Oregon
Tina Kotek, Governor

OREGON WATERSHED ENHANCEMENT BOARD
775 Summer Street NE, Suite 360
Salem OR 97301-1290
www.oregon.gov/oweb
(503) 986-0178

MEMORANDUM

TO: Partnerships and Capacity Committee

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

SUBJECT: Focused Investment Partnership (FIP) Draft Ecological Priorities
September 2, 2025, Partnerships and Capacity Committee Meeting

I. Background

The 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, 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.

II. Draft Ecological Priorities

As discussed with the committee in June, OWEB staff began the 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. Committee Direction on Themes and Next Steps

At the September 2 Partnerships and Capacity committee meeting, staff will present the draft revisions to the FIP ecological priorities and request committee direction on potential refinements before presenting the draft ecological priorities to the Board at the October 28-29 meeting. Following the October Board meeting, it is expected that further refinements will be made to the draft ecological priorities by staff and the committee, and at the January 27-28 meeting, the Board will consider approving final FIP ecological priorities.

IV. 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 protection 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 protection and restoration of the watershed functions and processes in this habitat type. **Initiatives under this Priority will identify the primary limiting factors outlined in associated federal recovery plans, Oregon's State Wildlife Action Plan, or tribal plans that the initiative is aiming to address, and will be guided by the habitat and population objectives and conservation approaches set forth in these plans** (see Table 1 below for a list of recovery and conservation plans).

Focal areas for this Priority (see map below) are defined as those native species habitats in Oregon that are identified as priorities in associated federal recovery, state conservation, or tribal plans. In select cases, habitat needs for threatened, endangered, or sensitive species that do not yet have an associated plan were also considered in assigning focal area priority designations. In some cases, priority designations could be drawn directly from federal recovery, state conservation, or tribal plans, while in other cases professional judgement was needed to assign priorities based on guidance in the plans. Professional judgement included designation and review of priority watersheds by Oregon Department of Fish and Wildlife (ODFW) and U.S. Fish and Wildlife Service (USFWS). Priority designations reflect their knowledge of plans, implementation needs, and watershed conditions in each of the planning areas, and refine where focused investment is most likely to achieve conservation goals.

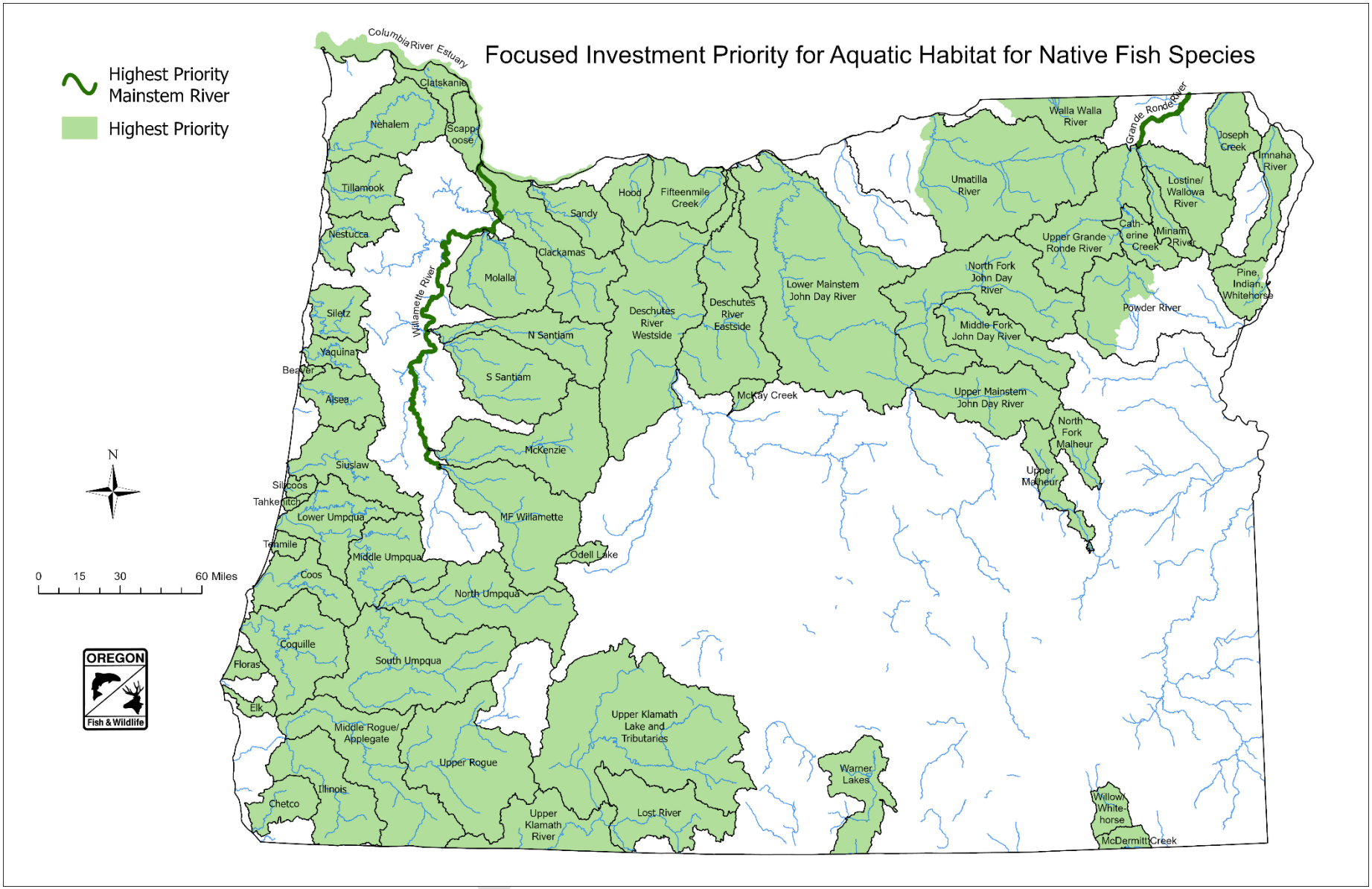
For the purposes of this Priority, OWEB Focused Investment Partnership investments will be focused in areas shown in green and yellow on the Aquatic Habitat for Native Species maps.

