

**PROJECT: 15-1210 REST, UPPER WHITE PINE FLOODPLAIN RECONNECTION**

Sponsor: Chelan Co Natural Resource    Program: Salmon State Projects    Status: Active  
Project Start Date: 12/09/2015    Agreement End Date: 12/31/2018

Final Report Status: Accepted 02/07/2019

## Description

### PROJECT AGREEMENT DESCRIPTION

This section of Nason Creek was re-located in the late 1950's when the BNSF railroad was built in its current location. From RM 13.3 to RM 13.8, Nason Creek flows east between two constructed levees that protect the CPUD powerlines to the north and the BNSF railroad to the south. There is no spawning for spring Chinook or steelhead within the project area, however, spawning is present just upstream and downstream of the project area. The existing bed is incised due to channelization and Nason Creek is disconnected from the adjacent 30 acre floodplain wetland to the north. This project will remove ~0.5 mile of the river left levee, re-locate ~1,400 linear feet of straightened mainstem into a new meander alignment, provide over eight acres of floodplain rearing habitat, and re-connect ~30 acres of channel migration zone. This project will re-locate the CPUD powerlines out of the floodplain to accommodate stream restoration actions. The primary goal of the project is to improve and increase salmonid habitat in 0.5 mile of Nason Creek to increase the abundance and productivity of ESA-listed UCR spring Chinook salmon and UCR steelhead. This project will address the #1 ecological concern per the Biological Strategy by enhancing peripheral and transitional habitats in the #1 priority area in the Wenatchee Basin. This project will also address the #2 ecological concern in Nason Creek by improving in-stream complexity through the addition of large wood (332 pieces).

### FINAL PROJECT DESCRIPTION

The Upper White Pine Floodplain Reconnection Project removed anthropogenic site impacts (levee and infrastructure) to restore floodplain connectivity, channel migration processes, and improve in-stream aquatic habitat in Nason Creek (between RM 13.3 – 13.85). Within the project area, Nason Creek was artificially confined by two rip-rap lined levees that protected the CPUD powerlines on river left and the BNSF railroad on river right. Channelization created an entrenched, incised channel resulting in habitat simplification and disruption of natural stream channel processes such as floodplain inundation rate, channel migration, sediment deposition patterns, and large wood recruitment. These impacts reduced the quantity, quality, and access to stream, wetland, and off-channel habitats within the project area. This project removed approximately 0.5 mile of the river left levee and restored stream channel meanders to increase sinuosity and reduce confinement. Approximately 1,500 feet of Nason Creek was re-aligned north of the existing channel in a new alignment through the floodplain wetland. These actions increased the flood prone area by 10 - 27 acres (2 year to 100 year event, respectively). This project also added large woody material to increase pool quality and quantity and will increase the availability of off-channel rearing. Increasing access to floodplain and off-channel habitat for ESA listed juvenile steelhead and spring Chinook improves rearing (feeding/foraging) and refugia from high water flows and predators. In order to accommodate stream restoration actions, six Chelan PUD power poles were removed from the riparian area and floodplain and that section of transmission line was re-located to White Pine road.

## Narrative

The project re-located powerlines from the floodplain to allow for stream restoration which removed 0.5 mile of levee and re-located 1500 feet of mainstem. This project increased floodplain connectivity and improved the potential for channel migration through the floodplain, and improved the quality of in-stream habitat. The project increased floodplain connectivity by 4 acres at the 2 year event and 17 acres at the 100 year event.

This project involved a significant amount of stakeholder engagement. Nearby residents were engaged via postcard mailers, in person contacts, phone calls, and emails. Engagement with CPUD was through three formal agreements and all of the meetings, emails, and phone calls that it takes to develop those agreements: one MOU and two Inter-Agency (IA) Agreements. The first MOU outlined the terms of proceeding with the alternatives analysis. The second IA outlined the terms of powerline re-location design. The third IA outlined the terms of powerline relocation construction. Engagement with USFS and regulatory agencies involved multiple site visits, office meetings, emails, design document review, permit applications, and eventually secured authorizations to implement work. CCNRD hosted monthly design team meetings attended by staff from CPUD, USFS, Bureau of Reclamation (who funded design and part of construction), and the design engineers.

