Prospectus of Proposed Project Opportunity

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Opportunity Title

Lostine River Mile 5.7 Floodplain Enhancement

Opportunity Lead

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Technical Contact

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Landowners

Larry and Debra Yarborough
Address: 909 Lostine River Road, Lostine, OR 97857
Phone: 541-398-8290

John and Valerie Nesemann
Address: 78517 Caudle Lane, Lostine, OR 97857
Phone: 541-398-0547

Joseph and Anna Pierri

Stephen Young

William Hunter

Contacted: Yes

Supportive: Yes. All landowners are supportive.
Contribution: Several acres will be converted from pasture to floodplain.

River

Name: Lostine River
Mile: RM5.7-6.4
Tributary: Wallowa River

Restoration Atlas

BSR: WLL-3
Tier: Tier 1
Initial Score: 73
Proposed Score:

Restoration Activities

2. Channel Reconstruction
3. Pool Development
4. Riffle Construction
7. Levee Modification: Removal, Setback, Breach
9. Restoration of Floodplain Topography and Vegetation
11. Perennial Side Channel
18. Riparian Buffer Strip, Planting
26. Boulder Placement
27. LWD Placement
28. Modification or Removal of Bank Armoring
29. Restore banklines with LWD - Bioengineering

Species Affected

Focal: Snake River spring Chinook salmon, Snake River summer steelhead, Bull trout, and Pacific lamprey.
Other: Recently reintroduced Coho salmon.

Description

The overall goal of the project is to improve floodplain and instream habitat conditions for ESA-listed Chinook Salmon, steelhead, Bull Trout, and potentially re-introduced Coho Salmon and Pacific Lamprey. This project will implement habitat protection and enhancement measures to improve the following primary limiting factors for Spring Chinook salmon and summer steelhead in the Lostine River: stream complexity, excess sediment, water temperature and baseflow conditions, riparian vegetation, and floodplain connection.

Objectives

Project objectives to achieve the goal to be implemented by 2024 include the following:

• Enhance stream hydraulic and habitat complexity and set the project reach on a trajectory to maintain this complexity over time through creation of approximately 2,600 feet of co-dominant main river channel, installation of >45 large wood structures with one or more whole trees, and creation of 14 pools in the main stem Lostine River.

• Increase floodplain connectivity within the project reach through excavation of approximately 2,400 feet of secondary channels, installation of >30 large wood structures with one or more whole trees, and creation of 8 pools within the floodplain.

• Create conditions that will lead to improved riparian vegetation establishment through installation of ~17,000 1-gallon potted woody plants, 16,000 live cuttings, and seeding throughout ~10 acres of the riparian and uplands.

• Create conditions that mitigate excessive heat input during baseflow conditions through flow interception and floodplain inundation by placement of >40 floodplain wood structures, and 1,460 LF of willow trenches.

Major Risks

According to the HIP risk assessment, the Channel Reconstruction, Secondary Channel and Floodplain Interactions, and Habitat-forming Instream Structures all rank as med-high risk. These are relatively common floodplain restoration actions and do not pose excessive threat at this specific project location due to a general lack of infrastructure. Special care and oversight will need to be taken particularly during the channel fill portion of construction to reduce the risk of channel recapture in the simplified alignment.

Another barrier to implementation would be any change in landowner willingness. However, this risk will be mitigated by keeping the landowners informed on final designs and implementation plans.

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: 2023

Monitoring: - AEM MBACI surveys conducted by NPT Watershed Division's M&E crew
- Annual drone orthomosaic imagery collected by GRMW
- Photo points collected by NPT Watershed
- Annual Spring Chinook spawning ground surveys conducted by ODFW & NPT Research

Project Relations

Multi-phase Effort: No

Preliminary Cost Estimate

Total: $789,750
BPA Funding: $350,000
OWEB Funding:

Design Funding

Design Funds Requested: No