

Washington State Fish Passage Strategy

Jane Atha
Fish Passage Strategist
Habitat Program



Strategy Goal

- Help prioritize and reduce barriers to fish passage in a way that benefits depressed, threatened, and endangered stocks, and that is informed by the best available science

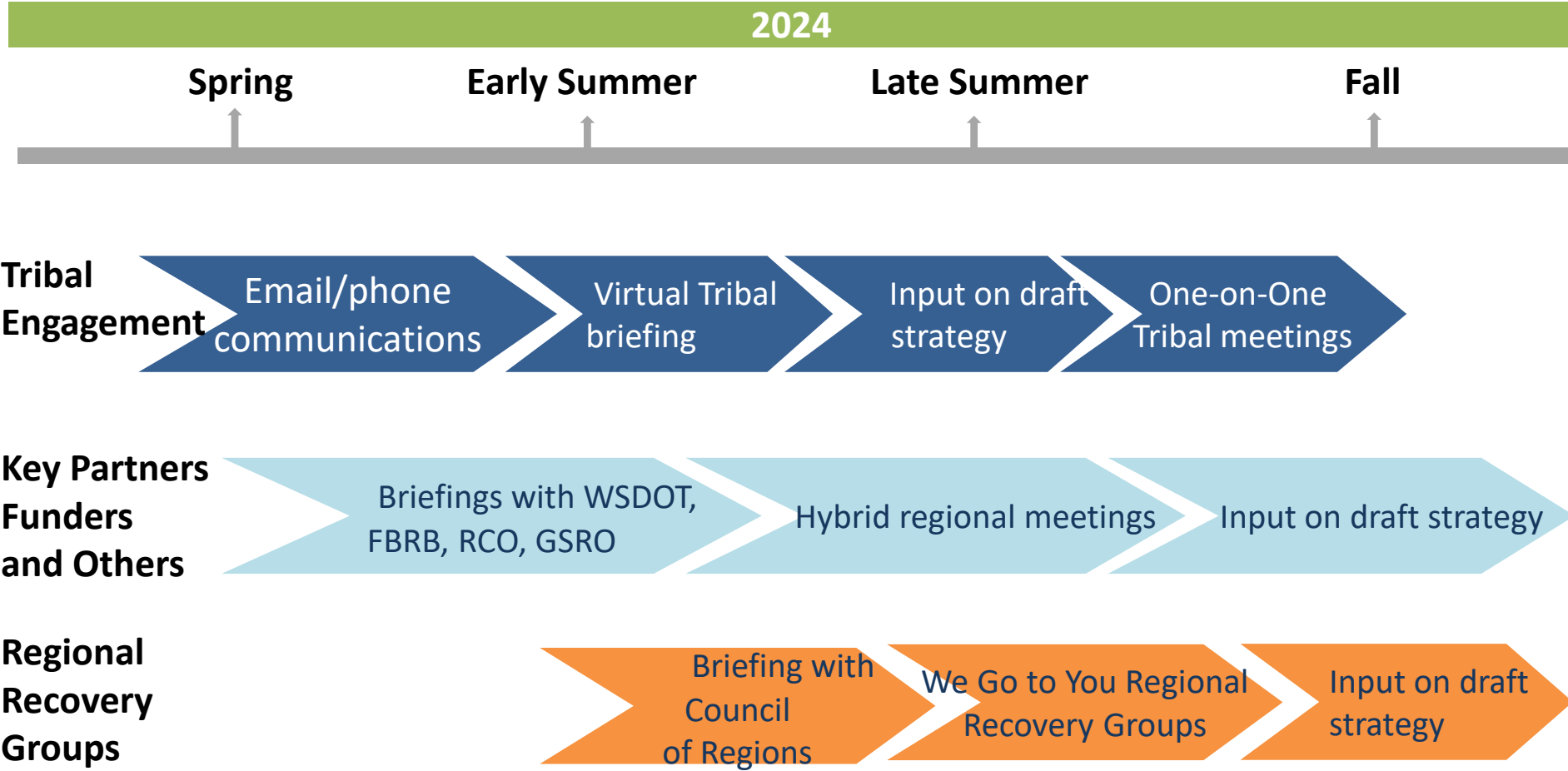


Where We Are Now

- First draft strategy completed
- Under review by science panel
- **Implementation section largely still to be written!**
- Draft goes to Tribes early July for review
- Draft goes to key partners early fall for review



