

PROJECT: 22-1004 REST, STEPTOE CREEK PALS PHASE II

Sponsor: Palouse Conservation District Program: Salmon State Projects Status: Preapplication

Parties to the Agreement

PRIMARY SPONSOR

Palouse Conservation District

Address 1615 NE Eastgate Blvd Ste H

City Pullman **State** WA **Zip** 99163

Org Type District-Conservation

Vendor # SWV0030882-00

UBI

Date Org created

Org Notes

[link to Organization profile](#)

Org data updated

SECONDARY SPONSORS

No records to display

LEAD ENTITY

Snake River Salmon Rec Bd LE

QUESTIONS

#1: List project partners and their role and contribution to the project.

Toby Uhlenkott, local landowner on Steptoe Creek. This is the second phase of Post Assisted Log Structures on Toby's property and he has been a great partner to work with and has been on site during most of the previous instream work to install PALS.

External Systems

SPONSOR ASSIGNED INFO

Sponsor-Assigned Project Number

Sponsor-Assigned Regions

EXTERNAL SYSTEM REFERENCE

Source	Project Number	Submitter
HWS	22-1004	AFitzgerald

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Project Contacts

Contact Name Primary Org	Project Role	Work Phone	Work Email
Alice Rubin Rec. and Conserv. Office	Project Manager	(360) 867-8584	alice.rubin@rco.wa.gov
Bradley Johnson Palouse Conservation District	Project Contact	(509) 332-4101 Ext 106	Bradleyj@palousecd.org
Ali Fitzgerald Snake River Salmon Rec Bd LE	Lead Entity Contact	(509) 382-4115	ali@snakeriverboard.org

Worksites & Properties

Worksite Name

#1 Steptoe Creek PALS Phase II

Restoration	Property Name
✓	Uhlenkott Phase II

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Worksite Map & Description

Worksite #1: Steptoe Creek PALS Phase II

WORKSITE ADDRESS

Street Address Steptoe Canyon Road
City, State, Zip Clarkston WA 99403

Worksite Details

Worksite #1: Steptoe Creek PALS Phase II

SITE ACCESS DIRECTIONS

From Clarkston WA and HWY 12 and Red Wolf Bridge. Go north across Red Wolf bridge and turn west on HWY 193 Wawawai Rd. Follow HWY 193 west to Steptoe Canyon Road. Go up gravel Steptoe Canyon Road to the first culvert crossing (approximately 5 miles), this culvert is about 3 miles above the Bridge that was installed with SRFB funding.

TARGETED ESU SPECIES

Species by ESU	Egg Present	Juvenile Present	Adult Present	Population Trend
Steelhead-Snake River, Asotin Creek, Threatened	✓	✓	✓	Unknown

Reference or source used

WDFW Habitat Surveys - (Mendel et al. 2004) - Brief Assessment of Salmonids and Stream Habitat Conditions in Snake River Tributaries of Asotin, Whitman and Garfield Counties in Washington. March 2001 - June 2003 - Final Report. WDFW Fish Program. page 173 Northwest Marine Fisheries Service. 2017. ESA Recovery Plan for Snake River Spring/Summer Chinook Salmon (*Oncorhynchus tshawytscha*) & Snake River Basin Steelhead (*Oncorhynchus mykiss*). Portland, OR.

TARGETED NON-ESU SPECIES

Species by Non-ESU	Notes
Rainbow	

Questions

#1: Give street address or road name and mile post for this worksite if available.

Steptoe Creek Road at 1st culvert on county road up from Snake River, approximately 5 miles. About 2 miles past the previous completed purged culvert to bridge funding by RCO/SRFB.

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Project Location

RELATED PROJECTS

Projects in PRISM

PRISM Number	Project Name	Current Status	Relationship Type	Notes
14-1914 P	Steptoe Creek Perched Culvert Design & Assessment	Closed Completed	Earlier Phase	22-1004 is a result of this project and is in an area opened up by perched culvert to bridge project 15-1309
15-1309 R	Steptoe Creek perched culvert replacement	Closed Completed	Earlier Phase	22-1004 is a result of this project and is in an area opened removing a passage barrier
18-2020 R	Steptoe Creek Instream Habitat Rehabilitation	Closed Completed	Earlier Phase	Compliments and adds PALS to area opened up by removing a passage barrier
22-1003 R	Steptoe Creek Culvert 2 Replacement	Preapplication	Future Phase	This project is upstream of proposed PALS and would open up more usable habitat above a passage barrier

Related Project Notes

Questions

#1: Project location. Describe the geographic location, water bodies, and the location of the project in the watershed, i.e. nearshore, tributary, main-stem, off-channel, etc.

