Prospectus of Proposed Project Opportunity

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Opportunity Title

Chicken Creek Subwatershed Small Streams Project

Opportunity Lead

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Landowners

Contacted: Yes
Supportive: Yes. USFS will be the only landowners.
Contribution: USFS will be contributing all of the trees needed to complete the project. USFS is providing all of the inkind labor to complete NEPA, design, ESA consultation, permitting, contract preparation and materials acquisition.

River

Name: West, NFK West & mainstem Chicken Creeks
Mile: RM 1 - RM 5.5
Tributary: Sheep Creek

Restoration Atlas

BSR: UGR19
Tier: Tier 1
Initial Score: 25
Proposed Score: 98

Restoration Activities

3. Pool Development
9. Restoration of Floodplain Topography and Vegetation
11. Perennial Side Channel
27. LWD Placement

Species Affected

Focal: Snake River spring chinook salmon, Snake River summer steelhead, and bull trout.
Other: Redband trout.

Description

The project will involve placing wood into a channel spanning log jam configuration into 2.5 miles of upper Chicken Creek, 1.5 miles of West Fork Chicken Creek and .5 mile of North Fork West Chicken Creek. Historic beaver trapping, timber harvest, grazing, and roading created a laterally confined channel, with limited floodplain interaction and diminished deciduous vegetation. The project would prioritize LWD placement (channel spanning log jams, whole trees and small wood material) to add roughness, increase floodplain interaction and habitat complexity, and promote out of channel flooding. It is expected that the project will promote longer periods of hydrologic production, decreased stream temperatures, and increased riparian deciduous vegetation.

All of the wood for these streams would be obtained within 200 feet on each side of the streams. All of the wood and racking material would be felled/ pushed over and brought to the stream with the use of two mini excavators. Small debris jams will be placed in the creek and will average 30 - 40 debris jams per mile. Each debris jam will consist of 4 logs/root wads (9” – 12” in diameter and 20’ - 30' long) with branches intact and racking material (consist of tree tops, branches and small trees less than 8” in diameter). An additional 50 whole trees (10” – 12” in diameter) with small wood will be spaced in between sites per mile. An average of 250 trees (9” – 12” in diameter) will be placed per mile. It is estimated that each log jam will consist of one ten yard load of racking material.

All disturbed areas will be seeded with a native seed mix.

Objectives

Chicken and West Chicken Creeks are not in proper functioning ecological condition (hydrologic, geomorphic, vegetative composition), due to historical anthropogenic influences including beaver trapping, overgrazing, logging, road building, and an altered fire regime.

The objective is to improve spring/summer chinook, summer steelhead and bull trout habitat, through the following goals.

1: Physical - Restore Hydrologic Function
Increase hydration of laterally confined channel to improve groundwater retention. Use Large Woody Debris (LWD) to restore stream grade, reduce hydraulic efficiencies, and increase floodplain inundation time. LWD structures will be placed in locations to increase roughness and back up water. Restoring hydraulic form and function will facilitate an increase in floodplain water storage, flow attenuation, and spring and seep connection. Longer periods of floodplain inundation will moderate extreme high and low seasonal temperatures. Instream LWD structure types designed to meet these goals include channel spanning structures, lateral forcing structures, and floodplain wood.

2: Biological - Improve Fish Habitat
Restore channel habitat complexity. These structures will enhance scour pool habitat, cover, and floodplain connection. The structures will increase hydraulic complexity and zero velocity refugia on active channel margins. This will facilitate water retention, gravel deposition and sorting, and LWD recruitment.

Major Risks

There are no major barriers to project implementation.

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:

Project Schedule

Year: 2020

Monitoring: * Drone flights - pre and post implementation
* Temperature monitoring at the downstream end of the project area.
* Noxious weed monitoring.

Project Relations

Multi-phase Effort: No

Preliminary Cost Estimate

Total: $65,000
BPA Funding: $65,000
OWEB Funding:

Design Funding

Design Funds Requested: No