Timeline*

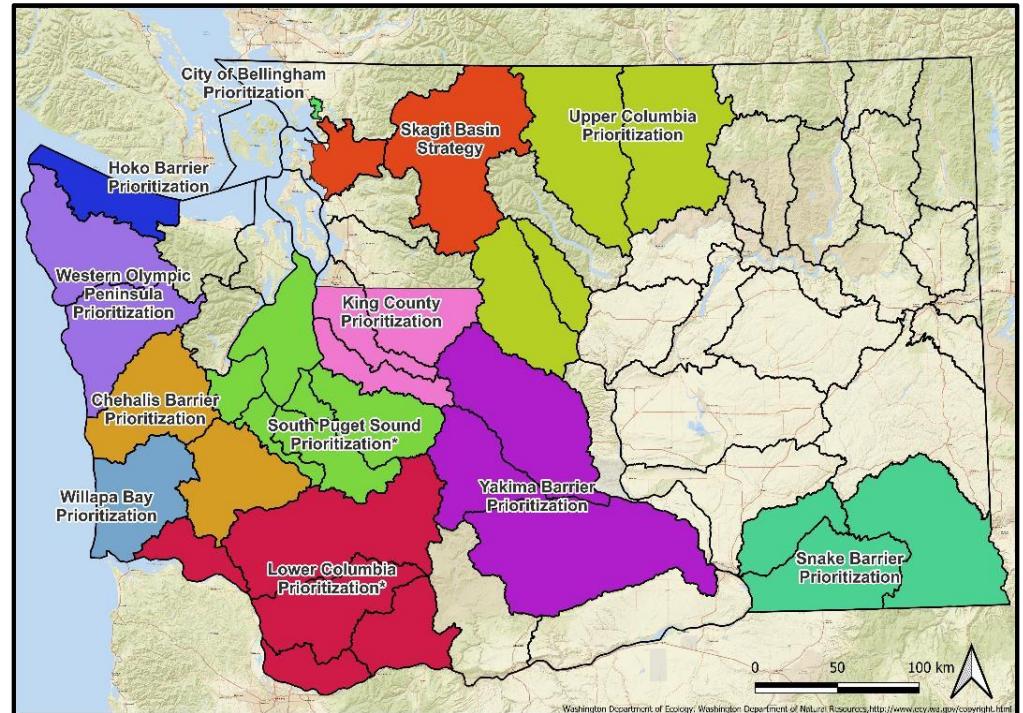


**Timeline subject to change*

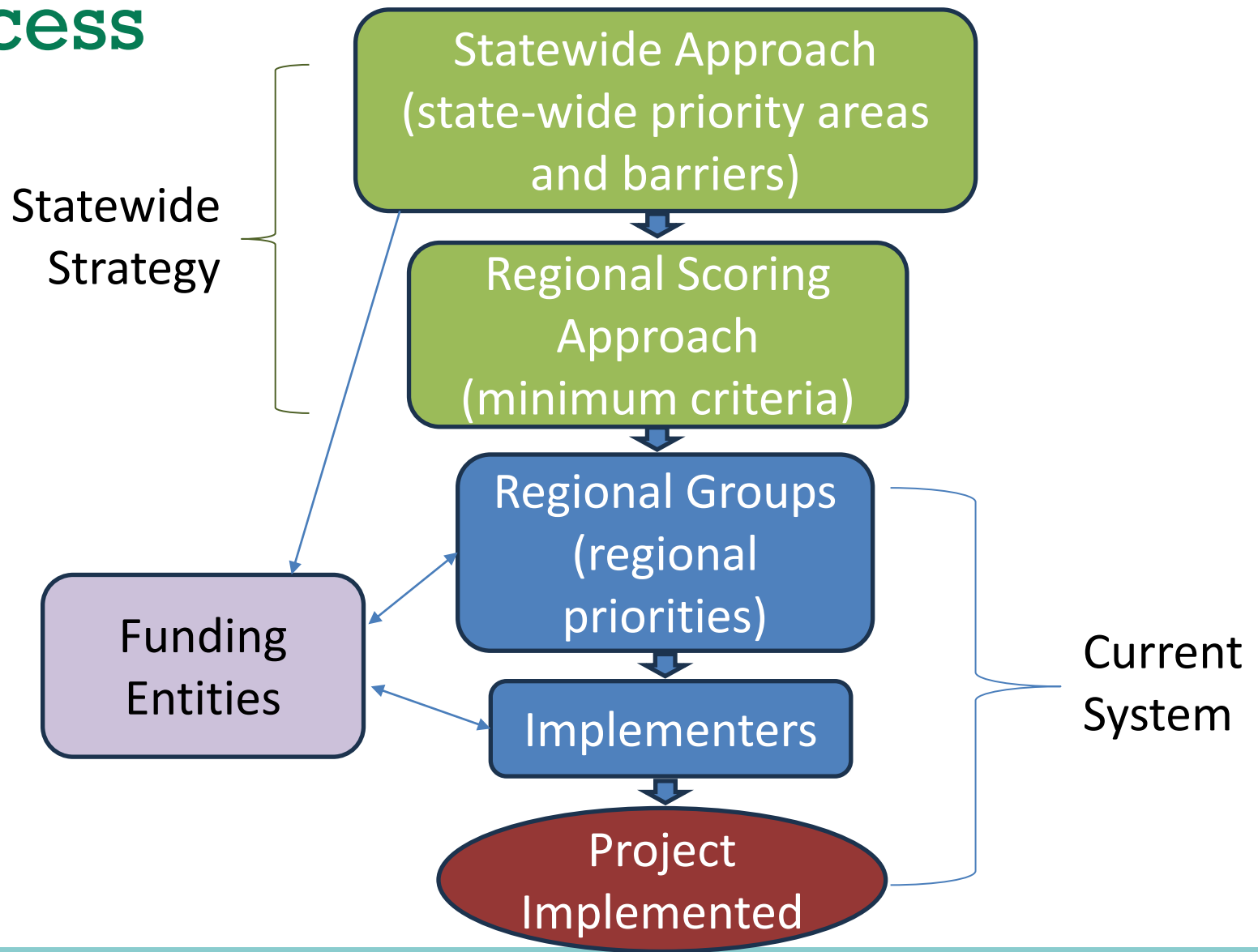


Approach

- State-wide prioritization
 - Optimization
- Regional/watershed scale
 - Score and rank



Flow Chart of Barrier Prioritization Process



Optimization

Strategy recommends an optimization function that includes:

- Barrier type
- Connectivity index
- Length of upstream habitat
- Benefits Chinook/Orca
- Number of threatened, endangered, depressed species or stocks



Score and Rank

Strategy recommends* all regional score/rank systems include:

- State-wide priority (output of optimization)
- Barrier type
- Barrier order
- Length of upstream habitat

*Recommended criteria limited based on data availability



How will the strategy be used?

- WDFW will house decision-support optimization tool
- Will be available to the public
- Output of model will provide a guide for users/regions without an existing prioritization model
- Output of model will provide an additional criterion for groups with an existing prioritization model
- Includes recommendations to inform score and rank prioritization systems





Thank you!
Questions?



BRIAN ABBOTT

Fish Barrier Removal Board

Amendment Form

Date: 3/20/2024

RCO Project Number: 21-1547

Sponsor Name: North Olympic Salmon Coalition

Project Name: Hoko Ozette Rd MP 2.9 80001331 Culvert Replacement

Type of Amendment: Cost Increase Time Extension Scope Change