Background

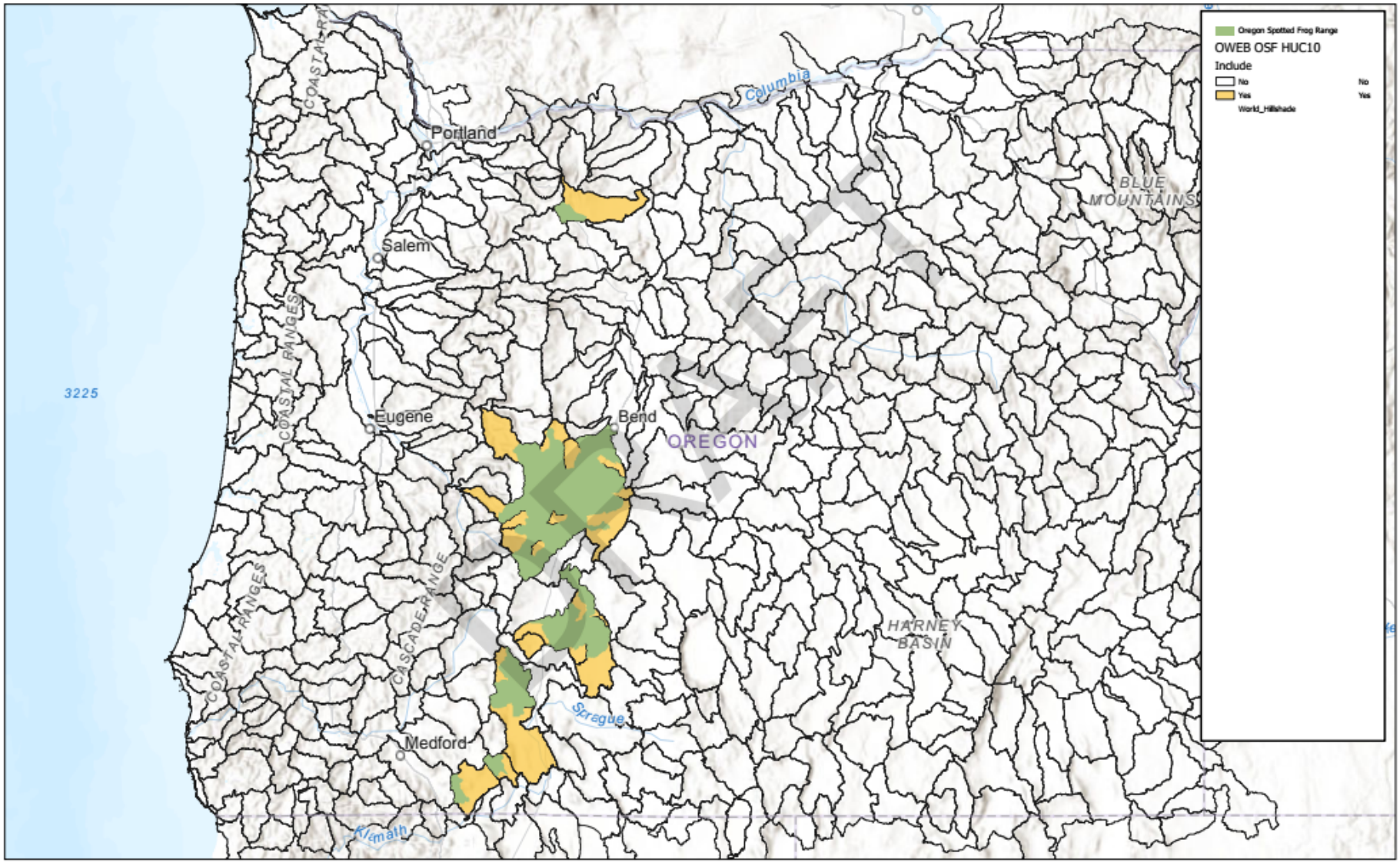
Where it occurs

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

The Aquatic Habitat priority map includes priority habitat for Endangered Species Act-listed anadromous fish, Oregon Spotted Frog, and Northwestern Pond Turtle, and includes associated habitat for Species of Greatest Conservation Need such as Pacific Lamprey and Western Ridged Mussel.


Focused Investment Priority for Aquatic Habitat for Native Fish Species
Highest Priority Mainstem River
Highest Priority
Columbia River Estuary
Clatskanie
Nehalem
Scappoose
Tillamook
Nestucca
Sandy
Hood
Fifteenmile Creek
Clackamas
Molalla
Willamette River
Siletz
Yaquina
Beaver
Alsea
N Santiam
S Santiam
Deschutes River Westside
Deschutes River Eastside
McKay Creek
Lower Mainstem John Day River
Umatilla River
Walla Walla River
Grande Ronde River
Joseph Creek
Imnaha River
Lostine/ Wallowa River
Upper Grande Ronde River
Cath-erine Creek
Minam River
North Fork John Day River
Pine, Indian, Whitehorse
Powder River
Middle Fork John Day River
Upper Mainstem John Day River
North Fork Malheur
Upper Malheur
McKenzie
Siuslaw
Siltcoos
Tahkenitch
Lower Umpqua
MF Willamette
Tenmile
Middle Umpqua
Odell Lake
Coos
North Umpqua
Coquille
Floras
South Umpqua
Elk
Middle Rogue/ Applegate
Upper Rogue
Illinois
Chetco
Upper Klamath River
Upper Klamath Lake and Tributaries
Lost River
Warner Lakes
Willow/ White-horse
McDermitt Creek
N
0 15 30 60 Miles
OREGON
Fish & Wildlife

