PROJECT: 16-1719 PLAN, BECKLER CONFLUENCE LWD DESIGN

Sponsor: Wild Fish Conservancy Program: Salmon Federal Projects Status: Active
Project Start Date: 12/08/2016 Agreement End Date: 11/30/2018

Final Report Status: Accepted 01/31/2019

Description

PROJECT AGREEMENT DESCRIPTION

Wild Fish Conservancy will develop preliminary designs (as described in Manual 18 Appendix D-2) for the construction of 7-10 engineered log jams in the confluence of the Beckler River and the South Fork Skykomish. The goal of the project will be to reconnect the lower Beckler River to its historic alluvial fan. Restoring historic structural elements (LWD) to the reach will alter sediment routing, sorting patterns, dissipate flood flows, and increase channel roughness. By altering the river in this way, it will increase habitat complexity in the reach, benefiting salmonid populations trapped and hauled above Sunset Falls by Washington Department of Fish and Wildlife (WDFW). This project is a collaboration between the Mt. Baker-Snoqualmie National Forest, Wild Fish Conservancy, and King County.

FINAL PROJECT DESCRIPTION

Over the course of this project WFC engineers and ecologists developed restoration treatment designs for the project site that include using Engineered Log Jams (ELJs) to capture and retain sediment in the mainstem of the Beckler river channel, which when implemented, will improve aquatic habitat diversity and reconnect the channel to its historic floodplain. The project site is located in the Mt. Baker Snoqualmie National Forest, near the confluence with the Skykomish River, just north of the town of Skykomish. The designs developed in this project are an important step towards the development of a restoration treatment for the alluvial fan of the Beckler River. The future restoration project will improve instream habitat conditions for all native fish species, including ESA listed Chinook salmon, Steelhead and Bull Trout, which all use this reach. The project will also improve connectivity between the river and its floodplain, likely resulting in the development of off channel habitat, which serves as important rearing habitat for coho salmon as well as flood refugia habitat for all juvenile salmonids.

Narrative

The major new lesson learned over the course of this project was that green (bathymetric) LiDAR applications were cost competitive with traditional surveys at the site. We solicited open bids from 2 traditional survey companies and 1 remote sensing survey firm. We were surprised when the remote sensing bid came in the lowest. The quality of the product and the ease of use of the data for our technical staff would have made even a 5% more expensive quote from the remote sensing firm a better deal. But as the lowest bid it was clearly the best choice. The topographic surveys would have required detailed data stitching to an existing LiDAR data set, whereas the remote sensing option developed bathymetry data and newer more detailed ground cover data in a seamless data set.

We did experience delays with the contracted hydraulic engineer. Their staffing issues led to a long delay in their ability to develop the hydraulic models for the project. But once the hydraulic models were run we were able to develop project designs fairly quickly.

Moving forward we anticipate that we will apply for funding for the permitting and construction phase of the project in 2019 and 2020. We hope to submit permit applications in the summer or fall of 2019 and to construct the project in the summer of 2020. If funding limits our ability to construct the entire project in one phase we will be able to split the project into two phases, constructing in the summers of 2020 and 2021.

Worksites

Worksite #1: Confluence of Beckler River & SF Skykomish

Worksite Address (Optional)

Street Address Beckler Rd
City Skykomish
State, Zip WA

Worksite Details

Worksite #1: Confluence of Beckler River & SF Skykomish

Worksite Name Confluence of Beckler River & SF Skykomish

WORKSITE DESCRIPTION

The Alluvial fan of the Beckler River

Geographic Coordinates

From mapped point:	Latitude	47.716663	Longitude	-121.341130
For Directions:	Latitude	47.718684	Longitude	-121.343949

SITE ACCESS DIRECTIONS

Drive east on Highway 2 from Everett. The Beckler Road is the first left turn after the town of Skykomish.