CCNRD did a lot of coordination and negotiation with stakeholders to resolve issues that arose during project development. For example, CPUD had to give up an easement and re-locate the powerline to USFS lands where it would be covered by a permit. That switch from easement to permit reduces CPUD flexibility for maintenance and operations and permits are only good for 30 years compared to an easement which is in perpetuity. Not only that, but the Beverly-McKenzie powerline operating permit between USFS and CPUD has been expired for >8 years. So we had many meetings to convince both USFS and CPUD that it would be ok to construct a new powerline and operate it under an expired permit. Negotiation through the second and third IA between Chelan County and the CPUD involved attorneys and figuring out how to provide the CPUD advance payment for services incurred. CPUD has a written policy that requires advance payment for engineering design and construction to support powerline re-location actions requested by outside parties. Since advance payments are not allowed via grant funding, Chelan County had to front costs to meet CPUD requirements. CCNRD also agreed to secure all authorizations for powerline re-location. CCNRD assisted CPUD and USFS with all of the written documentation to secure authorizations for this project. In the end, all stakeholders except one nearby year round resident supported the project; the powerline re-location design had to be revised to move 1 structure off private lands because that resident did not support the tree removal proposed adjacent to White Pine road.

This project involved securing permit authorizations to work in ESA listed habitat for 2 threatened and 1 endangered fish species, floodplain wetland, USFS designated riparian reserves, and critical habitat for spotted owls. As such, the project navigated programmatic consultation for ESA listed fish species, formal consultation for tree removal in spotted owl habitat, and securing a DOE 401 Individual water quality certification for 1.48 acres of permanent excavation in wetland. Reports, such as an Environmental Assessment, Biological Assessment and others were prepared to document how the overall project benefit adequately compensated for the short and long term construction impacts.

Project construction was phased over 3 years: 2016 powerline clearing, 2017 powerline re-location and new channel construction, and 2018 levee removal and flow diversion into the new stream channel. Following completion of construction, over 15,000 native trees and shrubs were planted to restore the work areas.

Project goals and the details of construction were summarized in a final project completion report in video format which is available online through the following link:

<https://vimeo.com/314631282/1e3a793dfc>

# Final Report, Project 15-1210

## Worksites

### Worksite #1: Nason Creek Upper White Pine

#### Worksite Address (Optional)

**Street Address** USFS White Pine Road (FS 6950)

**City** Merritt

**State, Zip** WA 98826

## Worksite Details

### Worksite #1: Nason Creek Upper White Pine

**Worksite Name** Nason Creek Upper White Pine

#### WORKSITE DESCRIPTION

Levee removal, powerline relocation and mainstem of Nason Creek re-location

#### Geographic Coordinates

**From mapped point:** Latitude 47.787683 Longitude -120.866217

**For Directions:** Latitude Longitude

#### SITE ACCESS DIRECTIONS

From Hwy 2, turn south onto White Pine Road (FS 6950 Road) which is about 2 miles west of the Town of Merritt. Follow White Pine Road 1-2 miles until you cross under the Chelan PUD (wooden) powerlines. Park there and walk east down the powerline corridor into the project area.

## Properties

Worksite #	Worksite Name	Property Name	Sponsor Verified	RCO Verified	RCO Verified Map
1	Nason Creek Upper White Pine	Nason Creek Upper White Pine	✓	✓	N/A

## Restoration Metrics

### Worksite: Nason Creek Upper White Pine (#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).

#### Current Agreement

#### Final

No Salmon ESU or Steelhead DPS	No Salmon ESU or Steelhead DPS
✓ Chinook Salmon-Upper Columbia River Spring-run ESU	✓ Chinook Salmon-Upper Columbia River Spring-run ESU
Chinook Salmon-Upper Columbia River summer/fall-run ESU	Chinook Salmon-Upper Columbia River summer/fall-run ESU
Chinook Salmon-unidentified ESU	Chinook Salmon-unidentified ESU
✓ Steelhead-Upper Columbia River DPS	✓ Steelhead-Upper Columbia River DPS
Steelhead/Trout-unidentified DPS	Steelhead/Trout-unidentified DPS

## Final Report, Project 15-1210

Targeted species (non-ESU species)

Select one or more of the fish species that this project will benefit.