Justification: For cost increases, describe the need and specifically what the money will be used for. Please note: a grant cost increase requires the sponsor to increase its total match contribution to maintain the agreement's original cost share percentages. For time extensions that would place the project end date more than four years beyond the project start date, describe the reason and background for the delay and provide a timeline for project completion. For scope changes, describe the reason and what work types or elements of the project will change. Specify changes in quantities and/or metrics of project elements as necessary.

It has become apparent during the contracting for the design engineering that the estimates used to create the project budget were too low to support the work at this time. For the initial grant we used budget estimates provided by a consulting firm and checked those against our expectations of the cost of the work based upon previous experience. It appears that the initial cost estimate was low or prices have increased dramatically in the time since the estimate was prepared, or a combination thereof. NOSC has pressed the consulting firm to reduce their costs, which they have, yet we are still short on funds to be able to implement the design project.

Additionally, since the time of the grant application NOSC has encountered situations that have increased our staffing and overhead costs from the time when the grant was written.

We will increase our provided match to keep match at 15%, see attached table.

This projects design is being implemented alongside the designs for nearby culvert correction projects #22-1083 and #21-1463 by the same design team in an effort to streamline the process and minimize costs. NOSC will be seeking separate cost increases on those projects whose budgets are similarly short. #21-1463 will be sought from FBRB and #22-1083 will be sought from SRFB.

