As part of its mission to protect and revitalize anadromous fish populations the California Fish Passage Forum (Forum) is seeking data from monitoring efforts following the remediation of anadromous fish barriers.

The Forum will use these data to help quantify the benefits of fish passage improvement in California.

Your participation is voluntary and will help advance fish passage efforts in the future. In the future, opportunities may exist for the Forum to highlight your organization's project (and its results) through its own channels, as well as those of its partner organizations.

If possible, please use the monitoring worksheet below to provide this information. While the use of the worksheet is requested, all post remediation data are appreciated for this effort, including informal observations.

The Forum is particularly interested in presence/absence data and abundance data for target species both before and after barrier remediation.

Thank you for your assistance in this effort.

California Fish Passage Forum

Fish Passage Barrier Removal Monitoring Worksheet

A General Info

Project Name		
Long Creek Fish Screen, Sycan Marsh Preserve		
Barrier name and GPS Coordinates		*Lead organization*
Long Creek Diversion, 42.828903, -121.179501		Trout Unlimited
Monitoring Contact	*Phone*	*Email*
Charles Erdman	(802) 578-6285	cerdman@tu.org

PRE-IMPLEMENTATION

POST-IMPLEMENTATION

B Project Timing

Anticipated Start Date	*Anticipated End Date*
Summer/Fall 2022	Fall 2024

Construction Start Date:	*Construction End Date:*

C Basic information

Date final project design was completed: Design of this project is part of the project objectives

Anticipated stream miles restored: 16 miles

16

Description of barrier:

This diversion to be screened for this project is on Long Creek and impedes safe passage to migratory life histories of native fishes including bull trout, redband trout, and future Chinook salmon and steelhead.

Landowner: The Nature Conservacy leases this property from the NRCS under an easement. The property is called the Sycan Marsh Preserve. The landowner that diverts the water is Dr. Martin Pernoll

Actual stream miles restored 16.1miles

Verification methods:

D Site"Passability"

Describe the following physical parameters of the project

Channel Width in Project Area:

Baseline		4.5ft.
Target Range	4 ft to	5.5 ft.

Channel Slope / Gradient in Project Area:

Baseline		1 %
Target Range	0.5% to	1%
Maximum Channel Slope		2%

Maximum Jump Height:

Baseline		8in.
Target Range	5 to	12in.

Does the project design meet regionally appropriate fish passage criteria? ☑ Yes ☐ No

Provide reference sources used to develop target ranges.

NRCS Oregon Stream Barb Theory, Evaluation and Design

Describe the as-built parameters at the site.

Channel Width in Project Area:

As-Built Condition		ft.

Channel Slope / Gradient in Project Area:

As-Built Overall Slope		%
As-Built Maximum Channel Slope		%

Maximum Jump Height:

As-Built Condition		in.

Does the as-built conditions fall within the target ranges listed at left? ☐ Yes ☐ No

Comments

California Fish Passage Forum

Fish Passage Barrier Removal Monitoring Worksheet

	PRE-IMPLEMENTATION	POST-IMPLEMENTATION
E Presence of Target Fish Species	*Identify ONE target diadromous fish species:* Chinook Salmon (Oncorhynchus tshawytscha) *What is the upstream status of the target diadromous fish species?* ☐ Present ☑ Absent *For which life stages is passage limited?* ☑ Adult ☐ Juvenile *List other fish species that will benefit and their pre-project status:* *Species: Bull trout (Salvelinus Confluentus)* *Redband Trout (Oncorhynchus mykiss newberryi)* ☑ Present ☐ Absent *Steelhead (Onchorhynchus myckiss)* ☐ Present ☑ Absent *Describe the methodology used to determine presence/absence of the target species.* *Electrofishing, remote PIT tag arrays, snorkeling, redd surveys* *What partner organizations will assist in monitoring?* *USFWS Klamath Falls Fish and Wildlife Office* *Trout Unlimited* *Oregon Department of Fish and Wildlife* *The Nature Conservancy* *U.S. Geological Survey*	*What is the upstream status of the target diadromous fish species? (This may be reported annually from 1-5 years post-implementation.)* ☐ Present ☐ Absent *Which life stages, if any, have been observed upstream?* ☐ Adult ☐ Juvenile *List other fish species and their post-project status:* *Species:* ☐ Present ☐ Absent ☐ Present ☐ Absent *Describe the methodology used to determine presence/absence of the target species.* *How often does monitoring occur at the project site?* *What is the lead organization for monitoring?*
F Target Species Abundance	*Estimated target species abundance below barrier:* *Chinook - 0* *Steelhead - 0* *Redband trout - 2,000* *Bull Trout - 0* *Estimated target species abundance above barrier:* *Chinook - 0* *Steelhead - 0* *Redband - 200* *Bull Trout 892* *Date of estimates:* 2005	*Estimated target species abundance below project site* *Estimated target species abundance above project site* *Date of estimates:*
G Plans	*Is this barrier mentioned in any species recovery plans, watershed restoration plans, or other approved plans? If yes, what plans?* *This barrier is not specifically identified in any species recovery plan, but removal or screening of diversions is an objective of the Sycan Core Population in the Klamath Recovery Unit Implementation Plan for Bull Trout*	

California Fish Passage Forum

Fish Passage Barrier Removal Monitoring Worksheet

	PRE-IMPLEMENTATION	POST-IMPLEMENTATION
H **Operating and Maintenance Costs**	*Will the barrier removal result in reduced annual operating, maintenance and/or liability costs at the site?* ☐ Yes ☑ No *What is the estimated average **annual** operating, maintenance, and/or liability cost over the next five-year period if the barrier were to remain in place?* $1000/year	*What is the estimated average **annual** operating, maintenance, and / or liability cost over the next five-year period without the barrier in place?* /year *What is the **annual** average change in cost? (This will auto-fill)* /year
I **Public Safety**	*Will the barrier removal eliminate or diminish a documented safety hazard?* ☐ Yes ☑ No *If yes, please describe.*	*Did the barrier removal eliminate or diminish a documented safety hazard?* ☐ Yes ☐ No
J **Additional Project Monitoring (if applicable)**	*Please indicate if any additional monitoring activities will be conducted at the project site.* ☐ No additional monitoring ☑ Juvenile surveys ☐ Outmigrant trapping ☑ Spawner surveys ☐ Topographic channel surveys ☐ Habitat evaluation ☑ Photo points ☐ Other *If yes, please describe. Wherever possible, please include information on methodology used, as well as baseline and target conditions.* *Monitoring of the diversion will include electrofishing and PIT tag arrays that will detect any tagged fish that bypassed the screen, indicating failure.*	*If additional monitoring studies were completed, please describe post-implementation conditions.* *Is there anything else notable associated with this project, for example, community engagement events, volunteer activities, education and outreach activities?*