



Kate Brown, Governor



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Agenda Item I supports OWEB's Strategic Plan priority # 5: The value of working lands is fully integrated into watershed health.

MEMORANDUM

TO: Oregon Watershed Enhancement Board
FROM: Eric Williams, Grant Program Manager
SUBJECT: Agenda Item I – Spring 2019 Open Solicitation Grant Offering
October 15-16, 2019 Board Meeting

I. Introduction

This staff report describes the Spring 2019 Open Solicitation Grant Offering and funding recommendations. Staff request the board approve the funding recommendations outlined in Attachment D to the staff report, including funding for 36 restoration grants, 18 technical assistance grants, and 7 stakeholder engagement grants.

II. Spring 2019 Grant Offering Background and Summary

A. Applications Submitted

A total of 133 applications were received requesting \$18.3 million. Attachment A shows applications submitted by region, project type, and funding request.

B. Applications Withdrawn

Following the application deadline, one application (220-2001) was withdrawn by the applicant.

C. Review Process

Staff sent eligible grant applications for review to the agency's 6 Regional Review Teams (RRTs). Staff scheduled site visits to as many proposed projects as possible. Per OWEB process, all RRT members were invited to these visits.

OWEB then facilitated RRT meetings in each region for all grant types offered. Reviewers considered the likelihood of success of the proposed project based on evaluation criteria in rule. After classifying applications as "Fund" or "Do Not Fund," the RRTs then prioritized the projects recommended for funding by application type.

The RRTs' evaluations and recommendations in summary form are distributed to all applicants whose proposals were reviewed by that team. Prior to the board meeting, staff will forward to the board any written comments received from applicants regarding the RRT and staff recommendations.

III. Salmon License Plate Projects

Using the board's 2015 policy related to projects funded with Salmon License Plate dollars, staff recommend distributing \$240,000 for this offering to three projects listed in Attachment B.

IV. Sage-grouse Projects

At its April 2015 meeting, the board adopted a policy to make available at least \$10 million through its granting programs over the next ten years in support of projects located in Oregon's sage steppe ecosystem that improve greater sage-grouse habitat. For the Spring 2019 Open Solicitation Grant Offering, one project (220-5002) recommended for funding meets these criteria, requesting \$143,454. Total funding awarded to sage-grouse projects in all categories since April 2015 is \$7,747,130. If the recommended projects are awarded funding from the board, the new four-year total will be \$7,890,584, including investments through the Focused Investment Partnership Program.

V. Funding Recommendations

The funding recommendations for the Spring Open Solicitation Grant Offering are shown in Table 1.

Table 1: 2019-21 Spending Plan and Spring 2019 Grant Offering Staff Funding Recommendations

Grant Type	Spending Plan Total	Previously Awarded	Grant Funds Available	Staff Recommendations	Recommended Grant Funds Remaining
Restoration	\$31,200,000	\$0	\$31,200,000	\$8,047,622	\$23,152,378
Technical Assistance	\$3,100,000	\$0	\$3,100,000	\$991,132	\$2,108,868
Monitoring	\$3,500,000	\$0	\$3,500,000	n/a	\$3,500,000
Stakeholder Engagement	\$1,000,000	\$0	\$1,000,000	\$245,429	\$754,571
TOTAL	\$38,800,000	\$0	\$38,800,000	\$9,284,183	\$29,515,817

OWEB staff considered the RRT recommendations and the funding availability in the 2019-2021 spending plan in developing the staff funding recommendation to the board. Attachment C includes the number of applications recommended for funding by RRTs and staff by region and type, and the funding requests recommended by staff by region and type.

Attachments

- A. Grant Applications Submitted
- B. Salmon License Plate Projects
- C. RRT and Staff Funding Recommendations
- D. Regions 1-6 Funding Recommendations

Oregon Watershed Enhancement Board April 29, 2019 Open Solicitation Offering

Applications Received by Type

	Stakeholder Engagement	Technical Assistance	Restoration	Totals
Region 1	3	7	13	23
Region 2	2	11	18	31
Region 3	2	5	14	21
Region 4	3	8	9	20
Region 5	0	1	23	24
Region 6	3	4	7	14
Totals	13	36	84	133

Dollar Amounts by Application Type

	Stakeholder Engagement	Technical Assistance	Restoration	Totals
Region 1	83,908	402,267	3,999,306	\$4,485,481
Region 2	101,396	654,873	4,304,488	\$5,060,757
Region 3	159,479	177,939	2,847,878	\$3,185,296
Region 4	76,395	492,242	1,804,346	\$2,372,983
Region 5	0	37,783	2,139,777	\$2,177,560
Region 6	109,683	178,768	737,811	\$1,026,262
Totals	\$530,861	\$1,943,872	\$15,833,606	\$18,308,339

**Oregon Watershed Enhancement Board
Spring 2019 Grant Offering Salmon License Plate Projects**

Application #	Title	Project Objectives	Total OWEB Grant	Salmon License Plate Contribution
220-1006	Peterson Creek Aquatic Organism Passage Improvement	A fish barrier will be replaced with a bridge on Peterson Creek, a tributary of the Miami River in Tillamook County that provides important habitat for salmon and lamprey. Access will be restored to over 6 miles of stream habitat.	\$372,300	\$80,000
220-1012	Fivemile-Bell Restoration Project, Phase 5	This project completes the final phase of a 10-year collaborative landscape-level floodplain restoration project in the Tahkenitch Lake basin south of Florence. Activities to be completed include stream channel reconstruction and native plant revegetation.	\$362,704	\$80,000
220-2003	Tioga Creek Instream & Fish Passage Restoration	Coho salmon habitat structures will be placed in two miles of Tioga Creek and three fish barriers will be replaced to provide access to fish habitat.	\$448,377	\$80,000
			Total	\$240,000

RRT and Staff Funding Recommendations for the Spring 2019 Open Solicitation Grant Offering

Restoration

Region	RRT	Staff	%	Funding
1	10	5	50%	\$2,165,921
2	15	4	27%	\$1,885,959
3	12	7	58%	\$1,344,260
4	6	4	67%	\$1,219,842
5	16	10	63%	\$754,572
6	6	6	100%	\$677,068
Total	65	36	55%	\$8,047,622

Technical Assistance

Region	RRT	Staff	%	Funding
1	4	3	75%	\$173,187
2	11	5	45%	\$290,930
3	3	2	67%	\$76,364
4	6	5	83%	\$315,034
5	1	1	100%	\$37,783
6	2	2	100%	\$97,834
Total	27	18	67%	\$991,132

Stakeholder Engagement

Region	RRT	Staff	%	Funding
1	2	2	100%	\$57,928
2	1	1	100%	\$29,385
3	0	0	-	\$0
4	3	3	100%	\$76,395
5	0	0	-	\$0
6	3	1	33%	\$81,721
Total	9	7	78%	\$245,429

North Coast

Southwest

Willamette Basin

Central Oregon

Eastern Oregon

Mid-Columbia

North Coast - Region 1 Spring 2019 Funding Recommendations



Document Path: Z:\oweb\Technical_Services\Information_Services\GIS\Maps\Review Team Meetings\2019SpringCycle\Projects\VPN_Regional_AppFundingStatus_11x17_2019Spring.mxd
 ESRI ArcMap 10.6. NAD 1983 Oregon Statewide, Lambert Feet Intl WKID: 2992 Authority: EPSG OWEB- PK Wills 20190923

Funding Recommendations

- Staff Recommendation For Funding (SRF)
- Below Funding Line (BFL)

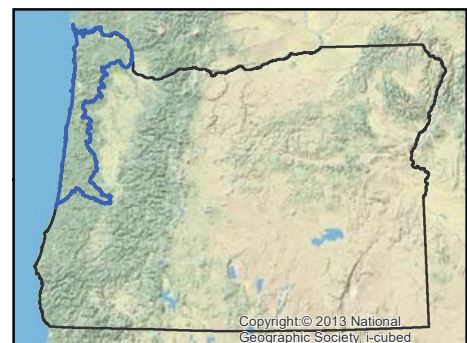
Previous Grants - 1998-Fall 2018

- ◆ Restoration
- Acquisitions
- ~ Streams
- Region Boundary



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Region 1 - North Coast					
Restoration Projects Recommended for Funding in Priority Order					
Project #	Grantee	Project Title	Brief Description	Amount Recommended	County
220-1009	MidCoast WC	Yaquina Tidal Wetland Restoration	A 55-acre site along the Yaquina River will be restored to its native tidal wetland habitat. Restoration actions will remove portions of a remnant dike, create new tidal channels, and plant native vegetation.	435,736	Lincoln
220-1006	Tillamook Estuaries Partnership	Peterson Creek Aquatic Organism Passage Improvement	A fish barrier will be replaced with a bridge on Peterson Creek, a tributary of the Miami River in Tillamook County that provides important habitat for salmon and lamprey. Access will be restored to over 6 miles of stream habitat.	372,300	Tillamook
220-1012	Siuslaw WC	Fivemile-Bell Restoration Project, Phase 5	This project completes the final phase of a ten-year collaborative landscape-level floodplain restoration project in the Tahkenitch Lake basin south of Florence. Activities to be completed include stream channel reconstruction and native plant revegetation.	362,704	Douglas
220-1001	The Nature Conservancy	Kilchis Porter Tidal Wetland Restoration Project_2019	Tidal wetlands will be restored on a 60-acre site in the Kilchis River estuary on Tillamook Bay. Restoration actions will remove dikes, recreate tidal channels, and restore native vegetation.	468,084	Tillamook
220-1002	Siuslaw SWCD	Bessey's North Fork Siuslaw & McLeod Creek Floodplain Restoration	This floodplain restoration project addresses limiting factors for coho salmon in the Siuslaw watershed. Restoration will reconnect the North Fork Siuslaw River to 14 acres of floodplain and restore stream habitat.	527,097	Lane
Total Restoration Projects Recommended for Funding by RRT and OWEB Staff				2,165,921	

Restoration Projects Recommended but Not Funded in Priority Order					
Project #	Grantee	Project Title	Brief Description	Amount Recommended	County
220-1004	Nestucca-Neskowin Watersheds Council	Clear Creek Fish Passage Restoration	A fish barrier culvert will be replaced with a bridge on Clear Creek, a tributary to the Nestucca River in Tillamook County. Access will be improved for salmon and lamprey to over 4 miles of habitat.	354,570	Tillamook
220-1003	Scappoose Bay WC	Brush Creek Large Wood Enhancement	Stream habitat will be improved and a fish barrier will be replaced in Brush Creek, a tributary to North Scappoose Creek in Columbia County.	263,652	Columbia
220-1007	Necanicum WC	Coho Creek Fish Passage Project - Seaside	Fish barriers that restrict access for juvenile and adult salmon will be replaced on Coho Creek, a tributary to Neawanna Creek in the Necanicum watershed. Fish access will be improved to 1.4 miles of habitat upstream.	355,979	Clatsop
220-1011	North Coast WS Assn.	ECFR Beaver Habitat Restoration	This project will support, expand, and retain beaver populations in the Ecola Creek watershed through the construction of beaver habitat.	34,678	Clatsop
220-1000	Scappoose Bay WC	Lower Milton Creek Stream Restoration	Streamside vegetation will be planted and stream habitat constructed along a priority reach of Milton Creek in the Scappoose Bay watershed. Restoration activities support the recovery of Lower Columbia River salmon.	189,563	Columbia
Total Restoration Projects Recommended for Funding by RRT				3,364,363	
Restoration Applications Not Recommended for Funding by RRT					
Project #	Grantee	Project Title		Amount Requested	County
220-1005	MidCoast WC	Bummer Creek Tributary Fish Passage		48,390	Benton
220-1008	North Coast WS Assn.	Upper Big Creek Road Decommissioning		195,059	Clatsop
220-1010	Nestucca-Neskowin Watersheds Council	Neskowin Fish Passage Improvement Project		391,494	Tillamook

Technical Assistance (TA) Projects Recommended for Funding in Priority Order					
Project #	Grantee	Project Title	Brief Description	Amount Recommended	County
220-1018	Tillamook Estuaries Partnership	Tillamook River Wetlands: Engineering and Design	Final designs will be achieved for the Tillamook River Wetlands project, a 73-acre restoration project located on a site in the Tillamook River estuary.	74,998	Tillamook
220-1016	CREST	Coastal Dune Prairie Habitat Restoration at West Sand Island	Designs will be developed for coastal prairie restoration and enhancement at West Sand Island, an island in the Columbia River that contains rare habitat.	24,049	Clatsop
220-1015	Lower Nehalem WC	Lower Nehalem Tributary Junctions Large Wood Engineering Designs	The project will develop designs for stream restoration at key locations on the lower Nehalem River, addressing habitat limitations for juvenile salmon on the River.	74,140	Tillamook
Total TA Projects Recommended for Funding by RRT and OWEB Staff				173,187	
Technical Assistance Projects Recommended but Not Funded in Priority Order					
Project #	Grantee	Project Title	Brief Description	Amount Recommended	County
220-1014	Columbia SWCD	Page Creek, Fish Passage and Habitat Complexity Design	Technical services will be provided to develop designs that address a fish barrier on Page Creek within the Clatskanie River basin. Restoration at this location will restore fish passage to 1.5 miles of spawning and rearing habitat for lower Columbia River fish.	50,380	Columbia
Total TA Projects Recommended for Funding by RRT				223,567	
Technical Assistance Applications Not Recommended for Funding by RRT					
Project #	Grantee	Project Title		Amount Requested	County
220-1013	Columbia SWCD	Strategic Action Plan Data Synthesis and Finalization		49,500	Columbia
220-1017	Lower Nehalem Community Trust	Alder Creek Restoration and Enhancement Project		54,208	Tillamook
220-1019	Upper Nehalem WC	Fishhawk Lake Replacement Fish Passage Construction Design		74,992	Clatsop

Stakeholder Engagement Projects Recommended for Funding in Priority Order					
Project #	Grantee	Project Title	Brief Description	Amount Recommended	County
220-1020	Lincoln SWCD	Bay to Headwaters: Siletz River Community Outreach, Engagement & Conservation	This project funds a multi-year outreach campaign to engage stakeholders within the Siletz River watershed. Building a network of community connections will increase capacity to carry out restoration projects identified in the Siletz Coho Business Plan.	33,469	Lincoln
220-1021	Lower Nehalem WC	Lower Nehalem Anchor Habitats Landowner Outreach	The project will engage landowners about restoration in 38 distinct areas of the Lower Nehalem River identified as important habitat in the Nehalem Coho Strategic Action Plan.	24,459	Tillamook
Total Stakeholder Engagement Projects Recommended for funding by OWEB Staff				57,928	
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Total Stakeholder Engagement Projects Recommended for funding by RRT				57,928	
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220-1022	Tillamook Bay WC	Tillamook Bay Tide Gate Stakeholder Engagement		25,209	Tillamook
Region 1 Total OWEB Staff Recommended Board Award				2,397,036	26%
Regions 1-6 Grand Total OWEB Staff Recommended Board Award				9,284,183	

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Open Solicitation-2019 Spring Offering North Coast (Region 1)

Application Number: 220-1000-16950

Project Type: Restoration

Project Name: Lower Milton Creek Stream
Restoration

Applicant: Scappoose Bay WC

Region: North Coast

County: Columbia

OWEB Request: \$189,563

Total Cost: \$239,349

Application Description *(from application abstract)*

Milton Creek, a 6th field HUC located within the Scappoose Bay 5th-field watershed, contains 17.8 miles of mainstem stream channel and 6.6 miles within five tributary channels that are utilized by ESA-listed Coho salmon. However, natural and anthropogenic changes to the creek have resulted in significant channel simplification from extreme low mainstem wood complexity. This has precipitated an historically low use of the creek by Coho salmon, as well as ESA-listed Lower Columbia Spring Chinook, steelhead, cutthroat, and lamprey, due to reduced summer stream habitat function that has engendered the greatest hindrance to smolt production in Milton Creek. To address habitat limiting factors for fish production potential in Lower Milton Creek (LMC) as identified in the 2012 LMC Limiting Factor Analysis (LFA, SWBC), SBWC identified select stream segments with the highest potential for sustainable habitat enhancement in LMC. The first of these segments with strong landowner interest is located at approximately RM 3.4, upstream of the city of Saint Helens in Columbia County. The site is located directly downstream of Anchor Habitat M2, as identified in the Milton Creeed LFA. SWBC has partnered with ODFW, Waterways Consulting, Inc., CSWCD, and four landowners to develop an implementation project that aims to address the deficiency in summer rearing habitat through installation of large wood structures, removal of invasive species, and native riparian plantings. The preliminary designs propose to expand and enhance riparian buffers along with the installation of multiple large wood structures to improve spawning and rearing habitat, and increase channel-floodplain interactions. This project will complete the designs, obtain permits, construct during the in-water work window, and follow with riparian planting. The project includes support to work with the landowners on invasive species management.

Review Team Evaluation

Strengths

- The project reach is within anchor habitat for Lower Columbia steelhead and coho. Work at this location will support the implementation of the Recovery Plan for Lower Columbia Chinook Salmon, Lower Columbia Coho, Columbia River Chum and Lower Columbia Steelhead (2013).
- The proposed actions are appropriate to improve habitat conditions and address limiting factors. The site will benefit from the addition of large wood and the proposed plantings are significant in size and scale.

- The applicant has capacity to implement this type of work and a proven track record with habitat complexity and native plant community restoration projects.
- There is a current window of opportunity to conduct work within this reach to capitalize on recent successful landowner recruitment efforts in an area that has been challenging to secure landowner interest in voluntary conservation. Implementing the project could be a catalyst for future work along Milton Creek.
- Milton Creek is within a focus area for the Columbia SWCD.
- The project is the result of an OWEB funded Technical Assistance grant (#218-3035) and implementation will build on prior investments in the watershed.

Concerns

- The project design relies heavily on boulders to stabilize the large wood material, and boulders are not a natural component of the Milton Creek watershed. More detail and justification as to why boulders are an essential part of the design would be helpful to evaluate technical soundness of the design approach.
- Boulders will be placed on a meander bend, which could shift the stream's energy toward existing buildings. Resulting fluid dynamics and increased water velocities could make soft streambanks susceptible to erosion.
- Outdated designs were submitted with the application that included pinning and bolting large wood structures, which is not a preferred design approach. Clarification was provided after the review site visit, however, there is some uncertainty on what final project designs will be exactly.

Concluding Analysis

Milton Creek is recognized as a priority location to restore habitat for lower Columbia fish. The project reach was selected for restoration after a thorough analysis, and the applicant has built support and participation for the project among a suite of critical landowners. While there is some uncertainty on the exact final project design, there is confidence that a design approach can be arrived at that will achieve restoration goals and objectives given the capacity and experience of the applicant and project engineer with this type of work.

Review Team Recommendation to Staff

Fund

Review Team Priority

10 of 10

Review Team Recommended Amount

\$189,563

Review Team Conditions

N/A

Staff Recommendation

Staff Follow-Up to Review Team

N/A

Staff Recommendation

Do Not Fund; falls below staff-recommended funding line

Staff Recommended Amount

\$0

Staff Conditions

N/A

Open Solicitation-2019 Spring Offering North Coast (Region 1)

Application Number: 220-1001-16971

Project Type: Restoration

Project Name: Kilchis Porter Tidal Wetland
Restoration Project_2019

Applicant: The Nature Conservancy

Region: North Coast

County: Tillamook

OWEB Request: \$468,084

Total Cost: \$1,267,490

Application Description *(from application abstract)*

The Kilchis Porter project is located in the lower Kilchis River estuary on the east side of Tillamook Bay in Tillamook County near Bay City. The 60.26 acre project area lies between Stasek Slough to the south and Hathaway Slough to the north and borders the Kilchis Estuary Preserve to the south, a TNC preserve that is undergoing active restoration. The Porter project will restore former tidal wetlands that were converted to pastures, thereby providing critical off-channel rearing habitat for salmon and other species dependent upon tidal wetlands. The restoration will remove dikes, recreate tidal channels, fill agricultural ditches and restore tidal wetland vegetation through planting of wetland species. Weedy species will be reduced across the site to encourage native wetland habitats. In addition the restoration will provide for a more active connection between Stasek Slough and Hathaway Slough by removing a constricting culvert and re-designing a connecting ditch to better function as a natural tidal channel. This new channel will foster better drainage of farmlands that are along Stasek Slough upstream and east of Highway 101; the new channel will also provide enhanced tidal flow onto the existing Kilchis Estuary Preserve to the south of the Porter project. Project partners include Tillamook Estuaries Partnership, ODFW and USFWS. Access will be maintained across the new channel via a constructed bridge for the purposes of maintaining restoration plantings and an easement to private property. A second bridge will be constructed to allow for management access to the northern portion of the site along Hathaway Slough.

Review Team Evaluation

Strengths

- The project will restore and enhance a total of 60 acres of estuarine habitat, a high priority habitat for restoration in the north coast basin.
- Restoration at the site will build on past conservation investments in the lower Kilchis watershed, expanding the habitat connectivity and ecological benefits of prior work.
- The applicant has a proven track of record of success implementing a similar restoration project on the adjacent property.
- Significant benefits to water quality are expected as a result of project implementation.
- The planting plan is tailored to reflect lessons learned from past projects.

- The project adopts an aggressive approach to revegetation that is likely to succeed.
- The post-project monitoring that is proposed for this project and that has occurred on the adjacent restoration area will produce valuable information that can help design similar projects in the future.
- The project will provide excellent ecological benefit for the proposed cost involved.

Concerns

- Previous project evaluation concerns regarding high planting densities are not addressed. The high planting densities are driving up the project cost. Additional explanation on why the planting densities were chosen and necessary for achieving the proposed restoration goals would be helpful to evaluate the project cost-effectiveness.

Concluding Analysis

Restoration of the Kilchis Porter site will create and enhance 60 acres of both existing and new estuarine habitat, a high priority for the north coast basin. The adjacent Kilchis project designed and implemented by the same applicant is functioning well and the proposed project will increase the landscape-level benefits provided to the watershed by building on this past investment. The applicant responded to many of the previous project evaluation concerns and shows a willingness to adaptively manage the project to successfully establish native vegetation on the site. The applicant is experienced with estuarine plant communities and the likelihood of achieving the stated goals and objectives is excellent.

Review Team Recommendation to Staff

Fund

Review Team Priority

4 of 10

Review Team Recommended Amount

\$468,084

Review Team Conditions

N/A

Staff Recommendation

Staff Follow-Up to Review Team

N/A

Staff Recommendation

Fund

Staff Recommended Amount

\$468,084

Staff Conditions

N/A

Open Solicitation-2019 Spring Offering North Coast (Region 1)

Application Number: 220-1002-16986

Project Type: Restoration

Project Name: Bessey's North Fork Siuslaw &
McLeod Creek Floodplain Restoration

Applicant: Siuslaw SWCD

Region: North Coast

County: Lane

OWEB Request: \$527,097

Total Cost: \$1,145,822

Application Description *(from application abstract)*

The project area is located at the confluence of the North Fork (NF) Siuslaw River and McLeod Creek, extending into each of the Upper and Lower NF Siuslaw 6th Field HUC's, both of which are identified as priority watersheds for restoration in the Siuslaw Strategic Action Plan (SAP). The Siuslaw SAP (Siuslaw Coho Partnership (SCP), 2018) identifies the major stresses limiting Coho production in the Lower NF Siuslaw 6th Field HUC as decreased lateral connectivity, altered riparian function, and increased water temperatures. The Siuslaw SAP also identifies the major stresses in the Upper NF Siuslaw 6th Field HUC as decreased lateral connectivity and lack of in-stream complexity. The Federal Recovery Plan For Oregon Coast Coho (NOAA, 2016) recognized the primary habitat related limiting factors as lost habitat (especially floodplain habitat), reduced complexity, and degraded water quality. Stream complexity and water quality were also determined to be the primary and secondary limiting factors in Oregon's Coastal Coho Assessment (ODFW, 2005). The NF Siuslaw River is listed under section 303(d) of the Clean Water Act as being water quality limited by temperature and sedimentation. This effort will address each of the major stresses and limiting factors for Oregon Coastal (OC) Coho identified in each of the fore mentioned local, state, and federal plans; which is why it was ranked #3 overall out of the hundreds of proposed projects identified within the Siuslaw SAP. Partners include: Siuslaw National Forest, NOAA, Wild Salmon Center (WSC), Siuslaw Watershed Council (SWC), McKenzie River Trust (MRT), and the Confederated Tribes of the Coos, Lower Umpqua, and Siuslaw Indians (CTCLUSI). Measurable Objectives: Hydrologically reconnecting ~14.2 acres of floodplain, developing ~.5 mile of anastomosing off-channel habitat, increasing instream complexity to ~.5 mile of stream, establishing ~15.37 acres of native riparian vegetation and ~2.69 acres of native upland vegetation.

Review Team Evaluation

Strengths

- The project is a top-ranked priority in the Siuslaw Coho Partnership's Strategic Action Plan and addresses key limiting factors for Oregon coast coho salmon. The project reach is within anchor habitat for all life stages of coho.

- Proposed restoration is the result of an OWEB funded Technical Assistance grant (#217-1015) and will build on previous work in the North Fork Siuslaw watershed. The applicant took a big picture approach to the design work and incorporated previous project evaluation recommendations to consider watershed processes more broadly in the design.
- The design directly addresses limiting factors in the sub-watershed, including habitat complexity and lateral floodplain connectivity.
- Previous project evaluation concerns are addressed in the application. A monitoring plan is now incorporated to help determine the effectiveness of this type of work, and the application includes a clear explanation of how watershed limiting factors will be addressed with the project.
- The project approach is innovative and watershed process-based. It addresses the root causes of the problem, not just the symptoms.
- The concerns from the previous project review about erosion from restoration actions causing increased downstream sedimentation are mitigated by information in the application. Also, it was confirmed during the site visit that the project area has a depositional reach where sediment is likely to drop out instead of eroding and transporting downstream. The stream is also already eroded to bedrock in portions of the project area, which will control the streambed elevation because the stream will not be able to further erode.
- The project designer has extensively modeled potential impacts of proposed restoration work to the road and adjacent landowners and found minimal risk.
- The design team is highly qualified and well-respected with a proven track record of implementing similar types of work.

Concerns

- A monitoring plan is referenced in the application but not included. The proposal would benefit from more details on the type and scope of monitoring proposed.
- There is a level of risk that short-term impacts from this type of work will negatively affect stream conditions; and the timeframe needed for habitat features to establish and function is unclear. A phased approach could offer opportunity to implement a portion of the project and see how the stream system responds. However, there may be risk that a phased approach could extend those short-term impacts over a longer time period or prevent the restoration approach from fully functioning over the target stream reach.

Concluding Analysis

The design approach constructs an inset floodplain within a heavily incised reach of the North Fork Siuslaw River, a priority location to improve habitat for Oregon coast coho salmon. The project is ranked as the #3 priority in the Siuslaw Strategic Action Plan, and the innovative design looks beyond traditional bank stabilization techniques to address the root causes of erosion. The project will directly address key limiting factors in the North Fork Siuslaw basin, which will provide a high cost-benefit to watershed health.

Review Team Recommendation to Staff

Fund

Review Team Priority

5 of 10

Review Team Recommended Amount

\$527,097

Review Team Conditions

N/A

Staff Recommendation

Staff Follow-Up to Review Team

N/A

Staff Recommendation

Fund

Staff Recommended Amount

\$527,097

Staff Conditions

N/A

Open Solicitation-2019 Spring Offering North Coast (Region 1)

Application Number: 220-1003-16988

Project Type: Restoration

Project Name: Brush Creek Large Wood Enhancement

Applicant: Scappoose Bay WC

Region: North Coast

County: Columbia

OWEB Request: \$263,652

Total Cost: \$329,627

Application Description *(from application abstract)*

This project is located in Brush Creek, a tributary to North Scappoose Creek in the southern third of Columbia County. North Scappoose flows into Scappoose Bay, the Multnomah Channel and the lower Columbia River. The project addresses key salmon-production limiting factors identified in the Lower Columbia River Conservation and Recovery Plan (ODFW, 2011) and the Scappoose Creek Limiting Factor Analysis (SBWC, 2012): 1) lack of physical habitat quality and complexity, including low quantity of instream large wood and loss of pools and refuge habitat, and loss of floodplain connectivity; 2) an undersized culvert that is a partial fish barrier; 3) low numbers of riparian conifers for future wood recruitment and poor riparian vegetation; and 4) temperature limitations in mainstem North Scappoose. This project also stems directly from the Scappoose Bay Watershed Strategic Action Plan (SBWC, 2018), which identified restoration actions that address areas with high potential for ecological benefits. The project will install 180 log pieces of large wood along 1.5 miles of creek in summer 2020, replace the existing culvert with a bridge to allow full fish passage, and plant 5000 native conifers, small trees and shrubs during winter 2020-2021. Project is supported by ODFW, Weyerhaeuser, and Scappoose Bay Native Plant Nursery.

Review Team Evaluation

Strengths

- The project will benefit multiple lower Columbia fish species, including coho, steelhead, and Pacific lamprey. The location is within identified anchor habitat.
- Multiple limiting factors within Brush Creek will be addressed by the project by improving habitat complexity and restoring fish passage.
- The project is cost-effective for the amount of work proposed.
- The applicant proactively incorporated previous project review recommendations to address a fish passage barrier within the reach affecting juvenile fish.
- Partnerships strengthen the project and the applicant has effectively worked with the landowner on a solution to the fish passage barrier.
- The design-build approach for the fish passage project elements is technically sound for the low-gradient reach and the installed bridge will allow the stream to move freely in its floodplain.

- The plan for the riparian planting incorporates a diversity of plant species, including the installation of shrubs for beaver forage.

Concerns

- More detail in the planting plan would be helpful to the project evaluation. There is no plant protection included in the plan, which may be beneficial to mitigate impacts from beaver as the trees and shrubs become established. If plant protection is not going to be used, the applicant should consider planting more willow to mitigate potential impacts from beaver.

Concluding Analysis

This cost-effective project addresses multiple limiting factors in a priority location within the Scappoose Bay watershed. The revised project application now includes replacing the road crossing with a bridge and installing large wood structures throughout the project reach to improve habitat complexity. While the planting plan lacks some detail, based on the applicant's track record with implementing similar riparian projects there is high likelihood for achieving successful outcomes.

Review Team Recommendation to Staff

Fund

Review Team Priority

7 of 10

Review Team Recommended Amount

\$263,652

Review Team Conditions

N/A

Staff Recommendation

Staff Follow-Up to Review Team

N/A

Staff Recommendation

Do Not Fund; falls below staff-recommended funding line

Staff Recommended Amount

\$0

Staff Conditions

N/A

Open Solicitation-2019 Spring Offering North Coast (Region 1)

Application Number: 220-1004-16991

Project Type: Restoration

Project Name: Clear Creek Fish Passage
Restoration

Applicant: Nestucca-Neskowin Watersheds
Council

Region: North Coast

County: Tillamook

OWEB Request: \$354,570

Total Cost: \$516,820

Application Description *(from application abstract)*

The Clear Creek fish passage restoration project is located on Tillamook County owned Jenck Road just south of the community of Cloverdale. This culvert is the only mainstem fish passage barrier on Clear Creek. Clear Creek is a 4th order tributary to the Nestucca River that drains a 3,700 acre watershed. From its headwaters, the stream flows through Siuslaw National Forest managed lands before entering private lands and reaching its confluence with Arstell Creek and emptying into the Nestucca River. Clear Creek provides 4.4 miles of fish habitat with 2.5 miles that support spawning and rearing habitat for ESA listed Coho. Chum, steelhead, fall Chinook, coastal cutthroat trout and Pacific lamprey are also present. The existing culvert is a corrugated metal pipe arch undersized and poorly aligned for the stream. The culvert is approaching failure. The project proposes to replace the aging, failing, undersized culvert with an appropriately sized bridge that meets Aquatic Organism Passage Standards and is sized at greater than 1.5x Active Channel Width (ACW). Project partners include: US Forest Service (USFS), US Fish & Wildlife Service (USFWS), Oregon Department of Fish and Wildlife (ODFW), Trout Unlimited (TU), Tillamook County and Nestucca, Neskowin and Sand Lake Watersheds Council (NNSL). USFS, in cooperation with the County and NNSL, has developed a stream simulation plan. Bridge designs were provided by a private engineering firm in cooperation and consultation with the County and USFS. USFS will take the lead to: prepare the project's federal permit under ARBO II, provide NEPA compliance and secure the state DSL permit. NNSL will prepare the county land-use form, ODFW fish passage permit, secure state ESA coverage for fish salvage and file and complete BOLI compliance forms. Tillamook County Public Works has provided survey work and design review and will provide construction oversight and construction easements with affected landowners.

Review Team Evaluation

Strengths

- The project will restore full passage for all life stages of fish to 4.4 miles of low gradient and high quality habitat in the Nestucca watershed. The existing structure is likely a full barrier to Pacific lamprey and its replacement will also improve passage for chinook, coho, chum, steelhead, and cutthroat trout.
- Clear Creek is an important source of cold water refugia in the Nestucca watershed.

- There are strong partnerships established in support of the project that include the County and the USFS.
- The structure slated for replacement is on the Salmon SuperHwy barrier list.
- Restoration of fish passage at this location will build on previous conservation work in the watershed, which includes riparian planting efforts implemented downstream.
- The project is well designed and considers climate change in the design approach.
- The applicant has a proven track record implementing similar types of fish projects in the basin.

Concerns

- The structure is only a partial barrier to most aquatic species and is water velocity limited to salmon. The overall cost-benefit of the investment is limited because there is currently some passage at the site. Addressing the barrier may not have significant impact to watershed health for the cost.
- A planting plan is not included in the application, and portions of the project area would benefit from additional riparian vegetation cover.
- The project is at 30% designs currently, meaning a design-build approach will be taken to get the project implementation-ready. This can result in unexpected cost fluctuations and some uncertainty that the budget may not include all necessary costs for implementing the project.
- The line item in the budget for traffic control expenses seems high.

Concluding Analysis

Replacing the Clear Creek culvert will restore access to 4.4 miles of habitat for a variety of aquatic species, including Pacific lamprey. While the project is only at 30% designs, given the experience of the project team and the local support behind the project, there is a likelihood of success in achieving the expected outcomes with a design-build approach.

Review Team Recommendation to Staff

Fund

Review Team Priority

6 of 10

Review Team Recommended Amount

\$354,570

Review Team Conditions

N/A

Staff Recommendation

Staff Follow-Up to Review Team

N/A

Staff Recommendation

Do Not Fund; falls below staff-recommended funding line

Staff Recommended Amount

\$0

Staff Conditions

N/A

Open Solicitation-2019 Spring Offering

North Coast (Region 1)

Application Number: 220-1005-16992

Project Type: Restoration

Project Name: Bummer Creek Tributary Fish Passage

Applicant: MidCoast WC

Region: North Coast

County: Benton

OWEB Request: \$48,390

Total Cost: \$60,840

Application Description *(from application abstract)*

This project is located approximately 1.5 miles south of the town of Alsea on Bummer Creek, the largest 4th order tributary of the South Fork Alsea River. Bummer Creek is designated as a high priority anchor habitat for the recovery of listed Oregon Coast Coho (OCC) within the Alsea Basin. However, a BLM assessment ranked Bummer Creek as the most at-risk 6th field in the South Fork Alsea Watershed. In response to the ranking, a 2005 OWEB- funded Limiting Factors Analysis (LFA) was conducted in Bummer Creek. The LFA identified two major co-limiting factors for coho production: 1) a limited availability of high-quality spawning gravel, and 2) excessive summer stream temperatures. In a similar vein, the 2016 Coho Recovery Plan notes that for the Alsea coho population, the primary limiting factor is stream complexity, with water quality (excessive summer temperatures) identified as a secondary limiting factor. This proposed project addresses these limitations by restoring fish passage to 0.85 tributary miles with cold water refugia and extensive rearing habitat in a perennial pond-wetland complex, arresting a headcut, and adding complexity by placing large wood and stream bed materials. This work compliments past and on-going work with many partners in the sub-basin. On this project, active partners include the landowners and the Oregon Wildlife Foundation.

Review Team Evaluation

Strengths

- Restoration at this location has the potential to benefit a myriad of terrestrial and avian wildlife species.
- The project aims to stabilize a headcut on a tributary of Bummer Creek, which will restore fish passage.
- Bummer Creek is a high priority for salmonids and the project could increase access to beneficial overwintering stream habitat.

Concerns

- Previous project evaluation concerns and recommendations from restoration and technical assistance applications are not addressed. The application does not address concerns regarding the in-line pond and its effect on temperature, the design for the culvert and the inclusion of armoring, and the use of boulders in the system. Designs submitted in the application include project components that

were previously identified as concerns during the project evaluation, such as installation of water control structures, but are not described in the application.

- A major benefit of the fish passage work described in the application is cool-water refugia, but the subject tributary is seasonally dry and would not be able to contribute cold water habitat during the summer when it is most needed.
- The active channel width is not listed in the application, making it difficult to gauge the effectiveness and technical soundness of the design approach.
- It is unclear how connecting the in-line pond will provide fish habitat benefits. Since the in-line pond has complete solar exposure, it is unlikely to address temperature water quality issues.
- Overall habitat goals and objectives do not match the watershed landscape and the proposed restoration actions do not have a clear connection to addressing limiting factors in the watershed.
- The site has limited potential for restoration.

Concluding Analysis

Overall, the site seems to have limited potential for providing watershed health benefits as a result of the type of restoration proposed, and the planned actions do not clearly connect to and address the limiting factors in the basin. Due to the lack of proposal clarity, it is difficult to determine the technical soundness and likelihood of success for this project.

Review Team Recommendation to Staff

Do Not Fund

Review Team Priority

N/A

Review Team Recommended Amount

\$0

Review Team Conditions

N/A

Staff Recommendation

Staff Follow-Up to Review Team

N/A

Staff Recommendation

Do Not Fund

Staff Recommended Amount

\$0

Staff Conditions

N/A

Open Solicitation-2019 Spring Offering

North Coast (Region 1)

Application Number: 220-1006-16996

Project Type: Restoration

Project Name: Peterson Creek Aquatic Organism Passage Improvement

Applicant: Tillamook Estuaries Partnership

Region: North Coast

County: Tillamook

OWEB Request: \$372,300

Total Cost: \$992,260

Application Description *(from application abstract)*

An existing 8.0 ft culvert located where Miami Foley Road crosses Peterson Creek, a tributary of the Miami River (Tillamook Bay Watershed, Tillamook County, Oregon) is undersized for the size of stream it conveys and its outlet is perched during low water conditions. As a result, the culvert adversely affects aquatic organism passage (including blocking or impeding passage of juvenile salmonids and all life stages of Pacific lamprey) to approximately six miles of upstream habitats. It also adversely affects stream processes, including transport of stream bed materials and organic matter. In addition, due to its size and condition, the existing structure is at risk of catastrophic failure and, thus, poses a serious risk to human health and safety as well as to downstream water and habitat quality and survival of aquatic organisms. Construction-ready designs were completed in April 2019. The proposed project will remove the existing culvert and construct a 48-ft open span, concrete bridge. To assure long-term aquatic organism passage and proper stream function, the project will construct approximately 85 feet of stream simulation channel in the area disturbed by construction of the new bridge. Oregon Dept. of Fish & Wildlife has reviewed project designs and issued a fish passage authorization letter (Authorization No. PA-01-0150). We have initiated other permitting processes, but none are final at this time. Post-construction monitoring will be consistent with NOAA Tier I guidelines and OWEB requirements. OWEB funds will support contracted services needed to construct the replacement structure. They will supplement funds and in-kind support from the National Oceanic & Atmospheric Admin., US Fish & Wildlife, Tillamook County, US Forest Service, Tillamook Estuaries Partnership and Trout Unlimited.

Review Team Evaluation

Strengths

- A culvert that is nearly a full passage barrier will be replaced with a bridge, restoring full access to all life stages of salmon and Pacific lamprey to 6 miles of high quality stream habitat.
- There are strong partnerships behind the project that includes a collaboration with the County, USFWS, NOAA, and USFS.
- The project is an identified barrier on the Salmon SuperHwy list and is a priority for replacement for state and federal natural resource agencies.
- The project also has ancillary social benefits. Since the existing structure is close to catastrophic failure, replacing the culvert will prevent impacts to downstream landowners.

- The designs have been completed and are technically sound. The appropriate agencies are involved and have issued fish passage approvals.
- The applicant is professional with capacity to implement the project; there is a high likelihood of success given their previous track record for implementing similar types of projects.
- The project capitalizes on other planned projects by coordinating implementation with similar work nearby to reduce project costs.

Concerns

- Additional detail about the use of boulders in the project design would be helpful to understand how they are necessary for increasing habitat diversity.
- The project's planting plan is minimal and given the extent of non-native vegetation present on the site, this plan may miss an opportunity to improve native plant diversity.
- Portions of the application are repetitive, reducing overall proposal clarity.
- For a project proposed as an Aquatic Organism Passage project, details are missing in the application about other species besides salmon that would provide helpful context to understand the extent of habitat benefits that will be gained from this investment.

Concluding Analysis

This shovel-ready project will restore full access to over 6 miles of high priority habitat in Peterson Creek, a tributary of the Miami River. The structure to be replaced is the only barrier within the system, and it is currently perched during low water conditions. It is likely a full barrier to all life stages of fish for extended periods throughout the year, and its replacement is a priority for project partners working within the Miami watershed. The collaboration and partnerships behind the project are strong and extensive, and the County's involvement with another crossing nearby allows the project team to achieve cost savings and efficiencies during implementation. There is high likelihood that the stated restoration goals and objectives will be achieved.

Review Team Recommendation to Staff

Fund

Review Team Priority

2 of 10

Review Team Recommended Amount

\$372,300

Review Team Conditions

N/A

Staff Recommendation

Staff Follow-Up to Review Team

N/A

Staff Recommendation

Fund

Staff Recommended Amount

\$372,300

Staff Conditions

N/A

Open Solicitation-2019 Spring Offering North Coast (Region 1)

Application Number: 220-1007-16997

Project Type: Restoration

Project Name: Coho Creek Fish Passage Project - Seaside

Applicant: Necanicum WC

Region: North Coast

County: Clatsop

OWEB Request: \$355,979

Total Cost: \$580,740

Application Description *(from application abstract)*

Coho Creek is a tributary to Neawanna Creek in the Necanicum River watershed within Seaside city limits in Clatsop County. The culverts to be replaced are juvenile and adult fish passage barriers under certain flow conditions and impair natural channel processes impacting ESA listed coho, Pacific lamprey, winter steelhead and cutthroat trout. The project involves three existing, undersized culverts. The project proposes to permanently remove two culverts and relocate the City's sewer main which currently is installed over the top of the culverts. In addition, the project proposes to replace the existing undersized culvert crossing under Wahanna Road with a 19' open bottom, multiplate arch with natural stream simulation that meets the design criteria of 1.5x active channel width. The project will improve fish access to 0.5 miles of stream habitat. Project partners include: City of Seaside and Oregon Department of Fish and Wildlife.

Review Team Evaluation

Strengths

- Proposed restoration builds upon previous OWEB investments in fish passage upstream of the project site, and this crossing is the last remaining barrier in the system.
- The designs for the crossing replacement are technically sound.
- The applicant has organizational capacity for completing this type of project, and has experience with similar projects such as the successful upstream fish passage project that is functioning well.
- Coho Creek has a thriving coho population that could be negatively impacted if the subject crossing were to fail. Replacing the crossing will improve rearing habitat for multiple species of salmonids.
- The project provides habitat connectivity with an upstream tidally-influenced wetland with an alder-slough sedge-skunk cabbage plant community that is considered globally rare.
- Previous application evaluation concerns are addressed with this submittal, and the project cost is reasonable for the expected watershed health benefit.
- The City of Seaside is a committed and engaged partner, which is demonstrated by inclusion of funding for the project in the current City's budget. Delaying implementation may put this funding at risk.

Concerns

- There is funding in the budget for turbidity monitoring, but monitoring details are unclear in the application.
- Restoration will result in limited fish passage benefit because the crossing provides access to only 1.4 miles of fish habitat and it is not a complete barrier currently; fish are still able to access upstream habitat to a limited extent.

Concluding Analysis

Replacing this barrier at Wahanna Road in Seaside will improve fish passage to valuable rearing habitat in the Neawanna estuary. While the project is likely to succeed in meeting restoration goals, it will provide minimal ecological benefit due to the relatively short length of resulting restored stream habitat compared with similar fish passage projects. Given the significance of the stream to the local community, the project is a reasonable investment for the watershed benefit.

Review Team Recommendation to Staff

Fund

Review Team Priority

8 of 10

Review Team Recommended Amount

\$355,979

Review Team Conditions

N/A

Staff Recommendation

Staff Follow-Up to Review Team

N/A

Staff Recommendation

Do Not Fund; falls below staff-recommended funding line

Staff Recommended Amount

\$0

Staff Conditions

N/A

Open Solicitation-2019 Spring Offering North Coast (Region 1)

Application Number: 220-1008-17019

Project Type: Restoration

Project Name: Upper Big Creek Road
Decommissioning

Applicant: North Coast WS Assn

Region: North Coast

County: Clatsop

OWEB Request: \$195,059

Total Cost: \$279,669

Application Description *(from application abstract)*

Camp 7 Spur is a 1.2 mile stretch of legacy logging road adjacent to Big Creek that encroaches on the floodplain and needs to be abandoned. This project is located on Hampton Lumber forest land upstream of the Big Creek Fish Hatchery and the town of Knappa, 15 miles east of Astoria. This legacy haul-route roadbed constricts Big Creek's width, confining it to a much narrower floodplain and the basin's logging history has left the channel largely devoid of complexity and structure. Big Creek upstream from the ODFW fish hatchery is a priority stream for ESA listed species in the Nicolai-Wikiup Watershed because it is the only location in the watershed inaccessible to competition from hatchery fish. This project proposes to implement restoration actions to improve fish habitat and channel processes including: 1) obliterate sections of road that are in the stream floodplain including removing road fill, 2) remove existing cross drains and restore natural drainage, 3) remove tributary culverts and associated road fill, 4) plant conifer along road bed, 5) remove two bridges and abutments, saving one for re-use 6) install large wood placements to improve spawning and rearing habitat, promote floodplain connectivity, and increase off-channel refugia. This project has been identified by local residents and the Nicolai-Wikiup Watershed Council as the number one priority for implementation. This project is top priority for NCWA because there is strong community support to see it through and we need to take advantage of the landowner's willingness to move forward on the project. Bringing in OWEB funds will allow us to install large wood structures along this vital stretch of spawning habitat that will no longer be accessible on the ground after abandonment. This project will have downstream effects and multi-species benefit. Project partners include the private landowner, Hampton Lumber and the North Coast Watershed Association (NCWA).

Review Team Evaluation

Strengths

- Big Creek is a high priority area to improve habitat for ESA-listed species in the Nikolai-Wikiup watershed, including coho salmon.
- The project will remove and alter sections of a road in the riparian area, decreasing its impact on fish and wildlife and reducing the amount of sediment that enters the stream.
- A planned timber harvest in the basin will provide the necessary material for the large wood placements.

- The application addresses some of the previous project evaluation recommendations by altering project designs for road decommissioning accordingly.
- The landowner is engaged and committed to a successful restoration project.

Concerns

- There are no dimensions or calculations within the project designs provided in the application to demonstrate how the volumes of cut-fill material to remove roads were arrived at.
- There seems to be a disconnect between the technical provider and the remainder of the project team on the biological intent of the project. As a result, it is unclear how the plans for addressing the landslide and accessing the project area will effectively achieve targeted watershed outcomes.
- The designs as proposed will leave a significant amount of fill in the floodplain. The applicant explained on the review site visit that this fill would be left on site for the stream to take care of through flood events that will carry it downstream.
- Some previous project evaluation concerns are not addressed, for example, the upstream bridge will be left in the forest. Further explanation on why the bridge must remain would provide helpful context for evaluating the project.
- The planting plan is basic and lacks diversity.

Concluding Analysis

This project will address limiting factors in the Nicolai-Wikiup watershed and is a priority location to improve habitat for lower Columbia fish species. Project designs provided for the road removal and decommissioning are not sufficient to evaluate the effectiveness of the proposed approach it is difficult to determine the likelihood of success for this project. If the application is resubmitted, the applicant is encouraged to provide proficient design details and technical explanation of the plans for fill and bridge removal.

Review Team Recommendation to Staff

Do Not Fund

Review Team Priority

N/A

Review Team Recommended Amount

\$0

Review Team Conditions

N/A

Staff Recommendation

Staff Follow-Up to Review Team

N/A

Staff Recommendation

Do Not Fund

Staff Recommended Amount

\$0

Staff Conditions

N/A

Open Solicitation-2019 Spring Offering

North Coast (Region 1)

Application Number: 220-1009-17040

Project Type: Restoration

Project Name: Yaquina Tidal Wetland Restoration

Applicant: MidCoast WC

Region: North Coast

County: Lincoln

OWEB Request: \$435,736

Total Cost: \$639,026

Application Description *(from application abstract)*

This project restores a 55-acre tidal wetland site along the Yaquina River just upstream of the town of Toledo. The Yaquina estuary has lost about 70% of these vegetated tidal wetland habitats due to diking, ditching and tide-gating. This has reduced salmonid rearing habitat and other valuable ecosystem services. Restoration will increase tidal water inundation and connectivity to the marsh by removing about half of the remnant dike, filling drainage ditches, creating new tidal channels to increase rearing habitat for fish, placing sediment and large wood structures in strategic areas. Extensive seeding and planting of native forbs, shrubs and trees will also occur. These activities will also help to restore tidal flow, encourage the development of emergent wetland and transitional shrub and spruce swamp by fostering conditions that allow for the spread and establishment of high and low marsh vegetation and scrub-shrub and spruce swamps, to increase habitat diversity and complexity and provide traditional materials for native basketry and other uses. Additionally, restoring sediment and wood inputs and tidal flow will allow for the re-establishment of marsh vegetation whose growth and senescence is critical to building up the marsh plain which is highly subsided due to its long diking history, providing resiliency to sea level rise. Conservation ownership in perpetuity by The Wetlands Conservancy (TWC), will assure the restored ecosystem functions continue to sustain and support endangered coho salmon and other federally listed species (e.g. green sturgeon, eulachon). Other partners include: City of Toledo, Confederated Tribes of Siletz Indians, Oregon Central Coast Estuary Collaborative, Pacific Marine and Estuarine Fish Habitat Partnership, Pacific States Marine Fisheries Commission, The Wetlands Conservancy, Oregon Department of Fish and Wildlife and US Fish and Wildlife Service Partners for Fish and Wildlife.

Review Team Evaluation

Strengths

- The project will restore and enhance 55 acres of estuarine habitat, a priority habitat type in the central coast. Restoration at this site is an identified priority in the Oregon Central Coast Estuary Collaborative (OCCEC) Strategic Action Plan.
- The design approach is technically sound and innovative, including features such as embedding large wood to use as a sponge to retain water. The approach also considers and plans for long term climate change impacts and employs an adaptive management approach.
- The project is likely to achieve significant water quality benefits in this section of the lower Yaquina.

- Restoration of tidally influenced habitat at this site will benefit many species. In addition to chinook, coho, and chum, habitat will be restored for marine species, such as flounder and bay shrimp.
- The project builds on previous conservation investments in the watershed and is the result of a previously funded OWEB Technical Assistance grant.
- The planting design is well-thought out and includes a diverse array of estuarine plant species.

Concerns

- No significant concerns were identified during the review.

Concluding Analysis

The project will restore and enhance 55 acres of tidally influenced habitat in a priority location within the Yaquina estuary. The design approach is thoughtful and considers past lessons learned with similar types of work as well as recent research looking at climate change resiliency. The project has built strong partnerships and the owner of the site is a land trust, ensuring the property and restoration work is protected into perpetuity. Restoration at this location is an identified priority in several strategic action plans and will benefit multiple fish and wildlife species. The assembled project and design team has capacity to implement the work and there is a high likelihood of success in meeting the stated restoration goals and objectives.

Review Team Recommendation to Staff

Fund

Review Team Priority

1 of 10

Review Team Recommended Amount

\$435,736

Review Team Conditions

N/A

Staff Recommendation

Staff Follow-Up to Review Team

N/A

Staff Recommendation

Fund

Staff Recommended Amount

\$435,736

Staff Conditions

N/A

Open Solicitation-2019 Spring Offering North Coast (Region 1)

Application Number: 220-1010-17044

Project Type: Restoration

Project Name: Neskowin Fish Passage Improvement Project

Applicant: Nestucca-Neskowin Watersheds Council

Region: North Coast

County: Tillamook

OWEB Request: \$391,494

Total Cost: \$556,494

Application Description *(from application abstract)*

The project site is located in the town of Neskowin, Oregon at the southern end of Tillamook County. Neskowin Creek, Hawk Creek and Butte Creek run through Neskowin and join to form an estuary before emptying into the Pacific Ocean. Hawk Street is a private foot path that runs north from the OPRD owned Neskowin Beach Wayside. Hawk Street crosses over two tide-gated arch culverts draining Butte Creek, one culvert draining Hawk Creek and one culvert draining a small wetland channel. Fish passage and natural stream function are currently limited in Hawk and Butte Creeks due to these crossings; the culverts and associated tidegates are undersized and failing. The culverts are velocity barriers to juveniles during high flows, and limit the ability of the fish to access critical rearing habitat and refuge areas. Wetlands, including the Neskowin Marsh managed by USFWS, are on both sides of Hawk Street and provide important refugia and rearing habitat for aquatic species. During high winter flows and storm surges, the culverts in the project site are often overtopped and easily clogged with debris, posing a flood risk for Neskowin residents and a maintenance challenge for the County. Hawk Street itself acts as a partial dike, blocking flow between the North and South portion of Hawk Creek. This area is inundated during winter storm events. The wetlands lower flood peaks, reduce water velocities, hold run-off, trap sediments and filter pollutants and nutrients. These factors reduce flood risk and improve water quality and habitat on Hawk and Butte Creeks. By replacing the culvert and tidegate structures with bridges, this project seeks to improve fish passage and habitat access. The project will additionally improve hydraulic connectivity reduce flood risk and increase resiliency. Project partners include: Tillamook County, US Forest Service, Oregon Parks & Recreation Department and private landowners

Review Team Evaluation

Strengths

- Work within the Neskowin stream system could benefit coho fish populations by adding diversity to the gene pool.
- Improved water flow conveyance will benefit water quality.
- The project could improve connectivity to a nearby marsh with fish rearing habitat.

Concerns

- Hawk and Butte Creeks have dependent populations for coho. Dependent populations are small and isolated, and persist by attracting strays from other basins. As a result, these creeks are not considered priority locations to restore fish habitat.
- The proposed project is part of an emergency egress road construction project. By designing the fish passage work in connection with this egress project, the cost for addressing fish passage is substantially high for the benefit to fish. The design also precludes a more complete approach to habitat restoration within the estuary that considers watershed process and function for the entire floodplain. As a result, the project cost for the resulting watershed benefit is high.
- The project nexus with the emergency egress road work creates uncertainty for whether an investment of conservation funds can achieve meaningful ecological benefits at a reasonable cost. The application would benefit from more explanation as to the expected uplift resulting from this project to help determine project cost effectiveness for the watershed outcomes.
- The application includes design information that indicates a 1.5:1 active channel width ratio will be achieved to meet federal fish passage criteria. During the review site visit it was determined this criteria will actually not be met. Increasing the width of the crossings to meet federal fish passage standards will significantly increase the project cost.

Concluding Analysis

This fish passage project involves constructing two bridges and associated tidegates to improve fish passage along a proposed emergency egress road being constructed in the City of Neskowin. While the project will improve fish passage, the dependent status of the fish populations reduces the priority of an investment at the project location. Additional detail explaining how the emergency egress and fish passage project components are integrated to achieve meaningful impact to watershed health would provide information useful in evaluating the likelihood of success for the project to achieve cost effective ecological benefits.

Review Team Recommendation to Staff

Do Not Fund

Review Team Priority

N/A

Review Team Recommended Amount

\$0

Review Team Conditions

N/A

Staff Recommendation

Staff Follow-Up to Review Team

N/A

Staff Recommendation

Do Not Fund

Staff Recommended Amount

\$0

Staff Conditions

N/A

Open Solicitation-2019 Spring Offering North Coast (Region 1)

Application Number: 220-1011-17066

Project Type: Restoration

Project Name: ECFR Beaver Habitat Restoration

Applicant: North Coast WS Assn

Region: North Coast

County: Clatsop

OWEB Request: \$34,678

Total Cost: \$44,098

Application Description *(from application abstract)*

The Ecola Creek Forest Reserve (ECFR) comprises of 1,040 acres within the Ecola Creek watershed. Historically in the Oregon Coast watersheds, there was an abundance of beavers, however due to land management practices, the number of beavers has drastically decreased leaving an irreplaceable impact on the landscape and disruption in ecological processes. Beavers benefit the watershed by creating pools of water off of main channels where nutrient rich sediment attract a complex food web supporting salmonids and other aquatic life. The pools store cool water from winter runoff ultimately creating a more stable water supply and provide rearing habitat for salmonids while the air and surface water temperatures rise in the mid summer months. The goal of the project is to support, expand, and retain beaver populations in the watershed as a natural promotor of habitat complexity. By recovering beaver habitats in the ECFR we improve the health of the watershed by restoring needed forage to support the vital ecological functions provided by beaver. North Coast Watershed Association is partnering with The City of Cannon Beach to hire a contractor to implement beaver restoration. The contractor will develop a habitat survey and replanting plan and create habitat recovery sites to attract and support populations of beaver that are struggling to reestablish within the reserve due to habitat shortages. This project will restore beaver habitat in the Ecola Creek Forest Reserve, meeting needs identified in the 2013 ECFR Stewardship Plan to support beaver populations in this protected system. The desire to work on beaver restoration has been building at the Ecola Creek Watershed Council since reviewing the "ESA Recovery Plan for Oregon Coast Coho Salmon: Strategies and Actions for the North Coast Stratum" at a meeting about two years ago. This opportunity is a perfect example of a grassroots effort inspired by national science and supported by local government and nonprofit.

Review Team Evaluation

Strengths

- Enhancing beaver habitat is a priority in the north coast and provides opportunity for a low-risk habitat restoration technique at a reasonable cost. Legacy beaver activity has been noted in the watershed, indicating there is possibility of successfully attracting the species to return.
- The project builds upon other restoration work in the Ecola Creek watershed, including a recently-implemented large wood placement project.

- The landowner and project partners are engaged and enthusiastic about beaver restoration. The City of Cannon Beach has worked to conserve the municipal watershed and is eager to accomplish restoration work that benefits watershed health. The City has contributed funding for a beaver survey that will help tailor the resulting restoration design.
- Restoring beaver habitat within the Ecola Creek Forest Preserve will improve floodplain connectivity.
- There are opportunities to raise public awareness at this project location given the high public use and visibility.

Concerns

- It is unclear as to why beaver are not currently present at the project site, it may be that existing habitat is not suitable for beaver. The proposed plan to increase plantings may not be enough to address the habitat limitations causing beaver to not utilize the site. Without understanding the causes for beaver to be absent, there may not be a lot of existing restoration opportunities within the Ecola Creek watershed.
- There may be missed opportunities to consider a whole watershed approach to more effectively achieve restoration outcomes.
- The project would benefit from more partnerships with state and federal wildlife agencies.

Concluding Analysis

This is a cost-effective project with a committed landowner that will encourage beaver in the Ecola Creek forest. Establishing beaver within the forest could help improve floodplain connectivity and fish habitat, and build on other past restoration completed within the basin. Legacy beaver structures have been encountered within the forest, and the City's enthusiasm in encouraging beaver in the watershed is commendable. The project provides an outreach opportunity to raise public awareness about beaver, and the resulting restoration has potential for high ecological benefit if beaver return to the basin.

Review Team Recommendation to Staff

Fund

Review Team Priority

9 of 10

Review Team Recommended Amount

\$34,678

Review Team Conditions

N/A

Staff Recommendation

Staff Follow-Up to Review Team

N/A

Staff Recommendation

Do Not Fund; falls below staff-recommended funding line

Staff Recommended Amount

\$0

Staff Conditions

N/A

Open Solicitation-2019 Spring Offering North Coast (Region 1)

Application Number: 220-1012-17073

Project Type: Restoration

Project Name: Fivemile-Bell Restoration Project,
Phase 5

Applicant: Siuslaw WC

Region: North Coast

County: Douglas

OWEB Request: \$362,704

Total Cost: \$693,179

Application Description *(from application abstract)*

This application is in support of Phase 5 of the ten-year, multi-phase, collaborative Fivemile-Bell Restoration Project (Project). The Project area is located about 10 miles southeast of Florence, Oregon, and includes the sub-watershed of Fivemile Creek of the Tahkenitch Lake basin 6th-field watershed in Douglas County (Maps 1 and 2). Phase 5 project actions are focused in Middle Bell Creek, with additional actions planned in Upper Bell Creek and in Middle and Lower Fivemile Creek (Maps 4-7). Phase 5 is the last anticipated phase of the Fivemile Bell Project. Tahkenitch Lake is home to the healthiest run of wild Coho salmon in Oregon. The estimated population of returning adults in the winter of 2010/2011 was over 10,000 Coho. Tributary streams of Tahkenitch Lake consistently have hundreds of adult Coho salmon spawning each year per mile of stream. While strong when compared with Coho returns throughout the other Oregon Coast Coho populations, historic runs have been estimated near 23,000 (Lawson et al, 2007). Declines in the Tahkenitch Lake salmon runs since the late 1800s correspond to land and resource use actions that reduced the available high quality habitat, including the introduction of warm-water fish species to the lake, the draining and diking of wetlands, the clearing of valley bottoms and channelization of streams to increase available agricultural land, and timber harvest practices. As a result, existing conditions in the Fivemile Creek sub-watershed, the largest tributary to Tahkenitch Lake, were found to have adversely affected Coho salmon production and a landscape-scale restoration project was developed (USFS 5M LMP, 2012). Proposed work in Phase 5 includes channel reconstruction, valley regrading and re-contouring, large wood placement, invasive plant control and native plant revegetation. Project partners include the Siuslaw National Forest, the Siuslaw Institute, and the Siuslaw Watershed Council.

Review Team Evaluation

Strengths

- The project is the final phase of a decade long, award-winning restoration project that has achieved landscape level benefits in a rare opportunity to restore an entire valley bottom.
- The Tahkenitch Lake watershed is a coho stronghold and the project addresses fish habitat limiting factors by increasing rearing habitat in an area that provides juvenile fish protection from predation by introduced warm water fish species present in the lake.

- The restoration design is process-based and addresses causes of watershed disturbance instead of symptoms, which will provide a myriad of ecological benefits.
- The diverse and comprehensive planting plan is modeled after the reference site conditions of nearby Leitel Creek, and a decade of vegetation monitoring has occurred to track success in meeting that objective. A diverse native plant community will be re-established that includes sedges, grasses, and forbs.
- The project team has a proven track record of success and has adopted a well-considered approach to adaptive management of the project, responding with each phase to lessons learned on the ground during previous phases of project implementation
- After the project's conclusion, the partners plan to compile lessons learned and ten years of monitoring data into a document that can be utilized by others planning similar types of work.

Concerns

- There is the potential for short term stream impacts with this process-based restoration design, including stream temperature increases.
- Extensive biological monitoring has not been completed with this type of restoration work. The application would benefit from a proposal to conduct additional monitoring to evaluate the effectiveness of the restoration techniques proposed.

Concluding Analysis

The Fivemile-Bell project is a long-term effort where the results of the initial phases are already visible and highly regarded by restoration practitioners around the Pacific Northwest. The project serves as a model for other similar restoration and has received wide acclaim in the restoration community. Since coho are highly adapted to this type of restoration and the watershed health benefits outweigh the potential for short term impacts to the stream, the restoration technique proposed is low risk with potential for high ecological gains. Proposed restoration has a high likelihood of success in achieving cost-effective ecological benefits at a scale that will have significant impacts for watershed health.

Review Team Recommendation to Staff

Fund

Review Team Priority

3 of 10

Review Team Recommended Amount

\$362,704

Review Team Conditions

N/A

Staff Recommendation

Staff Follow-Up to Review Team

N/A

Staff Recommendation

Fund

Staff Recommended Amount

\$362,704

Staff Conditions

N/A

Open Solicitation-2019 Spring Offering

North Coast (Region 1)

Application Number: 220-1013-16999

Project Type: Technical Assistance

Project Name: Strategic Action Plan Data
Synthesis and Finalization

Applicant: Columbia SWCD

Region: North Coast

County: Columbia

OWEB Request: \$49,500

Total Cost: \$66,800

Application Description *(from application abstract)*

The Lower Columbia River Watershed Council (LCRWC) is pivoting toward a more strategic approach to developing restoration projects. A Draft Strategic Action Plan (SAP) has been developed to provide guidance to identify and develop restoration opportunities in collaboration with LCRWC partners. The draft SAP along with existing spatial datasets provides the basis for identifying high value restoration strategies and project types to support fish habitat and restoration needs throughout the Council's watersheds. More information is necessary to verify the utility of datasets used in the development of the SAP that underpin the strategies used to identify and address limiting factors broadly outlined in the Lower Columbia River Conservation and Recovery Plan. The proposed assessment will provide resources to identify existing gaps in stream habitat information and other data, target areas for additional field data collection, and evaluate the data to identify reach-specific limiting factors. Additional information on stream habitat and reach-specific limiting factors will be incorporated into the SAP. The Council will use an established Technical Advisory Committee (TAC) that will develop a solicitation package to select a qualified consulting firm to complete the assessment. The consultant will work with TAC to develop and target an approach to prioritize areas in selected reaches of the Lower Columbia watersheds. TAC will meet regularly with consultant team to review data analysis and translation into the SAP. Spatially-explicit information from this effort will overlaid with existing basemaps and new habitat assessment information to refine existing data sets. The new information will identify reach-specific limiting factors and contribute to a prioritized restoration strategy. The Council has included an environmental education component that involves high school environmental education students to assist in assessment and collection of field data.

Review Team Evaluation

Strengths

- The applicant is pivoting toward a more strategic approach to project implementation, and completing the proposed strategic action plan will assist with that goal.
- The consultant team providing the services to the Council is familiar with the area.
- The project has ancillary community engagement benefits.

- The project area has considerable habitat potential; however, it is an area that is often overlooked by other funding sources.
- The described data synthesis is well-intentioned by building a strategic approach in the Clatskanie watershed, which is a priority location for native fish habitat restoration.

Concerns

- The organizational capacity of the applicant is uncertain given their current model of utilizing a consultant to provide coordinator services. Without a staff person dedicated to the Council, it is unclear whether future eligible restoration projects can successfully be developed and implemented in a timely manner.
- The application does not have enough detail on the scope of work to understand the deliverables expected from this project. The description of the proposed field surveys is vague, both the survey locations and the type of survey work proposed is unclear.
- Developing lesson plans for the local high school is not an eligible use of OWEB funds because the primary purpose is education.
- The Strategic Action Plan is currently in draft form, and it is unclear how the addition of reach-specific data as proposed will inform the limiting factor analysis or how it will add value to the existing plan.

Concluding Analysis

The project area is a priority location for many natural resource agencies and the transition into a strategic approach to project planning is appreciated and encouraged. However, previous project evaluation comments are not addressed in this application. Plans for the survey work are still unclear because key details are missing about the type and location of the field surveys and how the data will be incorporated into the existing draft Strategic Action Plan.

Review Team Recommendation to Staff

Do Not Fund

Review Team Priority

N/A

Review Team Recommended Amount

\$0

Review Team Conditions

N/A

Staff Recommendation

Staff Follow-Up to Review Team

N/A

Staff Recommendation

Do Not Fund

Staff Recommended Amount

\$0

Staff Conditions

N/A

Open Solicitation-2019 Spring Offering

North Coast (Region 1)

Application Number: 220-1014-17016

Project Type: Technical Assistance

Project Name: Page Creek, Fish Passage and Habitat Complexity Design

Applicant: Columbia SWCD

Region: North Coast

County: Columbia

OWEB Request: \$50,380

Total Cost: \$63,130

Application Description *(from application abstract)*

The Page Creek watershed has undergone a number of restoration treatments to the expand amount of available habitat for needs local salmon and steelhead populations. The proposal solicits resources to expound upon the success of previous restoration efforts to maximize the ecological potential of the Page Creek subwatershed in the Clatskanie Basin (RM 8.8). Funds will be used to procure technical services related to removal of a fish barrier to re-establish access to spawning habitat. Scope of effort also includes design elements that contribute to instream habitat complexity. Pre-design information is needed in the form of topographic and geotechnical surveys necessary for understanding existing condition as well as informing design alternatives. Funds will be used to solicit proposals from established engineering firms to conduct hydrologic and hydraulic analysis to ensure sustainable design to balance both regulatory and local community needs . Scope of engineering services include 30% design sets for new road crossing, instream woody debris placement and climate change resiliency experience. Selected firm will work collaboratively with the watershed council and partners to incorporate baseline information and local knowledge into design process. Firm will also be responsible for assisting the watershed council in vetting design concepts with regulatory community and provide input to permitting applications. Project represents a unique project management structure that partnering with ODFW expertise as well as timber companies local knowledge, equipment, and materials to maximize restoration effort and project cost-effectiveness.

Review Team Evaluation

Strengths

- The Clatskanie basin is a high priority for ODFW for Lower Columbia fish habitat restoration.
- The technical assistance work will lead to the replacement of the last remaining barrier on Page Creek and complement previous fish passage investments downstream.
- The landowner is highly supportive and engaged in the project.
- Geotechnical work will be conducted as part of this complex project, which is an important activity to ensure the technical soundness of the design approach.

Concerns

- It is unclear whether the applicant has the organizational capacity to manage the proposed technical assistance work. Since the budget lacks a line item for project management of the technical services work, it is unclear how the applicant plans to ensure the project is successfully implemented.
- Inclusion of broader partnerships would strengthen the project.
- It is unclear what the plan is to achieve 100% designs.

Concluding Analysis

The application is improved from the previous submittal with the inclusion of a broader geotechnical investigation and a more refined and specific budget for the technical assistance work. While the project would benefit from additional partnerships, the opportunity to repair the last remaining barrier on Page Creek will provide high ecological benefit to the Clatskanie basin. The engaged and active landowner and committed Council board indicate the project has a likelihood of success.