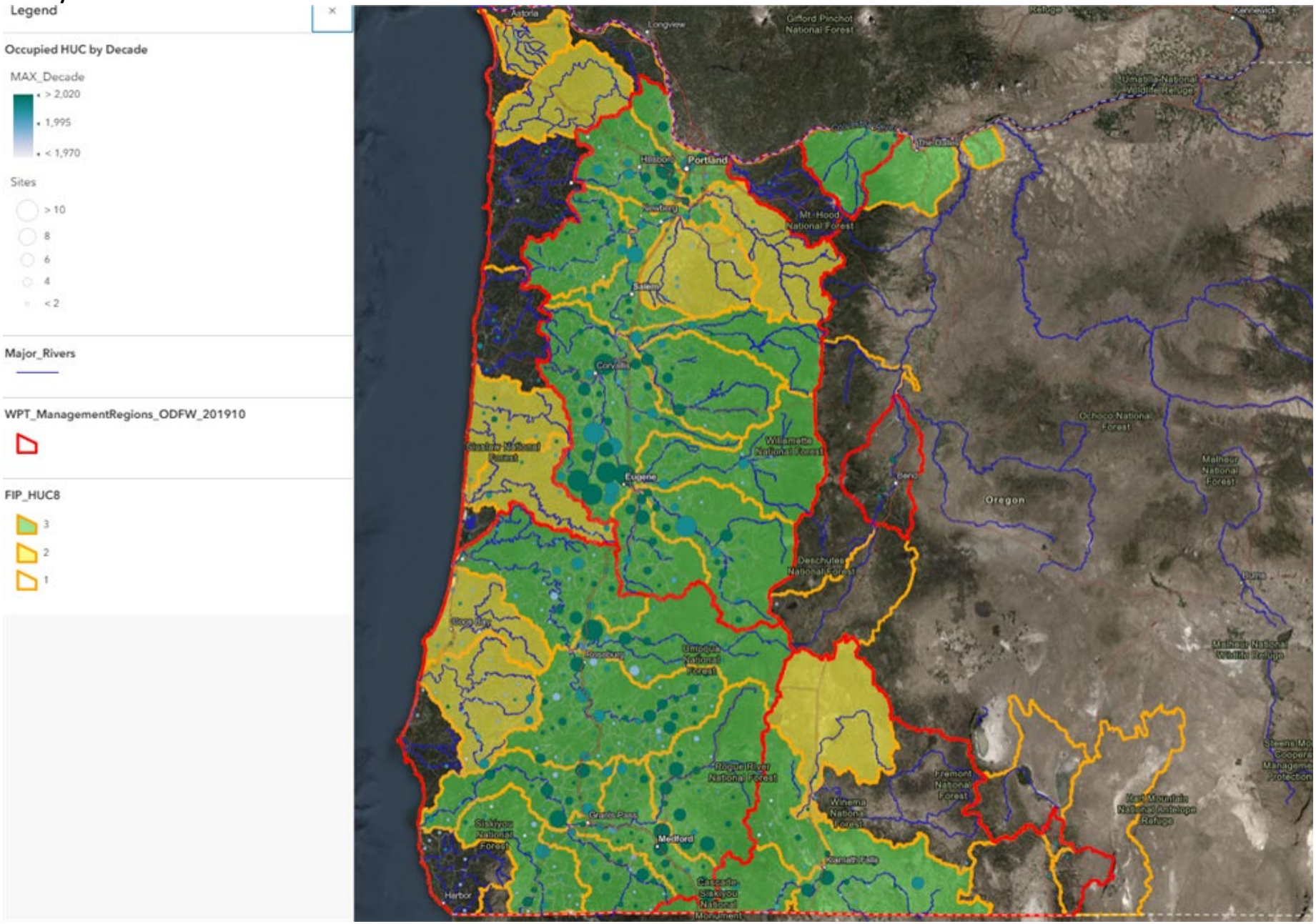
Oregon Spotted Frog
Priority Habitat



Produced using the FWS GeoPortal
https://gis.fws.gov/portal/

1:4,617,820
0 60 Miles
0 50 Kilometers
Datum: WGS 1984

Northwestern Pond Turtle
Priority Habitat



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: Chinook salmon, Coho salmon, chum salmon, steelhead, bull trout, and several species of sucker, lamprey, and chub. Some populations of these species that are not currently identified as threatened, endangered, or sensitive are also a focus of this Priority due to the substantial ecological, economic, and cultural benefits they provide, including cultural significance to Oregon tribes. Native species to be addressed under this Focused Investment Priority are identified, by geography, in Table 1 below.

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. The approaches described above ensure that primary limiting factors can be addressed for a range of native fish species that are of significance to the state.

The Oregon spotted frog serves as an indicator species for the health of shallow-water wetland ecosystems shown on the priority map. Restoration actions that benefit the Oregon spotted frog may also provide co-benefits to other native amphibians, wetland birds (e.g., yellow rail), and aquatic invertebrates, particularly where actions improve hydrology, reduce invasive vegetation, or enhance habitat connectivity. However, these co-benefits arise only through investments targeted at Oregon spotted frog recovery.

The Western Ridged Mussel is an indicator of aquatic ecosystem health, particularly in low-gradient stream systems. Restoration actions that benefit this species may also support other native freshwater mussels (e.g., Western Pearlshell, Anodonta spp.), native fish species (including potential host fish), and aquatic macroinvertebrates. These co-benefits arise through investments targeted at Western Ridged Mussel recovery.

