Beverly Beach Water District Addendum

to the Lincoln County Multi-Jurisdictional NHMP

Photos courtesy of Oregon State Parks

Effective: December 17, 2025 through December 16, 2030

Prepared for
Beverly Beach Water District
11494 NE Beverly Drive, OR 97365

Prepared by
The University of Oregon
Institute for Policy Research & Engagement
School of Planning, Public Policy, and Management

UNIVERSITY OF OREGON | Institute for Policy Research and Engagement

This Natural Hazard Mitigation Plan was prepared by:

UNIVERSITY OF OREGON | School of Planning, Public Policy and Management | Institute for Policy Research and Engagement

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U.S. Department of Homeland Security
Federal Emergency Management Agency
Region 10

130 228th St SW
Bothell, WA 98021

December 17, 2025

Stephen Richardson
State Hazard Mitigation Officer
Oregon Department of Emergency Management
3930 Fairview Industrial Dr SE
Salem, OR 97302

Reference: Approval of the Lincoln County Multi-Jurisdictional Natural Hazard Mitigation Plan

Dear Officer Richardson:

In accordance with applicable[1] laws, regulations and policy, the Risk Analysis Branch of FEMA Region 10 Mitigation Division has approved the local mitigation plan for the following jurisdictions:

Lincoln County	City of Depoe Bay	City of Newport
City of Toledo	Beverly Beach Water District	Central Lincoln People's Utility District
Central Oregon Coast FRD	Depoe Bay Fire District	Gleneden Sanitary District
Kernville-Gleneden Beach-Lincoln Beach Water District	North Lincoln Fire and Rescue District	Otter Rock Water District
Panther Creek Water District	Salishan Sanitary District	Seal Rock Water District
Siletz Valley Fire District	SW Lincoln County Water People's Utility District	

Mitigation plans may include additional content to meet Element H: Additional State Requirements or content the local government included beyond applicable FEMA mitigation planning requirements. FEMA approval does not include the review or approval of content that exceeds these applicable FEMA mitigation planning requirements.

The approval period for this plan is from December 17, 2025 through December 16, 2030.

[1] Robert T. Stafford Disaster Relief and Emergency Assistance Act, as amended; the National Flood Insurance Act of 1968, as amended; and National Dam Safety Program Act, as amended; 44 CFR Part 201, Mitigation Planning; and Local Mitigation Planning Policy Guide (FP-206-21-0002).

The jurisdictions' plan approval ensures the eligibility for project grants under FEMA's Hazard Mitigation Assistance programs. All requests for funding are evaluated individually according to eligibility and other program requirements. Having an approved mitigation plan does not mean that mitigation grant funding will be awarded. Specific application and eligibility requirements can be found in each FEMA grant program's respective policies and annual Notice of Funding Opportunities, as applicable.

FEMA's approval is for a period of five years, effective the date FEMA received the adoption documentation. For this plan, documentation was received on December 17, 2025 and is considered approved as of then. Prior to December 16, 2030, each jurisdiction must review, revise, and submit their plan to FEMA for approval to maintain eligibility for grant funding. The enclosed plan review tool provides opportunities to incorporate into future updates.

Sincerely,

Wendy Shaw, P.E.
Risk Analysis Branch Chief
Mitigation Division

JG: MB

Attachment**:** Local Mitigation Plan Review Tool

Resolution # 03-2025

A Resolution Adopting the Beverly Beach Water District Representation in the Updates to the Lincoln County Multi-Jurisdictional Natural Hazards Mitigation Plan

Whereas, the Beverly Beach Water District recognizes the threat that natural hazards pose to people, property and infrastructure within our community; and

Whereas, undertaking hazard mitigation actions will reduce the potential for harm to people, property and infrastructure from future hazard occurrences; and

Whereas, an adopted Natural Hazards Mitigation Plan is required as a condition of future funding for mitigation projects under multiple FEMA pre- and post-disaster mitigation grant programs; and

Whereas, the Beverly Beach Water District has fully participated in the FEMA prescribed mitigation planning process to prepare the *Lincoln County, Multi-Jurisdictional Natural Hazards Mitigation Plan*, which has established a comprehensive, coordinated planning process to eliminate or minimize these vulnerabilities; and

Whereas, the Beverly Beach Water District has identified natural hazard risks and prioritized a number of proposed actions and programs needed to mitigate the vulnerabilities of the Beverly Beach Water District to the impacts of future disasters within the *Lincoln County, Multi-Jurisdictional Natural Hazards Mitigation Plan*; and

Whereas, these proposed projects and programs have been incorporated into the *Lincoln County, Multi-Jurisdictional Natural Hazards Mitigation Plan* that has been prepared and promulgated for consideration and implementation by the participating cities and special districts of Lincoln County; and

Whereas, the Oregon Department of Emergency Management and Federal Emergency Management Agency, Region X officials have reviewed the *Lincoln County, Multi-Jurisdictional Natural Hazards Mitigation Plan* and pre-approved it contingent upon this official adoption of the participating governments and entities;

Whereas, the NHMP is in an on-going cycle of development and revision to improve it's effectiveness; and

Whereas, Beverly Beach Water District adopts the NHMP and directs the Board of Commissioners to develop, approve, and implement the mitigation strategies and any administrative changes to the NHMP.

Now, therefore, be it resolved, that the Beverly Beach Water District adopts *the Lincoln County Multi-Jurisdictional Natural Hazards Mitigation Plan* as an official plan; and

Be it further resolved, that the Beverly Beach Water District] will submit this Adoption Resolution to the Oregon Department of Emergency Management and Federal Emergency Management Agency, Region X officials to enable final approval of the *Lincoln County Multi-Jurisdictional Natural Hazards Mitigation Plan.*

Adopted this 19 day of November, 2025

K Millisan

Certifying Official

Kristen Millisan

President, Board of Commissioners

Table of Contents

List of Tables

List of Maps

Introduction

Purpose and Adoption

This is the Beverly Beach Water District (Beverly Beach WD) addendum to the Lincoln County Multi-Jurisdictional Natural Hazards Mitigation Plan (NHMP). This addendum is not intended to be a standalone document, rather information contained herein supplements information contained in Volume I (Basic Plan) which serves as the NHMP foundation and Volume II (Appendices), which provides additional information. This addendum meets the following requirements:

- Multi-jurisdictional **Plan Requirements: Participation** §201.6(a)(4),
- Multi-Jurisdictional **Plan Content: Risk Assessment** §201.6(c)(2)(iii),
- Multi-jurisdictional **Plan Content: Mitigation Strategy** §201.6(c)(3)(iv), and
- Multi-jurisdictional **Plan Content: Documentation** §201.6(c)(5).

This is the first addendum to the Lincoln County NHMP for the Beverly Beach WD.

Process, Participation, and Adoption

This section of the NHMP addendum addresses 44 CFR 201.6(a)(3), *Participation and* 44 CFR 201.6(c)(5), *Plan Adoption.*

Beverly Beach WD adopted their addendum to the Lincoln County Multi-jurisdictional NHMP on November 19, 2025. FEMA Region X approved the Lincoln County NHMP and the district's addendum on December 17, 2025. With approval of this NHMP the district is now eligible to apply for the Robert T. Stafford Disaster Relief and Emergency Assistance Act's hazard mitigation project grants through December 16, 2030.

In addition to establishing a comprehensive community-level mitigation strategy, the Disaster Mitigation Act of 2000 (DMA2K), and the regulations contained in 44 CFR 201, require that jurisdictions maintain an approved NHMP to receive federal funds for mitigation projects. Local adoption, and federal approval of this NHMP ensures that the Beverly Beach WD will remain eligible for hazard mitigation assistance project grants.

The Oregon Partnership for Disaster Resilience (OPDR) at the University of Oregon's Institute for Policy Research and Engagement (IPRE) collaborated with the Oregon Department of Emergency Management (OEM), Lincoln County, and Beverly Beach WD to develop this addendum. Members of Beverly Beach WD participated in the County NHMP update process (Attachment A and Volume II, Appendix B).

Convener and Committee

The district's Chair of the Board of Commissioners serves as the NHMP addendum convener. The convener of the NHMP addendum will take the lead in implementing, maintaining, and

updating the addendum in collaboration with the designated convener of the Lincoln County NHMP (Lincoln County Emergency Manager).

