Upper and Middle Willamette Mainstem Anchor Habitats

Landscape view of restoration at Green Island, Willamette Valley, Oregon

Partnership Overview

The Upper and Middle Willamette Mainstem Anchor Habitats Initiative ("the Initiative") focuses on anchor habitats, which are specific areas of the river that are essential for the full life cycle of native fish. The initiative seeks to restore these habitats by enhancing riparian forests and helping the river reconnect to its historical floodplain. The initiative seeks to continue providing a balance between human and ecological needs, building on the basin-scale vision described in the Willamette River Basin Planning Atlas (2002).

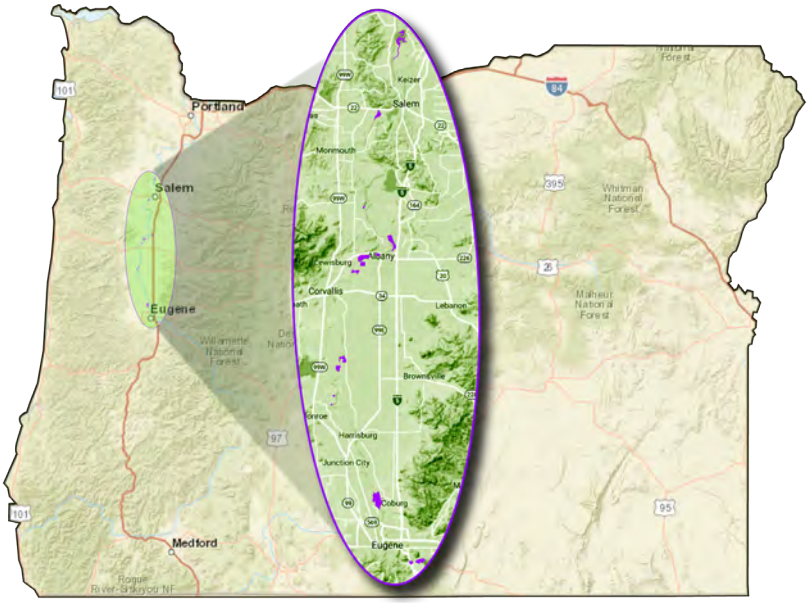
In January 2016, the Initiative was awarded funding for implementation through the Oregon Watershed Enhancement Board's (OWEB) Focused Investment Partnership (FIP). A FIP is an OWEB investment that addresses a board-identified priority of significance to the state, achieves clear and measurable ecological outcomes, uses integrated and results-oriented approaches as identified through a strategic action plan, and is implemented by a high-performing partnership.

Initiatives are eligible for up to 6 years of OWEB funding. For the 2017-2019 biennium, OWEB has awarded $2,445,000 to fund efforts to enhance seasonally important habitats for native fish in the Upper and Middle Willamette Mainstem Anchor Habitats. When combined with investments from 2015 – 2021, the anticipated total OWEB investment is approximately $7,160,000.

Core Implementing Partners

- Benton Soil and Water Conservation District
- Bonneville Environmental Foundation
- Calapooia Watershed Council
- City of Eugene
- Clackamas Soil and Water Conservation District
- Coast Fork Willamette Watershed Council
- Friends of Buford Park and Mt. Pisgah
- Greenbelt Land Trust
- Long Tom Watershed Council
- Luckiamute Watershed Council
- McKenzie River Trust
- The Nature Conservancy
- Oregon Department of Fish and Wildlife
- Oregon Parks & Recreation Department
- Trust for Public Land
- Willamette Riverkeeper

Floodplain habitat with healthy native vegetation, Willamette Valley, Oregon



Ecological Outcomes

The primary goal of the Upper and Middle Willamette Mainstem Anchor Habitats initiative is to sustain and enhance seasonally important resources for native fish. The initiative has identified specific strategies to increase habitat complexity and quantity; improve floodplain connectivity, restore floodplain forests, and improve water quality. Specific ecological outcomes will be assessed throughout this 6-year time frame, but some desired ecological outcomes will only become evident over a longer period of time.

Strategies and anticipated results in the Initiative include:

Strategy

Enhance the quality and extent of summer-fall seasonally important fish habitats

Conservation Action

- Plant native riparian vegetation
- Control aquatic invasive weeds
- Construct lateral channels and reconnect historic side channels
- Modify revetments and levees acting as barriers to floodplain flow

Intermediate Ecological Outcome

- Increased channel migration and habitat complexity
- Reconnection of the river channel to the floodplain, increasing floodplain inundation and habitat connectivity
- Reestablish flow, cooling streams and improving water quality

Long-Term Ecological Outcome

- Enhanced availability and quality of habitat for native fishes
- Population increases for Upper Willamette Chinook, steelhead, Pacific lamprey, and Oregon chub
- Healthy riparian plant community provides shade and food for fish and wildlife

Strategy

Enhance the quality and extent of winter-spring seasonally important fish habitats

Conservation Action

- Enhance floodplain plant communities by planting native trees and shrubs and controlling invasive weeds
- Modify artificial barriers, levees and road crossings to increase floodplain inundation
- Construct lateral channels and reconnect historic side channels
- Reconnect and enhance former gravel pits to serve as functionally beneficial fish habitat

Intermediate Ecological Outcome

- Reduced fine sediment and toxic inputs
- Enhanced bank stabilization
- Reconnects river to floodplain, improving habitat connectivity
- Reconnects side channels to main channel, providing critical rearing habitat and refugia for fish during high flow events

Long-Term Ecological Outcome

- Improved water quality
- Increased fish access to the floodplain, as more seasonally important habitat is made available for native fish
- Increased extent and duration of floodplain inundation and habitat connectivity. Increased organic matter providing food for native fish