Prospectus of Proposed Project Opportunity

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Opportunity Title

Project 532214

Opportunity Lead

Colleen Fagam
Organization: ODFW
Phone: 541-962-1835
Email: colleen.e.fagan@state.or.us

Technical Contact

Colleen Fagan
Organization: Oregon Department of Fish and Wildlife
Phone: 541-962-1835
Email: colleen.e.fagan@state.or.us

Landowners

Ruth Bowman
Address: 85294 Winesap Road, Milton-Freewater, OR 97862
Phone: 541-938-7291

Contacted: Yes
Supportive: Yes
Contribution: Have enrolled in RCPP and using RCPP funding to provide off-site water. This will allow a larger footprint for the project.

River

Name: Upper Grande Ronde River
Mile: RM 153.3 to RM 155.1
Tributary: Snake River

Restoration Atlas

BSR: UGR15
Tier: Tier 1
Initial Score: Bio Benefit 64
Proposed Score:

Restoration Activities

1. Protect Land and Water (Easement, Acquisition, Management)
2. Channel Reconstruction
3. Pool Development
4. Riffle Construction
6. Spawning Gravel Cleaning and Placement
7. Levee Modification: Removal, Setback, Breach
8. Remove - Relocate Floodplain Infrastructure
9. Restoration of Floodplain Topography and Vegetation
10. Floodplain Construction
11. Perennial Side Channel
13. Floodplain Pond - Wetland
14. Alcove
15. Hyporheic Off-Channel Habitat (Groundwater)
16. Beaver Restoration Management
17. Riparian Fencing
18. Riparian Buffer Strip, Planting
26. Boulder Placement
27. LWD Placement
28. Modification or Removal of Bank Armoring
29. Restore banklines with LWD - Bioengineering
31. Improve Thermal Refugia (spring reconnect, other)
33. Reduce - Mitigate Point Source Impacts
34. Upland Vegetation Treatment - Management

Species Affected

Focal: Snake river spring/summer Chinook salmon, Snake River summer steelhead, bull trout
Other: Redband trout, lamprey

Description

The Upper Grande Ronde-Bowman Project is located along the Upper Grande Ronde River, tributary to the Snake River, in Union County, Oregon. The project reach is in UGR Atlas Tier 1 habitat. This section of the Grande Ronde River provides important spawning and rearing habitat for ESA listed spring Chinook salmon and summer steelhead. Chinook and steelhead spawning and rearing has been documented in the project reach. It is also used by ESA listed bull trout, Oregon Sensitive Species redband trout, and other important native fish species.

Throughout the project reach, the Grande Ronde River is over-widened and shallow. Pool habitat and wood recruitment is poor. High water temperatures impact adult Chinook salmon during migration and holding and juvenile rearing.

The limiting factors and threats for spring Chinook salmon and summer steelhead in this reach of the Upper Grande Ronde River include excess fine sediment; low summer flow; water quality (high summer water temperatures, pH); reduced habitat quantity/diversity (pools and large wood); impaired riparian conditions; winter icing; and impaired fish passage. The causes are primarily attributable to livestock grazing; timber harvest; and roads. Primary life stage affected is juvenile rearing.

ODFW conducted an Aquatic Inventories survey on the Upper Grande Ronde River in 2015. The Bowman project reach was unconstrained in a wide floodplain within a broad valley. The valley width index was 11.0. There were 543 meters of secondary channel habitat. Within the project reach riffles (51%) and scour pools (32%) composed most of the stream habitat. The average residual pool depth was 0.45 m (1.48 feet). Gravel (42%), sand (24%), and cobble (23%) were the primary stream substrates.

Objectives

Increased channel complexity, with channel morphology closer to historical and natural form.

Increase off-channel rearing habitat by construction of 2,100 feet of side channel and 1,600 feet of alcove habitat by the end of December 2021.

Increase habitat complexity and diversity by increasing Grande Ronde sinuosity and increasing channel length in the project reach by 660 feet and adding 3,600 feet of constructed bar, by the end of December 2021.

Increase floodplain activation by removal of 1,600 cubic yards of levee material by the end of December 2021.

Increase available cold water rearing refuge through construction of 300 feet of side channel/alcove habitat to improve connectivity of the cold water spring to the Grande Ronde River by the end of December 2021.

Increased quantity and quality of habitat diversity by installing 106 wood structures, 490 pieces of large wood, with associated scour pools by the end of December 2021.

Increase extent of riparian zone and protections implemented against ungulate browsing by installing new riparian fencing a minimum of 40 feet from the channel in 2021 and installing individual copses as needed throughout the duration of the 15 year conservation easement.

Major Risks

Construction of lower end of project will not occur until off-site water is provided. The landowner has signed up for RCPP funding, off-site water designs have been provided by NRCS, and construction will occur in 2019.

Permits and Consultation

ESA Section 7 USFWS: Applicable
ESA Section 7 NMFS: Applicable
COE or DSL Permit: Applicable
Cultural Resources Section 106: Applicable
DEQ 401 Water Quality Permit: Applicable

Project Schedule

Year: 2020

Monitoring: Monitoring will be conducted by ODFW to conduct due diligence and evaluate project effectiveness at meeting objectives. Monitoring will include the following:
1. Pre-project photo points were established in 2018 and photos will be taken prior to project
construction. Photographs will be taken the first five years post project completion and then every
subsequent three years to qualitatively document riparian and channel condition;
2. Aerial videos will be recorded pre-project and in years 1, 2, 3, 6, 10, and 15 years post
construction;
3. Summer steelhead and spring Chinook salmon spawning ground surveys will be conducted 2-3 times annually to note presence or absence of spawning and to document redd locations;
4. Salmonid presence/absence surveys of juvenile rearing will be conducted post-project
construction to document usage of project area;
5. Channel cross sections will be established along the restored channel to assess channel
development and form over time. The number and location of cross-sections will be determined
following project completion and will at a minimum be placed to characterize built features.
Channel cross sections will be surveyed 5, 10, and 15 years post project completion.
6. Topographical surveys of the as built project will be conducted 5, 10, and 15 years post
project completion to develop a longitudinal profile of the channel and determine changes in
mainstem and side channel stream profiles and morphology; and

7. A final report documenting project implementation and monitoring will be submitted

Project Relations

Multi-phase Effort: No

Preliminary Cost Estimate

Total: 1,102,000
BPA Funding: 827,000
OWEB Funding: 275,000

Design Funding

Design Funds Requested: No