Representatives from the District met formally, and informally, to discuss the development of their addendum (Attachment A). They reviewed and developed the district's addendum, with a focus on their risk assessment and mitigation strategy (action items).

This addendum reflects decisions made at the designated meetings, and during subsequent work, and communication with OPDR.

The Beverly Beach WD steering committee was comprised of the following representatives:

- Convener, Kristen Milligan, Board Member
- Timothy Gross, Board Member
- Leo Newberg, Board Member
- Roger Rees, Board Member

Implementation and Maintenance

The Beverly Beach WD Board of Directors will be responsible for adopting the addendum to the Lincoln County NHMP. This addendum designates the steering committee, and a convener to oversee the development, and implementation of action items. Because the District is part of the County's multi-jurisdictional NHMP, the District will look for opportunities to partner with the County. The district's steering committee will convene after adoption of the addendum on an annual schedule. The County is meeting on a quarterly basis and will provide opportunities for participating jurisdictions (cities and special districts) to report on NHMP implementation and maintenance during their meetings. The steering committee, assembled by the convener, will be responsible for:

- Reviewing existing action items to determine suitability of funding;
- Reviewing existing and new risk assessment data to identify issues that may not have been identified at NHMP creation;
- Educating, and training new steering committee members on the NHMP, and mitigation actions in general;
- Assisting in the development of funding proposals for priority action items;
- Discussing methods for continued public involvement;
- Evaluating effectiveness of the NHMP at achieving its purpose and goals (use Table 4-1, Volume I, Section 4, as one tool to help measure effectiveness); and
- Documenting successes, and lessons learned.

The convener will also remain active in the County's implementation and maintenance process (Volume I, Section 4).

The Steering Committee will be responsible for activities outlined in Volume I, Section 4.

The district will utilize the same action item prioritization process as the County (Volume I, Section 4 and Volume II, Appendix D).

Implementation through Existing Programs

Many of the NHMP's recommendations are consistent with the goals and objectives of the district's existing plans and policies. Where possible, the Beverly Beach WD will implement the NHMP's recommended actions through existing plans and policies. Plans and policies already in existence have support from residents, businesses, and policy makers. Many land-use, comprehensive, and strategic plans get updated regularly, allowing them to adapt to changing conditions and needs. Implementing the NHMP's action items through such plans and policies increases their likelihood of being supported and implemented.

This NHMP is strategic and non-regulatory in nature, meaning that it does not necessarily set forth any new policy. It does, however, provide: (1) a foundation for coordination and collaboration among agencies, residents, and the district; (2) identification and prioritization of future mitigation activities; and (3) aid in meeting federal planning requirements and qualifying for assistance programs. This NHMP shall be posted publicly to the District's website. The Beverly Beach WD also currently has the following plans relating to natural hazard mitigation, which are available on request through the District's website.

- Foundation Investigation and Seismic Hazard Study (2008)
- Water System Schematics
- Redundant Waterline Improvements Project to provide a seismically hardened loop to the storage tank to reduce water outage due to line breaks. (in progress – design only)

Capability Assessment

The Capability Assessment identifies and describes the ability of the Beverly Beach WD to implement the mitigation strategy and associated action items. This is a key component of the 2024 Natural Hazard Mitigation Plan (NHMP) update. Capabilities can be evaluated through an examination of broad categories, including existing authorities, policies, programs, funding, and resources.

Policies and Programs

The NHMP provides direction for the Beverly Beach WD to explore integration into other planning documents and processes.

Personnel

The district is governed by a board of five elected commissioners, serving on volunteer basis. The board is responsible for the overall operations and performance of the district's water distribution. The district contracts private companies for the day-to-day bookkeeping and water system engineering and operations.

Mitigation Successes

This is a list of funding that Beverly Beach WD has sought out or received, as well as recently completed projects to improve mitigation.

- HMGP-DR-FM-4768-OR for additional water line that is hardened against ground movement
- American Rescue Plan Act (ARPA) grant of $38,100 for the engineering and planning of redundant water lines, as well as the replacements of fire hydrants

Mitigation Strategy

This section of the NHMP addendum addresses 44 CFR 201.6(c)(3)(iv), *Mitigation Strategy*.

The Beverly Beach WD adopts the mission and hazard mitigation goals described in Volume I.

To develop the district's mitigation strategy (action items), the Steering Committee assessed the district's risk and identified potential issues to be addressed. The Steering Committee also noted what mitigation accomplishments have been made in recent years.

Priority Action Items

Table WD-1 presents a list of mitigation actions. The highest priority actions are shown with orange highlight. The district will focus their attention, and resource availability, upon these achievable, high leverage, activities over the next five years. Although this methodology provides a guide for the steering committee in terms of implementation, the steering committee has the option to implement any of the action items at any time. This option to consider all action items for implementation allows the committee to consider mitigation strategies as new opportunities arise, such as capitalizing on funding sources that could pertain to an action item that is not currently listed as the highest priority.

Table WD-1 Action Items

Mitigation Strategies		Impacted Hazard												Implementation and Maintenance			
Action Item #	Statement	Air Quality	Coastal Erosion	Drought	Earthquake	Extreme Heat	Flood	Landslide	Tsunami	Volcanic Event	Wildfire	Windstorm*	Winter Storm	Potential Funding Resources	Lead	Timeline	Cost
1	Replace the existing roof of the water treatment plant with a steel roof to enhance fire resilience and reduce vulnerability to embers and radiant heat during wildfire events. This upgrade will protect critical infrastructure and ensure continuity of operations										X	X	X	Local Funds, USDA grant, HMGP, Revenue Bond	Board of Commissioners	S	L
2	Implement a resilient communication upgrade to the water treatment plant by deploying either fiber optic cable or a high-reliability wireless system (e.g., microwave or LTE/5G), depending on feasibility and site conditions. This enhancement will improve SCADA system performance and ensure uninterrupted remote monitoring and control during natural hazard events such as windstorms or earthquakes.				X						X	X	X	Local Funds, USDA grant	Board of Commissioners	M	L
3	Install a pressure transducer and a Remote Terminal Unit (RTU) at the municipal water tank to enable real-time remote monitoring of water levels and pressure. This will enhance operational awareness and response time during emergencies, including landslides and power outages.				X			X			X	X	X	Local Funds, CRWU	Board of Commissioners	M	L
4	Construct a redundant water line in a geologically stable corridor to ensure uninterrupted water service in the event of a landslide that compromises the primary line. This project will be designed to withstand ground movement and will be supported by seismic and geotechnical assessments.		X		X			X						HMGP, USDA grant	Board of Commissioners	M	H
5	Inspect, rehabilitate, or replace 100% of the district's fire hydrants to ensure full operational functionality during wildfire or structural fire emergencies. This action will improve fire suppression capacity and align with the district's fire resilience goals.										X			Local Funds. HMGP	Board of Commissioners	S	L
6	Establish at least one formal interconnection agreement with a neighboring water system (e.g., Depoe Bay or Newport) to enhance regional water supply resilience. This agreement will include mutual aid protocols and infrastructure compatibility assessments to support emergency water sharing during hazard events.		X	X										Local Fund, HMGP, CWSRF, WIFIA, Revenue Bond	Board of Commissioners	L	H
7	Develop and implement a defensible space and vegetation management plan around the treatment plant, pump stations, and tank sites by spring 2026 to reduce wildfire risk and improve facility access.			X							X			Local Funds. HMGP	Board of Commissioners	S	L

Mitigation Strategies		Impacted Hazard												Implementation and Maintenance			
Action Item #	Statement	Air Quality	Coastal Erosion	Drought	Earthquake	Extreme Heat	Flood	Landslide	Tsunami	Volcanic Event	Wildfire	Windstorm*	Winter Storm	Potential Funding Resources	Lead	Timeline	Cost
8	Create a plan to ensure continued access to critical infrastructure (e.g., treatment plant, storage tank) during landslides, coastal erosion, or flooding events. This may include identifying alternate routes, pre-positioning equipment, and coordinating with Lincoln County emergency services.		X				X	X		X				Local Funds. HMGP, CRWU	Board of Commissioners	S	L
9	Complete a seismic assessment of the water treatment plant and storage tank to identify structural weaknesses and prioritize retrofits.				X									Local Funds	Board of Commissioners	M	L to VH

Source: Beverly Beach WD steering committee, 2025.
Cost: L (less than $50,000), M ($50,000-$499,999), H ($500,000-$5 million), VH (more than $5 million),
Potential Funding Sources: HMA=FEMA's Hazard Mitigation Assistance disaster and non-disaster grant programs
Timing: Short (1-4 years), Medium (4-10 years), Long (10 or more years)
Priority Actions: Identified with orange highlight
Dark Grey highlight indicates that the hazard does not impact the jurisdiction.

