduce or eliminate damage to critical facilities, services, and equipment from a natural hazard event.
- Objective 3:** To reduce or prevent damage to public and private services, buildings, and infrastructure; and to protect natural and cultural resources as a part of those efforts.
- Objective 4:** To increase cooperation and collaboration among mitigation partners to protect the economic engines of Clatsop County and to prepare for the survival needs of residents and visitors.
- Objective 5:** To raise awareness about the risks of natural hazards and the strategies to mitigate them.
- Objective 6:** To encourage consideration of the likely post-Cascadia landscape when developing or redeveloping essential and hazardous facilities and special occupancy structures.

GENERAL NATURAL HAZARD POLICIES

- Policy A:** Clatsop County may prohibit comprehensive plan or zone map amendments that would result in increased residential densities or more intensive uses in natural hazard areas unless adequate mitigation is implemented. Mitigation measures should focus on life safety and hazard-resistant structure design and construction.
- Policy B:** The County should participate in the development of a centralized County 911 system and resilient back-up communications system.
- Policy C:** In coordination with the cities and appropriate visitor and tourism agencies, the County should develop a pre-plan of how to accommodate visitors to the coast following a major disaster.

GOAL 7: AREAS SUBJECT TO NATURAL HAZARDS

CLATSOP COUNTY COMPREHENSIVE PLAN

- Policy D:** The County should develop post-disaster recovery plans for unincorporated communities and areas within Clatsop County.
- Policy E:** In order to facilitate recovery efforts, the County should develop and maintain a debris management plan.
- Policy F:** The County should continue to analyze the costs and risks associated with maintaining critical county-owned public safety facilities within the tsunami inundation zone and study the relocation of these facilities.
- Policy G:** The County should develop emergency shelter facilities throughout the County.
- Policy H:** The County should create and maintain an inventory of available generators and fuel distribution sites.
- Policy I:** The County shall continue to conduct outreach and education efforts to community organizations active in disasters and that may have control over structures and areas that may be designated as relief sites during periods of emergency response and recovery.
- Policy J:** The County should encourage power companies to update and improve powerlines to protect from wildfires, storms and promote resiliency.

FLOOD POLICIES

- Policy A:** Clatsop County recognizes the value of an integrated flood hazard management program in order to protect life and property and shall continue participation in the National Flood Insurance Program.
- Policy B:** Through an integrated flood hazard management program, the County will implement and administer appropriate land use planning techniques and construction standards.
- Policy C:** The County should develop and maintain educational efforts regarding the public benefit derived from an integrated flood hazard management program.
- Policy D:** The County shall limit land uses in the floodplain to those uses identified by the adopted floodplain regulations as suitable.
- Policy E:** The County shall strive to make flood hazard information, including that related to tsunamis, available to the public to ensure that owners and potential buyers of flood prone land are aware of the hazard. County

CLATSOP COUNTY COMPREHENSIVE PLAN

property maps should indicate when the property is in a mapped tsunami zone.

- Policy F:** To provide continued flood protection, the County should encourage the maintenance and repair of existing flood control structures except when dike breaching is carried out to restore natural habitat and/or reduce flooding of critical infrastructure. The construction of new dikes, for the purpose of establishing future development in floodplain areas, should be discouraged.
- Policy G:** Agriculture, forestry, open space and recreation should be the preferred uses of flood prone areas.
- Policy H:** Construction of essential facilities, major structures, hazardous facilities and special occupancy structures, as defined in the state building code, shall be prohibited in identified hazard areas, where the risk to public safety cannot be mitigated, unless an essential facility is needed within a hazard area in order to provide essential emergency response services in a timely manner.
- Policy I:** Clatsop County should encourage subdivisions planned within floodplain areas to cluster land uses outside of the floodplain area leaving the floodplain in open space.
- Policy J:** For specified areas, the County will consider the adoption of regulations requiring the preparation and implementation of a drainage plan as part of its review and approval of conditional use permits and development permits.
- Policy K:** Clatsop County may explore whether there is public support for becoming a Community Rating System (CRS) community.
- Policy L:** The county should engage the diking districts and drainage improvement districts in respect to accreditation of the County's levees.

