



## **Prospectus of Proposed Project Opportunity**

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### **Opportunity Title**

Jordan Creek Culvert Replacement

### **Opportunity Lead**

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### **Technical Contact**

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### **Landowners**

Contacted: Yes

Supportive: Yes

Contribution: NEPA and design.

### **River**

Name: Jordan Creek

Mile: RM 11

Tributary: Grande Ronde River

### **Restoration Atlas**

BSR: UGR12

Tier: Tier 3

Initial Score: 25  
Proposed Score: 56

## **Restoration Activities**

22. Barrier or culvert replacement/removal

## **Species Affected**

Focal: Steelhead trout.  
Other: Redband trout.

## **Description**

This project would replace an undersized, potential juvenile steelhead passage barrier (4' wide x 4' high (round culvert) with a properly sized (designed to pass a 100 year flow event) bottomless, open arch culvert (16' wide x 5' 3" high). This action was selected based on USFS engineer and Anderson- Perry consultation to provide for appropriate fish passage at all life stages, reduce erosion concerns, improve natural flow patterns, and reduce the risk of culvert failure. Specific Actions include:

- (1) Remove existing culvert (contractor shall be responsible for hauling culvert off site and disposal).
- (2) Construct new multiplate bottomless arch culvert.
- (3) Construct cross vane grade control structure.
- (4) Place one layer of Class 4 riprap on side slopes.
- (5) Raise the road elevation to provide 2'-6" of cover over new culvert. Construct new road grade with a 2% super elevation at the centerline of culvert and blend to match existing grade at the beginning and end of the project.

Highlighted Construction requirements:

- a. All tree, shrub, brush removal shall be coordinated with a Forest Service fish biologist or hydrologist prior to removal.
- b. When reconstructing the stream channel, consult with District resource specialists as necessary to achieve final grades and layouts as agreed to by the contracting officer.
- c. Contractor shall use the existing roadway for a staging area, as the road way will be closed during the construction period.
- d. All material within the existing bankfull width and the ordinary high water mark shall be streambed simulation material, other than the surface course aggregate under the footings.
- e. A USFS fish biologist or hydrologist will be on site when the stream channel and downstream cross vane structure are constructed. The biologist or hydrologist will ensure that the substrate is sufficient to pass fish and that the structure is installed properly to streambed grade level.
- f. All instream work will be completed during the instream work window

(July 1 - October 15) of one year.

g. The dewatering plan shall be submitted to the Forest Service after the award of the contract. The plan must be approved by a Forest Service fish biologist and/or hydrologist and National Marine Fisheries Service prior to implementation.

h. The dewatering plan shall minimize sediment from entering the stream, maintain stream flows downstream of the work area, and shall be designed to minimize impact on construction of the new culvert.

i. Fish will be salvaged prior to project implementation with appropriate block nets installed. An electroshocker will be used to salvage the fish. The fish will be placed upstream of project operations. All fish salvage operations will be supervised by a Forest Service fish biologist.

## **Objectives**

- Improve juvenile steelhead passage to 2 upstream stream miles: Velocity barriers/jump height will be removed and stream velocities reduced through the culvert.
- Improve natural flow pattern: Natural stream flow patterns will be improved due to the replacement of a larger, native streambed culvert.
- Reduce the risk of culvert failure: A larger culvert will be installed to handle larger flow volumes.

## **Major Risks**

None - NEPA was completed several years ago.

## **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:

## **Project Schedule**

Year: 2022

Monitoring: A final report will be written, once completed.

Engineers will continue to monitor the structure for culvert integrity.

Noxious weeds will be monitored for 3 years after project completion.

## **Project Relations**

Multi-phase Effort: No

**Preliminary Cost Estimate**

Total: 215000  
BPA Funding: 175000  
OWEB Funding:

**Design Funding**

Design Funds Requested: No