Why it is significant to the state

Aquatic habitat supports 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. All require water, and high-quality aquatic systems provide essential habitat to many at-risk species, including important spawning and rearing habitat for salmonids and other native fishes.

Sustaining aquatic biodiversity is essential to the health of our environment and to the quality of human life. Healthy aquatic ecosystems are imperative for continuing to contribute to Oregon's communities and economy, including fisheries and recreation. Because native fish and wildlife communities are central to the structure, function, and process within aquatic habitats, they serve as ideal indicator species of the overall health of these habitats.

The Oregon spotted frog is federally listed as threatened and is considered a sensitive species in Oregon. It has been extirpated from an estimated 76–90% of its historical range.

Investments in Oregon spotted frog habitat restoration support:

- Biodiversity conservation in wetland ecosystems

- Climate resilience through improved hydrology and habitat connectivity
- Collaborative conservation across public and private lands (44% of occupied habitat is on private land)

The species is conservation-reliant, and long-term recovery depends on sustained, active management of habitat and threats.

The northwestern pond turtle is classified as "Sensitive-Critical" on Oregon's State Sensitive Species List.

Survey work by ODFW and partners has found that pond turtles are now gone from approximately 40 percent of sites where they historically occurred. Analyses indicate that the species will continue to decline and may become extirpated from portions of its range under future climate-change scenarios. The loss of this species in Oregon would likely have underappreciated impacts on the ecological function of the habitats where it currently occurs, as turtles play important roles in nutrient and mineral cycling, energy flow between terrestrial and aquatic systems, soil dynamics, and in some systems can act as top predators, scavengers, or keystone species.

Freshwater mussels are among the most imperiled animal groups in North America. The Western Ridged Mussel has experienced range contractions and population declines in Oregon and across its range, largely due to habitat degradation and loss of host fish species.

Investments in Western Ridged Mussel habitat restoration support:

- Biodiversity conservation in freshwater ecosystems
- Water quality improvement through natural filtration
- Ecosystem resilience via sediment stabilization and nutrient cycling
- Cultural and ecological continuity, as mussels are part of Oregon's native aquatic heritage

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

Proposals must address primary limiting factors for aquatic habitats, as identified in associated federal recovery, state conservation, or tribal plans, including:

- 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);
- 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 woody debris);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 species;
- For wetlands providing important Oregon Spotted Frog habitat:

    - Altered hydrology: reduced hydroperiods due to water diversions, dam operations, and loss of beaver
    - Invasive vegetation: encroachment by reed canary grass and other tall, shading vegetation
    - Non-native predators: American bullfrogs and predatory fish
    - Habitat fragmentation: isolation of populations and loss of aquatic connectivity
    - Climate change: increased drought frequency and severity, exacerbating other threats
    - Disease: emerging pathogens such as chytrid fungus (*Bd*)
- For perennial water sources and associated uplands extending up to 500 meters from the water that provide important Northwestern Pond Turtle habitat:
    - Loss of nesting, rearing, overwintering, and foraging habitats, and impacts to connectivity of habitat types needed to complete the full life history.
    - Declines in habitat quality due to climate change, pollution, changes in hydrology, and altered disturbance regimes (floods, wildfire).
    - Impacts of development, habitat management, pet trade, and recreation on pond turtles and their habitat.
    - Loss of nesting habitat to encroachment by trees, shrubs, and invasive grasses.
    - Low nest survival and high rates of hatching and juvenile mortality due to native and invasive predators.
    - Competition with invasive turtles and potential for increased risk of disease and pathogens.
    - Negative impacts of grazing on habitat, including soil compaction, incorporation of organic materials into soils, direct mortality, structural changes to vegetation, altered plant communities, changes to nutrient availability, etc.
- Proposals addressing Western Ridge Mussel must address primary limiting factors identified in the Xerces Society guide and related literature, including:
    - Habitat degradation from sedimentation, channel instability, and dewatering
    - Loss of host fish species, which are essential for mussel reproduction
    - Pollution, including chemical contaminants and low dissolved oxygen
    - Hydrologic alteration from dams, diversions, and reservoir drawdowns
    - Invasive species, including non-native fish and bivalves
    - Climate change, which may exacerbate drought and water temperature stress
- 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

See Table 1 below for species-specific conservation and recovery plans for native fish to be addressed under this Priority. Recovery plans for non-fish species include the following:

- USFWS Recovery Plan for the Oregon Spotted Frog (2024)
    - 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.
- Oregon Conservation Strategy (ODFW 2016)
    - Identifies wetland habitats and amphibians as conservation priorities.
- Deschutes Basin Habitat Conservation Plan (2020)
    - Provides complementary conservation measures for Oregon spotted frog habitat in the Upper Deschutes.