Properties

Worksite #	Worksite Name	Property Name	Sponsor Verified	RCO Verified	RCO Verified Map
1	Confluence of Beckler River & SF Skykomish	Mt Baker Snoqualmie National Forest		✓	N/A

Planning Metrics

	Current Agreement	Final

Worksite: Confluence of Beckler River & SF Skykomish (#1)

Targeted salmonid ESU/DPS (A.23) The salmon ESU (Evolutionarily Significant Unit) or steelhead DPS (Distinct Population Segment) name that the project is targeting. For species where ESU/DPS name is not known or determined, use the species name with unidentified ESU (e.g., Chinook salmon - unidentified ESU).	No Salmon ESU or Steelhead DPS ✓ Chinook Salmon-Puget Sound ESU Chinook Salmon-unidentified ESU Chum Salmon-Puget Sound/Strait of Georgia ESU Chum Salmon-unidentified ESU Coho Salmon-Puget Sound/Strait of Georgia ESU Coho Salmon-unidentified ESU Pink Salmon-Even year ESU Pink Salmon-Odd year ESU Pink Salmon-unidentified ESU ✓ Steelhead-Puget Sound DPS Steelhead/Trout-unidentified DPS	No Salmon ESU or Steelhead DPS ✓ Chinook Salmon-Puget Sound ESU Chinook Salmon-unidentified ESU Chum Salmon-Puget Sound/Strait of Georgia ESU Chum Salmon-unidentified ESU ✓ Coho Salmon-Puget Sound/Strait of Georgia ESU Coho Salmon-unidentified ESU Pink Salmon-Even year ESU Pink Salmon-Odd year ESU Pink Salmon-unidentified ESU ✓ Steelhead-Puget Sound DPS Steelhead/Trout-unidentified DPS
Area Encompassed (acres) (B.0.b.1) Acres of land area affected by the planning and assessment activities (to the nearest 0.1 acre). For design projects, this is the project footprint. For assessments, this is the area to be assessed.	45.0	45.0
Targeted species (non-ESU species) Select one or more of the fish species that this project will benefit.	None Unknown Brook Trout Brown Trout ✓ Bull Trout ✓ Cutthroat Kokanee ✓ Rainbow ✓ Searun Cutthroat	None Unknown Brook Trout Brown Trout ✓ Bull Trout ✓ Cutthroat Kokanee ✓ Rainbow ✓ Searun Cutthroat
Miles of Stream and/or Shoreline Affected (B.0.b.2) The miles of freshwater stream and/or marine shoreline affected (to the nearest 0.01 mile). For design projects, the miles in the project footprint. For assessments, the miles to be assessed.	0.50	0.50
Project Identified In a Plan or Watershed Assessment (C.0.c) Name of the Recovery Plan that identifies the need or justification for conducting this project. If not identified in Recovery Plan, name the watershed assessment or other plan which justifies the need for the project. Use endnote citation format (Author, date, title, source, source address). If project was not identified in a plan, enter "none." (500 characters max).		*Not Collected at Closure*
Priority in Recovery Plan Priority in Recovery Plan. How is the project prioritized or justified by the above plan? (i.e. addresses a priority action, occurs in a priority area, or targets a priority species). Include page reference. If project was not identified in a Plan, enter 'None'		*Not Collected at Closure*

Design for Salmon restoration

Projects include complete engineering or premliminary design.

Preliminary design

Preliminary engineering/design work for restoration projects.

Total cost for Preliminary design Enter the cost (to the nearest dollar) of this work type, as close as you can reasonably get it.	$104,976	*Not Collected at Closure*
Project Identified in a Plan or Watershed Assessment. Name of the Recovery Plan that identifies the need or justification for conducting this project. If not identified in Recovery Plan, name the watershed assessment or other plan which justifies the need for the project. Use endnote citation format (Author, date, title, source, source address). If project was not identified in a plan, enter "none." (500 characters max).		

Priority in Recovery Plan (1222)
Priority in Recovery Plan. How is the project prioritized or justified by the above plan? (i.e. addresses a priority action, occurs in a priority area, or targets a priority species). Include page reference. If project was not identified in a Plan, enter 'None'

Name and Description of Plan (2297)
Name and brief description of the plan that was developed through the grant. If no plan was developed, enter "None".

Agency Indirect Costs
Funding provided for approved agency indirect costs.

Agency Indirect
Indirect costs based on approved rate.

Total cost for Agency Indirect — $14,010 — *Not Collected at Closure*
Enter your estimated indirect costs (if applicable). Note: If your project has more than one worksite, you should only complete this for the first worksite.

Overall Metrics

	Current Agreement	Final
Completion Date		
Projected date of completion Estimated date the scope of work will be completed.	12/30/2018	12/30/2018

Project Goals

Goals, purpose, and expected benefits (A.17)
Short description of the goals and purpose of the project and how it is expected to benefit salmonids or salmonid habitat.

