



Prospectus of Proposed Project Opportunity **Submitted Sep 13, 2018**

Opportunity Title

Catherine Creek - Hall Ranch Phase 2 Fish Habitat Design

Opportunity Lead

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Technical Contact

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Landowners

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Contacted: No

Supportive: OSU is supportive of the Hall Ranch Fish Habitat Restoration Project including relocating Highway 203, habitat restoration, and grazing management. ODFW is coordinating with the adjacent upstream landowner. He has some concerns with the relocated highway's potential

impact on the view from his house and property access. This landowner's permanent residence is in Georgia. He was scheduled to meet with ODFW and ODOT during his July-August visit to Oregon, but he has not yet made it to Oregon. We will meet with him when he arrives, which is still to be determined.

Contribution: OSU has been participating on the project design and planning teams. OSU may contribute large wood to the project from timber sales planned on Hall Ranch. OSU is working with ODFW on a grazing management plan. OSU may conduct research following project implementation.

River

Name: Catherine Creek

Mile: RM 50.1-51.2

Tributary: Grande Ronde River

Restoration Atlas

BSR: CC3B2

Tier: Tier 1

Initial Score: 60

Proposed Score:

Restoration Activities

1. Protect Land and Water (Easement, Acquisition, Management)
2. Channel Reconstruction
3. Pool Development
7. Levee Modification: Removal, Setback, Breach
8. Remove - Relocate Floodplain Infrastructure
9. Restoration of Floodplain Topography and Vegetation
11. Perennial Side Channel
12. Secondary (non-perennial) Channel
14. Alcove
15. Hyporheic Off-Channel Habitat (Groundwater)
16. Beaver Restoration Management
17. Riparian Fencing
18. Riparian Buffer Strip, Planting
22. Barrier or culvert replacement/removal
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
35. Road Decommissioning or abandonment

Species Affected

Focal:
Other:

Description

The project reach supports all freshwater life stages of ESA listed spring Chinook salmon and summer steelhead, and OR state sensitive species redband trout. It also supports migrating and rearing ESA listed bull trout. In the project reach, Catherine Creek was once a multithreaded, complex series of anastomosing channels that occupied nearly the entire valley floor. Human impacts, most notably the construction of Highway 203, reduced the multiple channel planform to a single channel between 1936 and 1954. Also, manipulations to the channel, streambanks, and floodplain in this reach limits salmonid production. The main channel has been cut off from 26 acres of floodplain along the left of Highway 203 and heavy livestock grazing occurs in the project area. A side channel of Catherine Creek on the OSU Hall Ranch flows into a roadway borrow ditch along Highway 203 for 0.26 miles. ODOT proposed blocking the side channel where it leaves Catherine Creek, or installing large boulders along the toe of the roadway to armor the highway and decrease the risk of roadbed erosion. The side channel, however, is used by spring Chinook and steelhead for spawning and rearing. ODOT's concerns are road stability and resulting public safety. There is also the risk for all of Catherine Creek being captured by the side channel.

The Project Goal is to implement habitat protection and enhancement measures that address the primary limiting factors identified for all life stages of spring Chinook salmon and summer steelhead in the project reach of Catherine Creek by increasing available off-channel rearing and spawning habitat.

Objectives

- Implementation ready, engineered design that addresses limiting factors for all life stages of ESA listed spring Chinook salmon and summer steelhead in Catherine Creek.
- Reconnect Catherine Creek with 26 acres of floodplain habitat and Milk Creek by relocating Highway 203 outside the Catherine Creek and Milk Creek floodplain.
- Create a multi-channel network to increase channel complexity in a historically anastomosed reach.
- Increase juvenile Chinook and steelhead summer and overwinter rearing habitat by creating off channel and high flow habitat features with greater than 1.5 m depth and near-zero velocity.
- Increase abundance of LWD and habitat structures to maintain pool scour, narrow and deepen the channel, and protect banks against winter ice flows.
- Develop a riparian management plan and native ungulate management plan to increase likelihood of successful riparian development.
- Increase extent of riparian vegetation by fencing project area to protect riparian vegetation from browsing by cows and native ungulates.

Major Risks

Project Cost - ODFW is pursuing all funding options and grant opportunities. We are working with multiple project partners to obtain design and implementation funding.

Adjacent Landowners - ODFW is coordinating with adjacent landowners upstream and downstream of project. Both have been invited to participate on the project design team, receive project documents/designs and updates, and ODFW has met with each individually.

OTEC Power Poles - located along the southwest side of the highway. Power pole relocation has been discussed with OTEC and is a component of the project. Relocation has also been discussed with Church of Jesus Christ of Latter Day Saints representatives - property serviced by power.

State Highway Relocation - coordinating extensively with landowner/OSU and with ODOT on road relocation. Both are supportive of road relocation.

Permits and Consultation

ESA Section 7 USFWS: Applicable

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COE or DSL Permit: Applicable

Cultural Resources Section 106: Applicable

DEQ 401 Water Quality Permit: Applicable

Project Schedule

Year: 2021

Monitoring: Monitoring: Prospectus is for Technical Assistance for engineered designs. Monitoring of designs will not occur, however they will be reviewed by the design team, BPA, and RRT.

A monitoring plan will be developed for project implementation and will likely include, but not be limited to, photo points, spawning ground surveys, snorkel surveys, longitudinal and as built surveys, and vegetation surveys.

Project Relations

Multi-phase Effort: No

Preliminary Cost Estimate

Total: \$251,900

BPA Funding:

OWEB Funding: \$251,900

Design Funding

Design Funds Requested: Yes

Design Option: Option 1

Type of Work:

River and stream data acquisition (hydrology, sediment, surveying, assessment, fisheries)

Hydrology, geomorphology, or river hydraulic modeling

Stream and fisheries habitat design

Specialties:

Stream restoration engineer

Fluvial geomorphologist