OREGON WATERSHED ENHANCEMENT BOARD

Agenda Item K

Focused Investment Partnership

Ecological Priorities

Board Meeting October 28-29, 2025

Oregon
Tina Kotek, Governor

OREGON WATERSHED ENHANCEMENT BOARD
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MEMORANDUM

TO: Oregon Watershed Enhancement Board

FROM: Eric Williams, Restoration Grants Manager
Jillian McCarthy, Partnerships Coordinator
Denise Hoffert, Partnerships Coordinator
Eric Hartstein, Senior Policy Coordinator

SUBJECT: Agenda Item K - Focused Investment Partnership Draft Ecological Priorities & Next Grant Solicitation

October 28-29, 2025, Board Meeting

I. Background

The Focused Investment Partnership (FIP) grant program provides multiple years of funding for high performing partnerships to implement landscape-scale restoration and conservation that addresses Board-identified ecological priorities of significance to the State. Oregon Administrative Rule 695-047-0030 requires the Board to approve these ecological priorities at least every five years, and that the priorities be determined with public input, scientific rigor, and include a map, theory of change (expected short and long term outcomes), and narrative describing the desired ecological outcomes for eligible FIP initiative activities. In 2020 the Board approved, with modest revisions, the following ecological priorities that were first designated by the Board in 2015:

- Aquatic Habitat for Native Fish Species
- Closed Lakes Basin Wetland Habitat
- Coastal Estuaries
- Coho Habitat and Populations along the Coast
- Dry-Type Forest Habitat
- Oak Woodland and Prairie Habitat
- Sagebrush/Sage-Steppe Habitat

In 2025, the Board is considering revised and/or new ecological priorities for the FIP program. OWEB staff have been working with the board Partnerships and Capacity Committee to develop draft ecological priority revisions.

II. Draft Ecological Priorities

Earlier this year OWEB staff began the FIP ecological priority update process by engaging the public and tribes with a survey, listening sessions, and written comments. Additionally, staff reached out to state and federal natural resource agencies for input to inform potential revisions to the ecological priorities. Broadly, these engagement efforts pointed

towards updating the existing ecological priorities with new information, and in some cases, new maps. The draft ecological priority with the most substantive revisions is the "Aquatic Habitat for Native Fish," which has merged with "Coho Habitat and Populations along the Coast" and expanded to include habitat for other certain aquatic species. Attachment A provides a summary of the draft revisions to the ecological priorities, and Attachment B includes the draft revisions to each of the ecological priority memos.

To view the existing priority memos that were adopted by the OWEB Board in 2020, please see the FIP webpage.

III. Board Feedback on Ecological Priorities and Next Steps for the FIP Program

At the October meeting, staff will present the draft revisions to the FIP ecological priorities and request board feedback. Following the October Board meeting, it is expected that any further refinements will be made to the draft ecological priorities by staff and the Partnerships and Capacity Committee, and at the January 27-28 meeting, the Board will consider approving final FIP ecological priorities.

Following the January board meeting, OWEB is expecting to announce the solicitation for new FIP initiatives to begin in the 2027-2029 biennium. Prior to the solicitation, OAR 695-047-0090 requires the Board to determine the maximum amount for FIP initiative biennial awards. Previously, the maximum amount a FIP initiative could request per biennium was $4 million. In January 2025, the Board approved revised FIP program rules that eliminated this static cap in order to provide flexibility and account for inflation. At the October board meeting, staff will provide information to assist the Board in an initial discussion in determining the maximum amount of funding per biennium partnerships may request in the upcoming solicitation. A final recommendation will be made presented to the Board for consideration in January.

IV. Recommendation

This is an information item only.

V. Attachments

A. Summary of Revisions to FIP Ecological Priorities
B. Draft Revised FIP Ecological Priorities Memos

FIP Ecological Priorities- Draft Revisions Summary

Aquatic Habitat for Native Fish Species

- Change name to ‘Aquatic Habitat for Native Species’.
- Broaden the priority to include coast coho salmon habitat and habitat for other aquatic species (i.e., Oregon spotted frog, western pond turtle, and western ridged mussel).
- Revisions to the map for native fish, which now incorporates coast coho salmon habitat and a reprioritization of the watersheds that support native fish habitat. The draft revised map includes only the highest priority watersheds with lower priority watersheds removed.

Closed Lakes Basin Wetland Habitat

- General updates, including linkages to Oregon State Wildlife Action Plan and other reference plans.
- Substantial edits to ‘Indicator species and/or species of interest supported by this habitat’.

Coastal Estuaries

- Change name to ‘Estuary Habitats.’
- General updates, including linkages to Oregon State Wildlife Action Plan and other reference plans.

Coho Habitat and Populations along the Coast

- Removing this ecological priority and incorporating coast coho salmon into the revised ‘Aquatic Habitat for Native Species’.

Dry-Type Forest Habitat

- General updates, including linkages to Oregon State Wildlife Action Plan and other reference plans.
- Substantial updates to ‘Key limiting factors and/or ecological threats’ section.
- Updates to the map demonstrating percent of watershed needing disturbance restoration.

Oak Woodland and Prairie Habitat

- Change name to ‘Oak and Prairie Habitat.’
- General updates, including linkages to Oregon State Wildlife Action Plan and other reference plans.

- Removing reference to supporting aquatic ecosystems, as making this connection is not necessary for oak and prairie habitat.

Sagebrush/Sage-Steppe Habitat

- In addition to sage-grouse habitat, add existing high-quality sagebrush, and sagebrush growth opportunity areas, as focal areas of the priority.
- General updates, including linkages to Oregon State Wildlife Action Plan and other reference plans.

Supplemental Information to All Ecological Priorities

- Add landscape-scale disturbance as a key limiting factor and/or threat across the priorities, noting that post-disturbance restoration actions may be eligible for FIP funding.
- Add wildlife habitat connectivity as a key limiting factor and/or threat across the priorities, linking to the ODFW Priority Wildlife Conservation Areas to show where habitat connectivity is most important, and noting that actions related to connectivity are eligible within FIP initiatives.

OWEB Focused Investment Partnership Priority
AQUATIC HABITAT FOR NATIVE SPECIES - 2025 Draft Revisions

Summary Statement of Priority

The OWEB Board will consider proposals for investment in aquatic habitat for native species for Initiatives that address habitat conservation and restoration needs to achieve ecological outcomes over time at the landscape scale.

OWEB's Focused Investment Priority for Aquatic Habitat for Native Species guides voluntary actions that address limiting factors related to the quality of this habitat type. These actions also support and/or improve watershed functions and processes. Action will be guided by the habitats, limiting factors, ecological outcomes, and conservation approaches outlined in associated federal recovery plans, state conservation plans, Oregon's State Wildlife Action Plan, tribal plans, and other plans listed at the end of this document.

Background

Where it occurs

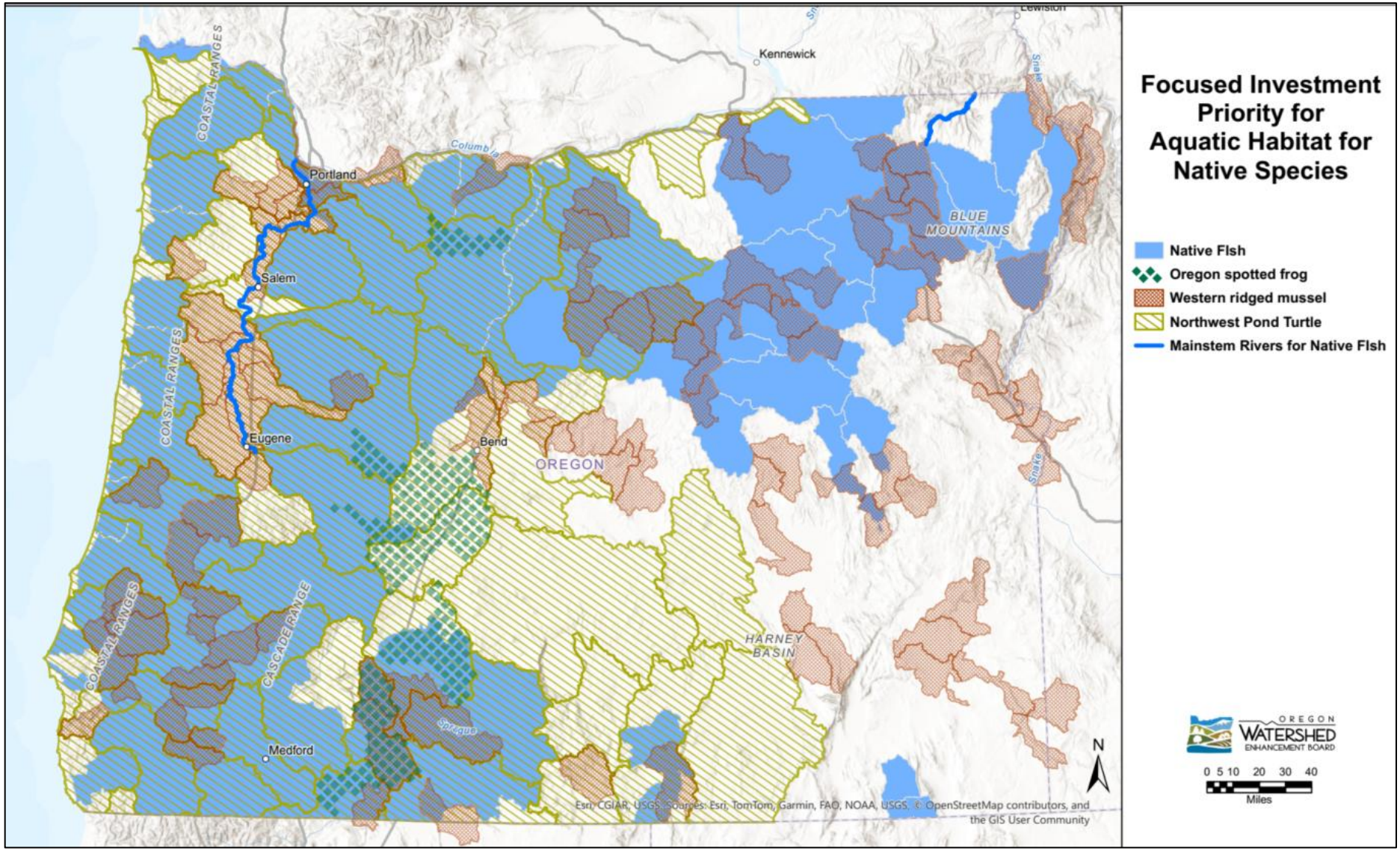
As defined here, aquatic habitats include rivers, streams, estuaries, wetlands, floodplains, lakes, tidally influenced waters, and associated riparian habitats. These areas occur across the state and provide essential habitat to many at-risk species.