Located in the Middle Snake Watershed (WRIA 35), Steptoe Creek is a small tributary to the Snake River located in southeastern Washington. The project is located in a minor spawning area (mSA) for the Lower Snake River steelhead major population group (MPG) that is currently designated as high-risk status. Steptoe Creek is a second order tributary to the Snake River downstream of Clarkston, WA.

#2: How does this project fit within your regional recovery plan and/or local lead entity's strategy to restore or protect salmonid habitat? Cite section and page number.

Snake River Salmon Recovery Plan and 3- 5 Year Work Plan

#3: Is this project part of a larger overall project?

No

#4: Is the project on State Owned Aquatic Lands? Please contact the Washington State Department of Natural Resources to make a determination. [Aquatic Districts and Managers](#)

No

Property Details

Property: Uhlenkott Phase II (Worksite #1: Steptoe Creek PALS Phase II)

✓Restoration

LANDOWNER

Name Toby Uhlenkott
Address 709 West Chestnut
City Genesee
State ID Zip 83832
Type Private

CONTROL & TENURE

Instrument Type Landowner Agreement
Timing Proposed
Term Length Fixed # of years
Yrs 10
Expiration Date 10/10/2032
Note

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Project Proposal

Project Description

The Palouse Conservation District (PCD) will use this grant to implement instream restoration work in Steptoe Creek, located in Whitman County, WA. PCD will increase fish habitat complexity by improving instream wood and pool habitat for juvenile and adult wild steelhead by installing approximately 40 Post Assisted Logs Structures (PALS) in a reach located upstream of a completed fish passage project. PALS are a cost-effective way to install instream structure without damaging the existing riparian habitat and leaving a small footprint. The project, located in a minor spawning area, will address an imminent threat as identified in the Salmon Recovery Plan for Southeast WA and the regional work plan. The completed restoration project will add spawning habitat value beyond what currently exists in the system while also increasing the impact of project dollars expended to remove the downstream passage barrier and, thus, broaden the impact of recent and future efforts to restore steelhead to Steptoe Creek.

Project Questions

#1: Problem statement. What are the problems your project seeks to address? Include the source and scale of each problem. Describe the site, reach, and watershed conditions. Describe how those conditions impact salmon populations. Include current and historic factors important to understand the problems.

Steptoe Creek has limiting instream pool habitat and wood for forming future pools for juvenile and adult summer steelhead. Steptoe Creek has decent riparian vegetation, but like most arid, low rainfall areas, it is mostly made up of cottonwood and alder trees. There is limited floodplain connection and there is sagebrush in the riparian/floodplain areas. Sagebrush doesn't grow in wetted areas, so with limited flow and floodplain connection we anticipate needing PALS to slow the water and form pools. PALS will immediately increase wood in the stream.

#2: Describe the limiting factors, and/or ecological concerns, and limiting life stages (by fish species) that your project expects to address.

Limiting factors in Steptoe Creek are: temperature, flow, pools and lack of wood. For all livestages of summer steelhead, the limiting factors that this proposal will address are lack of suitable resting and rearing pools and increasing wood.

#3: What are the project goals? The goal of the project should be to solve identified problems by addressing the root causes. Then clearly state the desired future condition. Include which species and life stages will benefit from the outcome, and the time of year the benefits will be realized. **Example Goals and Objectives**

Increase pool habitat and also wood in Steptoe Creek.

#4: What are the project objectives? Objectives support and refine biological goals, breaking them down into smaller steps. Objectives are specific, quantifiable actions the project will complete to achieve the stated goal. Each objective should be SMART (Specific, Measurable, Achievable, Relevant, and Time-bound). **Example Goals and Objectives**

Project objectives:
20 pools formed with the 40 PALS that will be installed
120 key pieces of wood will be secured with the 40 PALS installed - 3 per structure

#5: Scope of work and deliverables. Provide a detailed description of each project task/element. With each task/element, identify who will be responsible for each, what the deliverables will be, and the schedule for completion.