LANDSLIDE POLICIES

- Policy A:** The County shall recognize the development limitations imposed by areas of mass movement potential.
- Policy B:** Mass movement hazards do not necessitate disapproval of development, but Clatsop County shall continue to require additional development standards in order to minimize potential damage and property loss.
- Policy C:** Clatsop County should encourage clustering of development on stable or less steep portions of sites that are not identified as either areas of historical (known) landslides or areas of shallow or deep landslide susceptibility, in order to maintain steeper or unstable slopes in their natural conditions.

CLATSOP COUNTY COMPREHENSIVE PLAN

- Policy D:** Clatsop County should restrict closely spaced septic tanks and drainfields from moderately to steeply sloping areas because of the potential for sliding.
- Policy E:** Clatsop County shall evaluate projects which include plans for modifying the topography of sloping areas or established drainage patterns to identify the effect these changes may have on slope stability, including on neighboring properties.
- Policy F:** The presence of faults in an area may constitute justification for restricting development in areas of landslide topography.
- Policy G:** Structures shall be planned to preserve natural slopes. Cut and fill construction methods shall be discouraged.
- Policy H:** Access roads and driveways shall follow slope contours to reduce the need for grading and filling, reduce erosion, and prevent the rapid discharge of runoff into natural drainageways.
- Policy I:** Loss of ground cover for moderately to steeply sloping lands may cause land slippage and erosion problems by increasing runoff velocity. Development on moderate to steep slopes shall generally leave the natural topography of the site intact. Existing vegetation, particularly trees, shall be retained on the site to the greatest extent possible.
- Policy J:** The County, in coordination with appropriate state and local agencies shall identify and develop alternative transportation routes around slide-prone areas within the county.
- Policy K:** The County shall utilize the Department of Geology and Mineral Inventories' Bulletins 74 and 79₂ to determine properties that are subject to mass wasting, including active landslides, inactive landslides, landslide topography and mass movement topography .
- Policy L:** Inns, hotels, B&Bs and STRs should be required to have survival caches on site and show proof as part of the permitting/renewal process.

EARTHQUAKE POLICIES

- Policy A:** The County shall develop and implement a program to retrofit County bridges that are identified by a seismic vulnerability assessment.
- Policy B:** Structures and public facilities owned and/or operated by Clatsop County shall be evaluated for seismic retrofit.
- Policy C:** The County shall work with public entities and private land owners to identify lifelines routes that can be utilized following a seismic event.

GOAL 7: AREAS SUBJECT TO NATURAL HAZARDS

CLATSOP COUNTY COMPREHENSIVE PLAN

Policy D: The County should encourage the development of state incentive programs to encourage homeowners and businesses to perform seismic retrofits to existing structures.

Policy E: Cache areas and assembly points should be identified and developed.

TSUNAMI POLICIES

Policy A: The County shall identify viable sites for vertical evacuation construction.

Policy B: Clatsop County should consider implementation of a Tsunami Hazard Inundation overlay and develop regulations and maps for hazard mitigation planning.

Policy C: The County should establish long-term supply and staging areas outside of inundation zones.

Policy D: Clatsop County shall continue to upgrade and improve tsunami evacuation routes.

Policy E: Clatsop County should consider implementing the recommendations contained in the final TEFIP report.

Policy G: Clatsop County may engage DLCD and local municipalities in an exploration of options for changing land use designations on resource lands adjacent to UGBs to allow development outside of tsunami inundation zones.

Policy H: To protect life, minimize damage and facilitate rapid recovery from a local source Cascadia Subduction Zone earthquake and tsunami, the County will:

1. Support tsunami preparedness and related resilience efforts.
2. Take reasonable measures to protect life and property to the fullest extent feasible, from the impact of a local source Cascadia tsunami.
3. Use the Oregon Department of Geology and Mineral Industries (DOGAMI) Tsunami Inundation Maps applicable to the County to develop tsunami hazard resiliency measures.
4. Enact design or performance implementing code components in identified tsunami hazard areas.
5. Implement land division provisions, such as identifying evacuation routes, to further tsunami preparedness and related resilience efforts.
6. Consider potential land subsidence projections to plan for post Cascadia event earthquake and tsunami redevelopment.
7. Identify and secure the use of appropriate land above a tsunami inundation zone for temporary housing, business and community

GOAL 7: AREAS SUBJECT TO NATURAL HAZARDS

CLATSOP COUNTY COMPREHENSIVE PLAN

functions post event.