Review Team Recommendation to Staff

Fund

Review Team Priority

4 of 4

Review Team Recommended Amount

\$50,380

Review Team Conditions

N/A

Staff Recommendation

Staff Follow-Up to Review Team

N/A

Staff Recommendation

Do Not Fund; falls below staff-recommended funding line

Staff Recommended Amount

\$0

Staff Conditions

N/A

Open Solicitation-2019 Spring Offering

North Coast (Region 1)

Application Number: 220-1015-17021

Project Type: Technical Assistance

Project Name: Lower Nehalem Tributary Junctions
Large Wood Engineering Designs

Applicant: Lower Nehalem WC

Region: North Coast

County: Tillamook

OWEB Request: \$74,140

Total Cost: \$94,540

Application Description *(from application abstract)*

The proposed projects are located at 7 high priority cool water tributary confluences with the lower Nehalem River beginning at Foley Creek at Nehalem river mile ~6 on the downstream end to Spruce Run Creek at Nehalem river mile ~30 at the upstream end and includes Fall Creek, Lost Creek, Cook Creek, Hellof-Rector Creek, Salmonberry River inbetween. All but one site is located within Tillamook County. Spruce Run Creek is located in Clatsop County. The project goal is to develop engineering design alternatives for large wood placements at the confluence zones of these tributary streams. During the Lower Nehalem Watershed Council's recent (2018) Rapid Bio-assessment Assessment channel surveys, these tributaries were identified as cool water refugia. These cool water pools provide refuge from the high temperatures in the mainstem Nehalem River, but juvenile fish are holding at these confluence zones that are completely devoid of any complexity or cover, making them susceptible to increased predation. Lower Nehalem Watershed Council will convene a Technical Team to participate in design review and evaluation. LNWC will also conduct outreach to the private landowners who own the properties at 2 of the 7 potential project locations. Project partners include: Wild Salmon Center, Oregon Department of Fish & Wildlife, Oregon Parks and Recreation Department, Oregon Department of Forestry and NOAA Fisheries. OWEB funds will be used to support: project management and engineering design services to conduct an analysis of LiDAR data and bathymetric survey data, develop a HEC-RAS model and evaluate engineering design alternatives for installing large wood at these tributary junctions.

Review Team Evaluation

Strengths

- The project area focuses on anchor habitats for coho identified during the Strategic Action Planning process for the Coho Business Plan in the Nehalem watershed. The core team for that planning process is involved in the proposed project work.
- Designs will be developed for large wood placements in the mainstem Nehalem River, which has extremely high water velocity and temperature issues that are limiting factors for juvenile fish. The tributaries at the project locations provide important cool water refugia.
- The technical assistance need for this type of large wood placement project is well-established. Much of the mainstem in the target reaches is scoured to bedrock and large wood placement will encourage gravel recruitment to restore streambed complexity important for fish.

- The design approach is well-thought out with the technical assistance slated to provide alternatives to consider for three selected sites. The project could be a pilot for similar types of work.

Concerns

- Locating appropriately sized material for large wood structures for the subsequent project implementation will be a challenge in this area.
- The scope of work described in the application would benefit from more clarity. Specific details about the design process and expected deliverables would be helpful to understand technical soundness.

Concluding Analysis

The project builds on work underway in the watershed focused on benefiting Oregon coast coho salmon, and this technical assistance work will help to implement the Strategic Action Plan (SAP) for coho in the Nehalem. The locations chosen are all anchor habitats identified in the SAP and are recognized as priority places to work to address limiting factors for juvenile fish in the watershed. The cautious design-oriented approach to mainstem work is well-considered given the complexity of the proposed sites located at confluences of cool water tributaries and the mainstem river. The resulting design alternatives could prove to be a pilot for additional projects in coastal mainstem rivers in the future.

Review Team Recommendation to Staff

Fund

Review Team Priority

3 of 4

Review Team Recommended Amount

\$74,140

Review Team Conditions

N/A

Staff Recommendation

Staff Follow-Up to Review Team

N/A

Staff Recommendation

Fund

Staff Recommended Amount

\$74,140

Staff Conditions

N/A

Open Solicitation-2019 Spring Offering

North Coast (Region 1)

Application Number: 220-1016-17025

Project Type: Technical Assistance

Project Name: Coastal Dune Prairie Habitat
Restoration at West Sand Island

Applicant: CREST

Region: North Coast

County: Clatsop

OWEB Request: \$24,049

Total Cost: \$32,393

Application Description *(from application abstract)*

The proposed Coastal Dune Prairie Restoration Project site is located on West Sand Island in Clatsop County, OR, along the Columbia River in Baker Bay. The island is a former sand shoal that stabilized after the establishment of the jetty system in the late 1800's. The southern portion of the island contains the rare coastal dune prairie habitat that is home to a variety of rare and threatened plant species. Invasive species were introduced to the island during the 20th century and are encroaching on the coastal dune prairie habitat. Encroaching species include gorse, scotch broom, European beach grass and the native shore pine. The proposed project will utilize manual, mechanical, and fire treatment to manage the encroachment of the aforementioned species and setback succession of the coastal dune prairie habitat. These methods, in addition to the implementation of a native revegetation plan, will be utilized in order to restore a rare and native habitat that would benefit a variety of rare native vegetation, while supporting the habitat needs of ESA listed species such as the moth and the streak horned lark. The project is a partnership between CREST, the North Coast Watershed Association, the United States Army Corps of Engineers as the land owner, and the Center for Natural Lands Management.

Review Team Evaluation

Strengths

- The project will benefit a host of birds and insects that occupy coastal prairie habitat and contribute to the biodiversity of the Oregon coast, including the streaked horned lark and the yellow sand verbena moth.
- The application is well-written with clear goals and quantifiable objectives.
- The project will tie in with existing work occurring on West Sand Island, potentially together achieving cost efficiencies during coordinated implementation.
- The project has built partnerships and engages the appropriate level of expertise needed to achieve the stated outcomes.

Concerns

- The application would benefit from more information about the need to utilize herbicides on the island.

- Management goals for the bird species on the island will need to be coordinated where there is overlapping habitat between species and competing natural resource concerns.

Concluding Analysis

The project on West Sand Island will improve critical coastal prairie habitat, a habitat type on the Oregon coast which is imperiled due to invasive species encroachment and anthropogenic development. The project capitalizes on a unique opportunity to restore this habitat type by collaborating with an aquatic habitat restoration effort slated to occur in the near future. The applicant and project partners have the appropriate expertise to implement the work described and this project has a high likelihood of success.

Review Team Recommendation to Staff

Fund

Review Team Priority

2 of 4

Review Team Recommended Amount

\$24,049

Review Team Conditions

N/A

Staff Recommendation

Staff Follow-Up to Review Team

N/A

Staff Recommendation

Fund

Staff Recommended Amount

\$24,049

Staff Conditions

N/A

Open Solicitation-2019 Spring Offering

North Coast (Region 1)

Application Number: 220-1017-17042

Project Type: Technical Assistance

Project Name: Alder Creek Restoration and Enhancement Project

Applicant: Lower Nehalem Community Trust

Region: North Coast

County: Tillamook

OWEB Request: \$54,208

Total Cost: \$74,408

Application Description *(from application abstract)*

1) Project location: The project is located on Alder Creek - a direct tributary to Nehalem Bay in the town of Nehalem, Oregon. The majority of the project area is located on Lower Nehalem Community Trust owned lands. The project area is defined as Alder Creek and the associated floodplain from the culvert at Highway 101 - south to the mouth of Alder Creek at Nehalem Bay. 2) Project need: The project is needed to enhance and expand rearing habitat for Oregon Coast coho salmon within the Nehalem estuary and watershed. This habitat type is a limiting factor for recovery of the species and is in short supply within the basin. 3) Proposed Work: The proposed work is to develop a project design that will restore and enhance Alder Creek, the riparian corridor within the project area, and habitats within the adjoining floodplain. 4) Proposed Partners: Tillamook Estuaries Partnership, Lower Nehalem Watershed Council

Review Team Evaluation

Strengths

- The site location provides excellent potential for fish and wildlife habitat enhancement in the lower Nehalem. Engaging the right technical expertise will help develop a sound project.
- A portion of the project will occur on Alder Creek Farm, which was purchased in part with an OWEB Acquisition grant. This project builds on this prior conservation investment.
- The application demonstrates a more active initiative on behalf of the Lower Nehalem Community Trust to managing the natural areas of the site for ecological benefits. The passive restoration techniques previously utilized on the site have had limited effectiveness.
- The project's location is highly visible and a restoration effort could provide opportunity to raise public awareness.
- The property will benefit from increased stewardship guidance and partnerships that a restoration project may provide.
- Descriptions of the design process and potential deliverables have significantly improved from the previous application submittal.

Concerns

- Previous project evaluation concerns are not all addressed in this application; in particular there is still

a need to broaden partnerships, build relationships, and engage technical experts.

- The plans for the old dairy infrastructure adjacent to Alder Creek are unclear.
- It is unclear whether the applicant has the organizational capacity to manage the proposed technical assistance because the volunteer project manager may not have the time or ability to oversee a successful project.

Concluding Analysis

The goals and objectives described in the application have more detail than was provided in the last submittal; however, the expected scope and scale of the resulting restoration project and the desired future conditions of the site are still unclear. Organizational capacity has limited the applicant's ability to start conversations needed to recruit expertise from state and federal fish and wildlife agencies and partnerships that can increase the likelihood of success in planning future restoration.

Review Team Recommendation to Staff

Do Not Fund

Review Team Priority

N/A

Review Team Recommended Amount

\$0

Review Team Conditions

N/A

Staff Recommendation

Staff Follow-Up to Review Team

N/A

Staff Recommendation

Do Not Fund

Staff Recommended Amount

\$0

Staff Conditions

N/A

Open Solicitation-2019 Spring Offering North Coast (Region 1)

Application Number: 220-1018-17050

Project Type: Technical Assistance

Project Name: Tillamook River Wetlands:
Engineering and Design

Applicant: Tillamook Estuaries Partnership

Region: North Coast

County: Tillamook

OWEB Request: \$74,998

Total Cost: \$190,069

Application Description *(from application abstract)*

The "Tillamook River Wetlands" project (TRW), is a significant opportunity to improve tidal wetland function, habitat complexity, species diversity, and water quality in Tillamook Bay. TEP in partnership with NCLC, proposes a \$193,636 project (\$74,988 OWEB) to develop final engineering designs, construction specifications, cost estimates, and permit documentation to implement restoration of the 73-acre TRW. Located in an unincorporated portion of Tillamook County four miles from Tillamook is situated at river mile three of the Tillamook River, one of five major rivers entering Tillamook Bay. TRW is tidally influenced and represents historic spruce swamp, emergent wetland, and tidal channel habitat. Availability of estuarine wetland is an issue of critical importance facing Oregon's coastal watersheds. With an estimated 68% loss between 1870-1970, no other habitat type has been more impacted on the Oregon Coast than estuarine wetlands (Oregon, 2000). In Tillamook Bay, levee construction, draining, and filling have altered 85% of Tillamook Bay's tidal wetlands and has resulted in the decline of sensitive species and habitat types (Brophy 2012). Tillamook Bay is critical habitat for federally threatened Oregon Coast Coho salmon (ESU) and NOAA's recovery plan states the primary limiting factor for recovery is access to intact rearing habitat in tidal wetland. Tillamook Bay, Oregon's second largest estuary is located along the Pacific Flyway, providing indispensable habitat for a myriad of migratory bird species. In total, the project area supports 17 federal and/or state species of concern, 13 of which are OWEB North Coast priority species. This proposal will finalize ecological characterization of the site and advance the preferred Phase I preliminary design to final "shovel ready" engineering designs. Final designs will be utilized to acquire implementation funding and construct the TRW project. Partners: USFWS, USFS, ODFW, TBWC, TCPW, DU, TU, IAE, and CTSI.

Review Team Evaluation

Strengths

- The technical assistance work will provide designs for restoring 73 acres of estuarine habitat, a critical habitat type within the north coast basin.
- The project is in a highly visible location and a restoration project will provide opportunity for raising public awareness about watershed restoration.

- The resulting restoration project will provide benefits to a diversity of wildlife, and some unique opportunities exist to restore a forested wetland fringe that has spring-fed inputs. Habitat restoration will result in a wide range of salinities will support a myriad of wildlife.
- The technical assistance work is taking a big picture view of possibilities at the site.
- The project is a priority in the Oregon Central Coast Estuary Collaborative (OCCEC) Strategic Action Plan.
- Partnerships are well established and the appropriate stakeholders are engaged to achieve the stated outcomes.
- The project builds on previous OWEB investment because the project site was funded in part by an OWEB Acquisition grant.

Concerns

- The use of lead by the adjacent gun club could negatively impact benefits from the future restoration project if not managed appropriately.

Concluding Analysis

This technical assistance effort will build on past investments in the conservation of the Tillamook River Wetlands site and complete final designs for the restoration of the project property. The design approach considers a wide range of alternatives for the restoration, resulting in broad possibilities restoring priority tidally influenced habitat. The technical assistance effort is likely to be successful as the applicant has built strong partnerships around the project and engaged adjacent landowners in the work. The project is an identified priority in several local and regional planning efforts and the expected ecological benefit is high.

Review Team Recommendation to Staff

Fund

Review Team Priority

1 of 4

Review Team Recommended Amount

\$74,998

Review Team Conditions

N/A

Staff Recommendation

Staff Follow-Up to Review Team

N/A

Staff Recommendation

Fund

Staff Recommended Amount

\$74,998

Staff Conditions

N/A

Open Solicitation-2019 Spring Offering

North Coast (Region 1)

Application Number: 220-1019-17060

Project Type: Technical Assistance

Project Name: Fishhawk Lake Replacement Fish Passage Construction Design

Applicant: Upper Nehalem WC

Region: North Coast

County: Clatsop

OWEB Request: \$74,992

Total Cost: \$161,726

Application Description *(from application abstract)*

Located in NW Oregon in the coast range, the Fishhawk Lake dam was constructed in 1967 and is managed by Fishhawk Lake Reserve and Community (FLRC). The need is to replace the 52 year-old fish ladder that does not meet current fish passage standards and creates a flow-dependent passage barrier for juvenile and adult Oregon Coast Coho Salmon (ESA Threatened), winter steelhead, Pacific Lamprey, and coastal cutthroat trout. The fish ladder is a complete barrier to juvenile upstream migration of all these fish species. Replacing the fish ladder is a high priority for FLRC, the Upper Nehalem Watershed Council (UNWC), and the Oregon Department of Fish and Wildlife (ODFW). The Fishhawk 6th field HUC (including Fishhawk Lake) exists with the Nehalem 4th field HUC of the North Coast Basin, including rural portions in Clatsop and Columbia Counties. There is approximately 34.4 miles of fish habitat upstream of Fishhawk Lake Dam of which 13.5 is considered to be high quality for Coho Salmon. Fishhawk Lake Dam is on the 2019 state of Oregon's high priority fish passage barrier list. This request is for Technical Assistance to develop up to an 85% engineering design and construction plans for a replacement fish ladder at Fishhawk Lake dam. Project partners include FLRC, UNWC, and ODFW with substantial technical assistance provided by NOAA Fisheries, along with guidance support offered by the Clatsop and Columbia County Soil and Water Districts and the Oregon Water Resources Department. The new fish ladder is one part of a larger effort by the FLRC and UNWC that includes an integrated water supply and water quality enhancement program. These efforts are referenced herein as context for strategies included in this application and to help the reviewer understand the broader restoration goals for the watershed. Together these projects will create a more functional, healthier aquatic and fish migration environment in Fishhawk Creek.

Review Team Evaluation

Strengths

- Restoration of fish passage at the project location is a priority for ODFW, and the Fishhawk Lake Dam remains on the state barrier list.
- The Coho Business Plan for the Nehalem watershed identified both this project and the habitat upstream as a priority for coho salmon.
- The project will build on past investments, including a nearby planting project completed as part of ODA's Strategic Implementation Area program.

- Appropriate permitting agencies have now been engaged since the previous application submittal and have provided feedback on design possibilities for the fish ladder.
- The Fishhawk Lake Reserve Community remains an actively engaged partner.

Concerns

- The project is linked to the Fishhawk Lake Dam replacement, and it is unclear what the outcome would be if only one of these project components received funding. The linkage of the dam and fish ladder projects creates uncertainty for the timeliness and surety of the fish ladder project implementation.
- The project has unclear watershed conservation focus because of the juxtaposition of the dam replacement with the fish ladder construction.
- There is not consistent understanding among technical reviewers about the quality of upstream and lake habitat so it is difficult to determine the extent of habitat benefits that will result from providing fish access to the stream above the lake.
- The water quality in the lake negatively impacts fish. Temperatures in the lake are significantly higher than adjacent streams, and the project is unlikely to address this important limiting factor for salmonids. The lake currently has lethal water temperatures for salmon in the summer and dissolved oxygen is also not meeting state standards.
- The new proposal for dam improvements involves a significant amount of dredging, which will be harmful to Pacific lamprey. Dredging is not ecologically sound management for a number of aquatic species.
- There is no easement secured for the adjacent property downstream of the dam, which will be necessary for successfully implementing the resulting construction project.
- There is a significant amount of sediment in this system, with estimates of 1600 cubic yards per acre-foot. Sediment, gravel, and large wood are unable to move downstream because the dam interrupts this watershed transport process that is important to downstream habitat. The proposed fish ladder and dam improvements will not address this watershed limitation.
- The lake has poor summer rearing habitat and providing juvenile passage at the ladder will not improve these conditions.
- The budget has a lump sum of match for \$55,000 and there are no details provided.

Concluding Analysis

Fish passage at the Fishhawk Dam is a priority for ODFW and there has been an increased level of agency involvement in the design process. The proposed technical assistance will fund the fish ladder design in conjunction with an ongoing design effort to replace the Fishhawk Dam. There is uncertainty about how the two projects will be sequenced and whether the fish ladder design and implementation will be impacted if the dam improvements do not materialize. The resulting ecological benefit of improving fish passage at this site is limited due to the water quality conditions in the lake and the lack of passage for materials, such as large wood and gravel, that are unable to move downstream to restore habitat-forming processes.

Review Team Recommendation to Staff

Do Not Fund

Review Team Priority

N/A

Review Team Recommended Amount

\$0

Review Team Conditions

N/A

Staff Recommendation

Staff Follow-Up to Review Team

N/A

Staff Recommendation

Do Not Fund

Staff Recommended Amount

\$0

Staff Conditions

N/A

Open Solicitation-2019 Spring Offering

North Coast (Region 1)

Application Number: 220-1020-16980

Project Type: Stakeholder Engagement

Project Name: Bay to Headwaters: Siletz River
Community Outreach, Engagement & Conservation

Applicant: Lincoln SWCD

Region: North Coast

County: Lincoln

OWEB Request: \$34,240

Total Cost: \$55,077

Application Description *(from application abstract)*

To help alleviate negative anthropogenic impacts to the Siletz River, the Lincoln Soil and Water Conservation District (LSWCD) will carry out a multi year outreach campaign to reach private residents, agricultural producers, timberland managers, tribal entities, and other diverse stakeholders along the Lower Siletz River (1710020407), Middle Siletz River (1710020405), and Rock Creek (1710020406) HUC-10 watersheds. Building a network of community connections will: increase the district and partner organization's capacity to carry out restoration projects identified in the Siletz Coho Business Plan; teach the public about the benefits of conservation on private lands; increase citizen buy-in and volunteerism; allow local ecological knowledge to collaboratively inform future project designs; and implement best management practices aimed at increasing water quality on a landscape scale. Oregon's Department of Environmental Quality's (DEQ) most recent 303d report of impaired waters lists the main-stem Siletz and a number of its tributaries because of abundantly warm water temperatures, E.coli presence, limited dissolved oxygen, and high turbidity rates. For endangered Coastal Coho Salmon in the Siletz basin, limiting factors impacting productivity and resilience stem from a lack of habitat supporting the fish's alternate life stages such as floodplain connectivity loss, channel complexity needs, warm summer temperatures, and low summer flows. Resulting restoration work resulting from this multi-year in-depth Stakeholder Engagement project will focus around bolstering anchor habitats identified in the Siletz Coho Business Plan in coordination with a litany of partners including the DEQ, the MidCoast Watershed Council, Wild Salmon Center, Natural Resource Conservation Service, US Fish and Wildlife, Lincoln County Environmental Health Department, and the Oregon Water Resource Department.

Review Team Evaluation

Strengths

- The stakeholder engagement timing is appropriate with several planning efforts underway, including the Coho Business Plan for the watershed and a current Focus Area of the Lincoln Soil and Water Conservation District.
- The many letters of support presented are indicative of the potential partnerships that could result from this work.
- The application is well thought out and organized.

- The coordination of the project with the MidCoast TMDLs will integrate water quality into the outreach effort.
- The proposed project implementation approach will divide the project area into smaller river reaches that will be effective at reaching target audiences.

Concerns

- Measuring project success by the number of OWEB Restoration projects funded through this effort may not be the best indicator of success.
- Some of the indicators for the listed objectives are not quantifiable. More specific and achievable targets would help clarify the likelihood of success for the project.
- There may be costs in the material and supplies budget section that are not eligible.

Concluding Analysis

The Siletz watershed is a significant ecological resource and the project is timely for engaging the local community in developing restoration opportunities. The project approach and commitment by project partners has a high likelihood of success for generating future watershed restoration with multiple watershed benefits to the basin.

Review Team Recommendation to Staff

Fund

Review Team Priority

1 of 2

Review Team Recommended Amount

\$34,240

Review Team Conditions

N/A

Staff Recommendation

Staff Follow-Up to Review Team

Budget costs for two lines items in Materials and Supplies are not eligible. The applicant indicated some line items are for general uniform costs for SWCD employees that will be used for other purposes besides this project, these costs are considered indirect expenses. The \$701 in uniform costs should be removed from the budget along with the associated indirect costs, bringing the total recommended award to \$33,469.

Staff Recommendation

Fund Reduced with Conditions

Staff Recommended Amount

\$33,469

Staff Conditions

Costs for uniforms and associated indirect costs shall be removed from the budget and the grant award will be reduced to \$33,469.

Open Solicitation-2019 Spring Offering North Coast (Region 1)

Application Number: 220-1021-17022

Project Type: Stakeholder Engagement

Project Name: Lower Nehalem Anchor Habitats
Landowner Outreach

Applicant: Lower Nehalem WC

Region: North Coast

County: Tillamook

OWEB Request: \$24,459

Total Cost: \$43,159

Application Description *(from application abstract)*

The Nehalem River watershed is divided between the Upper Nehalem Watershed Council and the Lower Nehalem Watershed Council (LNWC). LNWC operates in all waters downstream from Humbug Creek. This area includes portions of both Tillamook and Clatsop County. LNWC is currently implementing OWEB grant 218-1037, Lower Nehalem RBA and LFA Light. Through this grant the LNWC has already identified 38 distinct coho anchor habitats in tributaries to the Nehalem river that are priorities for habitat enhancement. Additional coho anchors will be identified in the North Fork Nehalem River during the summer of 2019. The enhancements will vary from anchor to anchor but may include large wood placement, riparian plantings, or other projects. The implementation of these enhancements will require cooperation from state, industrial, and independent landowners. This project will provide time for approximately 8 hours a week of the Council Coordinator's time to focus on this outreach for two years. The Council Coordinator will use this time to build relationships with landowners, send targeted mailers, hold community meetings, conduct landowner surveys, site visits, and develop landowner agreements. The Lower Nehalem Watershed Council will receive support for this effort from the Tillamook Estuaries Partnership, Oregon Department of Fish and Wildlife, the Natural Resources Conservation Service, Weyerhaeuser, and Lewis and Clark Timberlands in the form of coordination, technical advice, assistance with educational outreach, and cash donation.

Review Team Evaluation

Strengths

- The project has a strategic approach focused on anchor habitats for coho and is based on the work done with the Coho Business Plan process in the Nehalem basin. The project will help to implement the Strategic Action Plan developed through that effort.
- Proposed stakeholder engagement builds on past and current work underway with an OWEB-funded monitoring project conducting a Rapid Bioassessment in the lower Nehalem.
- The application contains a thorough description of the timeliness of engaging stakeholders at this juncture.
- The application exhibits proposal clarity and is well-written with a budget that contains a detailed cost breakdown for the work proposed.

- There is a cost effectiveness to the work as the staffing approach will make efficient use of staff time to accomplish the proposed goals and objectives.
- TMDLs are in place throughout the project area, and stream temperature has become one of the signature issues of concern in the Lower Nehalem. This project has the potential to make strides addressing this issue.
- The watershed council has capacity to accomplish the proposed work and has built relationships with forest landowners in the watershed.

Concerns

- The numbers for objectives and associated success indicators seem conservative.
- The budget proposes only 8 hours of staff time each week toward this effort, which may not be enough of a time investment to make significant progress towards the goals and objectives.
- The Tillamook SWCD is not mentioned in the application and could be an effective partner to assist with landowner engagement.

Concluding Analysis

The proposed stakeholder engagement builds upon past and ongoing strategic planning efforts in the Lower Nehalem, and the applicant is well positioned to accomplish the proposed stakeholder engagement work. The approach is well-thought out and structured in a manageable way that is likely to be effective given the Council's positive relationships with timber landowners in the basin. While the numbers of landowners and proposed generated agreements seem conservative given the magnitude of the land base involved, much of the ownership of the anchor habitats lies within only a few key landowners that need to be engaged. The project is well-timed to take advantage of ongoing interest in the watershed and has a high likelihood of success.

Review Team Recommendation to Staff

Fund

Review Team Priority

2 of 2

Review Team Recommended Amount

\$24,459

Review Team Conditions

N/A

Staff Recommendation

Staff Follow-Up to Review Team

N/A

Staff Recommendation

Fund

Staff Recommended Amount

\$24,459

Staff Conditions

N/A

Open Solicitation-2019 Spring Offering

North Coast (Region 1)

Application Number: 220-1022-17030

Project Type: Stakeholder Engagement

Project Name: Tillamook Bay Tide Gate
Stakeholder Engagement

Applicant: Tillamook Bay WC

Region: North Coast

County: Tillamook

OWEB Request: \$25,209

Total Cost: \$34,709

Application Description *(from application abstract)*

Tide gates have been used extensively throughout the Tillamook Bay estuary and sub-basins, including the Wilson, Trask, Kilchis, Miami, and Tillamook rivers as well as numerous direct-to-bay tributaries surrounding the town of Tillamook. While dikes and tide gates have increased the available land for agriculture and development, they have also exacerbated flooding and resulted in a massive loss of critical habitat for the rearing of threatened Coastal Coho salmon. Additionally, many tide gates have reached or surpassed their design-life, and most are of top-hinge design, greatly restricting fish passage and wetland function. All are under-sized compared with the upstream basins they drain, inhibiting drainage, enhancing erosion around tide gate structures, and creating velocity barriers that further limit fish passage windows. Over the last two years, state, county and local stakeholders have been engaged in the Tide Gate Working Group aimed at streamlining the permitting process and kick-starting high-value tide gate replacement projects. As part of that state-wide effort, OWEB has recently completed a synthesis of available data intended to set the stage for comprehensive regional inventories, project prioritizations and project development. This grant application is intended to provide the funds to a) analyze available tide gate data and determine data gaps; b) plan and execute focused outreach and engagement with tide gate owners and stakeholders; and c) develop a working group that will plan, prioritize and develop high-priority projects. Partners include City of Tillamook, Tillamook County, OSU Extension Service, Tillamook Estuaries Partnership, and the Salmon SuperHwy Executive Committee.

Review Team Evaluation

Strengths

- The project will build on momentum occurring to address tide gate issues along the Oregon coast.
- The timing is right to begin engaging more landowners around tide gates, and the community is aware of the state working group and efforts to streamline tide gate replacements.
- There is a clear need in Tillamook County for more landowner engagement focused on tide gates in the low gradient reaches of the watershed.

Concerns

- It is unclear whether the applicant has organizational capacity for the proposed work. An explanation on how the applicant is uniquely positioned among the agricultural community and qualified to serve as a convening entity for this engagement would provide helpful context to determine the applicant's capacity for the proposed work.
- The applicant may not have the organizational staff capacity to successfully implement the project.
- In many instances, tide gate work does not have an effective cost-benefit ratio because water quality benefits are often limited for a high cost.
- Evidence of key partner support in the watershed, particularly the agricultural community, is missing in the application.
- The project approach of hosting large workshops may not be effective in leading to timely development of eligible projects. A coffee klatch-like approach more face-to-face small groups may be more effective.
- The project scope of work includes conducting a tide gate inventory and prioritization methodology. However, several existing tide gate prioritization efforts are underway and proposed work may be duplicative of these efforts.
- The timing may be premature for stakeholder engagement work around tide gates. The statewide Tide Gate Working Group is currently focusing on streamlining the permitting process. Waiting until that process is concluded would provide more complete information to landowners.

Concluding Analysis

The need for this type of community engagement around tide gate work is well established and if done effectively, could help improve habitat in the lower gradient reaches around Tillamook Bay that are critical for many aquatic species. However, the project approach centers on using larger workshops as an outreach technique, which has proved ineffective in reaching key landowners in the past. The inclusion of smaller face-to-face outreach efforts in addition to the larger group events would strengthen the application. The substantial uncertainty about whether the applicant has capacity to accomplish the work as proposed makes it difficult to determine the likelihood of success for this project

Review Team Recommendation to Staff

Do Not Fund

Review Team Priority

N/A

Review Team Recommended Amount

\$0

Review Team Conditions

N/A

Staff Recommendation

Staff Follow-Up to Review Team

N/A

Staff Recommendation

Do Not Fund

Staff Recommended Amount

\$0

Staff Conditions

N/A

Region 2 - Southwest Oregon					
Restoration Projects Recommended for Funding in Priority Order					
Project #	Grantee	Project Title	Brief Description	Amount Recommended	County
220-2011	Partnership for the Umpqua Rivers	Glover Estuary Enhancement	Two failing tidegates will be replaced with new tidegates to improve coho passage to thirty acres of winter rearing habitat on a Smith River ranch, near Reedsport.	723,973	Douglas
220-2015	Applegate Partnership, Inc.	Lower Bridgepoint Dam Fish Passage Project	A fish passage barrier on Williams Creek, a tributary to The Applegate River near Williams, will be replaced with a new water intake system that will eliminate the dam and improve passage for coho to upstream habitats.	328,850	Josephine
220-2005	Coos Watershed Association	Catching and Boone Creek Fish Passage and Habitat Restoration	Trees will be planted and fencing installed along a two mile section of Catching and Boone Creek near Coos Bay to enhance stream habitat and improve water quality for coho.	384,759	Coos
220-2003	Coos Watershed Association	Tioga Creek Instream & Fish Passage Restoration	Coho salmon habitat structures will be placed in two miles of Tioga Creek and three fish barriers will be replaced to provide access to fish habitat.	448,377	Coos
Total Restoration Projects Recommended for Funding by RRT and OWEB Staff				1,885,959	
Restoration Projects Recommended but Not Funded in Priority Order					
Project #	Grantee	Project Title	Brief Description	Amount Recommended	County
220-2013	Coquille Watershed Association	North Fork Riparian Restoration	Trees will be planted and fencing installed on four properties along 2.6 miles of the North Fork Coquille to help protect and restore coho habitat and the drinking water source for the City of Myrtle Point.	252,406	Coos
220-2010	Partnership for the Umpqua Rivers	Windy Creek Instream Restoration	Habitat structures will be placed along a one mile section of Windy Creek, located near Glendale, for coho and steelhead.	69,164	Douglas
220-2006	Coquille Watershed Association	Woodward Creek Restoration	Habitat structures for coho will be placed along 2.1 miles of Woodward Creek, a tributary to the North Fork Coquille River near Coquille. Additionally, barriers will be placed to restrict illegal off-road vehicle access to the stream to help reduce sediment runoff into the drinking water source for the City of Myrtle Point.	250,018	Coos
220-2016	Rogue River WC	Salt Creek Fish Passage Improvement on C2 Ranch Project	Two seasonal dams that block fish passage on Salt creek, a tributary to Little Butte Creek Above Eagle Point, will be replaced with new diversion structures, restoring coho and steelhead passage to 1.6 miles of stream.	65,218	Jackson
220-2002	Coos Watershed Association	Marlow Creek Habitat Restoration	Habitat structures will be placed in a four-mile section of Marlow Creek to enhance coho habitat. Improvement of passage through a boulder falls will make an additional two miles of habitat available for salmon.	204,574	Coos

Restoration Projects Recommended but Not Funded in Priority Order Continued					
220-2014	Coos Watershed Association	North Slough Riparian Restoration	Trees will be planted and the noxious weed, Policemen's Helmet, will be treated on seven properties along 1.1 miles of North Slough near North Bend to improve stream health and water quality.	117,402	Coos
220-2009	Elk Creek WC	Ellenburg Creek Instream Restoration	Habitat structures will be placed in a 1.5 mile section of Ellenburg Creek located near Drain, to enhance habitat for coho.	178,975	Douglas
220-2000	Applegate Partnership, Inc.	Upper Phillips Dam Fish Passage and Irrigation Efficiency Project	A fish barrier for steelhead and coho will be eliminated at a dam on the Little Applegate River near Ruch. Irrigation improvements will result in more efficient use of diverted water and the potential for increased stream flows.	212,142	Jackson
220-2012	Jackson SWCD	Antelope Creek Water Quality Improvement Project	A new irrigation system will help reduce runoff of warm, polluted water into Antelope Creek, helping to improve the water quality of the stream.	75,628	Jackson
220-2007	Smith River WC	Lower Wasson Creek Riparian Restoration	Native plants and trees will be planted and invasive blackberries will be removed on 17.7 acres along Wasson Creek, a tributary to the Smith River near Reedsport.	78,305	Douglas
220-2004	Coos Watershed Association	Williams River Quarry Falls Fish Passage Improvement	Salmon passage through the Five Mile Creek Quarry falls area, located on Williams River, will be improved by moving a road and widening the channel.	328,844	Douglas
Total Restoration Projects Recommended for Funding by RRT				3,718,635	
Restoration Applications Not Recommended for Funding by RRT					
Project #	Grantee	Project Title		Amount Requested	County
220-2017	Curry SWCD	Ranch Creek Passage		239,907	Curry
220-2008	Smith River WC	Spencer Creek Instream Restoration		155,786	Douglas

Technical Assistance (TA) Projects Recommended for Funding in Priority Order					
Project #	Grantee	Project Title	Brief Description	Amount Recommended	County
220-2025	Applegate Partnership, Inc.	Murphy Dam Irrigation and Fish Passage Improvement Project	Engineering design alternatives will be developed for addressing fish passage at the Murphy Dam, located on the Applegate River.	74,987	Josephine
220-2020	Applegate Partnership, Inc.	Evans Cr Fish Passage - Wimer Siphon	An engineering design will be developed for the removal of a dam on Evans Creek, located near Wimer, to help improve fish access to upstream habitat.	36,614	Jackson
220-2026	Water Watch of Oregon	Slate Creek Dam Removals Phase 1	Engineering designs will be developed for removal of three dams and replacement irrigation systems on Slate Creek located near Grants Pass. When constructed, the improvements will provide access to 15 miles of habitat for steelhead and coho.	67,500	Josephine
220-2018	Cascade Pacific RC&D	Tenmile Lakes Watershed Big Creek Land Acquisition Technical Assistance	The project will complete necessary land transaction elements for a potential acquisition of a property on lower Big Creek, located near Lakeside, for its important ecological values.	36,841	Coos
220-2024	Coos Watershed Association	Palouse Tide Gate Replacement Design Analysis	Engineering design alternatives will be developed for the replacement of the Palouse Creek tide gate, located near Coos Bay, to enhance passage for coho and protect agricultural uses above the site.	74,988	Coos
Total TA Projects Recommended for Funding by RRT and OWEB Staff				290,930	

Technical Assistance Projects Recommended but Not Funded in Priority Order					
Project #	Grantee	Project Title	Brief Description	Amount Recommended	County
220-2019	Coos SWCD	Winter Lake Phase 3: Hydrologic Enhancement Design	Engineering designs will be developed to improve habitat for overwintering coho on agricultural land within the Beaver Slough Drainage District behind the newly completed China Camp Tidegate.	74,946	Coos
220-2028	Siskiyou Field Institute	Siskiyou Field Institute Deer Creek Center Restoration and Management Plan	A management plan will be updated for preserving and restoring the ecological values on the 850 acres Siskiyou Field Institute Deer Creek Center property near Selma.	60,291	Josephine
220-2022	Coquille Watershed Association	Big Creek Watershed Assessment and Project Development	The project will assess and prioritize restoration actions for the 16,600-acre Big Creek basin, a tributary of the Middle Fork Coquille River near Myrtle Point.	55,077	Coos
220-2023	Coos Watershed Association	South Fork Coos River Road Assessment and Project Development	Road inventory surveys will evaluate approximately 240 miles of roads that drain directly to the South Fork Coos River to identify water quality and habitat problems and develop plans to address road and fish passage issues.	64,690	Coos
220-2027	Curry SWCD	Spatial datasets to inform planning on the South Coast	The project will develop maps and narrative to support prioritization of partner organizations' restoration objectives in 13 coastal watersheds largely within Curry County.	61,589	Curry
220-2021	South Umpqua Rural Community Partnership	Elkton Reserve Restoration Project	An updated management plan will be developed for the 410 acre Elkton Reserve, located on the mainstem of the Umpqua River near Elkton, with the goal to enhance the overall ecological value of the property.	47,350	Douglas
Total TA Projects Recommended for Funding by RRT				654,873	
Technical Assistance Applications Not Recommended for Funding by RRT					
Project #	Grantee	Project Title		Amount Requested	County
None					

Stakeholder Engagement Projects Recommended for Funding in Priority Order					
Project #	Grantee	Project Title	Brief Description	Amount Recommended	County
220-2029	Applegate Partnership, Inc.	Lower Williams Cr Landowner Engagement	Landowners on the lower reach of Williams Creek, near Provolt, will be engaged to discuss restoration opportunities in stream corridors.	29,385	Josephine
Total Stakeholder Engagement Projects Recommended for funding by OWEB Staff				29,385	
Stakeholder Engagement Projects <i>Recommended but Not Funded</i> in Priority Order					
Project #	Grantee	Project Title	Brief Description	Amount Recommended	County
None					
Total Stakeholder Engagement Projects Recommended for funding by RRT				29,385	
Stakeholder Engagement Projects <i>Not Recommended</i> for Funding by RRT					
Project #	Grantee	Project Title	Brief Description	Amount Requested	County
220-2030	Southern Oregon Land Conservancy	Upper Bear Creek Ashland Watershed Engagement		72,011	Jackson
Region 2 Total OWEB Staff Recommended Board Award				2,206,274	24%
Regions 1-6 Grand Total OWEB Staff Recommended Board Award				9,284,183	

Region 2 - Southwest Oregon					
Restoration Projects Recommended for Funding in Priority Order					
Project #	Grantee	Project Title	Brief Description	Amount Recommended	County
220-2011	Partnership for the Umpqua Rivers	Glover Estuary Enhancement	Two failing tidegates will be replaced with new tidegates to improve coho passage to thirty acres of winter rearing habitat on a Smith River ranch, near Reedsport.	723,973	Douglas
220-2015	Applegate Partnership, Inc.	Lower Bridgepoint Dam Fish Passage Project	A fish passage barrier on Williams Creek, a tributary to The Applegate River near Williams, will be replaced with a new water intake system that will eliminate the dam and improve passage for coho to upstream habitats.	328,850	Josephine
220-2005	Coos Watershed Association	Catching and Boone Creek Fish Passage and Habitat Restoration	Trees will be planted and fencing installed along a two mile section of Catching and Boone Creek near Coos Bay to enhance stream habitat and improve water quality for coho.	384,759	Coos
220-2003	Coos Watershed Association	Tioga Creek Instream & Fish Passage Restoration	Coho salmon habitat structures will be placed in two miles of Tioga Creek and three fish barriers will be replaced to provide access to fish habitat.	448,377	Coos
Total Restoration Projects Recommended for Funding by RRT and OWEB Staff				1,885,959	
Restoration Projects Recommended but Not Funded in Priority Order					
Project #	Grantee	Project Title	Brief Description	Amount Recommended	County
220-2013	Coquille Watershed Association	North Fork Riparian Restoration	Trees will be planted and fencing installed on four properties along 2.6 miles of the North Fork Coquille to help protect and restore coho habitat and the drinking water source for the City of Myrtle Point.	252,406	Coos
220-2010	Partnership for the Umpqua Rivers	Windy Creek Instream Restoration	Habitat structures will be placed along a one mile section of Windy Creek, located near Glendale, for coho and steelhead.	69,164	Douglas
220-2006	Coquille Watershed Association	Woodward Creek Restoration	Habitat structures for coho will be placed along 2.1 miles of Woodward Creek, a tributary to the North Fork Coquille River near Coquille. Additionally, barriers will be placed to restrict illegal off-road vehicle access to the stream to help reduce sediment runoff into the drinking water source for the City of Myrtle Point.	250,018	Coos
220-2016	Rogue River WC	Salt Creek Fish Passage Improvement on C2 Ranch Project	Two seasonal dams that block fish passage on Salt creek, a tributary to Little Butte Creek Above Eagle Point, will be replaced with new diversion structures, restoring coho and steelhead passage to 1.6 miles of stream.	65,218	Jackson
220-2002	Coos Watershed Association	Marlow Creek Habitat Restoration	Habitat structures will be placed in a four-mile section of Marlow Creek to enhance coho habitat. Improvement of passage through a boulder falls will make an additional two miles of habitat available for salmon.	204,574	Coos

Restoration Projects Recommended but Not Funded in Priority Order Continued					
220-2014	Coos Watershed Association	North Slough Riparian Restoration	Trees will be planted and the noxious weed, Policemen's Helmet, will be treated on seven properties along 1.1 miles of North Slough near North Bend to improve stream health and water quality.	117,402	Coos
220-2009	Elk Creek WC	Ellenburg Creek Instream Restoration	Habitat structures will be placed in a 1.5 mile section of Ellenburg Creek located near Drain, to enhance habitat for coho.	178,975	Douglas
220-2000	Applegate Partnership, Inc.	Upper Phillips Dam Fish Passage and Irrigation Efficiency Project	A fish barrier for steelhead and coho will be eliminated at a dam on the Little Applegate River near Ruch. Irrigation improvements will result in more efficient use of diverted water and the potential for increased stream flows.	212,142	Jackson
220-2012	Jackson SWCD	Antelope Creek Water Quality Improvement Project	A new irrigation system will help reduce runoff of warm, polluted water into Antelope Creek, helping to improve the water quality of the stream.	75,628	Jackson
220-2007	Smith River WC	Lower Wasson Creek Riparian Restoration	Native plants and trees will be planted and invasive blackberries will be removed on 17.7 acres along Wasson Creek, a tributary to the Smith River near Reedsport.	78,305	Douglas
220-2004	Coos Watershed Association	Williams River Quarry Falls Fish Passage Improvement	Salmon passage through the Five Mile Creek Quarry falls area, located on Williams River, will be improved by moving a road and widening the channel.	328,844	Douglas
Total Restoration Projects Recommended for Funding by RRT				3,718,635	
Restoration Applications Not Recommended for Funding by RRT					
Project #	Grantee	Project Title		Amount Requested	County
220-2017	Curry SWCD	Ranch Creek Passage		239,907	Curry
220-2008	Smith River WC	Spencer Creek Instream Restoration		155,786	Douglas

Technical Assistance (TA) Projects Recommended for Funding in Priority Order					
Project #	Grantee	Project Title	Brief Description	Amount Recommended	County
220-2025	Applegate Partnership, Inc.	Murphy Dam Irrigation and Fish Passage Improvement Project	Engineering design alternatives will be developed for addressing fish passage at the Murphy Dam, located on the Applegate River.	74,987	Josephine
220-2020	Applegate Partnership, Inc.	Evans Cr Fish Passage - Wimer Siphon	An engineering design will be developed for the removal of a dam on Evans Creek, located near Wimer, to help improve fish access to upstream habitat.	36,614	Jackson
220-2026	Water Watch of Oregon	Slate Creek Dam Removals Phase 1	Engineering designs will be developed for removal of three dams and replacement irrigation systems on Slate Creek located near Grants Pass. When constructed, the improvements will provide access to 15 miles of habitat for steelhead and coho.	67,500	Josephine
220-2018	Cascade Pacific RC&D	Tenmile Lakes Watershed Big Creek Land Acquisition Technical Assistance	The project will complete necessary land transaction elements for a potential acquisition of a property on lower Big Creek, located near Lakeside, for its important ecological values.	36,841	Coos
220-2024	Coos Watershed Association	Palouse Tide Gate Replacement Design Analysis	Engineering design alternatives will be developed for the replacement of the Palouse Creek tide gate, located near Coos Bay, to enhance passage for coho and protect agricultural uses above the site.	74,988	Coos
Total TA Projects Recommended for Funding by RRT and OWEB Staff				290,930	

Technical Assistance Projects Recommended but Not Funded in Priority Order					
Project #	Grantee	Project Title	Brief Description	Amount Recommended	County
220-2019	Coos SWCD	Winter Lake Phase 3: Hydrologic Enhancement Design	Engineering designs will be developed to improve habitat for overwintering coho on agricultural land within the Beaver Slough Drainage District behind the newly completed China Camp Tidegate.	74,946	Coos
220-2028	Siskiyou Field Institute	Siskiyou Field Institute Deer Creek Center Restoration and Management Plan	A management plan will be updated for preserving and restoring the ecological values on the 850 acres Siskiyou Field Institute Deer Creek Center property near Selma.	60,291	Josephine
220-2022	Coquille Watershed Association	Big Creek Watershed Assessment and Project Development	The project will assess and prioritize restoration actions for the 16,600-acre Big Creek basin, a tributary of the Middle Fork Coquille River near Myrtle Point.	55,077	Coos
220-2023	Coos Watershed Association	South Fork Coos River Road Assessment and Project Development	Road inventory surveys will evaluate approximately 240 miles of roads that drain directly to the South Fork Coos River to identify water quality and habitat problems and develop plans to address road and fish passage issues.	64,690	Coos
220-2027	Curry SWCD	Spatial datasets to inform planning on the South Coast	The project will develop maps and narrative to support prioritization of partner organizations' restoration objectives in 13 coastal watersheds largely within Curry County.	61,589	Curry
220-2021	South Umpqua Rural Community Partnership	Elkton Reserve Restoration Project	An updated management plan will be developed for the 410 acre Elkton Reserve, located on the mainstem of the Umpqua River near Elkton, with the goal to enhance the overall ecological value of the property.	47,350	Douglas
Total TA Projects Recommended for Funding by RRT				654,873	
Technical Assistance Applications Not Recommended for Funding by RRT					
Project #	Grantee	Project Title		Amount Requested	County
None					

Stakeholder Engagement Projects Recommended for Funding in Priority Order					
Project #	Grantee	Project Title	Brief Description	Amount Recommended	County
220-2029	Applegate Partnership, Inc.	Lower Williams Cr Landowner Engagement	Landowners on the lower reach of Williams Creek, near Provolt, will be engaged to discuss restoration opportunities in stream corridors.	29,385	Josephine
Total Stakeholder Engagement Projects Recommended for funding by OWEB Staff				29,385	
Stakeholder Engagement Projects <i>Recommended but Not Funded</i> in Priority Order					
Project #	Grantee	Project Title	Brief Description	Amount Recommended	County
None					
Total Stakeholder Engagement Projects Recommended for funding by RRT				29,385	
Stakeholder Engagement Projects <i>Not Recommended</i> for Funding by RRT					
Project #	Grantee	Project Title	Brief Description	Amount Requested	County
220-2030	Southern Oregon Land Conservancy	Upper Bear Creek Ashland Watershed Engagement		72,011	Jackson
Region 2 Total OWEB Staff Recommended Board Award				2,206,274	24%
Regions 1-6 Grand Total OWEB Staff Recommended Board Award				9,284,183	

Open Solicitation-2019 Spring Offering Southwest Oregon (Region 2)

Application Number: 220-2000-16960

Project Type: Restoration

Project Name: Upper Phillips Dam Fish Passage and Irrigation Efficiency Project

Applicant: Applegate Partnership, Inc.

Region: Southwest Oregon

County: Jackson

OWEB Request: \$212,142

Total Cost: \$1,307,945

Application Description *(from application abstract)*

The Upper Phillips Fish Passage and Irrigation Efficiency Project will restore fish passage at Upper Phillips Dam; install a new headgate and fish screen; dedicate conserved water instream; and conserve water through piping 1.8 miles of irrigation ditch that serves 11 properties in Jackson County in the Rogue River Basin. The Upper Phillips Ditch diversion has 2 dams: a 5-foot concrete structure with a 4-foot pushup dam upstream. Improvements to the diversion will eliminate the pushup dam and a bypass channel will be created around the concrete structure. These dams are located on the Little Applegate River, a high priority, major tributary of the Applegate River. This project will provide fish passage to 49 miles of essential rearing and cold water habitat, improve water quality, and increase instream flows for Endangered Species Act-listed and State-listed species Coho salmon, steelhead, Pacific lamprey, and cutthroat trout. Irrigation structure efficiencies will reduce the amount of water diverted and conserved water will be dedicated instream for the benefit of aquatic species in a DEQ-listed flow-limited stream. Two fish passage barriers below the dams have been removed and this project continues the momentum for restoring passage upstream. Designs for this project were developed under a 2015 OWEB Technical Assistance Grant and the project is a result of a decade-long partnership between the Upper Phillips Ditch Association and the Applegate Partnership and Watershed Council (APWC) and other partners, including Steve and Priscilla Weaver (landowners), Jackson County SWCD, OWRD, BLM, ODFW, Middle Rogue Steelheaders, Trout Unlimited, and the Rogue Basin Partnership.

Review Team Evaluation

Strengths

- The approach is to combine the Upper and Lower Phillips Ditch points of diversion in order to maximize the efficiency of the system and provide the greatest likelihood of conserved water. The project has the potential to gain an instream water right of up to 0.5 cfs through use of the allocation of conserved water statute. Instream water will be protected downstream to the confluence with the Applegate River, a distance of approximately seven miles. Water quantity is a critical limiting factor in this watershed for ESA-listed coho.
- This project builds on previous work within the Little Applegate River, which resulted in over 13 cfs being allocated instream and three diversions being removed.

- The project is a resubmittal and the application provided additional detail about coordination with NOAA on fish passage. The project will provide access to 1 mile of historic coho habitat and 19 miles of steelhead habitat.
- Besides benefiting fish passage and stream flows, the project will improve the water conveyance in the ditch as well as create opportunities for users to become more efficient irrigators.
- Fish passage barriers below this project have already been addressed. The next diversion point upstream, a partial passage barrier is 1,500 feet upstream and on the list for the applicant to address.
- The applicant and ditch associations are coordinating closely with OWRD.

Concerns

- The designs were not reviewed by ODFW and NOAA to determine if fish passage criteria will be met. Juvenile fish passage upstream is most heavily impacted during the summer months when the seasonal push-up dam is installed.
- Merger of the two ditches is key to realizing conserved water instream, but the two ditch associations have not yet committed to combining the ditches. The project cost is high for the potential ecological benefits due to the unknowns regarding the ditch merger and the bearing that has on likelihood of success.
- The status of the match funding being sought from OWRD to support piping both Upper and Lower Phillips ditches is still listed as pending and the related support email provided was from 2016.
- It was noted that there is a bedrock feature just upstream from the confluence with the Applegate River that can impact passage.

Concluding Analysis

Fish passage and water quantity are critical limiting factors in this watershed. There has been a great deal of success in removing barriers and putting water back instream in this system. The project would build on the instream flows that have already been realized from previous projects downstream. Potential savings from this project could range from 0.25 cfs to 0.5 cfs but the final volume will not be known until after the project is implemented. The application demonstrated increased landowner commitment to the project, which is critical to realizing conserved water instream by combining the ditches. The applicant plans additional outreach to the ditch associations to help insure project success.

Review Team Recommendation to Staff

Fund with Conditions

Review Team Priority

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Review Team Recommended Amount

\$212,142

Review Team Conditions

Conserved water will be returned instream via the allocation of conserved water statute.

Staff Recommendation

Staff Follow-Up to Review Team

N/A

Staff Recommendation

Do Not Fund; falls below staff-recommended funding line

Staff Recommended Amount

\$0

Staff Conditions

N/A

Open Solicitation-2019 Spring Offering Southwest Oregon (Region 2)

Application Number: 220-2001-16982

Project Type: Restoration

Project Name: Upper South Umpqua Habitat
Restoration Project Phase VI

Applicant: South Umpqua Rural Community
Partnership

Region: Southwest Oregon

County: Douglas

OWEB Request: \$185,760

Total Cost: \$809,348

Application Description *(from application abstract)*

The upper South Umpqua River contains one of two coastal spring chinook populations passing all six criteria for population stability, with an annual average of less than 200 returning fish over a 30-year period. This project directly addresses limiting factors for spring Chinook salmon identified within the FY 2011 Skillet-Emerson Watershed Restoration Action Plan and the 2014 ODFW Coastal Multi-Species Conservation and Management Plan which identifies the lack of spawning gravel is a primary limiting factor for this population. The project is located in Douglas County Oregon, approximately 21 River Miles upstream of Tiller on in the mainstem of the South Umpqua River from the Buckeye Creek confluence (RM 207.0) to just below South Umpqua Falls (RM 207.8). Phase VI of the project proposes to treat 1,000 feet of important spawning and rearing habitat, and increasing habitat diversity by creating 1.4 acres of stable spawning habitat. The project treats the highest priority area within the basin, which cumulatively (1963-2009) accounts for 20% of spring Chinook use. Project partners included NOAA; USFS Umpqua National Forest, Tiller Ranger District; Oregon Department of Fish and Wildlife -- Roseburg Umpqua Watershed District; and SURCP.

Review Team Evaluation

Strengths

- N/A

Concerns

- N/A

Concluding Analysis

Application was withdrawn from consideration by applicant.

Review Team Recommendation to Staff

Withdrawn

Review Team Priority

N/A

Review Team Recommended Amount

\$0

Review Team Conditions

N/A

Staff Recommendation

Staff Follow-Up to Review Team

N/A

Staff Recommendation

Withdrawn

Staff Recommended Amount

\$0

Staff Conditions

N/A

Open Solicitation-2019 Spring Offering Southwest Oregon (Region 2)

Application Number: 220-2002-16995 **Project Type:** Restoration
Project Name: Marlow Creek Habitat Restoration
Applicant: Coos Watershed Association
Region: Southwest Oregon **County:** Coos
OWEB Request: \$204,574 **Total Cost:** \$304,359

Application Description *(from application abstract)*

In Coos County, Marlow Creek is the furthest downstream of the three main tributaries to the East Fork Millicoma River and has been heavily impacted by past land management practices, which has degraded in-stream habitat throughout the basin (Attachment 1). Marlow Creek provides important habitat to fall chinook, chum and coho salmon and steelhead trout, along with other important aquatic species (e.g. Pacific lamprey). With its high spawning and rearing activity, the Marlow Creek subbasin has been a focal area of previous habitat restoration in the Coos basin for more than two decades, but there is still room for habitat improvements. The Marlow Creek Habitat Restoration project is a multi-faceted project that seeks to address a lack of stream complexity, fish passage, and water quality by proposing to 1) place 104 pieces of wood over 4 miles to enhance spawning and rearing habitat, 2) improve passage through the boulder falls near the 5 Mile Marker on the 1000 Rd to open 2 miles of spawning and rearing habitat, and 3) improve and maintain the 1000 Road surface and current drainage to reduce chronic sediment input into Marlow Creek. OWEB funds will be used for project management, travel, contracted services, materials & supplies, and indirect costs. The Coos Watershed Association (CoosWA), Oregon Department of Forestry (ODF), Weyerhaeuser Timber Company, Department of State Lands (DSL), and Oregon Department of Fish & Wildlife (ODFW) will provide matching funds for contracted services, materials & supplies, and technical assistance.

Review Team Evaluation

Strengths

- The application is a resubmittal and the applicant addressed the previous concern regarding the low benefit to cost ratio. The proposed bridge placement was removed from the application, reducing the project cost accordingly.
- Marlow Creek is a highly productive stream that supports important ESA-listed coho spawning and rearing habitat. The project addresses critical limiting factors impacting coho related to simplified instream habitat conditions and access.
- The proposal demonstrates a strong working relationship among partners through involvement in design, implementation, and funding.
- The project continues the restoration momentum on this stream, building on completed instream and passage restoration work downstream.
- The existing riparian area has the potential for recruitment of large wood.

- Marlow Creek is the only consistent stronghold for chum salmon in this system.

Concerns

- Additional detail in the application describing “improved road surfaces” would be helpful for better understanding the proposed work activities and intended benefits from that project component.
- It is unclear whether the boulder falls are natural or were created by road construction.

Concluding Analysis

The project partners have established a successful track record of implementing instream habitat enhancement and fish passage improvements. The project objectives are clearly articulated and the design approach has a high likelihood of resulting in a successful restoration project. The project builds on restoration activities implemented downstream of the project reach. The proposal has a good potential to increase Marlow Creek’s productivity for ESA-listed coho and other aquatic species.

Review Team Recommendation to Staff

Fund

Review Team Priority

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Review Team Recommended Amount

\$204,574

Review Team Conditions

N/A

Staff Recommendation

Staff Follow-Up to Review Team

N/A

Staff Recommendation

Do Not Fund; falls below staff-recommended funding line

Staff Recommended Amount

\$0

Staff Conditions

N/A

Open Solicitation-2019 Spring Offering Southwest Oregon (Region 2)

Application Number: 220-2003-17002

Project Type: Restoration

Project Name: Tioga Creek Instream & Fish Passage Restoration

Applicant: Coos Watershed Association

Region: Southwest Oregon

County: Coos

OWEB Request: \$448,377

Total Cost: \$575,931

Application Description *(from application abstract)*

Tioga Creek is the large tributary that combines with Williams River to form the South Fork Coos River in the Coos basin. The Tioga Creek subbasin is a flashy, coastal system in Coos County that provides important salmon and steelhead spawning and rearing habitat, along with other important species (Pacific lamprey, cutthroat trout); but stream cleaning, riparian logging, road construction, and removal of conifers from side draws have led to decreased wood loading and degraded aquatic habitats. Restoration activities have occurred throughout the Tioga Creek subbasin since 1980s, however recent habitat assessments and project prioritization have led to a collaborative restoration effort by all landowners within the Tioga Creek subbasin for the first time. The Tioga Creek Instream & Fish Passage Restoration project is a multi-faceted project that seeks to address degraded stream complexity, water quality, and fish passage by proposing to 1) place 137 pieces of wood and 300 cubic yards of boulders in over 2 miles of Tioga Creek, 2) replace 3 undersized, double culvert crossings with bridges to open access to 1 mile of tributary habitat and release a large amount of coarse sediment into the newly added wood structures, and 3) plant 2000 conifers along 1.5 miles of riparian buffer on the Tioga mainstem. OWEB funds will be used for project management, travel, contracted services, materials & supplies, and indirect costs. The Coos Watershed Association (CoosWA), Bureau of Land Management (BLM), Bavarian Olympus Timber LLC (BOT), and Oregon Department of Fish & Wildlife (ODFW) will be providing match that includes project management, travel, stream crossing designs, contracted services, materials & supplies, and technical assistance.

Review Team Evaluation

Strengths

- The project builds on previous fish passage and instream habitat activities within this basin. Project partners are practicing adaptive management by using observations from previous projects; the proposal utilizes larger wood and employs a 1-2 year waiting period after culvert removal to observe sediment distribution prior to culver replacement.
- The project approach and technical designs are sound and have a high likelihood for success.
- The project culverts were added to the 2019 ODFW fish passage priority list and are among the top five priority barriers for the Coos system.

- The project presents an opportunity to work with a new land manager who has demonstrated commitment to the project through match donations and active participation in project development.
- The project would improve access and instream conditions in critical habitat areas for ESA-listed coho.

Concerns

- The applicant needs to work with NOAA to ensure the bridge designs will meet fish passage criteria.
- The project has increased mobilization costs because heavy equipment will need to visit the site for culvert removal and again for installation of the new structures.

Concluding Analysis

The project has been vetted through the applicant's technical team process and incorporates lessons learned from previous work on passage and habitat enhancement projects in the basin. The poor condition of the culverts makes the timing of this proposal critical. The project area is a priority for protection and restoration in the draft Coos Coho Strategic Action Plan and the effort will benefit fish access and improve habitats that ESA-listed coho rely on. The project partners are committed and experienced, and the work has a high likelihood of success.

Review Team Recommendation to Staff

Fund

Review Team Priority

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Review Team Recommended Amount

\$448,377

Review Team Conditions

N/A

Staff Recommendation

Staff Follow-Up to Review Team

N/A

Staff Recommendation

Fund with Conditions

Staff Recommended Amount

\$448,377

Staff Conditions

Culvert designs must meet NOAA Fish Passage Criteria.

Open Solicitation-2019 Spring Offering Southwest Oregon (Region 2)

Application Number: 220-2004-17007

Project Type: Restoration

Project Name: Williams River Quarry Falls Fish Passage Improvement

Applicant: Coos Watershed Association

Region: Southwest Oregon

County: Douglas

OWEB Request: \$328,844

Total Cost: \$511,807

Application Description *(from application abstract)*

In the Coos basin, the Williams River is a main tributary to the South Fork Coos River, providing important habitat for chinook, coho, and steelhead, among other aquatic species. The 1960s road building and quarry operations constrained the Williams River at the Five Mile Creek Quarry in Douglas County against a bedrock hillslope, drastically increasing the stream gradient to establish the Quarry Falls. These falls are a major concern and are the top priority barrier on the ODFW Statewide Fish Passage Priority List in the Coos basin. CoosWA and Weyerhaeuser have collaborated to tackle the other major priority barriers on the Millicoma Tree Farm (OWEB 212-2047, 216-2012), with a focus now on tackling the last major priority barrier, the Quarry Falls. This project proposes to address fish passage issues and the simplified channel complexity that stem from the high velocities and jump heights present in the falls by shifting the 5000 Road over nearly 50 feet, widening the channel by up to 45 feet, and planting 400 trees and shrubs along 700 ft of stream. These activities will improve stream complexity, establish a more beneficial riparian buffer, and improve adult and juvenile access to nearly 21 miles of the furthest extent of anadromous fish habitat in the Coos basin. Migrating adults often have limited access to the high quality spawning habitat above the falls, which leads to overpopulated rearing reaches downstream. Juveniles tend to rear in the William's cool, productive waters significantly longer than streams lower in the Coos basin, emphasizing the importance of spawning distribution above the falls to increase the survival of out migrating juveniles. OWEB funds will fund project management, travel, supplies, contracted services, and indirect costs. Weyerhaeuser, CoosWA, ODFW, and NOAA will be providing match to cover project designs, permitting, road relocation activities, contracted services, technical assistance, and some indirect costs.

Review Team Evaluation

Strengths

- The project is a resubmittal and the applicant addressed concerns from the previous application related to the technical team differences on design approach.
- This barrier is the final one in the system and builds on other fish passage and extensive instream habitat restoration work both upstream and downstream of the site. The project will facilitate passage for multiple species including ESA-listed coho, with juveniles benefiting the most from the project.
- The costs associated with earth moving are reasonable for the amount of work proposed.

- Project partners have experience in successfully addressing challenging fish passage projects. The application demonstrates strong working partnerships and commitment necessary to design, fund, and implement a project of this magnitude.

Concerns

- Fish passage is not a priority limiting factor for coho in this watershed.
- The rationale for a high project cost to gain a limited fish benefit, eliminating delay in spawning, was not clearly articulated in the application.
- It remains unclear if the project is “shovel ready” because consultation with NOAA and ODFW has not yet occurred.
- While the application corrected two of the three letters of support from the prior submittal, the third support letter is for a different project.

Concluding Analysis

The proposed approach to improve fish passage at the site should lessen gradient and flow velocity and assist in both adult and juvenile passage for multiple species. While passage is not a critical limiting factor in this system, the work will complete fish passage restoration efforts and connectivity between upstream and downstream habitats. The high project cost for the expected ecological benefit resulted in a lower priority ranking.

Review Team Recommendation to Staff

Fund

Review Team Priority

15 of 15

Review Team Recommended Amount

\$328,844

Review Team Conditions

N/A

Staff Recommendation

Staff Follow-Up to Review Team

N/A

Staff Recommendation

Do Not Fund; falls below staff-recommended funding line

Staff Recommended Amount

\$0

Staff Conditions

N/A

Open Solicitation-2019 Spring Offering Southwest Oregon (Region 2)

Application Number: 220-2005-17011

Project Type: Restoration

Project Name: Catching and Boone Creek Fish
Passage and Habitat Restoration

Applicant: Coos Watershed Association

Region: Southwest Oregon

County: Coos

OWEB Request: \$384,759

Total Cost: \$566,108

Application Description *(from application abstract)*

This project proposes to restore watershed function through riparian planting/fencing, improving fish passage, access to off-channel habitat, and address 11 fish passage crossings. The Catching and Boone Creek sub-basins are DEQ 303(d) listed tributary's that drain to Catching Slough near Coos Bay, situated along a narrow agricultural valley that's been heavily impacted by past land management practices, resulting in stream channelization and removal of riparian trees and shrubs. The project proposes to install 17,325 feet of livestock exclusion fencing along more than 2 miles of stream within these sub-basins, provide riparian setbacks ranging between 20 and 30 feet. These buffers will be planted with a variety of native tree and shrub species according to the existing planting plans. Prior to planting, invasive blackberry will be addressed throughout the project area. Plant establishment activities will occur for 5 years after the planting to insure a goal of 80% plant survival. To address the 11 failing and drastically undersized (18-48") stream crossings we will install 3 concrete slab bridges, 6 culverts (24"-96"), and fully decommission 2 crossings. Crossings have been sized to pass 100-year peak flows and will meet NOAA fish passage criteria (1.5xACW and >20% embeddedness). These crossings will improve existing drainage issues and provide access to nearly 7 miles of critical spawning and rearing habitat, which are the key limiting factors for the Catching Creek sub-basin. OWEB funds will be used for project management, contracted services, engineering designs, plant establishment, travel, project materials, and indirect costs. The landowner, County Road Department, Coos SWCD, and ODFW will provide match contributions in the form of contracted services/labor, project supplies/materials, and technical expertise during the duration of the project. OYCC match will fund an 8-member youth crew for plant stewardship activities for the next 5 years.

Review Team Evaluation

Strengths

- The project restores important habitat for ESA-listed coho and will also address water quality, which is a critical limiting factor.
- The crossing designs meet NOAA fish passage criteria. The project will open access to 7 miles of fish habitat.

- The fencing plan is sound and the property already has off-channel livestock watering. The planting plan is appropriate for the area and the stewardship plan is likely to result in plants achieving “free-to-grow” stage.
- NRCS is planning to work in the Coos River basin as one of the agency’s next priority areas.
- The project builds on previous restoration work in this sub-watershed. The applicant has a successful track record of implementing and stewarding similar projects.
- The project is in a highly visible location that could help gain support for future restoration projects. The landowner is committed to the success of the project and is actively engaged in design and implementation and planned stewardship activities.

Concerns

- The landowner is currently not interested in CREP. The streams were simplified through historic land use practices and there is low likelihood of restoring historic meander patterns.
- It is unclear whether the road beds would need to be raised to accommodate the new crossings.
- There is some discrepancy in the application on the amount of cost share the county will provide for the bridge costs.

Concluding Analysis

The project provides an opportunity to implement important restoration work in a highly visible location. The low gradient, near estuary stream systems are identified as priority areas for restoration in the draft Coos Coho Strategic Action Plan. The project is technically sound, involves a highly engaged landowner and has a high likelihood of success.

Review Team Recommendation to Staff

Fund

Review Team Priority

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Review Team Recommended Amount

\$384,759

Review Team Conditions

N/A

Staff Recommendation

Staff Follow-Up to Review Team

N/A

Staff Recommendation

Fund

Staff Recommended Amount

\$384,759

Staff Conditions

N/A

Open Solicitation-2019 Spring Offering Southwest Oregon (Region 2)

Application Number: 220-2006-17012

Project Type: Restoration

Project Name: Woodward Creek Restoration

Applicant: Coquille Watershed Association

Region: Southwest Oregon

County: Coos

OWEB Request: \$250,018

Total Cost: \$443,848

Application Description *(from application abstract)*

Woodward Creek is a major tributary to the North Fork Coquille River and has important spawning and rearing habitat for coho, Chinook, steelhead, cutthroat and Pacific lamprey. The project area, near Fairview in Coos County, OR is designated as critical habitat for the ESA listed Oregon Coast coho salmon and it is a BLM Priority Watershed. The Woodward Creek Basin is suffering from the legacy of historic land use. The limiting factors currently facing Woodward Creek are a lack of stream complexity, habitat and refugia and excessive sediment loading from the road network, exacerbated by illegal recreational activity. Partnering with the BLM, timber companies, Coos County Forestry and a private landowner, CoqWA is continuing a holistic restoration effort aimed at addressing all of the limiting factors in Woodward Creek. Restoration actions include wood placement for habitat, installing barriers to restrict illegal recreational activity, replacing three failing culverts on fish bearing tributaries and six on non-fish bearing tributaries, partially decommissioning a valley bottom road and performing education and outreach to the local community. Together, these actions will provide benefits for native fish, water quality and the local community across an extremely important sub-watershed. Specifically, OWEB funding will be used to support the in-stream habitat enhancement, culvert replacements on fish bearing streams, and the partial road decommissioning. In-kind match and cash match from the BLM and Drinking Water Providers Partnership will accomplish the remaining deliverables in this holistic approach.

Review Team Evaluation

Strengths

- The North Fork is the drinking water source for Myrtle Point. The project will help address 303(d) listed water quality issues including sedimentation and temperature.
- The project partners are committed to stopping off-road vehicle use in riparian and stream areas. The proposal takes a comprehensive approach to addressing the problem, including outreach to the public and local user groups, blocking access points on main entry roads and arterial roads, placing physical impediments near stream access points, and increased security presence.
- The budget has reasonable rates and is cost effective for the proposed scope of work.
- The project will improve instream habitat for ESA-listed coho and builds on the benefits attained from previous large wood placement in the stream.