Scope of Work:
Permitting - HPA and Cultural Resource Survey - Brad Johnson Palouse CD
Structure Placement - identifying PALS locations - Brad Johnson Palouse CD
Getting donated wood materials from US Forest Service or private landowner - Brad Johnson
Installing PALS structures - 40 PALS installed in Steptoe - Brad Johnson Palouse CD
Final Report - write up final - Brad Johnson Palouse CD

#6: What are the assumptions and physical constraints that could impact whether you achieve your objectives? Assumptions and constraints are external conditions that are not under the direct control of the project, but directly impact the outcome of the project. These may include ecological and geomorphic factors, land use constraints, public acceptance of the project, delays, or other factors. How will you address these issues if they arise?

We don't envision any assumption or physical constraints to hand place PALS in Steptoe Creek. Objectives of increasing instream pool habitat and wood will be met.

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#7: How have lessons learned from completed projects or monitoring studies informed this project?

The Asotin Creek IMW is doing extensive monitoring of PALS installation and fish use. We are using what is learned within the Asotin Creek watershed to drive PALS installation for Asotin Creek summer steelhead. Lessons have been learned and used for adaptive management, and the most important lesson learned is "more is better" with hand placed wood.

#8: Describe the alternatives considered and why the preferred was chosen.

There were no other alternative considered on Steptoe Creek. With the lack of instream pool habitat and wood, PALS were the logical choice for this site.

#9: How were stakeholders consulted in the development of this project? Identify the stakeholders, their concerns or feedback, and how those concerns were addressed.

Stakeholders have seen presentations on PALS and we completed a Story Map for Steptoe Creek previous projects. There are no other stakeholders downstream of previous or this proposed PALS project, but upstream stakeholders have seen installation and have asked questions. Annual Meetings, District Newsletters and presentations have all highlighted previous Steptoe PALS projects on Steptoe.

#10: Does your project address or accommodate the anticipated effects of climate change?

No

#11: Describe the sponsor's experience managing this type of project. Describe other projects where the sponsor has successfully used a similar approach.

The project sponsor has worked with PALS since 2014 and we helped in development of the Asotin Creek IMW and have worked with them on Asotin Creek PALS. Since 2014 we have installed over 1,000 PALS in Alpowa Creek and also have completed PALS in the Steptoe watershed over the past two years. There has not been any major complications with previous PALS.

#12: Will veterans (including the veterans conservation corps) be involved in the project? If yes, please describe.

Yes

The Palouse CD has a Veteran Conservation Corps and members will be brought out to work with implementation of PALS.

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Restoration Supplemental

#1: What level of design (per Appendix D) have you completed? Please attach.
Conceptual

#1a: What level of design will be produced prior to construction?
Preliminary

#2: Will (or did) a licensed professional engineer design the project?
No

#2a: Describe the qualifications of the design team.

Been working on PALS since 2014. Worked on Asotin Creek IMW, Alpowa and Steptoe PALS prior to this proposal. We have installed over 1,200 PALS.

#3: Does the project include measures to stabilize an eroding stream bank?
No

#4: Is the primary activity of the project invasive species removal?
No

#5: Is the primary activity of the project riparian planting?
No

#6: Describe the steps you will take to minimize the introduction of invasive species during construction and restoration. Consider how you will use un-infested materials and clean equipment entering and leaving the project area.

Material that comes from the US Forest Service is in a weed free area and we take precautions to ensure the equipment is cleaned each day. When working instream we clean any shoes/clothes that will be going to other watersheds. Waders and boots are soaked to clean them. We try to minimize the spread of any weeds. We also use weedeaters to knock down vegetation for fire suppression and in areas that we will be walking which also gets rid of weed seeds.

#7: Describe the long-term stewardship and maintenance obligations for the project.

By putting PALS into Steptoe Creek we are increasing woody materials and pool habitat for summer steelhead. The landowner will not be doing anything to the stream channel and similar to other projects on private lands the structures will remain until their is a flood or they naturally break down. We have installed PALS since 2014 or 7 years and there doesn't appear to be any breakdown of woody material and landowners have not removed any structures. We will work with the landowner if any concerns arise, but there has not been any long-term stewardship or maintenance obligations in the past. The landowner agrees that the PALS will be left in place for 10 years.