The Aquatic Habitat for Native Species priority map includes priority habitat for aquatic species of conservation concern. Priority species for this FIP include those that are federally listed or proposed for listing under the Endangered Species Act (ESA), including ESA-listed fish, Oregon Spotted Frog, and Northwestern Pond Turtle. In addition, it includes associated habitat for other species that have been identified as Species of Greatest Conservation Need (SGCN) in Oregon's State Wildlife Action Plan (SWAP) such as Pacific Lamprey and Western Ridged Mussel.

Indicator species and/or species of interest supported by these habitats

Several native fish and wildlife species have been listed or are candidates for listing under the federal Endangered Species Act (ESA) or have been identified as threatened, endangered, or sensitive by the state of Oregon. These species include, but are not limited to: anadromous salmon, listed trout, several species of sucker, lamprey, chub, Oregon spotted frog, northwestern pond turtle, and Western ridged mussel.

Pacific lamprey and other native lamprey species are also included in this Priority, and there are no geographic limits for proposed conservation actions targeting lamprey. Proposed FIP initiatives that include lamprey as a focal species will be assessed independently of the associated Aquatic Habitat for Native Species map.


Focused Investment Priority for Aquatic Habitat for Native Species
Native FIsh
Oregon spotted frog
Western ridged mussel
Northwest Pond Turtle
Mainstem Rivers for Native FIsh
Kennewick
Portland
Salem
Eugene
Bend
Medford
OREGON
BLUE MOUNTAINS
HARNEY BASIN
COASTAL RANGES
CASCADE RANGE
Columbia
Snake
Sprague
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OREGON WATERSHED ENHANCEMENT BOARD
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Esri, CGIAR, USGS, Sources: Esri, TomTom, Garmin, FAO, NOAA, USGS, © OpenStreetMap contributors, and the GIS User Community

Why it is significant to the state

Aquatic habitats support an incredible number of Oregon's native fish and wildlife species. The extent of biodiversity in an aquatic habitat is a reflection of the native fish and wildlife, plants, and other aquatic species present there. High-quality aquatic systems provide essential habitat to many at-risk species, including important spawning and rearing habitat for salmonids and other native fishes and Species of Greatest Conservation need, such as Oregon Spotted Frog, Western Pond Turtle, and Western Ridged Mussels.

Sustaining aquatic biodiversity is essential to the health of our environment and to the quality of human life. Healthy aquatic ecosystems are imperative for to Oregon's communities and economy, including fisheries and recreation. Many of the species that are a focus of this Priority provide substantial ecological, economic, and cultural benefits to Oregon tribes. A warming climate presents challenges to aquatic habitat in Oregon, and restoring and protecting these habitats helps build durable adaptation and resilience for these ecosystems.

Key limiting factors and/or threats, with a focus on ecosystem function and process

- Degraded and impaired water quality (e.g., temperature and sedimentation, dissolved oxygen, temperature, bacteria load), including those factors associated with the loss of riparian and floodplain vegetation;
- Reduced and insufficient water quantity/flows during critical flow periods (e.g., low streamflow and altered hydrology due to water diversions, dam operations, and loss of beaver);
- Loss of habitat complexity (e.g., high-quality instream structure and spawning gravel, floodplain connectivity, connected off-channel habitat, presence of pools, and presence of large wood);
- Impaired ecosystem functions that have resulted in decreased quantity and quality of instream complexity and degraded rearing and spawning habitats;
- Degraded riparian areas;
- Loss of habitat connectivity, including: floodplain connectivity; access to cold-water refugia; and fish-passage barriers that are identified as primary limiting factors for native fish species and as noted by ODFW's statewide fish passage priority list;
- Spread of invasive plant and animal species (e.g., reed canary grass, bullfrogs);
- Climate change which may exacerbate drought and water temperature stress;
- Disease: emerging pathogens such as chytrid fungus (*Bd*);
- Habitat loss from development and impacts from grazing;
- Landscape-scale disturbance, including wildfire, landslides, flooding or similar events may occur within the FIP geography. Post-disturbance restoration actions addressing landscape-scale disturbance may be eligible FIP actions; and
- Loss of wildlife habitat connectivity. Many species rely on the ability to move throughout the landscape to fulfill their daily and seasonal needs for access to food, shelter, and opportunities to reproduce. ODFW produced Priority Wildlife Conservation Areas (PWCAs) maps to show where habitat connectivity is most important. Fifty-four species were selected for the project as surrogates, representing a variety of taxa, movement types, dispersal capabilities, and sensitivity to anthropogenic threats. FIP Initiatives may include actions enhancing PWCAs within the geographic boundary of their FIP Initiative.

Reference plans

1. Oregon State Wildlife Action Plan: (https://dfw.state.or.us/SWAP-Revision/)

2. Species-specific conservation and recovery plans:
    - Table 1. Conservation and Recovery Plans for Native Fish Species
    - Table 2. Conservation and Recovery Plans for Oregon Spotted Frog
    - Table 3. Conservation and Recovery Plans for Western Pond Turtle
    - Table 4. Reference Plans for Western Ridged Mussels

Oregon Tribes may also have native fish species plans guiding conservation efforts that can be referenced in developing FIP initiatives under this Priority. All of the plans noted here focus on maintaining sustainable native fish and wildlife populations that contribute to their ecosystems and provide a variety of recreational, commercial, cultural, and aesthetic benefits.

These plans identify key limiting factors for specific fish and wildlife species, geographies in which habitat for these species occur, and priority actions that will address limiting factors. While these plans have a species focus, addressing the limiting factors and meeting the goals of each plan supports native fish and wildlife communities and the ecosystem function of aquatic habitats more generally. Thus, achieving the desired habitat and population objectives within these plans will provide significant ecological, economic and cultural benefits for all Oregonians.

Table 1. Conservation and Recovery Plans for Native Fish Species

USFWS = U.S. Fish and Wildlife Service
NMFS = NOAA Fisheries
ODFW = Oregon Department of Fish and Wildlife

Conservation and Recovery Plans	Native Fish Species	Associated Basin(s)
USFWS Recovery Plan for the Threatened and Rare Native Fishes of the Warner Basin and Alkali Sub-basin (1998)	Warner Sucker, Hutton Tui Chub, Foskett Speckled Dace	Closed Lakes
USFWS Recovery Plan for the Lahontan Cutthroat Trout (1995)	Lahontan Cutthroat Trout	Closed Lakes
USFWS Recovery Plan for the Coterminous United States Population of Bull Trout (2015)	Bull Trout	Deschutes, John Day, Upper Klamath, Lower Columbia, Willamette, Grande Ronde
USFWS Revised Recovery Plan for the Lost River Sucker and Shortnose Sucker (2013)	Lost River Sucker, Shortnose Sucker	Upper Klamath
ODFW Coastal, Columbia, and Snake Conservation Plan for Lampreys in Oregon (2020)	Pacific Lamprey, Western River Lamprey, Western Brook Lamprey, Pacific Brook Lamprey	
NMFS/ODFW Conservation & Recovery Plan for Oregon Steelhead Populations in the Middle Columbia River Steelhead DPS (2010)	Steelhead	Deschutes, John Day, Umatilla, Walla Walla
NMFS ESA Recovery Plan for Northeast Oregon Snake River Spring and Summer Chinook Salmon and Snake River Steelhead Populations (2017)	Spring Chinook Salmon, Steelhead	Grande Ronde, Imnaha
NMFS/ODFW Lower Columbia River Conservation and Recovery Plan for Oregon Populations of Salmon and Steelhead (2010)	Spring and Fall Chinook Salmon, Chum Salmon, Coho Salmon, Summer and Winter Steelhead	Lower Columbia River
NMFS/ODFW Upper Willamette River Conservation and Recovery Plan for Chinook Salmon and Steelhead (2011)	Spring Chinook Salmon, Winter Steelhead	Willamette
Oregon Coast Coho Conservation Plan for the State of Oregon (2007)	Coho Salmon	Coastal watersheds from the Necanicum River to the Sixes River
NMFS Final ESA Recovery Plan for Oregon Coast Coho Salmon (2016)	Coho Salmon	Coastal watersheds from the Necanicum River to the Sixes River
ODFW Coastal Multi-Species Conservation and Management Plan (2014)	Spring and Fall Chinook salmon, Chum Salmon, Summer and Winter Steelhead, Cutthroat Trout	Coastal watersheds from Cape Blanco to the Columbia River (including Umpqua, Tillamook, many others)