None	None
Unknown	Unknown
Brook Trout	Brook Trout
Brown Trout	Brown Trout
✓ Bull Trout	✓ Bull Trout
Cutthroat	Cutthroat
Kokanee	Kokanee
Rainbow	Rainbow
Searun Cutthroat	Searun Cutthroat

Miles of Stream and/or Shoreline Treated or Protected (C.0.b)

0.80

0.50

The total length of freshwater stream, side channel, and/or marine shoreline treated or protected at the project worksite (to the nearest 0.01 mile). Multiple treatments in the same stretch of stream, side channel, or shoreline should only be "counted" once, so that the total reflects actual stream, side channel, or shoreline length subjected to treatments regardless of how many treatments were applied. This is a meander measurement of the portion of the stream treated by the project area. Include the stream adjacent to riparian project areas. This does not include "miles of stream made accessible," which is an "effect" not a treatment. Use the minimum measurement of 0.01 miles for barrier removal projects involving a single barrier.

Project Identified In a Plan or Watershed Assessment (C.0.c)

*Not Collected at Closure*

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).

Type Of Monitoring (C.0.d.1)

Type of project monitoring that occurs at the worksite during the project period. If the project has no monitoring, report 'None'.

✓ Implementation Monitoring  
None

✓ Implementation Monitoring  
None

Monitoring Location (C.0.d.2)

If monitoring is a component of the project worksite, select one or more of the following descriptors on the location of the monitoring: onsite; upstream; downstream; or, upslope.

No monitoring completed  
✓ Downstream  
✓ Onsite  
Upslope  
✓ Upstream

No monitoring completed  
✓ Downstream  
✓ Onsite  
Upslope  
✓ Upstream

### Instream Habitat Project

Projects implemented to increase or improve the physical conditions within the stream environment (below the ordinary high water mark) that support increased populations of salmonids.

Total Miles Of Instream Habitat Treated (C.4.b)

0.80

0.50

The length of stream or side channel treated (to the nearest 0.01 mile). This is a meander measurement of the portion of stream treated at the project worksite. Multiple treatments in the same stretch of stream would only be "counted" once, so that the total reflects actual stream length subjected to treatments regardless of how many different treatments were applied.

#### Channel reconfiguration and connectivity (C.4.c.1)

Changes in channel morphology, sinuosity or connectivity to off-channel habitat, wetlands or floodplains. This includes instream pools added/created; removal of instream sediment; meanders added; former channel bed restored; removal or alteration of levees or berms (including setback levees) to connect floodplain; and, creation of off-channel habitat consisting of side channels, backwater areas, alcoves, oxbows, ponds, or side-pools.

Total cost for Channel reconfiguration and connectivity

\$1,530,000

*Not Collected at Closure*

Enter the cost (to the nearest dollar) of this work type, as close as you can reasonably get it.

Type of change to channel configuration and connectivity (C.4.c.2)

Types of change to channel configuration and connectivity.

Channel Bed Restored  
✓ Creation of Instream Pools  
✓ Creation/Connection to Off-Channel Habitat  
✓ Levee removal/Alteration  
✓ Meanders Added  
None

✓ Channel Bed Restored  
✓ Creation of Instream Pools  
✓ Creation/Connection to Off-Channel Habitat  
✓ Levee removal/Alteration  
✓ Meanders Added  
None

Miles of Stream Treated for channel reconfiguration and connectivity (C.4.c.3)

0.28

0.28

Length of stream with changes to channel morphology.

Miles of Off-Channel Stream Created or Connected (C.4.c.4)

0

0

Length of off-channel stream created or connected.

Acres Of Channel/Off-Channel Connected Or Added (C.4.c.5)

27.0

27.0

Amount of channel, off-channel, or floodplain connected or added. (to nearest 0.1 acre).

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Instream Pools Created/Added (C.4.c.6)  
Number of instream pools created/added.

7

7

Overall Metrics

	Current Agreement	Final
<b>Completion Date</b>		
Projected date of completion	12/31/2018	12/31/2018
Estimated date the scope of work will be completed.		
<b>Project Goals</b>		
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.		