Restoration Metrics

Worksite: Steptoe Creek PALS Phase II (#1)

Miles of Stream and/or Shoreline Treated or Protected (C.0.b)	0.30
Project Identified In a Plan or Watershed Assessment (C.0.c)	Northwest Marine Fisheries Service. 2017. ESA Recovery Plan for Snake River Spring/Summer Chinook Salmon (Oncorhynchus tshawytscha) & Snake River Basin Steelhead (Oncorhynchus mykiss). Portland, OR.
Priority in Recovery Plan	This project is identified in the Snake River

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Salmon Recovery 3-5 Year Regional Provisional Work Plan; 35-Habitat Complexity Restoration: Installation of high densities of large woody debris mimic natural processes that lead to the development of pools, structural refuge for juvenile salmonids, and sorted gravel bars for adult salmonid spawning areas.

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

Monitoring Location (C.0.d.2) Onsite

INSTREAM HABITAT PROJECT

Total Miles Of Instream Habitat Treated (C.4.b) 0.30

Channel structure placement (C.4.d.1)

Total cost for Channel structure placement \$45,741

Material Used For Channel Structure (C.4.d.2) Individual Logs (Anchored)

Miles of Stream Treated for channel structure placement (C.4.d.3) 0.30

Pools Created through channel structure placement (C.4.d.5) 20

Number of structures placed in channel (C.4.d.7) 40

CULTURAL RESOURCES

Cultural resources

Total cost for Cultural resources \$4,500

Acres surveyed for cultural resources 3.00

PERMITS

Obtain permits

Total cost to Obtain permits \$500

Number of permits required for implementation of project

ARCHITECTURAL & ENGINEERING

Architectural & Engineering (A&E)

Total cost for Architectural & Engineering (A&E) \$2,200

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Restoration Cost Estimates

Worksite #1: Steptoe Creek PALS Phase II

Category	Work Type	Estimated Cost	Note
Cultural Resources	Cultural resources	\$4,500	
Instream Habitat Project	Channel structure placement (C.4.d.1)	\$45,741	
Permits	Obtain permits	\$500	
	Subtotal:	\$50,741	
Admin, Architecture, and Engineering		\$2,200	
	Total Estimate For Worksite:	\$52,941	

Summary

Total Estimated Costs Without AA&E:	\$50,741
Total Estimated AA&E:	\$2,200
Total Estimated Restoration Costs:	\$52,941

Cost Summary

	Estimated Cost	Project %	Admin/AA&E %
<u>Restoration Costs</u>			
Restoration	\$50,741		
Admin, Architecture, and Engineering	\$2,200		4.34 %
SUBTOTAL	\$52,941	100.00 %	
Total Cost Estimate	\$52,941	100.00 %	

Funding Request and Match

FUNDING PROGRAM

Salmon State Projects	\$45,000	85.00 %
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SPONSOR MATCH

Other In-Kind Contributions Donated Materials

Amount \$7,941.00

Funding Organization US Forest Service Pomeroy Ranger

Match Total: \$7,941 15.00 %

Total Funding Request (Funding + Match): \$52,941 100.00 %

Questions

#1: Explain how you determined the cost estimates

We have been installing PALS on both Alpowa and Steptoe Creek since 2014. Materials for the PALS are donated by either private landowners or in this case the US Forest Service. This will be the most cost-effective PALS that are installed if funded.

Cultural Resources

Worksite #1: Steptoe Creek PALS Phase II

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#1: Provide a description of the project actions at this worksite (acquisition, development and/or restoration activities that will occur as a part of this project)

The Post Assisted Log Structures will be hand placed. Trees will be moved from County Road with two people hauling them and placing them instream. A generator and power pack on wheels will be moved along the riparian area and wooden posts will be driven into the active stream channel to hold the woody material in place. There will be walking in the riparian area but on previous projects there is little to no disturbance since we will not be using 4 wheelers and any other equipment in the riparian area. Walking to and from the County Road to place woody materials instream and driving posts into the streambed.

#2: Describe all ground disturbing activities (length, width and depth of disturbance and equipment utilized) that will take place in the Area of Potential Effect (APE). Include the location of any construction staging or access roads associated with your project that will involve ground disturbance.

