20-1045, Rest, Pomeroy Conservation Dist
Alpowa PALS Phase III Restoration, RCO Grant Request: $83,300

BASICS

FUNDING

Costs

RCO	$83,300	85%
Sponsor Match	$14,700	15%
Total	$98,000	100%

Sponsor Match Breakdown

Donated Materials	$14,700
Total	$14,700

Minimum match required
15.00%

DESCRIPTION

The Pomeroy CD in cooporation with the Palouse CD and Bradley Johnson will be submitting a restoration project on Alpowa Creek where highway 12 and Alpowa Creek Road meet. We are proposing to install Post Assisted Log Structures (PALS) on a high priority section of Alpowa Creek that was identified during the instream survey that was completed with SRFB funding. The overall goals of the PALS project is to increase instream wood and pool habitat for ESA listed Snake River summer steelhead in Alpowa Creek. This project will identify PALS locations for at least 80 structures in 2021 and an additional 80 structures in 2022 in a 2-mile section of Alpowa Creek ~ 9,887 feet.

Project Application

LOCATION

Related PRISM Projects

PRISM Number	Project Name	Current Status	Relationship Type	Notes
11-1576 P	Alpowa Creek Habitat Assessment	Closed Completed	Earlier Phase	This assessment identified the need for additional wood and pools
13-1399 R	Alpowa Instream Post Assisted Log Structures	Closed Completed	Earlier Phase	202 PALS installed above this location in priority area to increase instream wood and pools
17-1299 R	Alpowa Creek Instream PALS – Phase II	Active	Earlier Phase	Active PALS project that installed over 240 PALS in priority area

Related non-PRISM Projects

Project Factsheet

Project Number	Project Name	Current Status	Relationship Type	Project Funder
WRPIFA-1719	Garfield Co Streamflow and Habitat Enhancement Pro	In Progress	Current Phase	Ecology
WRPIFA-1517	Alpowa and Pataha Creek Flow and Habitat Restorati	Completed	Earlier Phase	Ecology

Project Location 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.

> Alpowa Creek mainstem about 5 miles from the mouth, Alpowa Creek is a tributary to the Snake River about 8 miles west of Clarkston.

#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 Board (2011). Snake River Salmon Recovery Plan for SE Washington. Dayton, WA.
> Snake River Salmon Recovery Board (2017). Snake River Salmon Recovery Region Provisional 3-5 Year Work Plan. Dayton, WA.
> Priority 1 project as identified in the SNake River Salmon Recovery Regions Provisional 3-5 Year Work Plan (2017 Version, pg. 13 & 18)

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

Yes

#3a: How does this project fit into the sequencing of the larger project?

> 11-1576 P Alpowa Creek Habitat Assessment - 15 mile assessment on Alpowa Creek that identified priority instream areas to improve wood and pools for wild juvenile and adult summer steelhead, which make up the Asotin Creek steelhead population.

METRICS/COSTS

RESTORATION METRICS

Worksite: Alpowa Creek mainstem near Hwy 12 and Alpowa Creek (#1)

COSTS

Category	Work Type	Estimated Cost	Note

Cultural Resources	Cultural resources	$4,200	
Instream Habitat Project	Channel structure placement (C.4.d.1)	$87,080	
Permits	Obtain permits	$1,300	Garfield County Shorelines exemption and HPA from WDFW
	Subtotal:	$92,580	
Admin, Architecture, and Engineering		$5,420	
	Total Estimate For Worksite:	$98,000	

METRICS

Miles of Stream and/or Shoreline Treated or Protected (C.0.b)	2.20

INSTREAM HABITAT PROJECT

Total Miles Of Instream Habitat Treated (C.4.b)	2.20

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

Material Used For Channel Structure (C.4.d.2)	Individual Logs (Unanchored)
Miles of Stream Treated for channel structure placement (C.4.d.3)	2.20
Pools Created through channel structure placement (C.4.d.5)	160
Number of structures placed in channel (C.4.d.7)	160

CULTURAL RESOURCES

Cultural resources

Acres surveyed for cultural resources	3.50

Total Restoration Cost	$98,000

PROJECT PROPOSAL

Targeted ESU Species

Worksites	Species by ESU	Egg Present	Juvenile Present	Adult Present	Population Trend
1	Chinook-unidentified		✔		Rising
1	Steelhead-Snake River, Asotin Creek, Threatened		✔		Stable

Reference or source used
Snake River Fall Chinook spawn in the lower mile and 1/2 of Alpowa Creek, Nez Perce Tribe - Jay Hesse WDFW operates an adult steelhead weir at the mouth of Alpowa Creek and removes any hatchery steelhead from Alpowa Creek. The Alpowa steelhead population is part of the Asotin Creek population.