NMFS Final Recovery Plan for the Southern Oregon/Northern California Coast ESU of Coho Salmon (2014)	Coho Salmon	Rogue, coastal watersheds south of Cape Blanco
ODFW Rogue–South Coast Multi-Species Conservation and Management Plan (2021)	Coho Salmon, Summer and Winter Steelhead, Cutthroat Trout	Rogue, coastal watersheds south of Cape Blanco
ODFW Rogue Spring Chinook Salmon Conservation Plan (2007)	Spring Chinook Salmon	Rogue
ODFW Conservation Plan for Fall Chinook Salmon in the Rogue Species Management Unit (2013)	Fall Chinook Salmon	Rogue, coastal watersheds south of Cape Blanco
ODFW Plan for the Reintroduction of Anadromous Fish in the Upper Klamath Basin (2008)	Coho Salmon, Chinook Salmon, Steelhead, Pacific Lamprey	Upper Klamath
ODFW/The Klamath Tribes Implementation Plan for the Reintroduction of Anadromous Fishes into the Oregon Portion of the Upper Klamath Basin (2021)	Coho Salmon, Chinook Salmon, Steelhead, Pacific Lamprey	Upper Klamath

Table 2. Conservation and Recovery Plans for Oregon Spotted Frog

Reference or Plan	Description	Weblink
USFWS Recovery Plan for the Oregon Spotted Frog (2023) U.S. Fish and Wildlife Service. 2023. Draft Recovery Plan for the Oregon Spotted Frog (Rana pretiosa). Portland, Oregon. xi + 23 pages	Recovery criteria include achieving moderate or higher resiliency in at least 12 sub-basins, representing all six genetic groups and five ecoregional areas. Recovery actions include restoring hydrology, managing invasive species, improving connectivity, and conducting monitoring and research.	https://ecos.fws.gov/docs/recovery_plan/Oregon_Spotted_Frog_Draft_RP_SIGNED_2023-02-24.pdf
Deschutes Basin Habitat Conservation Plan (2020)	Provides complementary conservation measures for Oregon spotted frog habitat in the Upper Deschutes.	

Table 3. Conservation and Recovery Plans for Northwestern Pond Turtle

Reference or Plan	Description	Web Link
Western Pond Turtle Range-wide Management Strategy (2020). WPTRCC	Guidance document that provides a shared conservation strategy to ensure persistence of pond turtle species throughout their range.	https://ecos.fws.gov/docs/recovery_plan/WPT%20RCC%20Strategy%202020.pdf
Oregon Conservation Strategy (2016). ODFW	State Wildlife Action Plan for Oregon which identifies priority species, habitats, conservation areas, and key conservation issues facing the state's wildlife. Provides an overview of special needs, limiting factors, data gaps, and recommends conservation actions.	www.oregonconservationstrategy.org
Species Status Assessment Report for Northwestern Pond Turtle (*Actinemys marmorata*) and Southwestern Pond Turtle (*Actinemys pallida*) (2023). USFWS	Provides the best available science on northwestern pond turtle biology, habitat, demography, and threats. Assesses current and future status considering two plausible future scenarios.	https://iris.fws.gov/APPS/ServCat/DownloadFile/241273
Endangered and Threatened Wildlife and Plants; Threatened Species Status With Section 4(d) Rule for the Northwestern Pond Turtle and Southwestern Pond Turtle (2023). USFWS	Proposed rule to list northwestern pond turtle as threatened after a positive 12-month finding (without critical habitat designation).	https://www.federalregister.gov/documents/2023/10/03/2023-21685/endangered-and-threatened-wildlife-and-plants-threatened-species-status-with-section-4d-rule-for-the
Northwestern Pond Turtle (*Actinemys marmorata*) (2023). INR	Oregon-specific summary of biology, distribution, habitat, movement ecology, diet, status, and threats.	https://inside.dfw.state.or.us/wildlife/docs/SSA/rep_amph/Northwestern%20Pond%20Turtle.pdf
Northwestern Pond Turtle Coordinator Project (2021). Samara Group	Final report on 1) habitat restoration at three sites with pre- and post-treatment monitoring, and 2) pond turtle data compilation, analysis, and standardized occupancy surveys.	
Guidance for Conserving Oregon's Native Turtles Including Best Management Practices (2015). ODFW	Recommended management practices to plan projects, mitigate project impacts, create and/or restore habitat, and achieve conservation goals for native turtles.	https://www.dfw.state.or.us/wildlife/living_with/docs/ODFW_Turtle_BMPs_March_2015.pdf
Recommended Best Management Practices for the Western Pond Turtle on Department of Defense Installations (2020). USFWS, DoD-PARC	Guidance developed for DoD to plan, prioritize, conserve, and manage projects to the benefit of pond turtles.	https://www.denix.osd.mil/dodparc/denix-files/sites/36/2021/01/Pond-Turtles-BMP_Final_508_v2.pdf

Western Pond Turtle: Biology, Sampling techniques, Inventory and Monitoring, Conservation, and Management (2012). Bruce BR, Welsh Jr. HH, Germano, DJ, Ashton DT	Synthesis of biology, management, and conservation information for pond turtle.	thesnvb.org/wp-content/uploads/2023/10/SNVB_nwf7_WPT-2012_complete-1.pdf
Washington State Recovery Plan for the Western Pond Turtle (1999). Hays DW, McAllister KR, Richardson SA, Stinson DW	Summary of Washington pond turtle distribution, abundance, and factors affecting persistence. Establishes recovery goals and prescribes actions needed to meet recovery.	https://wdfw.wa.gov/publications/00398
The Western Pond Turtle: Habitat and History: Final Report (1994). Holland DC	Provides comprehensive natural history information for western pond turtle including status of the Willamette basin population; summaries of reproductive ecology, aquatic movements, overwintering, effects of introduced species, and molecular genetics; and considerations for translocation efforts for mitigation.	osti.gov/servlets/purl/171287
Conservation of Northwestern and Southwestern Pond Turtles: Threats, Population Size Estimates, and Population Viability Analysis (2021). Manzo SE, Nicholson G, Z. Devereux Z, Fisher RN, Brown CW, Scott PA, and Shaffer HB	Analysis to determine impacts of threats, population sizes, and future population viability assessment under various drought scenarios.	https://meridian.allenpress.com/jfwm/article/12/2/485/470112/Conservation-of-Northwestern-and-Southwestern-Pond
Effective removal of the American bullfrog (*Lithobates catesbeianus*) on a landscape level: long term monitoring and removal efforts in Yosemite Valley, Yosemite National Park (2020). Kamoroff C, DanieleN , Grasso RL, Rising R, Espinoza T, Goldberg CS.	Case study of successful bullfrog eradication effort to support native wildlife recovery.	https://link.springer.com/article/10.1007/s10530-019-02116-4
Effects of drought on western pond turtle survival and movement patterns (2017). Purcell KL, McGregor EL, Calderala K	Case study of the impacts of drought on movement, survival, and resiliency of western pond turtle.	https://research.fs.usda.gov/treesearch/54886
Drivers of Non-Random Nest-Site Selection in an Oviparous Vertebrate (2019). St. John WA	Case study of nesting ecology and nest-site selection in western pond turtle.	https://scholarworks.calstate.edu/concern/theses/z890rt90c

Table 4. Reference Plans for Western Ridged Mussels

Reference or Plan	Description	Weblink
Freshwater Mussels of the Pacific Northwest (2nd ed.). The Xerces Society for Invertebrate Conservation (2009)	Provides species-specific information on distribution, habitat, life history, and conservation needs.	09-002_02_XercesSoc_Freshwater-Mussels-of-the-PNW_web.pdf

Oregon Conservation Strategy (2016). ODFW	Identifies freshwater mussels and aquatic habitats as conservation priorities.	www.oregonconservation strategy.org
Assessment and Status Report on the Rocky Mountain Ridged Mussel (Gonidea angulate) in Canada (COSEWIC 2003)	Offers additional context on species status and threats across its range	Rocky Mountain Ridged Mussel (Gonidea angulata)

OWEB Focused Investment Partnership Priority

OREGON CLOSED LAKES BASIN WETLAND HABITATS - 2025 Draft Revisions

Summary Statement of Priority

The OWEB Board will consider proposals for investment in **Closed Lakes Basin wetland habitats** for Initiatives that address habitat conservation and restoration needs to achieve ecological outcomes over time at the landscape scale.