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 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 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 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 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 *Co-benefit species: Warner Valley Redband Trout*	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 *Co-benefit species: Redband 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
USFWS Action Plan for Recovery of the Modoc Sucker (1983)	Modoc Sucker *Co-benefit species: Goose Lake Sucker*	Goose Lake
NMFS/ODFW Conservation & Recovery Plan for Oregon Steelhead Populations in the Middle Columbia River Steelhead DPS (2010)	Steelhead *Co-benefit species: Chinook Salmon, Redband Trout*	Deschutes, John Day, Umatilla
NMFS ESA Recovery Plan for Northeast Oregon Snake River Spring and Summer Chinook Salmon and Snake River Steelhead Populations	Spring Chinook Salmon, Steelhead *Co-benefit species: Redband Trout*	Grande Ronde
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 *Co-benefit species: Redband Trout*	Lower Columbia River
NMFS/ODFW Upper Willamette River Conservation and Recovery Plan for Chinook Salmon and Steelhead (2011)	Spring Chinook Salmon, Steelhead	Willamette
ODFW Coastal Multi-Species Conservation and Management Plan (2014) **NOTE:** this plan does not assess or address coastal coho, thus differentiating this priority from the Focused Investment Priority for Oregon Coastal Coho Habitat and Populations	Chinook salmon, Chum Salmon Steelhead, Cutthroat Trout	Coastal watersheds from Cape Blanco to the Columbia River (including Umpqua, Tillamook, many others)
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

Reference plans for Table 1

1) Oregon Coastal Coho Conservation Plan
2) NOAA Fisheries Oregon Coast Coho Recovery Plan
3) NOAA Fisheries Southern Oregon Northern California Coast Coho Recovery Plan
4) Limiting Factors and Threats to the Recovery of Oregon Coho Populations in the Southern Oregon-Northern California Coast Evolutionarily Significant Unit: Results of Expert Panel Deliberations
5) A Plan for the Reintroduction of Anadromous Fish in the Upper Klamath Basin (ODFW 2008)

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 will 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 (SWAP), the Intermountain West Joint Venture's (IWJV) Habitat Conservation Strategy Implementation Plan, and other plans listed at the end of this document.**

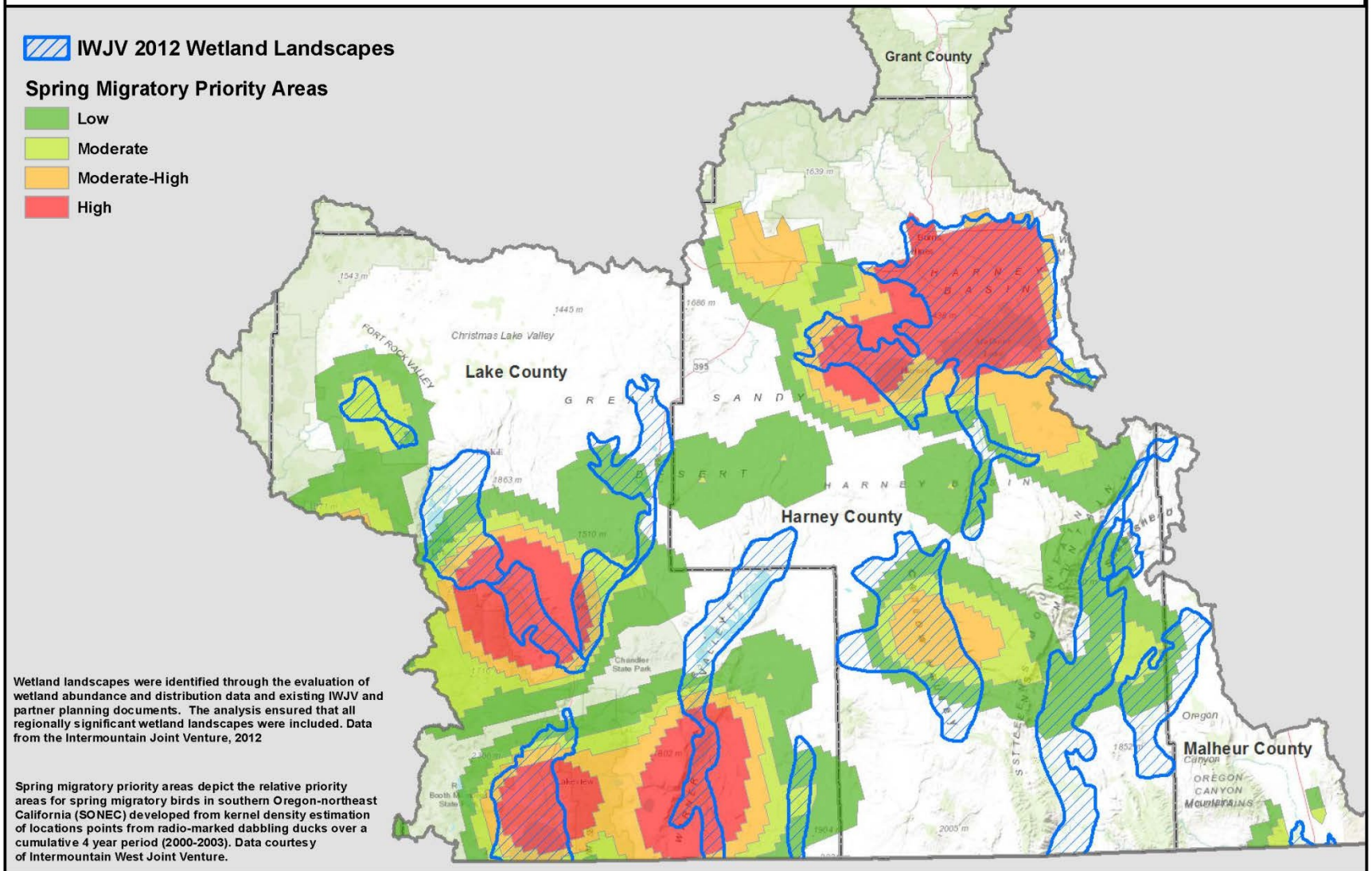
Background

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 lands, 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 seasonal cycle.