Supporting Documents Provided. (check all that apply):

An updated Cost Estimate Spreadsheet composed of original budget with cost increase provided in a separate column clearly illustrating where costs have changed.

An updated Project Milestone Worksheet

BRIAN ABBOTT

Fish Barrier Removal Board

Amendment Form

Preliminary design package including design drawings and design report (Manual 22, Appendix C)

Review:



Approved: Yes No

Approved: Yes No

Date: [Click here to enter a date.](#)

Date: [Click here to enter a date.](#)

Name: [Click here to enter text.](#)

Name: [Click here to enter text.](#)

Reason

Reason

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BRIAN ABBOTT

Fish Barrier Removal Board

Amendment Form

Date: 3/20/2024

RCO Project Number: 21-1463

Sponsor Name: North Olympic Salmon Coalition

Project Name: Wright's Creek Culvert And Hatchery Intake Replacement

Type of Amendment: Cost Increase Time Extension Scope Change

Justification: For cost increases, describe the need and specifically what the money will be used for. Please note: a grant cost increase requires the sponsor to increase its total match contribution to maintain the agreement's original cost share percentages. For time extensions that would place the project end date more than four years beyond the project start date, describe the reason and background for the delay and provide a timeline for project completion. For scope changes, describe the reason and what work types or elements of the project will change. Specify changes in quantities and/or metrics of project elements as necessary.

It has become apparent during the contracting for the design engineering that the estimates used to create the project budget were too low to support the work at this time. For the initial grant we used budget estimates provided by a consulting firm and checked those against our expectations of the cost of the work based upon previous experience. It appears that the initial cost estimate was low or prices have increased dramatically in the time since the estimate was prepared, or a combination thereof. NOSC has pressed the consulting firm to reduce their costs, which they have, yet we are still short on funds to be able to implement the design project.

Additionally, since the time of the grant application NOSC has encountered situations that have increased our staffing and overhead costs from the time when the grant was written.

We will increase our provided match to keep match at 15%, see attached table.

This projects design is being implemented alongside the designs for nearby culvert correction projects #22-1083 and #21-1547 by the same design team in an effort to streamline the process and minimize costs. NOSC will be seeking separate cost increases on those projects whose budgets are similarly short. #21-1547 will be sought from FBRB and #22-1083 will be sought from SRFB.

Supporting Documents Provided. (check all that apply):

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Amendment Request Information ¹

Amendment Type (Check box for type(s) of amendment requested.)

- Scope (change of location, change in metrics)
- Time extension
- Cost (increase, decrease, match change)

Project name
HOKO RIVER
TRIBUTARY FISH
PASSAGE DESIGN
#80001279

Project number
22-1083

Date of request **3/19/24**

Sponsor(s) **North Olympic Salmon Coalition**

Lead Entity **NOPL**

Current end date **6/30/25**

Funding (Grants manager may need provide information for this section)

	Current Amount	Biennium/ Year of Funding	Request Amount	Share	New Funding Amount	New Share
Funding source (SRFB match)	\$43,983		\$28,121 (SRFB)	15%	72,104	15%
Funding Source (FBRB)	\$249,235 (FBRB)		\$159,350 (FBRB)	85%	408,585	85%
Project total	\$293,218		\$		\$480,689	

All Requests

- Brief project summary:

The project will complete a final design for the replacement of a Clallam County Road Culvert (#80001279) on an unnamed Hoko River tributary (19.0169) which enters the Hoko at river mile 9.4.

¹Please use the amendment matrix in Manual 18 to determine if a request needs lead entity approval. For cost increases using Puget Sound Acquisition and Restoration funds, provide this template to the Puget Sound Partnership for its approval.

- Current project progress: *(what tasks are complete and timeline for remaining tasks)*

We have begun the procurement process for engineering services. We have selected the best consulting firm from the applicant pool. We are in the process of negotiating the project SOW and budget.

Time Extensions

- Reason and justification for delay:
- Proposed new project milestones *(include any uncertainties)*:
- Number of time extensions that have been previously requested for this project:

Cost Increases

- Reason and justification for cost increase (*include any uncertainties*):

It has become apparent during the contracting for the design engineering that the estimates used to create the project budget were too low to support the work at this time. For the initial grant we used budget estimates provided by a consulting firm and checked those against our expectations of the cost of the work. It appears that the initial cost estimate was low or prices have increased dramatically in the time since the estimate was prepared, or a combination thereof.