Everything will be hand placed and no large equipment will be off the County Road. We don't anticipate any ground disturbance.

#3: Describe any planned ground disturbing pre-construction/restoration work. This includes geo-technical investigation, fencing, demolition, decommissioning roads, etc.

N/A

#4: Describe the existing project area conditions. The description should include existing conditions, current and historic land uses and previous excavation/fill (if depths and extent is known, please describe).

Steptoe Creek is in an arid environment and the areas outside of the stream channel consist of cobble and boulders. This is in a pasture situation so there is riparian vegetation with alder trees and some willows, wild rose and blackberries. The project is adjacent to pasture/rangeland. This area is identified to be potentially enrolled in the CREP program

#5: Will a federal permit be required to complete the scope of work on the project areas located within this worksite?
No

#6: Are you utilizing Federal Funding to complete the scope of work? This includes funds that are being shown as match or not.
No

The US Forest Service is donating trees for match not funding

#7: Do you have knowledge of any previous cultural resource review within the project boundaries during the past 10 years?
No

Not within the project boundaries but down stream for both the previous culvert to bridge and the PALS projects.

#8: Is the worksite located within an existing park, wildlife refuge, natural area preserve, or other recreation or habitat site?
No

#9: Are there any structures over 45 years of age within this worksite? This includes structures such as buildings, tidegates, dikes, residential structures, bridges, rail grades, park infrastructure, etc.
No

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Project Permits

Permits and Reviews	Issuing Organization	Applied Date	Received Date	Expiration Date	Permit #
Cultural Assessment [Section 106]	DAHP				
Hydraulics Project Approval [HPA]	Dept of Fish & Wildlife				

Permit Questions

#1: Are you planning on using the federal permit streamlining process? **Limit 8**
Yes

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Attachments

Required Attachments

3 out of 6 done

- Applicant Resolution/Authorizations
- Cost Estimate ✓
- Landowner acknowledgement form
- Map: Restoration Worksite ✓
- Photo ✓
- RCO Fiscal Data Collection Sheet

PHOTOS (JPG, GIF)

Photos (JPG, GIF)



499880

499881

PROJECT DOCUMENTS AND PHOTOS

Project Documents and Photos

File Type	Attach Date	Attachment Type	Title	Person	File Name, Number Associations	Shared
	02/09/2022	Cost Estimate	Proj22-1004Costs.xlsx	BradleyJ	Proj22-1004Costs.xlsx, 499939	✓
	02/09/2022	Map: Restoration Worksite	SteptoePALSIIIMap.docx	BradleyJ	SteptoePALSIIIMap.docx, 499883	✓
	02/09/2022	Photo	SteptoePALSIIupstreamculvert.jpg	BradleyJ	SteptoePALSIIupstreamculvert.jpg, 499881	✓
	02/09/2022	Photo	SteptoePALSIIbelowculvert.jpg	BradleyJ	SteptoePALSIIbelowculvert.jpg, 499880	✓
	02/09/2022	Map: Restoration Worksite	2022Steptoe Creek PALS.docx	BradleyJ	2022Steptoe Creek PALS.docx, 499879	✓

Application Status

Application Due Date: 06/27/2022

Status Name	Status Date	Submitted By	Submission Notes
Preapplication	01/03/2022		

I certify that to the best of my knowledge, the information in this application is true and correct. Further, all application requirements due on the application due date have been fully completed to the best of my ability. I understand that if this application is found to be incomplete, it will be rejected by RCO. I understand that I may be required to submit additional documents before evaluation or approval of this project and I agree to provide them.

Date of last change: 02/08/2022

2022 Snake River Salmon Recovery Board Project Application
Letter of Intent
Steptoe Creek Phase II PALS

The Palouse Conservation District will be working with a Steptoe Creek landowner to increase instream habitat complexity with a culvert barrier project. We will be increasing instream wood and pool habitat and this complements previously completed Steptoe Creek Perched Culvert Replacement – RCO 15-1309 and Steptoe Creek Instream Habitat – RCO 18-2020 and the same partners will be working on the proposed project.