Targeted Non-ESU Species

Worksites	Species by Non-ESU	Notes
1	Rainbow	Resident redband rainbow trout

PROPOSAL 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.

SRFB Project 11-1576 Alpowa Habitat Assessment identified lack of sufficient wood and pool habitat for wild steelhead in Alpowa Creek. 14.9 miles of Alpowa Creek was surveyed and 2.8 pools/100 m and 7.5 pieces of LWD/100 m were identified. Both figures are very low and there is little potential for future LWD recruitment with white alder and cottonwood trees being the dominate riparian trees. PALS will add immediate pools and LWD and potential floodplain connection in some locations.

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

Lack of large wood and adequate pools for both juvenile and adult steelhead were identified with project 11-1576. Alpowa Creek supports a wild steelhead population and helps make up the Asotin Creek wild steelhead population. Limiting factors on Alpowa Creek are lack of suitable resting and rearing pools, large wood and floodplain connection. Floodplain connection is a secondary factor of instream PALS. Alpowa Creeks Nez Perce Name is "spring creek" and has a uniform flow due to it low elevation and arid environment. Utilizing PALS for potential floodplain connection is a goal and we realized this goal February 2020 with flood flows. The previous PALS functioned as designed and we got flows onto floodplains that deposited sediment and slowed stream velocities. PALS are a very cost effective way to increase pools, LWD and potential floodplain connection for all freshwater lifestages of ESA listed wild summer steelhead.

#3: (all)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. Inlcude which species and life stages will benefit from the outcome, and the time of year the benefits will be realized. Example Goals and Objectives

The proposed project will increase pool habitat from the current 2.8 pools per 100 meters to over 8 suitable pools with 160 PALS installed on 2.2 miles of Alpowa Creek. These 160 PALS will increase both large wood and pool habitat for juvenile and adult ESA listed wild summer steelhead. The sorting of gravels with the associated structures will allow for better spawning habitat and they when fry emerge there will be cover both from the pools and wood for them during their early freshwater lifestages.

#4: (all)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, Achieveable, Relevant, and Time-bound). Example Goals and Objectives

Project objective is to install 160 PALS in 2.2 mile of Alpowa Creek. Each structure will have 3-4 conifer logs that are at least 15 feet in length with branches. The logs will be hand placed into Alpowa Creek and 3 inch diameter wooden posts will be driven into the substrate to anchor the logs (4 - 6 wooded posts for each structure) in desired locations to help in forming backwater or downstream pool habitat for ESA listed wild summer steelhead.

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

Summer of 2021 - Permist will begin in Feb 2021 for both years and starting in Mid May and finishing by September, will depend on weather and fire season in the Umatilla forest but on average year we get trees moved in May/June and begin installation after July 15th, which is the instream work window.

Task 1.) Cultural Resource Survey and instream permits from County and WDFW - Brad Johnson
Task 2.) Conifer trees from USFS to project sites - Brad Johnson w/help from Amercorps
Task 3.) Locate Project Sites and put trees and posts on streambank - Brad Johnson/Amercorps
Task 4.) During instream work window install PALS - Brad Johnson/restoration crew

The same will occur during the summer of 2022.

Each on of the above listed tasks will lead to getting the PALS placed into Alpowa Creek and will ultimately lead to increasing both pool and wood debris for all freshwater lifestages of wild ESA listed summer steelhead.

#6: What are the assumptions and physical constraints that could impact whether you achieve your objectives? Assumptions and constrains 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?