Focused Investment Priority for Oregon Closed Lakes Basin Wetland Habitats



OWEB

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

0 5 10 20 30 40
Miles

N
W E
S

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 Intermountain West Joint Venture 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 in this 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 invasion of non-native vegetation, and lead to higher salinity levels in lakes and wetlands. This issue lends added urgency to the importance of conservation efforts concerning 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 that 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

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 to protect and/or restore estuarine habitat to benefit watershed functions and processes that support fish and wildlife dependent on this habitat type. **Actions will address the habitat, limiting factors, ecological outcomes, and conservation approaches that yield the greatest productivity across species. The importance of estuaries is noted in several plans, which are listed at the end of this document.**

Background

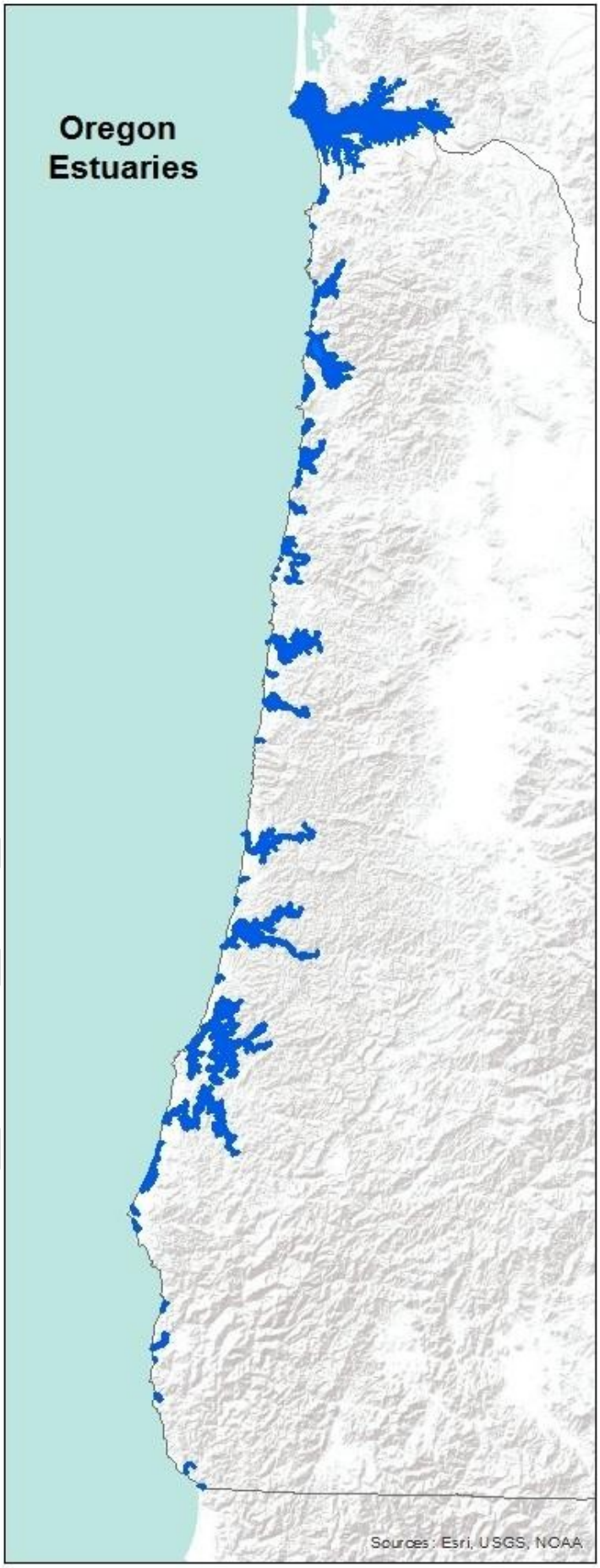
Where it occurs

Estuaries exist at the confluence of freshwater rivers and the ocean. The extent of estuarine habitat at these confluences can be determined by the range upon which the ocean maintains a 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. Large expanses of historic forested tidal wetlands (>90%) have been lost, along with substantial losses of saltwater and freshwater marshes and other tidal wetlands that were diked, drained, and converted to agriculture (ODFW, 2026). 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.

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.


Oregon
Estuaries
Sources: Esri, USGS, NOAA

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.
- 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
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