Additionally since the time of the grant application NOSC has encountered situations that have driven up our staffing and overhead costs.

- Actions taken to control costs or limit the cost increase: (*include any other funding sources pursued*)

NOSC worked diligently with good cooperation from the design engineering firm to diminish costs and ground was gained, but it was not enough to be able to proceed with the project with the demonstrated deficit.

- Number of cost increases that have been previously requested for this project:

No cost increases have been previously requested for this project.

Scope Changes

- Description of, and reason for, scope change:
- **Acquisition projects:** see [Manual 3](#), Section 7 for specific scope change requirements and questions.

Attach documentation of lead entity approval.

Attach map if relevant.

BRIAN ABBOTT

Fish Barrier Removal Board

Amendment Form

Date: 4/18/2024

RCO Project Number: 21-1133 (now 22-1229,
after merging with our SRFB grant)

Sponsor Name: CREST

Project Name: Clear Creek Reconnection

Type of Amendment: Cost Increase Time Extension Scope Change

Justification: For cost increases, describe the need and specifically what the money will be used for. Please note: a grant cost increase requires the sponsor to increase its total match contribution to maintain the agreement's original cost share percentages. For time extensions that would place the project end date more than four years beyond the project start date, describe the reason and background for the delay and provide a timeline for project completion. For scope changes, describe the reason and what work types or elements of the project will change. Specify changes in quantities and/or metrics of project elements as necessary.

CREST and Wahkiakum County received construction bids for the project on April 16, 2024. There were two bids, both of which exceed all versions of our engineer's cost estimates and exceed the amount of funding we have available. The original grant requests were based on engineering cost estimates from 2018 for an older version of the design (shorter bridge, big structural earth walls, no large wood, reduced area of grading). The new design, which was completed in the last 8 months, nearly doubled the length of the proposed bridge (from 54' to 100'), increased the amount of proposed stream habitat and large wood, and added a cold-water refuge pool in lower Clear Creek near the Elochoman River confluence, among numerous other design changes. The low bid came in at \$3,098,576 (proposal uploaded into PRISM). Engineering/permitting costs have also been slightly higher than anticipated, due largely to there being more required changes to the old designs than anticipated, and additional cultural resources surveying for federal compliance. Our engineering firm has requested an additional \$75,070 for out-of-scope work, and that has added a bit to our overall costs as well, though our total engineering and permitting costs will only end up slightly higher than what we had originally estimated/requested.

Wahkiakum County had \$1,200,000 in road funding from County Roads Administration Board for this project (the non-bridge, non-stream portions), of which \$1,067,293.78 remains (after paying the design team and spending a small amount to "start" construction last fall to extend the funding one very last year). With the \$2,031,235.80 we have remaining in RCO funding, the project is still short about \$170,000. That shortage does not account for any Change Orders or other cost increases that might occur. We are requesting \$210,000 in additional funding to cover the difference between the amount of money that we have and the cost of the construction bid (discounting quoted engineering costs), plus a very small buffer to account for unanticipated costs that may arise during construction.

I have uploaded the low bid and our engineer's most recent contract amendment budget request into PRISM, along with the documents associated with this RCO Amendment request.

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Fish Barrier Removal Board

Amendment Form

Supporting Documents Provided. (check all that apply):

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- An updated Project Milestone Worksheet
- Preliminary design package including design drawings and design report (Manual 22, Appendix C)

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Reason

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RESTORATION

See SRFB Manual 5 for additional information regarding allowable costs.