Risk Assessment

This section of the NHMP addendum addresses 44 CFR 201.6(b)(2) - *Risk Assessment*. In addition, this chapter can serve as the factual basis for addressing Oregon Statewide Planning Goal 7 – Areas Subject to Natural Hazards. Assessing natural hazard risk has three phases:

Phase 1: Identify hazards that can impact the jurisdiction. This includes an evaluation of potential hazard impacts – type, location, extent, etc.

Phase 2: Identify important community assets and system vulnerabilities. Example vulnerabilities include people, businesses, homes, roads, historic places and drinking water sources.

Phase 3: Evaluate the extent to which the identified hazards overlap with, or have an impact on, the important assets identified by the community.

The local level rationale for the identified mitigation strategies (action items) is presented herein, and within Volume I, Section 2, and Volume II, Appendix C.

Hazard Analysis

The district developed their hazard analysis, using the County's (Volume I, Section 2) as a reference. Where appropriate, changes were made to distinguish the district's risks from those in the County's hazard analysis, as detailed throughout this addendum.

Table WD-2 shows the hazard analysis matrix listing each hazard in rank from high to low. For local governments, conducting hazard analysis is a useful step in planning for hazard mitigation, response, and recovery. The method provides the jurisdiction with a sense of hazard priorities but does not predict the occurrence of a particular hazard. See Volume I, Section 2 for methodology details.

Landslide, wildfire, Cascadia Subduction Zone earthquake, riverine flood, windstorm, winter storm, drought, and coastal erosion are the high hazard threats to the district. Crustal earthquake and volcanic event are the low hazard threats.

The water district's primary responsibilities focus on the management, protection, and operation of water-related infrastructure. While the safety of people is important to the district's mission, it does not serve as the lead agency for emergency response or public safety during hazard events.

Instead, the district works in close collaboration with county and city agencies that have broader responsibilities for managing community-wide impacts. The district provides technical expertise and support related to water infrastructure, while local jurisdictions lead efforts in emergency response, public safety, and disaster recovery.

Given this operational scope, the district is not directly affected by the following hazards and does not have infrastructure or responsibilities that warrant profiling them in its hazard

analysis: air quality, coastal flood, extreme heat, local and distant tsunami, and tornado. These hazards fall outside the district's direct impact zone or operational purview and are more appropriately addressed by other agencies within the broader emergency management framework.

Hazards classified in the 'bottom tier' pose low probability of occurrence and/or vulnerability of impact to the district. Therefore, the district has chosen not to develop specific mitigation strategies for these hazards. Instead, the district will support and collaborate with the County and relevant cities in implementing broader mitigation efforts related to these hazards.

Table WD-2 Hazard Analysis Matrix

Hazard	History	Vulnerability	Maximum Threat	Probability	Total Threat Score	Hazard Rank	Hazard Tiers
Landslide	20	40	90	70	220	#1	
Wildfire	20	25	90	70	205	#2	
Earthquake (Cascadia)	2	50	100	49	201	#3	
Flood (Riverine)	10	30	60	70	170	#4	*Top Tier*
Windstorm	20	20	50	70	160	#5	
Winter Storm	18	20	50	70	158	#6	
Drought	20	25	40	70	155	#7	
Coastal Erosion	20	15	30	70	135	#8	
Earthquake (Crustal)	10	20	40	21	91	#9	*Bottom Tier*
Volcanic Event	2	5	40	7	54	#10	

Source: Beverly Beach WD steering committee, 2025.

Community Characteristics and Assets

The following section provides information on Beverly Beach WD specific demographics and assets (see Table WD-4). Many of these community characteristics can affect how natural hazards impact communities, and how communities choose to plan for natural hazard mitigation. Considering the District specific assets during the planning process can assist in identifying appropriate measures for natural hazard mitigation.

Community Characteristics

Beverly Beach Water District serves the residential community of Beverly Beach, located just south of Otter Rock along Oregon's scenic Highway 101. The district operates a conventional water treatment plant on Wade Creek, which supplies one storage tank with a capacity of 130,000 gallons. The district currently maintains 140 service connections and is committed to delivering safe, reliable drinking water. The district manages a range of infrastructure assets including a treated water storage tank, raw water pumps, a SCADA system, and a distribution pipeline network. In addition to ensuring water quality and pressure, the district actively engages in hazard mitigation planning to enhance system resilience against natural threats such as landslides and wildfires.

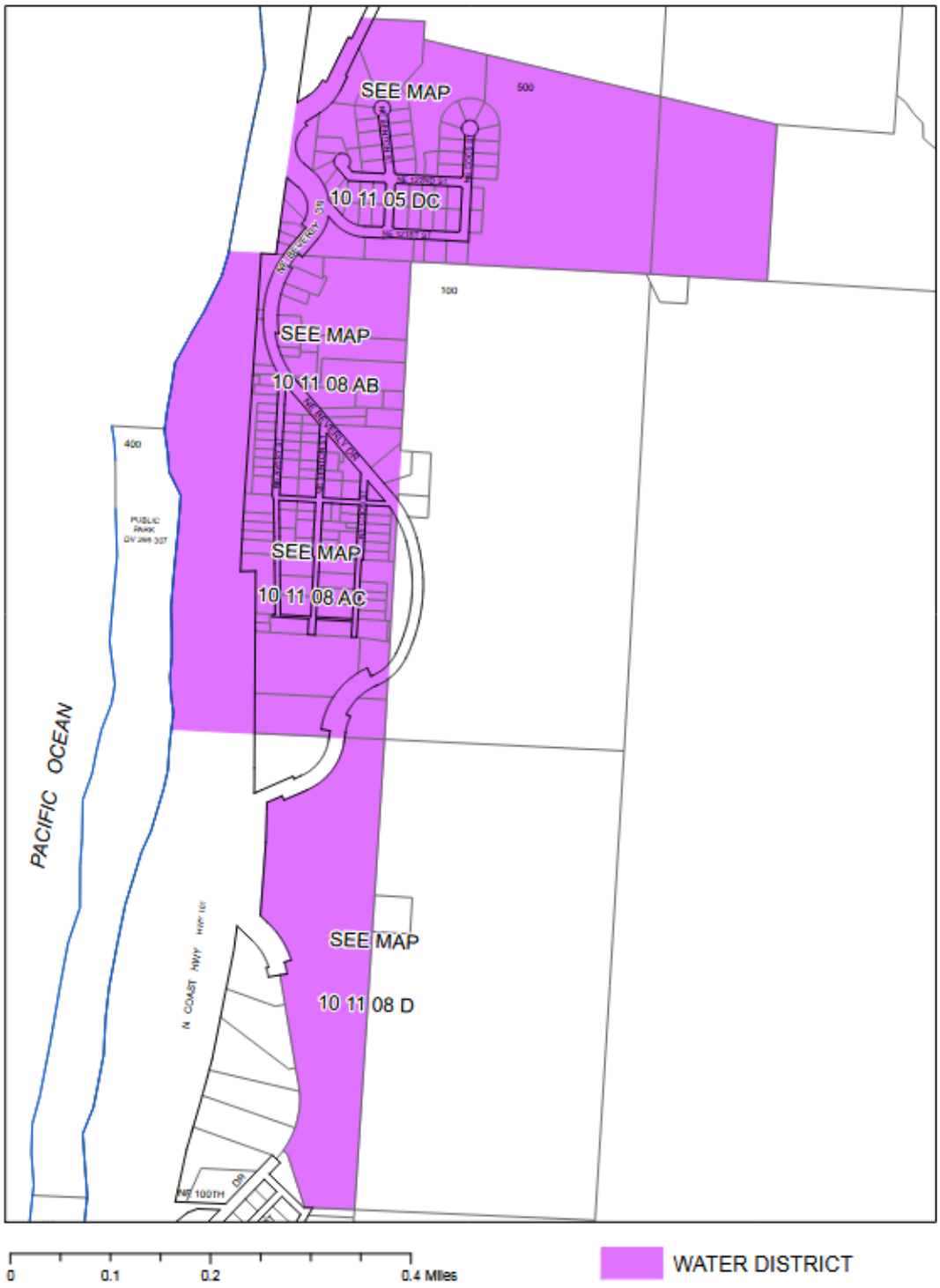
Facilities and Property Assets Inventory

This section provides information on district specific assets. Assets that may be affected by hazard events include residential and nonresidential buildings, critical facilities, and infrastructure. Considering the district specific assets during the planning process can assist in identifying appropriate measures for natural hazard mitigation.