Planning Costs

Final amounts include a pending billing
Date of Last Released Billing 11/05/2018

Worksite: Confluence of Beckler River & SF Skykomish (#1)

	Proposed	Final
SPLIT OUT FINAL TOTAL BELOW	$118,986.00	$117,088.71
Design for Salmon restoration Costs	$104,976	$108,429
Agency Indirect Costs	$14,010	$8,660
Difference		$0

Billed Summary

Final amounts include a pending billing
Date of Last Released Billing 11/05/2018

Category	Project Agreement RCO	Project Agreement Total	Totals To Date Expended	Totals To Date Non Reimbursable	Totals To Date Total Billed
Non-Capital					
Non-Capital Costs			61,533.00	55,555.71	117,088.71
Equipment					
Non-Capital Total	**61,533.00**	**117,086.00**	**61,533.00**	**55,555.71**	**117,088.71**
Total	61,533.00	117,086.00	61,533.00	55,555.71	117,088.71

Sponsor Match

	Proposed	Final
Project Funding		
PCSRF Federal Funds (A.10)	$61,533.00	$55,379.70
State Funds (A.11)		
Pending Billing - RCO Share Approved		$6,153.30
Sponsor Match: Monetary Funding		
Amount of other monetary funding (A.12)	$57,453	$55,556
Source of other monetary funding (A.12.a)		
Sponsor Match: Donated Un-paid Labor (volunteers)		
Value of Donated Unpaid Labor (Volunteers) (A.13.a.2)	$0	$0
Source of Donated Un-paid labor contributions (A.13.a.4)		
Number of hours volunteers contributed to the project (A.13.a.1)	*Collected at Closure*	0
Describe how the value of the volunteers was determined (A.13.a.3)	*Collected at Closure*	
Sponsor Match: Donated Paid Labor		
Value of Donated Paid Labor (A.13.b.1)	$0	$0
Source of Donated Paid Contributions (A.13.b.2)		
Sponsor Match: Other In-kind Contributions		
Value of Other In-Kind Contributions (A.13.c.1)	$0	$0
Source of Other In-Kind Contributions (A.13.c.3)		
Description of other In-Kind contributions (A.13.c.2)		
Amount Total	$118,986	$117,089
Total Billed		$117,089
Difference		$0

Attachments

PHOTOS (JPG, GIF)

FILES AND PHOTOS

File Type	Attach Date	Attachment Type	Title	Person	File Name, Number Associations	Shared
No attachments match filter criteria						

Certify & Submit

Status History

Report Status	Date	User	Note
Accepted	01/31/2019	Elizabeth Butler	Thank you Micah, nice job on the restoration design work!
Submitted	01/31/2019	Micah Wait	Thanks for your help in wrapping this up!
Draft	01/10/2019	Micah Wait	

WASHINGTON STATE Recreation and Conservation Office

Property Report

PROJECT: 16-1719 PLAN, BECKLER CONFLUENCE LWD DESIGN

Sponsor: Wild Fish Conservancy Program: Salmon Federal Projects Status: Active

Project Start Date: 12/08/2016 Agreement End Date: 11/30/2018

PROPERTY: Mt Baker Snoqualmie National Forest (1: Confluence of Beckler River & SF Skykomish)

Property Basics

Acquisition ✓**Planning**

Property Location

Property Name	Mt Baker Snoqualmie National Forest	**Property Description**	
Property Address (optional)		**Associated Worksite**	Confluence of Beckler River & SF Skyko
City			
State	**Zip**		

Landowner

Landowner Name	US Forest Service (USFS)
Address (optional)	
City	
State	**Zip**
Landowner Type	Federal

Control and Tenure

Instrument Type	Public Use Agreement
Timing	Proposed
Term Type	Fixed # of years
# Yrs	10
Expiration Date	
Note	

Parcel Numbers

County Name	Parcel Number	Mapped	Notes (optional)
No parcels			

Recording Numbers

Instrument Type	Recording Number	Notes

RCO Notes

✓**Property data verified by RCO Staff**

Attachments

PHOTOS (JPG, GIF)

FILES AND PHOTOS

File Type	Attach Date	Attachment Type	Title	Person	File Name, Number Associations	Shared
	02/27/2017	Land Ownership Certification Form	Land_ownership_cert Beckler_16-1719	JoshL	Land_ownership_cert Beckler_16-1719.doc, 296150 Property: Mt Baker Snoqualmie National Forest	