Restoration Costs

		Final amounts include a pending billing Date of Last Released Billing 11/27/2018	
		Proposed	Final
<b>Worksite: Nason Creek Upper White Pine (#1)</b>			
	SPLIT OUT FINAL TOTAL BELOW	\$1,530,000.00	\$1,527,767.21
Instream Habitat Costs (C.4.a)		\$1,530,000	\$1,527,767
	Difference		\$0

Billed Summary

Final amounts include a pending billing  
Date of Last Released Billing 11/27/2018

Category	Project Agreement		Totals To Date		
	RCO	Total	Expended	Non Reimbursable	Total Billed
Restoration					
Construction	750,000.00	1,530,000.00	747,767.21	780,000.00	1,527,767.21
AA&E					
Restoration Total	750,000.00	1,530,000.00	747,767.21	780,000.00	1,527,767.21
Total	750,000.00	1,530,000.00	747,767.21	780,000.00	1,527,767.21

## Final Report, Project 15-1210

### Sponsor Match

	Proposed	Final
<b>Project Funding</b>		
PCSRF Federal Funds (A.10)		
State Funds (A.11)	\$750,000.00	\$677,774.70
Pending Billing - RCO Share Approved		\$69,992.51
<b>Sponsor Match: Monetary Funding</b>		
Amount of other monetary funding (A.12)	\$780,000	\$780,000
Source of other monetary funding (A.12.a)		
<b>Sponsor Match: Donated Un-paid Labor (volunteers)</b>		
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)	<i>Collected at Closure</i>	0
Describe how the value of the volunteers was determined (A.13.a.3)	<i>Collected at Closure</i>	
<b>Sponsor Match: Donated Paid Labor</b>		
Value of Donated Paid Labor (A.13.b.1)	\$0	\$0
Source of Donated Paid Contributions (A.13.b.2)		
<b>Sponsor Match: Other In-kind Contributions</b>		
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	\$1,530,000	\$1,527,767
Total Billed		\$1,527,767
Difference		\$0

## Final Report, Project 15-1210

### Attachments

#### PHOTOS (JPG, GIF)



# 378628



# 378629

#### FILES AND PHOTOS

File Type	Attach Date	Attachment Type	Title	Person	File Name, Number Associations	Shared
	02/07/2019	Photo	Nason UWPconstructionnew-oldchannelwetGJ.JPG	JenniferH	Nason UWPconstructionnew-oldchannelwetGJ.jpg, 378629 Final Report, 02/07/2019, Accepted	✓
	02/07/2019	Photo	2018UWP.jpg	JenniferH	2018UWP.jpg, 378628 Final Report, 02/07/2019, Accepted	✓

### Certify & Submit

#### Status History

Report Status	Date	User	Note
Accepted	02/07/2019	Marc Duboiski	Bam! I will release the final bill now. Thank you. Loved the video. You got me so stoked that I just lobbed in an e-mail to add a bonus project to our completed projects presentation at the March SRFB meeting! Great job.
Submitted	02/07/2019	Jennifer Hadersberger	Hi Marc Sorry for the delay in completing this report. Check out the link to our final report video in the narrative of this final report. Thanks for your support of this project! Jennifer
Draft	01/23/2019	Marc Duboiski	

## PROJECT: 15-1210 REST, UPPER WHITE PINE FLOODPLAIN RECONNECTION

Sponsor: [Chelan Co Natural Resource](#) Program: Salmon State Projects Status: Active  
Project Start Date: 12/09/2015 Agreement End Date: 12/31/2018

PROPERTY: Nason Creek Upper White Pine (1: Nason Creek Upper White Pine)

### Property Basics

Acquisition ☒ Restoration

### Property Location

Property Name Nason Creek Upper White Pine

Property Address  
(optional)

City

State

Zip

Property Description Levee removal, powerline relocation, and stream relocation through the floodplain

Associated Worksite Nason Creek Upper White Pine (#1)

### Landowner

Landowner Name US Forest Service (USFS)

Address  
(optional) 600 Sherbourne

City Leavenworth

State WA Zip 98826

Landowner Type Federal

### Control and Tenure

Instrument Type Public Use Agreement

Timing Existing

Term Type Perpetuity

# Yrs

Expiration Date

Note

### Parcel Numbers

County Name	Parcel Number	Mapped	Notes (optional)
Chelan	261604210000	Not applicable	
Chelan	261605110000	Not applicable	