Concerns

- Curbing off-road vehicle access to riparian areas and streams is a difficult proposition. From a technical perspective the locating of areas and placement of access impediments is challenging. It is unclear from the design information provided in the application how the installation of slash materials and logs will reduce sediment inputs. The culvert replacement designs are not provided because they are still in the technical design phase.

Concluding Analysis

Woodward Creek provides important habitat for ESA-listed coho and also contributes to the drinking water source for the City of Myrtle Point. Project activities will improve instream habitat and water quality. Off-road vehicle activity has been a long-term concern that requires combination of approaches. The ecological benefit will be high should the effort be successful. Increasing public awareness will be a key component in achieving long-term success.

Review Team Recommendation to Staff

Fund

Review Team Priority

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Review Team Recommended Amount

\$250,018

Review Team Conditions

N/A

Staff Recommendation

Staff Follow-Up to Review Team

N/A

Staff Recommendation

Do Not Fund; falls below staff-recommended funding line

Staff Recommended Amount

\$250,018

Staff Conditions

N/A

Open Solicitation-2019 Spring Offering Southwest Oregon (Region 2)

Application Number: 220-2007-17024

Project Type: Restoration

Project Name: Lower Wasson Creek Riparian
Restoration

Applicant: Smith River WC

Region: Southwest Oregon

County: Douglas

OWEB Request: \$78,305

Total Cost: \$164,807

Application Description *(from application abstract)*

The Wasson Creek drainage is located 15 miles NE of Reedsport OR and is majority federally owned and managed. The project area is located 19 miles up Smith River Rd, and occurs on private property bordered by the Siuslaw NF to the West, East and the South. Part of the project area is located in the tidal zone. The primary issue is Riparian Process and Function. Watershed and terrestrial functions will be benefited by addressing noxious weeds and restoring the riparian areas to native plant dominated forested lands. This project will remove and suppress Himalayan Blackberry (HBB) over 17.7 acres, by manual, mechanical, and chemical means over a six year period. Monitoring of native tree plantings will be conducted for an additional two years to ensure escapement. Pretreatment will remove the bulk of the HBB biomass over a two year period. Larger tree stock will be planted, 2-3 foot stock. Post-planting treatments will be combined with manual removal and herbicide treatments occurring twice during year 3, and once for years 4-6. The need for subsequent treatments will be evaluated during years 7 and 8 to ensure escapement for plantings to the free-to-grow stage (Forest Practices Program, Oregon Department of forestry, 1994). If further treatments are required after year 6, funds for needed maintenance will be acquired from the USFS Siuslaw NF Stewardship Group. This maintenance may also be performed by the USFS if they purchase the project lands from Ecotrust Forest Management within the next 3-4 years. SRWC and partners will continue to monitor plantings and treat HBB for a minimum for 4 years following tree planting. Project partners include: ODFW, USFS, Ecotrust Forest Management and CTCLUSI. Post-planting treatment is aimed at ensuring trees escape HBB influence and form a canopy capable of shading out future HBB growth. OWEB funds will be used for contracted services for the treatment of HBB, replanting of native species, and in-house personnel.

Review Team Evaluation

Strengths

- The site preparation approach and the planting plan are reasonable and tailored for the site conditions. In response to a prior evaluation concern, the application includes a contingency plan in case additional plant stewardship efforts are needed after year six.
- Restoration of the riparian area will help improve riparian function, benefit water quality, and support large wood recruitment to the stream. Upper portions of the watershed are under Ecotrust ownership and present an opportunity for future large wood recruitment instream.

- The application presents a concise description of the watershed's limiting factors and the discussion of the restoration alternatives is helpful in understanding how the proposed solution will address the limiting factors. The stream is a lower tributary to the Smith River and is closely connected to tidally influenced habitats important to ESA-listed coho.

Concerns

- The contingency plan for plant stewardship is dependent upon securing funds from USFS at the time of need; the likelihood of obtaining those funds is unclear in the application.
- The project hours associated with the Executive Director seem excessive based on the scope of work. Additional detail on how the time was estimated would be helpful.
- According to the application, the area to be planted is subject to inundation and has wet areas. It is unclear if the planting prescription is tailored to cope with these conditions.

Concluding Analysis

The project helps restore native riparian function in a reach of Wasson Creek, near the confluence with the Smith River, which is heavily impacted by invasive species. The work will benefit riparian function, as well as help improve water quality and restore future large wood recruitment in an area that will benefit ESA-listed coho and other native salmonids. The challenging nature of the existing conditions makes it important that ample thought and active management is applied to plant stewardship to assure the plantings are successful.

Review Team Recommendation to Staff

Fund

Review Team Priority

14 of 15

Review Team Recommended Amount

\$78,305

Review Team Conditions

N/A

Staff Recommendation

Staff Follow-Up to Review Team

N/A

Staff Recommendation

Do Not Fund; falls below staff-recommended funding line

Staff Recommended Amount

\$0

Staff Conditions

N/A

Open Solicitation-2019 Spring Offering Southwest Oregon (Region 2)

Application Number: 220-2008-17026

Project Type: Restoration

Project Name: Spencer Creek Instream
Restoration

Applicant: Smith River WC

Region: Southwest Oregon

County: Douglas

OWEB Request: \$155,786

Total Cost: \$347,703

Application Description *(from application abstract)*

Spencer Creek is a tributary of the Lower Smith River located 25 miles east of Reedsport, Oregon. Spencer Creek is located near the head of tide and the lowest 0.25 miles of Spencer Creek is tidally influenced during large high tides. Spencer Creek is the closest major tributary downstream of the Smith River Falls fish ladder. Spencer Creek is classified by ODFW as having higher to highest intrinsic potential rankings for the entire mainstem. Spencer Cr currently has the lowest quality winter habitat from the ODFW Limiting Factors Model. Historical land use practices have greatly impacted the natural function of streams throughout the Smith River Watershed. These impacts have led to bedrock dominant systems lacking substrates, decreased subsurface flow leading to high peak summer temperatures, a lack of large wood recruitment, and ultimately greatly reduced production of anadromous trout, salmon, lamprey, and other aquatic species. This project seeks to maximize ecological uplift by providing an increased trajectory for rehabilitating historic stream processes. Funding will be used to mitigate environmental impacts, increasing anadromous species production and improving overall habitat and stream function through instream restoration structures. Instream log/boulder placements have been designed by SRWC and ODFW Western Oregon Habitat Restoration Biologist Eric Himmelreich. 47 structures containing 507 logs and 1640 boulders will be placed over 4.5 miles of stream. A large constructed log jam will be placed below Spencer Creek falls to improve fish access to 8.5 miles of stream habitat. This is a low flow barrier to anadromy that was modified by the Oregon Fish and Game Commission in the 1970's. We will also remove a boulder from a key jump pool, remove exposed rebar and concrete/rebar debris from a failed fish ladder. Project partners are the Coos Bay District BLM, Roseburg Resources Company, Oregon Department of Fish and Wildlife and Trout Unlimited.

Review Team Evaluation

Strengths

- Spencer Creek is important habitat for ESA-listed coho and the project will help improve instream complexity, which is a primary limiting factor.
- The project partners have extensive experience with large wood placement in the basin.

- Fish passage at the bedrock falls downstream of most of the proposed large wood structures was a concern in the previous application evaluation. The current approach is to improve passage through placement of a large wood and boulder structure directly below the falls. The site will be monitored to determine passage success by salmonids.

Concerns

- Project partners should revisit the size of logs proposed in the application. With an active channel width of 36' and a proposed average log size of 40', an excessive number of boulders will be required to anchor the large wood structures. Sites 1 and 24 need to be well-anchored to prevent movement and site 3 requires review by a fish passage engineer to minimize the potential for the large wood to become buoyant.
- There is no contingency plan for addressing fish passage issues if the proposed approach to address the low flow barrier at the falls is unsuccessful or if modification is necessary.

Concluding Analysis

The bedrock falls pose a challenge to fish passage and the approach to improve passage has been revised from the previous submission. Rather than alteration of the bedrock falls, the application proposes to improve the jump pool and holding area by placing a large wood and boulder structure below the falls. Fish passage at Spencer Creek Falls should be addressed successfully before investing funds in placing additional material upstream. The project is a good candidate for a Technical Assistance project to provide the information needed to develop alternatives for consideration in addressing passage at the site.

Review Team Recommendation to Staff

Do Not Fund

Review Team Priority

N/A

Review Team Recommended Amount

\$0

Review Team Conditions

N/A

Staff Recommendation

Staff Follow-Up to Review Team

N/A

Staff Recommendation

Do Not Fund

Staff Recommended Amount

\$0

Staff Conditions

N/A

Open Solicitation-2019 Spring Offering Southwest Oregon (Region 2)

Application Number: 220-2009-17036

Project Type: Restoration

Project Name: Ellenburg Creek Instream
Restoration

Applicant: Elk Creek WC

Region: Southwest Oregon

County: Douglas

OWEB Request: \$183,375

Total Cost: \$246,375

Application Description *(from application abstract)*

The Ellenburg Creek Instream Restoration project will place 210 key logs, and 100 whole trees with root wads, at 28 sites in 1.5 miles of Ellenburg Creek. LWD structures will slow water, capture bedload, and create complex pools that will improve both winter and summer rearing habitat for juvenile coho salmon and steelhead. Sites and key log designs were completed by Eric Himmelreich, ODFW Habitat Biologist, and approved by Jim Muck, NOAA Fisheries. Fish passage designs were reviewed by Aaron Beavers, Hydrologist, NOAA Fisheries. Whole trees will be donated by Seneca Jones Timber Company. The Elk Creek fifth-field watershed is an important coho spawning and rearing watershed in the the Umpqua Basin. It has more miles of "high intrinsic potential" coho habitat (172 miles) than any other fifth-field in the Umpqua. It was designated a Tier 1 Key Watershed in the NW Forest Plan, and ranked #1 for restoration by the Umpqua Basin Watershed Council (1998). Ellenburg Creek is a tributary to Sand Creek in the Lower Pass Creek sixth-field watershed. There are nearly three (3) miles of high intrinsic potential coho spawning and rearing habitat in the Ellenburg Creek subwatershed [ODFW data]. The lower part of the creek (0.4 miles) is managed for agriculture (grazing); the upper reaches are private and industrial forest land. Past land management practices, most notably stream cleaning, removed most of the large wood, increased water velocities in the creek and eroded much of the streambed to bedrock. Though there is ample gravel, there are few pieces of large wood to retain gravel, aggrade the channel, or create deep pools, all essential for juvenile coho survival. Cross sections will be established at three (3) sites to monitor project effectiveness. Project partners include ODFW, Seneca Jones Timber Company, two private landowners and NOAA Fisheries.

Review Team Evaluation

Strengths

- The project was identified through a recent rapid bioassessment, which identified the reach as a priority for instream habitat restoration. The system provides important habitat for ESA-listed coho.
- The project partners effectively engaged the landowners in the project.
- The designs have a high level of clarity, with photos, drawings, and an explanation of the purpose of each structure. NOAA staff have previously reviewed and approved them.
- The project has a favorable cost to benefit ratio with the potential habitat improvement being high for the investment.

- The project approach is technically sound and has a high likelihood for success.

Concerns

- There is a passage issue below the project site that the applicant should consider addressing before this project is implemented.
- The time budgeted for project management is excessive for a fairly straightforward scope of work. When asked for clarification during the site visit, the project manager subsequently provided the basis for their calculation and recommended reducing the project management hours from 400 to 320.
- It was noted that the design for site 28 could be strengthened by providing a clearer rationale for log and boulder placement. The applicant should consider using larger key log pieces and larger boulders to help secure the habitat structures.
- The application was quite lengthy with a substantial amount of assessment and action plan information included as uploads. The applicant should consider providing summarized information in the future to facilitate application review.

Concluding Analysis

The project reflects a successful working relationship between project partners and landowners. The project approach is technically sound and will benefit habitat upon which ESA-listed coho depends. The habitat structures will be enhanced by adding donated large wood salvaged from winter storm damage near the project site. The applicant is encouraged to work with the landowners to help reduce sediment runoff into the stream systems from the road, which has native material surface.

Review Team Recommendation to Staff

Fund Reduced

Review Team Priority

11 of 15

Review Team Recommended Amount

\$178,975

Review Team Conditions

Reduce project Manager hours from 400 to 320 and adjust budget accordingly.

Staff Recommendation

Staff Follow-Up to Review Team

N/A

Staff Recommendation

Do Not Fund; falls below staff-recommended funding line

Staff Recommended Amount

\$0

Staff Conditions

N/A

Open Solicitation-2019 Spring Offering Southwest Oregon (Region 2)

Application Number: 220-2010-17038

Project Type: Restoration

Project Name: Windy Creek Instream Restoration

Applicant: Partnership for the Umpqua Rivers

Region: Southwest Oregon

County: Douglas

OWEB Request: \$69,164

Total Cost: \$108,766

Application Description *(from application abstract)*

This project is located in Windy Creek, which flows into Cow Creek in the Middle Cow Creek 5th Field Watershed just northeast of the rural community of Glendale in Douglas County. Fish present in the watershed include winter steelhead, coho salmon, Pacific lamprey, cutthroat trout and other native fish. Oregon Department of Fish and Wildlife Habitat Surveys and associated maps identify Windy Creek as having areas of higher to highest winter intrinsic potential for coho salmon. Winter rearing habitat for fish in the project area is limited by a lack of instream large wood (Middle Cow Creek Watershed Assessment, 2002). PUR, in partnership with Oregon Department of Forestry and Oregon Department of Fish and Wildlife, will place logs and trees at 22 sites throughout 1.06 miles of the creek to generate pools, cover, gravel deposition and access to off-channel areas that are currently limited in the area and needed for quality winter rearing and spawning habitat. Structures will vary by site including trees, root wads, and imported logs for a total of 37 logs and 44 trees placed into Windy Creek. Oregon Department of Forestry will contribute trees from the adjacent timber stand and staff time to help manage the project. OWEB funds will be used for PUR project management, logs, log placements, mileage and PUR administrative costs.

Review Team Evaluation

Strengths

- The project implements recommended actions in several assessments and action plans, targeting a stream system with high intrinsic potential for coho but deficient in habitat for overwintering juvenile ESA-listed coho.
- The planned wood structures include large numbers of individual pieces of wood of an appropriate size for the system. The wood addition is expected to create increased opportunities for improving over-wintering habitat.
- The project partners are experienced in this type of work. The design approach is technically sound and the project has a high likelihood of meeting objectives.
- There is a great deal of partner support and involvement in the project as articulated in the numerous letters of support in the application.

Concerns

- Outreach opportunities were not identified in the application. The project will take place on public land, which could create greater opportunities for outreach activities.

Concluding Analysis

The proposal is well-written and presents a straightforward, technically sound project with a high likelihood of meeting objectives. The proposed work complements other restoration efforts within the basin.

Review Team Recommendation to Staff

Fund

Review Team Priority

6 of 15

Review Team Recommended Amount

\$69,164

Review Team Conditions

N/A

Staff Recommendation

Staff Follow-Up to Review Team

N/A

Staff Recommendation

Do Not Fund; falls below staff-recommended funding line

Staff Recommended Amount

\$0

Staff Conditions

N/A

Open Solicitation-2019 Spring Offering Southwest Oregon (Region 2)

Application Number: 220-2011-17039

Project Type: Restoration

Project Name: Glover Estuary Enhancement

Applicant: Partnership for the Umpqua Rivers

Region: Southwest Oregon

County: Douglas

OWEB Request: \$723,973

Total Cost: \$956,254

Application Description *(from application abstract)*

Many estuarine wetlands along the coast have been filled, cleared, diked and drained for agriculture or urban development. Tidal wetlands along the lower Smith River were converted to pastures on 135 acres of the Glover Ranch by building levees, reconfiguring stream channels to ditches and installing tidegates to control the incoming tide. Partnership for the Umpqua Rivers (PUR), Umpqua Soil and Water Conservation District (USWCD), Oregon Department of Fish and Wildlife (ODFW), Natural Resources Conservation Service (NRCS), National Marine Fisheries Service (NMFS) and the Glover Family are collaborating to complete fish passage, tidal channel work and livestock management needed to improve ecological conditions in the Umpqua Estuary. During 2020, two failing tidegates will be replaced and retrofitted to increase fish passage, tidal channels will be expanded and/or rebuilt, livestock management fencing and complimentary off-channel water systems will be built, and tidal channels will be enhanced with native plantings. Muted Tide Regulators will be adjusted at each tidegate to provide 30 flooded acres at each high tide during the winter season and 15 acres during high tides occurring in the summer. Approximately 5.38 miles of livestock fence is proposed to be built 20' from the channel, and over 5,300 native plants will be established along the tidal channels. This project is located in the tidal wetlands of the Umpqua River Estuary, an area important to ESA listed Oregon Coast coho and eulachon, Chinook salmon, steelhead trout, Pacific lamprey and a variety of other native fish. OWEB funds will be used for project management, contracted services, fence materials, mileage, and PUR administrative costs.

Review Team Evaluation

Strengths

- The project approach and design is based on the results of an OWEB TA project (#218-2037). The application presents a well thought-out project that has a high likelihood of success and will provide access to 30 acres of enhanced over-wintering tidally influenced habitat for ESA-listed coho and numerous other species.
- Invasive plants have been well-managed in the past couple of years with the landowner taking an aggressive approach to eradication. The landowner is highly engaged in the project design and implementation and in future stewardship of the project.
- The proposal will remove old, failing infrastructure and replace it with two new structures designed to maximize fish passage and habitat potential.

- Engineering concerns from a previous application evaluation have been addressed and the new design approach will result in reduced cost and a simplified approach. The project is ready to be implemented.
- NOAA has reviewed the water management plan and the fish passage designs.
- There is a high degree of potential for future adjacent landowner interest in similar restoration projects based on contacts with project partners during this design phase.

Concerns

- The proposed timing of channel maintenance is infrequent (every 10 years) but the landowner feels this is reasonable based on the low sediment inputs from the small drainage above.
- There are no spawning or rearing opportunities in the streams that flow into the project area. A culvert at the main road crossing blocks access and the small size of the basin reduces the likelihood for spawning opportunities.
- The applicant should consider developing a post-implementation effectiveness monitoring plan.

Concluding Analysis

Increasing overwintering habitat opportunities in estuarine areas is critical to recovery of ESA-listed coho and the project will create and provide access to 30 acres of this type of habitat. The proposal was developed from a technical assistance grant and is technically sound with a water management plan in place.

Review Team Recommendation to Staff

Fund

Review Team Priority

1 of 15

Review Team Recommended Amount

\$723,973

Review Team Conditions

N/A

Staff Recommendation

Staff Follow-Up to Review Team

N/A

Staff Recommendation

Fund

Staff Recommended Amount

\$723,973

Staff Conditions

N/A

Open Solicitation-2019 Spring Offering Southwest Oregon (Region 2)

Application Number: 220-2012-17041

Project Type: Restoration

Project Name: Antelope Creek Water Quality Improvement Project

Applicant: Jackson SWCD

Region: Southwest Oregon

County: Jackson

OWEB Request: \$75,628

Total Cost: \$324,789

Application Description *(from application abstract)*

1) This project occurs on a ranch near Eagle Point, in the Antelope Creek Watershed, an important tributary to Little Butte Creek. The ranch is part of the NRCS Bradshaw Drop Agricultural Water Quality Improvement CIS (Conservation Implementation Strategy) Area.2) Water quality monitoring in the Little Butte Creek Watershed shows that flood irrigation tailwater returns to waterways with increased temperature, bacteria and sediment. Many of the waterways in the watershed, including Little Butte Creek and Antelope Creek, where this project occurs, are water quality limited, with TMDL's developed. However, these same waterways are important habitat for a number of aquatic species, including T&E species such as Coho, summer and winter steelhead, and rainbow and cutthroat trout. It is assumed that the same water quality benefits that enhance habitat for these species will also improve habitat for Klamath smallscale suckers, reticulate sculpin, pacific lampreys and giant pacific salamanders, although less is known about these species.3) As a result of the water quality monitoring done that showed the impact of flood irrigation on water quality in nearby streams and rivers, Jackson SWCD partnered with NRCS to write a 5-year Conservation Implementation Strategy (CIS) for the watershed. When it concluded, the partners submitted a new CIS for landowners affects by the piping of over 3 miles of Rogue River Valley Irrigation District's main canal, which is a WISE demonstration project. Through this CIS, the partners are helping landowners convert from flood irrigation to eliminate polluted tailwater returns and improve water quality.4) This project is supported by many partner agencies, including the Rogue River Watershed Council, but the majority of the project work will be managed by the Jackson Soil & Water Conservation District and the Natural Resources Conservation Service.

Review Team Evaluation

Strengths

- The project will tie into the newly piped Bradshaw Drop Project (OWEB Restoration grant #218-2025) and will be the first farm to convert from flood irrigation to a high pressure sprinkler system.
- The designers have experience with similar projects and are familiar with local soils, conditions, and irrigation needs. The proposed designs are technically sound and tailored to meet the requirements and needs of the areas to be irrigated.
- This is an NRCS focus area and matching EQIP funds have been secured.

- The landowner is supportive of the project and the ranch manager is extremely knowledgeable about irrigation and will be able to utilize the proposed system to its fullest potential.
- The project will improve water quality by reducing sediment, which benefits salmonids in Antelope Creek. The new system will use up to half the water required under the current flood irrigation method.
- The Jackson SWCD has had a baseline monitoring program in place for three years in this system and has accumulated baseline data to measure improvements stemming from on-farm irrigation systems in the watershed.

Concerns

- While there will be water savings from implementing this project, the conserved water will not be allocated instream.
- There are higher priorities for instream water in the Little Butte Creek watershed, where temperatures are lethal in summer.
- The monitoring plan should be reviewed and approved by the DEQ volunteer monitoring program.

Concluding Analysis

Flood irrigation results in the potential for 2 cfs of pasture runoff to reach Antelope Creek. While the land manager's conscientious efforts to use tailwater on adjacent properties before it reaches the stream reduces potential impacts, converting to sprinkler irrigation will reduce the long-term potential for sediment runoff.

Review Team Recommendation to Staff

Fund

Review Team Priority

13 of 15

Review Team Recommended Amount

\$75,628

Review Team Conditions

N/A

Staff Recommendation

Staff Follow-Up to Review Team

N/A

Staff Recommendation

Do Not Fund; falls below staff-recommended funding line

Staff Recommended Amount

\$0

Staff Conditions

N/A

Open Solicitation-2019 Spring Offering Southwest Oregon (Region 2)

Application Number: 220-2013-17048

Project Type: Restoration

Project Name: North Fork Riparian Restoration

Applicant: Coquille Watershed Association

Region: Southwest Oregon

County: Coos

OWEB Request: \$252,406

Total Cost: \$315,551

Application Description *(from application abstract)*

The North Fork is a main tributary of the Coquille River in Coos County, Oregon near the town of Myrtle Point. This project continues our systematic restoration approach in the North Fork Coquille River (NFCR) to address habitat limiting factors within the entire basin. The four project sites are located at the lower end of the NFCR, near the Myrtle Point drinking water intake plant. This ecological restoration project will address DEQ 303(d) water quality limiting factors by re-establishing processes, functions, and biological and physical linkages between the aquatic and riparian ecosystems. Water quality limiting factors include low dissolved oxygen (DO), high fecal coliform count, sedimentation, and high summer temperatures that are a result of degraded riparian ecosystems and extensive livestock presence. Previous projects were identified with DEQ 319 technical assistance and new projects have come from positive word-of-mouth and continued outreach as the project is located in the Coos Soil and Water Conservation District (Coos SWCD) Focus Area. Restoration activities will include wildlife-friendly fencing to exclude livestock access from the river and establishing native plant communities in the riparian areas. This project will protect approximately 25.5 acres of riparian ecosystem with 15.5 acres to undergo weed treatment and supplemental riparian planting. We will plant 4,800 native trees and shrubs, locally harvest and plant at least 2,550 willows, and install 12,425 feet of livestock-exclusion fencing along 2.6 stream miles. OWEB funds will be used for materials and supplies, travel, project management, contracted services for the planting and fencing, and fiscal administration. Project partners include the Coos SWCD and the North Fork landowners listed in this grant proposal.

Review Team Evaluation

Strengths

- The North Fork Coquille is the drinking water source for Myrtle Point. The watershed is also a focus area for the Coos SWCD and is listed on the DEQ 303(d) list for temperature and sedimentation. The resulting restoration will address water quality impairments, which in turn address limiting factors for ESA-listed coho production.
- Project partners have been able to enlist four landowners into one project effort which demonstrates good communication and coordination skills and results in a more efficient project.
- The project is highly visible and may encourage additional project interest in an area where landowner engagement has been challenging. Word of mouth helped bring the current project landowners to the effort.

- Each property has had an individual conservation plan and the resulting designs are tailored accordingly.
- The planting and plant stewardship plans are reasonable for the sites and have a high likelihood of getting the trees to the “free-to-grow” stage.

Concerns

- The project partners need to take appropriate measures to identify any potential archeological resources.
- The landowners are not interested in the CREP program due to concerns about CREP easements.

Concluding Analysis

The project partners have made progress toward implementing a comprehensive approach to restoring water quality in a system important both for coho habitat and to the adjacent community as a drinking water source. Success here could lead to additional restoration in the watershed.

Review Team Recommendation to Staff

Fund

Review Team Priority

5 of 15

Review Team Recommended Amount

\$252,406

Review Team Conditions

N/A

Staff Recommendation

Staff Follow-Up to Review Team

N/A

Staff Recommendation

Do Not Fund; falls below staff-recommended funding line

Staff Recommended Amount

\$0

Staff Conditions

N/A

Open Solicitation-2019 Spring Offering Southwest Oregon (Region 2)

Application Number: 220-2014-17053 **Project Type:** Restoration
Project Name: North Slough Riparian Restoration
Applicant: Coos Watershed Association
Region: Southwest Oregon **County:** Coos
OWEB Request: \$117,402 **Total Cost:** \$162,662

Application Description *(from application abstract)*

North Slough, located in the northern part of the Coos Watershed, supports an important population of the ESA listed coho salmon. The Coos Watershed Association has been removing the state-listed noxious weed, policeman's helmet, from the North Slough for four years with OSWB funding and is looking to build upon the current restoration efforts with riparian plantings. This is the only population of policeman's helmet in Coos County, so there is high importance to restore this area specifically. Since policeman's helmet is an annual weed and dies back at the end of every summer, it leaves banks exposed to be partially washed away during winter storms. When our stream banks are washed away, this results in large amounts of sediment loading, subsequently increasing stream temperatures and degrading instream habitat. Currently, North Slough a DEQ 303(d) listed stream for stream temperatures and bacteria. The proposed riparian restoration will continue our previous control efforts in North Slough where this high priority noxious weed is removed every summer, in order to improve water quality in spawning and rearing habitat. Through this project, CoosWA seeks to improve bank stabilization, reduce sediment production, limit bacterial inputs, and decrease stream temperatures. This project proposes to plant nearly four gross acres of riparian buffer along 1.1 miles of North Slough and build 1,300' of fencing to improve water quality and provide a native riparian area. We are partnering with seven landowners who will volunteer their time to combat noxious weeds, plant native species, perform annual site maintenance, and bolster environmental stewardship in the basin. For this project, we are partnering with the BLM Coos Bay District Noxious Weeds Coordinator, American Fisheries Society, ODFW, ODA Integrated Weed Management Coordinator, Oregon Youth Conservation District and landowner participation. OWEB funds will be used for personnel, supplies and materials, and travel,

Review Team Evaluation

Strengths

- This stream is the only known location in the Coos River watershed for the invasive plant species policeman's helmet. Eradicating it before it spreads is critical and with its current small footprint the effort has a high likelihood of success. Project partners have been working on eradication for four years, primarily with Oregon Weed Board grants.
- The application is clearly written and the project was clearly explained at the site visit.
- Five of seven landowners have already signed agreements for project work. The applicant is having conversations with the remaining two.

- The stream provides ESA-listed coho habitat and water quality is a primary limiting factor.
- Project partners are engaged in outreach efforts employing multiple mechanisms for increasing public awareness, including general public awareness, reaching out to plant merchants, and focused on face to face contact with individual landowners. The project also engages youth in assisting with removal efforts.
- The fencing setback from the stream is adequate at 35' to 50'. The proposed planting plan and plant stewardship activities are reasonable for the area and should result in getting the plants to the "free-to-grow" stage. Additionally, the planting plan includes species specifically for the benefit of pollinators.

Concerns

- Two landowners have not yet signed on to the project leaving a potential gap in treatment of the invasive plants.
- The application identifies policeman's helmet as inhibiting adult salmonid access but did not provide detail on how that access was impaired.
- Additional detail on how livestock will be managed, including areas where flash grazing may be utilized, would be helpful for review.

Concluding Analysis

The project provides an opportunity to continue to eradicate an invasive species in the only known infestation within the watershed. The proposal builds on four years of previous work and an extensive and successful outreach approach that has informed and engaged the public in identification and eradication of the invasive.

Review Team Recommendation to Staff

Fund

Review Team Priority

10 of 15

Review Team Recommended Amount

\$117,402

Review Team Conditions

N/A

Staff Recommendation

Staff Follow-Up to Review Team

N/A

Staff Recommendation

Do Not Fund; falls below staff-recommended funding line

Staff Recommended Amount

\$0

Staff Conditions

N/A

Open Solicitation-2019 Spring Offering Southwest Oregon (Region 2)

Application Number: 220-2015-17055

Project Type: Restoration

Project Name: Lower Bridgepoint Dam Fish Passage Project

Applicant: Applegate Partnership, Inc.

Region: Southwest Oregon

County: Josephine

OWEB Request: \$328,850

Total Cost: \$742,612

Application Description *(from application abstract)*

This project will implement a restoration project to address fish passage and irrigation efficiency at Lower Bridgepoint Dam (York Breeden Dam), a channel-spanning, fish passage barrier at river mile 0.5 on Williams Creek in Josephine County. Lower Bridgepoint Dam impedes adult passage to high quality spawning habitat and completely blocks juvenile access to habitat designated as core cold water habitat and high intrinsic potential habitat. The dam suppresses access to over 13.1 miles of habitat for Chinook salmon, 24 miles of habitat for ESA- listed threatened SONCC Coho salmon, 36.2 miles of habitat for steelhead, 62.5 miles of habitat for cutthroat trout and 11.5 miles of habitat for ESA-listed species of concern Pacific lamprey. The current conveyance system loses 50% of water within the first section of the ditch through seepage which requires diverting a greater quantity of water in order for irrigators near the end of the ditch to receive their full allotment. Additionally, the dam maintenance has caused accelerated erosion of streambanks and disturbance of the floodplain at the BLM Provolt Seed Orchard. This proposal will implement engineered designs for a new intake and siphon that will replace the current push-up dam, restore access to high quality fish habitat, and support fish population recovery for ESA-listed and state-listed species. The ditch piping designs will improve fish population, address DEQ- listed limiting factors, and watershed health by increasing water quality and leaving water instream. Project partners include Blue Fox Farms, Whistling Duck Farms, Lower Bridgepoint Irrigation Association, Bureau of Land Management, Oregon Department of Fish & Wildlife, Oregon Water Resources Department, Williams Creek Watershed Council, Rogue Basin Partnership, and Middle Rogue Steelheaders.

Review Team Evaluation

Strengths

- The project will address a seasonal fish passage impediment to coho, Chinook, and steelhead, improving access to upstream spawning and rearing habitat.
- There is local support and engagement in the project as evidenced through the signed project agreements from all participating landowners. The project has the potential for bringing other landowners in the area forward with interest in similar types of restoration work.
- The design contractor provided clarifying information about the design specifications following the site visit.

- The applicant has engaged with NOAA early in the process for input on designs. Final fish passage review has not yet occurred.
- The application provides a clear discussion of the expected benefits from the project work and how it will address stresses on salmonids, including ESA-listed coho, related to passage and water quality.
- The stream is DEQ 303(d) listed for temperature. Although the project will result in less water in Lower Williams Creek through the piping and siphon, the end result will be improved water quality by preventing the poor quality ditch water from entering the creek.

Concerns

- The project is primarily for fish passage but it is possible that restoration activities will result in water savings. The project would have benefited from incorporating increased instream flows into the objectives.
- There are additional barriers within the system that may impact fish access to the habitat within the watershed. There is a barrier approximately 1.5 miles upstream of the project location and a large seasonal push-up dam downstream near the confluence with Williams Creek and the Applegate River.

Concluding Analysis

- The project builds on fish passage improvement work the applicant is undertaking in the Applegate River system. Williams Creek provides critical habitat for ESA-listed coho and improving access to upstream cool water habitats and improving water quality is important to recovering their population. The project demonstrates a high level of landowner support, engagement, and ownership in the project outcomes.

Review Team Recommendation to Staff

Fund

Review Team Priority

2 of 15

Review Team Recommended Amount

\$328,850

Review Team Conditions

N/A

Staff Recommendation

Staff Follow-Up to Review Team

N/A

Staff Recommendation

Fund

Staff Recommended Amount

\$328,850

Staff Conditions

N/A

Open Solicitation-2019 Spring Offering Southwest Oregon (Region 2)

Application Number: 220-2016-17063

Project Type: Restoration

Project Name: Salt Creek Fish Passage Improvement on C2 Ranch Project

Applicant: Rogue River WC

Region: Southwest Oregon

County: Jackson

OWEB Request: \$65,218

Total Cost: \$174,460

Application Description *(from application abstract)*

The proposed project is located on the C2 Cattle Ranch on Salt Creek, a cool-water tributary to Little Butte Creek. Salt Creek is one of just a few major producers of ESA-listed Coho Salmon in the Rogue Basin. It also contains healthy populations of fall Chinook Salmon, summer and winter steelhead, and resident Cutthroat Trout. Spring fed, Salt Creek maintains cold water temperatures throughout the summer months providing essential over-summering habitat for both Coho Salmon and steelhead. Fish passage restoration is a cornerstone action to address limiting factors in the Rogue Basin. Removal of smaller barriers is essential to improving salmonid access to tributary streams. During the summer months, tributary streams provide refuge from warm stream temperatures in the larger streams and during winter, provide refugia from high winter flows. Nine diversion dams block roughly 7.5 miles of high quality habitat on Salt Creek. Seven of these nine structures are listed as high priority by the Oregon Department of Fish & Wildlife (ODFW) 2013 review of priority fish passage barriers in the Rogue. With full support of the C2 Cattle Ranch, the proposed project seeks funding to remove two of Salt Creek's seven high priority push up dams by reprofiling the existing ditch system, resetting the invert of the fish screen at two sites, installing two new headgates, concrete intakes, and piping the existing open ditch flows, as well as large wood placement to assist in aggrading the stream channel. The project partners include ODFW, NOAA, Oregon Water Resources Department, Jackson SWCD, BLM, Rogue Basin Partnership, Cascade Stream Solutions, and C2 Cattle Ranch.

Review Team Evaluation

Strengths

- The proposal builds on the momentum of other dam removal projects within this system and improves the likelihood of additional restoration in the future. The project is the result of landowner interest from observing a nearby fish passage improvement project being implemented.
- The watershed was a recent NRCS focus area with a Conservation Implementation Strategy focusing on irrigation improvement projects.
- Large wood structures will be placed below the diversion to help trap bedload and aggrade the channel.
- The applicant has involved ODFW and NOAA agency review early in the process.

- The stream provides ESA-listed coho with critical cool water habitat. Passage barriers are a high stress for the fish.
- This proposal would address two of seven ODFW priority barriers for the Little Butte Creek system.
- The project resulted from an OWEB Technical Assistance grant (#217-2024). The design engineer has experience working on fish passage at diversion structures in similar stream types in this area.
- The applicant is in conversation with the landowner about the potential for instream water leases.

Concerns

- Final project designs have not yet been completed. There is potential risk when placing a highly engineered structure in an alluvial system.
- Two downstream barriers have not yet been addressed.
- The applicant needs to work with DSL to address permitting needs at the upper diversion because of the historic alteration of the stream channel to form the top of the ditch and the intent to re-water the original channel.

Concluding Analysis

- The proposed project builds on momentum by the applicant to improve fish passage in the Little Butte Creek watershed. The project area is a priority identified in the draft Upper Rogue Coho Strategic Action Plan. While two downstream barriers have not yet been addressed, the applicant is communicating with the landowners and working towards getting project commitments. Fish passage is a key stress on ESA-listed coho and improving access to cool water refugia is a high priority in this area.

Review Team Recommendation to Staff

Fund

Review Team Priority

8 of 15

Review Team Recommended Amount

\$65,218

Review Team Conditions

N/A

Staff Recommendation

Staff Follow-Up to Review Team

N/A

Staff Recommendation

Do Not Fund; falls below staff-recommended funding line

Staff Recommended Amount

\$0

Staff Conditions

N/A

Open Solicitation-2019 Spring Offering Southwest Oregon (Region 2)

Application Number: 220-2017-17084

Project Type: Restoration

Project Name: Ranch Creek Passage

Applicant: Curry SWCD

Region: Southwest Oregon

County: Curry

OWEB Request: \$239,907

Total Cost: \$382,791

Application Description *(from application abstract)*

Ranch Creek is a small lowland stream tributary to the Rogue River Estuary, which empties into the estuary around RM 1.5. Ranch creek has seen many restoration actions throughout the watershed over time, but still has one remaining barrier at the lowest end of the stream. Because of reduced accessible habitat, fish populations are likely limited. This lowest culvert in the system is currently a velocity barrier during high flows but passes fish successfully during low flows. The water velocity in the culvert is much too fast for the young fish to swim against, and since the creek is mostly used as a juvenile rearing area during high winter flows, it continues to act as a barrier. The existing culvert consists of two 72" corrugated metal pipes, with the first placed in 1990 and an additional pipe set in 1998 due to the insufficiency for flow of the creek.. These culverts continue to have problems each winter due to high flows and often over-top the road. Not to mention, that it is impassable to juvenile fish due to such high velocities. We are working with the County and ODFW to address this barrier.

Review Team Evaluation

Strengths

- The project builds on previous fish passage, fencing, and riparian restoration projects on this stream.
- The applicant has successfully engaged landowners and generated participation in conservation projects in the area.
- Curry County Road Department has committed \$130,000 in match to the project.

Concerns

- NOAA has not reviewed the fish passage designs.
- There is no design detail provided for the bypass and temporary water management, and it is unclear if these activities were considered in the project budget.
- The applicant should investigate whether a stormwater management plan is necessary.
- The proposed project timing is somewhat confusing with the schedule in the application identifying the project as complete before OWEB's funding decision.

- Additional information in the application describing the timing and duration of flow velocities would be helpful to understanding the extent to which the culvert creates a barrier during certain flows. Photos provided in the application depicted a backwater area above the culvert; discussion of how this ties into passage issues would help to understand current conditions.

Concluding Analysis

The applicant has developed momentum working with landowners to improve the health of this stream system. Improving fish access is important, especially in this stream that drains directly into tidally influenced areas. The application left several key questions unanswered and without additional detail related to the stream velocities, timing and duration of the barrier, bedload, budget considerations, and design review, the application is premature.

Review Team Recommendation to Staff

Do Not Fund

Review Team Priority

N/A

Review Team Recommended Amount

\$0

Review Team Conditions

N/A

Staff Recommendation

Staff Follow-Up to Review Team

N/A

Staff Recommendation

Do Not Fund

Staff Recommended Amount

\$0

Staff Conditions

N/A

Open Solicitation-2019 Spring Offering Southwest Oregon (Region 2)

Application Number: 220-2018-16967

Project Type: Technical Assistance

Project Name: Tenmile Lakes Watershed Big
Creek Land Acquisition Technical Assistance

Applicant: Cascade Pacific RC&D

Region: Southwest Oregon

County: Coos

OWEB Request: \$36,841

Total Cost: \$46,751

Application Description *(from application abstract)*

The Tenmile Creek Watershed is situated in southwestern coastal Oregon. The watershed encompasses an area of approximately 98 square miles and is located in Coos County with a small portion of the upper watershed extending into Douglas County. The Tenmile Lakes subbasin consists of 10 highly productive Coho streams that flow east from headwaters in the Elliott State Forest through private agricultural lands into both North and South Tenmile Lakes. In many instances these tributaries that once meandered and contained wetland vegetation to filter out nutrient and sediment are now channelized. These channel modifications have increased the movement of Non-Point Source pollutants from the upper reaches of watersheds into the lakes and sediment loading has increased 10,000 x since Europeans settled in the region (Nutrient Study, Eliers 2002). This dramatically increased rate in eutrophication has resulted in impacted water quality and reduced salmonid habitat. Technical assistance funding will support the TLBP to work with the Wild Rivers Land Trust to investigate and conduct due diligence for the future acquisition of a lower Big Creek priority agricultural property. The specific project deliverables will be a Phase I environmental site assessment, boundary survey, title investigation and identification of relevant land use restrictions or requirements for this specific property. The Big Creek subbasin is high priority for Coho restoration efforts will multiple restoration projects successfully implemented upstream. This property is the lowest in the drainage where Big Creek and Noble Creeks meet. The property has a low gradient and although in a degraded condition, it has high potential for successful wetland restoration. Project Partners include the Tenmile Lakes Basin Partnership, Wild Rivers Land Trust, ODFW, the Confederated Tribes of the Coos, Lower Umpqua and Siuslaw Indians, ODEQ, DSL, and the Tenmile Lake Association.

Review Team Evaluation

Strengths

- Tenmile Lakes is an important system for ESA-listed coho and their populations are heavily impacted by water quality issues in the basin. The project will complement upstream restoration to reduce sedimentation and improve fish passage. This arm of Tenmile Lake is the only one with currently intact wetlands and this site can serve as an important filter and habitat complex.
- Wild Rivers Land Trust is an effective partner in this effort bringing needed transaction tools, knowledge, and experience to the project. Combined with the trust and effective working relationships Tenmile Lakes Basin Partnership has built in the watershed, the project has a high likelihood of success.

- The project is cost effective and the scope aligns with project objectives. The tasks are necessary to determine the feasibility of moving this project to a full acquisition proposal.
- The proposal is consistent with goals identified in the Coos-Coquille Water Quality Management Plans to improve water quality.

Concerns

- The description of the sale of the property and the possibility of extenuating circumstances is unclear. Specifically, the timeline for the sale of the property, whether there is a first right of refusal, and the threat of sale prior to conservation acquisition are unclear?
- The application does clearly describe why this property was targeted for acquisition, including the site conditions.

Concluding Analysis

The proposal is the first potential acquisition in this watershed pursued by the applicant and could serve as a powerful outreach and demonstration tool in an area highly resistant to conservation transactions. The investment in this technical assistance project will help identify any issues and determine if this property is a solid candidate for possible acquisition.

Review Team Recommendation to Staff

Fund

Review Team Priority

4 of 11

Review Team Recommended Amount

\$36,841

Review Team Conditions

N/A

Staff Recommendation

Staff Follow-Up to Review Team

N/A

Staff Recommendation

Fund

Staff Recommended Amount

\$36,841

Staff Conditions

N/A

Open Solicitation-2019 Spring Offering Southwest Oregon (Region 2)

Application Number: 220-2019-16976

Project Type: Technical Assistance

Project Name: Winter Lake Phase 3: Hydrologic Enhancement Design

Applicant: Coos SWCD

Region: Southwest Oregon

County: Coos

OWEB Request: \$74,946

Total Cost: \$118,290

Application Description *(from application abstract)*

The Coos Soil and Water Conservation District (Coos SWCD) & team are developing the Winter Lake Phase III tidal floodplain hydrologic connectivity project. The project is within the Beaver Slough Drainage District (BSDD) floodplain (River Mile 20.5) of the Coquille River, 2.5 miles west of Coquille, Coos County, OR. Historical water management through installation of tidegates, berms, and channel excavation in the early 1900's disconnected fish access to over 14,000 acres of tidal floodplain habitat in the Coquille River basin severely truncating production potential for coho. Early tidegate infrastructure has changed little since tidegates were installed in the early 1900's. Oregon Coast (OC) coho have declined from ~150,000 average /412,000 peak adults prior to Euro- settlement to ~18,000 annually today. Tidegate infrastructure severely impacted fish production, provided for modest pasture grass production, however, with severely limited potential for pasture irrigation. In 2017 the largest tidegate project within the Pacific Coast was installed; the C3P tidegate project on the BSDD (Winter Lake Phase I). In 2018 installation of ~8.0 miles of tidal channel was completed in Unit 2 of Winter Lake (Phase II). Coos SWCD in coordination with Oregon Department of Fish and Wildlife, BSDD, The Nature Conservancy (TNC), and landowners are proposing to develop engineering and design for replacement of undersized culverts and installation of swale channels/grassed waterways that will critically enhance the capacity of BSDD Units 1 and 3 to produce OC coho juveniles and pasture grass due to enhanced hydrologic connectivity. This project will provide the infrastructure necessary to fully utilize the investment developed through Phase I and II. The project will aim to incorporate NRCS Conservation Implementation Strategy (EQIP) funding with other match sources for implementation of the project. The project team includes: SWCD, ODFW, TNC, BSDD, and Coquille Watershed Council.

Review Team Evaluation

Strengths

- The project is within the footprint of the China Camp Creek Tidegate Replacement Project. The land behind the completed project includes three units with extensive channel and riparian restoration completed in Unit 2. Units 1 and 3 were reserved primarily for agricultural purposes. This project will result in designs for channel restoration compatible with agricultural practices in Units 1 and 3.
- The applicant and regulatory agencies are engaging early with the landowners.

- The project will result in additional habitat for over wintering ESA-listed coho, as well as help landowners manage and irrigate their agricultural properties during the summer months.
- The project addresses critical habitat for a number of fish species. About 5% of historic tidal wetlands remain in the Coquille valley, making landowner interest in restoring these valuable habitats notable. These wetland complexes provide a vital habitat critical to the life history of ESA-listed coho.
- A Water Management Plan is already in place and allows water exchange with the tide cycle and during the winter months coho can access Units 1 & 3. The proposed design would enhance access to habitat in these two units by replacing existing gated culverts with slide gates and providing additional channel systems for fish access as well as improving their ability to move back to the mainstem as winter flows recede. The application includes a budget line item to support the update of the document. NRCS has done preliminary work to explore water quality projects with landowners through the EQIP program.

Concerns

- The resulting project will improve habitat conditions from the current state but conditions will still be more simplified than those in Unit 2 because the land will still be managed primarily for agricultural production, including grass and livestock. Developing grazing and/or irrigation management plans could be beneficial to both the producers and water quality by minimizing runoff of manure and fertilizers into the system. A clear articulation of the watershed benefits of the proposed restoration will help determine the cost effectiveness.
- Given the proposed extensive channel excavation, archeological surveys will be a critical step in project development and need to be thorough enough to identify potential culturally significant sites and measures to protect them.
- The resulting restoration application could be expensive based on the costs of previously completed similar work for the Unit 2 restoration. The number of miles of channel construction proposed is greater than in Unit 2 but the complexity and development of new channels will not be as extensive. It will be important for the applicant to work on developing a funding strategy early in the process.
- USFWS will need to be included in the review process for updating the Water Management Plan.
- EQUIP funds will not be available for supporting the Conservation Implementation Strategy until 2021 at the earliest.

Concluding Analysis

Units 1 and 3 were designated as primarily agricultural units under the China Camp Creek project and the Water Management Plan was designed accordingly taking into account that coho would have access to these units during the winter months. The restoration work undertaken to replace the tide gates and restore habitat in Unit 2 is in the monitoring phase. There may be some advantages to delaying design development until results and lessons learned from Unit 2 can help inform the design process for Units 1 and 3. The project will result in restoration that would address a critical limiting factor impacting coho in the watershed. The project builds on momentum in the basin and coast-wide to improve fish access through tidegate infrastructure and restore the habitat behind them.

Review Team Recommendation to Staff

Fund

Review Team Priority

6 of 11

Review Team Recommended Amount

\$74,946

Review Team Conditions

N/A

Staff Recommendation

Staff Follow-Up to Review Team

N/A

Staff Recommendation

Do Not Fund; falls below staff-recommended funding line

Staff Recommended Amount

\$0

Staff Conditions

N/A

Open Solicitation-2019 Spring Offering Southwest Oregon (Region 2)

Application Number: 220-2020-16990

Project Type: Technical Assistance

Project Name: Evans Cr Fish Passage - Wimer Siphon

Applicant: Applegate Partnership, Inc.

Region: Southwest Oregon

County: Jackson

OWEB Request: \$36,614

Total Cost: \$46,590

Application Description *(from application abstract)*

This project will develop engineered designs for dam removal at Wimer Siphon Dam, an abandoned concrete channel-spanning, fish passage barrier on Evans Creek in Jackson County. The dam is located at the May Ellis Park in the center of Wimer. The park's purpose is to preserve wildlife and their habitats while providing recreational opportunities. Wimer Siphon Dam impedes adult passage to high quality spawning habitat and completely blocks juvenile access to habitat designated as core cold water habitat and high intrinsic potential habitat. The dam suppresses access to over 12+ miles of habitat for Chinook salmon, 52.5 miles of habitat for ESA- listed threatened SONCC Coho salmon, 71 miles of habitat for steelhead, 115 miles of habitat for cutthroat trout, and 12+ miles of habitat for ESA-listed species of concern Pacific lamprey. The removal of Wimer Siphon Dam will complement other fish passage projects on Evans Creek including the removal of Fielder, Wimer, Reece, and Upper Alphonso Dams and will continue the momentum of fish passage improvement in the watershed. Data collected for these projects will be leveraged in the Wimer Siphon Dam removal designs. This proposal will provide engineered designs for dam removal, stream restoration, and riparian plantings that will restore access to miles of high quality fish habitat thereby supporting fish population recovery for ESA-listed and state-listed species. Project partners include May Ellis Trust, Bureau of Land Management, Oregon Department of Fish & Wildlife, Oregon Water Resources Department, Rogue Basin Partnership, and Middle Rogue Steelheaders.

Review Team Evaluation

Strengths

- The project will produce a shovel ready design for dam removal to be completed by a qualified consulting firm experienced with this type of project.
- The project builds on the momentum from a series of recent dam removals in the Evans Creek system.
- The goals outlined in the project are clear and the timeframe for achieving them is appropriate for the work described. This project should result in a restoration action that has a high likelihood of success without causing adverse impacts to infrastructure or the property.

- Evans Creek provides critical habitat for ESA-listed coho and will help improve passage to cool water habitats upstream which are the target of active instream habitat restoration funded by OWEB (219-2032).

Concerns

- The actual dam removal project is fairly straightforward, with limited in-stream restoration. A technical assistance grant may not be necessary given the lack of complexity in design and the low cost of dam removal.

Concluding Analysis

Community concerns over the stability of the historic covered bridge directly upstream combined with the landowner's commitment to dam removal being contingent on there being no adverse impact to the property from the removal have driven the need for a technical assistance project for this fairly straightforward small dam removal project. The project would lay the foundation for the dam's removal, building on the portfolio of dam removals on the Evans Creek watershed over the last few years in an effort to improve salmonid access to important cool water habitat above.

Review Team Recommendation to Staff

Fund

Review Team Priority

2 of 11

Review Team Recommended Amount

\$36,614

Review Team Conditions

N/A

Staff Recommendation

Staff Follow-Up to Review Team

N/A

Staff Recommendation

Fund

Staff Recommended Amount

\$36,614

Staff Conditions

N/A

Open Solicitation-2019 Spring Offering Southwest Oregon (Region 2)

Application Number: 220-2021-16993

Project Type: Technical Assistance

Project Name: Elkton Reserve Restoration Project

Applicant: South Umpqua Rural Community Partnership

Region: Southwest Oregon

County: Douglas

OWEB Request: \$47,350

Total Cost: \$82,143

Application Description *(from application abstract)*

The Elkton Reserve, located on the mainstem of the Umpqua River near Elkton in North Douglas County, comprises 410 acres of complex, high value habitats including mixed hardwood-conifer, Oak meadows, conifer forests, Northern Spotted Owl, Osprey & Heron nest sites and Core Area, ponds, seasonal streams, and two streams identified in the Oregon Statewide Hydrology map as perennial. The Reserve lies within an Oak Woodlands Conservation Opportunity Area defined in the Oregon Conservation Strategy. The property is managed for ecological conservation and restoration in partnership with the US Fish & wildlife Service, the Oregon Department of Forestry, and the Natural Resources Conservation Service. Via the Healthy Forests Reserve Program, NRCS holds majority management rights. The HFRP was developed specifically to enhance recovery of the ESA listed NSO. Signatories to the HFRP agreements include the three agencies and the landowners. Though not a signatory, the USFS NSO Recovery Team is an essential partner. The South Umpqua Rural Community Partnership, a 501c3 collaborative and fiscal manager for this proposal, is also a partner. While the HFRP is focused on a single species, the management plan for the Reserve recognizes other ecological values. Riparian zones along the two perennial streams are mapped as discrete management units, for example. There, culvert replacement and fish passage barrier removal reestablished Coho spawning in Whitehorse Creek. We have proposed to our partners plan revisions for selected management units intended to enhance the overall ecological value of the Reserve. Subsequent to a meeting and a site tour, the agency partners have agreed that our proposal is consistent with the purpose of the HFRP and our contractual commitments (see attachment A, letters of concurrence). The long term value of the Reserve and of this grant resources lie in the guarantees provided by a 99 year easement intended to benefit the public trust.

Review Team Evaluation

Strengths

- The landowner is committed to long-term restoration on the subject properties. A great deal of time and effort has been invested by the landowners and the applicant working with partner agencies including ODF, NRCS and USF&WS, to address concerns from the previous review. These concerns centered around the potential conflicts with the existing Healthy Forest Reserve Program (HFRP) easement held by NRCS and the proposed expansion of the management plan to include restoration and protection of other habitat types. The discussion resulted in development and support for a process that would preserve the HFRP values of the easement and allow the planning process to

move forward with a high likelihood that resulting management plans could result in implementable restoration activities.

- In addition to the HFRP, there is also a stewardship agreement with ODF and a Safe Harbor Agreement for spotted owls with USFWS.
- In this resubmittal, the applicant provided greater clarity about the proposal by submitting a resource assessment and planning type technical assistance application rather than a technical design and engineering.
- Project match is now secured.
- The applicant will be working with ODA and USFWS on protecting ESA-listed plant species.
- The application improved the discussion on quantifying the ecosystem benefits that could result from activities implemented as a result of this planning effort.

Concerns

- The applicant should investigate if services such as the forest stand assessment are products that could be available from agencies such as USFS or ODF and not require the services of a consultant to develop.

Concluding Analysis

The project presents the opportunity to restore and protect important upland habitat areas building on efforts already in place on this property. The project will provide outreach opportunities for showcasing how properties can be managed successfully for multiple habitat benefits. This work helped lay the foundation for the first oak woodlands working group in Douglas County. The applicant has put in a great deal of effort to work with partner agencies to ensure that products resulting from this proposal would not conflict with the existing HFRP easement and would have a high likelihood of resulting in implementable restoration actions.

Review Team Recommendation to Staff

Fund

Review Team Priority

11 of 11

Review Team Recommended Amount

\$47,350

Review Team Conditions

N/A

Staff Recommendation

Staff Follow-Up to Review Team

N/A

Staff Recommendation

Do Not Fund; falls below staff-recommended funding line

Staff Recommended Amount

\$0

Staff Conditions

N/A

Open Solicitation-2019 Spring Offering Southwest Oregon (Region 2)

Application Number: 220-2022-17004

Project Type: Technical Assistance

Project Name: Big Creek Watershed Assessment and Project Development

Applicant: Coquille Watershed Association

Region: Southwest Oregon

County: Coos

OWEB Request: \$55,077

Total Cost: \$76,981

Application Description *(from application abstract)*

The 16,600-acre Big Creek basin is a tributary of the Middle Fork Coquille River (MFCR), in the community of Bridge (Coos County). Big Creek provides spawning and rearing habitat for coho, fall Chinook, winter steelhead, coastal cutthroat trout and Pacific lamprey. The primary limiting factors in Big Creek are lack of stream habitat complexity and impaired water quality. Timber harvesting has been the leading activity to occur within the watershed and although logging practices have changed the legacy of splash dams, riparian cutting and stream cleaning have remained. These historical practices led to smaller sized riparian conifers and insufficient quantities of in-stream LWD. In addition, there is an extensive road network throughout the basin which contributes to high rates of sediment loading. We will review watershed conditions in order to develop, prioritize, and design habitat/water quality projects in the sub-watershed. Assessments include surveying anthropogenic fish passage impediments, road network surveys (Geomorphic Road Analysis and Inventory Package), macroinvertebrate sampling, and analyze existing ODFW Aquatic Habitat Inventory data to evaluate current watershed conditions and prioritize reaches for treatment. This assessment is timely as landowners in the watershed are anticipating land use activities in the next 3-5 years and we can coordinate and partner on road improvement and in-stream/riparian habitat projects in conjunction with those planned activities. This project is a seamless successor to the county road culvert replacements and LWD restoration occurring on Big Creek tributaries in 2019. This assessment will ensure that we will systematically address the priority reaches of the watershed with initial surveying anticipating development of designs for a minimum of 2 anadromous stream culvert replacements, placement of ~100 LWD components, installation of 200-400+ cross drain/road improvements and conifer understory riparian enhancement.

Review Team Evaluation

Strengths

- The applicant is currently engaged in similar efforts in other sub-basins and this project will continue the momentum of their approach to restoration: first assessing and building strategic plans for sub-basins before engaging in restoration efforts. The watershed association is growing in capacity and has established a track record for implementing successful projects.
- The project involves the right partners and brings the necessary skills sets needed for success.

- The expected deliverables have a high likelihood of resulting in priority on-the-ground actions that would benefit a wide variety of fish species including ESA-listed coho.
- The costs are appropriate for the tasks identified to accomplish project objectives in a sub-basin of this size.
- The project is timely, coinciding with planning efforts by area land managers.

Concerns

- The Geomorphic Road Analysis and Inventory Package surveys need to be a clear priority activity because they will provide important information necessary to develop targeted projects.
- It was unclear how the proposed macroinvertebrate surveys will inform project development and whether this task was necessary to develop the project's final products. The entity that will analyze the macroinvertebrate samples was not specified.
- The applicant needs to coordinate with ODFW on the Aquatic Habitat Surveys.

Concluding Analysis

The scope and scale of the project is feasible and project partners have clearly demonstrated their ability to work collaboratively on similar projects. The assessment will identify and develop actions to address limiting factors impacting water quality and ESA-listed coho and has a high probability that it will deliver impactful and implementable restoration projects.

Review Team Recommendation to Staff

Fund

Review Team Priority

8 of 11

Review Team Recommended Amount

\$55,077

Review Team Conditions

N/A

Staff Recommendation

Staff Follow-Up to Review Team

N/A

Staff Recommendation

Do Not Fund; falls below staff-recommended funding line

Staff Recommended Amount

\$0

Staff Conditions

N/A

Open Solicitation-2019 Spring Offering Southwest Oregon (Region 2)

Application Number: 220-2023-17005

Project Type: Technical Assistance

Project Name: South Fork Coos River Road
Assessment and Project Development

Applicant: Coos Watershed Association

Region: Southwest Oregon

County: Coos

OWEB Request: \$64,690

Total Cost: \$96,746

Application Description *(from application abstract)*

The South Fork Coos River and its tributaries support numerous species of anadromous salmonids and resident fish. These tributaries are very important for refuge from high stream flows and unfavorable summer water temperatures. Surrounding these streams are a network of both private and federal forest roads. Fine sediment from these roads can have significant effects on aquatic habitat and water quality. Fish passage barriers and impediments can fragment stream reaches limiting access to valuable habitat. This grant will fund a road inventory to evaluate approximately 240 miles of roads that drain directly to the South Fork Coos River and its highly valuable tributary systems. We will use a protocol designed by the US Forest Service, the Geomorphic Road Analysis and Inventory Package (GRAIP). This protocol will help us to identify road conditions and identify problems. This project will provide two tools for reducing the effects of roads on streams: (1) a road features GIS database (2) a Fish Passage and Sediment Reduction Action Plan. These tools will help us to estimate road sediment yield and hydrological connectivity; identify needs, prioritization, and layouts for road improvements or decommissions; and be used for tracking sediment reduction actions and long term asset management. The Action Plan will identify the Top 10 sediment reduction actions and all of the fish passage issues in the project area. We anticipate seeking funding for at least three of the top projects in this area, and potentially other road improvements will completed by our partners. Bureau of Land Management (BLM), Weyerhaeuser, and ODFW will help to develop future restoration projects. US Forest Service will provide training and support. OWEB funds will be used for surveys, data analysis, project management, training, travel, and limited supplies. CoosWA will provide cash and the majority of survey supplies. BLM-RAC funding will be sought to supplement assessment efforts.

Review Team Evaluation

Strengths

- The application is a resubmittal. No significant concerns were identified in the last review.
- The project will survey 234 miles of road, showing a favorable cost benefit ratio.
- The project takes a watershed approach using an established methodology (GRAIP) to identify sediment sources. The applicant has successfully utilized GRAIP in other watersheds.

- The project will identify and prioritize opportunities that address sediment from road crossings and fishing access, building on previous road improvements, instream habitat restoration, and fish passage improvements upstream of the project area.
- There is a strong partnership evidenced by extensive survey work previously undertaken in the Coos River watershed. Project partners have a history of collaborating to develop and implement projects once assessments are done.

Concerns

- No significant concerns identified.

Concluding Analysis

The project area focuses on the lower section of the Coos system encompassing mainstem reaches that are primarily migration corridors connecting to tributary habitats. The proposed assessment builds on road assessments upstream and the resulting restoration activities accomplished in other areas of the watershed. Restoration work resulting from this project can improve water quality through the reduction of sediment and may benefit habitat important to ESA-listed coho and other salmon and trout species utilizing the system; however, many areas are constrained by the configuration of the forest road network within the riparian area. A similar approach to assessing the conditions in the Tioga Creek sub-basin and the resulting targeted restoration efforts highlight the effectiveness of the approach.

Review Team Recommendation to Staff

Fund

Review Team Priority

9 of 11

Review Team Recommended Amount

\$64,690

Review Team Conditions

N/A

Staff Recommendation

Staff Follow-Up to Review Team

N/A

Staff Recommendation

Do Not Fund; falls below staff-recommended funding line

Staff Recommended Amount

\$0

Staff Conditions

N/A

Open Solicitation-2019 Spring Offering

Southwest Oregon (Region 2)

Application Number: 220-2024-17008

Project Type: Technical Assistance

Project Name: Palouse Tide Gate Replacement
Design Analysis

Applicant: Coos Watershed Association

Region: Southwest Oregon

County: Coos

OWEB Request: \$74,988

Total Cost: \$142,924

Application Description *(from application abstract)*

Palouse Slough is roughly 3 miles upstream of Haynes Inlet in the Coos basin and one of the highest productivity coho anchor habitat streams on the Oregon Coast. Its primary tide gate is currently located directly under a county bridge and consists of paired top-hinged wooden doors on a tide box that is undersized, undermined, and collapsing. This project proposes to take the necessary first step in tide gate replacement and investigate the cost-benefit and technical feasibility of replacement design options for the Palouse tide gate. Design assessment will provide guidance not only for this project, but also for similar situations across the coast. Replacing the Palouse tide gate will release hydrological function that mimics natural seasonal and tidal cycles, restoring the systems hydrology and water quality up and downstream of the gate. Greater tidal connectivity to Haynes Inlet downstream will improve estuarine water and habitat quality for rearing salmonids as well as salmon forage species that accelerate growth and survival rates for salmon. This proposed project is the first step toward the comprehensive subbasin scale restoration of Palouse Slough that will protect and expand this critical area of Oregon Coast coho anchor habitat. This proposed project specifically seeks to investigate the best long-term solution for the Palouse tide gate design and placement. The joint public-private ownership of tide gate and bridge infrastructure confounds liabilities and responsibilities for replacement leading to a strong desire from stakeholders to decouple the bridge and tide gate. A technical advisory team of local partners and regional experts will be engaged through the entirety of the tide gate replacement and future upstream restoration efforts. There are currently multiple design options in need of assessment before a preferred design is selected. Cultural resource, hydrologic, and geotechnical analyses will be conducted to better inform this decision.

Review Team Evaluation

Strengths

- The application clearly describes the need for the project and the approach that would be taken to develop alternatives for addressing the failing infrastructure. The tidegate is attached to a county bridge, creating a complicated situation compounded by crumbling infrastructure. The tide box currently covers 29% of the active channel width and adds a velocity barrier which severely impacts juvenile passage.

- The project has an urgent timeline. Currently the tidegate structure is in the process of failing as evidenced by the gate structure being currently chained to the bridge due to the failed hinge. Salt intrusion is also evidenced above the site and as the structure fails, the salinity will impact agricultural operations upstream.
- The project builds on lessons learned from other tide gate replacement efforts.
- Palouse Creek is a direct estuary tributary. The tide gate impacts ESA-listed coho access and despite the impediment, Palouse Creek is a highly productive stream for coho. The project need is highlighted by the extensive coho life cycle monitoring by the applicant in this area.
- The project will complement restoration activities implemented upstream and help lay the foundation for additional restoration opportunities following tide gate replacement.
- The application presents a sound planning approach and incorporates a geotechnical investigation. The project's planning process will evaluate four or more alternatives, including an option to decouple the tide gate from the bridge structure.
- Water management plan development will be a critical component to realizing ecological uplift. The applicant is engaging early with agencies and landowners to better inform the development of a water management plan for the new tide gate and begin to develop a holistic basin-wide restoration plan.
- Project partners are working with the Confederated Tribes of Coos, Siuslaw, and Lower Umpqua Indians to better understand cultural resources in the area.

Concerns

- It was unclear if the salinity and water level monitoring identified in Objective 4 were already completed.

Concluding Analysis

The scope and scale of the project is appropriate and project partners have demonstrated ability to work collaboratively on projects. The effort engages the appropriate partners and stakeholders in a technically sound approach helping ensure ownership in the final product. The project has a high probability that it will result in restoration that will address a critical limiting factor for ESA-listed coho identified in the recovery plan.

Review Team Recommendation to Staff

Fund

Review Team Priority

5 of 11

Review Team Recommended Amount

\$74,988

Review Team Conditions

N/A

Staff Recommendation

Staff Follow-Up to Review Team

N/A

Staff Recommendation

Fund

Staff Recommended Amount

\$74,988

Staff Conditions

N/A

Open Solicitation-2019 Spring Offering Southwest Oregon (Region 2)

Application Number: 220-2025-17009

Project Type: Technical Assistance

Project Name: Murphy Dam Irrigation and Fish Passage Improvement Project

Applicant: Applegate Partnership, Inc.

Region: Southwest Oregon

County: Josephine

OWEB Request: \$74,987

Total Cost: \$115,968

Application Description *(from application abstract)*

The Applegate Partnership & Watershed Council is partnering with the Two Rivers SWCD to help 38 water users of the Murphy Ditch Association improve irrigation efficiency, water quality, and fish passage on the Applegate River (river mile 12), near Murphy in Josephine County. Murphy Dam Irrigation and Fish Passage Improvement Project will secure professional engineering services to develop alternatives and preliminary design options intended to mesh together viable, innovative solutions for improved irrigation conveyance, agricultural water quality and quantity, and fish passage to 52 miles of habitat for Chinook salmon, 90 miles of habitat for ESA-listed threatened SONCC Coho salmon, 176 miles of habitat for steelhead, 80+ miles of habitat for ESA-listed species of concern Pacific lamprey, and 400 miles of cutthroat trout habitat. 90% of the Applegate Watershed's high quality spawning and rearing habitat lies upstream of Murphy Dam. The habitat includes designated core cold water habitat and high intrinsic potential habitat. Murphy Dam is listed by ODFW as # 19 in the state and # 2 in the Rogue Basin for restoration of fish passage. Project partners include Two Rivers Soil and Water Conservation District, Murphy Ditch Association, Natural Resource Conservation Service, Oregon Department of Fish and Wildlife, Oregon Water Resources Department, Oregon Department of Agriculture, Rogue Basin Partnership, and Middle Rogue Steelheaders.

Review Team Evaluation

Strengths

- The dam is the number two barrier in the Rogue system. The dam causes direct mortality to fish, including ESA-listed coho, creating a situation where there is no holding pool, extensive poaching, and a challenging course to navigate. The diversion has a fish ladder currently, but it is poorly situated and designed. The project will consider several alternatives to addressing the dam.
- Removing the barrier would open access to many miles of upstream habitat for several ESA-listed species.
- NRCS is working with water users on a conservation plan for on-farm irrigation efficiencies in 2021-22.
- The project brings together a diverse array of partners bringing match funding and commitment to the success of the project.

Concerns

- Objective #2 is has a broad focus and describes activities that may be more associated with ditch and on-farm activities. The objective should focus clearly on the deliverables directly associated with the dam including delivering fish passage alternatives and increasing instream flows.
- The ditch association does not support dam removal at this time and it was not clear what types of alternatives they would support.

Concluding Analysis

The scope and scale of the project is appropriate and the applicant is experienced in working collaboratively with landowners to find solutions to fish passage issues. The project will collect data necessary to inform designs and present an array of alternatives. The dam in its current condition is a critical impediment to all life stages of salmonids and its location on the lower main stem Applegate River impacts access to important upstream tributaries and their habitats where a great deal of restoration actions have been focused.