PALS have no physical constraints or assumptions either on the Asotin Creek IMW or previously installed PALS on Alpowa Creek. Since these are all hand place they are small in structure but by putting in large numbers we are slowing the streamflow and building up sediment while increasing instream wood and pool habitat for wild steelhead in Alpowa Creek.

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

The Asotin Creek IMW has been used as the catalyst for PALS projects on Alpowa Creek. Previous PALS projects on Alpowa Creek have been accepted by local landowners and the February 2020 flood on Alpowa Creek showed us that when structures have been in for a

few years they fair very well, but recently installed strucutres had some movement, but didn't cause any riparian or instream damage, they just moved downstream and formed log jams. We continue to work with the IMW crew to ensure we are installing PALS properly and benefits are documented on a yearly basis.

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

In the past large equipment was used to increase wood and pools on other streams within SE WA. Since the Asotin Creek IMW resulted in Post Assisted Log Structures being recommended for implementation we have used these techniques to improve instream habitat with logs donated from the USFS to increase wood and pool habitat. Implementation of PALS leaves virtually no footprint and are easy to install and very low costs.

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

This project will work closely with WDFW and USFS in getting both material and equipment to complete the project. There have been no concerns or feedback to date on previous or this current application.

#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.

Project sponsor has successfuly installed over 900 PALS with both SRFB and Ecology funding on Alpowa Creek. Alpowa Creek experience a flood event on February 7/8 of 2020 and structures functioned as designed. There were some structures that moved downstream, but stayed with landowners properties and formed large wood debris that slowed the water and filtered sediment and ultimately creating pool habitat for steelhead.

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

No

RESTORATION SUPPLEMENTAL QUESTIONS

#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?

#2: Will (or did) a licensed professional engineer design the project?

No

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

Working with Asotin Creek IMW crew and we have installed over 900 PALS on Alpowa Creek, these are hand place and we ensure that we don't place them in spawing areas and try to use structures to reconnect to the floodplain, add pool habitat and wood in Alpowa Creek

#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 project a Road Maintenance and Abandonment Plan (RMAP) project?