### Recording Numbers

Instrument Type	Recording Number	Notes
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### Sponsor Clarification

☒ The above information is correct and complete

### RCO Notes

☒ Property data verified by RCO Staff

## Attachments

#### PHOTOS (JPG, GIF)



# 370316 Primary



# 370323 Secondary



# 370322 Secondary



# 370321 Secondary



















# 370320 Secondary

#### FILES AND PHOTOS

File Attach

File Name, Number

## Property Report: Nason Creek Upper White Pine (Worksite #1: Nason Creek Upper White Pine)

Type	Date	Attachment Type	Title	Person	Associations	Shared
	11/09/2018	Inspection Photos	UWP Final Inspection Photos 10-29-18	MarcD	UWP Final Inspection Photos 10-29-18.pptx, 370325 Property: Nason Creek Upper White Pine	✓
	11/09/2018	Photo	10-29-18 Final Inspection 8	MarcD	P1130822.jpg, 370323 Inspection #1542, 10/29/18, Final, Property: Nason Creek Upper White Pine	
	11/09/2018	Photo	10-29-18 Final Inspection 11	MarcD	P1130847.jpg, 370322 Inspection #1542, 10/29/18, Final, Property: Nason Creek Upper White Pine	
	11/09/2018	Photo	10-29-18 Final Inspection 14	MarcD	P1130865.jpg, 370321 Inspection #1542, 10/29/18, Final, Property: Nason Creek Upper White Pine	
	11/09/2018	Photo	10-29-18 Final Inspection 1	MarcD	P1130792.jpg, 370320 Inspection #1542, 10/29/18, Final, Property: Nason Creek Upper White Pine	
	11/09/2018	Photo	10-29-18 Final Inspection 3	MarcD	P1130801.jpg, 370319 Inspection #1542, 10/29/18, Final, Property: Nason Creek Upper White Pine	
	11/09/2018	Photo	10-29-18 Final Inspection 2	MarcD	P1130797.jpg, 370318 Inspection #1542, 10/29/18, Final, Property: Nason Creek Upper White Pine	
	11/09/2018	Photo	10-29-18 Final Inspection 5	MarcD	P1130812.jpg, 370317 Inspection #1542, 10/29/18, Final, Property: Nason Creek Upper White Pine	
	11/09/2018	Photo	10-29-18 Final Inspection 7	MarcD	P1130817.jpg, 370316 Inspection #1542, 10/29/18, Final, Property: Nason Creek Upper White Pine	
	11/09/2018	Photo	10-29-18 Final Inspection 9	MarcD	P1130831.jpg, 370315 Inspection #1542, 10/29/18, Final, Property: Nason Creek Upper White Pine	
	11/09/2018	Photo	10-29-18 Final Inspection 4	MarcD	P1130805.jpg, 370314 Inspection #1542, 10/29/18, Final, Property: Nason Creek Upper White Pine	
	11/09/2018	Photo	10-29-18 Final Inspection 6	MarcD	P1130815.jpg, 370312 Inspection #1542, 10/29/18, Final, Property: Nason Creek Upper White Pine	
	11/09/2018	Photo	10-29-18 Final Inspection 15	MarcD	P1130867.jpg, 370311 Inspection #1542, 10/29/18, Final, Property: Nason Creek Upper White Pine	
	11/09/2018	Photo	10-29-18 Final Inspection 10	MarcD	P1130840.jpg, 370310 Inspection #1542, 10/29/18, Final, Property: Nason Creek Upper White Pine	
	11/09/2018	Photo	10-29-18 Final Inspection 13	MarcD	P1130862.jpg, 370309 Inspection #1542, 10/29/18, Final, Property: Nason Creek Upper White Pine	
	11/09/2018	Photo	10-29-18 Final Inspection 12	MarcD	P1130859.jpg, 370308 Inspection #1542, 10/29/18, Final, Property: Nason Creek Upper White Pine	
	11/09/2018	Photo	10-29-18 Final Inspection	MarcD	P1130789.jpg, 370307 Inspection #1542, 10/29/18, Final, Property: Nason Creek Upper White Pine	
	07/26/2016	Design document	90% Design Drawings 06-07-16	MarcD	90% Design Drawings 06-07-16.pdf, 273592 Property: Nason Creek Upper White Pine	✓