Table WD-4 lists the resources, facilities, and infrastructure that, if damaged, could significantly impact the public safety, economic conditions, and environmental integrity of the district.

The majority of the district's facilities are contained within their service area, with the exception of the water treatment plant and intake which is located to the southeast (Map WD-1). The service area includes the Lincoln County unincorporated communities of Beverly Beach.

Map WD-1 District Boundaries



Source: Lincoln County GIS - Click link for more information

Hazard Identification

This section profiles the district's hazards and assesses their vulnerabilities, distinct from the countywide planning area. Detailed hazard profiles of the most significant countywide hazards are described in Volume I, Section 2. The detailed profiles include hazard characteristics, history, location, extent, previous occurrences, and probability of future occurrences. An event that affects the County is likely to affect the district as well. However, not all hazards impact the district assets. The district chose to profile the hazards shown in Table WD-2 due to the impact these hazards have upon their assets. Factors included during discussions by the district included the number of potential assets damaged, extent of damage, and length of time required for repairs (economic losses were also considered).

Additional information is found in the Risk Assessment for Region 1, Oregon Coast, Oregon SNHMP (2020).

National Flood Insurance Program (NFIP)

The district does not have the authority to adopt and enforce floodplain management or other land use regulations for the areas within its jurisdiction. For more information on National Flood Insurance Program (NFIP) claims and other potential flood impacts, see the County plan (Volume I).

Vulnerability Assessment

Development and population forecasts are not expected to increase or decrease the impact of their profiled hazards.

The district's concentrated population and resources, as well as the soil characteristics and relative earthquake hazards described herein and in Volume I, Section 2 are cause for significant effort toward mitigating the earthquake hazard. The district's infrastructure (water lines, tanks, treatment plant, etc.) is highly vulnerable to a severe earthquake event. No quantitative assessment of the risk of natural hazards has been conducted at a district wide scale. However, there have been several reports conducted for the unincorporated region of the county that include the district's service area.

Table WD-3 provides the ranking of hazards of concern based on total threat score and Table WD-4 shows hazard impact to the district's assets.

Hazard area extent and location maps are included in Attachment B. Information shown on the maps is for planning purposes, represents the conditions that exist at the map date, and is subject to change. Refer to the original source documentation to better understand the data sources, results, methodologies and limitations of each dataset presented.

Table WD-3 Hazard Risk and Description of Impact

Hazard	Description of Impact	Total Threat Score
Landslide	Landslides pose the most significant natural hazard, particularly due to the district's location on steep coastal terrain. While the water treatment plant and key infrastructure are not directly on landslide-prone slopes, landslides could disrupt access routes, damage distribution lines, and isolate operators during emergencies.	220
Wildfire	Wildfire risk in the district is moderate, with concerns centered on smoke and ashfall rather than direct flame contact. Ash and debris could affect water quality and clog filtration systems. The district's fire-fighting capacity is limited to small-scale events, and coordination with nearby fire departments is essential.	205
Earthquake (CSZ Event)	A Cascadia Subduction Zone earthquake could cause widespread shaking and potential damage to infrastructure, including the water treatment plant, storage tanks, and pipelines. While the district is not in a high liquefaction zone, seismic vulnerability remains a concern, especially for older components.	201
Flood (Riverine)	Although flooding is rare in the district, past events have damaged water pumps. The treatment plant is elevated above Wade Creek, reducing direct flood risk, but localized flooding could still impact pump access and operations during heavy rainfall.	170
Windstorm	Windstorms primarily threaten the district through power outages, which can disrupt water treatment and distribution. While the district has backup systems, prolonged outages could strain operations, especially if access to fuel or repair services is delayed.	160
Winter Storm	Winter storms bring high winds and heavy rain, increasing the risk of landslides and power loss. Although snow and ice are uncommon, saturated soils and falling trees can damage infrastructure and hinder emergency response.	158
Drought	The district has a resilient water supply and has not experienced water restrictions in recent years. However, prolonged drought could reduce streamflow in Wade Creek	155

Hazard	Description of Impact	Total Threat Score
	and challenge long-term water availability, especially during peak demand periods.	
Coastal Erosion	Coastal erosion does not directly threaten the district infrastructure but could impact Highway 101, which is critical for operator access and emergency response. Erosion may also exacerbate other hazards like landslides and tsunami effects.	135
Earthquake (Crustal)	Crustal earthquakes could damage pipelines and treatment facilities, particularly if accompanied by ground movement or landslides. While less severe than a CSZ event, these quakes still pose a notable risk to service continuity.	91
Volcanic Event	Ashfall from distant volcanic eruptions could contaminate surface water sources and impair filtration systems. While not a frequent threat, the district must be prepared to implement emergency treatment protocols in such events.	54

Source: Beverly Beach WD steering committee, 2025.

Table WD-4 Facilities Summary

Name/Number	Address	Identified Hazard Exposure											
		AQ	CE	DR	EQ	EH	FL	LS	TS	VE	WF	WS	WT
Water Treatment													
Water Treatment Facility				X	X			X			X		X
Storage Tanks													
Treated water storage tank					X			X					
Pump Stations													
Two exterior raw water pumps				X	X		X	X		X	X		
Piping, Hydrants, Generators, and other infrastructure													
SCADA system					X					X		X	X
Distribution pipelines					X			X					
Community Center/Office					X							X	X
Hydrants											X		

Source: Information provided by Beverly Beach WD
Dark Grey highlight indicates that the hazard does not impact the jurisdiction.

Table Key:
"X" – Facility may be exposed and may be impacted by the identified hazard per a visual inspection of the mapped hazard area
[blank] = facility exposure has not been assessed for this hazard

Hazard Descriptions:

AQ = Air Quality	EH = Extreme Heat	LS = Landslide	WF = Wildfire
CE = Coastal Erosion	EQ = Earthquake	TS = Tsunami	WS = Windstorm/Tornado
DR = Drought	FL = Flood	VE = Volcanic Event	WT = Winter Storm

Attachment A: Public Involvement Summary

Members of the Steering Committee helped to develop and provide edits to the NHMP prior to the public review period as reflected in the final document. In addition, a survey was distributed that included responses from residents of the district (Volume II, Appendix G).

To provide public information regarding the draft NHMP addendum, and provide an opportunity for comment, an announcement was provided from August 7 through 21, 2025 on the County's website and publicized by the district. Comments were reviewed and integrated into the NHMP as applicable. Additional opportunities for stakeholders and the public to be involved in the planning process are addressed in Volume II, Appendix B.

Various agencies and organizations contributed input through multiple channels, including comments on the draft. These groups include local and regional hazard mitigation agencies, development regulators, neighboring communities, businesses, academia, nonprofits, and community-based organizations serving underserved and socially vulnerable populations (see Volume II, Appendix B).

Steering Committee

Steering Committee members possessed familiarity with the district and how it is affected by natural hazard events. The Steering Committee guided the development process through several steps including goal confirmation, action item review, development, and prioritization, and information sharing, to make the NHMP as comprehensive as possible. The Steering Committee met formally on the following dates:

Meeting #1: April 8, 2025 (virtually via Zoom)
During this meeting, the Steering Committee was provided updates on hazard mitigation planning, the NHMP update process, and project timeline. The Steering Committee meeting details include:

- Reviewed and provided feedback on recent history of hazard events.
- Reviewed and confirmed the County NHMP's mission and goals.
- Discussed the NHMP public outreach strategy.
- Reviewed and provided feedback on the draft risk assessment including community vulnerabilities and hazard information.
- Developed their mitigation strategy (actions).
- Reviewed and provided feedback on their implementation and maintenance program.