Review Team Recommendation to Staff

Fund

Review Team Priority

1 of 11

Review Team Recommended Amount

\$74,987

Review Team Conditions

N/A

Staff Recommendation

Staff Follow-Up to Review Team

N/A

Staff Recommendation

Fund

Staff Recommended Amount

\$74,987

Staff Conditions

N/A

Open Solicitation-2019 Spring Offering Southwest Oregon (Region 2)

Application Number: 220-2026-17043

Project Type: Technical Assistance

Project Name: Slate Creek Dam Removals Phase
1

Applicant: WaterWatch of Oregon

Region: Southwest Oregon

County: Josephine

OWEB Request: \$67,500

Total Cost: \$101,781

Application Description *(from application abstract)*

1) This project is located on private property near Wilderville, in Josephine County, on Slate Creek and its tributary Welter Creek, within the Applegate River subbasin of the Rogue River Basin. 2) Three stream-spanning concrete dams block or impede adult and juvenile fish passage to approximately 15 miles of spawning habitat. Impacted species include Chinook Salmon, Coho Salmon, summer and winter Steelhead, Pacific Lamprey, Cutthroat Trout, and Suckers. Harboldt Dam on Slate Creek is ranked in Group 4 of ODFW's 2019 Statewide Fish Passage Priority List. Harboldt Dam does not comply with NOAA and ODFW fish passage and fish screen criteria. Two unnamed dams on Welter Creek, a Slate Creek tributary, do not appear to have fish ladders and block Coho and steelhead habitat. Both dams were heretofore unknown to ODFW. ODFW staff have visited the site and believe these two dams would have been eligible for listing on the 2019 Priority List. This project complements salmon restoration efforts ongoing throughout the Rogue Basin. 3) This project would remove the three dams noted above and significantly improve access to approximately 15 miles of spawning and rearing habitat. This project includes a proposed transfer of two points of diversion of roughly 0.6 cubic feet per second total to a new point approximately 950 feet downstream on Slate Creek, providing additional benefit for fish and water quality. A new solar-powered, screened pump will be installed to maintain existing water use on the landowner's property but increase irrigation efficiency by eliminating a leaky 1,000-foot-long canal. 4) WaterWatch's project partners include the landowner, ODFW, USFWS, NOAA Fisheries, BLM, OWRD, Cascade Stream Solutions, and Rogue Basin Partnership.

Review Team Evaluation

Strengths

- The project presents a great opportunity for increasing instream flows and removing three barriers that block fish passage and restoring access to 15 miles of habitat. The project addresses factors impacting ESA-listed coho and multiple other species. Flows will be increased in a 950 foot section of Slate Creek by moving the point of diversion downstream and the 1,000 foot leaky, poorly screened ditch will be eliminated and a solar pump system will be installed that diverts the appropriate amount of the water right.
- The application is well written and clearly articulates a design approach appropriate to the size and scale of the situation at the project sites.
- The landowner is engaged and supportive of the effort.

Concerns

- The planned solar pump is a 10 panel array and the design is based on delivering the current full water right as pushed through a ditch system that is leaky. The design needs a pump, panel array, and pipe sized for the water right that will be diverted. The water right date is 1938 and is a more junior right in that system, potentially limiting the possibility of conserving water instream.
- A map depicting fish distribution would be helpful in future applications.

Concluding Analysis

Improving stream flows and restoring fish passage are important activities to restore coho salmon populations in the Applegate River watershed. The project will eliminate 3 complete fish barriers and increase stream flows by approximately 0.5 cfs in a 950 foot-long section of stream. The design approach is appropriate for the situation and the resulting project should be successful in removing the three barriers and increasing stream flows within the project footprint.

Review Team Recommendation to Staff

Fund

Review Team Priority

3 of 11

Review Team Recommended Amount

\$67,500

Review Team Conditions

N/A

Staff Recommendation

Staff Follow-Up to Review Team

N/A

Staff Recommendation

Fund

Staff Recommended Amount

\$67,500

Staff Conditions

N/A

Open Solicitation-2019 Spring Offering Southwest Oregon (Region 2)

Application Number: 220-2027-17057

Project Type: Technical Assistance

Project Name: Spatial datasets to inform planning on the South Coast

Applicant: Curry SWCD

Region: Southwest Oregon

County: Curry

OWEB Request: \$61,589

Total Cost: \$100,029

Application Description *(from application abstract)*

The proposed project will cover the service area of the South Coast Watershed Council [SCWC] and the Lower Rogue Watershed Council [LRWC], which includes 13 coastal watersheds largely within Curry County, and partially encompasses the service area of the Wild Rivers Land Trust (WRLT). The project area includes the towns of Port Orford, Gold Beach, and Brookings-Harbor. Across and within our partner organizations (SCWC, LRWC, WRLT, and ODFW), we have multiple objectives for the restoration, protection, and assessment of natural resources. While these objectives may be distinct, they exist for the same purpose of fully functioning watersheds. In 2017, through an OWEB FIP Capacity Grant, we formally recognized our partnership as the Siskiyou Coast Estuaries Partnership (SCEP) to achieve this common vision. However, these objectives are still identified and prioritized independently of each other in strategic plans, and broadly across watersheds. For our individual organizations and for the SCEP, this makes it difficult to prioritize amongst objectives at a fine scale to efficiently meet multiple objectives. Existing spatial data could be used to prioritize these objectives relative to each other, but this data is not readily available for planning processes, and it is not vetted specifically for our service area. We propose to create multiple high-resolution (~10-30 m), spatial data layers that are continuous across our service area, that depict and prioritize individual organizational objectives, and that also depict shared partnership objectives. All data will be vetted through meetings with technical specialists, and made readily accessible for all partners to provide transparent and objective data for planning efforts. Additionally, the data will be used to inform updates to the LRWC and SCWC Watershed Action Plans and be incorporated into the WRLT Conservation Plan.

Review Team Evaluation

Strengths

- The project will employ professionally accepted and appropriate methodology and is at the appropriate geographic scale. The proposed analysis builds on both the original watershed assessment and more recent strategic planning efforts undertaken by project partners spanning Curry County watersheds.
- The application demonstrates that the project will utilize the appropriate staff with the right skill sets to achieve project goals and assemble an important data set. The collected data that will be used is from known sources and would be compatible with other assessment and planning efforts including the Elk River Coho Strategic Action Plan and supporting TMDL development.

Concerns

- It is unclear if DEQ's Ambient Water Quality Monitoring System data will be used to help inform the project.

Concluding Analysis

The scope and scale proposed for the project is feasible and project partners have demonstrated the ability to develop and deliver similar types of projects. The proposed work is important to further priority restoration efforts across a large geographic landscape spanning over thirteen watersheds within Curry County.

Review Team Recommendation to Staff

Fund

Review Team Priority

10 of 11

Review Team Recommended Amount

\$61,589

Review Team Conditions

N/A

Staff Recommendation

Staff Follow-Up to Review Team

N/A

Staff Recommendation

Do Not Fund; falls below staff-recommended funding line

Staff Recommended Amount

\$0

Staff Conditions

N/A

Open Solicitation-2019 Spring Offering Southwest Oregon (Region 2)

Application Number: 220-2028-17088

Project Type: Technical Assistance

Project Name: Siskiyou Field Institute Deer Creek Center Restoration and Management Plan

Applicant: Siskiyou Field Institute

Region: Southwest Oregon

County: Josephine

OWEB Request: \$60,291

Total Cost: \$82,491

Application Description *(from application abstract)*

The project is located at the Siskiyou Field Institute Deer Creek Center (DCC) for Field Research and Education in Josephine County, Selma, Oregon, approximately 2.5 miles upstream from the confluence of Deer Creek and the Illinois River. The property spans 850 acres and includes nearly one mile of frontage with Deer Creek and nearly 20% of the Squaw Creek watershed. The watershed issues are fish passage barriers on Squaw Creek and impaired water quality and compromised riparian function in Deer Creek, an important coho bearing tributary of the Illinois and Rogue River systems. The location, size, water rights, unique plant communities, and riparian restoration potential make the DCC a key property for conservation, connectivity, and potential positive impact on Deer Creek summer flows and temperature regulation. The limiting factor to be addressed by this project is a revision and expansion of the outdated restoration and management plan for the property which must to be approved by OWEB prior to implementation of restoration. The plan revision and expansion will include new baseline assessments of stream, riparian and upland vegetation conditions, and prioritization and planning of key restoration projects to be accomplished in the next 5 to 20 years. Proposed Technical Assistance deliverables include: 1) an updated management plan, 2) development of a multi-agency Technical Review Team to assist with restoration planning and implementation, and 3) prioritized restoration projects with preliminary conceptual designs. Sound management and restoration directives and committed partners set the stage for future restoration implementation. Project partners include: Rogue Basin Partnership, USFWS Partners Program, BLM, USFS, IV Soil and Water Conservation District, IV Watershed Council, Trout Unlimited, Oregon Department of Forestry, private restoration consultants, and Southern Oregon University.

Review Team Evaluation

Strengths

- The property is the site of an OWEB Acquisition project (#206-277) and is in urgent need of an updated management plan. The applicant has engaged multiple agencies and partners to support development of this planning effort. The application demonstrates a clear alignment of partners and vision for the project and desired outcomes. The property and streams moving through it have significant ecological value to many different plant, animal and aquatic species.

- The qualifications and experience of the staff and consultants are appropriate for the scope of the project and have a high likelihood of achieving the project objectives.
- There is a great deal of restoration potential at the project site. Currently, the landowner is looking at putting water rights instream, fish passage, pollinator habitat, restoring native vegetation patterns, and riparian health projects. A management plan will help prioritize, focus, and develop opportunities to help fund these activities.

Concerns

- The application would have been strengthened by the inclusion of better maps with labeling that depicts the property uses and habitats present.
- Additional discussion on the background and history of the acquisition and the transfer of management to Siskiyou Field Institute from South Oregon University would have been helpful in laying the foundation for why the organization needs additional resources to develop the management plan.

Concluding Analysis

The proposed project will develop a management plan which is critical for the landowner to move forward in developing and implementing long-term restorative and protective actions across the property. The applicant has pulled together a technical team to support the work and has demonstrated that the appropriate skill sets and technical resources will be used to develop a management plan which can guide activities across the property to achieve the restoration and protection of important ecological values.

Review Team Recommendation to Staff

Fund

Review Team Priority

7 of 11

Review Team Recommended Amount

\$60,291

Review Team Conditions

N/A

Staff Recommendation

Staff Follow-Up to Review Team

N/A

Staff Recommendation

Do Not Fund; falls below staff-recommended funding line

Staff Recommended Amount

\$0

Staff Conditions

N/A

Open Solicitation-2019 Spring Offering

Southwest Oregon (Region 2)

Application Number: 220-2029-17018

Project Type: Stakeholder Engagement

Project Name: Lower Williams Cr Landowner Engagement

Applicant: Applegate Partnership, Inc.

Region: Southwest Oregon

County: Josephine

OWEB Request: \$29,385

Total Cost: \$37,524

Application Description *(from application abstract)*

This project focuses on the lower 5.77 mile reach of Williams Creek, from its confluence with the Applegate River (near the town of Provolt) upstream to the Williams Creek Reserve—a stream reach owned and protected by the Southern Oregon Land Conservancy downstream of the town of Williams. This reach of Williams Creek is located in Josephine County and is still primarily large ranches and farmlands. This area has been identified in both regional assessments and basin-wide action plans as priority for habitat restoration; this reach struggles with barriers, lack of instream large wood, temperature, reduced water quality, channel modification and reduced stream complexity. We will work in close collaboration with the Williams Creek Watershed Council to reach out to 41 separate landowners to discuss restoration opportunities in their sections of stream and riparian corridors. From these landowner contacts and conversations, we will develop a strategic habitat assessment and restoration project plan for this reach.

Review Team Evaluation

Strengths

- The proposal complements active restoration currently occurring on the Provolt Seed Orchard and the Lower Bridge Point push-up dam replacement.
- The project builds on outreach efforts by both Applegate and Williams Creek Watershed Councils.
- The application clearly describes the watershed, including land ownership and land use.
- The application provides sound rationale for the project footprint.
- Williams Creek provides critical habitat for ESA-listed coho with water quantity, dissolved oxygen and temperature all being limiting factors.
- The need for engagement is clear with hemp production bringing new landowners to the area.
- The project will focus on building relationships with landowners through site visits and one-on-one meetings scheduled at their convenience.

Concerns

- The application does not quantify the deliverables. For example in objective 3, success will be

measured by future applications for OWEB Restoration grant project funding, but the measure does not include a target number of applications within a specific timeframe.

Concluding Analysis

There is rapid change in the watershed with increasing hemp production and associated increases in water demand. Both Applegate and Williams Creek Watershed Councils have been active in this area since the mid-1990s with project work in the area focusing on fish access improvement and irrigation efficiency. The proposal was straightforward and the effort will focus on building relationships with individual landowners rather than more traditional approaches which rely on open houses at public venues. This personalized approach should be more effective in the Williams area and has a good likelihood of resulting in future restoration opportunities.

Review Team Recommendation to Staff

Fund

Review Team Priority

1 of 1

Review Team Recommended Amount

\$29,385

Review Team Conditions

N/A

Staff Recommendation

Staff Follow-Up to Review Team

N/A

Staff Recommendation

Fund

Staff Recommended Amount

\$29,385

Staff Conditions

N/A

Open Solicitation-2019 Spring Offering Southwest Oregon (Region 2)

Application Number: 220-2030-17086

Project Type: Stakeholder Engagement

Project Name: Upper Bear Creek Ashland
Watershed Engagement

Applicant: Southern Oregon Land Conservancy

Region: Southwest Oregon

County: Jackson

OWEB Request: \$72,011

Total Cost: \$90,359

Application Description *(from application abstract)*

The geographic location comprises a portion of the upper Bear Creek Watershed, inclusive of the Ashland Watershed. This is a strategic focus area of the Southern Oregon Land Conservancy. The area includes both the forested mixed-conifer slopes of the western portion, and the oak-woodlands and grasslands of the eastern portion of the watershed, which also contains mixed conifer forests in the upper elevations. Specifically, the project will focus on privately-owned lands which contain high conservation values and at which conservation will contribute to watershed health. This area also captures a portion of the municipal watershed for the City of Ashland. The lands on the eastern side provide the scenic backdrop of the southern Rogue Valley and contain high wildlife connectivity values, and a mosaic of oak-pine and conifer forests, grasslands, and streams and springs. The Bear Creek watershed is susceptible to fragmentation and land conversion which degrades the integrity of the watershed. The stakeholder engagement objectives aim to ultimately result in acquisition projects on high-priority lands. Successful acquisition projects will conserve high-priority properties to abate the threats of subdivision and development; land conversion (e.g., land clearing); unsustainable and ecologically unsound forest and grazing practices; and protect open space and scenic view sheds. These threats are known to fragment the landscape and negatively impact the integrity of the watershed to support wildlife, fish habitat, and ecosystem functions. Activities to engage stakeholders will comprise open-house style events, direct mailings, social media, and other methods. Follow-up with interested landowners will consist of one-on-one meetings to discuss more specific aspects of conservation opportunities. Partners include Ashland Forest Resiliency (AFR), City of Ashland, USFS, and Lomakatsi. Potential partners include Selberg Institute, the Cascade Siskiyou National Monument.

Review Team Evaluation

Strengths

- The applicant has a proven track record with land acquisitions and is well-known and respected in the community.
- The applicant addressed concerns from the previous review and the application now provides mapping along with priority lands and a scoring system.

- Objective 1 provides a rationale for how habitat types will be prioritized, with a focus on oak woodland and riparian areas. The map provided shows polygons that fill protection gaps in the private and federal patchwork landscape, conveying a strategic approach.
- The project's timing is important due to increased agricultural development in the east side of the valley.

Concerns

- The application does not describe how prospective land acquisitions will achieve goals for salmonid protection; the mapped priority areas do not include much overlap with priority habitat for ESA-listed salmonids.
- It is unclear how to interpret the priority scores used in the application.
- The application states that an outreach plan will be developed; it would be more clear if the application included the specific outreach plan that the project would implement.
- While it may not be possible to provide a specific "number of landowners interested in acquisitions" outcome, the stated outcomes of objective 4 -- success is that lessons learned, outcomes, and next steps have been adequately documented and results provided in a straightforward and usable form -- does not provide a high level of confidence that the stakeholder engagement effort will ultimately result in land acquisitions.

Concluding Analysis

The Upper Bear Creek watershed is highly impacted by agricultural development. Hemp production has dramatically increased in the Rogue Valley in recent years. Acquisition is a sound strategy to help preserve and protect existing habitats in the watershed. There is potential to develop projects that could protect a wide variety of habitats ranging from upslope to riparian and land acquisition would complement restoration efforts within the basin.

The outreach approach has not yet been developed and it is important to be able to evaluate the likelihood of the effectiveness of the specific outreach activities to engage the right landowners in a meaningful way about the need for permanent protection and then turn that into viable projects. Without a well-described strategy for outreach it is difficult to determine if the expected outcomes will result in priority acquisition opportunities.

Review Team Recommendation to Staff

Do Not Fund

Review Team Priority

N/A

Review Team Recommended Amount

\$0

Review Team Conditions

N/A

Staff Recommendation

Staff Follow-Up to Review Team

N/A

Staff Recommendation

Do Not Fund

Staff Recommended Amount

\$0

Staff Conditions

N/A

Willamette Basin - Region 3 Spring 2019 Funding Recommendations



Document Path: Z:\oweb\Technical_Services\Information_Services\GIS\Maps\Review Team Meetings\2019SpringCycle\Projects\VPN_Region3_AppFundingStatus_11x17_2019Spring.mxd
 ESRI ArcMap 10.6, NAD 1983 Oregon Statewide, Lambert Feet Intl WKID: 2992 Authority: EPSG OWEB- PK Wills 20190924

Funding Recommendations

- Staff Recommendation For Funding (SRF)
- Below Funding Line (BFL)

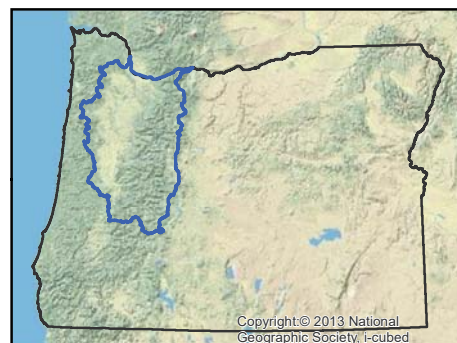
Previous Grants - 1998-Fall 2018

- ◆ Restoration
- Acquisitions
- ~ Streams
- ⬮ Region Boundary



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Region 3 - Willamette Basin					
Restoration Projects Recommended for Funding in Priority Order					
Project #	Grantee	Project Title	Brief Description	Amount Recommended	County
220-3013	Calapooia WC	Upper Calapooia Steelhead Habitat Enhancement	Stream conditions for native winter steelhead will be restored in the Calapooia River headwaters by restoring natural river processes that form habitat for native fish, attenuate high water flows, and improve water quality.	156,669	Linn
220-3002	Lower Columbia Estuary Partnership	Horsetail Creek Floodplain Restoration Project Phase II	The diversity, quality, and quantity of stream and floodplain habitats will be improved in Horsetail Creek, located in the Lower Columbia River Gorge in Multnomah County. Stream conditions will be restored to provide refuge habitat for native fish and encourage additional beaver activity, and the native plant community will be restored on 30 acres of floodplain next to the stream.	168,850	Multnomah
220-3006	Greenbelt Land Trust	Bald Hill Farm Restoration Phase 3	Prairie habitat will be restored on 81 acres, and 39 acres of streamside habitat will be restored on Greenbelt Land Trust's Bald Hill Farm conservation property near Corvallis, Oregon. Agricultural pastures will be retired and converted to a diverse, native prairie plant community and a streamside forest will be restored to support sensitive native wildlife species impacted by loss and degradation of their habitats.	111,026	Benton
220-3003	Sandy River Basin WC	Sandy-Salmon Floodplain Reconnection Phase II	Phase two restoration will build on previous work to continue partial removal of a levee and placement of wood structures instream to mimick natural log jams in the Salmon River and Sandy River confluence area. This will reconnect the river with its floodplain and open historic side-channels, which will disperse river energy across the floodplain and provide migratory and rearing habitat for native salmon.	293,320	Clackamas

Restoration Projects Recommended for Funding in Priority Order Continued					
220-3012	Long Tom WC	Coyote-Spencer Wetlands Oak and Prairie Habitat Restoration: Phase I	Open oak and prairie habitat will be resored across 104 acres on the McKenzie River Trust's Coyote-Spencer Wetlands conservation property located at the confluence of Coyote and Spencer creeks in the Long Tom Watershed. Encroaching woody plant species will be removed and prescribed fire will be reintroduced to establish populations of rare native and culturally important plant species to restore habitats for native wildlife.	163,749	Lane
220-3005	Institute for Applied Ecology	Upland prairie restoration for Kincaid's lupine and Fender's blue butterfly	Prairie habitat will be restored and native Kincaid's lupine flower populations will be augmented near Corvallis and Salem to meet recovery targets for this plant to be delisted from the Endangered Species Act. This will also support recovery of Fender's blue butterfly because the Kincaid's lupine serves as the host plant to this butterfly.	245,493	Benton
220-3009	Marys River WC	Recovering System Process in the Upper Marys River Basin	Priority stream habitat will be restored in the Upper Marys River to improve water quality and habitat for native cutthroat trout and Pacific lamprey. Native streamside vegetation communities will be restored, fish passage barriers limiting access to stream habitat will be addressed, and instream conditions will be improved to provide habitat for native fish.	205,153	Benton
Total Restoration Projects Recommended for Funding by RRT and OWEB Staff				1,344,260	

Restoration Projects Recommended but Not Funded in Priority Order					
Project #	Grantee	Project Title	Brief Description	Amount Recommended	County
220-3011	Long Tom WC	Bear Creek Fish Passage Enhancement Phase 2	The final two priority fish passage barriers on Bear Creek, located in the Long Tom watershed, will be removed to allow native migratory fish to move between lowland stream reaches and headwater spawning and cold water refuge habitat.	100,289	Lane
220-3001	Pudding River WC	Abiqua Creek Aquatic Habitat Enhancement	Log and boulder structures will be placed in Abiqua Creek on private timberlands located in the low elevation West Cascades foothills of the Molalla-Pudding River Watershed to restore stream conditions for native fish.	164,880	Marion
220-3010	Calapooia WC	Truax Island Floodplain Restoration Phase 1 : Planting and Plant Establishment	Native vegetation communities and floodplain habitat will be restored along the Willamette River near Albany, Oregon by controlling invasive plant species, planting native tree and shrubs, seeding native grasses, thinning oak stands, and stewarding restored plant communities until plants are free to grow.	129,981	Linn
220-3000	North Santiam WC	Upper North Santiam Side Channel Reconnection	A historic stream side-channel will be reconnected to the mainstem North Santiam River near Idanha, Oregon. Reconnecting the side-channel and placing log structures instream will provide diverse habitat for native fish, including Chinook salmon and cutthroat trout.	159,943	Linn
220-3008	City of Portland Parks & Recreation	Forest Park - Balch Creek Watershed Restoration Project	The final phase of a 580-acre restoration project in the Balch Creek Watershed, located in the City of Portland's Forest Park, will be completed to enhance plant diversity and structure of forested uplands and streamside areas. Invasive plant species negatively impacting and replacing the native vegetation communities will be removed to set the stage for long term successful management of a healthy forest that benefits water quality and fish and wildlife habitat.	249,200	Multnomah
Total Restoration Projects Recommended for Funding by RRT				2,148,553	
Restoration Applications Not Recommended for Funding by RRT					
Project #	Grantee	Project Title		Amount Requested	County
220-3004	Tryon Creek Watershed Council	Tryon Creek East Fork Fish Passage Barrier Removal Project		274,081	Multnomah
220-3007	OSU Office of Sponsored Research & Award Admin	Economic and Ecological Sustainability through Restoration of Lamprey Creek		424,025	Benton

Technical Assistance (TA) Projects Recommended for Funding in Priority Order					
Project #	Grantee	Project Title	Brief Description	Amount Recommended	County
220-3017	Long Tom WC	Upper Long Tom Restoration Planning	Increasing landowner interest in the Upper Long Tom watershed near Veneta, Oregon will be turned into on-the-ground habitat restoration and conservation projects. Restoration opportunities on public and private landownerships will be prioritized and restoration plans will be developed for priority habitat areas for native fish and wildlife.	31,778	Lane
220-3016	Coast Fork Willamette WC	Creswell Butte: Restoration Design & Engineering	Restoration design alternatives will be created for a property in Creswell, Oregon that is protected by a Conservation Easement. Restoration actions will restore and protect legacy oak habitat and open meadow habitats that are overgrown with invasive plant species; these priority habitats are at risk of being lost if no action is taken.	44,586	Lane
Total TA Projects Recommended for Funding by RRT and OWEB Staff				76,364	
Technical Assistance Projects Recommended but Not Funded in Priority Order					
Project #	Grantee	Project Title	Brief Description	Amount Recommended	County
220-3018	Sandy River Basin WC	SRBP Vision	The Sandy River Basin Partners will update their 2007 strategy by evaluating current habitat conditions and determining a strategy for the next 10 years of habitat restoration for native fish. Restoration will focus on addressing water quality concerns, improving stream habitat conditions, removing barriers preventing fish migration, and controlling invasive plant species to support all life stages of native salmon in the Sandy River basin.	31,084	Multnomah
Total TA Projects Recommended for Funding by RRT				107,448	
Technical Assistance Applications Not Recommended for Funding by RRT					
Project #	Grantee	Project Title		Amount Requested	County
220-3014	Tualatin River WC	Restoration Planning Using NetMap Analysis in the Tualatin River Watershed		49,980	Washington
220-3015	Benton SWCD	Increasing tools in the Ludwigia control toolbox: exploring mechanical removal for primrose-willow		20,511	Benton

Stakeholder Engagement Projects Recommended for Funding in Priority Order					
Project #	Grantee	Project Title	Brief Description	Amount Recommended	County
None					
Total Stakeholder Engagement Projects Recommended for funding by OWEB Staff				0	
Stakeholder Engagement Projects Recommended but Not Funded in Priority Order					
Project #	Grantee	Project Title	Brief Description	Amount Recommended	County
None					
Total Stakeholder Engagement Projects Recommended for funding by RRT				0	
Stakeholder Engagement Projects Not Recommended for Funding by RRT					
Project #	Grantee	Project Title	Brief Description	Amount Requested	County
220-3020	Tualatin Riverkeepers	Engaging Oregonians to restore the Tualatin River watershed from Mass Wasting Events		60,000	Washington
220-3019	Middle Fork Willamette WC	Engaging Diverse Stakeholders in Floodplain Restoration at Elijah Bristow State Park		99,479	Lane
Region 3 Total OWEB Staff Recommended Board Award				1,420,624	15%
Regions 1-6 Grand Total OWEB Staff Recommended Board Award				9,284,183	

Region 3 - Willamette Basin					
Restoration Projects Recommended for Funding in Priority Order					
Project #	Grantee	Project Title	Brief Description	Amount Recommended	County
220-3013	Calapooia WC	Upper Calapooia Steelhead Habitat Enhancement	Stream conditions for native winter steelhead will be restored in the Calapooia River headwaters by restoring natural river processes that form habitat for native fish, attenuate high water flows, and improve water quality.	156,669	Linn
220-3002	Lower Columbia Estuary Partnership	Horsetail Creek Floodplain Restoration Project Phase II	The diversity, quality, and quantity of stream and floodplain habitats will be improved in Horsetail Creek, located in the Lower Columbia River Gorge in Multnomah County. Stream conditions will be restored to provide refuge habitat for native fish and encourage additional beaver activity, and the native plant community will be restored on 30 acres of floodplain next to the stream.	168,850	Multnomah
220-3006	Greenbelt Land Trust	Bald Hill Farm Restoration Phase 3	Prairie habitat will be restored on 81 acres, and 39 acres of streamside habitat will be restored on Greenbelt Land Trust's Bald Hill Farm conservation property near Corvallis, Oregon. Agricultural pastures will be retired and converted to a diverse, native prairie plant community and a streamside forest will be restored to support sensitive native wildlife species impacted by loss and degradation of their habitats.	111,026	Benton
220-3003	Sandy River Basin WC	Sandy-Salmon Floodplain Reconnection Phase II	Phase two restoration will build on previous work to continue partial removal of a levee and placement of wood structures instream to mimick natural log jams in the Salmon River and Sandy River confluence area. This will reconnect the river with its floodplain and open historic side-channels, which will disperse river energy across the floodplain and provide migratory and rearing habitat for native salmon.	293,320	Clackamas

Restoration Projects Recommended for Funding in Priority Order Continued					
220-3012	Long Tom WC	Coyote-Spencer Wetlands Oak and Prairie Habitat Restoration: Phase I	Open oak and prairie habitat will be resored across 104 acres on the McKenzie River Trust's Coyote-Spencer Wetlands conservation property located at the confluence of Coyote and Spencer creeks in the Long Tom Watershed. Encroaching woody plant species will be removed and prescribed fire will be reintroduced to establish populations of rare native and culturally important plant species to restore habitats for native wildlife.	163,749	Lane
220-3005	Institute for Applied Ecology	Upland prairie restoration for Kincaid's lupine and Fender's blue butterfly	Prairie habitat will be restored and native Kincaid's lupine flower populations will be augmented near Corvallis and Salem to meet recovery targets for this plant to be delisted from the Endangered Species Act. This will also support recovery of Fender's blue butterfly because the Kincaid's lupine serves as the host plant to this butterfly.	245,493	Benton
220-3009	Marys River WC	Recovering System Process in the Upper Marys River Basin	Priority stream habitat will be restored in the Upper Marys River to improve water quality and habitat for native cutthroat trout and Pacific lamprey. Native streamside vegetation communities will be restored, fish passage barriers limiting access to stream habitat will be addressed, and instream conditions will be improved to provide habitat for native fish.	205,153	Benton
Total Restoration Projects Recommended for Funding by RRT and OWEB Staff				1,344,260	

Restoration Projects Recommended but Not Funded in Priority Order					
Project #	Grantee	Project Title	Brief Description	Amount Recommended	County
220-3011	Long Tom WC	Bear Creek Fish Passage Enhancement Phase 2	The final two priority fish passage barriers on Bear Creek, located in the Long Tom watershed, will be removed to allow native migratory fish to move between lowland stream reaches and headwater spawning and cold water refuge habitat.	100,289	Lane
220-3001	Pudding River WC	Abiqua Creek Aquatic Habitat Enhancement	Log and boulder structures will be placed in Abiqua Creek on private timberlands located in the low elevation West Cascades foothills of the Molalla-Pudding River Watershed to restore stream conditions for native fish.	164,880	Marion
220-3010	Calapooia WC	Truax Island Floodplain Restoration Phase 1 : Planting and Plant Establishment	Native vegetation communities and floodplain habitat will be restored along the Willamette River near Albany, Oregon by controlling invasive plant species, planting native tree and shrubs, seeding native grasses, thinning oak stands, and stewarding restored plant communities until plants are free to grow.	129,981	Linn
220-3000	North Santiam WC	Upper North Santiam Side Channel Reconnection	A historic stream side-channel will be reconnected to the mainstem North Santiam River near Idanha, Oregon. Reconnecting the side-channel and placing log structures instream will provide diverse habitat for native fish, including Chinook salmon and cutthroat trout.	159,943	Linn
220-3008	City of Portland Parks & Recreation	Forest Park - Balch Creek Watershed Restoration Project	The final phase of a 580-acre restoration project in the Balch Creek Watershed, located in the City of Portland's Forest Park, will be completed to enhance plant diversity and structure of forested uplands and streamside areas. Invasive plant species negatively impacting and replacing the native vegetation communities will be removed to set the stage for long term successful management of a healthy forest that benefits water quality and fish and wildlife habitat.	249,200	Multnomah
Total Restoration Projects Recommended for Funding by RRT				2,148,553	
Restoration Applications Not Recommended for Funding by RRT					
Project #	Grantee	Project Title		Amount Requested	County
220-3004	Tryon Creek Watershed Council	Tryon Creek East Fork Fish Passage Barrier Removal Project		274,081	Multnomah
220-3007	OSU Office of Sponsored Research & Award Admin	Economic and Ecological Sustainability through Restoration of Lamprey Creek		424,025	Benton

Technical Assistance (TA) Projects Recommended for Funding in Priority Order					
Project #	Grantee	Project Title	Brief Description	Amount Recommended	County
220-3017	Long Tom WC	Upper Long Tom Restoration Planning	Increasing landowner interest in the Upper Long Tom watershed near Veneta, Oregon will be turned into on-the-ground habitat restoration and conservation projects. Restoration opportunities on public and private landownerships will be prioritized and restoration plans will be developed for priority habitat areas for native fish and wildlife.	31,778	Lane
220-3016	Coast Fork Willamette WC	Creswell Butte: Restoration Design & Engineering	Restoration design alternatives will be created for a property in Creswell, Oregon that is protected by a Conservation Easement. Restoration actions will restore and protect legacy oak habitat and open meadow habitats that are overgrown with invasive plant species; these priority habitats are at risk of being lost if no action is taken.	44,586	Lane
Total TA Projects Recommended for Funding by RRT and OWEB Staff				76,364	
Technical Assistance Projects Recommended but Not Funded in Priority Order					
Project #	Grantee	Project Title	Brief Description	Amount Recommended	County
220-3018	Sandy River Basin WC	SRBP Vision	The Sandy River Basin Partners will update their 2007 strategy by evaluating current habitat conditions and determining a strategy for the next 10 years of habitat restoration for native fish. Restoration will focus on addressing water quality concerns, improving stream habitat conditions, removing barriers preventing fish migration, and controlling invasive plant species to support all life stages of native salmon in the Sandy River basin.	31,084	Multnomah
Total TA Projects Recommended for Funding by RRT				107,448	
Technical Assistance Applications Not Recommended for Funding by RRT					
Project #	Grantee	Project Title		Amount Requested	County
220-3014	Tualatin River WC	Restoration Planning Using NetMap Analysis in the Tualatin River Watershed		49,980	Washington
220-3015	Benton SWCD	Increasing tools in the Ludwigia control toolbox: exploring mechanical removal for primrose-willow		20,511	Benton

Stakeholder Engagement Projects Recommended for Funding in Priority Order					
Project #	Grantee	Project Title	Brief Description	Amount Recommended	County
None					
Total Stakeholder Engagement Projects Recommended for funding by OWEB Staff				0	
Stakeholder Engagement Projects Recommended but Not Funded in Priority Order					
Project #	Grantee	Project Title	Brief Description	Amount Recommended	County
None					
Total Stakeholder Engagement Projects Recommended for funding by RRT				0	
Stakeholder Engagement Projects Not Recommended for Funding by RRT					
Project #	Grantee	Project Title	Brief Description	Amount Requested	County
220-3020	Tualatin Riverkeepers	Engaging Oregonians to restore the Tualatin River watershed from Mass Wasting Events		60,000	Washington
220-3019	Middle Fork Willamette WC	Engaging Diverse Stakeholders in Floodplain Restoration at Elijah Bristow State Park		99,479	Lane
Region 3 Total OWEB Staff Recommended Board Award				1,420,624	15%
Regions 1-6 Grand Total OWEB Staff Recommended Board Award				9,284,183	

Open Solicitation-2019 Spring Offering Willamette Basin (Region 3)

Application Number: 220-3000-16958

Project Type: Restoration

Project Name: Upper North Santiam Side Channel
Reconnection

Applicant: North Santiam WC

Region: Willamette Basin

County: Linn

OWEB Request: \$159,943

Total Cost: \$311,858

Application Description *(from application abstract)*

The Upper North Santiam side channel reconnection project is located 10 miles upstream of the Detroit Dam near the town of Idanha. This site has an old 750-foot long historical side-channel that used to connect with the Upper North Santiam River at River Mile 59. Past stream cleaning and logging activities in the upper basin involved removing riparian trees and key pieces of large wood in the channel and floodplains. Side-channel development has been limited by the lack of in-stream large wood to re-direct flows off the mainstem and channel hardening and straightening activities from revetment installation. Reconnecting the side channel will primarily benefit ESA listed juvenile Spring Chinook salmon and resident cutthroat trout by increasing the availability and complexity of off-channel rearing habitat. The NSW/CPRCD received an OWEB TA grant in 2017 to contract River Design Group to develop a list of restoration alternatives that helped the NSW and its local technical team in identifying alternatives and the feasibility of restoring side channel habitat in this reach. Based on the alternatives analysis the NSW is now seeking funds to implement the technical teams preferred design alternative of opening up the 750 ft historic side channel and creating an additional 150 ft side channel. Large wood structures will be placed at the inlet, outlets and throughout the reconnected and newly created side channel habitat. Grant funds will cover contracted services and supplies and materials. Project partners include ODOT, USFS, ODFW and adjacent private landowners.

Review Team Evaluation

Strengths

- While the proposed project did not change significantly from the previous application, the applicant provided helpful explanatory information to address previous project evaluation concerns and questions.
- The proposal is a well thought out project that builds on an OWEB Technical Assistance investment.
- Stream habitat limiting factors for ESA-listed fish and other native fish and aquatic species are addressed by adding large wood and reconnecting side-channels, both of which have been largely eliminated by human disturbances in the watershed. New side-channel habitat will provide fish refuge from high water flows and could potentially benefit juvenile fish production.
- Project designs take into consideration potential impacts to adjacent properties.
- Surrounding landowners are actively involved in the project planning process.

- The project leverages a separate mitigation investment by expanding restoration benefits to an increased project scope and footprint.

Concerns

- It is unclear whether the project is the result of survey and planning to identify priority locations for side-channel reconnection, or is more opportunistic by responding to landowner interest in voluntary restoration that also more generally targets a watershed limiting factor.
- The quantified benefits for ESA-listed fish, especially Chinook, presented in the application may be more speculative due to the project location above two Army Corps dams. There is limited evidence indicating there will be significant benefit to ESA-listed fish populations with the current watershed limitations caused by Corps dams.
- The project location is challenging because the mainstem channel is incised. Creating a side-channel connection with the mainstem requires excavating the side-channel streambed down to the same elevation as the mainstem river. While the new downstream side-channel features are likely to be retained long-term, the upstream side-channel connection will likely silt in and close.
- Costs are high for apex log jams, which may be due to using small wood material that requires pinning to prevent the wood structures from easily moving.
- The application budget lacks detail needed to determine whether costs are reasonable and necessary for the proposed work because costs are grouped into lump sums.

Concluding Analysis

The proposed restoration will provide habitat to ESA-listed fish in a priority watershed for their recovery. While the restoration approach and project location limits the benefits for the cost of this project, the resulting habitat elements address priority limiting factors in the Upper North Santiam watershed.

Review Team Recommendation to Staff

Fund

Review Team Priority

11 of 12

Review Team Recommended Amount

\$159,943

Review Team Conditions

N/A

Staff Recommendation

Staff Follow-Up to Review Team

N/A

Staff Recommendation

Do Not Fund; falls below staff-recommended funding line

Staff Recommended Amount

\$0

Staff Conditions

N/A

Open Solicitation-2019 Spring Offering

Willamette Basin (Region 3)

Application Number: 220-3001-16987

Project Type: Restoration

Project Name: Abiqua Creek Aquatic Habitat Enhancement

Applicant: Pudding River WC

Region: Willamette Basin

County: Marion

OWEB Request: \$164,880

Total Cost: \$212,680

Application Description *(from application abstract)*

This stream enhancement, large wood and boulder project is located on private timberlands in the low elevation West Cascades foothills of the Molalla-Pudding River Watershed. Abiqua Creek, a major east-side tributary to the Pudding River and is fully within Marion County approximately 20 miles southeast of Silverton and 5 miles from Silver Falls State Park. As identified by the 2014 Rapid Bio-assessment, (OWEB 213-3054), the site is located in a geographic transition between the Willamette Valley and West Cascades where cold spring-fed seeps and hyporheic mixing provide thermal refugia to juvenile ESA-listed native salmon and steelhead. At this site, stream rearing habitat conditions are impaired because it is missing the physical, structural element played by naturally occurring large wood recruitment. A total of 14 log structures will be constructed within 0.5 mile per design specifications from Waterways Consulting. Weyerhaeuser, the landowner, has committed to providing boulders and the transport of the boulders to the staging site. Project partners include Weyerhaeuser, Marion SWCD (\$12,500 cash match), ODFW Dave Stewart, City of Woodburn, and staff and volunteers from the Pudding River Watershed Council.

Review Team Evaluation

Strengths

- Proposed restoration will treat priority watershed limiting factors for steelhead in the Pudding River watershed, which supports a winter steelhead stronghold population.
- It is expected that gravel recruitment around the large wood structures will occur quickly because the watershed conditions indicate source material is readily available to move downstream.
- The site is likely to be responsive in restoring the targeted watershed process and function.
- There is a landowner located downstream of the project site that is potentially interested in partnering on future watershed restoration, which will extend impacts from this investment.
- The applicant is engaging a project team with relevant experience and proven track records with similar restoration projects.
- Partner support is demonstrated by letters of support specifying partner contributions and involvement in the project.
- Project costs are reasonable.

Concerns

- Watershed benefits from this project are limited by a design approach that focuses on treating symptoms of watershed disturbance over causes. Integrating boulders to pin wood structures to prevent them from moving and placing wood on the stream edge instead of using full channel spanning large wood limits the extent to which watershed process and function will be restored. Placement of large wood on the stream edge also limits the amount of stream material that can be captured in the large wood structure to build streambed habitat complexity. Since this placement approach addresses landowner concerns about potential negative impacts from logs moving downstream, the design approach may be necessary to build cooperation in future restoration efforts.
- It is unclear whether ODFW large wood guidance will be met due to the lack of large sized wood material available for this project.
- The applicant's staff does not have previous experience implementing restoration projects; however, this is mitigated by the experience provided by the design team.

Concluding Analysis

The proposed project provides an opportunity for the applicant to start building watershed restoration momentum in an area that has considerable potential for future restoration. The project team shows a readiness to work with community members and demonstrate successful project implementation. While the proposed design will have limited benefits to overall watershed process and function restoration, it is a reasonable approach and cost for the available large wood. The resulting project will likely be leveraged by expanding community interest in the watershed for implementing future voluntary projects.

Review Team Recommendation to Staff

Fund

Review Team Priority

9 of 12

Review Team Recommended Amount

\$164,880

Review Team Conditions

N/A

Staff Recommendation

Staff Follow-Up to Review Team

N/A

Staff Recommendation

Do Not Fund; falls below staff-recommended funding line

Staff Recommended Amount

\$0

Staff Conditions

N/A

Open Solicitation-2019 Spring Offering

Willamette Basin (Region 3)

Application Number: 220-3002-16989

Project Type: Restoration

Project Name: Horsetail Creek Floodplain
Restoration Project Phase II

Applicant: Lower Columbia Estuary Partnership

Region: Willamette Basin

County: Multnomah

OWEB Request: \$168,850

Total Cost: \$241,970

Application Description *(from application abstract)*

The Lower Columbia Estuary Partnership (LCEP) requests \$168,850 to improve the diversity, quality, and quantity of instream and floodplain habitats on the Horsetail Creek floodplain in the Lower Columbia River Gorge, Multnomah County. The site is 180-acre Columbia River floodplain natural area containing two fish bearing streams and associated sloughs, ponds, drainages and wetlands, located on US Forest Service (USFS) property. It is situated between 1-84 and the Union Pacific Railroad and was significantly impacted by construction of the railroad and highway and historic land use. The proposed Horsetail Creek Floodplain Restoration Phase II project (Phase II) expands upon the previous project. Phase I, constructed in 2013 on the west portion of the site, improved site thermal conditions, removed fish passage barriers, restored freshwater tidal hydrology, added 600 pieces of large wood to the stream and revegetated 0.9 miles of stream habitat over the lower 35 acres of the site. Phase II, focused to the East Slough, will treat an additional 0.5 stream miles by placing 25 pieces of in-stream large wood, installing beaver dam analog structures (BDAs), and revegetating an additional 30 acres of floodplain habitat by removing an invasive understory of reed canary grass and planting 65,000 native forested wetland species. This project has the unique opportunity to leverage burned wood from the 2017 Eagle Creek Fire by felling and placing large on-site burned trees in-stream and on the floodplain. Large wood placements and the BDAs will increase habitat complexity, enhance off-channel rearing and high flow refugia habitat and encourage additional beaver activity. Restoring floodplain vegetation and closing the riparian overstory will restore process and function to floodplain forests, improve the site's cold-water refuge for anadromous salmonids, and increase macroinvertebrate prey production for juvenile salmonids.

Review Team Evaluation

Strengths

- Previous application evaluation concerns are addressed.
- Proposed Phase 2 restoration is prioritized in an action plan for the Columbia Gorge.
- The project builds on a previous Phase 1 OWEB Restoration investment, and Phase 2 actions will leverage future restoration on the Columbia River currently being planned with OWEB Technical Assistance grant 219-3027, Feasibility Assessment of Pilot Cold Water Refuge Enhancement Technique.

- Horsetail Creek is the most significant cold water input in a 58 mile stretch of the Columbia River. Since the project site is located on one of the last cold water refugia areas before the Columbia River dams, restoration actions will significantly benefit rearing habitat for ESA-listed fish.
- The project is in a highly visible location at a trailhead that will provide opportunity for raising public awareness about watershed restoration.
- The applicant has extensive knowledge about the project site and has engaged the appropriate partners for this project.
- The applicant has capacity to implement long-term maintenance and monitoring on the project site.
- Photos are used effectively in the application.

Concerns

- It is challenging to address causes of watershed impacts with the constraints created by the project location adjacent to I-84.

Concluding Analysis

Monitoring results for the Phase 1 project provide evidence that the proposed restoration approach is successfully providing habitat and temperature benefits. The proposed project is ready for implementation and will leverage complementary past and future restoration efforts, which expands the impact of this work to provide a significant watershed benefit for the cost.

Review Team Recommendation to Staff

Fund

Review Team Priority

2 of 12

Review Team Recommended Amount

\$168,850

Review Team Conditions

N/A

Staff Recommendation

Staff Follow-Up to Review Team

N/A

Staff Recommendation

Fund

Staff Recommended Amount

\$168,850

Staff Conditions

N/A

Open Solicitation-2019 Spring Offering Willamette Basin (Region 3)

Application Number: 220-3003-17006

Project Type: Restoration

Project Name: Sandy-Salmon Floodplain
Reconnection Phase II

Applicant: Sandy River Basin WC

Region: Willamette Basin

County: Clackamas

OWEB Request: \$293,320

Total Cost: \$904,470

Application Description *(from application abstract)*

The Sandy Salmon Floodplain Reconnection Phase II will restore wild salmon habitat and enhance community resiliency in a priority Oregon basin for recovery of threatened Lower Columbia River wild salmon and steelhead that is vulnerable to climate change driven storms, flooding and erosion. Restoring the floodplain at the confluence of the Sandy and Salmon Rivers represents one of the largest and most potentially productive restoration opportunities in the Sandy River basin, identified as a top restoration priority in basin- and reach-scale plans. Levees built after the Sandy's record flood in 1964 isolated key floodplain and side channel habitat. Portions of the levees are vulnerable to failure from long-term erosion; the project site partially breached already in a moderate October 2017 storm flow. Phase II restoration actions will implement habitat enhancements to the upper floodplain and a new river channel forming inside the levee, reconnecting and extending restoration completed in 2019 immediately downstream. Proposed phase II restoration actions will partially remove a levee, and enhance the newly forming channel along the upper floodplain, adding large wood structures and grade controls, enhancing side channel habitat, and restore riparian vegetation to enhance habitat and disperse river energy across the floodplain.. Resulting reconnected floodplain habitat will provide migratory and rearing habitat for juvenile salmonids, addressing reach priorities for limiting factors specified by restoration plans, and building toward basin scale connectivity in the main stem Sandy and its tributaries. Project partners include Bureau of Land Management and Clackamas County, as well as local residents and anglers.

Review Team Evaluation

Strengths

- The application is well written.
- The project is identified as a top priority in the Sandy Basin Partners' strategy, and will address key watershed limiting factors in a high priority watershed for ESA-listed fish.
- Proposed restoration will build on Phase 1 work and strengthen watershed resilience, improve stream and floodplain connectivity, and benefit water temperature in addition to fish habitat.
- The design team has relevant experience and a proven track record implementing large-scale stream restoration in the Sandy Basin.
- The project is in a highly visible location at a trailhead that will provide opportunity for raising public awareness about watershed restoration.

- The project is timely due to momentum generated with Phase 1, and will address levee vulnerabilities before levee failure could negatively impact the basin downstream.

Concerns

- There may be some merit to waiting on Phase 2 until after Phase 1 is completed to observe how the stream system responds, and then adapt the Phase 2 approach to any lessons learned.
- It is unclear from the application why grade control is incorporated into the project design and why a transport channel will be restored in a deposition area of the river where materials will naturally drop out and potentially close the newly created side-channel. Current conditions at the project location may be suitable for the proposed design to be effective; however, additional information in the application on why the design approach was chosen for the project location would provide helpful context.
- The overall project manager hours budgeted are high compared to similar projects. It is unclear from the application why the number of hours are necessary when project management will also be provided by contractors.
- Project related outreach should be added to the scope of work narrative in the application because there are budget items listed for outreach costs. Given the project scale and public location, outreach will be needed to communicate watershed restoration needs and outcomes.

Concluding Analysis

The Sandy Basin consistently responds to restoration actions implemented by the Sandy Basin Partners with positive fish population trends, which is documented through monitoring efforts by the Partners. There is potential for the proposed project to provide significant habitat benefits for the cost in a priority basin for ESA-listed fish.

Review Team Recommendation to Staff

Fund

Review Team Priority

4 of 12

Review Team Recommended Amount

\$293,320

Review Team Conditions

N/A

Staff Recommendation

Staff Follow-Up to Review Team

Staff will request an application revision to add outreach to the Project Scope of Work described in the narrative sections.

Staff Recommendation

Fund

Staff Recommended Amount

\$293,320

Staff Conditions

N/A

Open Solicitation-2019 Spring Offering Willamette Basin (Region 3)

Application Number: 220-3004-17010

Project Type: Restoration

Project Name: Tryon Creek East Fork Fish Passage Barrier Removal Project

Applicant: Tryon Creek Watershed Council

Region: Willamette Basin

County: Multnomah

OWEB Request: \$274,081

Total Cost: \$409,151

Application Description *(from application abstract)*

1) This project is located on the East Fork of Tryon Creek, which flows directly into the Willamette River, and is part of the Lower Willamette River Basin (Multnomah County, Portland, OR). 2) This project will replace an undersized culvert, which is one of the last fish passage barriers within the Tryon Creek watershed, as well as increase the habitat complexity of the creek. It will improve the population carrying capacity of the creek and once the fish passage at Highway 43 is replaced (currently included on a Federal Appropriations Bill), we anticipate the return of Lower Columbia Coho, Steelhead, Coastal Cutthroat Trout, and Lamprey, as there are no other barriers downstream of the East Fork. The significant riparian revegetation that is part of the project will also improve water quality and support non-fish aquatic species such as lamprey, as well as terrestrial species living in the area. 3) The solution involves restoring fish passage through the replacement of an undersized culvert, reconstruction of the creek bed above the culvert, and replanting the riparian area. Tryon Creek was recently the subject of a U.S. Fish & Wildlife Service study which established that this creek and habitat can support Coastal Cutthroat Trout and other salmonid species; removing one of the final fish passage barriers is critical to the future success of this creek system as native fish spawning habitat. 4) The Watershed Council has been, and will continue to work with Metro Regional Government, Oregon Parks & Recreation Department, City of Portland Bureau of Environmental Services, West Multnomah Soil & Water Conservation District, and the Friends of Tryon Creek, along with countless community and neighborhood volunteers to complete this project and steward the riparian area after completion.

Review Team Evaluation

Strengths

- The application has clearly written goals and objectives.
- A key fish passage barrier on East Tryon Creek will be addressed to open one half mile of stream habitat, which will leverage other fish passage and revegetation work planned in coordination with the proposed project.
- Proposed restoration will provide cold water refugia benefits in a stream that flows into the Willamette River and supports a large population of cutthroat trout, as well as lamprey.

- A thorough project plan is presented in the application that is based on modeling and engineering work already completed. The 60% designs provided have significantly improved from the previous application submissions and address previous project evaluation concerns.
- The project is in a highly visible location in a state park that will provide opportunity for raising public awareness about watershed restoration.
- Partner support is demonstrated by significant match.
- Multiple technical experts are involved in the project and partners have a proven track record managing projects.

Concerns

- There is significant sediment built up behind the berm and it is unclear from the application whether there is consideration in the project plan for potential long-term impacts from this sediment moving downstream.
- Watershed benefits resulting from this project are limited by the downstream Highway 43 road crossing. Until this barrier is addressed, the proposed project has a limited benefit for the cost.
- Additional information on the stream habitat quality above the project site would provide helpful context for determining the extent of habitat benefits that will result from connecting this stream corridor.
- The project has a high cost for opening one half mile of stream habitat located high in a stream system and on the fringe of anadromy. Due to the small active channel width of the stream, anadromous fish are not likely spawning at this site; however, they could be using it for rearing.

Concluding Analysis

The chosen project design alternative is reasonable in balancing local conditions and constraints with overall cost to achieve restoration goals, and project costs are also reasonable for the proposed design. However, the overall cost-benefit to watershed health is significantly limited due to the downstream fish passage barrier at Highway 43.

Review Team Recommendation to Staff

Do Not Fund

Review Team Priority

N/A

Review Team Recommended Amount

\$0

Review Team Conditions

N/A

Staff Recommendation

Staff Follow-Up to Review Team

N/A

Staff Recommendation

Do Not Fund

Staff Recommended Amount

\$0

Staff Conditions

N/A

Open Solicitation-2019 Spring Offering Willamette Basin (Region 3)

Application Number: 220-3005-17031

Project Type: Restoration

Project Name: Upland prairie restoration for Kincaid's lupine and Fender's blue butterfly

Applicant: Institute for Applied Ecology

Region: Willamette Basin

County: Benton

OWEB Request: \$245,493

Total Cost: \$544,053

Application Description *(from application abstract)*

Willamette Valley prairie habitats are some of the rarest in the nation, with an estimated one percent remaining. As a result, the species that depend upon these habitats are in decline as well, some to the point of facing the threat of extinction. Drawing upon a highly functioning network of government agencies, non-profits and private landowners who are working towards prairie restoration and listed species recovery in the Willamette Valley, this project focuses on two of our most imperiled Willamette Valley prairie species: Kincaid's lupine (threatened) and Fender's blue butterfly (endangered). Through habitat restoration and augmentation of key populations of Kincaid's lupine in two critical recovery zones, Corvallis West and Salem West, we will be moving this species closer to recovery and eventual delisting. Because Kincaid's lupine is the host plant for Fender's blue butterfly, increasing lupine and nectar species abundance will also benefit the listed butterfly and other pollinators. This proposal seeks OWEB funds to implement habitat restoration and Kincaid's lupine augmentation activities in order to meet recovery goals in the Corvallis West and Salem West recovery zones. Specifically, funded activities will include project management, site preparation, production and purchase of seed and plant materials (including Kincaid's lupine and nectar species), seeding and outplanting at five project sites in the Salem West recovery zone and six sites within the Corvallis West recovery zone. Reintroduction sites include protected areas on public and private land. Partners include U.S. Fish and Wildlife Service, Bureau of Reclamation, Benton County, Oregon Department of Transportation, Yamhill Soil and Water Conservation District, Polk Soil and Water Conservation District, Greenbelt Land Trust, and private landowners.

Review Team Evaluation

Strengths

- The application has measurable goals and clear actions to implement objectives that will lead to successfully accomplishing those goals.
- Restoration actions will treat causes of habitat disturbance instead of symptoms.
- Eight watershed plans are cited in the application, and proposed actions will support ESA-listed Kincaid's lupine and Fender's blue butterfly.

- The project recognizes the limited availability of large acreage parcels in the Willamette Valley for proposed restoration actions by instead establishing a network of smaller restored sites with enough connectivity to achieve meaningful impacts benefitting target species.
- Reintroduction sites for target species include protected areas on public and private lands, which will increase the likelihood of protecting restoration investment gains in the long term.
- The applicant has a proven track record with similar restoration work.
- A diversity of partners are engaged in the project, which is demonstrated by letters of support.
- Project costs are reasonable based on supporting documentation provided in the application.

Concerns

- Clarification on the extent to which the network of restored project sites will move ESA-listed species towards achieving delisting recovery goals would provide helpful watershed context. It is clear that if individual sites are successful, these sites are eligible to help meet recovery goals for delisting; however, it is unclear whether collectively the sites can achieve delisting if they are all successful.
- Establishing Kincaid's lupine from plugs can be challenging so there may be some risk that plugs will not succeed, and this project component will not be worth the investment.
- Not all proposed sites will integrate herbicides as a weed management tool, which will make these locations difficult to successfully manage.
- No alternatives to the proposed restoration approach were discussed in the application.
- Partners are likely to assist with maintaining sites; however, it is unclear from the application what plans are in place for long-term plant establishment.

Concluding Analysis

A collection of shovel-ready project locations will be restored to create a network of habitats for ESA-listed Kincaid's lupine and Fender's blue butterfly. The project leverages committed partners that will contribute to the likelihood of success for this project to meet proposed restoration outcomes that will assist in achieving ESA recovery goals.

Review Team Recommendation to Staff

Fund

Review Team Priority

6 of 12

Review Team Recommended Amount

\$245,493

Review Team Conditions

N/A

Staff Recommendation

Staff Follow-Up to Review Team

N/A

Staff Recommendation

Fund

Staff Recommended Amount

\$245,493

Staff Conditions

N/A

Open Solicitation-2019 Spring Offering Willamette Basin (Region 3)

Application Number: 220-3006-17037 **Project Type:** Restoration
Project Name: Bald Hill Farm Restoration Phase 3
Applicant: Greenbelt Land Trust
Region: Willamette Basin **County:** Benton
OWEB Request: \$111,026 **Total Cost:** \$210,251

Application Description *(from application abstract)*

Greenbelt Land Trust purchased Bald Hill Farm in 2013 for the express purpose of permanently protecting and restoring native habitats for rare and declining species. The regional importance of this property was recognized by Oregon Watershed Enhancement Board and Bonneville Power Administration who hold permanent conservation easements on this property, located in Benton County, just west of Corvallis. The impact of this restoration project is greatly heightened by the fact that there are three contiguous Natural Areas for a combined area of 1,405 acres. Bald Hill Farm provides a unique opportunity to create new prairie habitat from degraded pasture within a butterfly's wing beat of some of the best remaining prairie in the mid-Valley. This project will retire agricultural activities on 81 acres of degraded pasture and 39 acres of riparian forest for a total project area of 120 acres. The pastures will be converted into a diverse native prairie with vernal pools. Adjacent tracts support a suite of species of conservation concern such as Fender's blue butterfly, Taylor's checkerspot, Oregon vesper sparrow, Kincaid's lupine, Nelson's checkermallow, Willamette daisy, and golden paintbrush. This newly created habitat will provide the best potential for population expansion for these rare and declining species. In addition, Greenbelt proposes to restore 39 acres of riparian forest through thinning and control of invasive species. 50,000 annual visitors will witness the transformation of this iconic property. Greenbelt is partnering with the U.S. Fish and Wildlife Service to develop a network of vernal pools and restored wet prairie. In addition, River Design Group will provide engineering expertise in order to repair two former agricultural ditches that are beginning to head cut. Greenbelt is also partnering with Ducks Unlimited to submit a North American Wetland Conservation Act grant which will match roughly half of the total project cost proposed herein.

Review Team Evaluation

Strengths

- The project is designed well and the application includes a clear description of the site, various project components, design, and rationale for likely success of the restoration approach.
- Proposed restoration builds on connected conservation work in the area and supports USFWS ESA-listed species recovery goals for species such as Fender's blue butterfly.
- The project is in a highly visible location with a trail network that will provide public awareness about watershed restoration.

- The applicant has a proven track record in restoring prairie and oak valley bottom habitats.
- The budget includes costs for cultural resources survey.
- Appropriate partners are engaged in the project.

Concerns

- Riparian restoration is less clearly described in the application compared to other habitat restoration components.
- Vernal pools may not succeed due to unsuitable site conditions; however, this portion of the project will likely result in wet prairie hydrology that will provide habitat benefits.

Concluding Analysis

The proposed restoration will add habitat complexity on a site that will have long term protection as a conservation property. The property's position on the landscape is ideal for building connectivity of restored habitat for the target species at a scale that will have meaningful impact. The resulting restoration outcomes will have high benefit to these habitats and ESA-listed species for the cost, and the project approach is likely to succeed.

Review Team Recommendation to Staff

Fund

Review Team Priority

3 of 12

Review Team Recommended Amount

\$111,026

Review Team Conditions

N/A

Staff Recommendation

Staff Follow-Up to Review Team

N/A

Staff Recommendation

Fund

Staff Recommended Amount

\$111,026

Staff Conditions

N/A

Open Solicitation-2019 Spring Offering Willamette Basin (Region 3)

Application Number: 220-3007-17059

Project Type: Restoration

Project Name: Economic and Ecological
Sustainability through Restoration of Lamprey
Creek

Applicant: OSU Office of Sponsored Research &
Award Admin

Region: Willamette Basin

County: Benton

OWEB Request: \$424,025

Total Cost: \$807,778

Application Description *(from application abstract)*

This project will restore a rich tapestry of habitats on 175 acres of Oregon State University (OSU)-owned land along Lamprey Creek, a third order stream in the Oak Creek watershed, Benton County, Corvallis, Oregon. Portions of the creek are channelized and adjoining wetlands have been ditched and drained. Priceless specimen oaks are crowded by encroaching trees and increasingly threatened by wildfire. Blackberry, English hawthorn, and other invasive weeds infest meadows and woodlands. The site has not been actively managed for decades. Situated on the urban fringe, it is also a visible reminder of missed opportunities to demonstrate effective protection of open spaces, sustainable grazing, and wildfire readiness. We propose to reverse the degradation of this natural area using innovative combinations of fuels management, weed treatments, carefully prescribed grazing, and comprehensive floristic reintroduction based on historic diversity documented by OregonFlora. We will remove a dike and return Lamprey Creek to a portion of its historic channel. Beaver dam analog construction and beaver-supportive plantings will support dam-building to restore floodplain function and return complexity to the system. Through partnership with USDA, Oregon DSL, Marys River Watershed Council, private partners, OSU Extension, and several other University labs and programs, this project leverages the unique strengths of OSU by engaging social, biological and biophysical researchers to begin the process of rigorous scientific evaluation of restoration practices. While no research will be funded through this grant, we will create opportunities for faculty and student engagement to generate knowledge that will directly benefit OWEB and other natural resource funders. In particular, we intend to demonstrate that science-based restoration and maintenance of natural habitat can be achieved while meeting agricultural production objectives in an economically sustainable manner.

Review Team Evaluation Strengths

- The project site has significant habitat potential and the general restoration project concept is technically sound.
- The project utilizes OregonFlora documentation to inform restoration design.

Concerns

- Since there are no watershed restoration plans referenced in the application, it is unclear whether the project is an action prioritized in a strategic plan or whether it is more opportunistic.
- There is limited evidence that ESA-listed Fender's blue butterfly will benefit from the proposed restoration because the host plant is not present at the project site.
- The species list in the application for plantings is ambitious because the species may not all be available in the desired quantities.
- Broadcast burning appears to be proposed for some areas of the project site where it would not be appropriate due to the proximity to a neighborhood. Broadcast burning is a logical approach for portions of the site; however, it is not ideal within the timing of the proposed project because more time may be needed for tree thinning to reduce the fuel load.
- The overall project cost is high for the proposed restoration goals, objectives, and actions.
- Some unit costs in the budget, such as tree thinning and oak release costs, are high compared to similar projects.
- Staff costs are high for the proposed restoration work. It is difficult to determine from the application how the high number of staff hours is necessary to achieve the proposed restoration goals without more detail on the deliverables that will be provided by these staff positions.
- The application does not indicate that partners actively implementing similar habitat work in the area were engaged, such as Greenbelt Land Trust, Institute for Applied Ecology, and USFWS. Furthermore, one of the letters included in the application from a local restoration practitioner expresses concern regarding the restoration approach in addition to overall support for the project concept.

Concluding Analysis

Addressing ecological processes through targeted grazing and prescribed fire provides an interesting opportunity to experiment with different tools for restoring habitats. The applicant is encouraged to engage partners in the area that are working on restoring similar habitat types and aligning efforts with relevant watershed restoration plans.

Review Team Recommendation to Staff

Do Not Fund

Review Team Priority

N/A

Review Team Recommended Amount

\$0

Review Team Conditions

N/A

Staff Recommendation

Staff Follow-Up to Review Team

N/A

Staff Recommendation

Do Not Fund

Staff Recommended Amount

\$0

Staff Conditions

N/A

Open Solicitation-2019 Spring Offering

Willamette Basin (Region 3)

Application Number: 220-3008-17067

Project Type: Restoration

Project Name: Forest Park - Balch Creek
Watershed Restoration Project

Applicant: City of Portland Parks & Recreation

Region: Willamette Basin

County: Multnomah

OWEB Request: \$249,200

Total Cost: \$451,200

Application Description *(from application abstract)*

The City of Portland requests OWEB funding to complete the final phase of a 580-acre restoration project in the Balch Creek Watershed of the City of Portland's Forest Park. Forest Park is a 5,200-acre forested natural area in Multnomah County owned and managed by the Portland's Parks & Recreation (PP&R). Balch Creek is a tributary of the Willamette River and flows for a mile through Forest Park. The densely forested watershed's habitat scores are among the highest in the City. The creek supports a resident population of cutthroat trout, while providing a clean, cool water supply to the Willamette. Despite the high quality of the watershed surrounding Balch Creek, significant portions are severely degraded by the long-term encroachment of invasive species - primarily ivy, holly and laurel. This impacts native understory plant communities and the wildlife they support; reduces natural regeneration of conifers; and contributes to erosion. A comprehensive watershed restoration plan began in 2015 with funding from PP&R and a Metro Nature in Neighborhoods grant. Now, PP&R requests \$249,200 from OWEB to connect project areas within a contiguous 580-acre area. Work will include manual, mechanical and chemical treatments of invasive species, followed by replanting to restore native plant communities. Match for the grant is provided by PP&R funding and volunteer work by PP&R's No Ivy League program, which works to manually control ivy in the watershed. Match is also provided by a pending Forest Park Conservancy application for Metro's Nature in Neighborhoods grant. These proposals were designed in tandem – Metro funding will support new actions to achieve equity goals in the watershed that will benefit minority groups, including workforce development, community stewardship, and a portion of the watershed restoration activities; while OWEB funding will complete the comprehensive landscape-scale restoration through work with contractors and volunteer crews.

Review Team Evaluation

Strengths

- A large area of City of Portland's Forest Park will be treated, which will benefit forest health, amphibian habitat, and water quality.
- The proposed project is well thought out with a reasonable plan for targeting areas for treatment and strategies for controlling weeds.
- A planting component after invasive plants are removed is included in the restoration approach.

- The project is in a highly visible location with a trail network that will provide opportunity for raising public awareness about watershed restoration.
- Volunteer efforts will be integrated with professional contractors when necessary to implement the proposed work.
- The project manager has a proven track record with similar work.
- The proposed restoration has a reasonable cost benefit for the proposed work.

Concerns

- It is difficult to fully understand from the application the project complexities relating to the acres to be planted versus acres to be treated for noxious weeds, and where these acres do not overlap and why. However, the proposed restoration is clearer after the site visit that demonstrated there are some areas requiring only aggressive noxious weed control to restore forest health while other areas will need additional planting to restore diversity of plant species and age class.
- There are likely water quality impacts to Balch Creek from the trails contributing sediment that could be addressed with trail improvements to provide further water quality protection.
- Long-term sustainability of restoration work will be a challenge; however, the proposed actions will provide an initial investment in decreasing weed populations so that long-term control is more feasible.

Concluding Analysis

Proposed restoration actions will provide whole watershed health benefits by restoring and maintaining upland forest health. The project integrates engaging communities of color and minorities in new training and workforce development opportunities when implementing restoration actions in Forest Park. Resulting restoration will provide meaningful community benefits in addition to watershed health benefits at a reasonable cost for the proposed work.

Review Team Recommendation to Staff

Fund

Review Team Priority

12 of 12

Review Team Recommended Amount

\$249,200

Review Team Conditions

N/A

Staff Recommendation

Staff Follow-Up to Review Team

N/A

Staff Recommendation

Do Not Fund; falls below staff-recommended funding line

Staff Recommended Amount

\$0

Staff Conditions

N/A

Open Solicitation-2019 Spring Offering Willamette Basin (Region 3)

Application Number: 220-3009-17069

Project Type: Restoration

Project Name: Recovering System Process in the
Upper Marys River Basin

Applicant: Marys River WC

Region: Willamette Basin

County: Benton

OWEB Request: \$212,628

Total Cost: \$310,533

Application Description *(from application abstract)*

This is a targeted series of restoration prescriptions that focuses on the protection, enhancement and restoration of high priority aquatic anchor habitat reaches in the Upper Marys River 6th field. An OWEB funded Technical Assistance grant has provided the modeling and field verification that identified these anchors, as well as the landowner outreach necessary for the development of project prescriptions. The process utilized to identify and prioritize these project reaches was built on the concept that functional source populations (demes) are required for maintaining both the genetic diversity and abundance of salmonid populations within the larger Marys River Watershed. Treatment reaches are located in the West Fork Marys River (0.5 mile), Oleman Creek (0.9 mile) and Devitt Creek (1.0 mile). MRWC will treat all of these reaches within the scope of this proposed restoration work by utilizing a broad range of partner matches that include OWEB, Siuslaw National Forest Marys Peak Stewardship Group, Bureau of Land Management., OR Department of Forestry, industrial timber and numerous small private landowners. Within each of these anchor habitats, MRWC is securing upstream passage, providing long-term riparian support for the aquatic corridor (shade and wood delivery), and in all cases focusing on prolonged water storage in legacy beaver reaches to address the primary basin scale limitation of elevated water temperature that truncates the abundance of functional summer rearing habitat. Floodplain inundation and storage will primarily be accomplished with the installation of large wood structures (LWDs) and beaver dam analogues (BDAs) and supported by planting extensive areas of beaver forage species in the riparian corridor, where legacy beaver flats have become dominated by reed canary grass. Monitoring will be an important part of the broader project request as it relates to the colonization rates of the proposed BDA structures.

Review Team Evaluation

Strengths

- The application is thorough and well-written.
- Proposed restoration actions build on a previous OWEB Technical Assistance investment and target high priority habitat reaches identified from that work. Large wood placement and Beaver Dam Analog (BDA) designs are based on modeling and field verification from the technical assistance.
- A broad range of partners support the project, which is demonstrated by letters of support and match.