8. As part of a comprehensive pre-disaster land use planning effort, consistent with applicable statewide planning goals, identify appropriate locations above the tsunami inundation zone for permanent relocation of housing, business and community functions post event.

Policy I: To facilitate the orderly and expedient evacuation of residents and visitors in a tsunami event, the County will:

1. Identify and secure the use of appropriate land above a tsunami inundation zone for evacuation, assembly, and emergency response.
2. Ensure zoning allows for adequate storage and shelter facilities.
3. Consider development or other incentives to property owners that donate land for evacuation routes, assembly areas, and potential shelters.
4. Require needed evacuation route improvements, including improvements to route demarcation (wayfinding in all weather and lighting conditions), and vegetation management, for new development and substantial redevelopment in tsunami hazard areas.
5. Work with neighboring jurisdictions to identify inter-jurisdictional evacuation routes and assembly areas where necessary.
6. Provide for the development of vertical evacuation structures in areas where reaching high ground is impractical.
7. Evaluate multi-use paths and transportation policies for tsunami evacuation route planning.
8. Encourage suitable structures to incorporate vertical evacuation capacity in areas where evacuation to high ground is impractical.
9. Install signs to clearly mark evacuation routes and implement other wayfinding technologies (e.g., painting on pavement, power poles and other prominent features) to ensure that routes can be easily followed day or night and in all weather conditions.
10. Prepare informational materials related to tsunami evacuation routes and make them easily available to the public.

Policy J: In order to reduce development risk in high tsunami areas, the County will:

1. Prohibit comprehensive plan or zone map amendments that would result in increased residential densities or more intensive uses in tsunami hazard areas unless adequate mitigation is implemented. Mitigation measures should focus on life safety and tsunami resistant structure

GOAL 7: AREAS SUBJECT TO NATURAL HAZARDS

ADOPTED JUNE 28, 2023 / ORDINANCE 23-06

CLATSOP COUNTY COMPREHENSIVE PLAN

design and construction.

2. Encourage open space, public and private recreation and other minimally developed uses within the tsunami inundation zone area.
3. Prohibit the development of those essential facilities and special occupancy structures identified in ORS 455.446 and ORS 455.447 within the tsunami inundation area.
4. Consider the use of transferrable development credits as authorized by ORS 94.541-94.538 to facilitate development outside of tsunami inundation zones.
5. Encourage, through incentives, building techniques that address tsunami peak hydraulic forces which will minimize impacts and increase the likelihood that structures will remain in place.
6. Protect and enhance existing dune features and coastal vegetation to promote natural buffers and reduce erosion.

Policy K: With regard to hazard mitigation planning, the County will:

1. Address tsunami hazards and associated resilience strategies within the community's FEMA approved hazard mitigation plan.
2. Incorporate and adopt relevant sections of the hazard mitigation plan into the comprehensive plan.
3. Ensure hazard mitigation plan action items related to land use are implemented through the comprehensive plan and implementing ordinances.

Policy L: The County will promote tsunami awareness education and outreach by:

1. Encouraging and supporting tsunami education and outreach, training and practice.
2. Implementing a comprehensive and ongoing tsunami preparedness community education and outreach program.
3. Collaborating with local, state and federal planners and emergency managers for the purpose of developing a culture of preparedness supporting evacuation route planning and other land use measures that minimize risk and maximize resilience from tsunami events.

Policy M: The county should identify and work to secure the use of suitable areas within the tsunami inundation zone for short and long-term, post-disaster debris storage, sorting and management.

Policy N: The County should work with other public and private entities to establish

CLATSOP COUNTY COMPREHENSIVE PLAN

mutual aid agreements for post-disaster debris removal and otherwise plan for needed heavy equipment in areas that may become isolated due to earthquake and tsunami damage.

Policy O: The County will limit or prohibit new hazardous facilities as defined in ORS 455.447 within tsunami inundation zones. Where limiting or prohibiting such facilities is not practical, the County shall require adequate mitigation measures consistent with state and federal requirements.

Policy P: Clatsop County will adopt the Tsunami Inundation Maps prepared by DOGAMI and base planning decisions on a “Medium” tsunami event.

Policy Q: The County may consider reducing density or prohibiting new development in areas identified as tsunami inundation zones.

Policy R: The County shall consider retrofitting of existing County-owned public development and County roads within tsunami inundation zones to bring buildings and other structures up to current code standards.