Meeting Attendees:

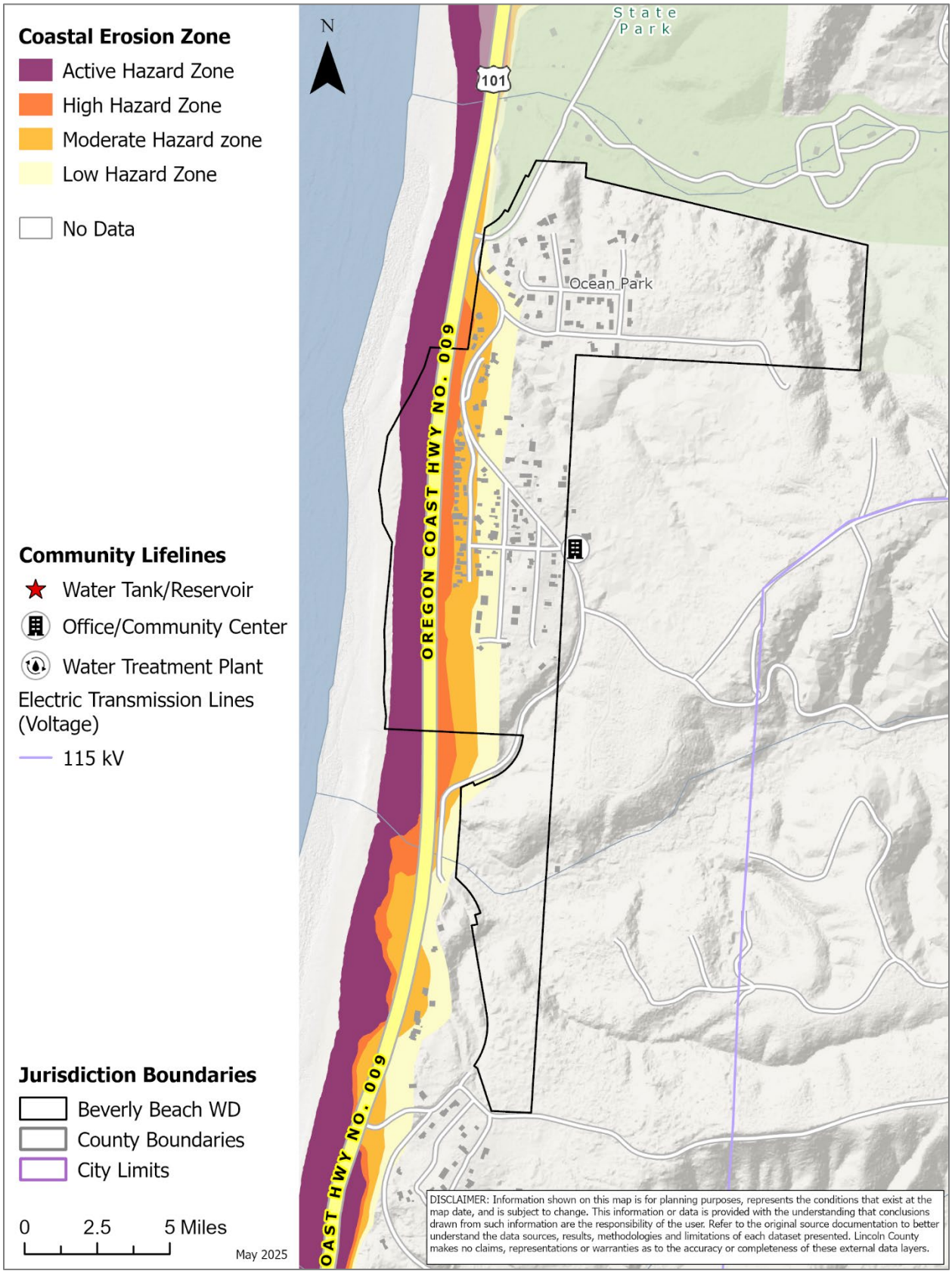
- Tim Gross, Board Member
- Kristen Milligan, Board Member

Meeting Summary:

The agenda included reviewing the district's capabilities, assets, and hazard vulnerability assessment (HVA), with the goal of refining the mitigation strategy. Key discussions involved identifying relevant hazards—such as landslides, wildfires, and coastal erosion—while recommending the removal of less pertinent threats like tornadoes and extreme heat. The team also reviewed existing infrastructure, including water treatment facilities and fire-fighting capabilities, and discussed recent mitigation efforts funded through FEMA, ARPA, and local bonds. Participants were tasked with developing action items, ensuring alignment with current and anticipated future risks and community needs.