- The range of restoration actions will address fish passage at multiple sites, increase stream and floodplain interactions, and restore riparian vegetation, which will provide lamprey and cutthroat trout habitat and water quality benefits.
- Monitoring will be incorporated into the project that includes lamprey eDNA testing and monitoring BDAs to ensure there are no fish passage issues.
- The application includes a clear explanation of an alternatives analysis for the project design approach.
- The applicant has a proven track record with similar projects.

Concerns

- There are a number of budget items listed that do not have a clear connection to the goals, objectives, and actions in the application narrative, making it difficult to determine how these costs are reasonable and necessary for achieving the proposed restoration actions.

Concluding Analysis

The combination of strategized restoration actions, partner participation, and potential for future restoration opportunities that will expand the impact of the proposed project provides a high benefit for the cost and likelihood of success.

Review Team Recommendation to Staff

Fund with Conditions

Review Team Priority

7 of 12

Review Team Recommended Amount

\$212,628

Review Team Conditions

OWEB staff should clarify budget costs for outreach and GIS to determine whether costs are reasonable and necessary for the project, and whether they should be removed from the budget.

Staff Recommendation

Staff Follow-Up to Review Team

Staff requested clarifying information on budget items relating to outreach and GIS costs and determined these items are directly related to the project. GIS costs are needed to support permit application processes and to monitor the project for reporting. Outreach costs will support public awareness project components that will lead to future restoration opportunities. Staff will request an application revision to add outreach and GIS to the Project Scope of Work described in the narrative sections. The applicant also provided a revised budget that reflects a reduced OWEB request to adjust for new match funds that

were recently secured.

Staff Recommendation

Fund Reduced with Conditions

Staff Recommended Amount

\$205,153

Staff Conditions

Fund reduced to adjust OWEB request in response to the applicant securing new match funds.

Open Solicitation-2019 Spring Offering

Willamette Basin (Region 3)

Application Number: 220-3010-17070

Project Type: Restoration

Project Name: Truax Island Floodplain Restoration
Phase 1 : Planting and Plant Establishment

Applicant: Calapooia WC

Region: Willamette Basin

County: Linn

OWEB Request: \$129,981

Total Cost: \$332,535

Application Description *(from application abstract)*

Truax Island Access is a 128 acre undeveloped Willamette Greenway site within the Upper Willamette River Floodplain conservation Opportunity Area (COA 61, Oregon Conservation Strategy, 2016). Truax Island is bordered on the north by the Willamette River and the south is bordered by Dead River Slough. The primary watershed issue being addressed during the restoration and enhancement of 27 acres of floodplain and upland forest will be the ecological degradation to the floodplain after it was deforested, cleared for agricultural use and eventually left fallow. Once agricultural operations ended, the site was quickly colonized by invasive weeds, including Armenian blackberry, English hawthorn, common tansy, and teasel. These non-native, invasive plants degrade the quality of the floodplain for juvenile salmonids who seeks these areas as refuge during floods and capitalize on the opportunity to forage on terrestrial insects. To restore this valuable floodplain habitat along the Willamette River, site preparation began in 2018 thanks to a grant from Meyer Memorial Trust (\$147k Match). Work has consisted of hand cutting invasive vegetation with follow-up herbicide applications in the spring and fall. This process will be repeated for two years, with the site being ready to install native trees and shrubs in winter 2020. To maximize the ecological uplift for the project, we will also be thinning 8.7 acres of pine/fir trees to create a more open upland community and re-purpose the logs as basking in the nearby gravel pit. We are seeking OWEB funds to achieve the next step of the project, the reforestation and enhancement of 27 acres of historic floodplain/upland forest through the installation of 27,550 native trees and shrubs, seeding native grasses and forbs, and five years of plant maintenance. Project partners: OPRD, Knife River, River Design Group, DOGAMI, The Nature Conservancy, Meyer Memorial Trust and the Calapooia Watershed Council.

Review Team Evaluation

Strengths

- The project site is located in a priority watershed area and implements actions identified in multiple plans, including the Upper Willamette Conservation and Recovery Plan for Chinook Salmon and Steelhead, Oregon Conservation Strategy, and the Willamette Anchor Habitat Working Group Action Plan.
- A diversity of watershed habitat benefits will result from the proposed restoration activities, including oak, floodplain, and western pond turtle habitats.

- The project builds connectivity with upstream and downstream restoration efforts, and incorporates lessons learned from these projects.
- Many of the previous project evaluation concerns are addressed in the application. For example, revised plant community treatments specific to benefiting turtle habitat are more likely to succeed.
- Multiple partners are involved in the project, which is demonstrated by letters of support. The applicant has engaged a diversity of partners necessary for this project to be successful, including neighboring agricultural landowners, state agencies, and an on-site gravel industry stakeholder.
- Inclusion of the two-year flood maps in the application provides helpful context

Concerns

- Restoration approaches are not clearly described in the application; more detail on project objectives and how they will be accomplished would improve application clarity.
- Previous evaluation concerns regarding the oak habitat restoration design are not fully addressed. Proposed plantings of new oaks indicate that the restoration approach is not prioritizing legacy oak retention. The site already has enough young oaks and restoration focus should be on the herbaceous understory.
- Costs for mowing and herbicide spray are high compared to other similar projects.
- It is unclear why costs for herbicide treatment over the five-year plant establishment timeframe is the same each year instead of ramping down as the need for herbicides should decrease by the time a project reaches year five. Also, fall herbicide treatments should require spot spraying and not circle spray, which is appropriate for spring treatments.

Concluding Analysis

The project is time sensitive to ensure that gains from recent site preparation and weed control are not lost. This work has resulted in successful reduction of weed populations, which allows the site to be ready for implementation of the project. The proposed restoration within the Willamette floodplain will provide multiple habitat benefits at a reasonable overall project cost for the expected outcomes.

Review Team Recommendation to Staff

Fund

Review Team Priority

10 of 12

Review Team Recommended Amount

\$129,981

Review Team Conditions

N/A

Staff Recommendation

Staff Follow-Up to Review Team

N/A

Staff Recommendation

Do Not Fund; falls below staff-recommended funding line

Staff Recommended Amount

\$0

Staff Conditions

N/A

Open Solicitation-2019 Spring Offering Willamette Basin (Region 3)

Application Number: 220-3011-17075

Project Type: Restoration

Project Name: Bear Creek Fish Passage
Enhancement Phase 2

Applicant: Long Tom WC

Region: Willamette Basin

County: Lane

OWEB Request: \$94,033

Total Cost: \$122,623

Application Description *(from application abstract)*

The proposed fish passage enhancement project is located on Bear Creek, in one of three drainages prioritized by the Long Tom Watershed Council (LTWC) for accelerated restoration as part of the Willamette Model Watershed Program. Bear Creek, along with Ferguson Creek to the north, are priority areas for fish passage improvements for LTWC due to their proximity to the mainstem Willamette River and their potential to provide habitat for juvenile upper Willamette River spring Chinook and Pacific lamprey once fish passage is improved by the US Army Corps of Engineers on the lower Long Tom River. The proposed project is the final of two phases of fish passage improvements on Bear Creek proper and would address two of the final four priority passage barriers in the Bear Creek Sub-watershed (there are two remaining on Jones Creek). Once this project is complete, LTWC will add Bear Creek to the list of entire drainages that we have opened up for fish passage, which includes Owens Creek, a major tributary to Bear Creek, where we have removed 12 barriers since 2006. This project would open up three miles of spawning and cold-water habitat for native aquatic species by installing engineered riffles downstream of two barrier culverts on Bear Creek. The riffles will backwater the culverts to make them passable year-round for native aquatic species. One culvert is privately-owned and the other is located on Highway 36 and managed by the Oregon Department of Transportation (ODOT). The riffle will be installed downstream of Highway 36 on private property. OWEB funds will be used for supplies, materials, contracted services, project management, travel, and grant administration costs of the riffle installations. OWEB funds will leverage significant in-kind contributions from the landowners, ODOT, and Wildish Sand and Gravel.

Review Team Evaluation

Strengths

- The last two fish passage barriers in the Bear Creek drainage will be addressed. This will add three miles of stream habitat that will benefit cutthroat trout.
- The project design incorporates lessons learned from previous projects by adding an engineered riffle to mitigate water velocity barriers to fish passage caused by culverts, which is a reasonable approach for the project sites.
- Project implementation will balance utilizing assistance when feasible from the landowner with contractor expertise when needed.

- The applicant has a proven track record using a similar design approach at other road crossing locations.
- Project costs are reasonable.

Concerns

- When the designs are reviewed by ODOT, there could be changes required that increase project costs.

Concluding Analysis

The proposed project builds on and leverages considerable strategic watershed restoration investments, including the Meyer Memorial Trust Model Watershed. Addressing the proposed fish passage barriers will open an entire drainage of connected stream habitat. The applicant's extensive and effective work in landowner engagement to recruit participation in voluntary watershed restoration has resulted in this whole watershed approach. The resulting watershed health cost-benefit is reasonable and the likelihood of project success is high.

Review Team Recommendation to Staff

Fund Increased with Conditions

Review Team Priority

8 of 12

Review Team Recommended Amount

\$100,289

Review Team Conditions

Add 10% contingency on contracted services and supplies and materials in case project costs increase in relation to meeting ODOT requirements.

Staff Recommendation

Staff Follow-Up to Review Team

N/A

Staff Recommendation

Do Not Fund; falls below staff-recommended funding line

Staff Recommended Amount

\$0

Staff Conditions

N/A

Open Solicitation-2019 Spring Offering Willamette Basin (Region 3)

Application Number: 220-3012-17080

Project Type: Restoration

Project Name: Coyote-Spencer Wetlands Oak and
Prairie Habitat Restoration: Phase I

Applicant: Long Tom WC

Region: Willamette Basin

County: Lane

OWEB Request: \$163,749

Total Cost: \$265,147

Application Description *(from application abstract)*

McKenzie River Trust's 191-acre Coyote-Spencer Wetlands property sits at the confluence of Coyote and Spencer creeks in the Long Tom Watershed, providing refugia for numerous native wet and upland prairie- and bottomland oak habitat-dependent species. The property is within an Oregon Conservation Strategy Conservation Opportunity Area, Willamette Valley Synthesis Area, and US Fish and Wildlife Service Priority Conservation Area. Prairie and Oak habitats are among the most fragmented and endangered in Oregon. In 1853, surveyors walking the section lines that cross the property described open prairie on the valley bottom intersected by fringes of riparian woodland bordering Coyote and Spencer Creeks. Since then, the lack of frequent fire and human tending has allowed woody plants to encroach, and agricultural activities onsite and nearby have displaced prairie plant species with weedy pasture grasses. Still, the site supports 145 native, herbaceous plant species, including rare Bradshaw's lomatium, Oregon larkspur, thin-leaved peavine, suncups, and Hitchcock's blue-eyed grass. Phase I of II, this project proposes to remove encroaching woody species from 104 acres of prairie and oak habitat and reintroduce prescribed fire to the site. LTWC will partner with McKenzie River Trust, U.S. Fish and Wildlife Service, Institute for Applied Ecology, Confederated Tribes of the Siletz Indians, and Department of State Lands to carry out the proposed project.

Review Team Evaluation

Strengths

- The project is on a 191-acre McKenzie River Trust property that is protected by a Conservation Easement and has an existing presence of diverse, listed native species.
- Previous project evaluation concerns were addressed by phasing restoration and focusing on the highest priority need on the site, which is to address woody plant encroachment first. Then lessons learned from this initial work can be applied to future phases.
- The project site supports 145 native plant species despite previous impacts from human activity. The property is at a tipping point with a native seedbank waiting to be released once competitive woody species are removed.
- Restored wet prairie, upland prairie, and oak bottomland will provide refugia for native species dependent on these habitats.

- There is a unique opportunity to integrate the use of prescribed fire to demonstrate its potential effectiveness in restoring habitats on this landscape and encourage private landowners in the area to consider using this management tool.
- The project site has public access and signage so there is opportunity for raising public awareness about watershed habitat restoration.
- The applicant has a proven track record with similar restoration work and effectively managing sites long-term with landowners.
- Letters of support in the application demonstrate that appropriate partners are engaged in the project.
- The project costs are reasonable for the acreage and expected restoration outcomes.
- Details on monitoring methods and needs are included in the application.

Concerns

- Proposed restoration is a conservative approach for the habitat opportunity provided by the project site. However, the approach proposed is reasonable and could be a tool to build a more aggressive approach on the prairie habitat in future project phases.

Concluding Analysis

The proposed project is likely to succeed by prioritizing the highest habitat need first on the project site. The watershed benefit is high for the cost by restoring a mosaic of habitats on a protected property located in an area prioritized in multiple planning efforts for the target species and habitats, and leveraging other nearby restoration efforts.

Review Team Recommendation to Staff

Fund

Review Team Priority

5 of 12

Review Team Recommended Amount

\$163,749

Review Team Conditions

N/A

Staff Recommendation

Staff Follow-Up to Review Team

N/A

Staff Recommendation

Fund

Staff Recommended Amount

\$163,749

Staff Conditions

N/A

Open Solicitation-2019 Spring Offering Willamette Basin (Region 3)

Application Number: 220-3013-17087

Project Type: Restoration

Project Name: Upper Calapooia Steelhead Habitat Enhancement

Applicant: Calapooia WC

Region: Willamette Basin

County: Linn

OWEB Request: \$156,669

Total Cost: \$257,469

Application Description *(from application abstract)*

The proposed Upper Calapooia Steelhead Habitat Enhancement project will occur on the mainstem Calapooia River from its confluence with United States Creek upstream to just below Keeney Creek, entirely within US Forest Service property. The Calapooia basin has been identified as a genetic stronghold for the Threatened Upper Willamette River (UWR) winter steelhead and due to the removal of three migration barriers, possesses unimpeded access to the historical spawning and rearing habitats of the upper watershed. A legacy of habitat degradation and simplification, including nearly a century of instream wood removal, has left the upper Calapooia River with a large wood deficit. The lack of instream structure has greatly reduced the level of habitat complexity and resulting steelhead spawning and rearing habitat. The proposed habitat enhancements will be accomplished by tipping 19 mature (~70" dbh) stream adjacent Douglas Fir trees into the river channel at strategic location using a cable system from existing roads adjacent to the project area. The introduction of these large diameter trees will act as the backbone for further wood accumulation following natural processes that will lead to increased habitat complexity, rearing potential, and the accumulation of organic material important to the aquatic food web. In addition, the project will remove an abandoned road bed that is currently blocking the rivers connection to the floodplain. The removal of this barrier will allow the river to once again move freely within the floodplain, offering additional refuge and forage opportunities for juvenile steelhead. OWEB funds will be used to hire a contractor to pull over and place the trees, project management, post project snorkel surveys and administrative overhead. The projects partners include the Calapooia Watershed Council, Oregon Department of Fish and Wildlife, and Sweet Home Ranger District (US Forest Service).

Review Team Evaluation

Strengths

- The Calapooia watershed is a stronghold for Upper Willamette River winter steelhead.
- The project is well thought out and planned.
- Proposed actions will address limiting factors in the Upper Calapooia River, including the lack of instream large wood and streambed materials, which will benefit ESA-listed fish and other aquatic and terrestrial native species utilizing the stream and floodplain habitats.
- Restoration will attenuate high energy stream flows and provide water quality benefits by moderating stream temperatures.

- Design alternatives, such as helicopter placement, were considered to determine the most cost-effective and feasible design.
- Significant pre-project outreach was completed to ensure stakeholders understand the benefit of using large, old-growth trees for stream habitat restoration. In particular, the project team recognized the potential for considerable impacts to mineral rights owners and engaged this community in planning efforts to reduce these impacts.
- The project design incorporates significant forest stand data to identify trees that should not be tipped into the stream because they are currently used by raptors or birds protected under the Migratory Bird Treaty Act.
- The project team has relevant experience and a proven track record with similar projects.
- Project costs are reasonable.
- Archaeology costs are included in the application budget.
- The project includes snorkel and spawning surveys to monitor fish response to the large wood placement.

Concerns

- A letter of support from the downstream private timber landowner would strengthen the application to demonstrate adjacent landowners are not concerned about potential impacts.
- Large sized trees, like the trees to be used in this project, can be tenacious when pulling them over into the stream and could present a feasibility constraint due to contractor and equipment limitations. The applicant team provided clarification at the review site visit on how this will be addressed when selecting contractors with the appropriate skills and equipment.

Concluding Analysis

Adding large wood into the Upper Calapooia River will provide instream structure needed to restore watershed process and function that builds streambed complexity until future large wood recruitment supply is available in the riparian areas to fall into the stream and provide this function. The current simplified stream channel will benefit from added complexity, and the river will be able to access and reconnect with its floodplain. The watershed health benefit-cost and likelihood for the project to succeed are both high in a watershed that will benefit ESA-listed fish.

Review Team Recommendation to Staff

Fund

Review Team Priority

1 of 12

Review Team Recommended Amount

\$156,669

Review Team Conditions

N/A

Staff Recommendation
Staff Follow-Up to Review Team

N/A

Staff Recommendation

Fund

Staff Recommended Amount

\$156,669

Staff Conditions

N/A

Open Solicitation-2019 Spring Offering

Willamette Basin (Region 3)

Application Number: 220-3014-16963

Project Type: Technical Assistance

Project Name: Restoration Planning Using NetMap
Analysis in the Tualatin River Watershed

Applicant: Tualatin River WC

Region: Willamette Basin

County: Washington

OWEB Request: \$49,980

Total Cost: \$100,980

Application Description *(from application abstract)*

This Technical Assistance Grant will provide the Tualatin River Watershed Council, Tualatin Soil and Water Conservation District and other partners with an assessment and prioritization tool to address impacts from historical and current land use practices that impact habitat and water quality. The tool, NetMap, coupled with expert review and field verification will support prioritization of specific restoration projects and communications with stakeholders and landowners. Our goal is to queue up restoration projects that will address limiting factors in support of restoring watershed processes. Partners include the Tualatin Soil and Water Conservation District, Clean Water Services and the Joint Water Commission.

Review Team Evaluation

Strengths

- NetMap has been successfully used in similar watersheds to support restoration planning efforts.
- Proposed planning will leverage active work by partners to address water quality concerns in the Tualatin River watershed.
- A technical team will review and interpret results.
- The applicant has a proven track record with previous OWEB grants.
- Partner support is demonstrated by letters of support and match.
- Project costs are reasonable for the proposed work.

Concerns

- Some of the project details are difficult to understand from the application. For example, LEMMA is mentioned in the application without further definition or description to better understand this data source that will be used in the project.
- Further explanation of the field work component is needed to understand methods and parameters that will be used for ground truthing NetMap results.
- The pathway from the proposed NetMap work to identifying, prioritizing, and implementing eligible watershed restoration projects is unclear from the application.

- The budget lacks funds for analyzing results from the NetMap model, which may be necessary for the applicant to effectively utilize the product.

Concluding Analysis

NetMap has been a successful tool for effective restoration planning; however, the proposed technical assistance focuses heavily on the mapping elements and it is unclear what actions are planned for using this mapping work that will lead to eligible restoration projects within a specific timeframe.

Review Team Recommendation to Staff

Do Not Fund

Review Team Priority

N/A

Review Team Recommended Amount

\$0

Review Team Conditions

N/A

Staff Recommendation

Staff Follow-Up to Review Team

N/A

Staff Recommendation

Do Not Fund

Staff Recommended Amount

\$0

Staff Conditions

N/A

Open Solicitation-2019 Spring Offering Willamette Basin (Region 3)

Application Number: 220-3015-16970

Project Type: Technical Assistance

Project Name: Increasing tools in the Ludwigia control toolbox: exploring mechanical removal for primrose-willow

Applicant: Benton SWCD

Region: Willamette Basin

County: Benton

OWEB Request: \$20,511

Total Cost: \$28,791

Application Description *(from application abstract)*

Ludwigia is an aquatic invasive species that chokes off-channel habitat along the Willamette River, decreasing available habitat for fish and wildlife, while simultaneously lowering water quality and increasing sedimentation of habitats. Ludwigia sites along the river, such as Collins Bay in Benton County between Corvallis and Albany, tend to be treated with high quantities of herbicide over long periods of time. At some sites, this has been a successful way of treating Ludwigia; at other sites Ludwigia populations have stagnated after many years of herbicide treatment. This TA aims to determine the feasibility of utilizing mechanical removal as an option for Ludwigia control at Collins Bay, and information gleaned from this TA will be applicable to other off-channel habitats along the Willamette River. The project is needed to overcome the current barriers for land manager's lack of familiarity with mechanical removal options for aquatic invasive species, lack of understanding of efficacy and costs of mechanical removal, lack of understanding of available equipment, and lack of understanding of permitting and other logistical details of implementing mechanical removal tools. Through this TA we will:

- 1) Develop a 90% project implementation plan for mechanical removal of Ludwigia with partners from Integrated Resource Management, Oregon Parks & Recreation Department and Oregon Department of Agriculture.
- 2) Disseminate strategies of mechanical removal of Ludwigia to partners.
- 3) Develop a restoration plan for Collins Bay.
- 4) Pre-mechanical removal monitoring of fish, water quality, and vegetation at Collins Bay with partners from Oregon Department of Fish and Wildlife, US Geological Survey, and Portland State University.

Ludwigia is a problem that will continue to impact off-channel habitats throughout the Willamette River and Oregon. By expanding the tools restoration practitioners can use to combat it, we will increase the odds of protecting priority habitat.

Review Team Evaluation

Strengths

- A clear need for the proposed technical assistance is presented in the application to identify alternative tools beyond herbicides for effectively controlling Ludwigia.
- The proposed project builds on previous work to control Ludwigia, and aligns with Willamette regional strategic plans for addressing invasive weeds.

- Future Ludwigia control resulting from the proposed technical assistance could provide water quality benefits.
- The project team is qualified with relevant experience.
- The landowner is willing to allow experimental treatments for Ludwigia.
- Partner support is demonstrated by letters of support.
- The overall project cost for the proposed work is reasonable.

Concerns

- The application does not have enough detail in the scope of work to understand the deliverables expected from this project.
- It is unclear how an implementation plan for controlling Ludwigia will be developed while concurrently testing the feasibility of a method that would be included in this plan. The sequencing for experimenting with a new treatment and using the resulting lessons learned to effectively inform a planning process is unclear. Finally, the focus of the treatment experiments is unclear; it is unclear whether technical assistance will result in learning one or more new mechanical techniques, adding a mechanical method to existing chemical treatment strategies on the project site, or a combination of these approaches.
- The application budget lacks detail needed to determine whether costs are reasonable and necessary for the proposed work because costs are grouped into lump sums. It is unclear how out-of-state travel is necessary for the proposed technical assistance outcomes and what deliverables will result from the staff time costs.
- Instead of traveling out-of-state to observe Ludwigia control efforts at a California location, it may be more beneficial to bring out-of-state contractors with unique skills to Oregon to observe the extent of the problem in the Willamette and provide technical advice based on lessons learned from their previous work. This could also provide an opportunity to engage local Oregon contractors to learn with the applicant from this expertise and cultivate new skills locally to address Ludwigia.

Concluding Analysis

The proposed project offers an experimental opportunity to identify treatments that may improve the effectiveness of Ludwigia control efforts, which is one of the worse aquatic invasives reducing habitat quality in the Willamette. Without more detail on the outcomes expected from the proposed technical assistance, it is difficult to determine whether the project is likely to succeed in leading to future eligible restoration that can address limitations in current Ludwigia control efforts and provide a scalable approach.

Review Team Recommendation to Staff

Do Not Fund

Review Team Priority

N/A

Review Team Recommended Amount

\$0

Review Team Conditions

N/A

Staff Recommendation

Staff Follow-Up to Review Team

N/A

Staff Recommendation

Do Not Fund

Staff Recommended Amount

\$0

Staff Conditions

N/A

Open Solicitation-2019 Spring Offering

Willamette Basin (Region 3)

Application Number: 220-3016-17013

Project Type: Technical Assistance

Project Name: Creswell Butte: Restoration Design & Engineering

Applicant: Coast Fork Willamette WC

Region: Willamette Basin

County: Lane

OWEB Request: \$44,586

Total Cost: \$65,461

Application Description *(from application abstract)*

The project is in Lane County along the southern border of the City of Creswell's urban growth boundary at Creswell Butte. The property is currently owned by private landowners who donated the Conservation Easement (CE) to McKenzie River Trust. The easement did not come with operations and maintenance (O&M) funds. Years of little to no management have left the legacy oaks and open meadow habitats overgrown with shrubs, cherry, and conifers. The risk of losing the legacy oaks that remain is imminent and with no action key habitat values will be lost forever. The project seeks to gather a technical team of experts and hire a design engineering firm that will help create design alternatives that will take into consideration the properties potential future ownership, current infrastructure (roads, trails) issues, methods of restoration (manual, fire, etc.) and long-term management strategies. The proposed project will result in a selected alternative and will be followed with funding solicitations to restore the degraded upland prairie and oak habitats along with their associated wildlife species.

Review Team Evaluation

Strengths

- There is a clear need for the proposed technical assistance to provide the City of Creswell with planning resources necessary for the City to be able to own and manage a conservation property.
- The applicant is well-suited to implement this technical assistance project because they have built trust and credibility with the City of Creswell.
- The project is located in priority oak habitat, and provides an opportunity to permanently protect this site while providing access for the public to see legacy oak habitat. This engagement opportunity could yield long-term dividends for future oak habitat focused restoration in the surrounding region.

Concerns

- The application budget lacks detail needed to determine whether costs are reasonable and necessary for the proposed work because costs are grouped into lump sums.
- Nine partners are identified in the application; however, only three documented their project support with letters of support.

Concluding Analysis

The technical assistance project utilizes a unique landownership transition opportunity on a conservation property located in a priority oak habitat area. Proposed resource planning is timely to protect and restore legacy oaks and prairie habitats located on this project site. The resulting plan will help future property management to ensure continued protection of these habitats.

Review Team Recommendation to Staff

Fund

Review Team Priority

2 of 3

Review Team Recommended Amount

\$44,586

Review Team Conditions

N/A

Staff Recommendation

Staff Follow-Up to Review Team

N/A

Staff Recommendation

Fund

Staff Recommended Amount

\$44,586

Staff Conditions

N/A

Open Solicitation-2019 Spring Offering Willamette Basin (Region 3)

Application Number: 220-3017-17076

Project Type: Technical Assistance

Project Name: Upper Long Tom Restoration
Planning

Applicant: Long Tom WC

Region: Willamette Basin

County: Lane

OWEB Request: \$31,778

Total Cost: \$53,364

Application Description *(from application abstract)*

The technical assistance planning project area is located in the upper Long Tom and Elk Creek Sub-watersheds, starting just west of Veneta and extending west and north from there. The project area is identified by a number of regional plans as a priority area for the restoration and conservation of oak woodland, oak savanna, wet prairie, riparian, and emergent and riverine wetland habitats. There are a number of private and public landowners in the project area that are interested in working with LTWC to improve conditions in a variety of these priority habitats. OWEB resources are needed for LTWC to capitalize on this landowner interest and turn it into on-the-ground habitat restoration. We will work with regional experts to prioritize the interested landowners, visit up to 20 of their properties, develop five restoration plans, and write and submit three implementation grant proposals. Key partners in the project include McKenzie River Trust, the Bureau of Land Management, Oregon Department of Fish and Wildlife, and the U.S. Fish and Wildlife Service Partners for Fish and Wildlife Program. The LTWC Technical Advisory Team, which consists of a larger group of regional experts from additional agencies including the University of Oregon, USFS Pacific Northwest Research Station, Lane County Parks, the City of Eugene, and the Oregon Department of Environmental Quality, will help LTWC prioritize project opportunities.

Review Team Evaluation

Strengths

- Clear and measurable deliverables are described in the application.
- The project is located in a priority area for the applicant and its partners.
- There is a high likelihood of success for this technical assistance work to result in the development of eligible restoration projects because recent landowner engagement has successfully recruited a long list of landowners interested in planning projects.
- A technical team with appropriate expertise will provide support for planning work.
- The applicant has relevant experience and a proven track record from similar restoration planning work with landowners.
- The application budget is detailed, and project costs are reasonable.
- The project leverages a collaboration with McKenzie River Trust.

Concerns

- No concerns were identified.

Concluding Analysis

The proposed technical assistance project exemplifies the spirit of voluntary conservation by integrating partnerships, leveraged funds, and collaborative restoration planning with landowners. Products from this project will lead to significant restoration opportunities in this watershed.

Review Team Recommendation to Staff

Fund

Review Team Priority

1 of 3

Review Team Recommended Amount

\$31,778

Review Team Conditions

N/A

Staff Recommendation

Staff Follow-Up to Review Team

N/A

Staff Recommendation

Fund

Staff Recommended Amount

\$31,778

Staff Conditions

N/A

Open Solicitation-2019 Spring Offering

Willamette Basin (Region 3)

Application Number: 220-3018-17083

Project Type: Technical Assistance

Project Name: SRBP Vision

Applicant: Sandy River Basin WC

Region: Willamette Basin

County: Multnomah

OWEB Request: \$31,084

Total Cost: \$105,804

Application Description *(from application abstract)*

The Sandy River Basin Partners includes the Sandy River Watershed Council, Metro, East Multnomah Soil and Water Conservation District, the Portland Water Bureau, the Bureau of Land Management, USDA Forest Service, Oregon Department of Fish and Wildlife, The Freshwater Trust, and the Sandy Chapter of the Northwest Steelheaders. Each partner, both individually and collaboratively have had extensive experience planning and completing restoration activities improving the Sandy populations of listed salmon and steelhead. Ecological outcomes identified by the partnership will address limiting factors of degraded water quality, aquatic and riparian habitat, migratory corridor connectivity and fish passage, and invasive species in priority areas presenting habitat for all life stages of salmonids in the Sandy River basin. The Sandy Basin Partners will enhance an existing strategic action plan by evaluating reach targets utilizing current habitat conditions. Restoration strategy objectives are derived from the EDT model that compares historic vs. current conditions for metrics limiting salmon and steelhead populations. The Partners will update the model to refine targets, track progress towards meeting objectives, and have a better understanding of where the next 10 years of habitat restoration can take place.

Review Team Evaluation

Strengths

- The Sandy Basin is a priority watershed for ESA-listed salmon and other aquatic species.
- The 2007 Sandy Basin Strategic Plan will be updated, which is a logical next step for the Sandy Basin Partners to plan future restoration.
- Projects completed in the Sandy Basin will be incorporated into the watershed planning model to determine whether previous restoration is working as expected; and potentially determine whether sub-watersheds no longer need further work because they have reached desired watershed conditions.

Concerns

- The application lacks clarity to fully understand the proposed work and methods. For example, the EDT model is not explained in the application.

- It is unclear whether the applicant has organizational capacity for the proposed work. An explanation of how the applicant is uniquely positioned among the Sandy Basin partners and qualified to serve as a convening entity for this project would provide helpful context to determine the applicant's capacity for the proposed work.

Concluding Analysis

The strategic plan update will integrate previous restoration work to inform the partners' understanding of the impact of their completed work that has been implemented over a large scale with significant investment. This will inform planning future restoration investments as the Partners move into the next generation of strategies for the Sandy Basin.

Review Team Recommendation to Staff

Fund

Review Team Priority

3 of 3

Review Team Recommended Amount

\$31,084

Review Team Conditions

N/A

Staff Recommendation

Staff Follow-Up to Review Team

N/A

Staff Recommendation

Do Not Fund; falls below staff-recommended funding line

Staff Recommended Amount

\$0

Staff Conditions

N/A

Open Solicitation-2019 Spring Offering Willamette Basin (Region 3)

Application Number: 220-3019-17033

Project Type: Stakeholder Engagement

Project Name: Engaging Diverse Stakeholders in Floodplain Restoration at Elijah Bristow State Park

Applicant: Middle Fork Willamette WC

Region: Willamette Basin

County: Lane

OWEB Request: \$99,479

Total Cost: \$136,016

Application Description *(from application abstract)*

Through an OWEB Technical Assistance grant, the Middle Fork Willamette Watershed Council has been working with Wolf Water Resources, and a robust technical team (Oregon Parks & Recreation Dept., Oregon Dept. of Fish & Wildlife, U.S. Geological Survey, U.S. Army Corps of Engineers, U.S. Fish and Wildlife Service, and U.S. Forest Service) to develop process-based floodplain restoration designs for Elijah Bristow State Park (EBSP) – targeting 800 acres – and the sections of the Middle Fork Willamette River (MFWR) and Lost Creek that flow through the park. Dam building and historic aggregate mining on the MFWR and berm creation along both streams have resulted in the loss of dynamism and diverse habitat historically present in this floodplain environment. Restoration designs will be bold – including the consideration of “Stage 0” approaches. This type of restoration approach in the Willamette has been strictly implemented on Federal lands thus far. Applying this approach in a location with more logistical and social constraints is going to require significant social engagement in order to be successful. The logical and necessary next step in the effort to restore the EBSP floodplain is to engage stakeholders. EBSP is an extremely popular site with annual day-use attendance of 187,200 including frequent use by equestrian groups, trail runners, anglers, and boaters. We seek to explain the project and its rationale to neighbors, park visitors, and river users because stakeholder understanding and acceptance will be essential to restoration project success. We will utilize project tours, science pubs, open houses, social media, and other methods to do so. It will also be critical to engage with Tribes, river and land managers, permitting agencies, and other key organizations that have an interest in the site and can support the restoration activities. Engagement activities with these groups will primarily include meetings, information sharing, and project tours.

Review Team Evaluation

Strengths

- The project builds on a technical assistance investment that incorporated a technical team with appropriate expertise to review and recommend restoration alternatives.
- A diversity of affected stakeholders will be engaged in a variety of communication opportunities.
- A portion of the project is located in the Lost Creek Watershed, one of a few undammed watersheds in the Willamette, which elevates the priority of this location for restoration.

- The project costs are reasonable for the proposed stakeholder engagement work.
- The project team has relevant experience.

Concerns

- The stakeholder engagement described in the application focuses on convincing audiences to become comfortable with the Stage 0 restoration alternative rather than multidirectional communications between the applicant and stakeholders regarding the restoration strategy. A description of how stakeholder concerns and feedback will be handled and plans for follow up to positive and negative feedback would be helpful to understand the technical soundness of the approach.
- Success indicators provided for stakeholder engagement activities are general, which may not be strategic or useful in gauging results from activities.
- The table provided in the application that lists and scores restoration alternatives, including no restoration, traditional restoration, and Stage 0, lacks context for how scores were determined and what criteria was used to determine those scores.
- Additional information on the Elijah Bristow State Park site, how water runs through the state park, and how Stage 0 is expected to be applied as a restoration strategy would provide helpful context as to why the technical team chose this design option.
- While fewer tribes are identified as target audiences as recommended in the previous project evaluation, there are still more tribes targeted for engagement than is likely necessary for this project. The applicant is encouraged to contact the Legislative Commission on Indian Services to identify which tribes are most affected and should be contacted for this project.
- It is unclear from the application whether the applicant has identified the critical mass necessary for moving forward with the chosen Stage 0 restoration approach. Information on how the applicant will determine whether stakeholder support has reached a threshold necessary to support moving forward with implementation would be helpful to understand the timeline for proceeding to eligible restoration.

Concluding Analysis

Using the Stage 0 restoration approach at Elijah Bristow State Park is bold and will provide significant ecological benefits; it will also require significant stakeholder engagement to be successful. Since using Stage 0 outside of USFS lands is new and experimental, there is considerable uncertainty for resulting restoration to move forward to timely implementation. While there is potential for high ecological gains from future restoration implementation, there is also risk for this significant stakeholder engagement investment to not gain support among affected stakeholders. The applicant is encouraged to consider phasing the project and focusing on Lost Creek to scale both stakeholder engagement and a restoration phase to this sub-watershed, and capturing lessons learned that can be applied to future phases on other portions of the project area.

Review Team Recommendation to Staff

Do Not Fund

Review Team Priority

N/A

Review Team Recommended Amount

\$0

Review Team Conditions

N/A

Staff Recommendation

Staff Follow-Up to Review Team

N/A

Staff Recommendation

Do Not Fund

Staff Recommended Amount

\$0

Staff Conditions

N/A

Open Solicitation-2019 Spring Offering

Willamette Basin (Region 3)

Application Number: 220-3020-17045

Project Type: Stakeholder Engagement

Project Name: Engaging Oregonians to restore the Tualatin River watershed from Mass Wasting Events

Applicant: Tualatin Riverkeepers

Region: Willamette Basin

County: Washington

OWEB Request: \$60,000

Total Cost: \$110,000

Application Description *(from application abstract)*

1. The Tualatin River watershed.2. Mass wasting is increasing and public support is needed for restoration of clean water, bank stability and native fish and wildlife habitat.3. A targeted communications and public engagement campaign to encourage and enhance restoration and acquisition processes to remedy the problem.4. TRWC, CWS, TRSWCD, Centro Cultural, Municipalities off Tigard, Tualatin, and King City, TRNWR, METRO, Washington County, Grand Ronde tribeBy engaging broad public understanding and support for these restoration efforts, we will ensure the health and vibrancy of the watershed/

Review Team Evaluation

Strengths

- The project will engage under-represented communities among a diversity of target audiences identified for stakeholder engagement activities.

Concerns

- It is unclear from the application what the watershed problem is that will be addressed or how a mass wasting event is defined.
- There are not enough details in the application to understand the proposed scope of work and how it will lead to future eligible watershed restoration.
- The application budget lacks detail needed to determine whether costs are reasonable and necessary for the proposed work because costs are grouped into lump sums.

Concluding Analysis

The application does not provide enough detail to determine how the proposal meets the purpose of stakeholder engagement projects to communicate the need for, feasibility, and benefits of specific eligible restoration projects.

Review Team Recommendation to Staff

Do Not Fund

Review Team Priority

N/A

Review Team Recommended Amount

\$0

Review Team Conditions

N/A

Staff Recommendation

Staff Follow-Up to Review Team

N/A

Staff Recommendation

Do Not Fund

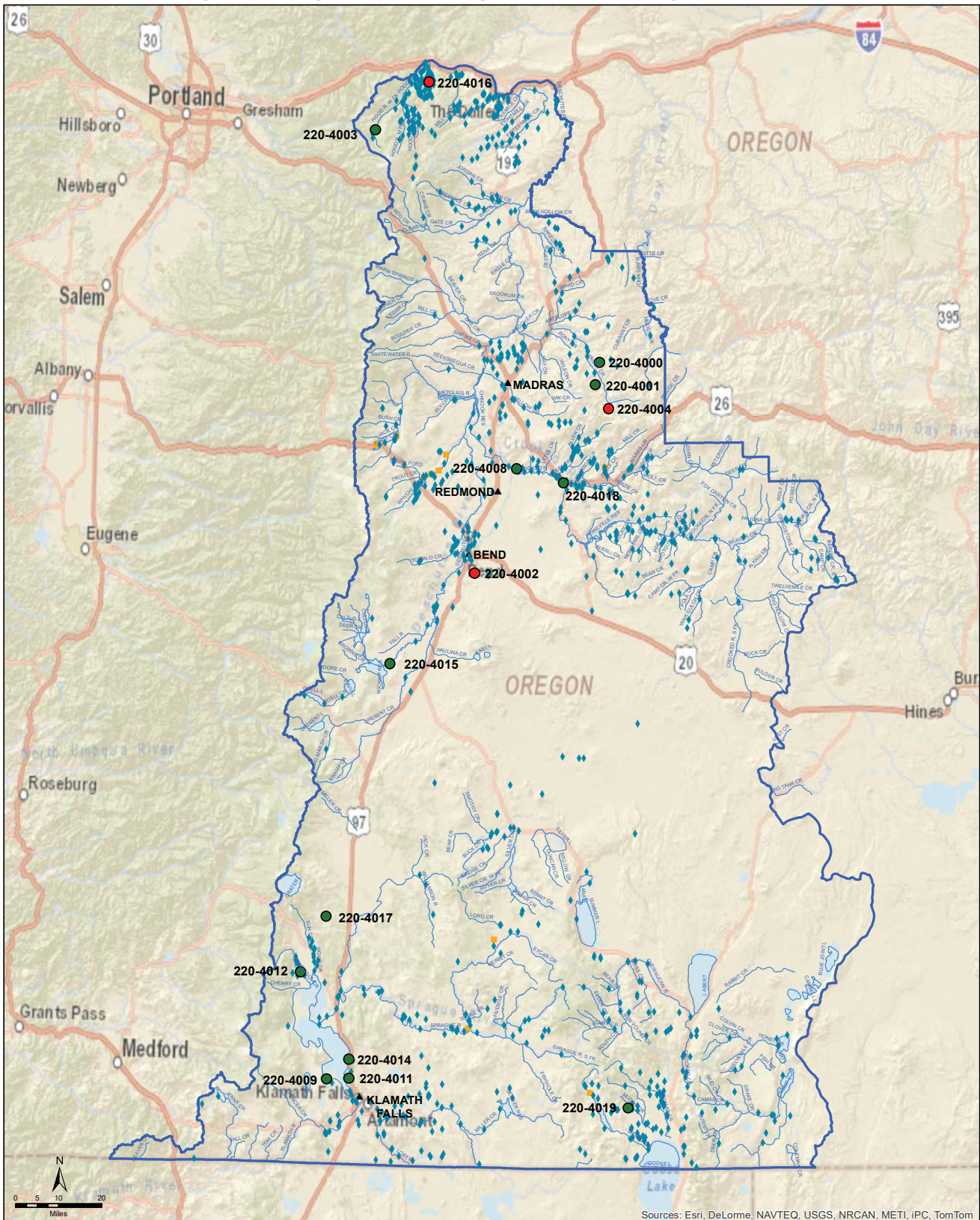
Staff Recommended Amount

\$0

Staff Conditions

N/A

Central Oregon - Region 4 Spring 2019 Funding Recommendations



Sources: Esri, DeLorme, NAVTEQ, USGS, NRCAN, METI, IPC, TomTom

Document Path: Z:\oweb\Technical_Services\Information_Services\GIS\Maps\Review Team Meetings\2019SpringCycle\Projects\VPN_Region4_AppFundingStatus_11x17_2019Spring.mxd
 ESRI ArcMap 10.6, NAD 1983 Oregon Statewide, Lambert Feet Intl WKID: 2992 Authority: EPSG OWEB- PK Wills 20190524

Funding Recommendations

- Staff Recommendation For Funding (SRF)
- Below Funding Line (BFL)

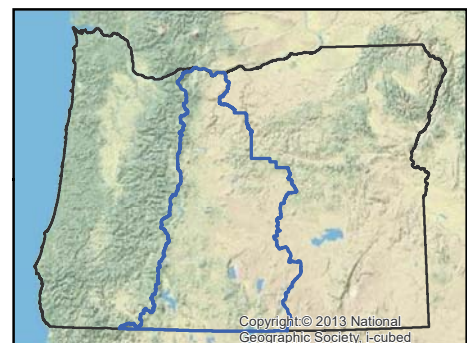
Previous Grants - 1998-Fall 2018

- ◆ Restoration
- Acquisitions
- ~ Streams
- ⬮ Region Boundary



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Region 4 - Central Oregon

Restoration Projects Recommended for Funding in Priority Order

Project #	Grantee	Project Title	Brief Description	Amount Recommended	County
220-4003	Hood River SWCD	West Fork Hood River at Red Hill Instream Habitat Project	Instream fish habitat structures will be placed along a one mile segment of the West Fork Hood River to improve habitat for spring Chinook, coho, and summer steelhead.	87,401	Hood River
220-4001	Jefferson SWCD	Beaver Creek Watershed Restoration	This landscape scale project will employ multiple actions to enhance upland, streamside, and instream habitats for fish and wildlife throughout the entire watershed of Beaver Creek, a tributary to Trout Creek.	278,832	Jefferson
220-4008	Lone Pine Irrigation District	LPID Irrigation Modernization Project	This is the first of two phases to convert open ditch irrigation conveyance systems to buried pipe, resulting in permanently conserved water in the Middle Deschutes River.	600,000	Crook
220-4000	Jefferson SWCD	Stenersen Upland Habitat Improvement Project	Wildlife habitat will be enhanced in the Calf Gulch Creek subbasin, a tributary of Trout Creek, by removing Western juniper and reseeding native grasses.	253,609	Jefferson
Total Restoration Projects Recommended for Funding by RRT and OWEB Staff				1,219,842	

Restoration Projects Recommended but Not Funded in Priority Order

Project #	Grantee	Project Title	Brief Description	Amount Recommended	County
220-4004	Jefferson SWCD	Upper Trout Creek Tributary Rehabilitation	The Ochoco National Forest will restore instream habitat for fish in headwater creeks in the Upper Trout Creek watershed.	84,601	Crook
220-4002	Arnold Irrigation District	Ladera Lateral Conservation Project	The entire open ditch irrigation conveyance system on the Ladera Lateral will be piped, resulting in permanently conserved water in the Upper Deschutes River.	230,678	Deschutes
Total Restoration Projects Recommended for Funding by RRT				1,450,520	

Restoration Applications Not Recommended for Funding by RRT

Project #	Grantee	Project Title	Amount Requested	County
220-4006	Trout Unlimited Inc.	Upper Deschutes Riparian Habitat Conservation Project	109,271	Deschutes
220-4007	The Klamath Tribes	Whiskey Cr	64,595	Klamath

Technical Assistance (TA) Projects Recommended for Funding in Priority Order					
Project #	Grantee	Project Title	Brief Description	Amount Recommended	County
220-4012	Trout Unlimited Inc.	West Canal Water Quality Treatment Design	Engineering plans will be developed to reduce external phosphorus loading into Upper Klamath Lake from the West Canal.	70,338	Klamath
220-4009	Trout Unlimited Inc.	Walker Farms Water Quality Improvements	This project will produce designs for water management, wetland modifications, and sediment retention to improve water quality in Upper Klamath Lake.	58,456	Klamath
220-4014	Klamath SWCD	Upper Klamath Lake Lower Algoma Design Technical Assistance	This project will result in plans to restore aquatic habitat for sucker species and improve water quality in Upper Klamath Lake by reducing agricultural impacts.	75,000	Klamath
220-4015	Deschutes River Conservancy	Deschutes River Streamflow Restoration Implementation Framework Plan	The project will develop a plan to restore instream flow in the Deschutes River downstream of Wickiup Reservoir, which is critical for fish habitat.	73,944	Deschutes
220-4011	Klamath Watershed Partnership	Upper Klamath Lake - Lakeside Farms Converted Wetland Conceptual Design	This project will develop design alternatives to improve wildlife habitat and water quality in an agricultural watershed draining to Upper Klamath Lake.	37,296	Klamath
Total TA Projects Recommended for Funding by RRT and OWEB Staff				315,034	
Technical Assistance Projects Recommended but Not Funded in Priority Order					
Project #	Grantee	Project Title	Brief Description	Amount Recommended	County
220-4016	Hood River SWCD	Neal Creek Instream Habitat Restoration Design	This project will develop permit- ready designs aimed at improving instream habitat for ESA-listed fish.	74,543	Hood River
Total TA Projects Recommended for Funding by RRT				389,577	
Technical Assistance Applications Not Recommended for Funding by RRT					
Project #	Grantee	Project Title		Amount Requested	County
220-4010	Deschutes SWCD	INDIAN FORD COORDINATED RESOURCE MANAGEMENT PLAN		73,759	Deschutes
220-4013	Deschutes SWCD	Lundy Ditch Feasibility Study_CLONE		28,906	Deschutes

Stakeholder Engagement Projects Recommended for Funding in Priority Order					
Project #	Grantee	Project Title	Brief Description	Amount Recommended	County
220-4019	Lake County Umbrella WC	Forest Health Engagment in Lake and Klamath Counties	This project will promote the understanding and awareness of forest health and management practices that will improve wildlife habitat and minimize high intensity forest fires through a short film, workshops, and community meetings.	31,733	Lake
220-4018	Crook SWCD	Irrigation Efficiency for Water Quality Improvement in the Lower Crooked River Watershed	Patrons in two irrigation disticts in the Lower Crooked River watershed will be engaged to promote opportunities to address water quality in the river.	14,756	Crook
220-4017	Klamath Watershed Partnership	Upper Klamath Basin Watershed Action Plan Stakeholder Outreach	Partners will utilize the newly completed Upper Klamath Basin Watershed Action Plan as a basis to engage private landowners to develop restoration projects on their land.	29,906	Klamath
Total Stakeholder Engagement Projects Recommended for funding by OWEB Staff				76,395	
Stakeholder Engagement Projects <i>Recommended but Not Funded</i> in Priority Order					
Project #	Grantee	Project Title	Brief Description	Amount Recommended	County
None					
Total Stakeholder Engagement Projects Recommended for funding by RRT				76,395	
Stakeholder Engagement Projects <i>Not Recommended</i> for Funding by RRT					
Project #	Grantee	Project Title		Amount Requested	County
None					
Region 4 Total OWEB Staff Recommended Board Award				1,611,271	17%
Regions 1-6 Grand Total OWEB Staff Recommended Board Award				9,284,183	

Region 4 - Central Oregon

Restoration Projects Recommended for Funding in Priority Order

Project #	Grantee	Project Title	Brief Description	Amount Recommended	County
220-4003	Hood River SWCD	West Fork Hood River at Red Hill Instream Habitat Project	Instream fish habitat structures will be placed along a one mile segment of the West Fork Hood River to improve habitat for spring Chinook, coho, and summer steelhead.	87,401	Hood River
220-4001	Jefferson SWCD	Beaver Creek Watershed Restoration	This landscape scale project will employ multiple actions to enhance upland, streamside, and instream habitats for fish and wildlife throughout the entire watershed of Beaver Creek, a tributary to Trout Creek.	278,832	Jefferson
220-4008	Lone Pine Irrigation District	LPID Irrigation Modernization Project	This is the first of two phases to convert open ditch irrigation conveyance systems to buried pipe, resulting in permanently conserved water in the Middle Deschutes River.	600,000	Crook
220-4000	Jefferson SWCD	Stenersen Upland Habitat Improvement Project	Wildlife habitat will be enhanced in the Calf Gulch Creek subbasin, a tributary of Trout Creek, by removing Western juniper and reseeding native grasses.	253,609	Jefferson
Total Restoration Projects Recommended for Funding by RRT and OWEB Staff				1,219,842	

Restoration Projects Recommended but Not Funded in Priority Order

Project #	Grantee	Project Title	Brief Description	Amount Recommended	County
220-4004	Jefferson SWCD	Upper Trout Creek Tributary Rehabilitation	The Ochoco National Forest will restore instream habitat for fish in headwater creeks in the Upper Trout Creek watershed.	84,601	Crook
220-4002	Arnold Irrigation District	Ladera Lateral Conservation Project	The entire open ditch irrigation conveyance system on the Ladera Lateral will be piped, resulting in permanently conserved water in the Upper Deschutes River.	230,678	Deschutes
Total Restoration Projects Recommended for Funding by RRT				1,450,520	

Restoration Applications Not Recommended for Funding by RRT

Project #	Grantee	Project Title	Amount Requested	County
220-4006	Trout Unlimited Inc.	Upper Deschutes Riparian Habitat Conservation Project	109,271	Deschutes
220-4007	The Klamath Tribes	Whiskey Cr	64,595	Klamath

Technical Assistance (TA) Projects Recommended for Funding in Priority Order					
Project #	Grantee	Project Title	Brief Description	Amount Recommended	County
220-4012	Trout Unlimited Inc.	West Canal Water Quality Treatment Design	Engineering plans will be developed to reduce external phosphorus loading into Upper Klamath Lake from the West Canal.	70,338	Klamath
220-4009	Trout Unlimited Inc.	Walker Farms Water Quality Improvements	This project will produce designs for water management, wetland modifications, and sediment retention to improve water quality in Upper Klamath Lake.	58,456	Klamath
220-4014	Klamath SWCD	Upper Klamath Lake Lower Algoma Design Technical Assistance	This project will result in plans to restore aquatic habitat for sucker species and improve water quality in Upper Klamath Lake by reducing agricultural impacts.	75,000	Klamath
220-4015	Deschutes River Conservancy	Deschutes River Streamflow Restoration Implementation Framework Plan	The project will develop a plan to restore instream flow in the Deschutes River downstream of Wickiup Reservoir, which is critical for fish habitat.	73,944	Deschutes
220-4011	Klamath Watershed Partnership	Upper Klamath Lake - Lakeside Farms Converted Wetland Conceptual Design	This project will develop design alternatives to improve wildlife habitat and water quality in an agricultural watershed draining to Upper Klamath Lake.	37,296	Klamath
Total TA Projects Recommended for Funding by RRT and OWEB Staff				315,034	
Technical Assistance Projects Recommended but Not Funded in Priority Order					
Project #	Grantee	Project Title	Brief Description	Amount Recommended	County
220-4016	Hood River SWCD	Neal Creek Instream Habitat Restoration Design	This project will develop permit- ready designs aimed at improving instream habitat for ESA-listed fish.	74,543	Hood River
Total TA Projects Recommended for Funding by RRT				389,577	
Technical Assistance Applications Not Recommended for Funding by RRT					
Project #	Grantee	Project Title		Amount Requested	County
220-4010	Deschutes SWCD	INDIAN FORD COORDINATED RESOURCE MANAGEMENT PLAN		73,759	Deschutes
220-4013	Deschutes SWCD	Lundy Ditch Feasibility Study_CLONE		28,906	Deschutes

Stakeholder Engagement Projects Recommended for Funding in Priority Order					
Project #	Grantee	Project Title	Brief Description	Amount Recommended	County
220-4019	Lake County Umbrella WC	Forest Health Engagment in Lake and Klamath Counties	This project will promote the understanding and awareness of forest health and management practices that will improve wildlife habitat and minimize high intensity forest fires through a short film, workshops, and community meetings.	31,733	Lake
220-4018	Crook SWCD	Irrigation Efficiency for Water Quality Improvement in the Lower Crooked River Watershed	Patrons in two irrigation disticts in the Lower Crooked River watershed will be engaged to promote opportunities to address water quality in the river.	14,756	Crook
220-4017	Klamath Watershed Partnership	Upper Klamath Basin Watershed Action Plan Stakeholder Outreach	Partners will utilize the newly completed Upper Klamath Basin Watershed Action Plan as a basis to engage private landowners to develop restoration projects on their land.	29,906	Klamath
Total Stakeholder Engagement Projects Recommended for funding by OWEB Staff				76,395	
Stakeholder Engagement Projects <i>Recommended but Not Funded</i> in Priority Order					
Project #	Grantee	Project Title	Brief Description	Amount Recommended	County
None					
Total Stakeholder Engagement Projects Recommended for funding by RRT				76,395	
Stakeholder Engagement Projects <i>Not Recommended</i> for Funding by RRT					
Project #	Grantee	Project Title		Amount Requested	County
None					
Region 4 Total OWEB Staff Recommended Board Award				1,611,271	17%
Regions 1-6 Grand Total OWEB Staff Recommended Board Award				9,284,183	

Open Solicitation-2019 Spring Offering Central Oregon (Region 4)

Application Number: 220-4000-16973

Project Type: Restoration

Project Name: Stenersen Upland Habitat Improvement Project

Applicant: Jefferson SWCD

Region: Central Oregon

County: Jefferson

OWEB Request: \$253,609

Total Cost: \$469,249

Application Description *(from application abstract)*

This project lies within the Trout Creek Watershed, an east side tributary to the Deschutes River. Located in Jefferson County, the project is located south of Ashwood along Calf Gulch, a tributary of Trout Creek. This tributary is critical to one of the very few perennial reaches of Trout Creek, providing much needed subterranean flow to one of the very few perennial reaches found in the watershed. With water flow being listed as one of the major limiting factors in the East side tributaries of the Deschutes River, this particular stretch of Creek is very important to the survival of ESA listed Mid-Columbia Summer Steelhead. The portion of the Stenersen property that this project will address, is located in the Calf Gulch drainage, and totals 1444 acres. This tract of land has an overabundance of western juniper, but the understory throughout the property is in relatively good shape with diverse perennial bunchgrasses, forbs and shrubs, lending itself to high upland restoration potential. Removing the junipers, enhancing the herbaceous and shrubby vegetation will significantly improve the wildlife habitat and provide an increase in much needed water to both creeks as well as Trout Creek itself, increasing summer flows and potentially extending the perennial reach downstream, increasing usable summer habitat for steelhead juveniles. The landowner plans to cut a portion of the junipers with chainsaws and remove others with an excavator. To invigorate the herbaceous component, and remove the unnaturally large fuel loads, the Ashwood-Antelope Rangeland Fire Protection Association will perform 3 prescribed burns to the area 1-2 years following the juniper cutting. The Jefferson SWCD will re-seed the areas cleared with the excavator, as well as the constructed fire lines. There are two small areas that have low amounts of annual invasive grasses, and will be sprayed with a pre-emergent herbicide following the burns to help the native species flourish.

Review Team Evaluation

Strengths

- This application is a resubmittal from the October 2018 offering. The applicant addressed previous application review comments by providing more clarity around juniper removal techniques, implementation of prescribed fire, landowner involvement, and long term management strategies.

- The technical approach for removing juniper and rehabilitating the understory vegetation is site appropriate with reasonable costs associated with site layout and implementation. The approach in this application is a result of lessons learned from projects in other parts of the watershed and aligns with the landowner's desired future condition to promote wildlife habitat.
- The understory vegetation in the project area is in good ecological condition; removing juniper will maximize the potential for improvement in upland habitats.
- The project area falls within the Ashwood-Antelope Rangeland Fire Protection Area (RFPA), who is a partner responsible for the prescribed fire component. The application included a burn plan. Implementing prescribed fire in an RFPA is easier to implement and carries less liability risk than prescribed fire on state-protected lands.
- The Trout Creek watershed is a mid-Columbia summer steelhead subbasin and a high priority for fisheries restoration. The projects location is a key tributary to Trout Creek and has been prioritized given the hydrologic setting in relation to the mainstem of Trout Creek. Implementation of this project could result in added stream flow to improve fish habitat.

Concerns

- One objective identified in the application is to restore natural hydrologic processes in Calf Gulch and Trout Creeks; however, it was unclear how this objective will be quantified.

Concluding Analysis

The property is in good ecological condition, with understory vegetation dominant in native bunch grasses, forbs, and shrubs. The aggressive juniper cutting and subsequent pile burning, prescribed fire, and seeding will allow for improved precipitation infiltration, invigorating and enhancing native plant communities, thus improving wildlife habitat and forage. The property owner does not have a livestock grazing program or future interest in livestock grazing at this time. The landowner commitment and ability to implement their portion of the project activities is articulated in a letter of support. The benefit to aquatic habitats and increased stream flow were challenging to evaluate. The applicant cited appropriate literature that suggests improved stream flow as a benefit to removing western juniper, but failed to articulate any metrics to indicate success associated with improved aquatic habitat or stream flow. Overall, this project has an appropriate plan in place, a committed landowner, an experienced applicant, and a high likeliness of success.

Review Team Recommendation to Staff

Fund

Review Team Priority

4 of 6

Review Team Recommended Amount

\$253,609

Review Team Conditions

N/A

Staff Recommendation
Staff Follow-Up to Review Team

N/A

Staff Recommendation

Fund

Staff Recommended Amount

\$253,609

Staff Conditions

N/A

Open Solicitation-2019 Spring Offering Central Oregon (Region 4)

Application Number: 220-4001-16974

Project Type: Restoration

Project Name: Beaver Creek Watershed
Restoration

Applicant: Jefferson SWCD

Region: Central Oregon

County: Jefferson

OWEB Request: \$278,832

Total Cost: \$1,102,240

Application Description *(from application abstract)*

This project lies within the Trout Creek Watershed, the major spawning and rearing tributary to the Deschutes River for summer steelhead. Located in Jefferson County, the project area encompasses the entire Beaver Creek watershed, a tributary to Trout Creek. The Beaver Creek Watershed is comprised of 3 private landowners. Once providing spawning and rearing habitat for summer steelhead, an altered flow regime, due to the encroachment of western juniper and an increase in annual invasive grasses, along with a passage barrier in the form of a perched culvert, Beaver Creek no longer supports these fish. Jefferson SWCD and ODFW staff witnessed an adult steelhead attempt to migrate up Beaver Creek in March of 2007, only to watch the fish reach the culvert on the county road, and then return back to Trout Creek to continue its journey (See attached photos). This is a watershed scale project, taking the "Ridgetop to Ridgetop" approach. We plan to treat everything necessary to get the Beaver Creek Watershed functioning at a level that provides excellent habitat for fish, wildlife, and livestock. This includes culvert replacement, riparian and channel treatments and protection, as well as many upland practices to improve the hydrologic processes necessary for a healthy, functioning watershed. These upland treatments include juniper removal, prescribed fire, invasive annual grass control, rangeland seeding, improved fencing, spring developments, and forest stand improvement. The combination of these efforts will lead to a healthier, properly functioning watershed, resulting in a natural flow regime with stable stream flows throughout the winter months and increased base flows in the summer. This all-encompassing watershed restoration project has many partners to ensure its success. They include: The landowners, Jefferson SWCD, ODFW, Jefferson Co. Public Works, ODF, Middle Deschutes Watershed Council, PGE, and licensed contractors.

Review Team Evaluation

Strengths

- The project will benefit mid-Columbia summer steelhead by replacing a perched culvert with a bottomless arch culvert that will provide access to an additional 2.8 miles of habitat upstream. Additionally, the ditched and straightened stream channel below the culvert will be reconstructed with added pools, riffles, and floodplain connection. This work will be followed up with enrollment in CREP.

- The upland habitat improvement elements of western juniper removal, forest health thinning, pile burning, prescribed fire, and reseeded will improve understory vegetation and wildlife habitat. A portion of this project area has had similar treatments already and lessons learned will be applied to help guide future prescriptions.
- A myriad of spring developments sprinkled across all three properties will help distribute livestock, while also providing areas and opportunities of rest while sites are actively being restored.
- The project team has a considerable amount of local experience to carry forward all the project elements, thus providing confidence the project will be successful at achieving its objectives.
- The project is well supported as documented in the letters of support, and includes a diverse stakeholder list to aid in the design, implementation, and monitoring of this landscape-scale project.

Concerns

- The application failed to provide details regarding current land use and livestock management. It would have been informative to understand each landowner's land use practices, in addition to providing documentation on post-project grazing management to ensure that restoration efforts will be protected over time.
- It is unclear how the objective to restore natural hydrologic processes in the Beaver Creek watershed through upland restoration improvements will be measured and quantified.
- Each of the properties is currently in a different ecological condition, making the cost effectiveness of this project challenging to evaluate. It will be more cost effective to achieve ecological uplift on the two properties in good condition, and less cost effective on the site with poor conditions, requiring significant investment for a moderate ecological benefit.
- The application lacked clarity on how the two different seed mixes would be chosen and applied, and what parameters would dictate the use of one seed mix over another. While the use of introduced grass species has been shown to stabilize areas that are heavily degraded, there was no discussion or plan describing how the applicant will transition these seeded areas into a native grass community.

Concluding Analysis

This project represents a landscape scale approach to improve instream, riparian and upland habitat function across the entire sub-watershed of Beaver Creek. Beaver Creek is prioritized by the applicant and partners due to the opportunity to reconnect important spawning and rearing habitat for summer steelhead, as well as having all three landowners willing to address a suite of resource concerns to maximize restoration potential across the landscape. One of the three landowners has already been investing in upland habitat treatments, offering neighbors an opportunity to see the value restoration brings. The project has multiple elements and will require close coordination with all cooperators to ensure successful progress is made. The abundance of invasive non-native annual grasses will make it challenging to transition these sites into a healthier ecological condition.

Review Team Recommendation to Staff

Fund

Review Team Priority

2 of 6

Review Team Recommended Amount

\$278,832

Review Team Conditions

N/A

Staff Recommendation

Staff Follow-Up to Review Team

N/A

Staff Recommendation

Fund

Staff Recommended Amount

\$278,832

Staff Conditions

N/A

Open Solicitation-2019 Spring Offering Central Oregon (Region 4)

Application Number: 220-4002-16998

Project Type: Restoration

Project Name: Ladera Lateral Conservation Project

Applicant: Arnold Irrigation District

Region: Central Oregon

County: Deschutes

OWEB Request: \$230,678

Total Cost: \$336,883

Application Description *(from application abstract)*

Arnold Irrigation District (AID) has been in the process of implementing its Agriculture Water Management Plan for more than twenty years. In 2016, AID completed a System Improvement Plan (SIP) and Modernization Strategy (MS). The Ladera Lateral losses in the study reach were about 1 cfs or 40%. The purpose of the SIP was to develop a well-considered evaluation of the District's primary and secondary canal systems, and a mitigation plan for the seepage losses. The proposed project is comprised of an approximate 7,200-LF of the Ladera Lateral open canal commencing at the diversion from the Arnold Canal, at location, Latitude/Longitude : 43.995949/ -121.274518. The overall goal is to conserve water through system improvements in this high water loss region of Central Oregon . System piping is the primary method proposed for such mitigation. All of these plans push towards implementing capital improvement projects that increase irrigation delivery efficiencies to support productive agriculture, state economies, and the Deschutes Basin. Black Rock Consulting (BRC) worked with AID to coordinate a seepage loss study performed by Farmers Conservation Alliance (FCA) staff under BRC/Kevin Crew, P.E. and, David Prull, P.E. direction. During the summer of 2016, the seepage loss program, supported by Oregon State University and the Oregon Water Resources Department (OWRD), was implemented in 7 of the 8 Central Oregon irrigation districts to inform the Districts of current system losses and to enhance System Improvement Plan (SIP) development for the Districts. The program included the use of newly purchased and calibrated Flowtracker II technology, office and field training were coordinated at the OWRD, Bend office.

Review Team Evaluation

Strengths

- Converting open ditch canals to HDPE pipe is a proven method for conserving water.
- The project will utilize local contractors that have the appropriate experience and equipment installing HDPE pipe.
- The project is estimated to conserve 1 cfs through the State's allocation of conserved water program, which is an appropriate mechanism to permanently protect stream flow.
- The engineering approach is thorough and provides confidence the project will be installed properly.
- The project is part of a larger effort to pipe the entire Arnold Irrigation District, tying in nicely with current watershed planning and federal funding (PL-566) investments in the Upper Deschutes Basin.

Concerns

- The ecological impact of 1cfs protected instream at the point of diversion on the Upper Deschutes River is challenging to measure, given that this amount of water represents a very small percentage increase to the existing large river channel and flows in the Deschutes River.
- Cost effectiveness was challenging to evaluate. It would have been helpful to see each Arnold Irrigation District staff member's contribution broken out by task to understand their role in the layout, implementation, and monitoring of this project.

Concluding Analysis

This project will install HDPE pipe in the entire length of Arnold Irrigation District's Ladera lateral, a 7,200 ft. open ditch conveyance for irrigation water. The canal weaves through small farms and forested areas and ends in a residential neighborhood, losing approximately 40% of the water to seepage. Piping of the entire canal will save 1.12 cfs, of which 1 cfs will be permanently protected instream at the point diversion just upstream of Bend's city limits through the allocation of conserved water program. The applicant will utilize Three Sisters Irrigation District staff and equipment as contractors to install and weld the pipe.

Review Team Recommendation to Staff

Fund

Review Team Priority

6 of 6

Review Team Recommended Amount

\$230,678

Review Team Conditions

This project must result in at least 1 cfs protected instream utilizing the Oregon Water Resources Departments allocation of conserved water program.

Staff Recommendation

Staff Follow-Up to Review Team

N/A

Staff Recommendation

Do Not Fund; falls below staff-recommended funding line

Staff Recommended Amount

\$0

Staff Conditions

N/A

Open Solicitation-2019 Spring Offering

Central Oregon (Region 4)

Application Number: 220-4003-17003

Project Type: Restoration

Project Name: West Fork Hood River at Red Hill
Instream Habitat Project

Applicant: Hood River SWCD

Region: Central Oregon

County: Hood River

OWEB Request: \$87,401

Total Cost: \$251,031

Application Description *(from application abstract)*

The proposed instream habitat enhancement project is along a 0.5-mile reach of the upper West Fork Hood River near the confluence of Red Hill Creek. The project is located on land owned by Ecotrust Forest Management, and is surrounded by Mt. Hood National Forestland. The Upper West Fork provides some of the best spawning and rearing habitat for spring Chinook, coho, and summer steelhead in the Hood River basin because of its cold water temperatures and higher stream flows. However, past timber management practices (e.g., splash damming, removal of large riparian conifers) have led to insufficient amounts of large instream wood and loss of stream/floodplain connectivity, which has resulted in reduced habitat quantity and complexity (e.g., poor spawning substrate composition, low pool frequency, no refuge from high velocities). The goal of the project is to improve and expand salmonid spawning and rearing habitat. This will be accomplished by placing approximately 330 pieces of large wood in 10- 15 structures. Three of the structures will be large jams (~40 pieces ea.) spanning the main channel. They will be placed downstream of side channel entrances and will raise surface water and streambed elevations, thereby increasing inundation of the floodplain and side channels. Minor excavation at side channel entrances may be necessary to facilitate stream-side channel reconnection. An additional 7 to 12 smaller structures will be placed in active and remnant side channels. Most of the wood will come from off-site. Up to 30 pieces will be tipped from adjacent riparian areas. The Confederated Tribes of the Warm Springs (CTWS) developed the project design and will oversee large wood placement. CTWS will also contribute match funding, large wood & in-kind labor. The Hood River Watershed Group will manage all contracting, monitoring, and assist with large wood placement oversight. USFS will provide large wood and assist with permitting and implementation.

Review Team Evaluation

Strengths

- This phase of large wood structure installation ties into previous phases, creating longer reaches of restored instream habitat for Chinook, coho, and steelhead.
- The design and approach of installing and building large wood structures is based on previous successful efforts completed by the project team.
- Large wood structure locations are strategically placed to maximize floodplain and side channel reconnection.

- The pebble count monitoring should yield data about the effectiveness of spawning gravel recruitment.
- The project reach is a high priority for fisheries restoration due to the area being considered a cold water refugia with good water quality.

Concerns

- This project is one of multiple phases that have been completed along the West Fork Hood River. While restoration actions are needed, it is unknown what effects annual disturbances caused by constructing large large wood structures have on aquatic species.