				OVERALL PROJECT	GRANT REQUEST	ACTUAL COSTS	MATCH			
				<i>Budget must account for all costs to complete the project</i>	<i>Enter only the amount of the grant request</i>	<i>Construction costs copied from bid sheet of low bidder (4/16/2024)</i>	<i>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.</i>			
				Amount	Amount	Amount	Match in PRISM	New Match Not Previously Recorded	Source (Grant, Cash, Materials, Labor, Volunteers, etc)	Match Type (federal, state, local)
Construction										
Category (choose one)	Task Description	Qty	Rate							
Mobilization	Mobilization	1.00	\$ 133,000.00	\$ 133,000	\$ 133,000	\$ 259,000		\$ 100,000		
Demolition and site prep	Clearing and grubbing	1.00	\$ 22,000.00	\$ 22,000		\$ 275,000	\$ 22,000	\$ 65,000	Labor and equipment use	Wahkiakum County
Demolition and site prep	Removal of culvert	1.00	\$ 10,000.00	\$ 10,000		\$ 11,600	\$ 10,000		Labor and equipment use	Wahkiakum County
Demolition and site prep	Roadway excavation w/ haul	57.00	\$ 33.00	\$ 1,881		\$ 36,800	\$ 1,881		Labor and equipment use	Wahkiakum County
Demolition and site prep	Select borrow w/ haul	308.00	\$ 17.60	\$ 5,421	\$ 5,421	\$ 98,768				
Demolition and site prep	Embankment compaction	154.00	\$ 6.60	\$ 1,016	\$ 1,016	\$ -				
Construction	Channel excavation w/ haul	2,067.00	\$ 33.00	\$ 68,211	\$ 58,211	\$ 107,394	\$ 10,000	\$ -	Labor and equipment use	Wahkiakum County
Construction	Drop inlet type 1	1.00	\$ 2,750.00	\$ 2,750	\$ 2,750	\$ -				
Materials	Streambed sediment	334.00	\$ 82.50	\$ 27,555	\$ 27,555	\$ 13,000				
Materials	Streambed aggregate	216.00	\$ 82.50	\$ 17,820	\$ 17,820	\$ 50,000				
Materials	Habitat boulder - 2 man	6.00	\$ 82.50	\$ 495	\$ 495	\$ 9,600				
Construction	Handling and installation of large wood material	5.00	\$ 1,100.00	\$ 5,500	\$ 5,500	\$ 73,000				
Materials	Logs for log structure	5.00	\$ 1,000.00	\$ 5,000	\$ 5,000	\$ -				
Equipment and equipment use	Temporary stream diversion	1.00	\$ 55,000.00	\$ 55,000	\$ 55,000	\$ -		\$ -		
Equipment and equipment use	Fish exclusion	1.00	\$ 1,100.00	\$ 1,100	\$ 1,100	\$ -		\$ -		
Construction	Temporary bridge installation and removal	1.00	\$ 173,800.00	\$ 173,800	\$ 173,800	\$ -				
Construction	Storm sewer	1.00	\$ 10,626.00	\$ 10,626	\$ 10,626	\$ 45,000				
Construction	Shoring excavation w/ haul (footings and structural earth walls)	1.00	\$ 115,500.00	\$ 115,500	\$ 115,500	\$ -		\$ -		
Construction	Structure excavation w/ haul (footings and structural earth walls), cubic yard	1,392.00	\$ 44.00	\$ 61,248	\$ 61,248	\$ -				
Materials	Gravel backfill for structural earth wall	95.00	\$ 55.00	\$ 5,225	\$ 5,225	\$ 4,900				
Construction	Furnish and drive steel test pile	2.00	\$ 11,000.00	\$ 22,000	\$ 22,000	\$ -				
Construction labor	Drive steel piles	12.00	\$ 2,200.00	\$ 26,400	\$ 26,400	\$ 98,600	\$ -	\$ -		
Materials	Steel piles, per linear foot	370.00	\$ 110.00	\$ 40,700	\$ 40,700	\$ -				
Materials	Steel pile tip or shoe	12.00	\$ 220.00	\$ 2,640	\$ 2,640	\$ -	\$ -	\$ -		
Materials	Steel reinforcement bar, per pound	3,333.00	\$ 1.65	\$ 5,499	\$ 5,499	\$ -	\$ -	\$ -		
Materials	Class 4000 concrete, cubic yards	46.00	\$ 880.00	\$ 40,480	\$ 40,480	\$ 131,500	\$ -	\$ -		
Construction	Transport, modify, install, and finish concrete girders	1.00	\$ 90,182.00	\$ 90,182	\$ 90,182	\$ 240,000	\$ -	\$ -		
Materials	Bridge girders	4.00	\$ 23,750.00	\$ 95,000	\$ -	\$ 597,000	\$ -	\$ -	Materials	Wahkiakum County
Materials	Texas T6 bridge railing, linear feet	125.00	\$ 88.00	\$ 11,000	\$ 11,000	\$ 57,040				
Materials	Structural earth wall, square feet	4,903.00	\$ 55.00	\$ 269,665	\$ 269,665	\$ -				