OWEB's Focused Investment Priority for Closed Lakes Basin wetland habitats guides voluntary actions that address primary limiting factors related to the quality of this habitat type. These actions also support and/or improve watershed functions and processes. **Actions will be guided by the habitat, limiting factors, ecological outcomes, and conservation approaches outlined in Oregon's State Wildlife Action Plan (SWAP), the Intermountain West Joint Venture's (IWJV) Habitat Conservation Strategy Implementation Plan, and other plans listed at the end of this document.**

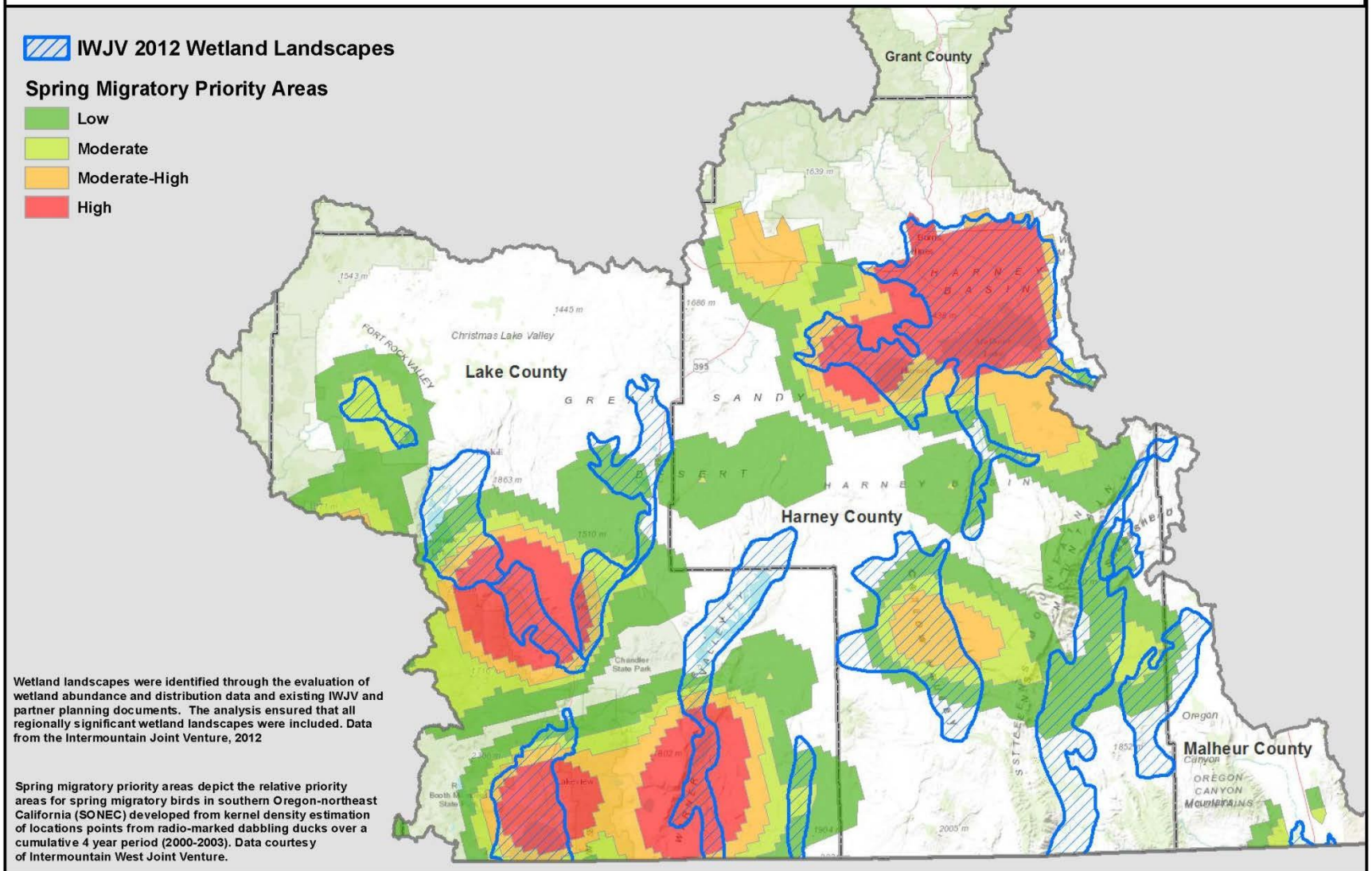
Background

Where it occurs

The Closed Lakes Basin wetlands exist within the Southern Oregon Northeast California (SONEC) region, which is a portion of the Closed Lakes network within the Great Basin (see map). The SONEC region geography and habitat has been defined by the IWJV and in the federal North American Waterfowl Management Plan. The Closed Lakes Basin within the SONEC region is an important part of the Pacific Flyway. Within the SONEC region, a significant amount of wetland and floodplain habitat is located on private land, most of which is managed as flood-irrigated hay and pastureland. These habitats are critical for migratory and resident birds and also support native fish species.

In Oregon, Closed Lakes Basin wetland habitat exists primarily in Lake and Harney Counties (including Malheur National Wildlife Refuge), with a small portion in Malheur County. Closed Lakes Basin wetland habitats include shallow lakes and marshes, wet meadows, and irrigated pasturelands. Many of the region's smaller historical wetlands have been lost due to conversion or degradation from stream channelization, water use, water diversions, and historical overgrazing. Many of the managed wetland/pastures exist in the floodplain of tributaries and lakes in the area. Closed Lakes Basin wetlands represent a unique chain of desert oases that, as an integrated network, provide critical habitat and food for waterbirds throughout the year.

Focused Investment Priority for Oregon Closed Lakes Basin Wetland Habitats



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2012 IWJV Wetland Landscapes and Spring Migratory Priority Areas Within the Lakes Reporting Basin

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Indicator species and/or species of interest supported by this habitat
The SONEC region, which includes the Oregon Closed Lakes Basin, provides essential wetland habitats important for migratory birds. Moreover, the Closed Lakes Basin provides crucial breeding and wintering habitats for many bird species. The majority of North America's snowy plovers (federally listed under the Endangered Species Act [ESA]), North America's eared grebes, long-billed dowitchers, white-faced ibis, and many Species of Greatest Conservation Need as identified in the Oregon SWAP breed, nest, or otherwise use Oregon's Closed Lakes Basin during migration. Additional migratory and resident bird species also rely on this habitat.

Of particular importance is habitat for migratory bird species during spring migration. This region provides a diversity of food production at different salt regimes throughout the year; thus, seasonal water conditions drive habitat function and productivity. Additionally, the Closed Lakes Basin wetlands support native fish species such as Warner and Modoc sucker fish (ESA-listed), tui chub, and redband trout.

Why it is significant to the state
Closed Lakes Basin wetlands are ecologically unique high-desert wetlands that provide critical habitat for numerous migratory and resident bird species. This region has international importance as habitat for migratory birds, including the ESA-listed species cited above. Oregon's Closed Lakes Basin wetland habitats are a significant portion of the greater SONEC complex of wetlands that are so critical to the millions of birds that travel the Pacific Flyway each year. The IWJV recognizes the SONEC region as one of two priority areas in the Intermountain West for wetland-dependent birds. Greater sage-grouse depend on these wetland habitats for foraging habitat for brooding (see related priority). ESA- listed Warner and Modoc sucker fish also are found in this habitat, as referenced above.

Indigenous people in the region have long utilized the lake and wetland resources for food, tools, and shelter. The region fosters an historic and vitally important ranching community and associated economy that depends on the ecological health of these wetland habitats. Malheur National Wildlife Refuge and other wildlife areas in the Closed Lakes Basin are critical recreation and economic resources for these rural counties.

Water is extremely limited in this region. Climate change is expected to affect wetlands through shifting precipitation patterns, increased droughts, more high severity wildfire, and warmer temperatures. This may further reduce water availability, which could slow habitat recovery, increase invasive vegetation, and lead to higher salinity levels in lakes and wetlands. This lends added urgency to the importance of conservation efforts in this unique habitat.

Key limiting factors and/or ecological threats, with a focus on ecosystem function and process

- Loss and degradation of wetlands habitat, including salinization and an imbalance of seasonal saline gradients.
- Seasonal water availability as a result of altered natural hydrologic functioning, including the conversion to sprinkler irrigation from flood irrigation that provided surrogate wetland habitat and impacts of climate change.
- Fragmented habitat as a result of dam building that altered stream networks to facilitate land drainage and agriculture development.
- Proliferation of invasive common carp, whose feeding behavior has destroyed vast natural marsh habitat by uprooting vegetation and increasing suspended sediments and turbidity. This significantly reduces vegetation otherwise available as a food source for birds and other wildlife.
- Invasive plant and macroinvertebrate species, which can reduce food production for native bird species.
- Landscape-scale disturbance, including wildfire, landslides, flooding or similar events may occur within the FIP geography. Post-disturbance restoration actions addressing landscape-scale disturbance may be eligible FIP actions.
- Loss of wildlife habitat connectivity. Many species rely on the ability to move throughout the landscape to fulfill their daily and seasonal needs for access to food, shelter, and opportunities to reproduce. ODFW produced Priority Wildlife Conservation Areas (PWCAs) maps to show where habitat connectivity is most important. Fifty-four species were selected for the project as surrogates, representing a variety of taxa, movement types, dispersal capabilities, and sensitivity to anthropogenic threats. FIP Initiatives may include actions enhancing PWCAs within the geographic boundary of their FIP Initiative.

Reference plans

1) Oregon State Wildlife Action Plan (https://dfw.state.or.us/SWAP-Revision/)
2) North American Waterfowl Management Plan (https://www.fws.gov/partner/north-american-waterfowl-management-plan)
3) Intermountain West Joint Venture Habitat Conservation Strategy Implementation Plan (http://iwjv.org/2013-implementation-plan)
4) Intermountain West Joint Venture Implementation Plan (https://iwjv.org/resource/implementation-plan/)
5) Alvord Lake Subbasin TMDL and WQMP (https://www.oregon.gov/deq/wq/tmdls/Pages/closedlakestmdl.aspx)

OWEB Focused Investment Partnership Priority
DRY-TYPE FOREST HABITAT-2025 Draft Revisions

Summary Statement of Priority

The OWEB Board will consider proposals for investment in **dry-type forest habitat** for initiatives that address habitat conservation and restoration needs to achieve ecological outcomes over time at the landscape scale.