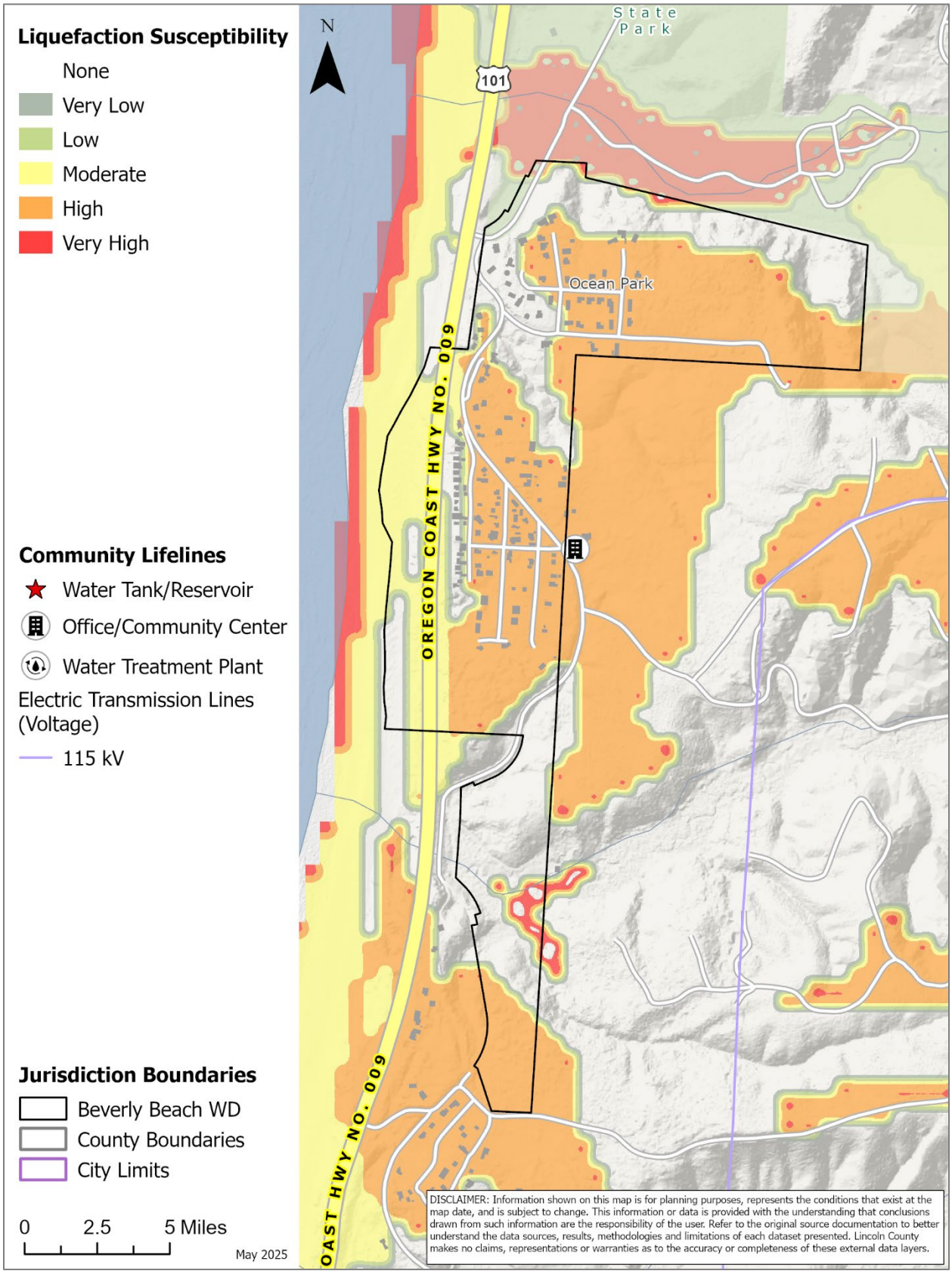
Attachment B: Hazard Maps

Map WD-2 Coastal Erosion Hazard



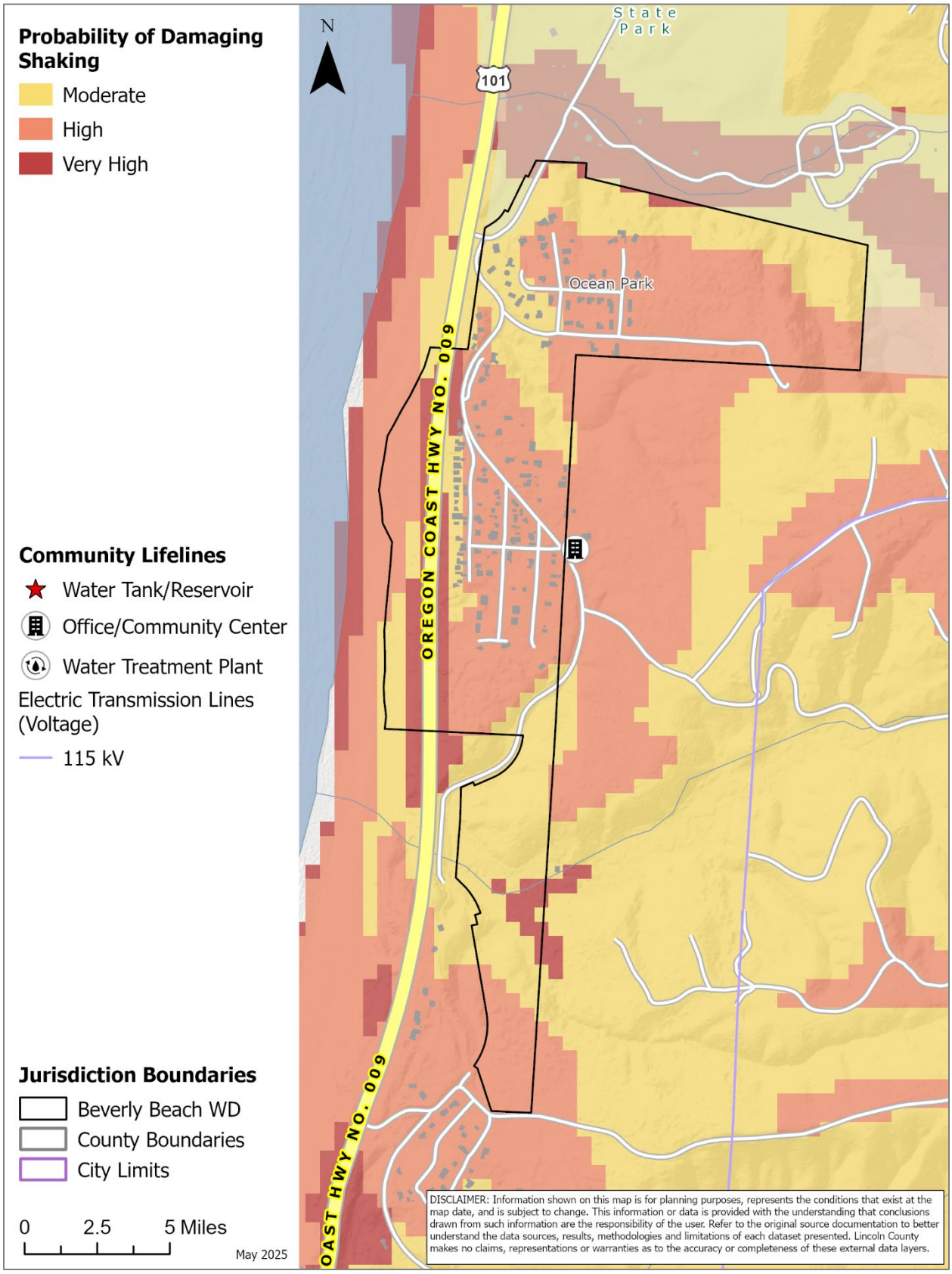
Source: Oregon Explorer: Map Viewer – To view map detail click hyperlink to left.

Map WD-3 Earthquake Liquefaction (Soft Soil) Hazard and Active Faults



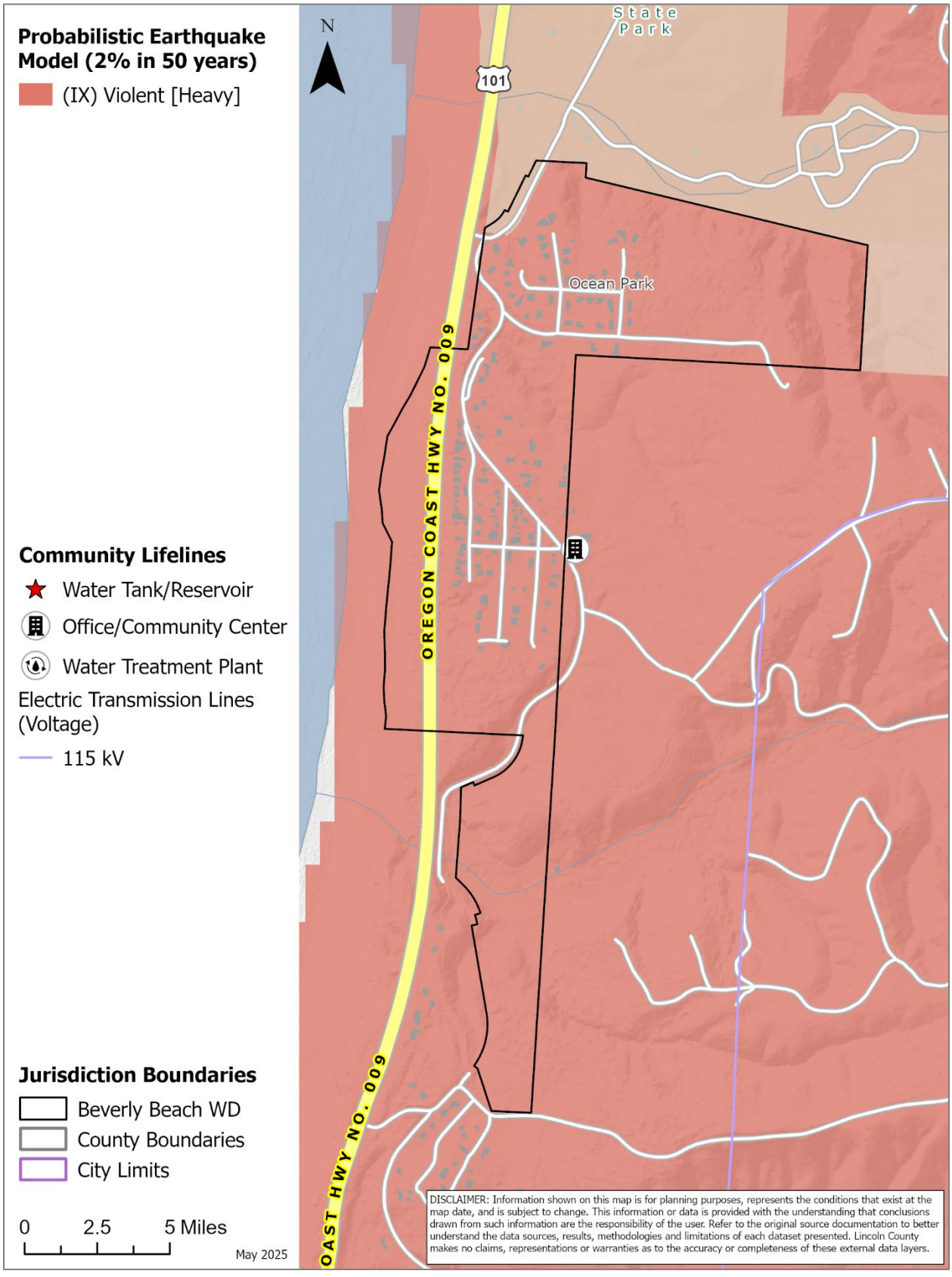
Source: Oregon Explorer: Map Viewer – To view map detail click hyperlink to left.