COASTAL EROSION POLICIES

Policy A: Human activities can influence, and in some cases, may intensify the effects of erosion and other coastal hazards. Therefore, Clatsop County shall prohibit:

1. the destruction of stabilizing vegetation (including the inadvertent destruction by moisture loss or root damage)
2. the exposure of stable and conditionally stable areas to erosion, and
3. construction of shoreline stabilization structures which modify current wave patterns or the beach sand supply
4. unnecessary removal of shoreline

Policy B: Erosion shall be controlled and the soil stabilized by native, non-invasive vegetation and/or mechanical and/or structural means on all dune lands. Non-structural methods of erosion control and soil stabilization shall be preferred. Structural means shall only be permitted subject to Coastal Erosion Policy A(3) and the regulations contained in Goal 18 (Beaches and Dunes).

Policy C: Projects shall seek to avoid removal of vegetation during construction in any sand area whenever possible. If such impacts are shown to be unavoidable, removal of vegetation during construction in any sand area shall be kept to the minimum required for building placement or other valid purpose. Removal of vegetation should not occur more than 30 days prior to grading or construction. Permanent revegetation shall be started on the site as

GOAL 7: AREAS SUBJECT TO NATURAL HAZARDS

CLATSOP COUNTY COMPREHENSIVE PLAN

soon as practical after construction, final grading or utility placement. Storage of sand and other materials should not suffocate vegetation.

- Policy D:** In all open sand areas, revegetation must be clearly monitored and carefully maintained, which may include restrictions on pedestrian or motorized vehicle traffic. Revegetation shall return the area to its pre-construction level of stability or better. Trees should be planted along with ground cover such as grass or shrubs. To encourage stabilization, a revegetation program with time limits shall be required by the Community Development Department as a condition of all land use actions (i.e. Comprehensive Plan changes, zone changes, subdivisions and partitions, planned developments, conditional use permits etc.).
- Policy E:** Removal of vegetation which provides wildlife habitat shall be avoided to the greatest extent possible. Unnecessary removal of shoreline vegetation shall be prohibited.
- Policy F:** Site specific investigations by a qualified person such as a geologist, soils scientist, or geomorphologist may be required by the County prior to the issuance of development permits in open sand areas, on the ocean front, in steep hillsides of dunes, regardless of the vegetative cover, and in any other conditionally stable dune area which, in the view of the Community Development Director, may be subject to wind erosion or other hazard potential. Site investigations may be submitted to the Department of Geology and Mineral Industries and other agencies for review of recommendations.
- Policy G:** Log debris plays an important role in the formation and maintenance of foredunes. Therefore, driftwood removal from sand areas and beaches for both individual and commercial purposes should be discouraged so that dune building processes and scenic values are not adversely affected.
- Policy H:** To prevent increasing coastal erosion, structures such as beach access stairs and decks may be limited in the oceanfront setback areas of coastal bluff properties.
- Policy I:** Clatsop County should begin to plan for the managed retreat of roads, utilities and other infrastructure in areas prone to coastal erosion.

WILDFIRE POLICIES

- Policy A:** Clatsop County shall partner with stakeholders to develop informational materials to inform the community about how to protect themselves and their assets from wildfire.

GOAL 7: AREAS SUBJECT TO NATURAL HAZARDS

ADOPTED JUNE 28, 2023 / ORDINANCE 23-06

CLATSOP COUNTY COMPREHENSIVE PLAN

- Policy B:** The County should develop hardening standards for new construction in wildfire risk areas. For example, require spark arresters, metal roofs, fire retardant siding, and vegetative clearing.
- Policy C:** Voluntary hardening of existing residential structures should be encouraged.
- Policy D:** New construction on rural residential lands adjacent to forest resource land should be required to utilize hardening techniques and materials .
- Policy E:** Creation of defensible space should be required in accordance with State of Oregon statutes and rules in areas of high and extreme wildfire risk in the wildland-urban interface and should be encouraged for existing development.
- Policy F:** The County may work with the OSU Forestry and Natural Resources Extension Fire Program staff to review and adapt best practices.
- Policy G:** Clatsop County should make information from the FireWise plant list readily available to the public and use of those species should be encouraged.
- Policy I:** The County should consider installing signage promoting fire safety along County roads.
- Policy J:** Multiple access points shall be provided within subdivisions to improve emergency access and increase potential escape routes.
- Policy K:** The County may incorporate Firewise USA® and other best practices for wildfire prevention and reduction into its development standards.
- Policy L:** In coordination with Clatsop County Emergency Management and local fire districts, the Clatsop County Community Wildfire Protection Plan (CWPP) should be regularly reviewed and updated and recommendations incorporated into the Natural Hazards Mitigation Plan.
- Policy M:** Clatsop County, in conjunction with the County’s public health department and appropriate state agencies, should work to increase public awareness of the indirect hazards of wildfire. These include impacts from air and water pollution and a subsequent increase in landslide and flooding risks.