OWEB's Focused Investment Priority for dry-type forest habitat guides voluntary actions that address primary limiting factors related to the quality of this habitat type. These actions also support and/or improve watershed functions and processes. **These actions will be guided by the habitat, limiting factors, ecological outcomes, and conservation approaches outlined in Oregon's State Wildlife Action Plan and other plans listed at the end of this document.**

Background

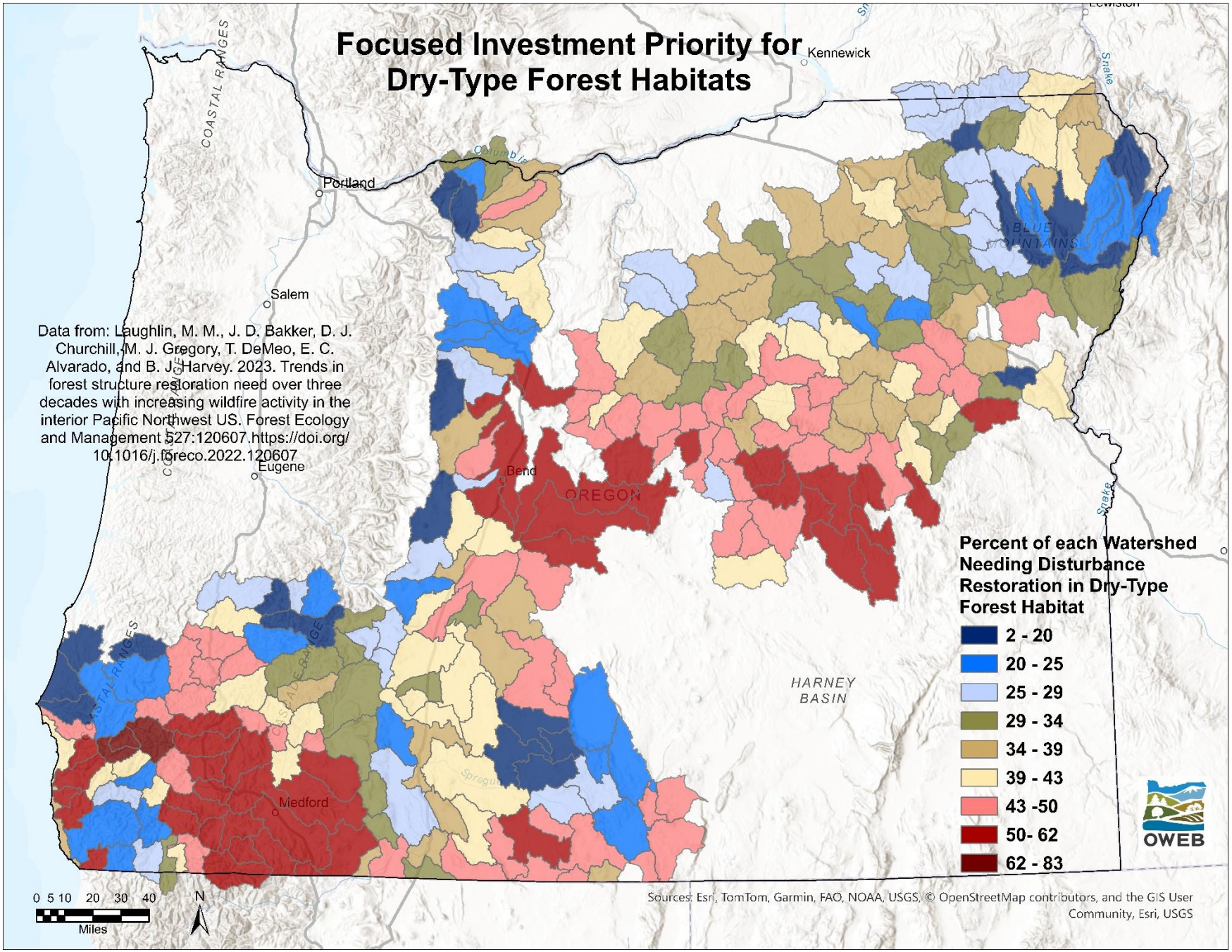
Where it occurs

Dry-type forests exist east of the Cascade Mountains and southwest in the Umpqua and Rogue watersheds of the Siskiyou and Klamath Mountains. This forest type spans 14 million acres in Oregon, constitutes roughly half of all forests in the state, and accounts for approximately 25 percent of the state's land cover. These forests are associated with nine national forests in Oregon and encompass land managed by the Bureau of Land Management in southwest Oregon. "Dry-type" is a general term for forests that consist of dry pine forests, dry mixed conifer, moist-mixed conifer, and moist-cold forests.

Indicator species and/or species of interest supported by this habitat

Dry-type forest habitat contains a wide variety of tree and understory species. Historically, these forests experienced more frequent low- intensity fires that would burn off the understory and small trees on a 7-15 year cycle, resulting in a diverse and robust mosaic of older, larger aforementioned tree species mixed with areas of younger trees, stands, and forests. Fire suppression practices in the past century have altered forest species composition and succession and increased susceptibility to uncharacteristic large wildfires due to elevated fuel loads. In addition to the building of fuel levels, forest management practices during the last century have reduced diversity of species and age structures and increased densities of trees within this forest type.

Dry-type forest habitats support a variety of fish and wildlife species, including white-headed woodpecker and northern goshawk, ringtail, fisher, Pacific marten, red-tree vole, Northern Spotted Owl, salmon, Rocky Mountain elk, mule deer, and white-tailed deer.


Focused Investment Priority for Dry-Type Forest Habitats
Kennewick
Portland
Salem
Eugene
Bend
Medford
OREGON
COASTAL RANGES
CASCADE RANGE
BLUE MOUNTAINS
HARNEY BASIN
Snake
Data from: Laughlin, M. M., J. D. Bakker, D. J. Churchill, M. J. Gregory, T. DeMeo, E. C. Alvarado, and B. J. Harvey. 2023. Trends in forest structure restoration need over three decades with increasing wildfire activity in the interior Pacific Northwest US. Forest Ecology and Management 527:120607.https://doi.org/10.1016/j.foreco.2022.120607
Percent of each Watershed Needing Disturbance Restoration in Dry-Type Forest Habitat
2 - 20
20 - 25
25 - 29
29 - 34
34 - 39
39 - 43
43 -50
50- 62
62 - 83
OWEB
0 5 10 20 30 40
Miles
N
Sources: Esri, TomTom, Garmin, FAO, NOAA, USGS, © OpenStreetMap contributors, and the GIS User Community, Esri, USGS

Why it is significant to the state

Dry-type forests cover vast acreages in Oregon and are at critical risk for severe wildfires. These forest systems support a diverse range of aquatic and terrestrial species, including federally listed fish and bird species. Properly functioning dry-type forests are also critical to maintaining healthy watershed function and processes. Dry-type forests are iconic in Oregon, of cultural significance to Native American tribes, provide people with clean water, and have economic importance related to natural resource-based economies in rural communities. In addition, these areas support an increasingly important recreation-based economy.

Key limiting factors and/or ecological threats, with a focus on ecosystem function and process

Departure from historic disturbance regimes has increased the risk of more severe disturbance from hotter burning wildfires. In order to restore ecosystem function and process and protect culturally important areas (including food), the following limiting factors and ecological threats need to be addressed:

- Severe wildfires as a result of fuel buildup in the absence of fire, past and some current landscape forest management practices, and hotter and dryer conditions due to climate change.
- Altered fire regimes resulting in forest densification, changes in species composition, and more continuous, homogeneous fuel conditions across the landscape.
- Loss of multi-age class, complex forests with habitat mosaics due to wildfire and past logging practices, and habitat connectivity.
- Invasive species and more widespread and uncharacteristic insect and disease outbreaks leading to accelerated tree mortality.
- Lack of land management capacity, including ability to implement prescribed and/or cultural burns.
- Landscape-scale disturbance, including wildfire, landslides, flooding or similar events may occur within the FIP geography. Post-disturbance restoration actions addressing landscape-scale disturbance may be eligible FIP actions.
- Loss of wildlife habitat connectivity. Many species rely on the ability to move throughout the landscape to fulfill their daily and seasonal needs for access to food, shelter, and opportunities to reproduce. ODFW produced Priority Wildlife Conservation Areas (PWCAs) maps to show where habitat connectivity is most important. Fifty-four species were selected for the project as surrogates, representing a variety of taxa, movement types, dispersal capabilities, and sensitivity to anthropogenic threats. FIP Initiatives may include actions enhancing PWCAs within the geographic boundary of their FIP Initiative.

Reference plans

1) Oregon State Wildlife Action Plan https://dfw.state.or.us/SWAP-Revision/
2) Restoration of Dry Forests in Eastern Oregon https://www.conservationgateway.org/ConservationPractices/FireLandscapes/FireLearningNetwork/NetworkProducts/Pages/Dry-Forest-Guide-2013.aspx

3) General Technical Report – The Ecology and Management of Moist Mixed-Conifer Forests in Eastern Oregon and Washington: A Synthesis of the Relevant Biophysical Science and Implications for Future Land Management https://research.fs.usda.gov/treesearch/47086

4) Haugo, R., Zanger, C., DeMeo, T., Ringo, C., Shlisy, A., Blakenship, K., Simpson, M., Mellen-McLean, K., Kertis, J., Stern, M. 2015. A New Approach to Evaluate Forest Structure Restoration Needs Across Oregon and Washington, USA. Forest Ecology and Management 335: 37-50. http://www.sciencedirect.com/science/article/pii/S0378112714005519

5) Landowners' Options for Prescribed Burning https://extension.oregonstate.edu/catalog/pub/em-9496-landowners-options-prescribed-burning

OWEB Focused Investment Partnership Priority

ESTUARY HABITATS - 2025 Draft Revisions

Summary Statement of Priority

The OWEB Board will consider proposals for investment in **estuary habitats** for Initiatives that address habitat conservation and restoration needs to achieve ecological outcomes over time at the landscape scale.

