



OWEB Focused Investment Partnership Priority AQUATIC HABITAT FOR NATIVE FISH SPECIES

Summary Statement of Priority

The OWEB Board will consider proposals for investment in initiatives that address habitat conservation and restoration needs for **inland aquatic habitat for native fish species** that are addressed in the following: **1) A federal recovery plan and/or 2) a state conservation plan**. Habitat conservation and restoration needs to achieve ecological outcomes over time at the landscape scale¹.

OWEB's Focused Investment Priority for Inland Aquatic Habitat for Native Fish 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 and state recovery and conservation 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 on page 4 for a list of plans.)

Focal areas for this Priority are defined as those native fish habitats in Oregon that are identified as priorities in associated federal recovery and/or state conservation plans, which are outlined in Table 1. For the purposes of this Priority, OWEB Focused Investment Partnership investments would be focused in areas shown in green, yellow and aqua on the map on page 2. Within these identified areas, voluntary restoration and conservation actions are especially encouraged in locations where investments will also address identified non-point source water-quality concerns.

Background

Where it occurs – As defined here, inland aquatic habitats include rivers, streams, floodplains, lakes and tidally influenced waters. These habitats typically contain water year-round. These areas occur around the state and provide essential habitat to many at-risk species, including important spawning and rearing habitat for salmonids.

Oregon's inland aquatic habitats are highly diverse. For example, as described in the Oregon Conservation Strategy, the headwaters of many of Oregon's rivers are located high in the state's various mountainous areas. In contrast, the eastern half of the state contains several playa lakes, formed when runoff from precipitation and mountain snowpack flows into low-lying areas, then evaporates and leaves mineral deposits.

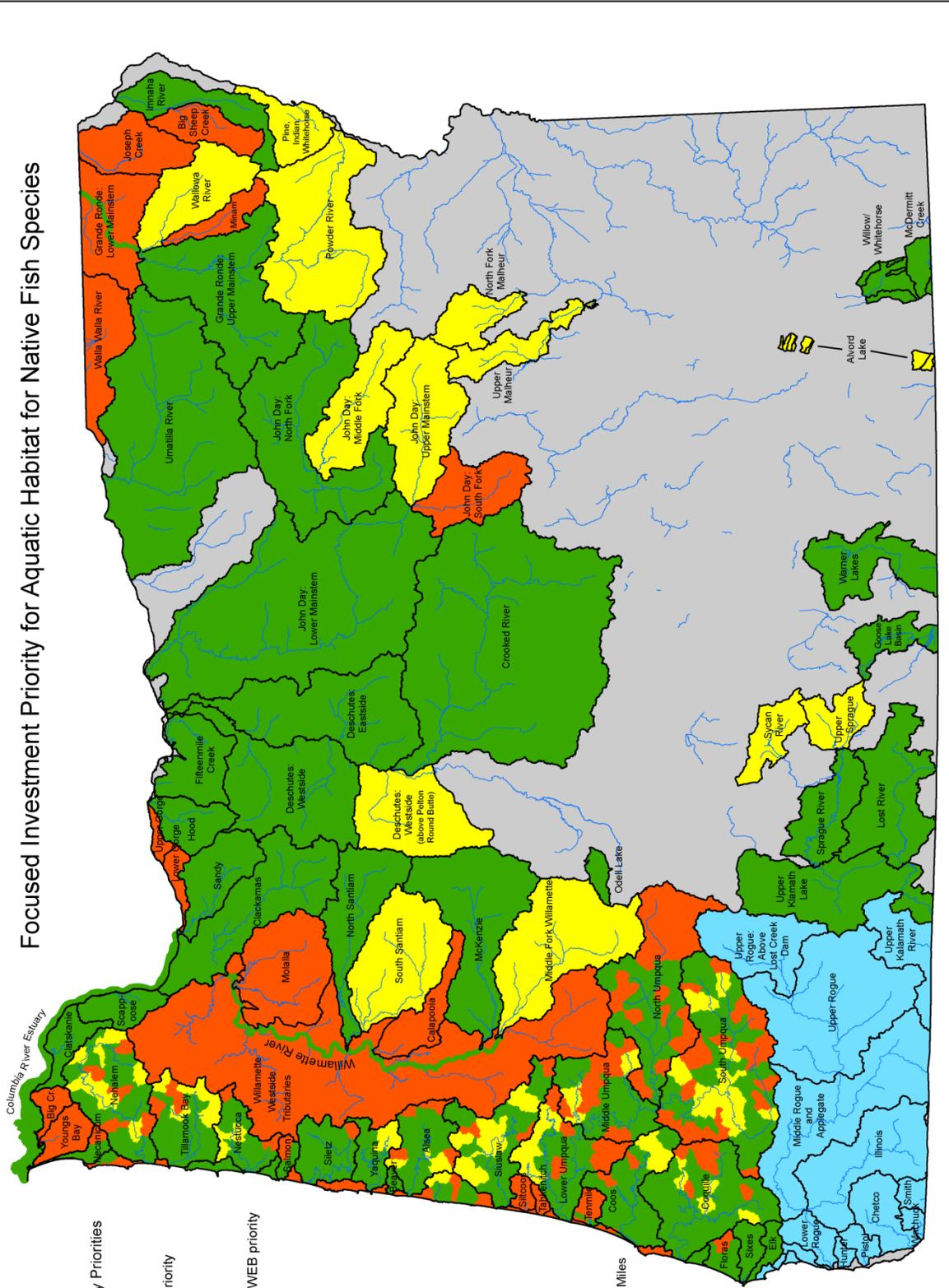
Indicator species and/or species of interest supported by these habitats – Several native fish species have been listed or are candidates for listing under the federal Endangered Species Act (ESA) or are state species of concern, including, but not limited to: Chinook salmon, chum salmon, steelhead, bull trout, some species of sucker, lamprey, and chub. Specific species to be addressed under this Focused Investment Priority are identified, by geography, on page 4.