WIND / WINTER STORM POLICIES

- Policy A:** The County should promote hazard tree and vegetation management best practices and programs, but balance with vegetation for slope stabilization and scenic benefits.
- Policy B:** The County should promote tree planting projects on private and public properties, using “right tree, right place” methods.

GOAL 7: AREAS SUBJECT TO NATURAL HAZARDS

CLATSOP COUNTY COMPREHENSIVE PLAN

Policy C: The County may provide residents with information regarding methods to tie down roofs, sheds and other structures.

Policy D: The County should encourage new power lines to be placed underground.

STREAMBANK EROSION AND DEPOSITION POLICIES

Policy A: The County shall encourage the stabilization of the outside faces of dikes to prevent erosion as part of the regular maintenance of existing dikes.

Policy B: The County should encourage retention of existing riparian vegetation along streams and rivers to protect and stabilize the banks and to provide wildlife habitat.

Policy C: Clatsop County should encourage use of DEQ's best management practices for agricultural areas in order to reduce erosion and sedimentation of streams.

Policy D: The County encourages appropriate agencies to work to obtain and enforce speed limits for boats in areas where river and stream banks, dikes and private docks are affected by wave erosion.

Policy E: Clatsop County shall support strict enforcement of the Forest Practices Act to reduce sedimentation of streams.

Policy G: Prevention of stream and river bank erosion caused by development may be considered during the permitting process.

Policy I: The County should discourage activities on or adjacent to the river banks that may intensify natural erosion or impact adjacent land.

HIGH GROUNDWATER AND/OR COMPRESSIBLE SOILS POLICIES

Policy A: The County should recognize the development limitations of lands with high groundwater and compressible soils during its planning process.

Policy B: All new development on compressible soils shall be engineered, as required by state and local building codes, to address structural issues associated with construction on compressible soils.

Policy C: The County should update its compressible soils and high water table maps as detailed soils information becomes available.

Policy D: Development on peat and other compressible soils should be discouraged.

CLATSOP COUNTY COMPREHENSIVE PLAN

DROUGHT POLICIES

- Policy A:** The County should coordinate with local watershed organizations and soil and water conservation districts to implement best practices for water management.
- Policy B:** The County should encourage the development and implementation of water conservation plans by local residents, water districts and systems, businesses, and industries.
- Policy C:** The County should support the use of water conservation practices by agricultural, industrial and municipal water users.

VOLCANIC ASH FALL POLICIES

- Policy A:** The County should identify the type and amount of Personal Protective Equipment (PPE) that would be needed for vulnerable populations and essential workers if a volcanic event were to occur.
- Policy B:** The County should develop recommendations for health and safety of the general population and promote those recommendations.
- Policy C:** The County should identify the best practices that would need to be provided in public announcements in an ash fall event. Best practices should consider risks to livestock, agricultural products, homes (roofs, air systems), vehicles (paint, air systems), commercial and industrial equipment.

IMPLEMENTING OREGON ADMINISTRATIVE RULES (OAR):

None

COORDINATING STATE AGENCIES:

Oregon Department of Emergency Management (OEM)
Department of Geology and Mineral Inventories (DOGAMI)
Oregon Department of Land Conservation and Development (DLCD)
Federal Emergency Management Agency (FEMA)
Oregon Climate Change Research Institute (OCCRI)

BACKGROUND REPORTS AND SUPPORTING DATA:

[Clatsop County Multi-Jurisdictional Hazard Mitigation Plan 2021](#)
[Future Climate Projections Clatsop County](#) (Oregon Climate Change Research Institute, February 2020)
[Preparing for a Cascadia Subduction Zone Tsunami: A Land Use Guide for Oregon Coastal Communities](#), DLCD 2015
[Goal 7 Background Report](#)

GOAL 7: AREAS SUBJECT TO NATURAL HAZARDS