This Steptoe Creek Phase II Pals project will benefit the Asotin Creek population of A-run summer steelhead and by partnering with both projects both juvenile and adult steelhead will benefit from increased woody structures and pool available habitat. The project location is Latitude 46.469835 Longitude -117.175926 and is located about 1.5 miles above the previous culvert replace project that was completed in 2017 and the 135 PALS that were installed in 2020/21.

Cost Estimate:

40 PALS	\$ 40,000
Permitting	\$ 5,000
Match	<u>\$ 8,000</u>
Total =	\$ 53,000

Steptoe Creek Watershed w/locations of BEFORE (Lower Pin) and Proposed Perched Culvert (upper Pin)



Step toe Creek Stream Area where Project is Proposed



Step toe Creek

History:

Steptoe Creek is a second order stream that drains into the Snake River 6 miles west of Clarkston on the Whitman County side. Originally there was about ~1.5 miles of CREP eligible stream on Steptoe due to a complete steelhead passage barrier with a perched culvert on Steptoe Canyon Road. 14 acres have been enrolled in the CREP program up to the bridge, so all the CREP eligible stream miles in Steptoe are currently under a CREP contract.

Steptoe Creek has document summer steelhead use and is an important stock that makes up the Asotin Creek summer steelhead population that is listed under the Endangered Species Act. With this designation improving riparian habitat and factors limiting steelhead production in Steptoe Creek is a priority listed in the *SNAKE RIVER SALMON RECOVERY PLAN*. Lack of riparian habitat, suitable resting and rearing pools and woody debris are listed as factors limiting steelhead production in Steptoe Creek.

The Palouse Conservation District in cooperation with the landowner and Whitman County Road Department submitted an RCO Salmon Grant #14-1914 Steptoe Creek Perched Culvert Design & Assessment, this resulted in RCO #15-1309 Steptoe Creek Perched Culvert Replacement grant, which removed the complete barrier with a full span bridge in 2017. This opened up 4.8 miles on the mainstem of Steptoe Creek and an additional 3.1 miles on Stuart Creek, which is a cold water, spring fed tributary to Steptoe.

RCO #15-1309 Steptoe Creek Perched Culvert Replacement Grant



Steptoe Creek Watershed with location of Perched Culvert & eligible CREP below complete barrier



Outlet of Perched Culvert before Bridge Installation

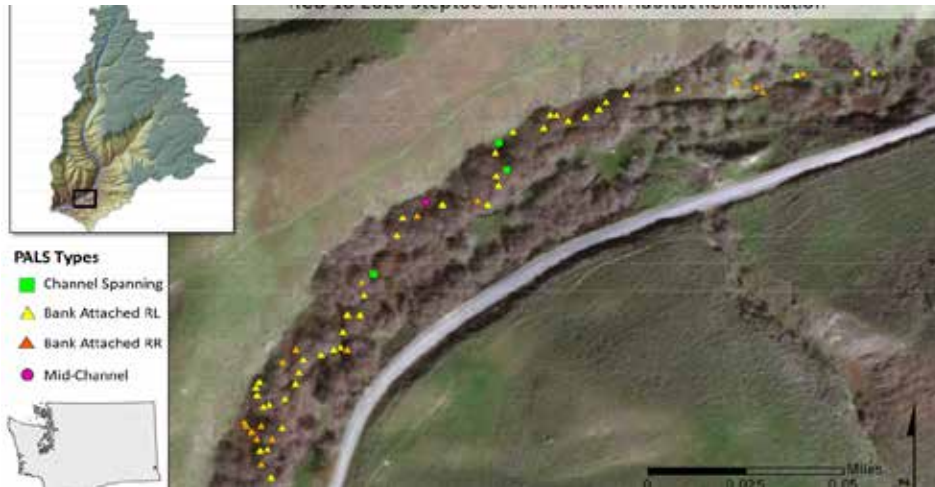
New Bridge on Steptoe Creek replacing the Perched Culvert



Downstream view of Bridge Replacement Project with steelhead passage barrier removed.

After barrier was removed, implemented RCO #18-2020 Steptoe Cr. Instream PALS Project above bridge.

<i>PALS Type</i>	<i>Count</i>
Channel Spanning	5
Bank Attached RL	47
Bank Attached RR	78
Mid-Channel	5
Total	135



Example of 5 different PALS structures above the bridge. Bridge would be in bottom left of above photo