Concluding Analysis

This phase of large wood structure installation along the upper reaches of the West Fork Hood River will utilize large whole trees from a construction project at Mt. Hood Meadows ski resort on the Mt. Hood National Forest. The project team consisting of the USFS, Warm Springs Tribe, and Hood River Watershed Group has successfully completed previous phases of large wood structure installation. While the conditions of the project area were well articulated, it would have been helpful to understand instream habitat conditions downstream of the project area.

Review Team Recommendation to Staff

Fund

Review Team Priority

1 of 6

Review Team Recommended Amount

\$87,401

Review Team Conditions

N/A

Staff Recommendation

Staff Follow-Up to Review Team

N/A

Staff Recommendation

Fund

Staff Recommended Amount

\$87,401

Staff Conditions

N/A

Open Solicitation-2019 Spring Offering Central Oregon (Region 4)

Application Number: 220-4004-17020

Project Type: Restoration

Project Name: Upper Trout Creek Tributary
Rehabilitation

Applicant: Jefferson SWCD

Region: Central Oregon

County: Crook

OWEB Request: \$84,601

Total Cost: \$505,361

Application Description *(from application abstract)*

The Upper Trout Creek Rehabilitation Package addresses restoration actions in six different tributaries to Trout Creek on the Ochoco National Forest, near the town of Prineville in Crook County. Trout Creek is the largest tributary on the east side of the Deschutes River below Pelton Dam and has significant anadromous fish production potential. The watershed presently supports redband and Mid-Columbia River steelhead trout populations and overlaps with listed critical habitat for steelhead. In Trout Creek, the decline in salmonid production has been due to the degradation of instream habitats and water quality from road construction, past timber harvest, grazing and stream alteration activities. The proposed rehabilitation package will increase large wood, pools and spawning gravels in six tributaries on the forest, as well as localized floodplain construction in key locations and extensive riparian planting. Tributaries include Big Log, Dutchman, Cartwright, Potlid, Dick & Auger Creek (see enclosed map). Approximately 15.5 miles of large wood placement, 3 miles of floodplain construction, and 8 miles of riparian native planting will occur. Additionally, this proposal will partner with ODFW to improve maintenance on a 3,600 acre enclosure on the forest, which is currently managed through a MOU by ODFW. The desire is to bring the enclosure back to full functionality to prevent trespass cattle from entering the forest and sensitive species habitat. The purpose and need for these restoration activities is to enhance and recover habitat for redband trout, Mid-Columbia River steelhead, Columbia spotted frog and other riparian-dependent aquatic, wildlife and plant species. A large Pelton application was submitted for this project in 2019; OWEB funding is being requested to supplement the large Pelton application, along with USFS funds. Project partners include the Middle Deschutes Watershed Council, Forest Service, and ODFW.

Review Team Evaluation

Strengths

- The project site is in critical habitat for mid-Columbia summer steelhead, and addresses a lack of high quality rearing habitat.
- The US Forest Service staff have successfully implemented similar projects.
- The project design and approach is site-appropriate for meeting the objectives to benefit ESA-listed fish in the Upper Trout Creek watershed.

- The adjacent forest condition is healthy. The US Forest Service has made a significant effort to thin timber stands, decommission roads, and improve habitat for fish and wildlife.
- The project spans 15 miles of headwater creeks in the Upper Trout Creek watershed, providing a significant lift in restoration for the cost.

Concerns

- The work is occurring in the far upstream reaches of the Trout Creek watershed; ESA-listed fish access and use in these areas are minimal and may not provide much value given the upstream location and potential lack of water availability.
- The fence specifications called for four-strand barbed wire, which is not wildlife friendly. It is unclear whether the responsible parties have the capacity for long-term maintenance of the enclosure fence.

Concluding Analysis

This project uses a comprehensive approach to address the lack of high quality rearing habitat for juvenile fish in 15 miles of headwater streams in the Trout Creek watershed on the Ochoco National Forest. The Trout Creek watershed is the number one producer of wild steelhead throughout the entire lower Deschutes River watershed. Utilizing nearby trees for this project is a technically sound approach. The application could have provided more clarity about creek hydrology, particularly in dry summer months, and known fish use and distribution. While the enclosure fence serves a critical need, protecting instream habitat from trespass cattle in a remote part of the forest, long-term viability of the fence is uncertain.

Review Team Recommendation to Staff

Fund

Review Team Priority

5 of 6

Review Team Recommended Amount

\$84,601

Review Team Conditions

N/A

Staff Recommendation

Staff Follow-Up to Review Team

N/A

Staff Recommendation

Do Not Fund; falls below staff-recommended funding line

Staff Recommended Amount

\$0

Staff Conditions

N/A

Open Solicitation-2019 Spring Offering Central Oregon (Region 4)

Application Number: 220-4006-17065

Project Type: Restoration

Project Name: Upper Deschutes Riparian Habitat Conservation Project

Applicant: Trout Unlimited Inc

Region: Central Oregon

County: Deschutes

OWEB Request: \$109,271

Total Cost: \$197,528

Application Description *(from application abstract)*

The Deschutes River upriver of Bend in Deschutes County is listed on the Oregon DEQ 303(d) list for 5 water quality parameters, including turbidity and sedimentation, and has been recently designated as Proposed Critical Habitat for the Oregon Spotted Frog and serves Redband Trout, listed as sensitive. Our riparian habitat conservation project is in this important section, which starts TS 19S, R11E, Sec. 8 and ends at TS 18S, R11E, sec. 14. The project area is within the Upper Deschutes Wild and Scenic Corridor, State Scenic Waterway, and adjacent to the Newberry National Monument. The project focuses on 8 river miles, 41 access points, and the important habitat along the Deschutes River Trail, connecting the Slough Day Use Area and Forest Service boundary river left. Heavy visitor use has created many user trails off the main pathway to access the river and unique views. These user trails harden the ground, reduce vegetation, cause riverbank erosion and sedimentation, and reduce the natural appearance of the area. Trout Unlimited and Deschutes National Forest plan to reduce and restore these user pathways to a more natural state and fix the drainage issues on and below the main trail to minimize the environmental impacts to the area and the habitat along the Deschutes River. In addition, interpretive signs will be installed to disseminate information about restoration practices and river use. A series of focus group site surveys will be conducted on the front end of restoration work to engage local recreational stakeholders on initial designs and solicit feedback that will guide crews in restoration work. Funds will be used to hire local youth crews to work alongside staff from Trout Unlimited and the Forest Service, and volunteers involved in the hands-on restoration. As they work on the implementation of this, local recreation users, stakeholder groups, and youth crews will learn about proactive habitat work, stewardship practices, and ecosystem processes.

Review Team Evaluation

Strengths

- The project is an aggressive approach to reducing recreation use impact on natural resources along the Upper Deschutes River.
- The project builds on successes and lessons learned through similar projects in the area, which were toured during the site visit.
- The project team and partners are a well-coordinated group and have a vigorous plan in place, providing confidence that the project will be implemented as designed.

- The applicant has taken considerable steps in engaging the public and user groups of the trail system to encourage stewardship and long-term care and maintenance.

Concerns

- It was unclear how the water quality objectives would be met; the application failed to identify methodologies to quantify water quality improvements (e.g. turbidity reduction).
- The ecological impact of the project is minimal; it is unclear how fish and wildlife benefits will be evaluated. The outcomes associated with the project appear more aligned with stakeholder engagement, trail corridor aesthetics, and recreational trail function.
- Long-term maintenance and upkeep will be critical for success; the application identifies user groups that could provide long-term care, but no plan was presented regarding the level of commitment required, especially since user numbers are likely to continue to increase over time.

Concluding Analysis

This project seeks to mitigate recreational damage along the Upper Deschutes River Trail by implementing a suite of actions to better direct, guide, and protect habitat along the river. The proposed design and approach has been successfully implemented along other high use recreational trails in Central Oregon. Rock, split rail fence, native plants, and logs were installed to protect areas and provide better direction to trail users. The fish and wildlife habitat and water quality benefits are unclear from the information provided in the application.

Review Team Recommendation to Staff

Do Not Fund

Review Team Priority

N/A

Review Team Recommended Amount

\$0

Review Team Conditions

N/A

Staff Recommendation

Staff Follow-Up to Review Team

N/A

Staff Recommendation

Do Not Fund

Staff Recommended Amount

\$0

Staff Conditions

N/A

Open Solicitation-2019 Spring Offering Central Oregon (Region 4)

Application Number: 220-4007-17077

Project Type: Restoration

Project Name: Whiskey Cr

Applicant: The Klamath Tribes

Region: Central Oregon

County: Klamath

OWEB Request: \$64,595

Total Cost: \$242,595

Application Description *(from application abstract)*

The Klamath Tribes have a responsibility to restore and steward tribal treaty resources in the Upper Klamath Lake watershed including a variety of native fish species like redband trout, and endangered Lost River sucker, endangered shortnose sucker, and Klamath largescale sucker. The populations of these species have declined and their habitat has been degraded due to decades of poor water and land use practices. The Klamath Tribes perform habitat restoration projects on private lands within the former reservation in the Upper Klamath Lake watershed. The Whiskey Creek Restoration Project is located 2 miles west of Beatty, Oregon and 0.5 miles north of Hwy 140 (Figure 1). The project area is mainly used for ranching purposes (livestock grazing and haying). The stream channel is incised and lacks large woody material or connection to the floodplain. The riparian area lacks willows and other woody vegetation and the streambanks are eroding and adding nutrients and sediment to Whiskey Creek. A riparian fence was installed many years ago and has collapsed and degraded in many sections and is no longer functioning. The purpose of this project is to 1) remove the old riparian fence and install a new fence further from Whiskey Creek; 2) install woody debris in the creek to improve fish habitat; 3) install a cattle crossing across Whiskey Creek; 4) install an off-stream watering facility to allow cattle access to water while reducing Whiskey Creek exposure to cattle grazing and watering; and 5) plant native riparian vegetation (Figure 2). The Whiskey Creek Project is a collaborative effort between the landowner, The Klamath Tribes and the USFWS Service Partners Program.

Review Team Evaluation

Strengths

- The approach employed to modify and rebuild the riparian fence is appropriate and will increase the number of riparian acres protected.
- The placement of large wood structures will create additional instream habitat along a reach of Whiskey Creek that is deficient in instream habitat complexity.
- The project engages the appropriate partners.
- Whiskey Creek has the potential to be a stronghold for native fish, particularly due to its spring inputs with cold, consistent flow. The project is a good opportunity to begin restoration efforts that may spawn additional interest from other streamside landowners.

Concerns

- The application failed to provide a detailed revegetation plan. Specifically, it was unclear where on the landscape plants would be installed, and some of the species identified are not site appropriate due to soil type (e.g. black cottonwood). The application would have benefited from a detailed plan including maps showing the location and density of plantings. The applicant is encouraged to seek a reference site to understand what native plant species are appropriate for revegetation.
- The costs associated with fence repair and construction seemed high. It was unclear what costs savings would be realized from reusing t-posts. The cost effectiveness of the fence is unclear because the unit cost lumped materials and installation together. A detailed breakdown of fence costs would have been helpful.
- The application lacked a description of how the restoration investment would be protected on a heavily grazed site. Given the proposed cattle crossing and off-channel water development, it was unclear why riparian grazing still needed to occur. The application would have benefited from articulating grazing management strategies, including objectives for riparian pasture grazing.
- The large wood structure component of the project lacked designs, making it challenging to evaluate technical soundness.
- The proposed cattle crossing lacks justification for why this costly approach was chosen over other types of crossing. It would have been helpful to include an alternatives analysis. The application includes one off-channel water development, which may not be enough given the size and scale of the of the pasture.
- The budget is shown includes lump sums and lacks detail, which makes it challenging to determine cost effectiveness. It would have been helpful to see an itemized budget to provide better clarity on costs.

Concluding Analysis

This project provides an opportunity to enhance riparian and instream habitats along a section of Whiskey Creek, a tributary to the Sprague River. The applicant is working with a willing landowner and has assembled additional partners to help with project implementation. While the restoration actions proposed in this application can provide fish and wildlife benefit, the application fell short on specific details and justification for each project element. The property has been heavily grazed, contributing to streambank instability, vegetation loss, and lack of instream habitat. There are fish barriers downstream of this property that inhibits connectivity with the Sprague River, diminishing overall fisheries benefits. The applicant should articulate changes in grazing management that are needed to achieve restoration.

Review Team Recommendation to Staff

Do Not Fund

Review Team Priority

N/A

Review Team Recommended Amount

\$0

Review Team Conditions

N/A

Staff Recommendation
Staff Follow-Up to Review Team

N/A

Staff Recommendation

Do Not Fund

Staff Recommended Amount

\$0

Staff Conditions

N/A

Open Solicitation-2019 Spring Offering

Central Oregon (Region 4)

Application Number: 220-4008-17082

Project Type: Restoration

Project Name: LPID Irrigation Modernization Project

Applicant: Lone Pine Irrigation District

Region: Central Oregon

County: Crook

OWEB Request: \$600,000

Total Cost: \$9,194,958

Application Description *(from application abstract)*

1 The LPID in Terrebonne is located in Central Oregon, northeast of Redmond and east of the Deschutes River; with parts of its canals in Jefferson, Deschutes and Crook counties. Water flows from the Deschutes River, and overflow spills into the Crooked River.2 Action is needed in addressing watershed problems/concerns: water loss in conveyance systems, water delivery and operations inefficiencies, instream flow for fish and aquatic habitat, improve water quality, reduce risk to public and property safety from open irrigation canals, while improving the economic sustainability and resilience of local agriculture. The project would legally protect a portion of the conserved water instream.3 Improving water resource management has been a focus in the Deschutes Basin and a coordinated effort of the 8 irrigation districts. LPID is pursuing water conservation strategies to construct a more efficient system, reduce energy, and permanently restore flows in the Deschutes River. The entire LPID piping project would realign the canal system, eliminate up to 4.11 miles of open canal and laterals, pipe and pressurize up to 10.89 miles of canals and laterals, to save up to 3,219 acre-ft annually at a rate of up to 5.2 cfs. This application for Phase 1 will install 38,570 ft of 48", 42" canal/laterals (6"-16") HDPE and save 3.7 cfs.4 LPID supports collaborative partnerships with Deschutes Basin Board of Control and Deschutes River Conservancy. Through DBBC, LPID works with 7 other irrigation districts to coordinate and share resources/management assets to conserve water, improve services to farm/ranch families, enhance river conditions for wildlife/recreational opportunities. Farmers Conservation Alliance has been a partner with LPID through the development of the SIPs and PIR, continuing with the creating of the LPID Watershed/EA. USDA/NRCS is a funding and technical assistance partner, and produced the river crossing geologic report and the pipeline engineering designs.

Review Team Evaluation

Strengths

- The project will permanently protect 3.7 cfs at the point of diversion on the Middle Deschutes River, adding streamflow benefiting a suite of aquatic species.
- The District is partnering with NRCS and utilizing a portion of the PL-566 funding dedicated to the Deschutes Basin.
- The contractors that will install pipe have local experience and the necessary equipment.

- Ditch piping creates pressurized water delivery to the District's patrons, which will reduce energy consumption and provide reliable water to meet their agricultural needs.
- Once the District is fully piped, tailwater from irrigation fields will no longer enter the Crooked River, reducing nutrient loading providing a water quality benefit.

Concerns

- The budget lacks clarity around TSID salary, wages, and benefits. It would have been helpful to see an itemized breakdown of staff costs by task, outlining hours and unit costs for each employee.
- The application claims benefits to the Oregon spotted frog; however, there are no critical habitat designations at or below the point of diversion where water will be left instream.
- The match contribution from Oregon Water Resources Department (OWRD) is pending. The applicant needs to resubmit their application to OWRD next year which could render the OWEB application premature. Further, project viability is unclear if the matching funds from OWRD are not secured, particularly given the high dollar amount sought from this source.

Concluding Analysis

This proposal is phase one of a two-phase project to convert open ditch irrigation conveyance canals to buried HDPE pipe. Due to the volcanic soils in the area, half of the water in the canals is lost due to seepage. Piping canals is a proven mechanism to permanently conserve water instream while also providing more reliable water to District patrons. This project is a well-coordinated effort utilizing local expertise and federal funding, providing confidence the ecological goal of conserving water will be met. The applicant is encouraged to consider using pollinator species when planning the reseeding efforts over the buried HDPE pipe; NRCS has specification sheets for this activity. The applicant is also encouraged to determine the feasibility of permanently protecting the 3.7 cfs at Wickiup reservoir, which would provide a stronger ecological impact benefiting the Upper Deschutes River, which includes Oregon spotted frog critical habitat designations, as opposed to the Middle Deschutes River.

Review Team Recommendation to Staff

Fund

Review Team Priority

3 of 6

Review Team Recommended Amount

\$600,000

Review Team Conditions

N/A

Staff Recommendation

Staff Follow-Up to Review Team

N/A

Staff Recommendation

Fund

Staff Recommended Amount

\$600,000

Staff Conditions

N/A

Open Solicitation-2019 Spring Offering

Central Oregon (Region 4)

Application Number: 220-4009-17027

Project Type: Technical Assistance

Project Name: Walker Farms Water Quality Improvements

Applicant: Trout Unlimited Inc

Region: Central Oregon

County: Klamath

OWEB Request: \$58,456

Total Cost: \$75,896

Application Description *(from application abstract)*

1. This project is located in Klamath County near Klamath Falls, Oregon, on the southwest side of Upper Klamath Lake. Design will be focused on two properties that drain directly into Upper Klamath Lake. 2. The project addresses the problem of severely impaired water quality conditions in Upper Klamath Lake, which affect survival and population health of endangered Lost River Sucker (*Delitistes luxatus*) and Shortnose Sucker (*Chasmistes brevirostris*), as well as endemic Redband Rainbow Trout (*Oncorhynchus mykiss newberrii*) and other native aquatic species. Specifically, the project addresses external phosphorus loading into Upper Klamath Lake, which is the primary driver of poor water quality conditions. 3. This project will produce designs for water management infrastructure, wetland modifications, and sediment retention structures to manage sediment and treat/reuse tailwater with the ultimate goal of reducing phosphorus inputs to Upper Klamath Lake. Deliverables will include 85% design for all project components, which will be adequate for permitting and construction. 4. There are numerous partners involved in this project, including federal agencies (U.S. Fish and Wildlife Service, NRCS,), state agencies (Oregon Dept. of Water Resources, Oregon Dept. of Agriculture, Oregon Dept. of Environmental Quality), tribal entities (The Klamath Tribes), non-profit organizations (Trout Unlimited), and private landowners.

Review Team Evaluation

Strengths

- The project seeks to address known water quality pollutants to Upper Klamath Lake, which are of highest concern due to their impacts affecting biological productivity for listed fish species inhabiting the Lake.
- The landowner is willing and engaged to address the problem. The landowner has recently changed some irrigation practices and water quality samples are showing lower phosphorus levels. Additionally, they have retained a consultant to analyze how to best use adjacent wetlands as filtration.
- The project's approach in developing design plans is based on recently collected data by ODA. This data collection effort is ongoing by ODA and will continue to feed into the design process.
- The applicant and partners represent a broad suite of local collaborators with the appropriate skill sets in place to address this complex water quality issue.

- The applicant is seeking innovative ways to determine the best approaches to reduce phosphorus loading from this property into Upper Klamath Lake, such as the use of bio-char and discovering what type of wetland characteristics are best for uptake of phosphorus.

Concerns

- No concerns were raised.

Concluding Analysis

The applicant and partners will produce designs for water management infrastructure, wetland modifications, and sediment retention structures to reduce phosphorus loading into Upper Klamath Lake. Based on water quality data collected by ODA at this location, this site represents a good opportunity to reduce nutrient loading into the Lake. The project builds on efforts already employed by the landowner. The applicant and partners are encouraged to routinely coordinate with DSL regarding the use of the mitigation wetland adjacent to the project site. The applicant and partners are also encouraged to continue their partnership to share data, lessons learned, and any other useful information for others addressing similar problems along the fringes of Upper Klamath Lake.

Review Team Recommendation to Staff

Fund

Review Team Priority

2 of 6

Review Team Recommended Amount

\$58,456

Review Team Conditions

N/A

Staff Recommendation

Staff Follow-Up to Review Team

N/A

Staff Recommendation

Fund

Staff Recommended Amount

\$58,456

Staff Conditions

N/A

Open Solicitation-2019 Spring Offering Central Oregon (Region 4)

Application Number: 220-4010-17028

Project Type: Technical Assistance

Project Name: INDIAN FORD COORDINATED
RESOURCE MANAGEMNT PLAN

Applicant: Deschutes SWCD

Region: Central Oregon

County: Deschutes

OWEB Request: \$73,759

Total Cost: \$138,223

Application Description *(from application abstract)*

Watershed plans in the upper Deschutes river basin do not fully address all resource issues in the Indian Ford watershed, located near Sisters, OR. The Sister/Why-chus Watershed Analysis completed in 1998, covers the entire Whychus Creek watershed, of which Indian Ford Creek is one of seven sub watersheds in the analysis. Resource issues addressed in the watershed analysis are broadly outline and is obsolete to current watershed conditions. The Whychus Creek Restoration and Management Plan completed in 2009, identifies treatments for stream channel restoration on main tributaries in the Whychus Creek watershed but neglects to address upland conditions or activities that would significantly affect these tributaries. In 2015, Indian Ford watershed was Identified by Oregon Department of Agriculture (ODA) as a strategic implementation area (SIA), due to potential impacts to water quality. Under the SIA, the Deschutes Soil and Water Conservation District (DSWCD) has implemented several projects on private lands with great success increasing stream flows in Indian Ford Creek. However theses projects were not coordinated among surrounding landowners or USFS that could have significantly amplified restoration efforts thus reducing cost. The Indian Ford watershed Coordinated Resource Management Plan (CRMP) will bring together key partners, stakeholders and landowners to examine the entire watershed and relevant social and economic considerations, with the goal of identifying, coordinating, and prioritizing restoration activities necessary to restore the function of the watershed and compliment restoration efforts in Whychus Creek. Indian Ford has been identified by the Deschutes Soil and Water Conservation District (DSWCD) long range plan as a focus area. This project is a partnership between the Deschutes SWCD, USFS Sisters Ranger District, Deschutes Land Trust, Black Butte Ranch, Deschutes Watershed Council, and other private landowners.

Review Team Evaluation

Strengths

- The project will build on previous success through SIA implementation in Indian Ford Creek, which engaged streamside landowners and implemented riparian enhancement projects.
- The project will employ a ridgetop to ridgetop approach to engage landowners to address a suite of natural resource concerns.
- The project has a comprehensive list of partners.

Concerns

- The stakeholder engagement approach was not articulated, especially for engaging hundreds of private landowners, who are the most critical in successfully developing a comprehensive plan. If private landowners are not engaged early and often, their buy in to the project may be challenging. An explanation on how the District plans to engage and partner with private landowners would have been helpful.
- It was unclear how this effort would add value to existing efforts led by USFS, especially upcoming forest health treatments.
- The application failed to articulate a pathway from plan development to restoration action, particularly for private lands. It was hard to discern what parameters would be evaluated and what a restoration plan for a project would look like. This is especially concerning given the application states that no new data will be collected.
- The applicant seeks to engage 80% of the landowners, which seems optimistic, given the large number of private landowners.
- The application does not identify the specific resource concern(s) driving the need for this plan. It would have been helpful to know specifically what fish and wildlife species and habitats are priorities. For example, complementary future USFS forest health treatments were discussed on the site visit, but were not mentioned in the application.
- The application did not address the process for how partners will evaluate, select, and prioritize potential projects in the plan. The role in which each partner will play in the development of the plan was not articulated.
- The costs associated with hiring a facilitator seemed low, based on local experience hiring this expertise. Additionally, it was unclear how the landowner match would be met and documented.
- There was no field work identified to substantiate remote sensing data gathered through the GIS exercise.

Concluding Analysis

This application proposes a watershed scale resource plan that will utilize local partners and existing data to develop an action plan to improve natural resource conditions in Indian Ford Creek. The applicant is building on successful efforts engaging streamside landowners addressing water quality concerns. The USFS has implemented a variety of upland and instream habitat projects, restoring functionality in the Indian Ford Creek watershed. However, the application failed to provide critical details regarding private landowner engagement, fish and wildlife habitat priorities, partner involvement, project selection prioritization, and plan implementation. It was unclear what value this plan would serve to the project partners, and how this plan would be used to implement restoration actions on the ground.

Review Team Recommendation to Staff

Do Not Fund

Review Team Priority

N/A

Review Team Recommended Amount

\$0

Review Team Conditions

N/A

Staff Recommendation

Staff Follow-Up to Review Team

N/A

Staff Recommendation

Do Not Fund

Staff Recommended Amount

\$0

Staff Conditions

N/A

Open Solicitation-2019 Spring Offering Central Oregon (Region 4)

Application Number: 220-4011-17029

Project Type: Technical Assistance

Project Name: Upper Klamath Lake - Lakeside Farms Converted Wetland Conceptual Design

Applicant: Klamath Watershed Partnership

Region: Central Oregon

County: Klamath

OWEB Request: \$37,296

Total Cost: \$55,876

Application Description *(from application abstract)*

Lakeside Farms is a 438-acre agricultural property developed in the 1940's through the draining of shoreline wetlands along Upper Klamath Lake. Water pumped from the site to maintain farming operations is a source of phosphorus in excess of Oregon Department of Environmental Quality (ODEQ) Total Maximum Daily Load target concentrations for inflows to the lake. Oregon Department of Agriculture is currently working to provide water quality data for the site and to help landowners identify and pursue best management practices that will reduce phosphorus loading. The site is a complex integration of farmed acres, a failed treatment wetland, subsidence, a disconnected spring, and inflows from other properties. Future project design must incorporate objectives for water quality, economic viability of the farming operation, and provision of wildlife habitat for recreation. Additional opportunities include potential habitat enhancement for suckers and connection with adjacent wetlands for water quality improvements. The lack of comprehensive water quality data and a current topographical survey must be addressed before project design alternatives can be developed and evaluated. This technical assistance project will provide the survey and facilitate coordination with project partners collecting water quality data. Engineers will be contracted to work with partners to characterize the site components, evaluate design alternatives, and optimize opportunities for added benefits. The result will be a conceptual plan with the preferred design alternative, identification of needs and costs for additional data and/or engineering, drafted project designs, and rough cost estimates for implementation. Project partners include OR Department of Agriculture, US Fish and Wildlife Service Klamath Basin National Wildlife Refuge Complex and Ecological Services, OR Department of Fish and Wildlife, OR Department of Environmental Quality, and Lakeside Farms.

Review Team Evaluation

Strengths

- The proposed approach will characterize a suite of natural resources on-site that will provide a good data set to inform future designs.
- The project is informed by water quality data collected by ODA, creating a good baseline to measure future impacts to water quality.
- The lake fringes along this property are habitats utilized by fish fry; improving water quality in these areas will benefit fish and their survivability.

- The landowner is engaged and supportive of improving water quality and wildlife habitat.
- The project partners are utilizing lessons learned from a previously installed project on the property that failed to meet water quality goals.
- The project is well supported and part of a collaborative effort addressing high priority pollutants in areas of highest concern.

Concerns

- The property is overrun with yellow flag iris, a state listed noxious weed. This plant thrives in slow moving and shallow water environments. It also spreads rapidly if root fragments are disturbed. It would be helpful to understand what practices will be put in place to ensure the plant does not spread during future restoration.

Concluding Analysis

This project will collect resource data to inform designs aimed at reducing phosphorus loading into Upper Klamath Lake. The approach and justification for the project is well documented. The spring on the property presents an opportunity to connect spring flow to the lake, although it's unknown what impact this would have, and whether it is feasible. To the north of this property is Hanks Marsh, a USFWS-owned wetland that may also be utilized to treat poor water quality given the farm's pumps are located adjacent to the marsh. The application presents a sound approach to better understand the site and lay the framework for restoration implementation. The applicant is encouraged to work with the property owner to come up with a plan to control yellow flag iris. The applicant and partners are also encouraged to continue their partnership to share data, lessons learned, and any other useful information for others addressing similar problems along the fringes of Upper Klamath Lake.

Review Team Recommendation to Staff

Fund

Review Team Priority

5 of 6

Review Team Recommended Amount

\$37,296

Review Team Conditions

N/A

Staff Recommendation

Staff Follow-Up to Review Team

N/A

Staff Recommendation

Fund

Staff Recommended Amount

\$37,296

Staff Conditions

N/A

Open Solicitation-2019 Spring Offering

Central Oregon (Region 4)

Application Number: 220-4012-17047

Project Type: Technical Assistance

Project Name: West Canal Water Quality Treatment Design

Applicant: Trout Unlimited Inc

Region: Central Oregon

County: Klamath

OWEB Request: \$70,338

Total Cost: \$156,627

Application Description *(from application abstract)*

1. This project is located in Klamath County near Ft. Klamath, Oregon. Design will be focused on Sevenmile Creek and West Canal (an irrigation drainage ditch), both of which drain to Upper Klamath Lake. 2. The project addresses the problem of severely impaired water quality conditions in Upper Klamath Lake, which affect survival and population health of endangered Lost River Sucker (*Delitistes luxatus*) and Shortnose Sucker (*Chasmistes brevirostris*), as well as endemic Redband Rainbow Trout (*Oncorhynchus mykiss newberrii*) and other native aquatic species. Specifically, the project addresses external phosphorus loading into Upper Klamath Lake, which is the primary driver of poor water quality conditions. In addition, this project addresses habitat quality in Sevenmile Creek, which is designated critical habitat for Bull Trout and will be important habitat for anadromous salmon and steelhead in the future. 3. This project will produce a design for separating nutrient rich irrigation tailwater in West Canal from Sevenmile Creek and then treating West Canal tailwater to remove phosphorus and sediment prior to entering Upper Klamath Lake. Deliverables will include (a) a technical memo summarizing existing data, research, and water rights concerns; (b) 50% design for all project components; (c) 100% design for all project components. 4. There are numerous partners involved in this project, including federal agencies (U.S. Fish and Wildlife Service, NRCS, Bureau of Reclamation, Bureau of Land Management, U.S. Senator Jeff Merkley), state agencies (Oregon Dept. of Fish and Wildlife, Oregon Dept. of Water Resources, Oregon Dept. of Agriculture, Oregon Dept. of Environmental Quality), tribal entities (The Klamath Tribes), county government (Klamath County), non-profit organizations (Trout Unlimited, The Nature Conservancy), and private landowners.

Review Team Evaluation

Strengths

- West Canal delivers 11% of the total external phosphorus load to Upper Klamath Lake. Eliminating the ability of the West Canal to reach Upper Klamath Lake, via Agency Lake, would have significant water quality benefit.
- The project partners are well qualified for this work, coordinated, and poised for success. The project is well supported by a variety of stakeholders, including the Klamath Tribes and the USFWS, and has high visibility in the region.

- Addressing the water quality concerns of West Canal at its intersection with Sevenmile Creek presents a unique opportunity to restore Sevenmile Creek's channel functionality, instream fish habitat, and connectivity with Agency Lake. Due to the nature of where these two water bodies intersect; there is a viable path to restore Sevenmile Creek to its fullest potential while also eliminating West Canal water from entering Agency Lake.
- The project builds on previous scoping and planning in determining what the most cost effective solution to eliminate polluted West Canal water from entering Agency Lake while also seeking creative solutions to restore Sevenmile Creek.
- Currently, fish access from Agency Lake into the Sevenmile Creek watershed is limited due to the poor water quality that enters Agency Lake since Sevenmile is carrying West Canal flow as well. The Sevenmile Creek watershed is in good condition; fully restoring connectivity of Sevenmile Creek to Agency Lake would provide significant value for fish.

Concerns

- The project outline states 100% engineering designs will be completed by May 2020; this seems ambitious given the level of engineering and complexity this project entails.

Concluding Analysis

The phosphorus loading into Agency Lake via the West Canal located in the Wood River Valley is one of the biggest known sources of this pollutant. The canal's intersection with Sevenmile Creek offers a good opportunity to mitigate the impacts external phosphorus has due its position in the landscape and road access. The solution is complex, especially given the unique opportunity to restore functionality to Sevenmile Creek. The project has a strong team with the ingenuity and foresight to realize a big ecological lift in water quality that will benefit listed fish species. The applicant is encouraged to research water rights downstream of West Canal's intersection with Sevenmile Creek to ensure future plans have no harm on downstream water right holders, in addition to determining whether a new water right would be needed to divert and treat tail water. The applicant and partners are also encouraged to continue their partnership to share data, lessons learned, and any other useful information for others addressing similar problems along the fringes of Upper Klamath Lake.

Review Team Recommendation to Staff

Fund

Review Team Priority

1 of 6

Review Team Recommended Amount

\$70,338

Review Team Conditions

N/A

Staff Recommendation

Staff Follow-Up to Review Team

N/A

Staff Recommendation

Fund

Staff Recommended Amount

\$70,338

Staff Conditions

N/A

Open Solicitation-2019 Spring Offering

Central Oregon (Region 4)

Application Number: 220-4013-17058

Project Type: Technical Assistance

Project Name: Lundy Ditch Feasibility Study
_CLONE

Applicant: Deschutes SWCD

Region: Central Oregon

County: Deschutes

OWEB Request: \$28,906

Total Cost: \$47,080

Application Description *(from application abstract)*

The Lundy Ditch feasibility study project is located within the Arnold Irrigation Districts (AID) service area, near Deschutes River Woods, south of Bend Oregon. The Lundy Ditch is primarily an open ditch approximately 3996 ft. in length, meandering through volcanic rock and porous volcanic sandy soils causing significant water loss. The proposed project is to partner with AID to examine the feasibility of converting the Lundy Ditch to pipe and to examine the potential of incorporating another private lateral into the Lundy Ditch delivery system. The project would assess the potential water and energy savings, technical feasibility, and estimated costs of each option with the goal of reducing significant irrigation water loss and determine water savings that potentially could be returned to the Deschutes River to improve Spotted frog habitat and other aquatic wildlife. The feasibility study will also complement efforts through the PL83-566 WFPO program to modernize antiquated irrigation infrastructure in central Oregon to help irrigators conserve water, reduce energy consumption, increase irrigation delivery efficiency, improve public safety, and benefit instream habitat for threatened and endangered aquatic species.

Review Team Evaluation

Strengths

- The results of this work will develop 100% final designs.
- The applicant has mobilized and gained support for this project from all of the users on this private ditch.

Concerns

- The methodology for determining water savings is unclear. While the application includes an estimate based on the NRCS seepage loss calculator, it is unclear how the proposed feasibility study will calculate actual water savings.
- The application budget includes funds to purchase LiDAR when there is already free LiDAR data available.
- The ecological value of this project is limited because conserved water will provide marginal fish or wildlife benefits. The ditch length is small and the diversion rate is up to 6.5 gallons per minute; resulting water savings will be minimal, estimated at 70.3 ac ft/season, or 0.186 cfs. The application does not address how water savings will be returned to the Deschutes River.

- The priority for addressing this private lateral within the irrigation district's service area is unclear.

Concluding Analysis

This application proposes survey and engineering to pipe 3,996 ft. of the Lundy ditch, which is a private lateral in the Arnold Irrigation District (AID). Since it is a private lateral, the irrigation district has no jurisdiction over the use of the ditch; they are only required to deliver water to its point of diversion with AID main canal. The applicant has received match funding from Oregon Water Resources Department to assist this effort. While the applicant is applauded for their ability to gain support from all the private users on this ditch, it is difficult to determine the ecological benefit of the project without more information in the application about the impact of the proposed work at this location in contributing to basin goals for conserving stream flow in the Upper Deschutes River.

Review Team Recommendation to Staff

Do Not Fund

Review Team Priority

N/A

Review Team Recommended Amount

\$0

Review Team Conditions

N/A

Staff Recommendation

Staff Follow-Up to Review Team

N/A

Staff Recommendation

Do Not Fund

Staff Recommended Amount

\$0

Staff Conditions

N/A

Open Solicitation-2019 Spring Offering Central Oregon (Region 4)

Application Number: 220-4014-17074

Project Type: Technical Assistance

Project Name: Upper Klamath Lake Lower Algoma
Design Technical Assistance

Applicant: Klamath SWCD

Region: Central Oregon

County: Klamath

OWEB Request: \$75,000

Total Cost: \$96,683

Application Description *(from application abstract)*

The Upper Klamath Lake – Lower Algoma Design TA project includes 4 private landowners located in Klamath County, in the unincorporated community of Algoma about 8 miles north of Klamath Falls, OR. Water quality and aquatic habitat in Upper Klamath Lake (Lake) has been negatively impacted by water intakes, delivery systems, and runoff pumped from agricultural fields. The Lower Algoma properties drain directly into Lake, contributing sediment and dissolved phosphorus from livestock waste and agricultural activities which contribute to nutrient loading and nuisance algae blooms. A legal summer surface water diversion drains Barkley Springs, a culturally and historically significant spring complex with critical rearing and spawning habitat for the federally endangered Lost River and Shortnose Suckers. These impacts are compounded by unscreened diversions that cause mortality by potentially entraining fish in irrigation canals. This project will improve water quality and aquatic habitat by limiting entrainment, improving nursery habitat at Barkley Springs, and reducing sediment and nutrient runoff from pastures, fields, and earthen canals. A conservation plan has been developed for the Algoma area to achieve these objectives. The elements included in this grant are needed to implement the plan. The Klamath Soil and Water Conservation District (District) proposes to retain a water resources expert to prepare water rights applications to change irrigation sources from Barkley Springs and unscreened diversions from the Lake to a groundwater well. The District will also hire an engineering firm to develop a geotechnical assessment on the stability of the Big Canal and construction plans for the new irrigation well and tide gate replacement. Engineering, final design plans, and water rights applications will allow the District to pursue implementation funding next spring. Partners include landowners, ODA, NRCS, Trout Unlimited, USFWS, The Klamath Tribes, OWRD, and ODFW.

Review Team Evaluation

Strengths

- This project will seek strategies to reduce or remove the landowner's need to withdraw water for irrigation from Barkeley spring, a high priority habitat for sucker recovery due to it being the only known location where various age classes of fish have been documented.
- The project will seek ways to re-use water on-site, reducing or removing the need to pump tailwater into the Lake, which would minimize phosphorus loading.

- The project will aim to reduce agricultural impacts by fencing canals, removing nutrient loading caused by livestock access.
- The project is encompassing all the landowners in the Algoma area, which will maximize their ability to find solutions and employ conservation practices to improve water quality.
- The applicant and partners, including the Klamath Tribes, are well coordinated and are informed by water quality data collected by ODA. This data has indicated both the need to improve water quality from this area as well as serve as a baseline for documenting future improvements.
- The basis for the proposed work has been highlighted in many planning documents.

Concerns

- There is no guarantee that a transfer to a groundwater right will be successful. The application could have benefited from additional alternatives that could be employed to attain the ecological value this transfer would provide.
- Project completion in six months seems ambitious, given the complexity of engineering and planning involved with project deliverables.

Concluding Analysis

This project continues momentum in the basin working with lakeside agricultural producers in seeking innovative ways to reduce phosphorus loading to Upper Klamath Lake. Barkeley spring offers a cold water refuge for fish; removing the point of diversion to a ground water well would leave spring water instream during the irrigation season. A recently completed conservation plan is driving the work proposed in this application, which presents a variety of practices to reduce or remove nutrients from entering Upper Klamath Lake. The applicant is encouraged to explore alternatives should the ground water rights transfer not be successful. The applicant and partners are also encouraged to continue their partnership to share data, lessons learned, and any other useful information for others addressing similar problems along the fringes of Upper Klamath Lake.

Review Team Recommendation to Staff

Fund

Review Team Priority

3 of 6

Review Team Recommended Amount

\$75,000

Review Team Conditions

N/A

Staff Recommendation

Staff Follow-Up to Review Team

N/A

Staff Recommendation

Fund

Staff Recommended Amount

\$75,000

Staff Conditions

N/A

Open Solicitation-2019 Spring Offering

Central Oregon (Region 4)

Application Number: 220-4015-17078

Project Type: Technical Assistance

Project Name: Deschutes River Streamflow Restoration Implementation Framework Plan

Applicant: Deschutes River Conservancy

Region: Central Oregon

County: Deschutes

OWEB Request: \$73,944

Total Cost: \$115,480

Application Description *(from application abstract)*

The project will develop an Implementation Framework Plan for instream flow restoration in the Deschutes River downstream of Wickiup Reservoir. Implementation of this plan will resolve long-standing flow restoration issues that have resulted from the storage and management of water for irrigation, a major limiting factor for fish and wildlife habitat, water quality and watershed health in the Deschutes River. The plan will be designed to meet ODFW instream water rights to benefit native redband trout, as well as achieve higher flows goals as identified and agreed upon in the Upper Deschutes River to benefit Oregon spotted frog and watershed function. The project will build on the extensive body of information that was developed in the Upper Deschutes Basin Study, that quantified and evaluated water management strategies. The plan will build upon, but will not be limited, to the Habitat Conservation Plan being developed in the basin. This more comprehensive plan is needed to integrate available water supply tools (piping, on-farm efficiency, water marketing) to accelerate timely implementation of flow restoration, and to address funding and policy barriers to implementation. Project planning partners will include interested members of the Basin Study Work Group, a diverse group of 40 stakeholders that includes irrigation, tribal, environmental, municipal and agency representation. The Central Oregon Intergovernmental Council will provide neutral facilitation, coordination and process design. The Deschutes River Conservancy will provide technical support and analysis and will serve as the repository of technical information. The combination of extensive technical information on flow restoration solutions and a robust collaborative stakeholder process will lead to a durable water management plan to guide implementation of timely flow restoration in the Deschutes River.

Review Team Evaluation

Strengths

- The proposal is a well-thought-out pathway to address a high priority need of restoring stream flow in the Upper Deschutes River.
- The applicant has the capacity and a proven track record of successfully implementing projects that result in permanent protection of stream flow.
- This project is building on the Basin Study Work Group (BSWG) effort for the Upper Deschutes Basin, which laid the framework to develop this implementation plan.
- The list of partners engaged in this effort is impressive.

- The applicant will leverage the Bureau of Reclamation's Water Smart program to assist in this effort.

Concerns

- The location described for this project includes all the irrigation districts in the Upper Deschutes Basin, encompassing a large geography. The application failed to identify areas of interest and priority that maximize ecological gain. This would have been helpful given the conservation efforts underway, especially to clarify how this project will work in conjunction with other efforts.

Concluding Analysis

This project aims at continuing the collaborative effort of the BSWG into the next phase developing an implementation framework plan. The resulting plan will provide a list of actions that will restore stream flow in the Upper Deschutes River. The process for engaging stakeholders and developing a plan was well documented. The need to identify other water conservation strategies beyond big infrastructure projects such as conveyance ditch piping is clear and well supported. It was challenging to determine how individual projects will be identified, evaluated, and prioritized across such a large geography. The applicant may also consider NRCS's Conservation Implementation Strategy (CIS) areas to maximize opportunity, particularly with on-farm projects.

Review Team Recommendation to Staff

Fund

Review Team Priority

4 of 6

Review Team Recommended Amount

\$73,944

Review Team Conditions

N/A

Staff Recommendation

Staff Follow-Up to Review Team

N/A

Staff Recommendation

Fund

Staff Recommended Amount

\$73,944

Staff Conditions

N/A

Open Solicitation-2019 Spring Offering Central Oregon (Region 4)

Application Number: 220-4016-17079

Project Type: Technical Assistance

Project Name: Neal Creek Instream Habitat
Restoration Design

Applicant: Hood River SWCD

Region: Central Oregon

County: Hood River

OWEB Request: \$74,543

Total Cost: \$104,443

Application Description *(from application abstract)*

This project will take place on Neal Creek, located within the Hood River Watershed in Hood River County. The two project sites are located in a reach of Neal Creek that has the highest intrinsic potential for salmon and steelhead due to a relatively low gradient (= 2%) and wide valley bottom. The first project site is located upstream of the Dethman Ridge Road crossing near the town of Pine Grove. The second project site is located just upstream of the Thomsen Road crossing. Neal Creek is one of the few clear water (non-glacial) tributaries of the lower Hood River and contains a viable population of threatened winter steelhead, threatened Coho salmon, cutthroat trout, and resident rainbow trout. Neal Creek is estimated to provide 5-10% of steelhead production in the Hood River Basin. The primary limiting factors that this project will address are habitat diversity and key habitat quantity, particularly spawning and juvenile rearing habitat. On Neal Creek, the combination of channel alterations, fill from private and county roads, and large wood removal has led to entrenched channel segments with limited amounts of large wood. In 2018, HRWG contracted with Inter-Fluve to complete an analysis of restoration opportunities along Neal Creek and develop conceptual designs for four sites. The sites were prioritized based on intrinsic habitat potential, total habitat area, and risk of raising the 100-year floodplain elevation. This project will develop 90% designs for the two highest ranked projects. This will include topographic surveying, hydrologic and hydraulic modeling, and 90% design drawings. HRWG will pursue implementation funding with the completed designs. Project partners include Hood River Watershed Group (project manager), Hood River Soil & Water Conservation District (applicant/fiscal sponsor), CTWS (cash match, materials), and project landowners.

Review Team Evaluation

Strengths

- The project locations are on Neal Creek, a non-glacial influenced stream, which is thought to be a benefit for fish, limiting the amount of sediment in the system.
- The two locations chosen for design development have high intrinsic potential for steelhead and coho and offer some of the best areas on Neal Creek to improve instream and floodplain habitats.
- The proposed approach will maximize the opportunities presented while also thoughtfully incorporating the surrounding built environment to minimize risk.

- The root cause of previous degradation to Neal Creek (used as irrigation conveyance) is no longer present.
- The landowners are supportive and engaged.

Concerns

- The fisheries benefit stated in the application may be inflated, particularly in relation to steelhead. The application could have benefited from any survey data that document known fish use and distribution within Neal Creek.

Concluding Analysis

The proposal will develop 90% designs for two sites aimed at improving instream and floodplain habitats on Neal Creek. The two sites proposed for restoration rose to the top of the list through a conceptual planning exercise which evaluated a suite of criteria to maximize fish habitat suitability and restoration in Neal Creek. The Neal Creek watershed winds through a mostly rural residential landscape; the two proposed sites offer some of the best areas to implement restoration, given existing floodplain access and riparian vegetation condition. The project is well supported by the Warm Springs Tribes and participating landowners.

Review Team Recommendation to Staff

Fund

Review Team Priority

6 of 6

Review Team Recommended Amount

\$74,543

Review Team Conditions

N/A

Staff Recommendation

Staff Follow-Up to Review Team

N/A

Staff Recommendation

Do Not Fund; falls below staff-recommended funding line

Staff Recommended Amount

\$0

Staff Conditions

N/A

Open Solicitation-2019 Spring Offering

Central Oregon (Region 4)

Application Number: 220-4017-16994

Project Type: Stakeholder Engagement

Project Name: Upper Klamath Basin Watershed
Action Plan Stakeholder Outreach

Applicant: Klamath Watershed Partnership

Region: Central Oregon

County: Klamath

OWEB Request: \$29,906

Total Cost: \$62,906

Application Description *(from application abstract)*

1) The geographic focus is within the Upper Klamath Basin in Klamath County, Oregon. Specific regional landowners with agricultural land bordering north Upper Klamath Lake, Agency Lake, sections of the South Sprague, Williamson, and Wood river watersheds. The focus was selected based on collaboration with Oregon Department of Agriculture Sprague River SIA partners and WAP Team restoration goals. 2) Conflicts and controversy between irrigators, tribes, and conservation groups over water quantity and quality have been an ongoing problem in the Klamath Basin. The Wood, Sprague, and Williamson Rivers contribute the majority of the lake's external phosphorus load, and the Oregon Department of Environmental Quality has determined that reducing external load is the best approach for improving water quality conditions in the Basin. Improvements to farming and ranching practices are needed to address water quality and reverse declines of ESA listed Lost River Suckers, as well as Coho and Steelhead Salmon further south in the Klamath River. 3) Mapping and county records search to identify target landowners, targeted outreach mailings, and direct outreach to landowners identified in the geographic focus area. 3 outreach events coordinated by the WAP Team and held in focus area communities to include topics of interest to those farmers and ranchers in the region. 4) We are a partnership of local entities, known as the Upper Klamath Basin Watershed Action Plan (WAP) Team. The WAP Team includes The Nature Conservancy (TNC), Trout Unlimited (TU), Klamath Watershed Partnership (KWP), The Klamath Tribes (TKT), Oregon Department of Environmental Quality (ODEQ), the US Fish and Wildlife Service (USFWS), and the North Coast Regional Water Quality Control Board (NCRWQCB) in California. The WAP Team is committed to working with other Klamath Basin partners to collaborate on increasing project implementation and to achieve desired long-term restoration success.

Review Team Evaluation

Strengths

- The watershed action plan for the Upper Klamath Basin is nearly complete, and will serve as the basis for this targeted engagement with private landowners. Without landowner engagement, achieving goals outlined in the action plan are not possible due to the extensive private lands ownership in this geography.

- The list of partners is comprehensive, with each one having a unique niche and expertise in the basin. The partners have a track record of successful collaboration.
- The process outlined for landowner engagement is well thought out and conveys a clear understanding of how the specified outcomes will be achieved.
- The engagement with landowners is timely, particularly given the recent SIA focus on the Sprague River, which this effort will build upon.
- The list of tools for engaging landowners is extensive and built upon previous successful efforts from the applicant and their partners.

Concerns

- The deliverables associated with the transition from engagement to project development are not well articulated. It would have been helpful to learn more about how site visits transition into restoration projects, as indicated in the application's objectives, including timelines and partner lead for each project type.

Concluding Analysis

This project aims to engage hundreds of streamside property owners along the Williamson, Sprague, and Wood rivers to implement restoration projects enhancing water quality and habitat conditions for fish and wildlife. The applicant and partners have a long history of working collaboratively in this geography, including entities in California who recognize the value of improving conditions upstream for downstream uses. The applicant and partners have made great strides to bridge gaps in landowner trust in conservation efforts in the Upper Klamath Basin. This effort provides a collaborative approach to bring needed skill sets together to engage and assist landowners in meaningful conservation, although the application lacked details on how projects would be identified, evaluated, and prioritized.

Review Team Recommendation to Staff

Fund

Review Team Priority

3 of 3

Review Team Recommended Amount

\$29,906

Review Team Conditions

N/A

Staff Recommendation

Staff Follow-Up to Review Team

N/A

Staff Recommendation

Fund

Staff Recommended Amount

\$29,906

Staff Conditions

N/A

Open Solicitation-2019 Spring Offering Central Oregon (Region 4)

Application Number: 220-4018-16972

Project Type: Stakeholder Engagement

Project Name: Irrigation Efficiency for Water
Quality Improvement in the Lower Crooked River
Watershed

Applicant: Crook SWCD

Region: Central Oregon

County: Crook

OWEB Request: \$14,756

Total Cost: \$30,911

Application Description *(from application abstract)*

This project seeks to engage members of the agricultural communities in Prineville and Powell Butte with the purpose of spurring interest to improve agricultural practices and make a meaningful and lasting improvement to water quality in the Lower Crooked River Watershed. Local irrigation districts and conservation organizations have struggled to engage irrigators, making it extremely difficult to impact positive environmental change. A combination of factors results in a lack of connection between district patrons and local conservation resources; factors include rapid turnover of agricultural properties, urban encroachment, a lack of knowledge and awareness of rights of irrigators, and mixed messages from the conservation community on subjects including water quality, water quantity, and sensitive species. Our innovative approach will involve efforts on multiple levels intended to maximize our impact. Standard outreach tactics such as mailings, phone calls, workshops and technical assistance visits will be utilized to saturate the project area with information while other, non-traditional methods of outreach will be employed to reach specific groups and areas. Non-traditional methods will include providing training to irrigation district ditch riders on environmental concerns, irrigation improvement technology, and cost share opportunities so that they can disseminate information during the course of their regular duties. The project will culminate with the initiation of annual irrigation workshops to be held in Prineville and Powell Butte and the establishment of a database to organize and store pertinent irrigator information. Ochoco Irrigation District (OID) and Central Oregon Irrigation District (COID) will be the primary targets of outreach but other irrigators and districts will be welcomed to participate. Partners include OID, COID, NRCS, OSU, Energy Trust of Oregon, WyEast RC&D, and Deschutes River Conservancy.

Review Team Evaluation

Strengths

- The problem driving the need for engaging irrigation district patrons is well documented; the need to address degraded water quality in the lower Crooked River is clear.
- This stakeholder engagement effort includes all parties involved with irrigation tail water problems, including water users, ditch riders, and irrigation district staff.
- Due to the high turnover of properties with water rights in this geography, this level of effort is needed.

- The applicant is the appropriate entity to lead this effort, to ensure consistent messaging and communication regarding water quality problems and potential opportunities to address the problem.
- The inclusion of ditch riders in this effort is an innovative approach, given they tend to have a direct line of communication with water users and can be ambassadors on behalf of improving water quality.

Concerns

- The GIS database to track water patrons' information is a sound approach; however, it will only capture a snapshot in time. Given high landowner turnover and updating needs, it may be challenging to keep up with database maintenance and to maintain functionality over time.
- The engagement approach of hosting events and trainings is dependent on people showing up in person, which may have limited effectiveness.
- It was challenging to evaluate how effective ditch riders will be as spokespersons on behalf of water quality improvements; their capacity in this role is unknown.
- The budget proposed to attain project objectives appears low.

Concluding Analysis

The lower Crooked River is plagued with poor water quality due to external loading of nutrients coming from tail water returns from irrigation use. The delivery and management of irrigation water and tail water returns in the two irrigation districts are archaic, inefficient, and contribute to poor water quality conditions. The Crook SWCD is well positioned to lead this effort and have demonstrated prior success in working with agricultural producers to improve water quality. The applicant should consider other communication tools such as videos, radio announcements, or other approaches that are not dependent on people attending in person.

Review Team Recommendation to Staff

Fund

Review Team Priority

2 of 3

Review Team Recommended Amount

\$14,756

Review Team Conditions

N/A

Staff Recommendation

Staff Follow-Up to Review Team

N/A

Staff Recommendation

Fund

Staff Recommended Amount

\$14,756

Staff Conditions

N/A

Open Solicitation-2019 Spring Offering Central Oregon (Region 4)

Application Number: 220-4019-17049

Project Type: Stakeholder Engagement

Project Name: Forest Health Engagment in Lake and Klamath Counties

Applicant: Lake County Umbrella Watershed Council

Region: Central Oregon

County: Lake

OWEB Request: \$31,733

Total Cost: \$39,833

Application Description *(from application abstract)*

The Lake County Umbrella Watershed Council (LCUWC) and our partners, the Klamath-Lake Forest Health Partnership (KLFHP), are seeking a cooperative stakeholder engagement project focused on private landowners and other stakeholders in Lake and Klamath Counties. The project goal is to promote understanding and awareness of forest health conditions, the 8-step process to address priority acres (<https://catalog.extension.oregonstate.edu/pnw707>) and the future use of prescribed fire on private and public landscapes. This will be accomplished through a short film that will be utilized for community presentations, workshops and individual landowner meetings. This project ties into current and future restoration treatments to improve the health of our forests and improve overall watershed function. The KLFHP is a cooperative network of diverse local and regional partners who have come together to develop and maintain sustainable and productive forests. Partners include the USFS, OSU Extension, ODF, NRCS, Klamath and Lake County Watershed Councils, The Nature Conservancy, BLM, Oregon Institute of Technology, Lake County Resource Initiatives, and Private Landowners. The KLFHP is currently working to restore forest health on three project areas in Lake and Klamath Counties: The North Warner Forest Health Project (NWFHP) located 8 miles north of Lakeview; the Thomas Creek Watershed Forest Health Project (TCWFHP) located 10 miles west of Lakeview and adjacent to the NWFHP, and the Chiloquin Community Forest and Fire Project (CCFFP) located in and around the town of Chiloquin. In total, the projects encompass 3,850 landowners and 198,015 private acres. Each project follows an 8-step process from landscape identification through project implementation and benefits analysis. Each project is at a different phase of the 8-step process where continued engagement between all parties involved is vital for continued movement in restoring our forests.

Review Team Evaluation

Strengths

- The project costs associated with developing short films is accurate and based on recent experience working with the same contractor.
- The need for continued messaging around forest health and impacts to wildlife and local communities is strong.

- The communication tools identified (short film, workshops, newspaper articles, newsletters and fact sheets) are all encompassing and will reach a wide audience.
- This effort is timely given recent investments in forest health, and the multitude of proposed forest health treatments in both counties.
- The prescribed fire messaging is important, given that this is the preferred tool for maintaining these landscapes over time and reducing future catastrophic wildfires.

Concerns

- No concerns were raised.

Concluding Analysis

The project aims to produce materials and employ engagement across two counties to raise awareness and understanding, and promote restoration for forest health. This partnership has successfully implemented forest health projects, and proposed to do much more to address this high priority need in Klamath and Lake Counties. The applicant is encouraged to reiterate the importance forest health has on native wildlife and watershed health through its messaging.

Review Team Recommendation to Staff

Fund

Review Team Priority

1 of 3

Review Team Recommended Amount

\$31,733

Review Team Conditions

N/A

Staff Recommendation

Staff Follow-Up to Review Team

N/A

Staff Recommendation

Fund

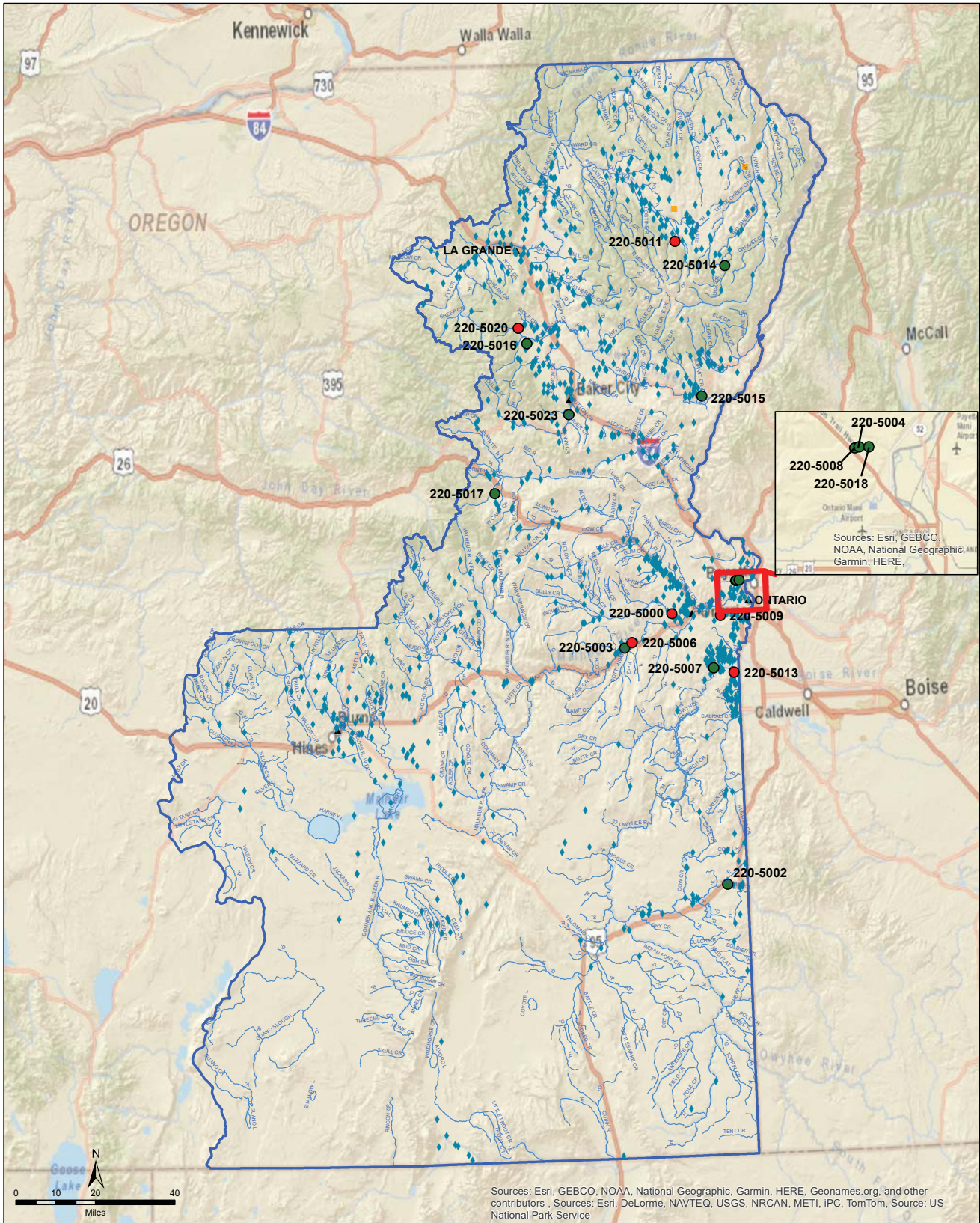
Staff Recommended Amount

\$31,733

Staff Conditions

N/A

Eastern Oregon - Region 5 Spring 2019 Funding Recommendations



Sources: Esri, GEBCO, NOAA, National Geographic, Garmin, HERE, Geonames.org, and other contributors ; Sources: Esri, DeLorme, NAVTEQ, USGS, NRCAN, METI, iPC, TomTom. Source: US National Park Service

Document Path: Z:\oweb\Technical_Services\Information_Services\GIS\Maps\Review Team Meetings\2019SpringCycle\Projects\VPN_Region5_AppFundingStatus_11x17_2019Spring.mxd
 ESRI ArcMap 10.6, NAD 1983 Oregon Statewide, Lambert Feet Intl WKID: 2992 Authority: EPSG OWEB- PK Wills 201924

Funding Recommendations

- Staff Recommendation For Funding (SRF)
- Below Funding Line (BFL)

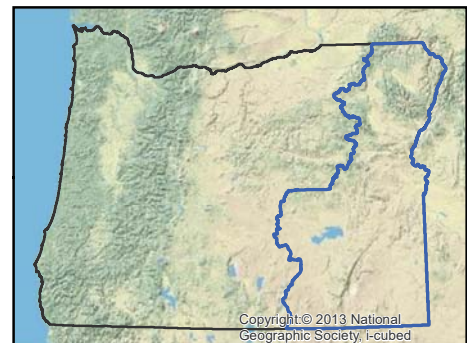
Previous Grants - 1998-Fall 2018

- ◆ Restoration
- Acquisitions
- ~ Streams
- Region Boundary



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Region 5 - Eastern Oregon					
Restoration Projects Recommended for Funding in Priority Order					
Project #	Grantee	Project Title	Brief Description	Amount Recommended	County
220-5017	Burnt River SWCD	More Irrigation and Riparian	Located near Unity, 37 acres will be converted to an irrigation system that eliminates contaminated wastewater discharge to the South Fork Burnt River. The streamside areas will be improved with fencing to facilitate better management and improve water quality.	78,209	Baker
220-5016	Baker Valley SWCD	Foothill Irrigation	Irrigation systems on 182 acres in North Powder will be converted to reduce field runoff and improve water quality in the nearby Powder River.	131,010	Baker
220-5015	Eagle Valley SWCD	Eagle Creek Irrigation	Irrigation systems on 191 acres near Richland will be converted to eliminate wastewater discharge and improve water quality in the Powder River Watershed.	24,760	Baker
220-5018	Malheur WC	Jacobsen Gulch: It needs piping	In Jacobsen Gulch near Ontario, an irrigation canal will be converted to pipeline to reduce sediment, nutrient, and bacteria pollution in the Snake River.	83,181	Malheur
220-5002	Owyhee WC	Owyhee Weed Wars	Covering 4 million acres in Jordan Valley this project will continue a long standing effort to control weeds in southern Malheur County, improving wildlife habitat.	143,454	Malheur
220-5007	Owyhee WC	In A Van Down By the River	Irrigation systems on 27 acres will be converted to eliminate sediment, nutrient and bacteria contributions to the adjacent Owyhee River near Adrian, Oregon.	51,485	Malheur
220-5004	Malheur WC	Keeping Dirt (and Poop!) in its Place in Jacobsen Gulch	In Jacobsen Gulch near Ontario, irrigation systems on 66 acres will be converted to reduce runoff, improving water quality in the Snake River.	55,199	Malheur
220-5008	Malheur WC	Aussie Dog Water Quality Improvement	In Jacobsen Gulch near Ontario, irrigation systems on 43.5 acres will be converted to eliminate field runoff, improving water quality in the Snake River.	70,130	Malheur
220-5014	Wallowa SWCD	Big Sheep Creek Fence III	On US Forest Service land near Joseph, 3.5 miles of fence will be constructed to reduce livestock impacts to Big Sheep Creek. The creek is habitat for ESA-listed Chinook salmon, steelhead and bull trout and the fence will reduce disturbance of Chinook redds by cattle.	49,928	Wallowa
220-5003	Malheur WC	Mockingbird 2	In Harper, adjacent to the Malheur River, irrigation systems on 89 acres will be converted to eliminate wastewater and improve water quality in the Malheur River.	67,216	Malheur
Total Restoration Projects Recommended for Funding by RRT and OWEB Staff				754,572	

Region 5 ~ Oregon Watershed Enhancement Board: Restoration, Technical Assistance, and Stakeholder Engagement Grant Cycle - April 29, 2019

Restoration Projects Recommended but Not Funded in Priority Order					
Project #	Grantee	Project Title	Brief Description	Amount Recommended	County
220-5006	Malheur WC	Big Tree Riparian and Wildlife Restoration	To improve water quality and habitat on the Malheur River west of Vale, the project will improve streambanks, restore native vegetation, and install fencing along the river.	37,311	Malheur
220-5009	Malheur SWCD	Horses on the Corner	Four miles southwest of Ontario, irrigation systems on 40 acres will be converted to eliminate wastewater and improve water quality in the Malheur River.	65,674	Malheur
220-5013	Owyhee WC	Bergman WQ Improvement	Northeast of Adrian and close to the Snake River, irrigation systems on 24 acres will be converted to eliminate runoff and improve water quality in the Snake River.	53,459	Malheur
220-5000	Malheur WC	How Now Brown Cow	Wastewater will be reduced from 30 irrigated acres by installing more efficient irrigation systems along Bully Creek west of Vale. The improved system will reduce pollution to Bully Creek and the Malheur River.	69,765	Malheur
220-5011	Wallowa SWCD	Bowerman Ranch Irrigation Improvement	Two miles southwest of Joseph, irrigation systems on 244 acres will be converted to more efficient systems, estimated to use 39% less water. Conserved water would be left in Hurricane Creek, improving habitat for ESA-listed Chinook salmon, steelhead, and bull trout in Wallowa County.	99,227	Wallowa
220-5020	Baker Valley SWCD	Elkhorn Wildlife Improvement	The project will install two temporary stream crossings in the Elkhorn Wildlife Management Area near Baker City to protect stream habitat by eliminating the need for equipment to enter streams during forest thinning operations. The bridges will also be available for future projects.	47,375	Union
Total Restoration Projects Recommended for Funding by RRT				1,127,383	
Restoration Applications Not Recommended for Funding by RRT					
Project #	Grantee	Project Title		Amount Requested	County
220-5001	Grande Ronde Model WS Foundation	Wallowa River - McDaniel Fish Habitat Restoration Project		287,984	Wallowa
220-5005	Wallowa Resources	Meadow Creek riparian restoration following elk reduction		181,720	Union
220-5010	Malheur WC	It Can't Get Much Steeper: Jacobsen Gultch		43,850	Malheur
220-5012	Malheur SWCD	Across the Road		127,035	Malheur
220-5019	Burnt River SWCD	Beaverdam Creek Stockwater		77,637	Baker
220-5021	Malheur SWCD	Double Whammy		242,861	Malheur
220-5022	Malheur SWCD	Calf Creek		46,593	Malheur

Technical Assistance (TA) Projects Recommended for Funding in Priority Order					
Project #	Grantee	Project Title	Brief Description	Amount Recommended	County
220-5023	Malheur SWCD	Powder River Fish Habitat Survey (Phase 1)	A survey from Mason Dam to Baker City on the Powder River will determine where and what types of improvements would be effective at improving fishing for the public and restoring overall river health.	37,783	Baker
Total TA Projects Recommended for Funding by RRT and OWEB Staff				37,783	
Technical Assistance Projects <i>Recommended but Not Funded</i> in Priority Order					
Project #	Grantee	Project Title	Brief Description	Amount Recommended	County
None					
Total TA Projects Recommended for Funding by RRT				37,783	
Technical Assistance Applications <i>Not Recommended</i> for Funding by RRT					
Project #	Grantee	Project Title		Amount Requested	County
None					

Stakeholder Engagement Projects Recommended for Funding in Priority Order					
Project #	Grantee	Project Title	Brief Description	Amount Recommended	County
None					
Total Stakeholder Engagement Projects Recommended for funding by OWEB Staff				0	
Stakeholder Engagement Projects <i>Recommended but Not Funded</i> in Priority Order					
Project #	Grantee	Project Title	Brief Description	Amount Recommended	County
None					
Total Stakeholder Engagement Projects Recommended for funding by RRT				0	
Stakeholder Engagement Projects <i>Not Recommended</i> for Funding by RRT					
Project #	Grantee	Project Title		Amount Requested	County
None					
Region 5 Total OWEB Staff Recommended Board Award				792,355	9%
Regions 1-6 Grand Total OWEB Staff Recommended Board Award				9,284,183	

Region 5 - Eastern Oregon					
Restoration Projects Recommended for Funding in Priority Order					
Project #	Grantee	Project Title	Brief Description	Amount Recommended	County
220-5017	Burnt River SWCD	More Irrigation and Riparian	Located near Unity, 37 acres will be converted to an irrigation system that eliminates contaminated wastewater discharge to the South Fork Burnt River. The streamside areas will be improved with fencing to facilitate better management and improve water quality.	78,209	Baker
220-5016	Baker Valley SWCD	Foothill Irrigation	Irrigation systems on 182 acres in North Powder will be converted to reduce field runoff and improve water quality in the nearby Powder River.	131,010	Baker
220-5015	Eagle Valley SWCD	Eagle Creek Irrigation	Irrigation systems on 191 acres near Richland will be converted to eliminate wastewater discharge and improve water quality in the Powder River Watershed.	24,760	Baker
220-5018	Malheur WC	Jacobsen Gulch: It needs piping	In Jacobsen Gulch near Ontario, an irrigation canal will be converted to pipeline to reduce sediment, nutrient, and bacteria pollution in the Snake River.	83,181	Malheur
220-5002	Owyhee WC	Owyhee Weed Wars	Covering 4 million acres in Jordan Valley this project will continue a long standing effort to control weeds in southern Malheur County, improving wildlife habitat.	143,454	Malheur
220-5007	Owyhee WC	In A Van Down By the River	Irrigation systems on 27 acres will be converted to eliminate sediment, nutrient and bacteria contributions to the adjacent Owyhee River near Adrian, Oregon.	51,485	Malheur
220-5004	Malheur WC	Keeping Dirt (and Poop!) in its Place in Jacobsen Gulch	In Jacobsen Gulch near Ontario, irrigation systems on 66 acres will be converted to reduce runoff, improving water quality in the Snake River.	55,199	Malheur
220-5008	Malheur WC	Aussie Dog Water Quality Improvement	In Jacobsen Gulch near Ontario, irrigation systems on 43.5 acres will be converted to eliminate field runoff, improving water quality in the Snake River.	70,130	Malheur
220-5014	Wallowa SWCD	Big Sheep Creek Fence III	On US Forest Service land near Joseph, 3.5 miles of fence will be constructed to reduce livestock impacts to Big Sheep Creek. The creek is habitat for ESA-listed Chinook salmon, steelhead and bull trout and the fence will reduce disturbance of Chinook redds by cattle.	49,928	Wallowa
220-5003	Malheur WC	Mockingbird 2	In Harper, adjacent to the Malheur River, irrigation systems on 89 acres will be converted to eliminate wastewater and improve water quality in the Malheur River.	67,216	Malheur
Total Restoration Projects Recommended for Funding by RRT and OWEB Staff				754,572	

Region 5 ~ Oregon Watershed Enhancement Board: Restoration, Technical Assistance, and Stakeholder Engagement Grant Cycle - April 29, 2019

Restoration Projects Recommended but Not Funded in Priority Order					
Project #	Grantee	Project Title	Brief Description	Amount Recommended	County
220-5006	Malheur WC	Big Tree Riparian and Wildlife Restoration	To improve water quality and habitat on the Malheur River west of Vale, the project will improve streambanks, restore native vegetation, and install fencing along the river.	37,311	Malheur
220-5009	Malheur SWCD	Horses on the Corner	Four miles southwest of Ontario, irrigation systems on 40 acres will be converted to eliminate wastewater and improve water quality in the Malheur River.	65,674	Malheur
220-5013	Owyhee WC	Bergman WQ Improvement	Northeast of Adrian and close to the Snake River, irrigation systems on 24 acres will be converted to eliminate runoff and improve water quality in the Snake River.	53,459	Malheur
220-5000	Malheur WC	How Now Brown Cow	Wastewater will be reduced from 30 irrigated acres by installing more efficient irrigation systems along Bully Creek west of Vale. The improved system will reduce pollution to Bully Creek and the Malheur River.	69,765	Malheur
220-5011	Wallowa SWCD	Bowerman Ranch Irrigation Improvement	Two miles southwest of Joseph, irrigation systems on 244 acres will be converted to more efficient systems, estimated to use 39% less water. Conserved water would be left in Hurricane Creek, improving habitat for ESA-listed Chinook salmon, steelhead, and bull trout in Wallowa County.	99,227	Wallowa
220-5020	Baker Valley SWCD	Elkhorn Wildlife Improvement	The project will install two temporary stream crossings in the Elkhorn Wildlife Management Area near Baker City to protect stream habitat by eliminating the need for equipment to enter streams during forest thinning operations. The bridges will also be available for future projects.	47,375	Union
Total Restoration Projects Recommended for Funding by RRT				1,127,383	
Restoration Applications Not Recommended for Funding by RRT					
Project #	Grantee	Project Title		Amount Requested	County
220-5001	Grande Ronde Model WS Foundation	Wallowa River - McDaniel Fish Habitat Restoration Project		287,984	Wallowa
220-5005	Wallowa Resources	Meadow Creek riparian restoration following elk reduction		181,720	Union
220-5010	Malheur WC	It Can't Get Much Steeper: Jacobsen Gultch		43,850	Malheur
220-5012	Malheur SWCD	Across the Road		127,035	Malheur
220-5019	Burnt River SWCD	Beaverdam Creek Stockwater		77,637	Baker
220-5021	Malheur SWCD	Double Whammy		242,861	Malheur
220-5022	Malheur SWCD	Calf Creek		46,593	Malheur

Technical Assistance (TA) Projects Recommended for Funding in Priority Order					
Project #	Grantee	Project Title	Brief Description	Amount Recommended	County
220-5023	Malheur SWCD	Powder River Fish Habitat Survey (Phase 1)	A survey from Mason Dam to Baker City on the Powder River will determine where and what types of improvements would be effective at improving fishing for the public and restoring overall river health.	37,783	Baker
Total TA Projects Recommended for Funding by RRT and OWEB Staff				37,783	
Technical Assistance Projects <i>Recommended but Not Funded</i> in Priority Order					
Project #	Grantee	Project Title	Brief Description	Amount Recommended	County
None					
Total TA Projects Recommended for Funding by RRT				37,783	
Technical Assistance Applications <i>Not Recommended</i> for Funding by RRT					
Project #	Grantee	Project Title		Amount Requested	County
None					

Stakeholder Engagement Projects Recommended for Funding in Priority Order					
Project #	Grantee	Project Title	Brief Description	Amount Recommended	County
None					
Total Stakeholder Engagement Projects Recommended for funding by OWEB Staff				0	
Stakeholder Engagement Projects <i>Recommended but Not Funded</i> in Priority Order					
Project #	Grantee	Project Title	Brief Description	Amount Recommended	County
None					
Total Stakeholder Engagement Projects Recommended for funding by RRT				0	
Stakeholder Engagement Projects <i>Not Recommended</i> for Funding by RRT					
Project #	Grantee	Project Title		Amount Requested	County
None					
Region 5 Total OWEB Staff Recommended Board Award				792,355	9%
Regions 1-6 Grand Total OWEB Staff Recommended Board Award				9,284,183	

Open Solicitation-2019 Spring Offering Eastern Oregon (Region 5)

Application Number: 220-5000-16949

Project Type: Restoration

Project Name: How Now Brown Cow

Applicant: Malheur WC

Region: Eastern Oregon

County: Malheur

OWEB Request: \$69,765

Total Cost: \$171,121

Application Description *(from application abstract)*

1. The How Now Brown Cow project is located approximately 6 miles west of Vale, along Bully Creek.
2. Water quality improvement in the Malheur Basin is one of the top restoration priorities. Water quality improvement is achieved through on-farm irrigation infrastructure improvements and management. Malheur Watershed Council in cooperation with irrigation districts and private landowners have been systematically improving water quality through irrigation system conversions over the past 18 years across the Malheur Basin.
3. The How Now Brown Cow project is the second phase in a three-phase project to convert 85 acres from flood to sprinkler irrigation. This proposal (phase II) will convert 30 acres from flood to sprinkler irrigation through the installation of 2 pivot systems, handlines, irripods, and related irrigation infrastructure. This project will also convert 7 acres from flood to gated pipe irrigation in irregular shaped fields the pivots do not cover.
4. Project partners include Vale Irrigation District, landowner and Malheur Watershed Council.