OWEB's Focused Investment Priority for estuary habitats guides voluntary actions that address primary limiting factors related to the quality of this habitat type. These actions also support and/or improve watershed functions and processes to benefit fish and wildlife that depend on estuary habitats. **Actions will be guided by the habitat, limiting factors, ecological outcomes, and conservation approaches outlined in Oregon's State Wildlife Action Plan and other plans listed at the end of this document.**

Background

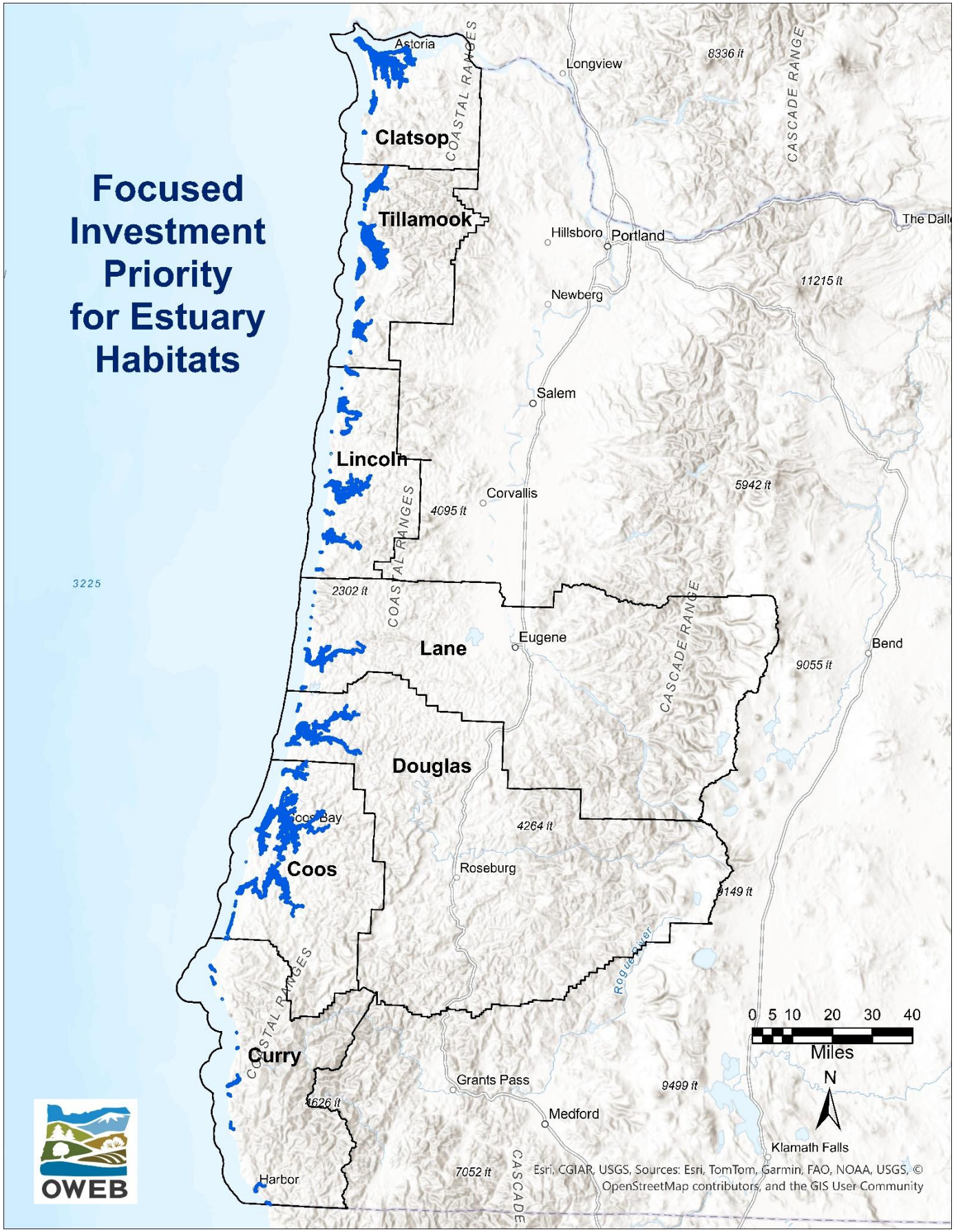
Where it occurs

Estuaries exist at the confluence of freshwater rivers and the ocean. Estuarine habitat at these confluences is determined by the extent of tidal influence on these freshwater rivers (see map). Estuarine tidal basins typically include a marine-dominated zone, a mixing zone, and a brackish-to-fresh zone that can extend many miles inland away from the ocean. Estuary habitats experience regular fluctuations in salinity, water levels, sunlight, and oxygen.

The spatial extent of Oregon estuaries and tidal wetlands has been significantly reduced over the past 150 years due to human development and agriculture. The greatest losses of historic estuarine habitat have occurred within low-lying estuarine tidal basins. Anthropogenic alterations to habitat and natural hydrologic processes, including diking, tide gates, dredging, and channelization, among other impacts, have contributed to estuarine habitat losses and impairments, including large expanses of historic forested tidal wetlands (>90%), substantial saltwater and freshwater marshes, and other tidal wetlands (ODFW, 2026).

Indicator species and/or species of interest supported by this habitat

Oregon estuaries provide a diversity of complex, productive habitat that is critical for many species of fish and wildlife, including salmon, rockfish, crab, shrimp, invertebrates, marine mammals, and birds. Estuaries provide critical breeding and nursery areas for rockfish, lingcod, and greenling, as well as rearing grounds for juvenile coho, Chinook, and chum salmon. Oregon estuaries support some component of the life cycle for up to three-quarters of all harvested fish species (ODFW, 2026), largely due to the high productivity and diversity of habitats, including those provided by eelgrass beds. Native eelgrass is an important component of an estuary, providing habitat for Species of Greatest Conservation Need and other species of interest, including Black Brant, Dungeness crab, black rockfish, copper rockfish, and kelp greenling.


Focused Investment Priority for Estuary Habitats
Astoria
Longview
8336 ft
CASCADE RANGE
COASTAL RANGES
Clatsop
Tillamook
Hillsboro
Portland
The Dalle
11215 ft
Newberg
Salem
Lincoln
Corvallis
4095 ft
5942 ft
3225
2302 ft
Lane
Eugene
Bend
9055 ft
Douglas
Coos Bay
4264 ft
Coos
Roseburg
9149 ft
Rogue River
Curry
Grants Pass
9499 ft
1626 ft
Medford
Klamath Falls
7052 ft
Harbor
0 5 10 20 30 40
Miles
N
OWEB
Esri, CGIAR, USGS, Sources: Esri, TomTom, Garmin, FAO, NOAA, USGS, © OpenStreetMap contributors, and the GIS User Community

Why it is significant to the state

Oregon's Statewide Planning Goal 16 seeks to recognize and protect the unique environmental, economic, and social values of estuaries and their associated wetlands and (where appropriate) to protect, maintain, and restore the long-term environmental, economic, and social values, diversity, and benefits of Oregon's estuaries. The Lower Columbia River estuary and Tillamook Bay estuaries are each designated as an "estuary of national significance" by the U.S. Environmental Protection Agency (two of 28 National Estuary Programs managed under the Clean Water Act). Many Oregon estuaries have Total Maximum Daily Loads developed for water quality in these habitats, as estuaries play an important role in filtering sediment, nutrients, pathogens, and other contaminants from aquatic environments.

Estuary habitats are integral to the existence and success of various ESA listed fish and wildlife species. There are numerous species that are adapted to the unique habitat conditions that estuaries provide and are thus dependent on this habitat type. Estuaries are of cultural significance to Native American tribes and also provide critical services for the people of Oregon. Healthy estuaries help store carbon, mitigate ocean acidification, and buffer storm wave damage to stabilize shorelines from erosion and protect coastal communities from increased storms and floods.

Key limiting factors and/or ecological threats, with a focus on ecosystem function and process

- Increasing development and land-use conversions;
- Alteration of natural hydrological processes and streamflow, including limited salt- and fresh-water exchange due to such issues as tide gates;
- Water-quality degradation (including increased bacterial loads; decreased dissolved oxygen; and toxic contaminants from industry, agriculture, and urban development)
- Loss of habitat complexity and connectivity degraded tidal areas;
- Invasive aquatic plant and animal species;
- Impacts of climate change (e.g., sea-level rise, increased acidification);
- Nutrient cycling and sediment transport;
- Landscape-scale disturbance, including wildfire, landslides, flooding or similar events may occur within the FIP geography. Post-disturbance restoration actions addressing landscape-scale disturbance may be eligible FIP actions; and
- Loss of wildlife habitat connectivity. Many species rely on the ability to move throughout the landscape to fulfill their daily and seasonal needs for access to food, shelter, and opportunities to reproduce. ODFW produced Priority Wildlife Conservation Areas (PWCAs) maps to show where habitat connectivity is most important. Fifty-four species were selected for the project as surrogates, representing a variety of taxa, movement types, dispersal capabilities, and sensitivity to anthropogenic threats. FIP Initiatives may include actions enhancing PWCAs within the geographic boundary of their FIP Initiative.

Reference plans

1) Oregon State Wildlife Action Plan (https://dfw.state.or.us/SWAP-Revision/)
2) NOAA Fisheries Columbia River Estuary ESA Recovery Plan Module for Salmon and

Steelhead, 2011
(https://www.fisheries.noaa.gov/resource/document/columbia-river-estuary-esa-recovery-plan-module-salmon-and-steelhead)

3) ODFW Lower Columbia River Conservation and Recovery Plan for Oregon Populations of Salmon and Steelhead (http://www.dfw.state.or.us/fish/CRP/lower_columbia_plan.asp)
4) Oregon Coastal Multi-Species Conservation and Management Plan, 2014 (http://www.dfw.state.or.us/fish/CRP/coastal_multispecies.asp)

OWEB Focused Investment Partnership Priority
OAK AND PRAIRIE HABITAT- 2025 Draft Revisions

Summary Statement of Priority

The OWEB Board will consider proposals for investment in **oak** and **prairie habitats** for initiatives that address habitat conservation and restoration needs to achieve ecological outcomes over time at the landscape scale.