Map WD-4 Probability of Damaging Shaking



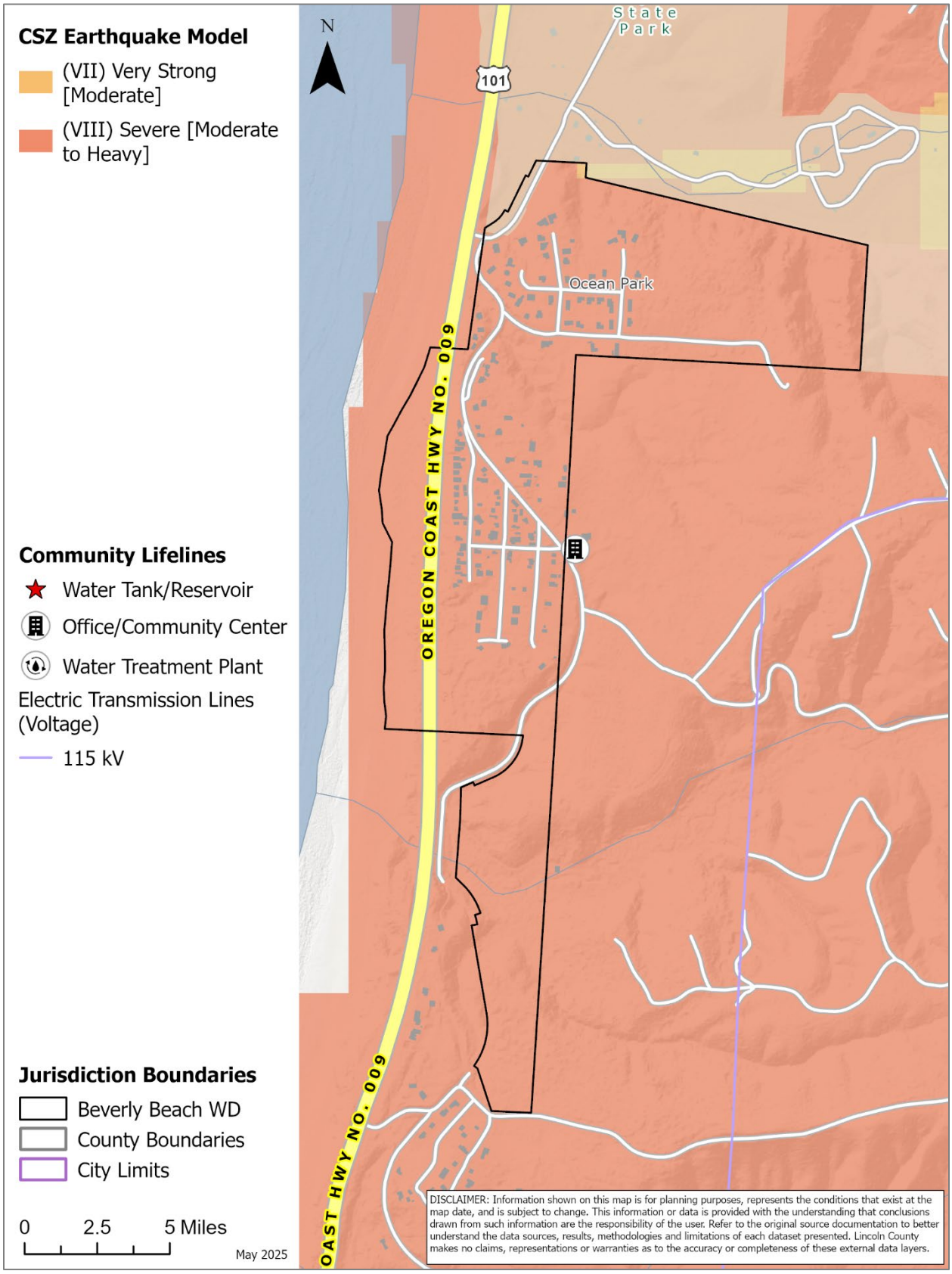
Source: Oregon Explorer: Map Viewer – To view map detail click hyperlink to left.

Map WD-5 Perceived Shaking and Damage Potential, Probabilistic Earthquake Model



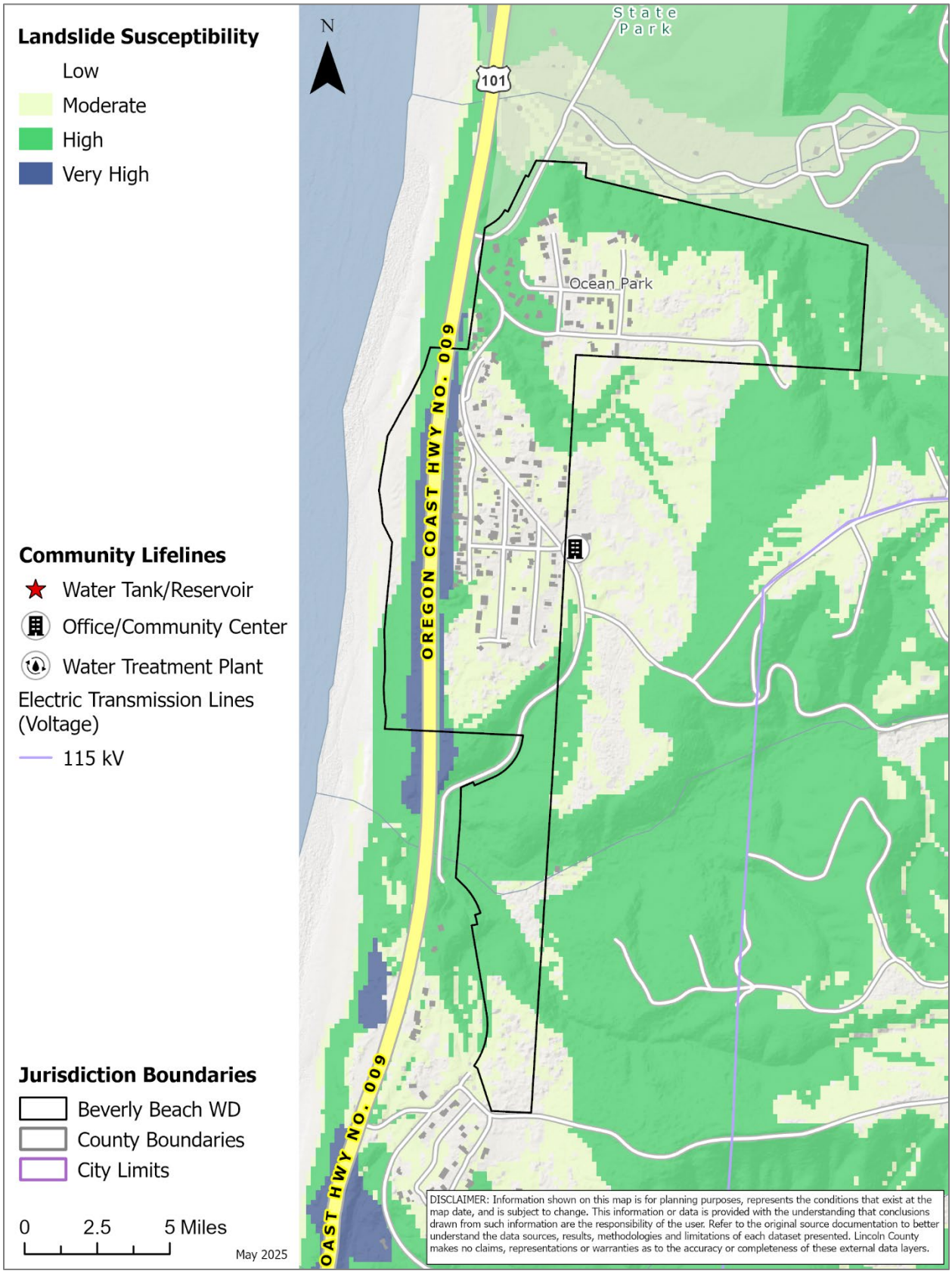
Source: Oregon Explorer: Map Viewer – To view map detail click hyperlink to left.