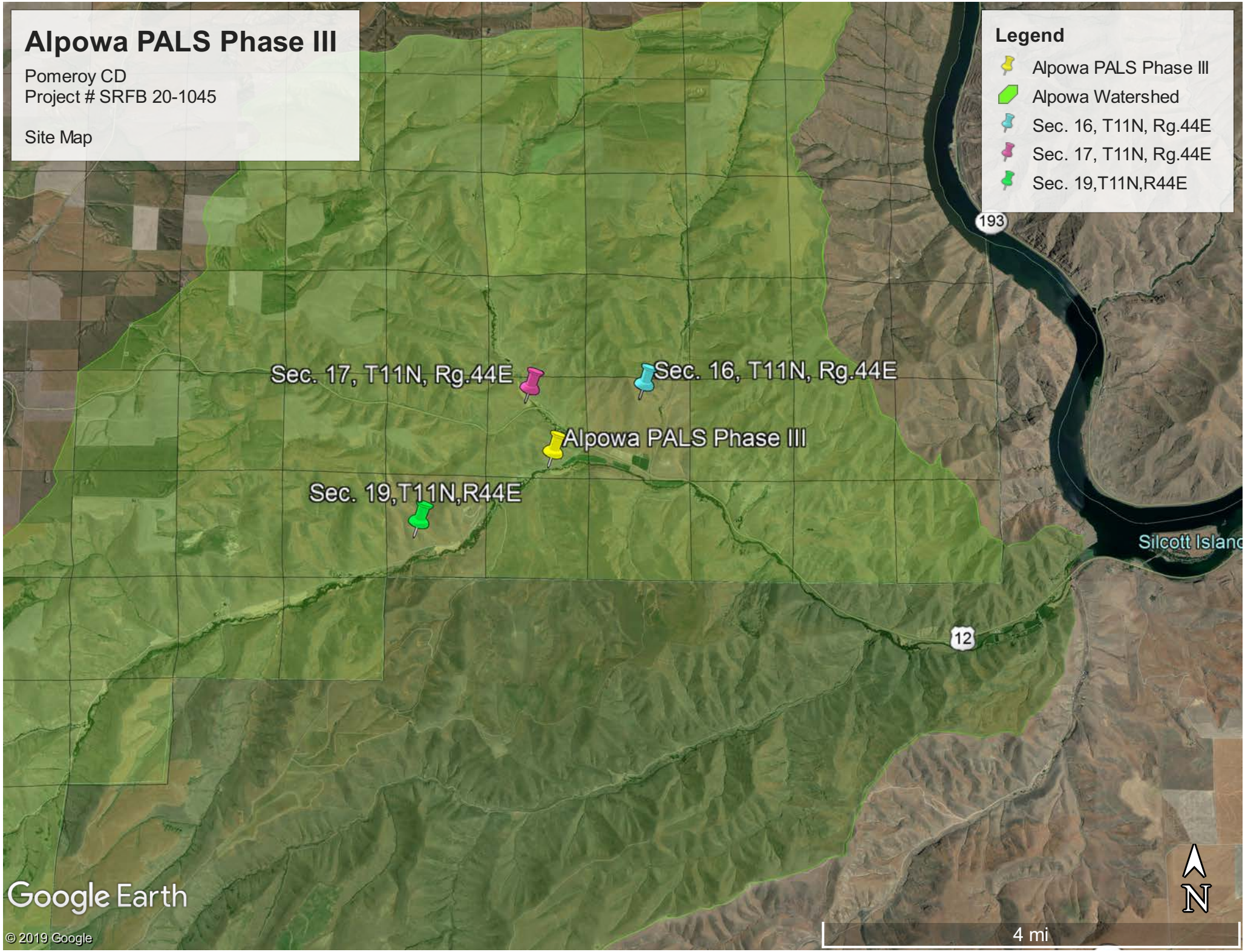
No

#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.

The donated wood comes from weed free areas within the Umitilla Forest Service, Pomeroy Ranger District. We have equipment and crews clean their waders and clothes to ensure that we are not introducing invasive species.

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

The landowner is responsible for leaving the PALS for at least 10 years. There has not been any maintenance obligations with the previous SRFB funding PALS projects in Alpowa Creek.