OWEB's Focused Investment Priority for oak and prairie habitat guides voluntary actions that address primary ecological threats and limiting factors related to the quality of this habitat type. **These actions will be guided by the habitat, limiting factors, ecological outcomes, and conservation approaches outlined in the State Wildlife Action Plan and other plans and strategies listed on the last page of this document.**

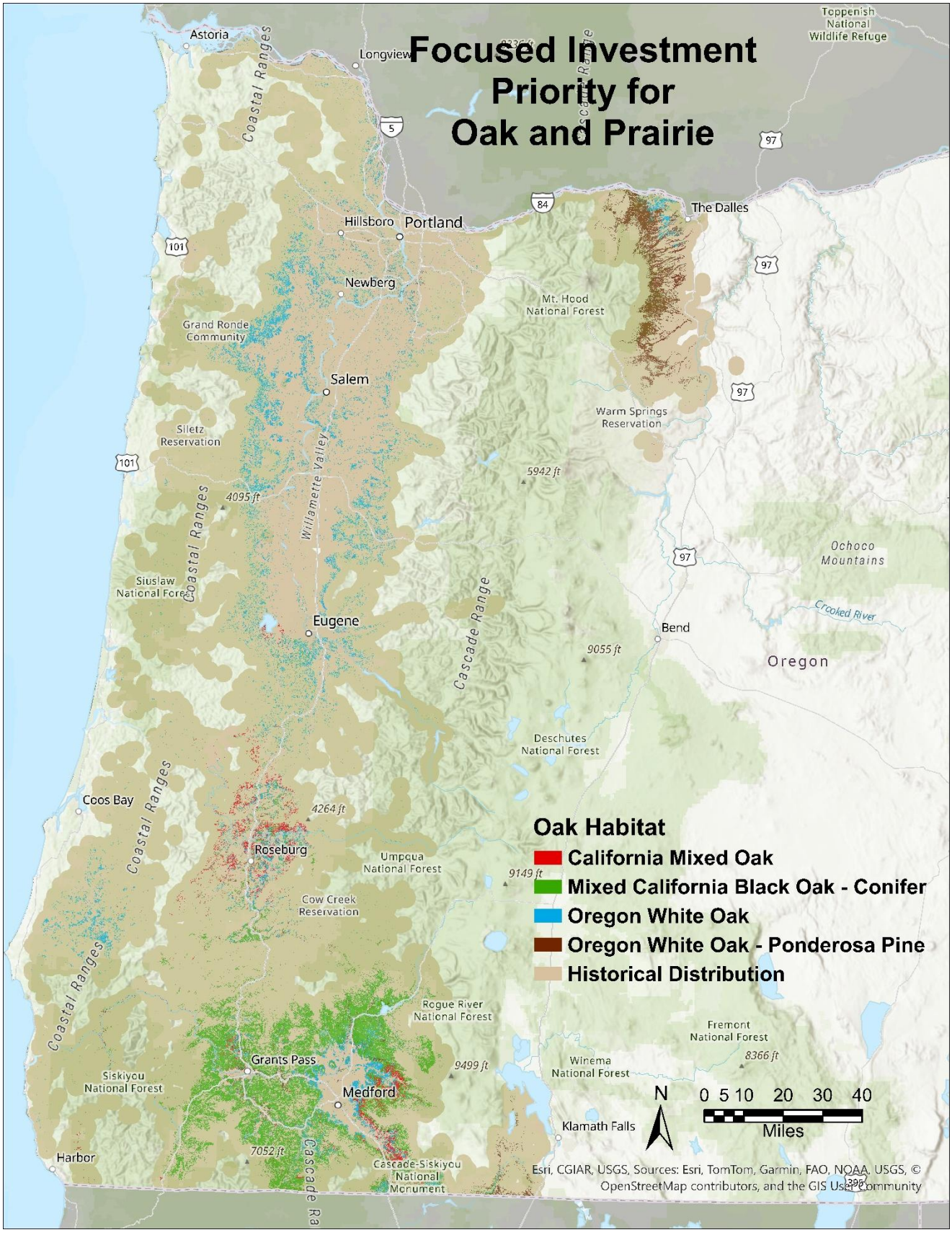
Background

Where it occurs

Oak and prairie habitats are often in conflict with other land-uses associated with a higher economic value, which has led to the loss of approximately 72% of its historical habitat range since the 1800s. However, oak and associated prairie habitats still exist throughout the state. Three types of oak habitats in Oregon include: "oak savannah" (5-25% oak coverage), "oak woodlands" (25-75% oak coverage), and "oak forests" (greater than 75% oak coverage). These oak habitats primarily occur in three areas of the state: 1) Oak and prairie habitats of the Willamette Valley ecoregion; 2) Oak woodlands of the East Cascades ecoregion and foothills along the Columbia Gorge, including both Hood and Wasco counties and south to White River; and 3) Southern Oregon oak and chaparral habitats of the Klamath, Umpqua and Rogue River ecoregions. Current habitat data layers as mapped may not fully capture all existing oak habitat; partnerships' mapped areas will also be considered eligible in future FIP applications.

Indicator species and/or species of interest supported by this habitat

The Oregon white oak is the indicator species for oak and associated prairie habitats. Species that are supported by these habitats include: streaked horned lark, the western meadowlark, Lewis' woodpecker, white-breasted nuthatch, western bluebird, acorn woodpecker, western gray squirrel, Columbian white-tailed deer, Fender's blue butterfly, Taylor's checkerspot butterfly, Kincaid's lupine, and the Willamette daisy, among many other plant species depending on the region. At least seven federally listed Endangered Species Act (ESA) species are dependent on these habitats.


Focused Investment Priority for Oak and Prairie
Oak Habitat
California Mixed Oak
Mixed California Black Oak - Conifer
Oregon White Oak
Oregon White Oak - Ponderosa Pine
Historical Distribution
N
0 5 10 20 30 40
Miles
Esri, CGIAR, USGS, Sources: Esri, TomTom, Garmin, FAO, NOAA, USGS, © OpenStreetMap contributors, and the GIS User Community
Astoria
Longview
Toppenish National Wildlife Refuge
Hillsboro
Portland
The Dalles
Newberg
Mt. Hood National Forest
Grand Ronde Community
Salem
Warm Springs Reservation
Siletz Reservation
Willamette Valley
Coastal Ranges
Cascade Range
Ochoco Mountains
Crooked River
Siuslaw National Forest
Eugene
Bend
Oregon
Deschutes National Forest
Coos Bay
Roseburg
Umpqua National Forest
Cow Creek Reservation
Rogue River National Forest
Fremont National Forest
Winema National Forest
Grants Pass
Siskiyou National Forest
Medford
Klamath Falls
Harbor
Cascade-Siskiyou National Monument
5942 ft
4095 ft
9055 ft
4264 ft
9149 ft
9499 ft
8366 ft
7052 ft

Why it is significant to the state

In a national assessment, oak and associated prairie and chaparral habitats are one of the most endangered ecosystems in the U.S. due to land conversions and altered fire regimes, these habitats are home to a variety of wildlife and plant species addressed in the State Wildlife Action Plan. Maintaining the connectivity of oaks and their associated habitats is crucial to support species utilization of greater habitat range, but also to facilitating the gradual movement of species to the north from California in response to climate change. In addition, these habitat types are iconic and culturally important to Native American tribes. Tribes utilize cultural fire to sustain culturally important foods. Cultural fire practices are also important to maintain the health and biodiversity of oak and prairie habitats.

Key limiting factors and/or ecological threats, with a focus on ecosystem function and process

- Habitat loss and fragmentation due to land-use conversion (e.g., residential, timber, agricultural);
- Habitat degradation, including shrub-tree and conifer encroachment, invasive species encroachment, including Mediterranean oak borer and disease such as sudden oak death, a fungal tree pathogen; and
- Impaired habitat persistence, due to loss of fire disturbance regimes, over-grazing, and the subsequent lack of recruitment of young oaks.
- Loss of large diameter oak trees with lateral limb structure and cavities due to densely stocked trees, grazed trees, shaded trees and fire stressed trees that do not develop lateral limbs, cavities or higher acorn crops of open-grown trees.
- Landscape-scale disturbance, including wildfire, landslides, flooding or similar events may occur within the FIP geography. Post-disturbance restoration actions addressing landscape-scale disturbance may be eligible FIP actions.
- Loss of wildlife habitat connectivity. Many species rely on the ability to move throughout the landscape to fulfill their daily and seasonal needs for access to food, shelter, and opportunities to reproduce. ODFW produced Priority Wildlife Conservation Areas (PWCAs) maps to show where habitat connectivity is most important. Fifty-four species were selected for the project as surrogates, representing a variety of taxa, movement types, dispersal capabilities, and sensitivity to anthropogenic threats. FIP Initiatives may include actions enhancing PWCAs within the geographic boundary of their FIP Initiative.

Reference plans

1) Oregon State Wildlife Action Plan (https://dfw.state.or.us/SWAP-Revision/)
2) Recovery Plan for Prairie species of Western Oregon and SW Washington (USFWS 2010) (Recovery Plan for the Prairie Species of Western Oregon and Southwestern Washington | U.S. Fish & Wildlife Service)
3) Oregon White Oak Restoration Strategy for National Forest System Lands East of the Cascade Range (USFS 2013) (Oak_Strategy_final.pdf)

OWEB Focused Investment Partnership Priority
SAGEBRUSH/SAGE-STEPPE HABITAT- 2025 Draft Revisions

Summary Statement of Priority

The OWEB Board will consider proposals for investment in **sagebrush/sage-steppe habitat** for initiatives that address habitat conservation and restoration needs to achieve ecological outcomes over time at the landscape scale.