Review Team Evaluation

Strengths

- The project is adjacent to Bully Creek in an area with highly erodible soils where the ground slope is low to moderate gradient. Converting the current flood irrigation methods to a sprinkler application system will benefit water quality in Bully Creek by reducing irrigation induced runoff and working towards meeting ODA and DEQ water quality improvement objectives.
- The irrigation delivery and application systems in place for the past century in this region consists of storage facilities, earthen delivery canals, and flood application. It is efficient at reusing waste water; however, this water reuse method transports sediment, nutrients, and bacteria to local waterways and is not efficient for soil conservation. The project will eliminate contaminated runoff from entering Bully Creek from 37 irrigated acres.
- The application is well-written and clearly describes the methodologies proposed and the objectives to be achieved. The applicant has a successful history of completing similar type projects in the area, and this phase two project follows a successful phase one on this property.
- Appropriate partners are engaged in the project, including the landowner, Malheur Watershed Council, and the Vale Irrigation District.

Concerns

- The project budget is assembled from an irrigation system cost estimate by one irrigation company. It is challenging to evaluate the project's cost effectiveness given the budget is derived solely from one quote. It would have been helpful to see additional costs analysis to determine whether the budget is reasonable and appropriate to accomplish project objectives.
- The applicant stated that a water rights transfer is not needed because it has already been completed. Oregon Water Resources Department does not have evidence of an approved water rights transfer and a water rights transfer will be required for the project to proceed.
- The irrigation conversion project is not located in a priority area for NRCS or ODA and the application lacks an alternative analysis that would further substantiate the feasibility and effectiveness of the chosen project design.

Concluding Analysis

Located in the Bully Creek drainage close to Vale, Oregon, this three phase project will convert a total of 85 acres from flood irrigation to a more efficient application system including pivots, irripods, hand lines, and gated pipe. This application is for phase two, which will convert 37 of the 85 acres. Oregon DEQ ranks the Malheur River as one of the top three most polluted rivers in Oregon, identifying sediment, nutrients, and bacteria as the major water quality concerns. Converting from flood to sprinkler irrigation will promote soil conservation and reduce pollutants from entering Bully Creek and the Malheur River. The applicant is encouraged to seek additional cost estimates for the irrigation system.

Review Team Recommendation to Staff

Fund

Review Team Priority

14 of 16

Review Team Recommended Amount

\$69,765

Review Team Conditions

N/A

Staff Recommendation

Staff Follow-Up to Review Team

N/A

Staff Recommendation

Do Not Fund; falls below staff-recommended funding line

Staff Recommended Amount

\$0

Staff Conditions

N/A

Open Solicitation-2019 Spring Offering Eastern Oregon (Region 5)

Application Number: 220-5001-16945

Project Type: Restoration

Project Name: Wallowa River - McDaniel Fish
Habitat Restoration Project

Applicant: Grande Ronde Model WS Foundation

Region: Eastern Oregon

County: Wallowa

OWEB Request: \$287,984

Total Cost: \$595,254

Application Description *(from application abstract)*

The Wallowa River-McDaniel Project is located in Tier 1 habitat in Wallowa Atlas Subwatershed WMS-1, at RM 32 of the Wallowa River, tributary to the Grand Ronde River, near Lostine, Oregon. The project reach is used year round by ESA listed spring Chinook salmon, summer steelhead, and bull trout and by other native fish species including lamprey, Oregon sensitive species redband trout, and Coho. Spring Chinook salmon and summer steelhead spawning and rearing occurs each year in the project reach. Phases 1 and 2 of the Wallowa River-McDaniel Channel Reconstruction Project were implemented in 2004 and 2007, respectively. Although these projects created and improved available fish habitat, substantial opportunities exist in this important Tier 1 reach of the Wallowa River to address limiting factors for ESA listed salmon and steelhead and to enhance measures implemented in 2004-2007. The Wallowa Atlas technical advisory committee identified spring Chinook winter rearing as the highest priority restoration need in this reach of the Wallowa River, followed by Chinook, steelhead, bull trout and lamprey summer rearing, spawning and incubation habitats. Limiting factors identified by the Expert Panel and within NMFS' Recovery Plan include riparian vegetation, side channel and wetland conditions, floodplain condition, bed and channel form, instream structural complexity, sediment, and water quantity. This project focuses on the priority limiting factors and priority restoration needs by increasing and improving available spawning and rearing habitat. Project components include 1) floodplain creation and connection, 2) large wood habitat structures, 3) off-channel habitat including swales, side-channels, and alcoves, and 4) riparian planting and protection. Project partners include the landowners, ODFW, NPT, and GRMW.

Review Team Evaluation

Strengths

- The applicant has demonstrated success in restoring channel function and fish habitat on the McDaniel property by implementing two previous channel reconstruction projects in 2004 and 2007. This project builds on the successes from those previous efforts.

- The landowner strongly supports fisheries conservation on their property, and has an effective working relationship with local agency's managing fish restoration efforts. They manage the property to meet restoration objectives, and are willing to re-enroll the project area in a conservation easement as part of this project.
- This section of the Wallowa River has had six channel modification projects implemented over the last 15-years. There is strong local support to develop a comprehensive monitoring program assessing results from this work, including habitat improvements, fisheries response, riparian conditions, and overall project impacts. This project will be a part of that overall monitoring effort.

Concerns

- The application and design lack an assessment of potential project impacts to the Cross Country Canal irrigation diversion structure located in the middle of the project area. It would have been helpful to learn what measures will be put in place to ensure the protection of irrigation infrastructure.
- Project designs submitted with the proposal are at 30% completion. This is a very complex river restoration project and many items can change as the design phase approaches 100%. Due to this complexity, it's challenging to evaluate the technical soundness with only 30% designs.
- The budget seems high, which may be a result of prematurely estimating costs based on a 30% design. A more complete design could better represent true costs of the project. Several budget items appear high in cost compared to similar projects including mobilization, excavation, and side-channel one restoration.
- There is a lack of restoration effectiveness monitoring and evaluation feedback on the Wallowa River for channel restoration work. At this time it is unknown how this type of restoration effects aquatic habitat, fisheries response, wildlife response, and overall project watershed impacts. This will be the seventh channel modifying project in this 15-mile reach of the Wallowa River, and both funding sources and habitat improvement programs need to know the impact of such large-scale actions. A monitoring project assessing results of the prior six installed projects would inform this and future channel modification projects.

Concluding Analysis

Located on the Wallowa River near the town of Lostine, Oregon, this project proposes to further enhance riverine and riparian conditions, building on previously completed channel restoration work. Work proposed includes installing side-channels, building large wood structures, further connecting the river to the adjacent floodplain, and extensive riparian planting. The landowner and ODFW have worked together for many years and the landowners are effective stewards of their properties by managing for both ecological benefits and ranch viability. For a project of this type, magnitude, and complexity, a 30% design is insufficient to assess the project's ability to be technically sound and meet the desired ecological outcomes. Monitoring data from previous similar type projects nearby is lacking and would provide evidence that the restoration approaches proposed are site appropriate and likely to succeed.

Review Team Recommendation to Staff

Do Not Fund

Review Team Priority

N/A

Review Team Recommended Amount

\$0

Review Team Conditions

N/A

Staff Recommendation

Staff Follow-Up to Review Team

N/A

Staff Recommendation

Do Not Fund

Staff Recommended Amount

\$0

Staff Conditions

N/A

Open Solicitation-2019 Spring Offering Eastern Oregon (Region 5)

Application Number: 220-5002-17014

Project Type: Restoration

Project Name: Owyhee Weed Wars

Applicant: Owyhee WC

Region: Eastern Oregon

County: Malheur

OWEB Request: \$143,454

Total Cost: \$469,989

Application Description *(from application abstract)*

The Jordan Valley CWMA covers 4 million acres in southern Malheur County consisting of sparsely populated rangeland. The area includes the Owyhee River drainage in the Jordan Valley, Rome, Arock, Quinn and Rockville areas. Invasive species are a serious threat to the Owyhee Watershed and diminishes the watershed's ability to function properly. They dominate plant communities to the extent that plant diversity and ecosystem integrity is threatened. Weeds are encroaching on some of the most pristine high desert habitat remaining in the region. ODFW identifies the Owyhee Watershed as critical sage grouse habitat. The conversion of sage and native plant communities to invasive species reduces food and cover for wildlife. Invasive species affects the health of the watershed ecosystem. They impact plant and animal communities within the area. Infestations of noxious weeds can affect soil and erosion rates. Invasive annual grasses such as cheatgrass and medusahead rye can change the normal fire pattern. Large fires have long term impacts such as encroachment of noxious weeds, soil erosion, water quality, habitat loss, loss of forage, as well as the economic health to the community. Decreasing the spread of noxious and invasive species through weed treatments and education of the public will improve watershed health. Program partners include: private landowners, Jordan Valley CWMA, The Nature Conservancy, BLM, Malheur County Weed Control, Owyhee and Malheur County Sage Grouse Working Groups, Oregon Department of Agriculture, Oregon Department of State Lands, ODFW and the Owyhee Watershed Council. OWEB funds will be used to partially fund and support a weed coordinator position to implement the integrated weed management Program.

Review Team Evaluation

Strengths

- The Jordan Valley CWMA is a long standing weed control program working to control invasive plant species in southern Malheur County in a geographic area that includes four-million acres. The applicant has a proven record of success, is fully engaged with the stakeholder community, and has long-term knowledge of successful treatment techniques.

- The project is supported by partnerships with cooperating organizations, including Malheur County Weed Department, ODA, DSL, Vale BLM, and many landowners. Weed treatment in the area is based on watershed boundaries, as such the applicant cooperates with many partners in the Idaho portion of the watershed, including NRCS, US Fish and Wildlife Service, BLM, and Idaho State Lands.
- Weed control work in the area benefits many resources, including sage grouse habitat conservation, fish and wildlife, native plant communities, and soil conservation; and reduces degrading effects of large wildfires.
- The program serves as a hub for weed treatment in this large area by providing fiscal management and contracting services, outreach, landowner consultation, coordination, weed treatment equipment, work area prioritization, weed mapping, training, and monitoring treated areas.

Concerns

- The application does not include weed treatment results over the history of this long standing weed control program. While a map is provided showing weed species treatment locations from past funding cycles and the review site visit included locations that demonstrate successful treatments of both whitetop and medusahead, it is difficult to determine trends over time and whether treatment actions are successful at the watershed scale. Data regarding previous treatments, including chemical, project management, and reseeding results, would provide helpful evidence to evaluate likelihood of success for the project's technical approach.

Concluding Analysis

The Owyhee Weed Wars project is a continuation of a long standing weed program that has surveyed over 225,000-acres in southern Malheur County. This project will build on prior successful work including outreach, inventory, weed treatment, monitoring, and other services critical to the improvement and maintenance of natural resources in the project area. Jordan Valley CWMA serves as the weed treatment coordinating entity for the region, they have developed partnerships in both Oregon and Idaho allowing them to work at a watershed scale, and they provide services necessary for effective weed treatment in the region. This program serves a critical weed control need in the area.

Review Team Recommendation to Staff

Fund

Review Team Priority

5 of 16

Review Team Recommended Amount

\$143,454

Review Team Conditions

N/A

Staff Recommendation

Staff Follow-Up to Review Team

N/A

Staff Recommendation

Fund

Staff Recommended Amount

\$143,454

Staff Conditions

N/A

Open Solicitation-2019 Spring Offering

Eastern Oregon (Region 5)

Application Number: 220-5003-16965

Project Type: Restoration

Project Name: Mockingbird 2

Applicant: Malheur WC

Region: Eastern Oregon

County: Malheur

OWEB Request: \$67,216

Total Cost: \$187,189

Application Description *(from application abstract)*

1. The Mockingbird 2 project is located in Harper, Oregon along the Malheur River. 2. Water quality improvement in the Malheur Basin is one of the top restoration priorities. Water quality improvement is achieved through on-farm irrigation infrastructure improvements and management. Malheur Watershed Council in cooperation with irrigation districts and private landowners have been systematically improving water quality through irrigation system conversions over the past 18 years across the Malheur Basin. 3. The Mockingbird 2 project is the second phase in a three-phase project to convert 179 acres from flood to sprinkler irrigation. This proposal (phase II) will convert 89 acres from flood to sprinkler irrigation through the installation of 2 pivot systems, and related irrigation infrastructure. 4. Project partners include Vale Irrigation District, landowner and Malheur Watershed Council.

Review Team Evaluation

Strengths

- The project is adjacent to the Malheur River in an area with highly erodible soils where the ground slope is low gradient. Converting the current flood irrigation method to a sprinkler application system will benefit water quality in the Malheur River by reducing irrigation induced runoff. The project will implement ODA and DEQ water quality improvement objectives.
- The irrigation delivery and application systems in place for the past century in this region consists of storage facilities, earthen delivery canals, and flood application. It is efficient at reusing waste water; however, the water reuse methods transport sediment, nutrients, and bacteria to local waterways degrading water quality. The project will eliminate contaminated irrigation runoff from entering the Malheur River from 89 acres.
- The application is well written and clearly describes the methodologies proposed and the objectives to be achieved, and includes descriptive maps and photos.
- The applicant has a successful history of completing similar projects, and this phase two follows a successful phase one that was implemented on the same property.
- The project is located in an area with few irrigation and water quality improvement projects and will serve as an example to other landowners in the area.

- Appropriate partners are engaged in the project, including the landowner, Vale Irrigation District, and the Malheur Watershed Council.

Concerns

- The irrigation conversion project is not located in a priority area for NRCS or ODA, and the application lacks an alternative analysis and engineering support that would further substantiate the feasibility and effectiveness of the chosen project design. For example, an alternative analysis would identify the most effective sprinkler and nozzle package for the pivots and describe why the selected approach was chosen.
- The project budget is assembled from an irrigation system cost estimate by one irrigation company. It is challenging to evaluate the project's cost effectiveness given the budget is derived solely from one quote. It would have been helpful to see additional costs analysis to determine whether the budget is reasonable and appropriate to accomplish project objectives.

Concluding Analysis

Located on the Malheur River near Harper, Oregon, this three phase project will convert a total of 179 acres from flood irrigation to a more efficient pivot application system. This proposed phase two will convert 89 of the 179 acres. Oregon DEQ ranks the Malheur River as one of the top three most polluted rivers in Oregon, identifying sediment, nutrients, and bacteria as the major water quality concerns. Converting from flood to sprinkler irrigation will promote soil conservation and reduce pollutants entering the Malheur River. The applicant is encouraged to seek additional cost estimates for the irrigation system.

Review Team Recommendation to Staff

Fund

Review Team Priority

10 of 16

Review Team Recommended Amount

\$67,216

Review Team Conditions

N/A

Staff Recommendation

Staff Follow-Up to Review Team

N/A

Staff Recommendation

Fund

Staff Recommended Amount

\$67,216

Staff Conditions

N/A

Open Solicitation-2019 Spring Offering Eastern Oregon (Region 5)

Application Number: 220-5004-16978

Project Type: Restoration

Project Name: Keeping Dirt (and Poop!) in its Place in Jacobsen Gulch

Applicant: Malheur WC

Region: Eastern Oregon

County: Malheur

OWEB Request: \$55,199

Total Cost: \$143,358

Application Description *(from application abstract)*

1) The project is located in the NRCS Jacobsen Gulch priority area, approximately 4 air miles from Ontario, and less than 2 air miles from the Snake River. 2) Water quality improvement in the Malheur Basin is one of the top restoration priorities. Water quality improvement is achieved through on-farm irrigation infrastructure improvements and management. Malheur Watershed Council in cooperation with irrigation districts and private landowners has been systematically improving water quality through irrigation system conversions over the past 20 years across the Malheur Basin. 3) This proposal will convert 66 acres from flood to sprinkler irrigation through the installation of a pivot system, and related irrigation infrastructure. This project is in a NRCS priority area, and has steep slopes. Both of which make this a priority project for the Council. 4) Project partners include Owyhee Irrigation District, NRCS, landowner and Malheur Watershed Council

Review Team Evaluation

Strengths

- The project is located two miles from the Snake River in an area with steep slopes. Converting the current flood irrigation methods to a sprinkler application system will benefit water quality in Jacobsen Gulch and the Snake River by reducing irrigation induced runoff and work towards meeting ODA and DEQ water quality improvement objectives. Post implementation of this project, the landowner intends to convert to direct seeding methods. This change in management to no-till will improve soil conservation and the full benefit of irrigation conversion will be realized.
- The irrigation delivery and application systems in place for the past century in this region consists of storage facilities, earthen delivery canals, and flood application. It is efficient at reusing waste water; however, this water reuse method transports sediment, nutrients, and bacteria to local waterways and is not efficient for soil conservation. The project will eliminate contaminated irrigation runoff from entering Jacobsen Gulch and the Snake River from 66 irrigated acres.
- The application clearly describes the proposed methodology and anticipated objectives to be achieved. The application contains descriptive maps and photos that demonstrate the steep slope of the area. The bacteria and phosphorus graphs generated from water quality data collected at the bottom of Jacobsen Gulch near the Snake River demonstrate the need for water quality improvement.

- The applicant has a successful history of completing similar projects. This project is located in an NRCS priority area, will tie into a proposed piped lateral (project number 220-5018), and will improve water quality conditions in Jacobsen Gulch and the Snake River.
- Appropriate partners are engaged in the project, including NRCS, Owyhee Irrigation District, landowner, and Malheur Watershed Council.

Concerns

- The project budget is assembled from an irrigation system cost estimate by one irrigation company. It is challenging to evaluate the project's cost effectiveness given the budget is derived solely from one quote. It would have been helpful to see additional costs analysis to determine whether the budget is reasonable and appropriate to accomplish project objectives.
- This application lacks an alternative analysis for this irrigation conversion project that would help substantiate the feasibility and effectiveness of the chosen project design.
- The water right transfer fee for this project has a higher cost compared to similar projects.

Concluding Analysis

Located in the NRCS Jacobsen Gulch priority area, this project will convert 66 furrow irrigated acres to pivot irrigation. The acreage to be converted has been furrow irrigated for decades and crop rotation includes hay with a row crop rotation every five years. Cattle are pastured in the project area during the late fall, winter, and early spring. Due to the site's steep slopes, occasional row crops, and cattle grazing, summer flood irrigation contributes sediment, nutrients, and bacteria to the Snake River. The conversion to pivot application and direct seed techniques will ameliorate water quality problems originating on this 66-acres project. The applicant is encouraged to seek additional cost estimates for the irrigation system.

Review Team Recommendation to Staff

Fund

Review Team Priority

7 of 16

Review Team Recommended Amount

\$55,199

Review Team Conditions

N/A

Staff Recommendation

Staff Follow-Up to Review Team

N/A

Staff Recommendation

Fund

Staff Recommended Amount

\$55,199

Staff Conditions

N/A

Open Solicitation-2019 Spring Offering Eastern Oregon (Region 5)

Application Number: 220-5006-16979

Project Type: Restoration

Project Name: Big Tree Riparian and Wildlife
Restoration

Applicant: Malheur WC

Region: Eastern Oregon

County: Malheur

OWEB Request: \$37,311

Total Cost: \$48,169

Application Description *(from application abstract)*

1) The project is located on the Malheur River where Cottonwood Creek enters the main-stem. It is about 17 air miles to Vale, OR.2) Banks along 600 feet of the Malheur River are vertical, 8-10 feet high and unstable. The channel is migrating several feet at a time with each high flow event. The 2017 spring runoff was particularly bad. There is little to no riparian vegetation at the site and the aquatic habitat is very simple, no pools, hiding cover or woody debris. The river does not meet water quality standards for temperature, sediment and nutrients. In addition to the bank stability issues, 32 acres of riparian area along the Malheur River and its tributary Cottonwood Creek are dominated by invasive species such as white top and Russian Olive. This weedy vegetation is not providing habitat for wildlife and is not providing optimal filtering for water quality and aquatic habitat.3) We are proposing to stabilize the bank by protecting the toe with 23 pieces of large wood (24in by 20 feet), 77 boulders 3' x 3' x3' , planting 300 willow whips, and minor bank sloping (250 cyds). We plan to spray the weeds in the 32 acre riparian area in the Fall of 2019 and in the Spring of 2020 with a combination of Escort (1 oz per acre) and Weedmaster (1 qt per acre). After herbicide treatments, in the Fall of 2020, we will seed with tall Wheatgrass, thickspike Wheatgrass, Basin Wildrye, Alfalfa, birdsfoot trefoil at 11.5 pounds per acre. To further enhance wildlife habitat, we will deep plant 75 wildlife friendly shrubs (dogwoods and wildrose) adjacent to the bank stability work. Approximately 50 Russian Olive trees will be cut, their stumps treated with undiluted Roundup at 1 mL/inch of stump diameter, and the slash will be piled and burned. The bank stability area will be protected by 850 feet of four-strand wildlife friendly fence.4) Partners are the landowner, RSI engineering, Malheur NRCS, Malheur County Weed Department and the Malheur WSC.

Review Team Evaluation

Strengths

- The Malheur River in the project area has poor water quality, specifically from sediment, nutrients, and bacteria inputs. Stabilizing 600-feet of eroding bank will ameliorate sediment input to the river in the project reach. Improving riparian vegetation conditions along the project area will improve water quality conditions by stabilizing soils, providing shade, and reducing invasive plant species.
- Project costs to stabilize the eroding bank, control weeds, remove Russian olive, install riparian fence, seed, and plant wildlife friendly vegetation are reasonable for the expected ecological benefit.

- Aquatic habitat conditions in this reach of the Malheur River are degraded. The proposed project actions will work towards providing ecological value to improve water quality, fish habitat, and riparian conditions.
- The project area is located in a reach of the Malheur River that has received minimal river restoration work. This conservation action will serve as an example project for other landowners in the area.
- The landowner is committed to fish and wildlife conservation, the applicant has a proven track record of implementing similar restoration work in Eastern Oregon, and certainty of project success is high.

Concerns

- The designs resulting from a previously funded OWEB Technical Assistance grant (#218-5022) lack detail. Bank stabilization activities, including boulder placement and large wood structure, are only generally described and would benefit from further construction, cross-section, and dimension descriptions.
- Broadcasted grass seeding for post weed treatment may not be the most effective mechanism to establish desirable grasses. Further alternatives analysis and discussion as to why this approach was chosen would be helpful to evaluate likelihood of success.

Concluding Analysis

Located on the Malheur River west of Vale, Oregon, the Big Tree Riparian and Wildlife Restoration project proposes to stabilize 600-feet of eroding streambank, control invasive plant species, improve livestock management, improve riparian conditions, and enhance aquatic habitat. The proposed actions have demonstration value in a reach where previous aquatic and riparian restoration efforts have not occurred, yet would benefit from these types of enhancements. With the support of many partners, this application presents a holistic approach to restoring 32 riparian and river acres on the Malheur River. The landowner's initial concern regarding an eroding streambank bank is now being addressed with a restoration project that will address multiple resource concerns.

Review Team Recommendation to Staff

Fund

Review Team Priority

11 of 16

Review Team Recommended Amount

\$37,311

Review Team Conditions

N/A

Staff Recommendation

Staff Follow-Up to Review Team

N/A

Staff Recommendation

Do Not Fund; falls below staff-recommended funding line

Staff Recommended Amount

\$0

Staff Conditions

N/A

Open Solicitation-2019 Spring Offering Eastern Oregon (Region 5)

Application Number: 220-5007-16975

Project Type: Restoration

Project Name: In A Van Down By the River

Applicant: Owyhee WC

Region: Eastern Oregon

County: Malheur

OWEB Request: \$51,485

Total Cost: \$102,883

Application Description *(from application abstract)*

1. The in Van Down by the River project is located approximately 4.5 miles NW of Adrian in the Twilight Water Quality Improvement Area. 2. Water quality improvement in the Owyhee Basin is one of the top restoration priorities. Water quality improvement is achieved through on-farm irrigation infrastructure improvements and management. Owyhee Watershed Council in cooperation with irrigation districts, NRCS, and private landowners have been systematically improving water quality through irrigation system conversions over the past 16 years across the Owyhee Basin. 3. The In a Van Down by the River project will implement 1 pivot system and related conveyance infrastructure to convert 27 Acres from flood to sprinkler irrigation and improve water quality in the Lower Owyhee River. 4. Project partners include Old Owyhee Irrigation District, NRCS, private landowner, and Owyhee Watershed Council.

Review Team Evaluation

Strengths

- The project is located adjacent to the Owyhee River in an area of low gradient slope. Converting the current flood irrigation methods to a sprinkler application system will benefit water quality in the Owyhee River by reducing irrigation induced runoff and work towards meeting ODA and DEQ water quality improvement objectives.
- The irrigation delivery and application systems in place for the past century in this region consists of storage facilities, earthen delivery canals, and flood application. It is efficient at reusing waste water; however, this water reuse method transports sediment, nutrients, and bacteria to local waterways and is not efficient for soil conservation. The project will eliminate contaminated irrigation runoff from entering the Owyhee River from 27 irrigated acres.
- The application clearly describes proposed methodologies and anticipated objectives to be realized, and contains descriptive maps and photos of the project area. The project rationale and need is clear and demonstrated by the reduced field elevation caused by many years of flood irrigation induced erosion.
- The applicant has a successful history of completing similar projects.

- The project is in the NRCS Twilight Water Quality Improvement priority area, and builds on prior projects that have been implemented locally. Water quality monitoring data demonstrates positive improvement to water quality from these previous efforts.

Concerns

- The application lacks an alternative analysis for this irrigation conversion project that would help substantiate the feasibility and effectiveness of the chosen project design.
- The project budget is assembled from an irrigation system cost estimate by one irrigation company. It is challenging to evaluate the project's cost effectiveness given the budget is derived solely from one quote. It would have been helpful to see additional costs analysis to determine whether the budget is reasonable and appropriate to accomplish project objectives.
- Clarification information for the water right transfer is needed, including details about the place of use and acreage transferred.
- The application would have been strengthened by placing the project in a watershed context by mapping previous work completed in the Twilight Priority Area.

Concluding Analysis

Located in the NRCS Twilight Water Quality Improvement priority area, this project will convert 27 flood irrigated acres to center pivot application where the crop rotation is alfalfa, corn, onions, and sugar beets. The current flood irrigation method transports sediment, nutrients, and bacteria directly to the adjacent Owyhee River and the proposed conversion to sprinkler application will eliminate runoff from the 27-acre farm field. The partnership with the landowner, Owyhee Irrigation District, and the Owyhee WC, and working in an NRCS priority area indicates the project is likely to succeed in achieving the expected watershed benefits.

Review Team Recommendation to Staff

Fund

Review Team Priority

6 of 16

Review Team Recommended Amount

\$51,485

Review Team Conditions

N/A

Staff Recommendation

Staff Follow-Up to Review Team

N/A

Staff Recommendation

Fund

Staff Recommended Amount

\$51,485

Staff Conditions

N/A

Open Solicitation-2019 Spring Offering Eastern Oregon (Region 5)

Application Number: 220-5008-16966

Project Type: Restoration

Project Name: Aussie Dog Water Quality Improvement

Applicant: Malheur WC

Region: Eastern Oregon

County: Malheur

OWEB Request: \$70,130

Total Cost: \$152,005

Application Description *(from application abstract)*

1. The Aussie Dog WQ Improvement project is located approximately 6 miles NW of Ontario in the Jacobsen Gulch Water Quality Improvement Area. 2. Water quality improvement in the Malheur Basin is one of the top restoration priorities. Water quality improvement is achieved through on-farm irrigation infrastructure improvements and management. Malheur Watershed Council in cooperation with irrigation districts, NRCS, and private landowners have been systematically improving water quality through irrigation system conversions over the past 18 years across the Malheur Basin. 3. The Aussie Dog Water Quality Improvement project will implement 2 pivot systems and related conveyance infrastructure to convert 43.5 Acres from flood to sprinkler irrigation and improve water quality in the Jacobsen Gulch drainage and Snake River. 4. Project partners include Owyhee Irrigation District, NRCS, private landowner and Malheur Watershed Council.

Review Team Evaluation

Strengths

- The project is two miles from the Snake River in an area with moderate slopes. Converting the current flood irrigation methods to a sprinkler application system will benefit water quality in Jacobsen Gulch and the Snake River by reducing irrigation induced runoff and work towards meeting ODA and DEQ water quality improvement objectives.
- The irrigation delivery and application systems in place for the past century in this region consists of storage facilities, earthen delivery canals, and flood application. It is efficient at reusing waste water; however, this water reuse method transports sediment, nutrients, and bacteria to local waterways and is not efficient for soil conservation. The project will eliminate contaminated irrigation runoff from entering Jacobsen Gulch and the Snake River from 43.5 irrigated acres.
- The applicant has a successful history of completing similar projects.
- The project is located in an NRCS priority area, will add to the cumulative benefit with other planned projects in the area, and will improve water quality conditions in Jacobsen Gulch and the Snake River.
- The water right transfers associated with this project is secured.

- Appropriate partners are engaged in the project, including NRCS, Owyhee Irrigation District, landowner, and Malheur Watershed Council.

Concerns

- The project budget is assembled from an irrigation system cost estimate by one irrigation company. It is challenging to evaluate the project's cost effectiveness given the budget is derived solely from one quote. It would have been helpful to see additional costs analysis to determine whether the budget is reasonable and appropriate to accomplish project objectives.
- The application lacks an alternative analysis for this irrigation conversion project that would help substantiate the feasibility and effectiveness of the chosen project design. For example, a standard sprinkler head specification is identified in the irrigation company bid sheets, however, a more specific sprinkler head package may be more appropriate for the intended crop, soil, and field characteristics.

Concluding Analysis

Located in the NRCS Jacobsen Gulch Priority area, this project will convert 43.5 flood irrigated acres to pivot irrigation. The acreage to be converted has been flood irrigated for decades. The crop rotation includes alfalfa and grain where flood irrigation contributes sediment and nutrients to Jacobsen Gulch and the Snake River. The conversion to pivot application will ameliorate water quality problems originating on this 43.5-acres project. Water quality problems in Jacobsen Gulch at the Snake River are demonstrated by the monitoring data included in the application showing elevated phosphorus and bacteria levels during sampling periods. The project is likely to succeed in providing certain water quality benefits to the Snake River. The applicant is encouraged to seek additional cost estimates for the irrigation system.

Review Team Recommendation to Staff

Fund

Review Team Priority

8 of 16

Review Team Recommended Amount

\$70,130

Review Team Conditions

N/A

Staff Recommendation

Staff Follow-Up to Review Team

N/A

Staff Recommendation

Fund

Staff Recommended Amount

\$70,130

Staff Conditions

N/A

Open Solicitation-2019 Spring Offering

Eastern Oregon (Region 5)

Application Number: 220-5009-16983

Project Type: Restoration

Project Name: Horses on the Corner

Applicant: Malheur SWCD

Region: Eastern Oregon

County: Malheur

OWEB Request: \$65,674

Total Cost: \$116,359

Application Description *(from application abstract)*

1. The Horses at the Corner project is located about 8 miles southwest of Ontario, Oregon and consists of approximately 40 acres of irrigable cropland. It lies within the NRCS 'Valley View Priority Area'. The Horses at the Corner project eventually drains into the Nevada Ditch to be used by other farmers or spilled into the Blanton Drain and into the Malheur River and into the Snake River. Sediments and nutrients that wash off fields are passed onto the downstream users and contribute to overall water quality impairments. The NRCS 'Valley View Priority Area' is located from about 4 miles southwest of Ontario, Oregon, south of OR Highway 20-26 stretching from Cairo Junction 6.5 miles west and approximately 2 miles south. The NRCS 'Valley View Priority Area' consists of approximately 3275 acres with approximately 2000 acres of irrigable cropland. The entire area is in Malheur County. 2. Most of the sediment, nutrients, and bacteria in The Blanton Drain come from polluted irrigation return flows or livestock access to surface water. Historically farmers in the area fertilize their land and a residual amount of chemicals, e-coli and nutrients can be carried off the field with the runoff from flood irrigation. This farm is fairly typical and currently using 100% surface irrigation. 3. By installing a partial swipecenter pivot with the accompanying solid set sprinklers, pipeline, pump and flowmeter, the landowner will be able to achieve a zero water runoff practice that will enhance the downstream water quality. 1520 feet of open ditch irrigation canal will be covered. 4. The partners for this project are the landowner, Malheur County SWCD and Owyhee Irrigation District.

Review Team Evaluation

Strengths

- The project is eight miles southwest of Ontario in the Valley View NRCS EQIP priority Area. Converting the current flood irrigation methods to a sprinkler application system will benefit water quality in the Malheur River. Reducing irrigation induced runoff will work towards meeting ODA and DEQ water quality improvement objectives for the Malheur River.
- The irrigation delivery and application systems in place for the past century in this region consists of storage facilities, earthen delivery canals, and flood application. It is efficient at reusing waste water; however, this water reuse method transports sediment, nutrients, and bacteria to local waterways and is not efficient for soil conservation. The project will eliminate contaminated irrigation runoff from entering the Malheur River from 40 irrigated acres.

- The applicant has a history of completing similar type projects.
- The project is located in an NRCS priority area and will add to the cumulative watershed benefit with other planned projects in the area. When implemented it will help improve water quality conditions in the Malheur River.
- Piping the lateral through the 40-acre field will provide the opportunity for neighboring landowners to benefit from pressurized water delivery.
- The operator on the property has experience with pivot operation and implements cover-cropping techniques, resulting in additional soil conservation benefits.
- Appropriate partnerships support the project, including Malheur SWCD, Owyhee Irrigation District, and the landowner.

Concerns

- The project budget is assembled from an irrigation system cost estimate by one irrigation company. It is challenging to evaluate the project's cost effectiveness given the budget is derived solely from one quote. It would have been helpful to see additional costs analysis to determine whether the budget is reasonable and appropriate to accomplish project objectives.
- The application lacks an alternative analysis for this irrigation conversion project that would help substantiate the feasibility and effectiveness of the chosen project design.
- The design approach to irrigate the field's corners where the pivot will not reach will require many sprinklers and $\frac{3}{4}$ -mile of 4-inch pipe that may result in significant maintenance and upkeep.
- The project is in an NRCS priority area, however, NRCS is not identified as a project partner.

Concluding Analysis

Located in the Valley View NRCS EQIP priority Area, this project will convert 40-acres of flood irrigated farm ground to sprinkler application. The acreage to be converted has been flood irrigated for many years. The ground is steep, and converting to a sprinkler application system will reduce sediment, nutrients, and bacteria runoff from the project area into local waterways. The project will achieve water quality benefits to the Malheur River from the upgraded irrigation water delivery system. The applicant is encouraged to seek additional cost estimates for the irrigation system.

Review Team Recommendation to Staff

Fund

Review Team Priority

12 of 16

Review Team Recommended Amount

\$65,674

Review Team Conditions

N/A

Staff Recommendation

Staff Follow-Up to Review Team

N/A

Staff Recommendation

Do Not Fund; falls below staff-recommended funding line

Staff Recommended Amount

\$0

Staff Conditions

N/A

Open Solicitation-2019 Spring Offering Eastern Oregon (Region 5)

Application Number: 220-5010-16977

Project Type: Restoration

Project Name: It Can't Get Much Steeper:
Jacobsen Gulch

Applicant: Malheur WC

Region: Eastern Oregon

County: Malheur

OWEB Request: \$43,850

Total Cost: \$58,410

Application Description *(from application abstract)*

1) Jacobsen Gulch -- NRCS priority Area. About 6 air miles to Ontario.2) A 20 acre hay/pasture field is currently being flood irrigated. The water flows off the field and down a extremely steep slope where it enters Jacobsen Gulch and eventually the Snake River. This tail-water is causing several large gullies to form. A significant amount of sediment is being delivered to the Snake from these gullies. And because the pasture is grazed a substantial amount of bacteria and nutrients are in the irrigation tail-water. The Snake River is listed for bacteria, nutrients, sedimentation and other water quality problems. This is a priority project for the Council because of the extreme steepness of the fields, the high levels of sediment, bacteria and nutrients being delivered to the Snake River, and because it is in a n NRCS priority area.3) We plan to convert the 20 acre field from flood to wheel-line sprinklers. This will mean installing ;a 15 hp pump, a VFD, hooking up to the electrical grid, installing 1,800 feet of 6-inch mainline, installing 12 riser assemblies, Using an IRRIPOD irrigation system to irrigate a corner, and installing a 1,200 wheel-line. Installing a 1,000 feet of 8-inch 80# pipe to serve as an emergency overflow4) Partners are the landowner, NRCS, and the WSC.

Review Team Evaluation

Strengths

- The project is three miles from the Snake River in an area with steep slopes. Converting the current flood irrigation system to a sprinkler application system will benefit water quality in Jacobsen Gulch and the Snake River by reducing irrigation induced runoff and work towards meeting ODA and DEQ water quality improvement objectives.
- The irrigation delivery and application systems in place for the past century in this region consists of storage facilities, earthen delivery canals, and flood application. It is efficient at reusing waste water; however, this water reuse method transports sediment, nutrients, and bacteria to local waterways and is not efficient for soil conservation. The project will eliminate contaminated irrigation runoff from entering Jacobsen Gulch and the Snake River from 20 irrigated acres.
- The applicant has a successful history of completing similar projects.
- This project is located in an NRCS priority area. The bacteria and phosphorus data attached to the application substantiate water quality problems in Jacobsen Gulch.

Concerns

- The project budget is assembled from an irrigation system cost estimate by one irrigation company. It is challenging to evaluate the project's cost effectiveness given the budget is derived solely from one quote. It would have been helpful to see additional costs analysis to determine whether the budget is reasonable and appropriate to accomplish project objectives.
- The application lacks an alternative analysis for this irrigation conversion project that would help substantiate the feasibility and effectiveness of the chosen project design. For example, details on why wheel lines and an irripod system were chosen over a pivot would provide information to evaluate technical soundness.
- It is unclear why an emergency overflow pipe is needed and the project design does not include a way to shut the water supply off during times of power outage. Additionally, clarity around how the overflow pipe will contribute to irrigation water management in the lower field and how the six inch mainline will irrigate the lower field would have been helpful to understand the project.
- The proposal is not clear on how each of the project components work in relation to each other.
- NRCS is identified as a project partner and is providing project management, yet it is unclear if NRCS is providing cost share. Details around the NRCS financial contributions would be beneficial to understand overall project costs.

Concluding Analysis

Located in the NRCS Jacobsen Gulch Priority area, this project proposes to convert 20-acres of hay and pasture ground from flood irrigation to wheel line and irripod application systems. Flood irrigation water runs over the hay field, over a steep hill, across a lower pasture, and into Jacobsen Gulch. The irrigation waste water transported to the Snake River contains sediment, nutrients, and bacteria. Monitoring data at the lower end of Jacobsen Gulch confirms poor water quality currently enters the Snake River, providing evidence that eliminating waste water will contribute to water quality improvements. If this project is resubmitted, the applicant is encouraged to provide cost estimates from more than one irrigation company; an alternative analysis describing why the selected alternative was chosen; and detail regarding how the irrigation and overflow system will work, why the system will not be designed to shut off during times of power outage, how overflow water will affect the lower pasture, and why the emergency overflow pipe is needed.

Review Team Recommendation to Staff

Do Not Fund

Review Team Priority

N/A

Review Team Recommended Amount

\$0

Review Team Conditions

N/A

Staff Recommendation

Staff Follow-Up to Review Team

N/A

Staff Recommendation

Do Not Fund

Staff Recommended Amount

\$0

Staff Conditions

N/A

Open Solicitation-2019 Spring Offering

Eastern Oregon (Region 5)

Application Number: 220-5011-17081

Project Type: Restoration

Project Name: Bowerman Ranch Irrigation Improvement

Applicant: Wallowa SWCD

Region: Eastern Oregon

County: Wallowa

OWEB Request: \$103,941

Total Cost: \$351,816

Application Description *(from application abstract)*

This project is located in Wallowa County, on the base of Mt. Joseph southwest of the town of Joseph, Oregon. Installation of pivots and a linear machine will address the need for more efficient irrigation systems located on the Bowerman Ranch. The project consists of two main systems. The Field which covers 218 acres and includes 3 pivots and one linear machine and the Pasture which includes one pivot covering 26 acres. The application proposes to install these four pivots and one linear system on currently wheel line irrigated ground resulting in an estimate water savings of 39%. The partners on this project are the landowners, NRCS offering cost share assistance with the EQIP program, and Wallowa SWCD applying for OWEB funding.

Review Team Evaluation

Strengths

- The Moonshine Ditch is a priority area for the Wallowa SWCD and the NRCS Conservation Implementation Strategy (CIS).
- The project will improve irrigation efficiency on 244 irrigated acres by converting the current wheel line application methods to a modern pivot application system.
- The project will build upon prior installed irrigation conversion projects located in the priority area. Over the past decade many open ditches have been converted to pipeline conveyance, and outdated application systems have been replaced in the nearby Hurricane Creek, Alder Slope, and Prairie Creek areas.
- Water conserved through this project will either stay in Hurricane Creek or return to the Wallowa River near Joseph. The water rights for this 244-acre project are senior (1901) to many other users that are junior to this right.
- Resulting conserved water from this project that is left in Hurricane Creek will stay instream for several miles and serve as instream water rights held by ODFW.

Concerns

- The proposal lacks detail and clarity, and the budget groups project costs largely into lump sums making it difficult to evaluate whether costs are reasonable and necessary.
- The ecological value of the conserved water is difficult to determine. It is unclear if the conserved water will be left in Hurricane Creek or return to the Wallowa River at the end of the ditch system. Conserving water at the point of diversion on Hurricane Creek carries higher ecological value than returning conserved water to the Wallowa River. The application would have benefited from adding clarity on how conserved water will be managed and allocated.
- Providing a map placing this project in the overall watershed priority area for context would have been helpful.
- The original proposal called for one linear system and three pivots. However, NRCS will not approve a linear installation due to the steepness of the area, and the linear manufacturer will not warranty the linear on steep ground (>5%). The applicant provided clarifying information that indicates the landowner will eliminate the linear in favor of installing four pivots. This modification results in a budget request reduction of \$4,714. This project modification does not result in a change in proposed acres that will be converted to a more efficient irrigation system.

Concluding Analysis

Located in a priority area identified by the Wallowa SWCD and NRCS, this project will convert 244 irrigated acres from inefficient wheel lines to pivot sprinkler application systems. The Bowerman water rights are the senior on the ditch, their wheel lines are out-of-date, and they do not have an NRCS approved water management plan. Crop rotation includes small grains, grass hay, and alfalfa. At project completion, the landowner will have an efficient application system that is guided by an NRCS water management plan and informed by soil moisture probes helping the irrigator apply water according to crop needs. The new system will enhance management capability on the 244 acres and provide the opportunity to improve conveyance system operation. This improved system will provide the tools needed to leave water in Hurricane Creek and improve conditions for Chinook salmon, steelhead, and bull trout. The proposal would benefit from a Moonshine Ditch management plan, specifically documenting how conserved water will be managed and allocated, a more detailed budget, and a map showing the project in context with other conservation actions. If the new irrigation system is managed according to NRCS guidance and the conveyance system is operated to leave conserved water instream, then watershed benefits include improved flow in Hurricane Creek benefiting ESA-listed fish in Wallowa County.

Review Team Recommendation to Staff

Fund Reduced with Conditions

Review Team Priority

15 of 16

Review Team Recommended Amount

\$99,227

Review Team Conditions

Revise project application scope of work to reflect the change from 3 pivots and 1 linear machine to 4 pivots, and budget to provide line item details for the 4 pivots and reduced award amount.

Staff Recommendation

Staff Follow-Up to Review Team

N/A

Staff Recommendation

Do Not Fund; falls below staff-recommended funding line

Staff Recommended Amount

\$0

Staff Conditions

N/A

Open Solicitation-2019 Spring Offering Eastern Oregon (Region 5)

Application Number: 220-5012-17062

Project Type: Restoration

Project Name: Across the Road

Applicant: Malheur SWCD

Region: Eastern Oregon

County: Malheur

OWEB Request: \$127,035

Total Cost: \$409,749

Application Description *(from application abstract)*

Outside Jordan Valley, near Rome Oregon along Crooked Creek next to highway 95, the landowner proposes to convert rangeland with (4) irrigation pivots. Previously dense sage which impeded cattle and wildlife movement along with crowding out desirable bunch grasses was removed the remaining understory is no mainly Bromus tectorum or commonly known as cheatgrass. The landowner is proposing to re-seed the area and install pivots on the site. 2 pivot sites will be planted with 20 pounds per acre of a grass seed mixture, containing Intermediate Wheatgrass, Meadow Brome and Tall Fescue with a rangeland drill and tractor, 2 other pivots will be planted at 30 pounds per acre to Alfalfa and Tall Fescue adjacent to remaining sagebrush. As the sage grouse flies, this project is located three miles from a known lek. Project partners include: Landowner, Malheur SWCD, OWEB

Review Team Evaluation

Strengths

- Prior work completed by the landowner, including sage brush removal and seeding, is showing positive results. Rangeland seeding has been effective and several native grasses as well as forage kochia are established on the treated area.
- Project area is three miles from a known sage grouse lek.
- The landowner has drilled two wells that could provide upland water for both livestock and wildlife.
- The landowner has a desire to improve the property condition, improve the viability of his operation, and provide benefits for wildlife. The past work completed demonstrates the potential of the property to meet these desired ecological outcomes.

Concerns

- The ecological benefits of the proposed actions are unclear. Benefit to sage grouse is minimal because all of the sage brush is removed. This complete removal of sage brush eliminates habitat diversity, and cover for sage grouse and other wildlife. Installing pivots on the property will likely increase predator risk and reduce benefits to sage grouse because pivots can serve as a raptor perch.

- It is unclear why dryland grasses, including tall fescue, wheatgrass, and brome, will be planted under an irrigation pivot; and the economics of installing irrigation to return the area to native rangeland is difficult to understand. It is anticipated that over time the vegetation under the four pivots will transition to livestock forage crops rather than native upland grasses, which could result in the pivot system not remaining in service of the identified watershed benefit as intended. The technical soundness for needing the pivots to achieve the proposed ecological benefits is unclear from the application.
- There is no evidence that ODFW and US Fish and Wildlife Service are engaged in the project. Letters of support or a wildlife management plan for the project area advised by these wildlife management agencies would have demonstrated support as well as consideration for wildlife values.

Concluding Analysis

South of Rome on Highway 95, the landowner proposes to install four pivot irrigation systems on rangeland where considerable property improvements have been made, including drilling wells and treating native and non-native vegetation. It is evident that many desirable upland grasses have come back following sage brush removal. Plant species proposed for under two pivots include tall fescue, meadow brome, and intermediate wheat grass. The other two pivots will be planted with alfalfa and tall fescue. In areas not covered by pivot irrigation, reseeding grasses and sage brush regeneration is expected to occur. The project likelihood for success is uncertain because it is unclear what ecological benefits will be gained by the proposed actions, and how these actions will benefit sage grouse specifically. If the proposal is resubmitted, the applicant is encouraged to consider focusing the project on reseeding native species, stock water development using the existing wells, methods to manage sage brush that will benefit sage grouse and other wildlife, and seeking partnerships with wildlife agency expertise to maximize opportunities to improve wildlife habitat.

Review Team Recommendation to Staff

Do Not Fund

Review Team Priority

N/A

Review Team Recommended Amount

\$0

Review Team Conditions

N/A

Staff Recommendation

Staff Follow-Up to Review Team

N/A

Staff Recommendation

Do Not Fund

Staff Recommended Amount

\$0

Staff Conditions

N/A

Open Solicitation-2019 Spring Offering Eastern Oregon (Region 5)

Application Number: 220-5013-16981

Project Type: Restoration

Project Name: Bergman WQ Improvement

Applicant: Owyhee WC

Region: Eastern Oregon

County: Malheur

OWEB Request: \$53,459

Total Cost: \$131,371

Application Description *(from application abstract)*

The Bergman WQ Improvement project is located approximately 1.5 miles NE of Adrian along the Snake River. 2. Water quality improvement in the Owyhee Basin is one of the top restoration priorities. Water quality improvement is achieved through on-farm irrigation infrastructure improvements and management. Owyhee Watershed Council in cooperation with irrigation districts, NRCS, and private landowners have been systematically improving water quality through irrigation system conversions over the past 16 years across the Owyhee Basin. 3. The Bergman Water Quality Improvement project will implement 2 pivot systems, solid set handlines and related conveyance infrastructure to convert 24 Acres from flood to sprinkler irrigation and improve water quality in the Snake River. 4. Project partners include Owyhee Irrigation District, private landowner, and Owyhee Watershed Council.

Review Team Evaluation

Strengths

- The project is located 1,000 feet away from the Snake River in an area of moderate gradient ground slope. Converting the current flood irrigation methods to a sprinkler application system will benefit water quality in the Snake River by reducing irrigation induced runoff and working towards meeting ODA and DEQ water quality improvement objectives.
- The irrigation delivery and application systems in place for the past century in this region consists of storage facilities, earthen delivery canals, and flood application. It is efficient at reusing waste water; however, this water reuse method transports sediment, nutrients, and bacteria to local waterways and is not efficient for soil conservation. The project will eliminate contaminated irrigation runoff from entering the Snake River from 24 irrigated acres.
- The application is well-written, clearly describes methodologies proposed and objectives sought, and includes descriptive maps of the project area.
- The project provides an opportunity to showcase flood to sprinkler conversions in a location that is difficult to gain landowner participation in voluntary conservation, and could result in possibly recruiting other nearby landowners to implement conservation practices.
- Both proposed pivots will tie into an existing pipeline that was installed to service the adjacent 73-acre pivot. When this pivot was installed the pipe was sized to accommodate the two pivots proposed in the application, which will provide cost savings to this project.

Concerns

-
- The application lacks an alternative analysis for this irrigation conversion project that would help substantiate the feasibility and effectiveness of the chosen project design.
- The project budget is assembled from an irrigation system cost estimate by one irrigation company. It is challenging to evaluate the project's cost effectiveness given the budget is derived solely from one quote. It would have been helpful to see additional costs analysis to determine whether the budget is reasonable and appropriate to accomplish project objectives. The pivot installation is a high cost compared to similar projects, additional information is needed to determine whether the project budget is reasonable.
- It is unclear whether a 5-acre pivot is economically feasible; a wheel line may be a more effective solution.

Concluding Analysis

Located 1,000 feet from the Snake River, this project will convert 24 irrigated acres from flood irrigation to a center pivot application where the crop rotation is alfalfa, corn, onions, and sugar beets. Water from the current flood irrigation method transports sediment, nutrients, and bacteria to the Snake River; the proposed irrigation conversion will improve water quality by eliminating irrigation induced runoff. The project is not located in a priority location, which limits the watershed benefit for the cost.

Review Team Recommendation to Staff

Fund

Review Team Priority

13 of 16

Review Team Recommended Amount

\$53,459

Review Team Conditions

N/A

Staff Recommendation

Staff Follow-Up to Review Team

N/A

Staff Recommendation

Do Not Fund; falls below staff-recommended funding line

Staff Recommended Amount

\$0

Staff Conditions

N/A

Open Solicitation-2019 Spring Offering Eastern Oregon (Region 5)

Application Number: 220-5014-17052

Project Type: Restoration

Project Name: Big Sheep Creek Fence III

Applicant: Wallowa SWCD

Region: Eastern Oregon

County: Wallowa

OWEB Request: \$49,928

Total Cost: \$73,992

Application Description *(from application abstract)*

1. The project is located in adjacent to Big Sheep Creek in the Upper Big Sheep Creek Watershed (HUC 1706010203) in Wallowa County on the Wallowa-Whitman National Forest land. It is approximately 15 miles South East of the town of Joseph. 2. Salmon spawn in the Upper Big Sheep Creek area after August 10th and livestock are not permitted to be in the area during the spawning time. The ranchers have made every attempt to keep livestock out of this area by riding through it at least every other day. Reason the livestock fall into the Sheep Creek canyon after this date are because, but not limited to, gates on roads left open by recreationalist, livestock are chased by predators, or water sources on the hill side are dry. 3. This project is to construct a 4-stand barbed wire fence to keep livestock out of Big Sheep Creek after August 10th when salmon are to begin spawning. The 3.5 mile fence will be a let down fence. The USFS will supply the materials. The permittees will be the ones who contract this fence. There will be a 6-foot clearance on both sides of the fence. One side is to let the fence down and the other is so an ATV can be used for maintenance. Each stretch point will consist of what is called a stretch panel which is needed in a let-down fence. Existing trees will be used if they are in the fence line. T-posts and 2"x3" stays will be used to construct the fence. Gates will be placed in major trails and other areas the permittees feel there needs to be a gate. There is no road directly accessing this fence so materials may have to be packed in via horse or flown in. 4. Partners include:USFS – specifications, flagging fence-line, supplying material, final inspectionPermittees (Marr Flat Association) – help with specification, will contract the fence to be built, and will maintain the fenceSWCD - will manage the grant and inspect the fence

Review Team Evaluation

Strengths

- The proposed fence will keep domestic livestock out of Big Sheep Creek, which has spawning Chinook salmon after August 10th of each year. This improved management action provides significant ecological benefit by minimizing cattle access to Big Sheep Creek and potentially disturbing Chinook redds. Reducing cattle access to Big Sheep Creek during the late summer will further improve riparian conditions and water quality in a reach that is habitat for ESA-listed Chinook salmon, bull trout, and steelhead.

- This phase two project builds upon 3.4 miles of fence installed during phase one, which will complete the prescribed seven mile let-down fence.
- Phase one was completed by a partnership that included US Forest Service, Nez Perce Tribe, Bonneville Power Administration, and Grande Ronde Model Watershed. This phase two is a partnership of Wallowa SWCD, US Forest Service, and the permittees. Phase two demonstrates the permittee's commitment to complete the fencing project and fisheries conservation.
- The let-down fence approach is preferred over a conventional fence because it requires less maintenance. Heavy snow loads, falling trees, and elk movement will not compromise the let-down fence to the extent that occurs with a permanently standing fence, and the let-down fence is the appropriate design for this terrain and management objective.

Concerns

- Currently there is no fence on the opposite side of Big Sheep Creek in the actively used adjacent allotment. Cattle can access the stream from this allotment, however, its potential impact to Big Sheep Creek is not articulated in the proposal and could diminish the stream benefits from the proposed project.

Concluding Analysis

Located in the Imnaha Subbasin in Wallowa County, the proposed let-down fence will further assist in the recovery of Chinook salmon, bull trout, and steelhead populations in Big Sheep Creek. The fence will limit domestic livestock access to the creek after August 10th of each year when Chinook are spawning, and will further improve riparian condition and water quality at a time when cattle are most likely to occupy the riparian area. The addition of the let-down fence to existing cattle management infrastructure will contribute to the recovery of ESA-listed fish species, improve riparian conditions, and has a cost that is commensurate with expected ecological benefit.

Review Team Recommendation to Staff

Fund

Review Team Priority

9 of 16

Review Team Recommended Amount

\$49,928

Review Team Conditions

N/A

Staff Recommendation

Staff Follow-Up to Review Team

N/A

Staff Recommendation

Fund

Staff Recommended Amount

\$49,928

Staff Conditions

N/A

Open Solicitation-2019 Spring Offering Eastern Oregon (Region 5)

Application Number: 220-5015-16959

Project Type: Restoration

Project Name: Eagle Creek Irrigation

Applicant: Eagle Valley SWCD

Region: Eastern Oregon

County: Baker

OWEB Request: \$24,760

Total Cost: \$319,665

Application Description *(from application abstract)*

Located within the Eagle Valley Soil and Water Conservation District (SWCD) near Richland, Oregon, the Eagle Creek Irrigation project seeks to bring together two landowners addressing and converting 191 acres of previously flood irrigated ground to sprinkler (105 acres) and drip (86 acres) irrigation. The irrigation water used at the project site is diverted from Eagle Creek, a fish bearing stream and historical bull trout habitat, to the Kay Young ditch where it travels through a series of earthen ditches to reach both project locations (MAP 3). All flood irrigation runoff returns to the Power River Watershed in Brownlee Reservoir through only 0.5 miles of one continuous unnamed stream (MAP 3), submitting additional debris, sediment, organic and inorganic fertilizers into the watershed. In addition to poor water quality, these two landowners are supporting an inefficient form of irrigation. Through the installation of one center pivot and hand line serving 105 acres and one sub surface drip system serving 86 acres, the landowners will convert 191 acres total to a more efficient form of irrigation. Applying the use of an Irrigation Water Management plan with the Natural Resources Conservation Service (NRCS) the landowners will only use what can be held by the soil and what is required to support the crop being irrigated. The landowners have realized the watershed issues that are present, and contacted NRCS and the Eagle Valley SWCD seeking assistance to improve their irrigation practices. Project partners include: NRCS, Eagle Valley SWCD and the two landowners.

Review Team Evaluation

Strengths

- Water quality will be improved in the Lower Powder River by eliminating flood irrigation water from 191 flood irrigated acres in the project area. Currently water transports debris, sediment, organic, and inorganic fertilizers to the Powder River and the Snake River.
- Water quantity will be improved in Eagle Creek. Currently the 191 irrigated acres requires 4.6 cfs to flood irrigate. At project completion, water required for the pivot, hand lines, and the drip system will require 3.5 cfs, resulting in a 1.1 cfs reduction. If the conveyance system is managed properly this 1.1 cfs will remain in Eagle Creek.
- This project will serve as a demonstration for innovative practices. Installing a pivot and drip system adjacent to each other provides an opportunity to compare application methods, including amount of water used, ability to irrigate to crop needs, maintenance requirements, and hardware longevity.

- Design and cost estimates are developed by an NRCS engineer. NRCS is interested in testing and demonstrating water conservation benefits of large-scale drip systems in Eastern Oregon and they are providing significant cost share to the project.

Concerns

- The application lacks an alternative analysis for this irrigation conversion project that would help substantiate the feasibility and effectiveness of the chosen project design.
- The project budget is assembled from an irrigation system cost estimate by one irrigation company. It is challenging to evaluate the project's cost effectiveness given the budget is derived solely from one quote. It would have been helpful to see additional costs analysis to determine whether the budget is reasonable and appropriate to accomplish project objectives.
- Incorporating a monitoring and evaluation plan to understand the effectiveness of this innovative practice would strengthen the project so that this demonstration opportunity can be used to capture lessons learned and inform other projects.

Concluding Analysis

Located in Lower Eagle Creek, this project seeks to convert 191 flood irrigated acres to efficient pivot, hand line, and drip system practices. Two landowners are involved in the project and NRCS is a significant partner contributing engineering, design, cost estimates, and cost share. Water quantity and quality are expected to improve in the area by reducing the amount of water diverted from Eagle Creek, a bull trout bearing stream. Water quality improvements are expected in the lower Powder River where water currently returns from the 191 acres and degrades water quality in the Powder River. The project will provide water quantity and quality benefits to waterways in the area and work toward achieving DEQ and ODA water quality improvement objectives.

Review Team Recommendation to Staff

Fund

Review Team Priority

3 of 16

Review Team Recommended Amount

\$24,760

Review Team Conditions

N/A

Staff Recommendation

Staff Follow-Up to Review Team

N/A

Staff Recommendation

Fund

Staff Recommended Amount

\$24,760

Staff Conditions

N/A

Open Solicitation-2019 Spring Offering Eastern Oregon (Region 5)

Application Number: 220-5016-16964

Project Type: Restoration

Project Name: Foothill Irrigation

Applicant: Baker Valley SWCD

Region: Eastern Oregon

County: Baker

OWEB Request: \$131,010

Total Cost: \$231,010

Application Description *(from application abstract)*

Located within the Baker Valley Soil and Water Conservation District, near North Powder Oregon the Foothill Irrigation project will address 182 acres of flood irrigated hay and pasture ground. Diverted from the North Powder River, the Hutchinson ditch transports water to the project location where it is then diverted into a series of earthen ditches that flood irrigate the property. As flood irrigation is “pushed” across the field it collects sediment, debris, organic and inorganic material adding it to the Powder River Watershed. In addition, flood irrigation requires more water than what is necessary to refill the soil profile in comparison to a pivot system that allows the landowner to apply water only when and where it is needed. The completion of this project will convert 182 acres from flood irrigation to sprinkler irrigation under the installation of two pivots; one half circle (90 acres) and one full circle pivot (92 acres). Project partners include the landowner and Baker Valley SWCD.

Review Team Evaluation

Strengths

- Water quality will be improved in the Powder River by converting from flood to pivot irrigation practices on 182 acres in the project area. Currently water transports debris, sediment, organic, and inorganic materials to the Powder River watershed.
- Water quantity will be improved in the North Powder River. Currently the 182 irrigated acres requires 4.5 cfs to flood irrigate. At project completion, water required for the pivots will be 3 cfs, resulting in a 1.5 cfs reduction. If the conveyance system is managed properly, this 1.5 cfs will remain in the North Powder River.
- The SWCD and landowner are filling an irrigation water management need in an area of Baker County that lacks conservation work, in part due to limited NRCS investments.
- The landowner is conservation minded as demonstrated by prior conservation investments and the desire to continue in future phases. Four pivot systems were previously installed, two additional pivots are proposed in this application, and three additional pivots are anticipated in a future phase. The power drop and cable installation will serve both the proposed two pivots and the anticipated third phase.

- The application is well written and includes maps that effectively describe the project, work area, region, and locations of nearby projects. The proposal budget is detailed, has appropriate unit types, and reasonable unit costs.

Concerns

- The project budget is assembled from an irrigation system cost estimate by one irrigation company. It is challenging to evaluate the project's cost effectiveness given the budget is derived solely from one quote. It would have been helpful to see additional costs analysis to determine whether the budget is reasonable and appropriate to accomplish project objectives.
- The application lacks an alternative analysis for this irrigation conversion project that would help substantiate the feasibility and effectiveness of the chosen project design.

Concluding Analysis

Located in the North Powder River Area, this project seeks to convert 182 flood irrigated acres to an efficient center pivot application system. The area to be converted is steep and the irrigation ditches coursing through the property show signs of significant erosion. The project will eliminate one of the ditches by converting it to a buried pipeline serving both of the proposed pivots. The landowner is motivated to participate in voluntary conservation efforts to reduce erosion and improve irrigation efficiency. The project will have water quality and quantity benefits in the Powder Basin and work towards achieving DEQ and ODA water quality improvement objectives.