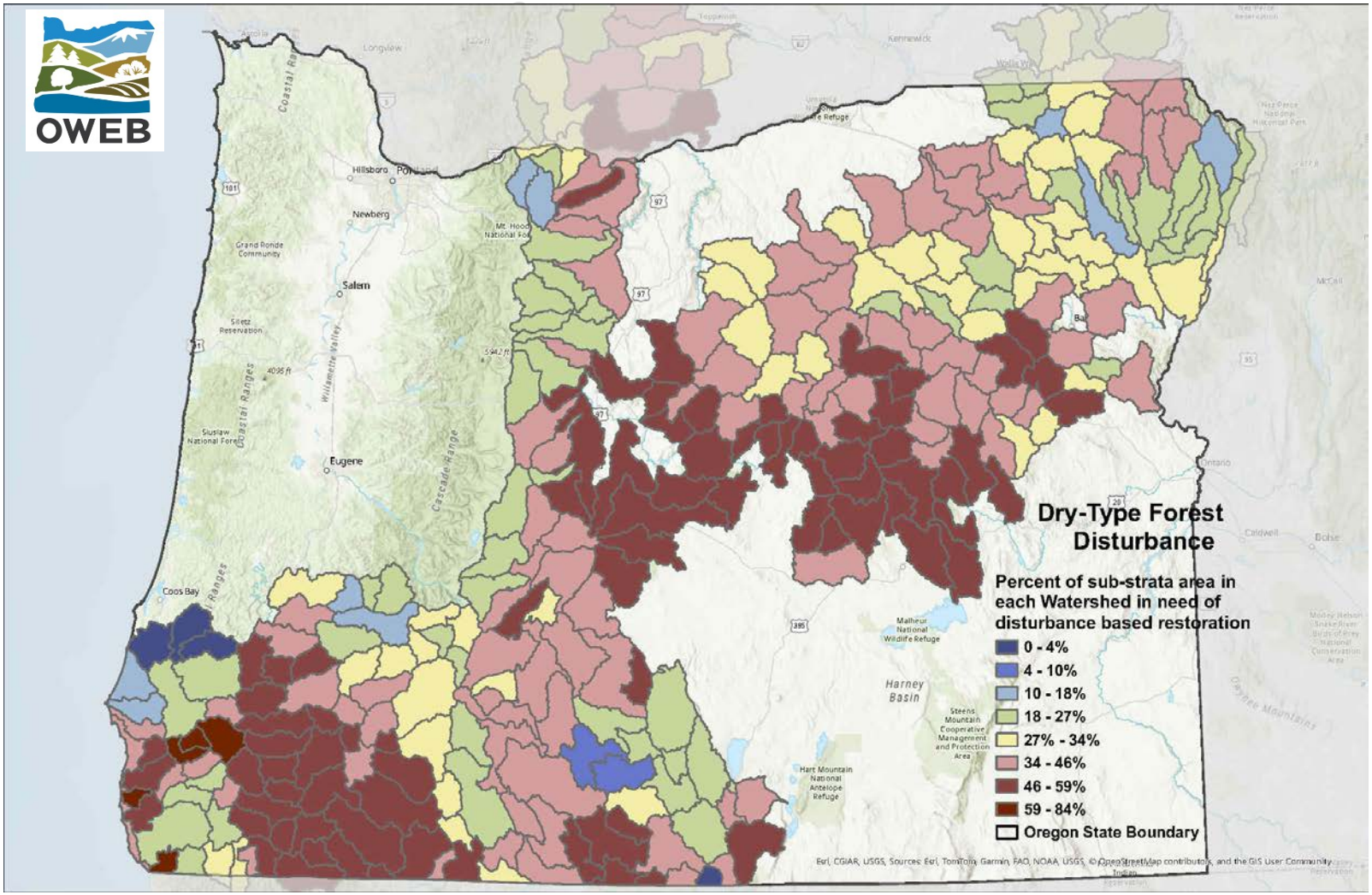
Where it occurs

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.


OWEB
Dry-Type Forest Disturbance
Percent of sub-strata area in each Watershed in need of disturbance based restoration
0 - 4%
4 - 10%
10 - 18%
18 - 27%
27% - 34%
34 - 46%
46 - 59%
59 - 84%
Oregon State Boundary
Hillsboro
Newberg
Salem
Eugene
Coos Bay
Harney Basin
Malheur National Wildlife Refuge
Hart Mountain National Antelope Refuge
Steens Mountain Cooperative Management and Protection Area
Grand Ronde Community
Siletz Reservation
Siuslaw National Forest
Willamette Valley
Coastal Ranges
Cascade Range
Ontario
Caldwell
Boise
McCall
Esri, CGIAR, USGS, Sources: Esri, TomTom, Garmin, FAO, NOAA, USGS, © OpenStreetMap contributors, and the GIS User Community

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
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 **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