Alpowa PALS Phase III
Pomeroy CD
Project # SRFB 20-1045
Site Map
Legend
Alpowa PALS Phase III
Alpowa Watershed
Sec. 16, T11N, Rg.44E
Sec. 17, T11N, Rg.44E
Sec. 19,T11N,R44E
193
Sec. 17, T11N, Rg.44E
Sec. 16, T11N, Rg.44E
Alpowa PALS Phase III
Sec. 19,T11N,R44E
Silcott Island
12
Google Earth
© 2019 Google
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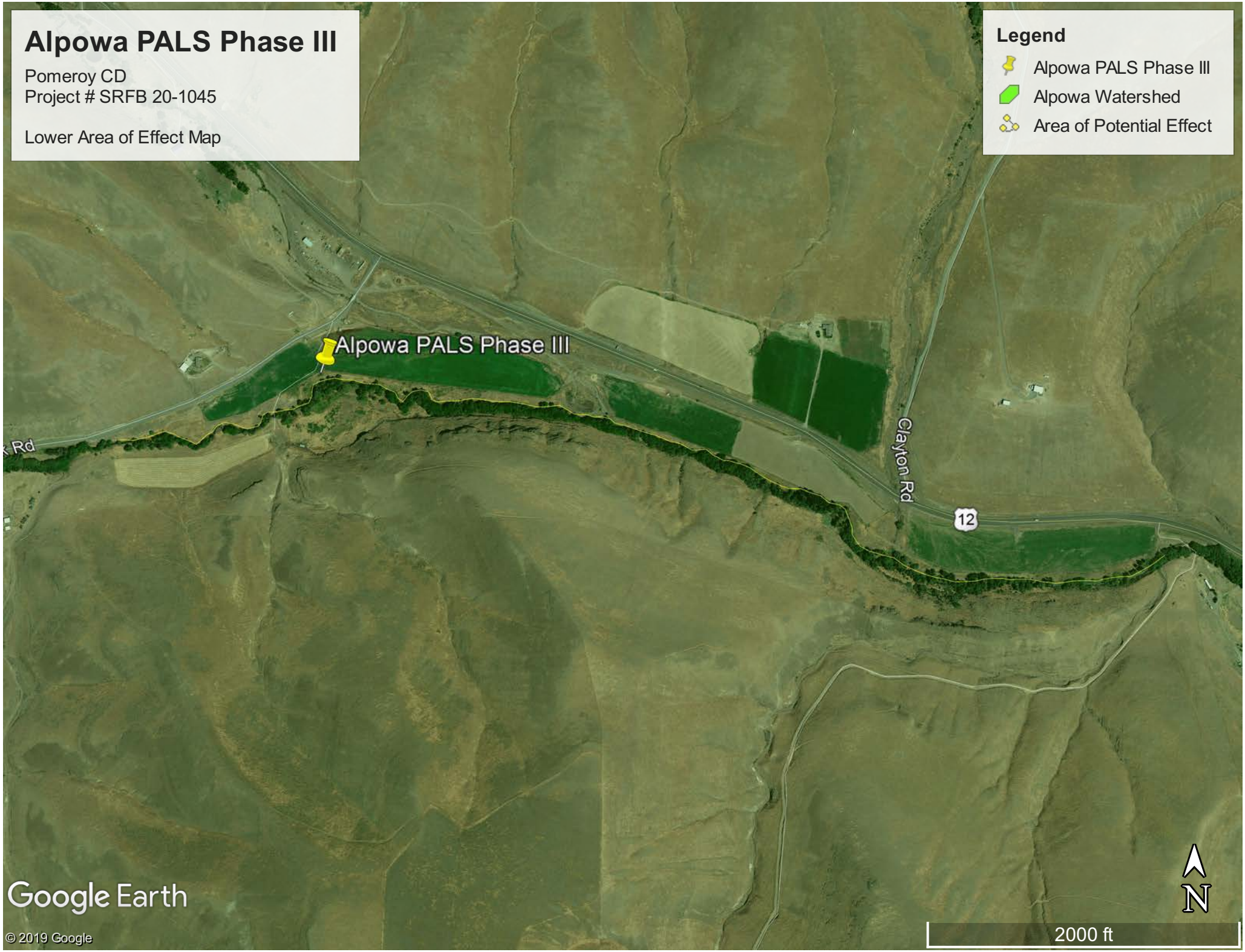
Alpowa PALS Phase III
Pomeroy CD
Project # SRFB 20-1045
Lower Area of Effect Map
Legend
Alpowa PALS Phase III
Alpowa Watershed
Area of Potential Effect
Alpowa PALS Phase III
Clayton Rd
12
Google Earth
© 2019 Google
N
2000 ft


Alpowa PALS Phase III
Pomeroy CD
Project # SRFB 20-1045
Upper Area of Effect Map
Legend
Alpowa PALS Phase III
Alpowa Watershed
Area of Potential Effect
wa Creek Rd
Upper Alpowa PALS Phase III
Google Earth
© 2019 Google
N
900 ft

RESTORATION

See SRFB Manual 5 for additional information regarding allowable costs.