Construction	Gravel borrow for structural earth wall, cubic yards	1,851.00	\$ 77.00	\$ 142,527	\$ 142,527	\$ -				
Materials	Asphalt - HMA Cl. 1/2 in. PG 58S-22, per ton	280.00	\$ 132.00	\$ 36,960	\$ 36,960	\$ 120,000	\$ -	\$ 80,000		
Construction	Paint line, linear feet	400.00	\$ 1.10	\$ 440	\$ 440	\$ 5,090				
Construction	Guardrail	4.00	\$ 3,850.00	\$ 15,400	\$ 15,400	\$ -				
Construction	Temporary traffic control	1.00	\$ 85,140.00	\$ 85,140		\$ 30,000	\$ 85,140		Labor and equipment use	Wahkiakum County
Construction	Erosion Control, including CESCL and BMPs	1.00	\$ 42,240.00	\$ 42,240	\$ 42,240	\$ 151,000				
Construction	Post-construction seeding and planting	1.00	\$ 21,406.00	\$ 21,406	\$ 21,406	\$ 5,624				
Surveys	Surveying	2.00	\$ 11,000.00	\$ 22,000	\$ 22,000	\$ 79,120				
Construction	Roadside cleanup	1.00	\$ 10,000.00	\$ 10,000	\$ 10,000	\$ -				
Construction	Trench safety system	1.00	\$ 1,100.00	\$ 1,100	\$ 1,100	\$ -				
Construction supervision	CREST project management and construction oversight, per hour	108.00	\$ 54.00	\$ 5,832	\$ 5,832	\$ -	\$ -	\$ -		
Permits	Contracted services for updated permitting	1.00	\$ 4,000.00	\$ 4,000	\$ 4,000	\$ -	\$ -	\$ -		
Construction supervision	Travel for CREST staff to project site for construction oversight, per mile	1,224.00	\$ 0.59	\$ 716	\$ 716	\$ -	\$ -	\$ -		
Construction supervision	County supervision of overall project	45.00	\$ 150.00	\$ 6,750		\$ -	\$ 6,750		Labor	Wahkiakum County
			STotal	\$ 1,721,226	\$ 1,490,454	\$ 2,499,036	\$ 135,771	\$ 245,000		

Administrative, Architechural & Engineering						From actual costs and Proposed EDC quote				
Category	Task Description	Qty	Rate							
Other	SPCC plan prep and submittal	1.00	\$ 4,400.00	\$ 4,400.00			\$ 4,400	\$ -	Cash	Wahkiakum County
Other	Engineering-during-construction for questions and modifications	1.00	\$ 70,000.00	\$ 75,000.00	\$ 75,000	\$ 48,800	\$ -	\$ -		
Final design	Modify bridge design to fit existing road alignment	1.00	\$ 135,000.00	\$ 135,000.00	\$ 75,000	\$ 138,070	\$ 60,000	\$ -	Cash	Wahkiakum County
Assessments (geologic, hydraulic, etc.)	Update hydraulic assessment for updated bridge design	1.00	\$ 15,000.00	\$ 15,000.00	\$ 15,000	\$ 25,470	\$ -	\$ -		
Administrative	Grant management and billing by CREST	104.00	\$ 53.00	\$ 5,512.00	\$ 5,512		\$ -	\$ -		
			\$ -	\$ -	\$ -		\$ -	\$ -		
			\$ -	\$ -	\$ -		\$ -	\$ -		
			\$ -	\$ -	\$ -		\$ -	\$ -		
			\$ -	\$ -	\$ -		\$ -	\$ -		
			STotal	\$ 234,912	\$ 170,512	\$ 212,340	\$ 64,400	\$ -		

Indirect Costs										
	Description	Approved Rate	Total Project Base							
	Indirect (CREST)	28.680%	\$ 11,344.00	\$ 3,253	\$ 3,253		\$ -	\$ -		
	Indirect	0.000%	\$ -	\$ -	\$ -		\$ -	\$ -		
			STotal	\$ 3,253	\$ 3,253		\$ -	\$ -		

AA&E Budget Check
A&E maximum allowed in PRISM \$ 487,867.50
A&E validation 252,956

GTOTAL	\$ 1,959,391	\$ 1,664,219	\$ 2,711,376	\$ 200,171	\$ 245,000
			PRISM Project Total	\$ 1,864,390	
		RCO Percentage		Match Percentage	
		89.26%		10.74%	