Map WD-6 Perceived Shaking and Damage Potential, CSZ Earthquake Model



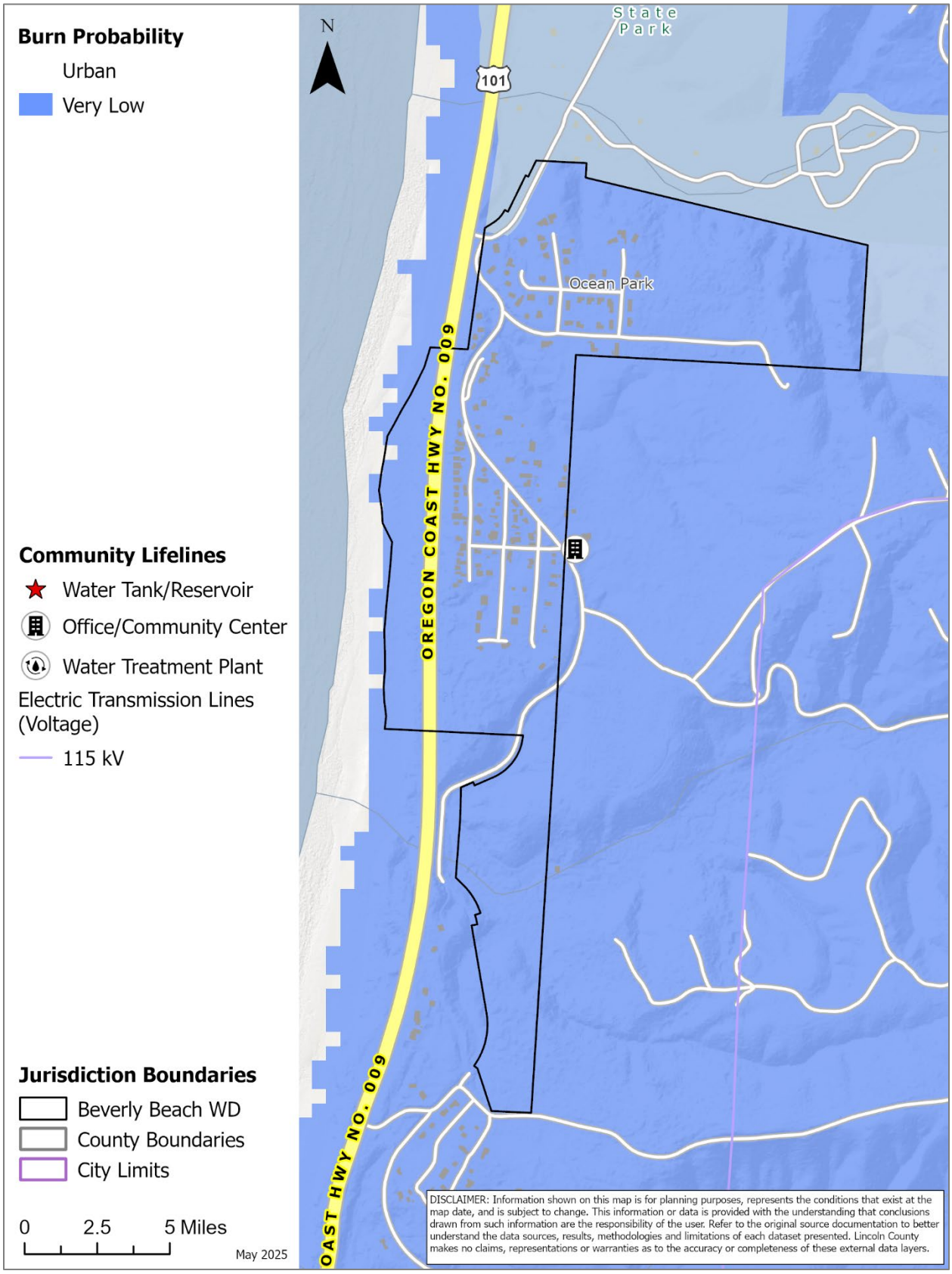
Source: Oregon Explorer: Map Viewer – To view map detail click hyperlink to left.

Map WD-7 Landslide Susceptibility Exposure



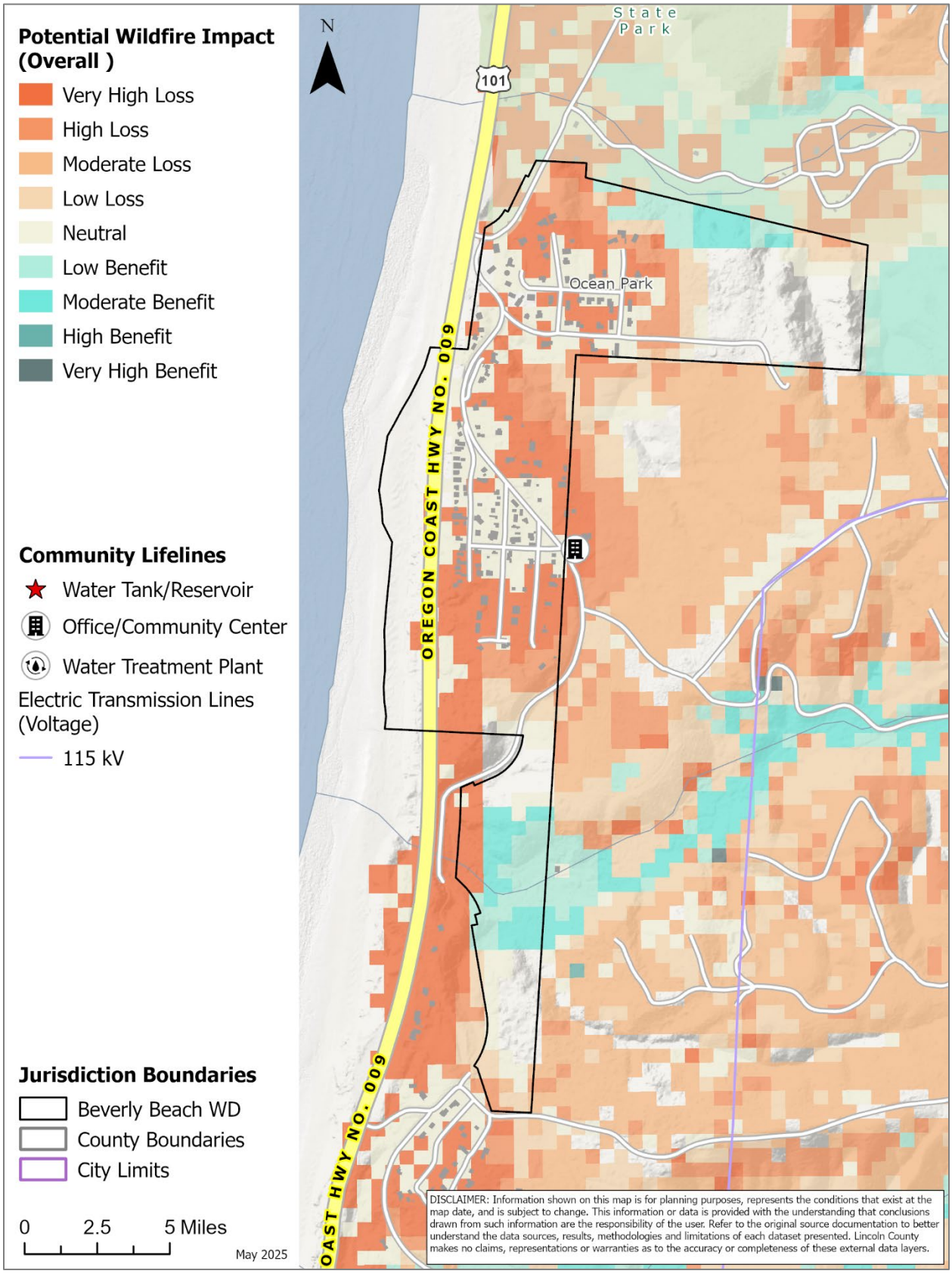
Source: Oregon Explorer: Map Viewer – To view map detail click hyperlink to left.

Map WD-8 Burn Probability and Fire History (1992-2022)



Source: Oregon Explorer: Map Viewer – To view map detail click hyperlink to left.

Map WD-9 Potential Wildfire Impact (Overall)



Source: PNW Quantitative Wildfire Risk Assessment (2023, layer name = icNVC), To view map detail click hyperlink to left..