				OVERALL PROJECT	GRANT REQUEST	MATCH			
				Budget must account for all costs to complete the project	*Enter only the amount of the grant request*	*The Grant Request and Match should equal the total project cost and Budget Check cell should be 0. Sponsors must account for all sources and types of match need to complete the project.*			
				Amount	Amount	Match in PRISM	Funding not reported in PRISM	Source (Grant, Cash, Materials, Labor, Volunteers, etc)	Match Type (federal, state, local)
Construction									
Category (choose one)	**Task Description**	**Qty**	**Rate**						
Cultural resources	*Hire cultural resources*	1.00	$ 4,200.00	$ 4,200	$ 4,200	$ -	$ -		
Construction	*Install PALS*	1.00	$ 69,980.00	$ 69,980	$ 69,980	$ -	$ -		
Materials	*Posts for Structures*	800.00	$ 3.00	$ 2,400	$ 2,400	$ -	$ -		
Materials	*Trees donated from USFS*	600.00	$ 24.50	$ 14,700	$ -	$ 14,700	$ -	Materials- Trees for structures	Federal-USFS Trees
Permits	*Permits for project*	1.00	$ 1,300.00	$ 1,300	$ 1,300	$ -	$ -		
			$ -	$ -	$ -	$ -	$ -		
			$ -	$ -	$ -	$ -	$ -		
			$ -	$ -	$ -	$ -	$ -		
			$ -	$ -	$ -	$ -	$ -		
			$ -	$ -	$ -	$ -	$ -		
			$ -	$ -	$ -	$ -	$ -		
			$ -	$ -	$ -	$ -	$ -		
			$ -	$ -	$ -	$ -	$ -		
			STotal	**$ 92,580**	**$ 77,880**	**$ 14,700**	**$ -**		
Administrative, Architechtural & Engineering									
Category	**Task Description**	**Qty**	**Rate**						
Conceptual design	*Structure locations*	1.00	$ 2,060.00	$ 2,060.00	$ 2,060	$ -	$ -		
Final design	*Structure locations*	1.00	$ 2,060.00	$ 2,060.00	$ 2,060	$ -	$ -		
Administrative	*Grant Administration*	1.00	$ 1,300.00	$ 1,300.00	$ 1,300	$ -	$ -		
			$ -	$ -	$ -	$ -	$ -		
			$ -	$ -	$ -	$ -	$ -		
			$ -	$ -	$ -	$ -	$ -		
			$ -	$ -	$ -	$ -	$ -		
			$ -	$ -	$ -	$ -	$ -		
			STotal	$ 5,420	$ 5,420	$ -	$ -		
Indirect Costs									
	Description	**Approved Rate**	**Total Project Base**						
	Indirect	0.000%	$ -	$ -	$ -	$ -	$ -		
	Indirect	0.000%	$ -	$ -	$ -	$ -	$ -		
			STotal	$ -	$ -	$ -	$ -		
			GTOTAL	**$ 98,000**	**$ 83,300**	**$ 14,700**	**$ -**		

AA&E Budget Check

A&E maximum allowed in PRISM $ *27,774.00*

A&E validation 22,354

PRISM Project Total	$ 98,000
RCO Percentage	**Match Percentage**
85.00%	**15.00%**

Landowner Acknowledgement Form

Landowner Information

Name of Landowner: Dick Ledgerwood and Sons

Landowner Contact Information:

☒ Mr. ☐ Ms. Title:

First Name: Sam Last Name: Ledgerwood

Contact Mailing Address: 141 Howell Grade Road, Clarkston, WA 99403

Contact E-Mail Address: sjlwood58@gmail.com

Property Address or Location:**Alpowa Creek where HWY 12 and Alpowa Creek Rd meet and 3 miles up Alpowa Creek below Alpowa Creek Rod**

1. Sam Ledgerwood (Landowner or Organization) is the legal owner of property described in this grant application.
2. I am aware that the project is being proposed on my property.
3. If the grant is successfully awarded, I will be contacted and asked to engage in negotiations.
4. My signature does not represent authorization of project implementation.

Sam Ledgerwood — Landowner Signature

1/27/28 — Date

Project Sponsor Information

Project Name: Alpowa PALS: 20-1045

Project Applicant Contact Information:

☒ Mr. ☐ Ms. Title

First Name: Bradley Last Name: Johnson

Mailing Address: Pomeroy CD – 804 Main Street, Pomeroy, WA 99347

E-Mail Address: bradleyj@palousecd.org

Project Partner Contribution Form

Project Partner: USFS Pomeroy Ranger District

Partner Address: 71 W. Main St., Pomeroy, WA 99347

Contact Person

☒ Mr. ☐ Ms. Title:

First Name: Monte Last Name: Fujishin

Mailing Address: 71 W. Main St, Pomeroy, WA 99347

E-Mail Address: mfujishin@fs.fed.us

Description of contribution to project:

Donated Christmas tree and larger material from USFS for instream PALS on Alpowa Creek for SRFB Project 20-1045 Alpowa Pals Phase III. 600 trees with branches that are between 10 and 20 feet long @ $24.50 per tree.

Estimated value to be contributed: $14,700

Partner's signature

3/20/2020

Date