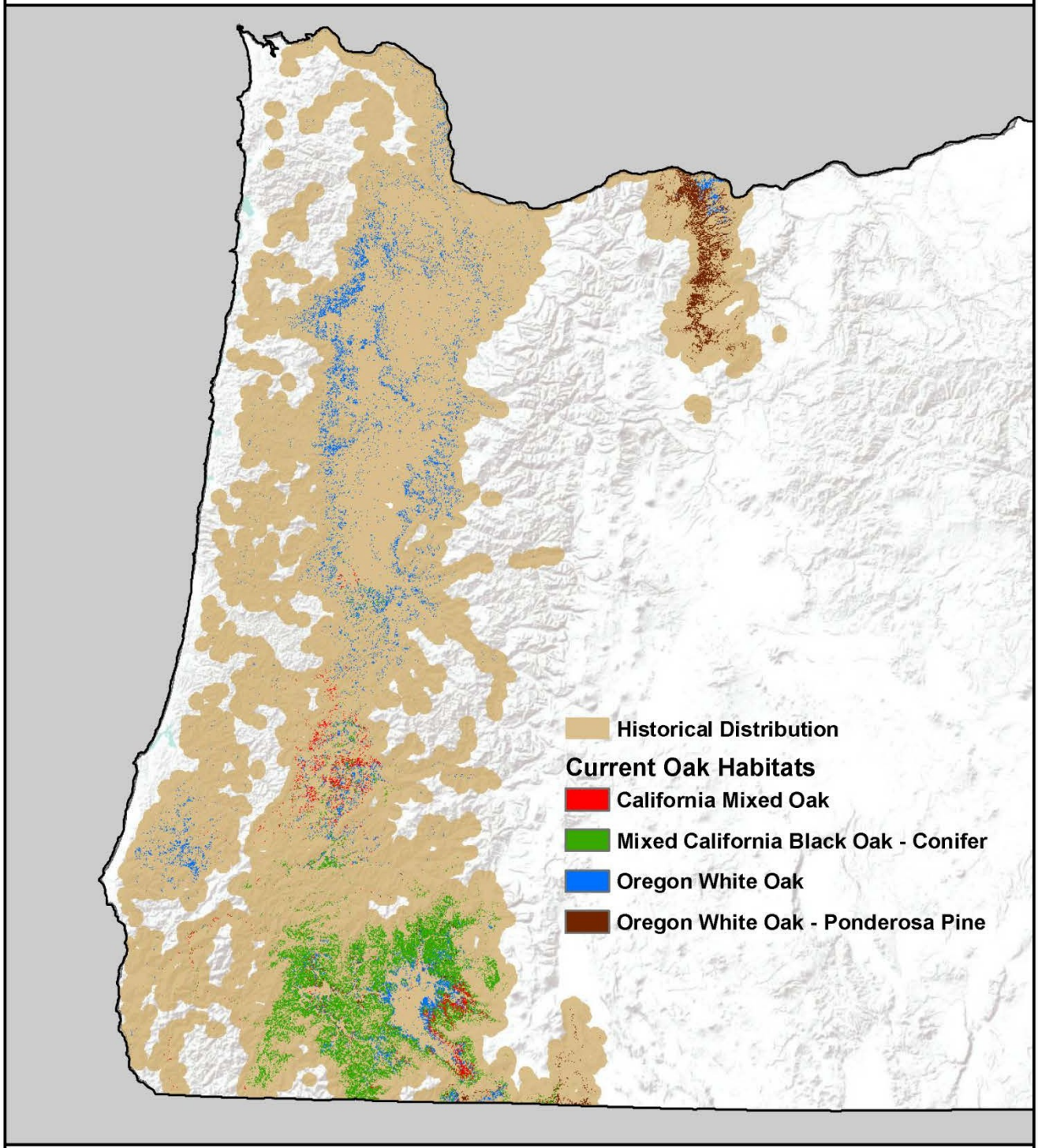
Where it occurs

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 Woodland and Prairie Habitat



OWEB

Current and Historical Distribution of Oak Habitats in Oregon

N
W E
S

0 5 10 20 30 40
Miles

Current distribution of oak habitats was derived from the 2010 Ecological Systems Framework Data Layer. Historical distribution was derived from the Oregon Historic Vegetation Framework Data Layer by buffering historic oak habitat polygons by two miles.

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.**

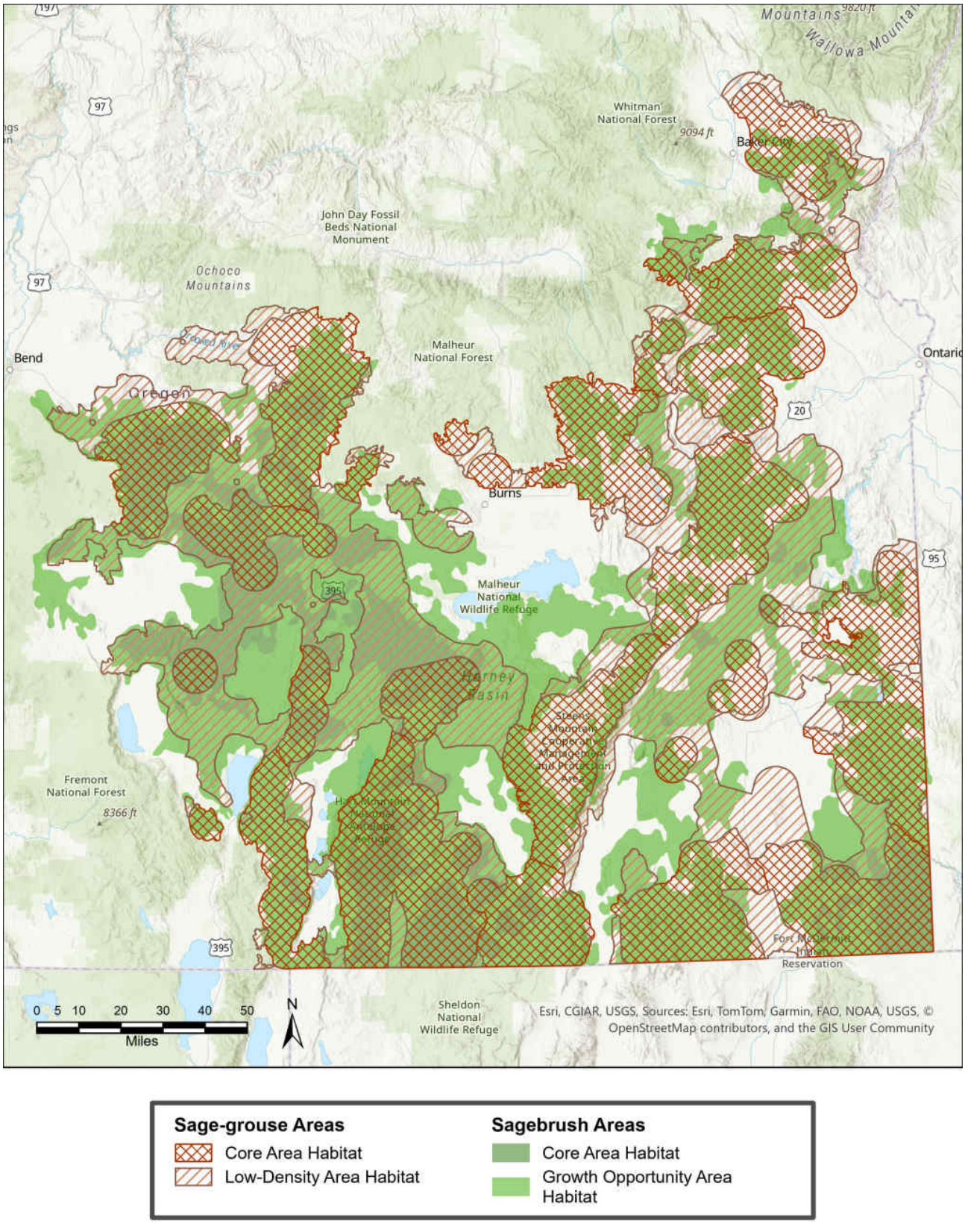
While sagebrush/sage-steppe habitats support a variety of species, focal areas for this Priority are: 1) Existing healthy, functioning sagebrush/sage-steppe habitats that support a variety of species, and areas of opportunity to grow this habitat identified by Oregon State University, the Institute for 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 (see explanation and map). 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 (FWS'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

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