In certain instances, the limiting factors and habitat needs of the aforementioned native fish species overlap with coastal coho during a least a portion of their life-cycle. However, because the overlap is not complete, this priority focuses on the inland aquatic habitat needs for a broader collection of native fish species. This approach ensures that primary limiting factors can be addressed for a range of native fish species that are of significance to the state.

¹ The landscape scale refers to the scale at which environmental, economic, and social factors intersect.

Focused Investment Priority for Aquatic Habitat for Native Fish Species

- Native Fish Species Restoration and Recovery Priorities**
- Highest Priority
 - Second Highest Priority
 - Lower Priority
 - Native fish habitat also included in OWEB priority



Note: The GIS data used to create this map comes from both State and Federal conservation and recovery plans. The aqua area is covered by multiple plans that do not include prioritization, so is denoted differently.

Why it is significant to the state – Inland 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, plants, and other aquatic species (e.g., freshwater mussels, Oregon spotted frogs) 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 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.

An excellent example of a successful focused investment effort is the recently de-listed Oregon chub. This fish species, which is endemic to the Willamette Valley, is the first fish species to be removed from the federal ESA due to species recovery. Since 1993, significant conservation efforts, partnerships, and funding have addressed Oregon chub habitat, which contributed to the recovery of the fish and the ESA de-listing in March, 2015.

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 and state recovery and conservation plans, including:

- Impaired water quality (e.g., temperature and sedimentation), including those factors associated with the loss of riparian and floodplain vegetation;
- Reduced water quantity (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);
- 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 Oregon Department of Fish and Wildlife’s statewide fish passage priority list; and
- Spread of invasive species.

Investments for the priority will focus on addressing primary limiting factors, as described in the reference plans below, with actions such as: 1) in mainstem rivers, reconnecting and restoring floodplain, riparian, side-channel, and tidal habitat; and 2) in tributaries, restoring whole watersheds to address such limiting factors as loss of instream habitat complexity and degradation of riparian areas.

Reference plans – See Table 1 on page 4 for species-specific conservation and recovery plans to be addressed under this Priority.

In addition to these plans, Oregon’s Native Fish Conservation Policy (NFCP), the state policy for managing native fish, provides guidance to support the implementation of the Oregon Plan for Salmon and Watersheds and Oregon Conservation Strategy. Conservation and recovery plans developed under the NFCP by Oregon Department of Fish and Wildlife and/or in conjunction with federal agencies detail how Oregon proposes to recover ESA-listed native fish species. 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 Fish Species

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

Example 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	Warner Sucker, Lahontan cutthroat trout, Hutton tui chub, Foskett speckled dace, Warner Valley redband trout	Closed Lakes Basin
USFWS Revised Draft Recovery Plan for the Coterminous United States Population of Bull Trout	Bull trout <i>Co-benefit species: Redband trout</i>	Deschutes, John Day, Upper Klamath, Lower Columbia, Willamette
NMFS/ODFW Mid-Columbia Oregon Steelhead Recovery Plan	Steelhead <i>Co-benefit species: Chinook salmon, Redband trout</i>	Deschutes, John Day
NMFS Draft ESA Recovery Plan for Northeast Oregon Snake River Spring and Summer Chinook Salmon and Snake River Steelhead Populations	Spring Chinook, Steelhead <i>Co-benefit species: Redband trout</i>	Grande Ronde
ODFW Lower Columbia River Conservation & Recovery Plan for Oregon Populations of Salmon & Steelhead	Spring and Fall Chinook, Chum salmon, Summer and winter steelhead <i>Co-benefit species: Redband trout</i>	Lower Columbia River
USFWS Conservation Agreement for Pacific Lamprey	Pacific lamprey	Deschutes, John Day, Grande Ronde, Lower Columbia, Umpqua, Rogue, Willamette
USFWS Revised Recovery Plan for the Lost River sucker and Shortnose sucker	Lost River sucker, Shortnose sucker	Upper Klamath
NMFS/ODFW Upper Willamette River Conservation and Recovery Plan for Chinook Salmon and Steelhead	Spring Chinook, Steelhead	Willamette
USFWS Recovery Plan for the Oregon Chub	Oregon chub	Willamette
ODFW Coastal Multi-Species Conservation and Management Plan (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 <i>Co-benefit species: Redband trout</i>	Coastal watersheds from Cape Blanco to the Columbia River (including Umpqua, Tillamook, many others)
USFWS Lahontan Cutthroat Trout Recovery Plan	Lahontan Cutthroat Trout	Closed Lakes Basin