OWEB's Focused Investment Priority for sagebrush/sage-steppe habitat guides voluntary actions that address primary ecological threats and limiting factors related to the quality of this habitat type. These actions also will support and/or improve ecosystem functions and processes, including those required by Greater sage-grouse, which is an indicator species for this habitat type. **These actions will be guided by the habitat, limiting factors, ecological outcomes, and conservation approaches outlined in Oregon's State Wildlife Action Plan and other plans listed at the end of this document.**

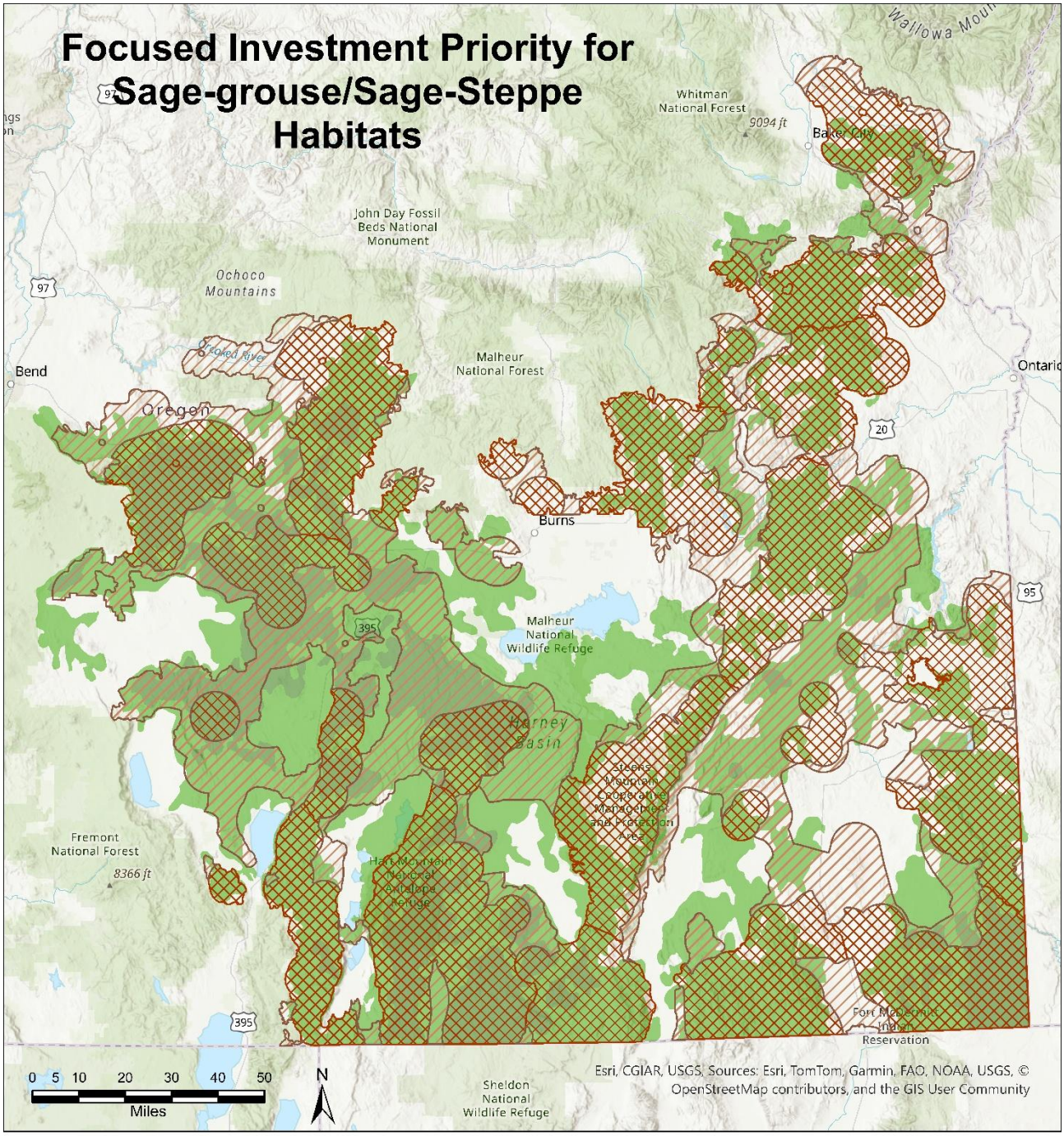
Focal areas for this Priority are: 1) Existing healthy, functioning sagebrush/sage-steppe habitats that support a variety of species, and areas of opportunity to grow this habitat identified by Oregon State University, the Institute for Natural Resource, and the USDA Agricultural Research Service, and 2) Priority Areas for Conservation (PACs) for sage-grouse and the important connectivity corridors between these areas PACs do not represent individual populations, but rather key areas that have been identified as crucial to ensure adequate representation, redundancy, and resilience for conservation of its associated population or populations. Oregon Department of Fish and Wildlife's (ODFW's) sage-grouse strategy identifies core areas of habitat that align with U.S. Fish and Wildlife Service's PAC habitats. The core area approach uses biological information to identify important habitats with the objective of protecting the highest density breeding areas.

Background

Where it occurs

Sage-steppe habitat occurs throughout eastern Oregon and in parts of Central Oregon. Several ecoregions identified in the Oregon State Wildlife Action Plan (i.e., Northern Basin and Range, Blue Mountains, Columbia Plateau, and East Cascades) contain this habitat type. Since the 1800s large areas of sagebrush habitat have been lost, including 82% of the habitat in the Blue Mountains ecoregion and an estimated 59% of habitat in the Northern Basin and Range ecoregion.

These habitats are both extensive and diverse. In general, sagebrush habitats occur on dry flats and plains, rolling hills, rocky hill slopes, saddles and ridges where precipitation is low. Sagebrush-steppe is dominated by grasses and forbs (more than 25 percent of the area) with an open shrub layer. In sagebrush steppe, natural fire regimes historically maintained a patchy distribution of shrubs and predominance of grasses. Connectivity corridors of similar habitats between these areas are important to connect otherwise fragmented sage-steppe habitat.



Sage-grouse Areas

- Core Area Habitat
- Low-Density Area Habitat

Sagebrush Areas

- Core Area Habitat
- Growth Opportunity Area Habitat

NOTE: Sage-grouse Areas data from ODFW and Sagebrush Areas data from Sagebrush Conservation Design.
https://www.sciencebase.gov/catalog/item/62d57e89d34e87fffb2dda62'

OWEB

Indicator species and/or species of interest supported by this habitat
State Wildlife Action Plan Species of Greatest Conservation Need associated with sagebrush include Greater sage-grouse, ferruginous hawk, loggerhead shrike, sage sparrow, Brewer's sparrow, sagebrush lizard, Washington ground squirrel, and pygmy rabbits. Other wildlife closely associated with sagebrush include black-throated sparrow, sage thrasher, sagebrush vole, and pronghorn.

Why it is significant to the state
Sagebrush/sage-steppe habitat is an imperiled habitat that supports a range of species. These areas have deep historic and cultural significance to Native Americans and are associated with an economically and socially important ranching and agricultural industry in communities throughout a large portion of the state. Healthy sagebrush/sage-steppe habitat provides opportunities for carbon storage, which can be quickly lost with catastrophic wildfire and resulting proliferation of invasive annual grasses that offer limited carbon storage benefits.

Key limiting factors and/or ecological threats, with a focus on ecosystem function and process

- Altered fire regimes, including decades of fire suppression and climate change has resulted in changes to native plant communities and increased risk of habitat loss due to intense wildfires.
- Juniper encroachment on sagebrush/sage-steppe habitat and proliferation of invasive annual grasses, which increase the frequency, intensity and extent of wildfires.
- Conversion to other land uses, which results in habitat loss and connectivity.
- Limitations of current restoration techniques and the need for additional restoration approaches, particularly in low-elevation areas that face severe challenges to native plant species regeneration following wildfire.
- Landscape-scale disturbance, including wildfire, landslides, flooding or similar events may occur within the FIP geography. Post-disturbance restoration actions addressing landscape-scale disturbance may be eligible FIP actions.
- Loss of wildlife habitat connectivity. Many species rely on the ability to move throughout the landscape to fulfill their daily and seasonal needs for access to food, shelter, and opportunities to reproduce. ODFW produced Priority Wildlife Conservation Areas (PWCAs) maps to show where habitat connectivity is most important. Fifty-four species were selected for the project as surrogates, representing a variety of taxa, movement types, dispersal capabilities, and sensitivity to anthropogenic threats. FIP Initiatives may include actions enhancing PWCAs within the geographic boundary of their FIP Initiative.

Reference plans

1) Oregon State Wildlife Action Plan
   https://dfw.state.or.us/SWAP-Revision/
2) ODFW's Greater Sage-Grouse Conservation Assessment and Strategy for Oregon
   https://www.dfw.state.or.us/wildlife/sagegrouse/docs/GRSG_Conservation_Assessment_and_Strategy_April_25-11.pdf
3) Bureau of Land Management Sage-Grouse Habitat Plans
   https://www.blm.gov/programs/fish-and-wildlife/sagegrouse/blm-sagegrouse-plans

4) Oregon Sage Grouse Action Plan
https://hub.oregonexplorer.info/pages/sagebrush-oregon-sage-grouse-action-plan