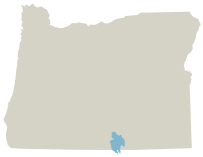
OWEB FOCUSED INVESTMENT PARTNERSHIP
PROGRESS REPORT / BIENNIUM ONE: 2019-2021


Starveout Diversion Fish Passage Project

Warner Basin
Aquatic Habitat Partnership

AQUATIC HABITAT FOR NATIVE FISH SPECIES

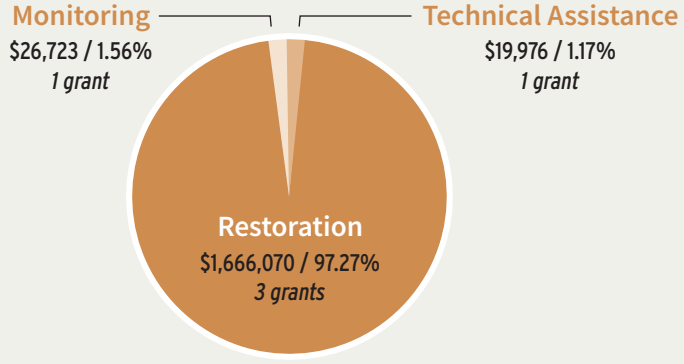


The initiative is focused on the three main tributaries (Twentymile Creek, Deep Creek, and Honey Creek) that support Warner sucker and Warner Lakes redband trout, as well as Pelican, Crump, and Hart Lakes. The three tributaries represent over 45 miles of Warner sucker designated critical habitat and the primary stream habitat for the two species.

Addressing existing limiting factors will require a collaborative effort among WBAHP members, the local community, landowners, and water users. Recovery of Warner sucker and Warner Lakes redband trout will preserve and ensure the continued existence of the valued fish community that is unique to the Warner Basin.

Funding

OWEB awarded $1,712,769 in funding that leveraged $556,672 in matching funds



Benefits

- *Access to higher quality spawning, rearing, and refuge habitats for native fish species is improved*
- *Individual populations of native fishes become self-sustaining and function as a self-sustaining metapopulation*
- *Irrigation infrastructure is improved and enhances assurance of water availability for all needs*

ABOUT THIS REPORT

The Focused Investment Partnership (FIP) grant program is a bold, new conservation approach that supports high-performing partnerships to implement strategic restoration actions and measure ecological outcomes through coordinated monitoring. In January 2019, the Oregon Watershed Enhancement Board awarded an Implementation Focused Investment Partnership grant to the Warner Basin Aquatic Habitat Partnership. This report documents projects for which funding was obligated during the first biennium of the initiative (2019 to 2021) to meet FIP initiative objectives. Work completed under the FIP grant program is part of a much larger on-going collaborative effort of federal, state and local agencies, private landowners, and non-governmental organizations in the Warner Basin. Accomplishments included in the report only reflect actions completed with OWEB FIP funding.

PARTNERS

Lake County Umbrella Watershed Council, Lakeview Soil and Water Conservation District, Oregon Department of Fish and Wildlife, US Fish and Wildlife Service, US Bureau of Land Management, US Forest Service, River Design Group

GOAL

Streams and lakes in the Warner Basin are connected providing access to the high-quality spawning, rearing, and adult holding habitats that are necessary for Warner sucker and Warner Lakes redband trout to complete their diverse life-history strategies.

STRATEGIES

- Restore fish passage
- Screen unscreened diversions
- Increase the assurance of water availability
- Reduce non-native fish populations

IMPLEMENTATION ACTIONS

Fish Passage

4 PROJECTS INITIATED

7 MILES OF HABITAT WITH IMPROVED ACCESS

30 CFS OF FLOW DIVERTED THROUGH SCREENS

1 FISH SCREEN INSTALLED

Habitat Restoration

3 ACRES OF RIPARIAN ENHANCEMENT

Planning

3 IRRIGATION INFRASTRUCTURE REVIEWS COMPLETED

Outreach

5 MEETINGS WITH COMMUNITY AND IRRIGATORS

Monitoring

2 FISH PASSAGE PROJECTS MONITORED

OUTCOMES

Near Term 0-10 YEARS

- Habitat connectivity and accessibility for native fish is restored
- Availability of water supplies is assured

Long Term 20+ YEARS

- Multiple age-classes including adults, juveniles, and young-of-year, are represented and approximate normal frequency distributions
- Population sizes of native fishes are stable or increasing

FIP Initiative Progress, Biennium 1

Progress on metrics reflects implementation supported by OWEB funding, and does not represent all progress achieved via other funding sources.

OUTPUTS	PROGRESS	OBJECTIVE
Fish passage projects	**2** projects completed with monitoring	**12** projects
Riparian enhancement projects associated with fish passage projects	**2** projects completed	**10** projects
Fish screen installations	**1** screen installed	**4** screens installed
Meetings with community members and irrigators	**5** outreach meetings held	**18** meetings
Irrigation infrastructure reviews	**3** reviews conducted	**10** reviews

Monitoring Approach

Plan success will be evaluated annually at the project level and biennially at the Plan level. Long-term monitoring will be completed at 3-yr and 5-yr post-project periods to ensure longer-term project success. Long-term monitoring to be completed beyond the life of the FIP will be funded by the partnership's member organizations.

Project-level monitoring may consist of:

1. as-built survey and project completion documentation to ensure the project was built as designed,
2. out-year monitoring including site visits and repeated photo points to see how the project site has changed, and
3. biological monitoring to be coordinated with ODFW, which may include documentation of fish passage.

Plan-level monitoring will include tracking of project progress and overall success. Plan-level monitoring will be led by LCUWC and LSWCD. Biennial monitoring reports will include a summary of goals and objectives, actions completed to-date, project and monitoring status, and future work in the subsequent biennium. Plan-level monitoring will serve as a check on the WBAHP members to ensure program accountability.

Long-term monitoring would leverage monitoring networks and studies typically administered by USFWS, BLM, and ODFW. The long-term monitoring will be used to assess how Plan goals and objectives are being met and if native fish recovery and conservation is on-track.

Adaptive Management

Restoration

CHALLENGES	LESSONS LEARNED	ADAPTATIONS
Understanding water rights and water use is critical for project designs.	Prepare diversion management documents that stakeholders agree to follow.	Coordinate diversion management plans with water users to ensure proper fish passage structure management as streamflow declines.
Meeting fish passage and water user needs in dynamic systems with variable flows.	Explore project alternatives with stakeholders and select alternative that achieves the most fisheries and water user benefits.	Present design iterations and solicit input that is incorporated in subsequent designs. Hold both group and individual meetings with landowners.

Monitoring

CHALLENGES	LESSONS LEARNED	ADAPTATIONS
Broad flow range requires strategic placement of fish monitoring equipment.	Coordinate PIT tag antenna placement and water level loggers with design engineers to share effort and data.	Fish and project performance monitoring dovetail to share data collection effort and information to improve designs and understanding of project performance.
Past restrictions to private properties limited understanding of Warner sucker populations.	Information sharing with landowners and building trust has increased access to areas not previously sampled.	Sampling has resulted in increased population estimates and known Warner sucker presence. Fish passage monitoring will assess individual projects and reach-level passage.

Engagement

CHALLENGES	LESSONS LEARNED	ADAPTATIONS
Leadership transition at partnership organizations offers new opportunities.	A strong commitment to the FIP by WBAHP partners and emergence of new leaders have contributed to smooth transitions.	WBAHP continues to hold quarterly meetings and there is frequent interaction among members. Communication ensures support and understanding.