Review Team Recommendation to Staff

Fund

Review Team Priority

2 of 16

Review Team Recommended Amount

\$131,010

Review Team Conditions

N/A

Staff Recommendation

Staff Follow-Up to Review Team

N/A

Staff Recommendation

Fund

Staff Recommended Amount

\$131,010

Staff Conditions

N/A

Open Solicitation-2019 Spring Offering Eastern Oregon (Region 5)

Application Number: 220-5017-16968

Project Type: Restoration

Project Name: More Irrigation and Riparian

Applicant: Burnt River SWCD

Region: Eastern Oregon

County: Baker

OWEB Request: \$78,209

Total Cost: \$153,209

Application Description *(from application abstract)*

Located within the Burnt River Soil and Water Conservation District near Unity Oregon, the More Irrigation and Riparian project will convert 37 acres of previously flood irrigated ground to sprinkler irrigation with the use of one center pivot, install 6,700 feet of mainline to eliminate the use of one ditch, as well as install 4,500 feet of riparian fence to restrict livestock use to the South Fork of the Burnt River. Inefficient irrigation practices have contributed increased sediment loads containing organic and inorganic fertilizers to the Burnt River Watershed causing increased temperature, pH, and algae growth within native fish species habitat. In addition, livestock currently have unrestricted access to one mile of the South Fork of the Burnt River above Unity Dam resulting in unstable stream conditions and riparian areas. To address the use of inefficient irrigation practices, one pivot will be installed converting 37 acres from wheel line and flood irrigation to sprinkler, effectively eliminating irrigation tail water re-entering the Burnt River Watershed. To eliminate the free use of one mile of river bank, 4,500 feet of wildlife friendly fence will be installed to prevent the overuse of riparian areas. Project partners include the Burnt River Soil and Water Conservation District, Idaho Power Company and the landowner.

Review Team Evaluation

Strengths

- Water quality will be improved in the South Fork Burnt River by eliminating flood irrigation practices from 37 flood irrigated acres. Current irrigation practices contribute sediment, nutrients, and bacteria to the Burnt River. The river has good water quality upstream and proposed actions will maintain water quality conditions further downstream.
- One mile of the South Fork Burnt River will be fenced with wildlife friendly fence to provide improved grazing management in three riparian pastures. The landowner will graze the riparian pastures using high intensity short duration techniques to control decadent vegetation.
- The proposed actions are comprehensive, including irrigation efficiency and livestock management. The landowner is conservation minded, has a history of implementing conservation measures, maintains effective land management practices, and has expressed a desire to enroll the property in a conservation easement. These characteristics demonstrate the likelihood that the irrigation and livestock management improvements will provide significant ecological value and be sustained long term.

- The application is well written, the budget is detailed, and the maps and photos included in the application are descriptive.

Concerns

- The project budget is assembled from an irrigation system cost estimate by one irrigation company. It is challenging to evaluate the project's cost effectiveness given the budget is derived solely from one quote. It would have been helpful to see additional costs analysis to determine whether the budget is reasonable and appropriate to accomplish project objectives.
- The application lacks an alternative analysis for this irrigation conversion project that would help substantiate the feasibility and effectiveness of the chosen project design.
- Installation cost for the 10-inch mainline seems low compared to similar projects. However, there may be cost savings by placing the pipe in an existing ditch that will reduce excavation cost. Additional information on how costs were estimated would help to evaluate whether costs are reasonable for the proposed work.

Concluding Analysis

Located near Unity, Oregon, along the South Fork Burnt River, the proposed actions will improve water quality and riparian area conditions. Thirty-seven irrigated acres will be converted to a high efficiency center pivot, and one mile of river will be fenced resulting in three riparian pastures improving management capability. The project will result in water quality and quantity benefits as well as one mile of improved riparian conditions and work towards achieving DEQ and ODA water quality improvement objectives. The combination of irrigation water and grazing management provides a comprehensive cost-effective project.

Review Team Recommendation to Staff

Fund

Review Team Priority

1 of 16

Review Team Recommended Amount

\$78,209

Review Team Conditions

N/A

Staff Recommendation

Staff Follow-Up to Review Team

N/A

Staff Recommendation

Fund

Staff Recommended Amount

\$78,209

Staff Conditions

N/A

Open Solicitation-2019 Spring Offering Eastern Oregon (Region 5)

Application Number: 220-5018-16984 **Project Type:** Restoration
Project Name: Jacobsen Gulch: It needs piping
Applicant: Malheur WC
Region: Eastern Oregon **County:** Malheur
OWEB Request: \$83,181 **Total Cost:** \$247,005

Application Description *(from application abstract)*

1) The project is in the NCRS designated priority area of Jacobsen Gulch. The pipeline is about 4.5 air miles to Ontario and the end of the ditch is about 1 mile from the Snake River. 2) Excessive sediment, nutrients, and bacteria are being delivered to the Snake River caused by irrigation induced erosion. Research estimates that irrigation induced erosion averages about 20-30 tons per acre per year. This lateral canal serves about 400 acres of crop ground. Potentially these fields could deliver 8,000 to 12,000 tons of sediment each year to the Snake River. Or another way to measure the pollution is by estimating the amount of phosphorus potentially being delivered to the Snake each year. We estimate that number to be about 4,160 pounds of phosphorous each year, Then there are the billions of bacterial colonies from animal waste. The canal itself is a source of sediment to the river. Portions of it are steep and curvy. Because of this, irrigation water flowing through the earthen canal causes erosion. The Snake River TMDL target for Total phosphorus is 0.07 mg/L. To meet this target sources will have to reduce phosphorus inputs by 80% or more. 3) We are proposing to: -- pipe 4,220 feet of lateral canal.-- Install 6 turnout assemblies to feed adjacent fields-- Install 6 flow meters.-- Install a screen to debris out of the pipeline.-- Install various kinds of air vents, pressure reducers, valves, and gates. 4) Partners are:-- NRCS-- Owhyee Irrigation District-- Malheur WSC.

Review Team Evaluation

Strengths

- The irrigation delivery and application systems in place for the past century in this region consists of storage facilities, earthen delivery canals, and flood application. It is efficient at reusing waste water; however, this water reuse method transports sediment, nutrients, and bacteria to local waterways and is not efficient for soil conservation. The project will convert 400 acres from flood to sprinkler irrigation and improve water quality conditions in Jacobsen Gulch and the Snake River.
- The applicant has a successful history of completing similar projects.
- This project is located in an NRCS priority area, and the proposed pipeline will tie into OWEB project #220-5004.

- Converting from open ditch to pipeline will reduce sediment, nutrient, and bacteria transport into streams in the priority area. Currently livestock have access to the ditch and can contaminate irrigation water quality; converting to pipeline will deliver cleaner irrigation water and improve food safety.
- The application clearly describes the proposed methodologies and objectives to be achieved, and contains descriptive maps and photos that demonstrate the degraded condition of the lateral. The bacteria and phosphorus graphs generated from water quality data collected at the bottom of Jacobsen Gulch near the Snake River demonstrate the need for water quality improvement.

Concerns

- The project budget is assembled from an irrigation system cost estimate by one irrigation company. It is challenging to evaluate the project's cost effectiveness given the budget is derived solely from one quote. It would have been helpful to see additional costs analysis to determine whether the budget is reasonable and appropriate to accomplish project objectives.
- The application lacks an alternative analysis for this piping project that would help substantiate the feasibility and effectiveness of the chosen project design.

Concluding Analysis

Converting an open lateral in the Jacobsen Gulch NRCS Priority Area to pipeline will enable 400 irrigated acres to be converted from flood irrigation to sprinkler application. Installing 4,220-feet of pipeline and related irrigation infrastructure will reduce sediment, nutrients, and bacteria from entering the Snake River, located approximately one mile from the end of the proposed pipeline. Livestock have access to the lateral, which is also eroding; converting to pipeline will eliminate these sources of bacteria and sediment. The project will work towards ODA and DEQ water quality improvement objectives.

Review Team Recommendation to Staff

Fund

Review Team Priority

4 of 16

Review Team Recommended Amount

\$83,181

Review Team Conditions

N/A

Staff Recommendation

Staff Follow-Up to Review Team

N/A

Staff Recommendation

Fund

Staff Recommended Amount

\$83,181

Staff Conditions

N/A

Open Solicitation-2019 Spring Offering Eastern Oregon (Region 5)

Application Number: 220-5019-16969

Project Type: Restoration

Project Name: Beaverdam Creek Stockwater

Applicant: Burnt River SWCD

Region: Eastern Oregon

County: Baker

OWEB Request: \$77,637

Total Cost: \$100,627

Application Description *(from application abstract)*

Located in the Burnt River Soil and Water Conservation District near Hereford Oregon, this project will address water quality and rangeland health. The project site consists of six pastures totaling 2,170 acres, with the only available source of water to livestock consisting of Beaverdam Creek and a series of irrigation ditches all draining directly into the Burnt River. Located on the border of the East side of the property, Beaverdam Creek tends to attract livestock and with no cross fence installed in this pasture, livestock concentrate their grazing in the riparian areas of Beaverdam Creek contributing sediment, debris, inorganic and organic material directly into the Burnt River. In addition to water quality concerns, by not distributing livestock evenly across the landscape grazing patterns have become patchy, where overutilization in some areas and underutilization in others can be seen presenting resource concerns to the rangeland. To address these water quality issues, the landowner approached the Burnt River SWCD seeking assistance to establish eight off stream watering locations in six separate pastures and install 4,300 feet of four strand wildlife friendly livestock exclusion fence to establish best use management practices for livestock grazing near Beaverdam Creek. Project partners will include the Burnt River SWCD, Sam Martin (lessee of property) and Mark Skagg (owner of property).

Review Team Evaluation

Strengths

- Fencing installed along Beaverdam Creek will provide benefits to the currently overgrazed riparian pasture and necessary infrastructure to improve management. If managed properly, Beaverdam Creek water quality and riparian vegetation will improve.
- Installing the proposed watering system, including water source development, cistern installation, piping, and eight watering troughs, will provide the infrastructure to improve grazing management on the 2,170-acre area.
- Deferring one pasture each year until after seed set will benefit range conditions, domestic livestock, and wildlife by improving forage availability.
- The project is located in sage grouse habitat and there are known sage grouse leks in the area. Benefit to sage grouse is somewhat limited though because the project site is not located in core habitat and none of the leks are currently occupied.

Concerns

- While the map associated with the grazing plan includes details on grazing timing and duration for each pasture, adding Animal Unit Month (AUM) figures to the timing of use in each pasture would be helpful for understanding project effectiveness in providing wildlife benefits.
- While the riparian pasture fence in pasture #7 has the potential to benefit water quality by preventing livestock from accessing the stream, the overall project benefit to watershed health is limited by the flash grazing planned for August 1 to August 15 that could negatively impact vegetative health within the riparian area. Early spring or late fall would be more appropriate times to flash graze the riparian pasture to prevent this impact.
- The grazing plan should include more emphasis on improving riparian condition, monitoring, and adaptive management. There needs to be flexibility in implementing the grazing plan so that ecological benefits and project objectives can be realized.
- Establishing thresholds and triggers, including stubble height or woody vegetation browse, for pasture entry and exit can provide improved results compared to grazing use dates. Establishing a monitoring and adaptive management plan for the property is critical for managing pastures using thresholds and triggers.
- Installing the watering system will improve livestock distribution on the property and this provides the potential to further degrade challenged rangeland conditions. The application lacks a monitoring and evaluation plan to assess the effects of improved grazing distribution.
- The project would be strengthened by adding a planting component in the riparian area, identification of management actions for the riparian area to improve vegetative condition, and monitoring actions to assess results and inform future management.
- The proposal does not provide information on the water source capacity, therefore, it is unknown if the system will effectively serve the amount of livestock on the property.

Concluding Analysis

The Beaverdam Creek Stock water project proposes to improve water quality and rangeland health on 2,170-acres in the Burnt River area. Grazing distribution will be improved by a spring development and stock water distribution to eight troughs combined with a grazing management plan. Pasture #7 along Beaverdam Creek will be fenced and flash grazed to improve riparian conditions and water quality. Each of these actions will provide infrastructure necessary to improve livestock, upland, and riparian management. However, the project lacks key elements necessary to guide improved management. A monitoring, evaluation, and adaptive management plan for the riparian and upland pastures is critical to guide management on the property. Without necessary infrastructure, grazing management, and monitoring detail, it is difficult to determine the likelihood for success for this project.

Review Team Recommendation to Staff

Do Not Fund

Review Team Priority

N/A

Review Team Recommended Amount

\$0

Review Team Conditions

N/A

Staff Recommendation

Staff Follow-Up to Review Team

N/A

Staff Recommendation

Do Not Fund

Staff Recommended Amount

\$0

Staff Conditions

N/A

Open Solicitation-2019 Spring Offering Eastern Oregon (Region 5)

Application Number: 220-5020-16985

Project Type: Restoration

Project Name: Elkhorn Wildlife Improvement

Applicant: Baker Valley SWCD

Region: Eastern Oregon

County: Union

OWEB Request: \$47,375

Total Cost: \$60,875

Application Description *(from application abstract)*

Located within the Baker Valley Soil and Water Conservation District (SWCD), the North Powder Tract of the Elkhorn Wildlife Management Area (EWA) consists of 4,557 acres of dense, overstocked stands of coniferous forests including; montane true fir, ponderosa pine, western larch and Douglas-fir. The Elkhorn Wildlife Improvement project will begin the process of addressing these unhealthy characteristics found within the EWA through the thinning of 400 acres. Overstocked forests have created a multitude of problems in the Pacific Northwest; issues consistent with the project site include increased catastrophic fire risks, high levels of insects, disease and decreased wildlife habitat. Anthony Creek and Rodger Creek (Map 2) flow through the project site and would directly impact the Powder River Watershed if a catastrophic event including wild fire and insect/disease mortality were to occur. The Oregon Department of Forestry (ODF) has realized these issues and came to the Baker Valley SWCD seeking assistance in acquiring the necessary temporary bridges to complete the thinning project.

Review Team Evaluation

Strengths

- The 400 acres identified for forest thinning are adjacent to other successful interagency fuels reduction projects, adding continuity of improved wildlife habitat and healthy forest structure that increases the value of this investment.
- Using temporary bridges over streams during forest management operations, such as thinning work, is desirable because they are a less expensive approach compared to permanent road crossings and do not impact water quality like ford crossings.
- The project will be implemented by ODF managing the 400-acre thinning project in the Elkhorn Wildlife Management Area in partnership with Baker Valley SWCD. ODF will provide road crossing installation and removal services and the SWCD will act as fiscal agent to procure the temporary crossings. This breakdown of project task allocation provides capacity to successfully implement the project by each entity taking the lead on what they do best.
- Forest thinning will reduce the risk of catastrophic wildfire and subsequent degradation of water quality in nearby streams.

- The temporary bridges purchased through this project will be made available for use on upcoming planned forest health treatments in Baker County where temporary bridges are not available, further leveraging this investment by providing cost effectiveness on similar future projects.

Concerns

- ODFW is not identified as a partner in the application. ODFW support describing the benefits to wildlife from forest thinning and the benefit of temporary crossings to aquatic resources would strengthen the proposal.
- Since revenue may be generated through the forest thinning activities, a description of why additional funding is needed to procure temporary crossings would provide helpful context to understand the project need.
- The extent of the overall ecological gains expected from the project is unclear to evaluate the watershed cost-benefit. A description of how fish, wildlife, forest conditions, and aquatic resources will benefit from the proposed forest thinning and the acquisition of temporary stream crossings would provide helpful context to evaluate quantified watershed benefits and cost effectiveness.

Concluding Analysis

The Elkhorn Wildlife Improvement project proposes to thin 400 overstocked forested acres in the 4,557 acre North Powder Tract of the Elkhorn Wildlife Management Area. The thinning operation will produce 400 log truck loads and this material will be transported out of the area across Anthony Creek and the Coughenour Ditch. Rather than install permanent crossings or ford these waterways, temporary crossings will be purchased. At project completion, ODF would store and maintain the bridges and they would be available for future projects. The availability of temporary crossing would benefit forest management operations in Baker County as demonstrated by their use in neighboring Union and Wallowa Counties.

Review Team Recommendation to Staff

Fund

Review Team Priority

16 of 16

Review Team Recommended Amount

\$47,375

Review Team Conditions

N/A

Staff Recommendation

Staff Follow-Up to Review Team

N/A

Staff Recommendation

Do Not Fund; falls below staff-recommended funding line

Staff Recommended Amount

\$0

Staff Conditions

N/A

Open Solicitation-2019 Spring Offering Eastern Oregon (Region 5)

Application Number: 220-5021-17056

Project Type: Restoration

Project Name: Double Whammy

Applicant: Malheur SWCD

Region: Eastern Oregon

County: Malheur

OWEB Request: \$242,861

Total Cost: \$402,843

Application Description *(from application abstract)*

1. The Double Whammy project is located about 8 miles west of Ontario, Oregon and consists of approximately 76 acres of irrigable cropland. The Double Whammy project drains into the Butte Drain to be used by other farmers or spilled into the Malheur River and into the Snake River. Sediments and nutrients that wash off fields are passed onto the downstream users and contribute to overall water quality impairments. 2. This project is irrigated with waters from two (2) different irrigation districts and will require a water right transfer between the districts as both have agreed. This ground has very steep sandy soils where soil erosion is significant, pivot irrigation seems to be the solution. Most of the sediment, nutrients, and bacteria in The Butte Drain come from polluted irrigation return flows or livestock access to surface water. Historically farmers in the area fertilize their land and a residual amount of chemicals, e-coli and nutrients can be carried off the field with the runoff from flood irrigation. This farm is fairly typical and currently using 100% surface irrigation. 3. By installing two (2) center pivots with the accompanying solid set sprinklers, trash screen, pipeline, pump and flowmeters, the landowner will be able to achieve a zero water runoff practice that will enhance the downstream water quality. 3620 feet of open ditch irrigation canal will be converted to a pipeline. 4. The partners for this project are the landowner, Malheur County SWCD, Warm Springs Irrigation District and Owyhee Irrigation District.

Review Team Evaluation

Strengths

- The irrigation delivery and application systems in place for the past century in this region consists of storage facilities, earthen delivery canals, and flood application. It is efficient at reusing waste water; however, this water reuse method transports sediment, nutrients, and bacteria to local waterways and is not efficient for soil conservation. The project will convert 76 acres from flood to sprinkler irrigation to improve water quality conditions.
- The buried lateral is sized such that it can be extended to irrigate additional properties to the east of the project site if desirable. Currently two adjacent landowners are interested, and this lateral could serve an additional 100 acres, providing similar water quality benefits and leveraging this project investment.
- Two irrigation districts formed a unique collaborative partnership together in support of this project.

- The project is located in a high gradient area where fine soils are present. Eliminating the open delivery ditch, converting the conveyance to a pipeline with an inline cleaner, and installing pivot irrigation will deliver improved quality water to downstream users and the Malheur River.

Concerns

- There is no budget line item for the necessary water rights transfer. The transfer is between two irrigation districts that could be time consuming and costly to complete.
- It is unclear where the solid set sprinklers will be installed. The application narrative references solid sets; however, they are not identified on the maps, in the budget, or in the irrigation company quotes.
- The project cost is high and is not commensurate with the expected ecological benefits. Specifically, the \$40,000 inline cleaner and \$25,000 automation line items add significant cost. Without an explanation describing why the cleaner will be necessary long term and automation is essential to irrigation function, it is difficult to evaluate whether these costs are reasonable for achieving the project ecological goals and objectives.
- Overall there is a lack of connectivity between the project rationale, proposed actions, and project budget in the application to evaluate the project's likelihood for success in achieving cost-effective quantified watershed benefits.
- The proposal would have been strengthened with inclusion of a vicinity map placing the project in the watershed context.
- The problem statement in the application identifies the project location in an NRCS priority area; however, it is unclear which priority area the project is located in and NRCS is not identified as a partner.
- The project budget is assembled from an irrigation system cost estimate by one irrigation company. It is challenging to evaluate the project's cost effectiveness given the budget is derived solely from one quote. It would have been helpful to see additional costs analysis to determine whether the budget is reasonable and appropriate to accomplish project objectives.
- The application lacks an alternative analysis that would help substantiate the feasibility and effectiveness of the chosen project design.

Concluding Analysis

The 76 flood irrigated acres identified in the proposal are on steep terrain with fine and highly erodible soils where the crop rotation is alfalfa and grain. Current irrigation practices contribute to poor water quality in the irrigation conveyance system and into the Malheur River. Converting from current irrigation practices to efficient pivot and sprinkler application systems will improve water quality in the area. The application lacks clarity and details needed to evaluate the project's likelihood for success. If the application is resubmitted, the applicant is encouraged to include details regarding the water right transfer, solid set sprinkler location and cost, rationale for in-line cleaner and automation, and how field corners will be irrigated; and include a vicinity map, identify what NRCS priority area the project is located in, acquire more than one irrigation company bid, and provide rationale for the chosen alternative.

Review Team Recommendation to Staff

Do Not Fund

Review Team Priority

N/A

Review Team Recommended Amount

\$0

Review Team Conditions

N/A

Staff Recommendation

Staff Follow-Up to Review Team

N/A

Staff Recommendation

Do Not Fund

Staff Recommended Amount

\$0

Staff Conditions

N/A

Open Solicitation-2019 Spring Offering

Eastern Oregon (Region 5)

Application Number: 220-5022-17017

Project Type: Restoration

Project Name: Calf Creek

Applicant: Malheur SWCD

Region: Eastern Oregon

County: Malheur

OWEB Request: \$46,593

Total Cost: \$63,699

Application Description *(from application abstract)*

1. The project is located within Northern Malheur approximately 85 miles South west of Ontario, Oregon along Calf Creek. 2. Lack of late season water for proper utilization and grazing distributions is the major limiting within the project area. Calf creek is the primary location for cattle to gain access to water. As this is the primary source of water within the area, and due to topography, livestock must travel some distance to gain access to trails before traveling downhill and entering Calf creek. The cattle have to climb back out of Calf Creek with slopes up to 40 % to utilize the uplands after drinking. To alleviate these concerns additional watering locations are required within the uplands and adjacent to the creek. 3. The current proposal is to install a spring box and solar pump within private acres. This will be used to convey water to two proposed new watering troughs locations. Two of the new troughs will be located along ridgelines on private ground and a third trough that will be installed at a later date by landowner. 4. Partners include the landowner, and the SWCD.

Review Team Evaluation

Strengths

- Installing upland water sources away from Calf Creek will improve grazing distribution to the adjacent uplands. Calf Creek water quality and riparian conditions will improve if livestock are managed to meet restoration objectives.

Concerns

- The proposal contains excessive scanned attachments showing materials needed to construct the watering system and this level of description is not necessary for understanding the proposed work, which reduces proposal clarity.
- The project is not located in either core or general sage grouse habitat and the nearest occupied lek is more than 10 miles away, resulting in uncertain benefit to sage grouse.
- The watering system design does not include a cistern, which NRCS requires to meet their standards. NRCS would not fund this project without a cistern serving as an emergency water reserve.

- The proposal lacks a comprehensive analysis of the water rights that specifically details other water rights on Calf Creek, their priority dates, and how those water rights may impact the fish and wildlife benefits from the proposed project.
- The proposal lacks a grazing management plan for both the riparian area and the upland pasture. The riparian area shows significant signs of impact from cattle, including a degraded stream channel, evidence of hoof shear on the stream banks, and a lack of woody vegetation. The adjacent uplands have significant populations of invasive annual grasses, including medusahead and cheat grass. Including a grazing management plan in the application would provide information needed to understand how these degraded conditions will be managed and to evaluate project technical soundness.
- A monitoring, evaluation, and adaptive management plan that identifies a monitoring protocol, emphasizes grazing methods that promote ecological objectives, establishes thresholds and triggers for pasture entry and exit, and is flexible to respond to changing pasture conditions would strengthen the project's technical soundness.

Concluding Analysis

The Calf Creek project proposes to install a solar watering system with two troughs to improve rangeland and riparian area conditions on 645 acres in the upper Calf Creek area, a tributary to the Malheur River. Troughs installed in the adjacent uplands will provide the opportunity to improve grazing distribution and reduce grazing impacts in the riparian area. Without proposal clarity on critical management detail and the expected ecological benefits, it is difficult to evaluate the project for technical soundness and likelihood to succeed in providing quantified watershed benefits. If resubmitted, the applicant is encouraged to include a grazing management plan that articulates how livestock will be managed to meet the ecological objectives, a monitoring and evaluation plan, and description of the ecological benefits to both upland and riparian areas.

Review Team Recommendation to Staff

Do Not Fund

Review Team Priority

N/A

Review Team Recommended Amount

\$0

Review Team Conditions

N/A

Staff Recommendation

Staff Follow-Up to Review Team

N/A

Staff Recommendation

Do Not Fund

Staff Recommended Amount

\$0

Staff Conditions

N/A

Open Solicitation-2019 Spring Offering Eastern Oregon (Region 5)

Application Number: 220-5023-17032

Project Type: Technical Assistance

Project Name: Powder River Fish Habitat Survey
(Phase 1)

Applicant: Powder Basin WC

Region: Eastern Oregon

County: Baker

OWEB Request: \$37,783

Total Cost: \$52,133

Application Description *(from application abstract)*

Fishing is an activity that connects people to the rivers that flow through their communities and by using it as a focal topic, one can increase the awareness of the issues that affect these waterways. Taking measures to improve fishing on the Powder River between Phillips Reservoir and Baker City (Baker County) will have many secondary beneficial effects for the local and regional community, including increased recreational opportunities, improved water quality, conservation of native redband trout and other wildlife, improved riparian livestock management practices and local economic development. Redband trout are widely distributed in the Powder River, but the local fishery is supplemented with hatchery-raised trout. Anecdotal evidence suggests that fishing has declined in Baker City over the last few decades, possibly due to a combination of channel simplification and impaired water quality. The Powder River is currently listed as water quality limited for temperature and bacteria in and around Baker City. As a first step to improve fishing in the Powder River, the Powder Basin Watershed Council is proposing to conduct Oregon Department of Wildlife's Aquatic Inventory (AQI) survey from Mason to Hughes Lane in Baker City to determine where and what types of improvements would be effective at improving fishing for the public and restoring overall river health. The AQI survey consists of reach-by-reach measurements of channel morphology, riparian vegetation and impairments to fish passage. PBWC has partnered with the US Forest Service and Trout Unlimited with support from ODFW, City of Baker, Baker Chamber of Commerce and numerous residents to begin the first phase of this effort.

Review Team Evaluation

Strengths

- Utilizing improved fishing conditions as an engagement tool with stakeholders is a creative way to recruit landowners and establish community support; and has already generated significant landowner interest in the project area.
- The strategy employed to focus messaging on improving fishing rather than water quality or aquatic habitat has gathered community support, which is demonstrated by 90 of the identified 200 landowners agreeing to participate in the survey.

- The partnership developed with the US Forest Service, Baker Chamber of Commerce, ODFW, Trout Unlimited, and Baker County residents is diverse and increases the likelihood of success for the project to achieve the proposed objectives.
- The proposed phase one survey will implement ODFW's established Aquatic Inventory Survey (AQI) protocols on 6.5 miles of the Powder River on private properties and on 3.5 miles of the river managed by the US Forest Service, totalling 10 river miles surveyed.
- The project costs to implement the AQI habitat survey protocol, including fish habitat, vegetation, fish passage, and screening data gathering, are appropriate.
- There is a clear need for the proposed technical assistance because the Powder River is a high priority area for water quality improvements for ODA and DEQ, and both agencies have had a difficult time reaching landowners in this area.

Concerns

- The \$1,400 line item for fish habitat data analysis may not be sufficient to accomplish this task. However, since this data analysis will be provided as an in-kind contribution from Trout Unlimited and the process to synthesize data is streamlined and will follow ODFW protocol, the \$1,400 may be sufficient for the analysis to be successful.
- Since obtaining match funds for identified restoration actions following the analysis may be difficult, there may not be timely implementation of future eligible restoration that result from the proposed technical assistance.

Concluding Analysis

This phase one technical assistance proposal will conduct ODFW's Aquatic Inventory Survey (AQI) survey on the Powder River from Mason Dam through Baker City. This 21-mile survey sets the stage for a multitude of benefits for both the river and the community. By focusing on the recreational benefits of healthy fisheries, the applicant expects to engage more of the local community than would be feasible if they only focused on environmental issues, specifically fish habitat and water quality. The resulting analysis will identify restoration actions within the survey reach and focus on improving aquatic habitat and complexity, riparian improvement, fish passage, fish screening, and water quality improvements. The diverse partnership of the Powder Basin Watershed Council, Trout Unlimited, US Forest Service and ODFW is well equipped to implement the proposed ODFW AQI survey in the project reach.

Review Team Recommendation to Staff

Fund

Review Team Priority

1 of 1

Review Team Recommended Amount

\$37,783

Review Team Conditions

N/A

Staff Recommendation

Staff Follow-Up to Review Team

N/A

Staff Recommendation

Fund

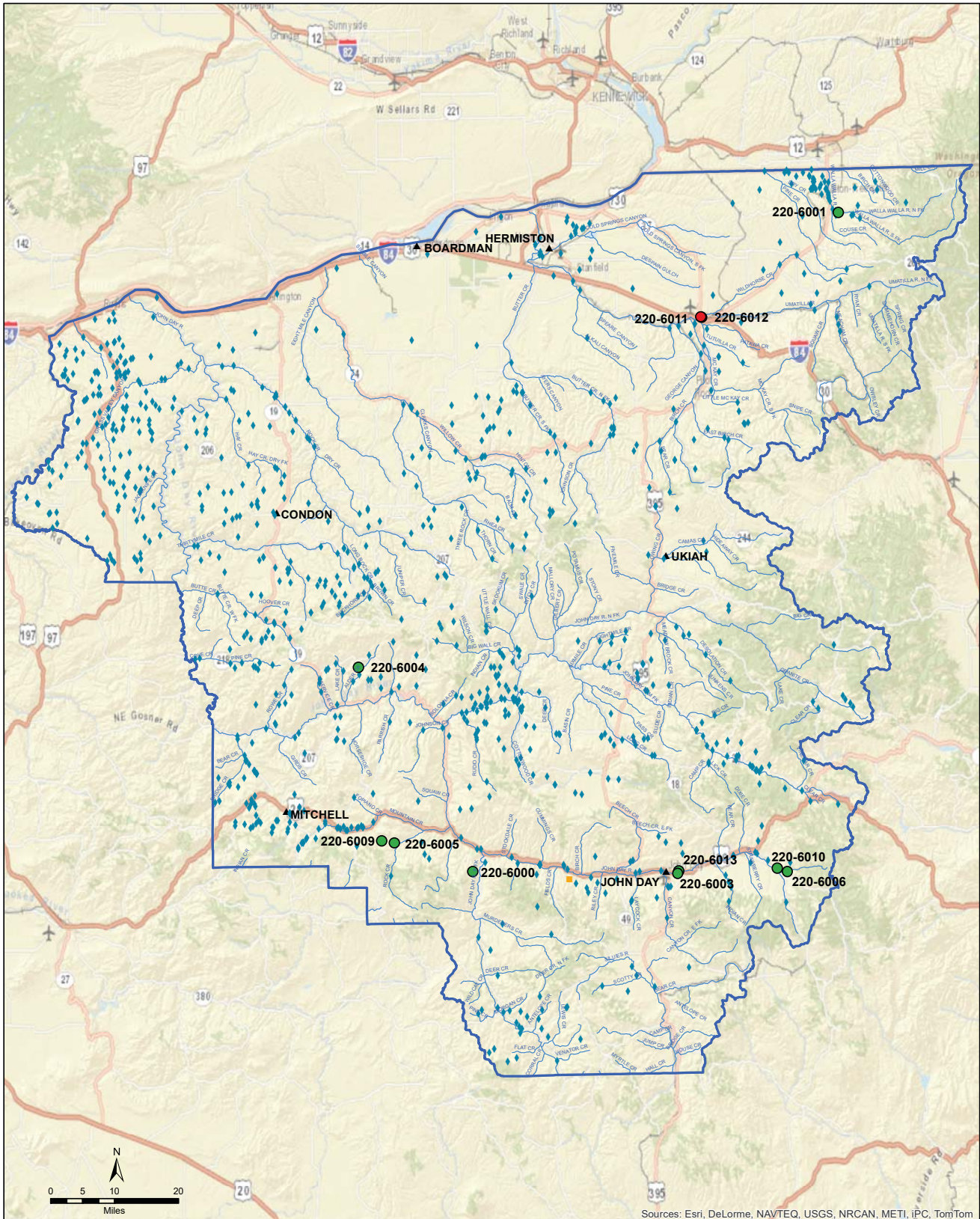
Staff Recommended Amount

\$37,783

Staff Conditions

N/A

Mid-Columbia - Region 6 Spring 2019 Funding Recommendations



Document Path: Z:\oweb\Technical_Services\Information_Services\GIS\Maps\Review Team Meetings\2019SpringCycle\Projects\Region6_AppFundingStatus_11x17_2019Spring.mxd
 ESRI ArcMap 10.6, NAD 1983 Oregon Statewide, Lambert Feet Intl WKID: 2992 Authority: EPSG OWEB- PK Wills 20190924

Sources: Esri, DeLorme, NAVTEQ, USGS, NRCAN, METI, iPC, TomTom

Funding Recommendations

- Staff Recommendation For Funding (SRF)
- Below Funding Line (BFL)

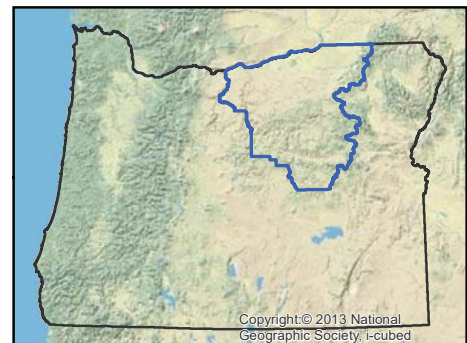
Previous Grants - 1998-Fall 2018

- ◆ Restoration
- Acquisitions
- ~ Streams
- ⬡ Region Boundary



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Region 6 - Mid-Columbia Basin					
Restoration Projects Recommended for Funding in Priority Order					
Project #	Grantee	Project Title	Brief Description	Amount Recommended	County
220-6003	Grant SWCD	2020 John Day Basin Fish Habitat Enhancement Program	Streamside fencing will protect over two miles of sensitive steelhead streams in the John Day watershed by excluding livestock, feral horses, and elk.	21,350	Grant
220-6005	Wheeler SWCD	Pine Hollow Middle and Upper Restoration	Located on Pine Hollow Creek, a steelhead stream in SE Wheeler County, this project will restore passage for native fish by correcting a culvert removing a barrier and will add instream habitat structures.	122,842	Wheeler
220-6001	Walla Walla Basin Watershed Foundation	Lampson Habitat Side Channel Entrance Construction	This project will increase available habitat and provide habitat structures for steelhead, spring Chinook, and bull trout on the Walla Walla River upstream from Milton Freewater.	65,529	Umatilla
220-6000	South Fork John Day WC	Johnson-Tunnel Creek Juniper Removal	By removing over 500 acres of juniper, this project will enhance winter feed ground for mule deer on the Phillip Schneider Wildlife Area, west of John Day	137,720	Grant
220-6006	Confed Tribes Warm Springs	Reynolds Creek Irrigation Efficiency Project	Irrigation improvements will be made on Reynolds Creek, a cold water tributary to the John Day River above Prairie City that supports native fish and improve water quality.	198,345	Grant
220-6004	Bridge Creek WC	Alder Creek Watershed Improvement 1	Removing over 600 acres of juniper upslope of Alder Creek in Wheeler County will improve grassland habitat and a water source will be provided for both wildlife and livestock in this semi-arid ecosystem.	131,282	Wheeler
Total Restoration Projects Recommended for Funding by RRT and OWEB Staff				677,068	
Restoration Projects Recommended but Not Funded in Priority Order					
Project #	Grantee	Project Title	Brief Description	Amount Recommended	County
None					
Total Restoration Projects Recommended for Funding by RRT				677,068	
Restoration Applications Not Recommended for Funding by RRT					
Project #	Grantee	Project Title		Amount Requested	County
220-6002	Morrow SWCD	Indian Creek Watershed Enhancement		28,635	Morrow

Technical Assistance (TA) Projects Recommended for Funding in Priority Order					
Project #	Grantee	Project Title	Brief Description	Amount Recommended	County
220-6009	Wheeler SWCD	Pine Hollow - Shingle Creek Fish Passage	Designs will be developed to remove barriers blocking access to steelhead moving upstream to critical cold water habitat in southeastern Wheeler County.	23,282	Wheeler
220-6010	Confed Tribes Warm Springs	Upper John Day Habitat Project	Partners will assess watershed conditions on 1.5 miles of the John Day River and Reynolds Creek in order to develop designs that will improve native fish habitat, water quality, and wetlands.	74,552	Grant
Total TA Projects Recommended for Funding by RRT and OWEB Staff				97,834	
Technical Assistance Projects <i>Recommended but Not Funded</i> in Priority Order					
Project #	Grantee	Project Title	Brief Description	Amount Recommended	County
None					
Total TA Projects Recommended for Funding by RRT				97,834	
Technical Assistance Applications <i>Not Recommended</i> for Funding by RRT					
Project #	Grantee	Project Title		Amount Requested	County
220-6007	Umatilla SWCD	Umatilla Farmed Smart Program		31,207	Umatilla
220-6008	Umatilla Basin WS Foundation	Umatilla River Floodplain Assessment & Action Plan		49,727	Umatilla

Stakeholder Engagement Projects Recommended for Funding in Priority Order					
Project #	Grantee	Project Title	Brief Description	Amount Recommended	County
220-6013	North Fork John Day WC	John Day Basin Partnership Stakeholder Outreach Campaign	This project will focus on increasing public awareness of the restoration efforts and opportunities within the John Day Basin.	81,721	Grant
Total Stakeholder Engagement Projects Recommended for funding by OWEB Staff				81,721	
Stakeholder Engagement Projects Recommended but Not Funded in Priority Order					
Project #	Grantee	Project Title	Brief Description	Amount Recommended	County
220-6011	Umatilla SWCD	Bank Stabilization Engagement Project	This Stakeholder Engagement project will fund four workshops in Umatilla County covering various conservation tactics to deal with bank erosion.	6,804	Umatilla
220-6012	Umatilla Basin WS Foundation	Umatilla Mainstem Engagement	This project will help inform and engage landowners about an assessment of Umatilla watershed conditions and potential restoration opportunities.	21,158	Umatilla
Total Stakeholder Engagement Projects Recommended for funding by RRT				109,683	
Stakeholder Engagement Projects Not Recommended for Funding by RRT					
Project #	Grantee	Project Title		Amount Requested	County
None					
Region 6 Total OWEB Staff Recommended Board Award				856,623	9%
Regions 1-6 Grand Total OWEB Staff Recommended Board Award				9,284,183	

Region 6 - Mid-Columbia Basin					
Restoration Projects Recommended for Funding in Priority Order					
Project #	Grantee	Project Title	Brief Description	Amount Recommended	County
220-6003	Grant SWCD	2020 John Day Basin Fish Habitat Enhancement Program	Streamside fencing will protect over two miles of sensitive steelhead streams in the John Day watershed by excluding livestock, feral horses, and elk.	21,350	Grant
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220-6004	Bridge Creek WC	Alder Creek Watershed Improvement 1	Removing over 600 acres of juniper upslope of Alder Creek in Wheeler County will improve grassland habitat and a water source will be provided for both wildlife and livestock in this semi-arid ecosystem.	131,282	Wheeler
Total Restoration Projects Recommended for Funding by RRT and OWEB Staff				677,068	
Restoration Projects Recommended but Not Funded in Priority Order					
Project #	Grantee	Project Title	Brief Description	Amount Recommended	County
None					
Total Restoration Projects Recommended for Funding by RRT				677,068	
Restoration Applications Not Recommended for Funding by RRT					
Project #	Grantee	Project Title		Amount Requested	County
220-6002	Morrow SWCD	Indian Creek Watershed Enhancement		28,635	Morrow

Technical Assistance (TA) Projects Recommended for Funding in Priority Order					
Project #	Grantee	Project Title	Brief Description	Amount Recommended	County
220-6009	Wheeler SWCD	Pine Hollow - Shingle Creek Fish Passage	Designs will be developed to remove barriers blocking access to steelhead moving upstream to critical cold water habitat in southeastern Wheeler County.	23,282	Wheeler
220-6010	Confed Tribes Warm Springs	Upper John Day Habitat Project	Partners will assess watershed conditions on 1.5 miles of the John Day River and Reynolds Creek in order to develop designs that will improve native fish habitat, water quality, and wetlands.	74,552	Grant
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Technical Assistance Applications <i>Not Recommended</i> for Funding by RRT					
Project #	Grantee	Project Title		Amount Requested	County
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220-6012	Umatilla Basin WS Foundation	Umatilla Mainstem Engagement	This project will help inform and engage landowners about an assessment of Umatilla watershed conditions and potential restoration opportunities.	21,158	Umatilla
Total Stakeholder Engagement Projects Recommended for funding by RRT				109,683	
Stakeholder Engagement Projects Not Recommended for Funding by RRT					
Project #	Grantee	Project Title		Amount Requested	County
None					
Region 6 Total OWEB Staff Recommended Board Award				856,623	9%
Regions 1-6 Grand Total OWEB Staff Recommended Board Award				9,284,183	

Open Solicitation-2019 Spring Offering Mid Columbia (Region 6)

Application Number: 220-6000-17015

Project Type: Restoration

Project Name: Johnson-Tunnel Creek Juniper Removal

Applicant: South Fork John Day WC

Region: Mid Columbia

County: Grant

OWEB Request: \$137,720

Total Cost: \$201,570

Application Description *(from application abstract)*

The Johnson-Tunnel Creek Juniper Removal project is located just South of the town of Dayville, Oregon on the Oregon Department of Fish and Wildlife's Phillip W. Schneider Wildlife Area. The Phillip W. Schneider Wildlife Area was acquired in 1972 to protect and enhance winter habitat for the upper John Day River, Aldrich Mountains, and eastern Ochoco Mountains mule deer population. The wildlife area presently consists of 24,727 acres of deeded land, with 27,200 acres of Bureau of Land Management (BLM) land within the area boundaries. The total base of public land within the exterior boundary of the PWSWA is 51,927 acres. The wildlife area protects, enhances, and restores wildlife habitats and ensures public access to thousands of acres of public lands. The Phillip W. Schneider Wildlife Area Management (PWSWA) Plan lists the #1 Goal, to protect, enhance, and restore range conditions that will provide key winter habitat for mule deer. The PWSWA Management Plan also states that in order to maintain and improve winter range conditions and provide adequate diverse winter habitat for mule deer, the PWSWA staff actively manages native grasses and shrubs. Management of these plant species also benefits a diversity of other wildlife species. Management activities include timber management, juniper removal, weed control, controlled burns, shrub plantings, livestock grazing and the planting of agricultural crops important to wildlife. PWSWA is currently working to improve winter range conditions for the Johnson Creek watershed by contracting 80 acres of Juniper removal, and ODFW themselves have removed 10 acres through their District Juniper Cutting program. Johnson Creek and Tunnel Creek are important mule deer habitat areas due to their Cottonwood and Aspen galleries, numerous groundwater dependent ecosystems or springs, and beneficial grasses and bitterbrush. We are requesting OWEB funding to continue cutting 500 acres of Juniper to compliment ODFW's 90 acres.

Review Team Evaluation

Strengths

- This project continues active management and conservation traditions on the ODFW wildlife area.
- The application is well-written and the deliverables are clear.
- Juniper treatment sites were prioritized for the biggest ecological impact by identifying the best slopes with deep soils.
- The costs are reasonable for the proposed work and isolated terrain.

- Because of an upcoming timber thinning project, one juniper site was shifted to another suitable location that won't be covered by the timber thinning project.
- Meadusahead rye is an issue on some drier sites, and the applicant and ODFW are interested in incorporating the new herbicide Open Range granular as a treatment.
- The application includes a grazing management strategy.
- Removing juniper will benefit shrub and grasses on the site, especially bitterbrush, a critical winter feed for mule deer and elk.

Concerns

- The application would be stronger with inclusion of a long-term juniper maintenance plan.

Concluding Analysis

The ODFW Philip Schneider Wildlife Area has a proven record of managing over 50,000 acres of habitat for not only mule deer but elk, big horn sheep, aquatic species in adjacent streams, and a host of other wildlife. The goal of removing juniper to get uplands back to open forest and grasslands will also reduce fuel loads and help when wildfire rages through these mountains. The applicant is encouraged to place juniper carcasses in the adjacent creeks and drainages on the property to help catch sediment.

Review Team Recommendation to Staff

Fund

Review Team Priority

4 of 6

Review Team Recommended Amount

\$137,720

Review Team Conditions

N/A

Staff Recommendation

Staff Follow-Up to Review Team

N/A

Staff Recommendation

Fund

Staff Recommended Amount

\$137,720

Staff Conditions

N/A

Open Solicitation-2019 Spring Offering Mid Columbia (Region 6)

Application Number: 220-6001-17023

Project Type: Restoration

Project Name: Lampson Habitat Side Channel
Entrance Construction

Applicant: Walla Walla Basin Watershed
Foundation

Region: Mid Columbia

County: Umatilla

OWEB Request: \$65,529

Total Cost: \$338,552

Application Description *(from application abstract)*

This Walla Walla River fish habitat project is a second final phase of a prior project. In 2011, the Confederated Tribes of the Umatilla Indian Reservation (CTUIR) and the Walla Walla Basin Watershed Council (WWBWC) partnered on an aquatic habitat enhancement project, referred to as the Lampson Project. It occurred on the Walla Walla River (RM 49), approximately 2.5 miles southeast of Milton-Freewater, Umatilla County, Oregon. The project included the creation of a perennial side channel and associated inset floodplain. Since then, sediment deposition at the inlet to the side channel has caused the side channel to become disconnected at low flow and annual sediment removal became necessary to maintain a perennial connection. However, sediment removal ceased in 2016 due to permitting requirements. The inlet has now infilled to its current state where the side channel is largely disconnected except during high flow events. In 2018, Bonneville Power Administration (BPA) funded WWBWC to develop a design that provides perennial flow to the existing side channel for improved rearing habitat and high flow refugia for ESA listed steelhead, bull trout, reintroduced spring Chinook salmon, and other aquatic species, and reduce fish passage issues and stranding potential during low to moderate flows. WWBWC has applied for construction funding from BPA, but additional dollars are needed for project implementation in summer 2020. Construction to include: installation of two new side channel entrances upstream of existing entrance; creation of 389 ft of new side channel tying in to the existing side channel; deepening the upper end of existing side channel to promote new side channel alignment; side channel wood structures to increase habitat complexity, hydraulics, and cover; LWD structures placed along the Walla Walla River streambank as turning structures; engineered turning log structure at existing side channel entrance and grade lowering in existing side channel.

Review Team Evaluation

Strengths

- ESA-listed steelhead, spring Chinook and bull trout will all benefit from this restoration project.
- The project builds on and enhances a prior successful floodplain reconnection project.
- The landowner is enthusiastic about the changes he observed on the ~30 acres of floodplain that was taken out of blueberry production to set aside for wildlife and aquatic habitat.

- The project completes an adaptive management feedback loop by utilizing lessons learned from the original design.
- There is confidence in project success because of the design strategy, applicant capacity and the engineering contractor's successful track record in restoration implementation.
- The side channel habitat is ideal for juvenile rearing for all species and this project will remove the possibility of potential fish stranding issues.

Concerns

- It may be challenging to keep the new side channel entrances open due to sedimentation from natural river processes.

Concluding Analysis

This successful restoration site, originally implemented in 2011, is used to show landowners the benefits of floodplain reconnection along the Walla Walla River, a river that has been substantially leveed and diked. When the side channel was first opened up, fish immediately began utilizing the new stream habitat. Walking around the ~30 acres of floodplain during the site visit, deer were spooked, beaver sign was prevalent, and songbirds were present in high numbers – showing the multi-use habitat of numerous species besides fish. The side channel, fed by a cool source spring creek, will provide rearing habitat for steelhead, juvenile Chinook, and bull trout.

Review Team Recommendation to Staff

Fund

Review Team Priority

3 of 6

Review Team Recommended Amount

\$65,529

Review Team Conditions

N/A

Staff Recommendation

Staff Follow-Up to Review Team

N/A

Staff Recommendation

Fund

Staff Recommended Amount

\$65,529

Staff Conditions

N/A

Open Solicitation-2019 Spring Offering Mid Columbia (Region 6)

Application Number: 220-6002-17046

Project Type: Restoration

Project Name: Indian Creek Watershed Enhancement

Applicant: Morrow SWCD

Region: Mid Columbia

County: Morrow

OWEB Request: \$28,635

Total Cost: \$89,755

Application Description *(from application abstract)*

The Indian Creek Watershed Enhancement project is in the Chapin Creek/Rock Creek HUC (170702041101) in Southwest Morrow County. The John Patterson property comprises just over 2,000 acres of the nearly 30,000-acre Chapin Creek/Rock Creek HUC. The expansion of western juniper outside their traditional, rim rock/scree slope/boulder field areas from fire cessation and poor land management through the years has juniper numbers exploding. This project proposes to remove 230 acres of Western juniper with assistance from OWEB (115 AC), NRCS Juniper Treatment (40 AC), and NRCS Forest Stand Improvement (75 AC). Juniper will be cut and shredded by the landowner using a compact excavator with mulcher head attachment (All project elements will be done to NRCS standards and specs.). The landowner employs a deferred-rest/rotation grazing plan on the property with good stands of native grasses and solid shrub/forb components still intact. With primarily phase I and early phase II juniper stands, this area should make a sound recovery when treated. The property also has healthy pine forest stands that will thrive once treatment is completed.

Review Team Evaluation

Strengths

- On the site visit, it was evident the landowner is interested in improving the ecological condition of his property.

Concerns

- The sites have minimal juniper encroachment. Furthermore, these sites would more likely benefit from a pre-commercial thin in four to five years, which would then also take care of the encroaching junipers.
- There does not appear to be a sense of urgency for implementing the proposed restoration actions.
- The project would be stronger with more partner involvement.

Concluding Analysis

This project is premature both in ecological need and readiness. The benefit/cost ratio for implementing the proposed actions is minimal. It is recommended for the landowner to wait and take out both the small juniper and the encroaching conifers as part of a pre-commercial thin.

Review Team Recommendation to Staff

Do Not Fund

Review Team Priority

N/a

Review Team Recommended Amount

\$0

Review Team Conditions

N/A

Staff Recommendation

Staff Follow-Up to Review Team

N/A

Staff Recommendation

Do Not Fund

Staff Recommended Amount

\$0

Staff Conditions

N/A

Open Solicitation-2019 Spring Offering Mid Columbia (Region 6)

Application Number: 220-6003-17054

Project Type: Restoration

Project Name: 2020 John Day Basin Fish Habitat Enhancement Program

Applicant: Grant SWCD

Region: Mid Columbia

County: Grant

OWEB Request: \$53,458

Total Cost: \$376,137

Application Description *(from application abstract)*

This project proposes to support the ODFW Fish Habitat Improvement Program by installing riparian protection fences along sections of Grub, Dans, Orange and Starveout Creeks. Unrestricted livestock access to these sensitive areas has impaired riparian vegetative growth. Projects supported by this proposal will protect almost 4 miles of summer steelhead habitat and over 165 acres of riparian areas. Partners include ODFW, Bonneville Power Administration, Desolation Creek LLC and the Malheur NF.

Review Team Evaluation

Strengths

- The ODFW Habitat program is a long-standing program with a proven track record of building many miles of riparian fencing along critical salmonid habitat.
- The identified reaches are tributaries to priority steelhead strongholds and will provide both water quality benefits and enhanced productivity once protected.
- Exclusion fencing will both protect the sensitive riparian and stream areas as well as aiding in the management of livestock in these allotments.
- This project leverages significant investment by BPA.
- Riparian fencing will protect sensitive areas from both ungulate and feral horse browsing, especially in Grub Creek where riparian degradation has been a concern.

Concerns

- It is unclear from the application whether USFS's Bark Planning incorporates riparian thinning on these reaches and if the timing for fencing is appropriate.
- Match amounts for staffing appears to cover the entire program rather than just the time necessary for these restoration sites.
- Fence maintenance can be challenging on allotments.

Concluding Analysis

This program has a long history of restoration in the John Day Basin, starting in 1984 and protecting over 230 miles of anadromous fish-bearing streams with 415 miles of riparian fencing. The partnership on the Malheur National Forest is beneficial, with USFS providing fencing materials and taking responsibility for enforcing maintenance of the fence by permittees. The requested amount will be reduced due to the fact one of the proposed sites implements FIP actions in a newly-awarded FIP geography.

Review Team Recommendation to Staff

Fund

Review Team Priority

1 of 6

Review Team Recommended Amount

\$53,458

Review Team Conditions

N/A

Staff Recommendation

Staff Follow-Up to Review Team

Revise budget, scope of work, and metrics to remove components related to the Starveout Creek fence that is not eligible for Open Solicitation because it is located in the FIP geography.

Staff Recommendation

Fund Reduced with Conditions

Staff Recommended Amount

\$21,350

Staff Conditions

N/A

Open Solicitation-2019 Spring Offering

Mid Columbia (Region 6)

Application Number: 220-6004-17064

Project Type: Restoration

Project Name: Alder Creek Watershed Improvement 1

Applicant: Bridge Creek WC

Region: Mid Columbia

County: Wheeler

OWEB Request: \$131,282

Total Cost: \$174,468

Application Description *(from application abstract)*

The Alder Creek watershed is a smaller watershed within the LJD-Kahler Creek HUC in north central Wheeler County. The increase of western juniper has created a decline in desirable shrubs and herbaceous vegetation in the watershed. Decreased infiltration and increased runoff reduce water quantity and quality during critical times of the year. The project will remove 605 acres of western juniper, treat 61 acres of weeds, primarily medusahead, reseed 61 acres and develop one spring. Partners include the three private landowners in the watershed.

Review Team Evaluation

Strengths

- The application includes grazing management strategies and long-term juniper management plans for all three participating landowners.
- Sites selected are high priority locations with deep soil and north-facing aspects, characteristics that lend a high likelihood of success in improving function, and a healthy understory of grasses and shrubs.
- The sites are all upslope of Alder Creek, an important steelhead stream in the middle John Day Basin. Proposed restoration actions will reduce erosion for cleaner stream flows and increased groundwater inputs.
- The application is well-written and includes maps and photos clearly representing the project sites.
- The ranch's use of best management practices is evident by improved pastures, minimal existence of weeds, and presence of diverse rangeland native plant communities.

Concerns

- The application lacked details about the need for the spring development.

Concluding Analysis

The proposed project builds on the momentum gained from landowner outreach and previous OWEB

grants partnering with NRCS in an adjacent basin. This project will expand those grassland improvements, increasing both upland function and habitat for a diverse set of wildlife, including mule deer, elk and bighorn sheep.

Review Team Recommendation to Staff

Fund

Review Team Priority

6 of 6

Review Team Recommended Amount

\$131,282

Review Team Conditions

N/A

Staff Recommendation

Staff Follow-Up to Review Team

N/A

Staff Recommendation

Fund

Staff Recommended Amount

\$131,282

Staff Conditions

N/A

Open Solicitation-2019 Spring Offering

Mid Columbia (Region 6)

Application Number: 220-6005-17068

Project Type: Restoration

Project Name: Pine Hollow Middle and Upper Restoration

Applicant: Wheeler SWCD

Region: Mid Columbia

County: Wheeler

OWEB Request: \$122,842

Total Cost: \$231,962

Application Description *(from application abstract)*

1) The project is located along Pine Hollow Creek, a steelhead bearing tributary of Rock Creek, which flows to the John Day River. Located within Wheeler County, the nearest town being Mitchell, Oregon. 2) This project is a holistic continuation of work within the Pine Hollow Creek Watershed to address the limiting factors to watershed health and fish passage. The project will provide much needed habitat complexity on the lower reach of Pine Hollow Creek, correct a significant fish passage barrier, and address juniper encroachment within the headwaters. 3) The project will install Vertical Post Structures (VPSs) and large wood on approximately $\frac{3}{4}$ miles of Pine Hollow Creek which has recently been enrolled in the ODFW Riparian Fencing Program. It will also correct a major fish passage barrier of a perch culvert. Correction of this culvert will include an additional 0.9 miles of fencing through the ODFW program. With plans to enroll both the recently enrolled and proposed use exclusion areas will be enrolled into CREP the total stream length in CREP will be 1.65 miles. 4) Project partners include USFW Partners Program, the Antone Ranch, the ODFW John Day, and the Wheeler County SWCD.

Review Team Evaluation

Strengths

- The applicant addressed all concerns noted on the prior grant review evaluation.
- Improvements were made to the designs for fish passage and habitat.
- The new designs remove the potential of the pond being a heat sink and negatively impacting water temperatures of the stream.
- The new landowners provided an improved grazing management plan that incorporates both riparian fencing on the mainstem of Pine Hollow Creek, as well as on the tributaries. This plan indicates a change to livestock use in one section of the riparian area so it is no longer used as a winter feeding area.
- This project builds on watershed restoration work both completed and planned for the future in this watershed.
- New landowners are enthused about restoration and provided a letter of support.

Concerns

- There are additional barriers upstream planned for future restoration once designs are completed.

Concluding Analysis

Pine Hollow Creek, a significant tributary to Rock Creek, has been the focus of restoration for the past several years. Work was successfully completed downstream, including correcting a major fish passage barrier, improving a diversion, exclusion fencing through ODFW habitat program and installing large wood for habitat and complexity. This upstream project will build on and expand those efforts.

Review Team Recommendation to Staff

Fund

Review Team Priority

2 of 6

Review Team Recommended Amount

\$122,842

Review Team Conditions

N/A

Staff Recommendation

Staff Follow-Up to Review Team

N/A

Staff Recommendation

Fund

Staff Recommended Amount

\$122,842

Staff Conditions

N/A

Open Solicitation-2019 Spring Offering Mid Columbia (Region 6)

Application Number: 220-6006-17085

Project Type: Restoration

Project Name: Reynolds Creek Irrigation Efficiency Project

Applicant: Confed Tribes Warm Springs

Region: Mid Columbia

County: Grant

OWEB Request: \$198,345

Total Cost: \$785,158

Application Description *(from application abstract)*

The proposed project is located on Reynolds Creek, approximately 7.9 miles SE of Prairie City in Grant County, OR. Reynolds Creek is the major tributary within the fifth-field Reynolds Creek watershed. The multiple-use point of diversion is located on private land and existing land use includes grazing and irrigated pastures. The point of diversion serves three landowners via the North Reynolds open ditch. The current diversion uses check boards on a lay-flat stanchion to divert water into the head gate and down the ditch. There is a high probability for deterioration at the diversion site and the potential for the fish passage to be blocked, making it hard for juvenile fish to make it up the ladder. The North Reynolds open ditch runs approximately 2.05 miles through three private landowners and serves 98.39 acres, has a total early season cfs of 2.94 and a total late season cfs of 2.07. There is a considerable amount of seepage within the ditch as well as multiple deteriorated turnouts. Due to the inefficiency of this ditch, piping the ditch will conserve instream water that will have considerable impacts to a cold-water tributary. The proposed structure would put the head gate on the outside bend of the creek to create natural scour and prevent sedimentation. This design would provide alluvial passage for salmonid species at all life stages and ensure landowners access to their water right. The existing ODFW fish screen will be utilized for this project. The open ditch would be replaced with two buried pipes sized to landowner's water right with a totalizing flow meter at each property boundary. Project partners are the landowners, ODFW-fish screen maintenance, NRCS-EQIP (RCPP) match for the pipeline implementation, BPA funding for design and diversion, and the Freshwater Trust for water leases and monitoring.

Review Team Evaluation

Strengths

- The project is located in an area identified as a high priority for restoration and protection by the Mid-Columbia Steelhead Recovery Plan, the Confederated Tribes of Warm Springs, ODFW, and Freshwater Trust, as well as many other conservation groups in the area.
- Freshwater Trust is continuing to work with landowners on water leases along Reynolds Creek to keep more critical cold water instream.
- The proposed design will improve the diversion for fish passage and limit the water users to their legal water right by installing flow meters, piping sized to the water right, and a more efficient method of delivery that converts a leaking upland ditch to pipe.

- Through the RCPP, NRCS will provide irrigation water management plans for all three landowners, provide soil moisture sensors to monitor the appropriate use of irrigation water, monitor seasonal water use, and require a cooperatively managed irrigation system.
- The resulting benefits will impact bull trout, steelhead, spring Chinook, and westslope cutthroat by providing fish passage to 15 miles of cold water habitat upstream on Reynolds Creek. The application notes a barrier at 0.5 miles upstream but during the application review site visit this site was determined to not be a barrier to fish passage.
- Match from BPA, NRCS RCPP, and the landowners indicate the project has a high likelihood of success because there is partner support.
- This project is one of many restoration actions planned for both Reynolds Creek and upper mainstem John Day River. This includes correcting other identified diversion structures that may become problematic.

Concerns

- The application would be stronger with the inclusion of a ditch seepage assessment and letters of support from all three landowners.
- The diversion being replaced is functioning but beginning to degrade because the landowner is unable to maintain the structure. The tribes will continue to work with the landowner and monitor the structure for the next ten years.
- An OWRD point of diversion transfer will be required before diversion structure can be built.
- Fish passage during low flows is an issue at one site downstream of the project location.
- While the pipe sizing reduces the need for regulation of the water right, the in-stream benefits could be realized with regulation of the current system.

Concluding Analysis

This project is a win/win for both landowners and fish – both needing access to water. The benefits of keeping passage on this critical and cold water stream outweigh concerns regarding landowner maintenance. One of the downstream water users is exploring a ten-year water lease and a conservation easement; as well as significant floodplain reconnection and habitat work done on their land. On balance, this project provides more landowner than ecological benefits; however, it may provide incentives for neighboring landowners to consider future restoration on reaches of the John Day River and Reynolds Creek, an area where it has been challenging to gain landowner participation in restoration.

Review Team Recommendation to Staff

Fund

Review Team Priority

5 of 6

Review Team Recommended Amount

\$198,345

Review Team Conditions

N/A

Staff Recommendation

Staff Follow-Up to Review Team

N/A

Staff Recommendation

Fund

Staff Recommended Amount

\$198,345

Staff Conditions

Grant agreement will require the OWRD POD transfer application be submitted with the first fund request.

Open Solicitation-2019 Spring Offering Mid Columbia (Region 6)

Application Number: 220-6007-16961

Project Type: Technical Assistance

Project Name: Umatilla Farmed Smart Program

Applicant: Umatilla SWCD

Region: Mid Columbia

County: Umatilla

OWEB Request: \$31,207

Total Cost: \$49,287

Application Description *(from application abstract)*

The Farmed Smart Program Project will be located within the Umatilla County boundary. Umatilla County has a rich agrarian community, with an estimated 40% of land use dedicated to dryland cropping. The primary crop grown in dryland operations is wheat, with some canola and peas. While Umatilla County supports a wide variety of crops, the dryland community is one of the strongest economic, environmental, and cultural influences in the county. This great influence impacts the county and the state of Oregon as a whole. Environmental impacts are great, especially relating to water quality. While there are a handful of direct seed operations in the county, there is no unifying force to guarantee Best Management Practices (BMPs). In addition, there are many farmers who have dabbled in direct seed or are interested in the operation, but are on the fence due to unclear benefits. The project will reduce soil erosion from tillage practices, implement riparian buffers, and improve water quality through outreach and implementation of the Farmed Smart Sustainable Agriculture certification, created in partnership with the Oregon Department of Agriculture, introducing an already markedly successful program from Washington State within Oregon's borders. The Farmed Smart program will also provide a measure of regulatory certainty for the landowner once ODA and DEQ adopt its tenets (currently in review), and enhance the track record of direct seed farming, as well as increasing marketability of Pacific Northwest dryland crops. Partners include The Pacific Northwest Direct Seed Association.

Review Team Evaluation

Strengths

- Farmed Smart could encourage implementation of cropland best management practices (BMPs.)
- In order to be certified, farmers would need to show compliance with conservation practices.

Concerns

- The proposal is premature because DOJ, ODA and DEQ have not completed review of the certification process, and there is no guarantee of their approval or if significant changes to the program may be made.
- The application would be stronger with more detail on the Farmed Smart program benchmarks, specific criteria, and references. For instance, from the list of BMP criteria, how many and which ones are required to be eligible for certification.

- The application does not describe a clear link between implementing BMP criteria and resulting water quality benefits expected.
- The application is unclear on whether this project will engage farmers new to conservation or to farmers already doing this type of management. If the 15 farmers selected for certification are already implementing conservation tillage, what additional ecological benefits will be realized by providing an incentive?
- It is unclear whether the 15 farmers selected already have conservation plans designed by NRCS for their farms; and if so, how the new Farmed Smart conservation plans will differ.
- Partners in the basin, such as CTUIR, NRCS, OSU extension, or the USDA ARS, are not included in this effort.

Concluding Analysis

This proposal is premature on several fronts. Waiting for results from state agency review and developing partnerships with agricultural partners in the basin is critical to the likelihood of Farmed Smart program success in Oregon. As designed, this concept is more appropriate as a stakeholder engagement application rather than technical assistance.

Review Team Recommendation to Staff

Do Not Fund

Review Team Priority

N/A

Review Team Recommended Amount

\$0

Review Team Conditions

N/A

Staff Recommendation

Staff Follow-Up to Review Team

N/A

Staff Recommendation

Do Not Fund

Staff Recommended Amount

\$0

Staff Conditions

N/A

Open Solicitation-2019 Spring Offering

Mid Columbia (Region 6)

Application Number: 220-6008-17035

Project Type: Technical Assistance

Project Name: Umatilla River Floodplain Assessment & Action Plan

Applicant: Umatilla Basin WS Foundation

Region: Mid Columbia

County: Umatilla

OWEB Request: \$49,727

Total Cost: \$211,727

Application Description *(from application abstract)*

The Umatilla Basin and partners seek funding for an assessment and stream prioritization along the mainstem of the Umatilla River from the North and South Forks to the town of Nolin, Oregon. This assessment will provide partners with a guide towards prioritizing future restoration efforts on the mainstem of the Umatilla River. Currently, no such document exist for the Umatilla River and partners in the basin feel that it is critical for strategic project implementation in order to provide effective uplift to the system. The project partners are the Umatilla Basin Watershed Council, Confederated Tribes of the Umatilla Indian Reservation, Umatilla Soil & Water Conservation District, Bureau of Reclamation, and the Umatilla County Public Works.

Review Team Evaluation

Strengths

- An updated assessment on the Umatilla River is encouraged and will be useful in restoration prioritization.

Concerns

- This resubmitted application does not address concerns noted in the prior application review evaluation.
- The project would be stronger with more engagement by ODFW.
- There are no references to how existing data and reports completed on the Umatilla River, such as the Ecosystem Diagnosis and Treatment model (EDT), will be used to support the proposed work.
- More detail on how the resulting data will be shared with natural resource partners or the general public would have been helpful.
- A stronger application would have included more development of coordinated partnerships with detail on the roles of each partner.

Concluding Analysis

Completing an assessment and action plan on the Umatilla River is a worthwhile goal; however, this application does not provide enough information to explain why this technical assistance request is necessary and likely to succeed in completing the assessment.

Review Team Recommendation to Staff

Do Not Fund

Review Team Priority

N/A

Review Team Recommended Amount

\$0

Review Team Conditions

N/A

Staff Recommendation

Staff Follow-Up to Review Team

N/A

Staff Recommendation

Do Not Fund

Staff Recommended Amount

\$0

Staff Conditions

N/A

Open Solicitation-2019 Spring Offering

Mid Columbia (Region 6)

Application Number: 220-6009-17071

Project Type: Technical Assistance

Project Name: Pine Hollow - Shingle Creek Fish Passage

Applicant: Wheeler SWCD

Region: Mid Columbia

County: Wheeler

OWEB Request: \$23,282

Total Cost: \$32,972

Application Description *(from application abstract)*

1. The project is located on Pine Hollow Creek and Shingle Creek in the headwaters of the Pine Hollow Creek watershed. Pine Hollow is a major tributary to Rock Creek on the Antone Ranch. 2. There are three remaining barriers on listed steelhead reaches within the Pine Hollow Creek system. One of those was previously designed for replacement through an OWEB TA grant and is currently being submitted to OWEB for a restoration grant to correct the barrier (Pine Hollow Middle and Upper Restoration). That leaves two remaining barriers which are both on Shingle Creek. There are also two undersized culverts on Pine Hollow Creek above the confluence with Shingle Creek, which are not barriers but could become plugged during spring flows. 3. The project will develop 90% designs for the two barriers and the two undersized culverts. 4. The project partners would include the Wheeler SWCD, OWEB, ODFW, Antone Ranch, and Resource Specialists Inc. (RSI).

Review Team Evaluation

Strengths

- This property's new landowner is enthused about restoration and restoring and protecting instream flows for fish, as indicated by his letter of support.
- The application indicates there is interest in exclusion fencing to protect tributaries to Pine Hollow Creek.
- ODFW identified Rock Creek, Pine Hollow and perennial tributaries as priority areas for restoring steelhead spawning and rearing habitat. While the application states fixing this barrier will open up ~½ mile of habitat, steelhead will be able to access and use additional stream habitat during higher flow years.
- The prior ranch owner leased flows instream on Rock Creek and the new owner has expressed interest in doing more instream leases.
- The resulting design will allow the stream freedom to meander.
- A comprehensive grazing management plan designed to improve process and function on both upland and riparian landscapes on the ranch was provided during the site visit.
- The designs will facilitate fixing the last two fish passage barriers on Shingle Creek, as well as two undersized culverts on Pine Hollow.
- The application budget is broken out by work component, and rates and costs are reasonable for the proposed work.

Concerns

- The application lacks detail on why the drone survey is critical to the design when existing LiDAR data is already available.
- The match is unusual as it is provided solely by the contractor. However, the budget includes an itemized breakout, providing adequate detail on the contractor's contribution.

Concluding Analysis

Starting with an OWEB-funded stream assessment many years ago, Rock Creek and associated steelhead tributaries have been the focus of restoration. The resulting design from this technical assistance grant will facilitate removing the last remaining fish barriers on the Pine Hollow system and will build on prior restoration activities.

Review Team Recommendation to Staff

Fund

Review Team Priority

1 of 2

Review Team Recommended Amount

\$23,282

Review Team Conditions

N/A

Staff Recommendation

Staff Follow-Up to Review Team

N/A

Staff Recommendation

Fund

Staff Recommended Amount

\$23,282

Staff Conditions

N/A

Open Solicitation-2019 Spring Offering Mid Columbia (Region 6)

Application Number: 220-6010-17072 **Project Type:** Technical Assistance
Project Name: Upper John Day Habitat Project
Applicant: Confed Tribes Warm Springs
Region: Mid Columbia **County:** Grant
OWEB Request: \$74,552 **Total Cost:** \$202,101

Application Description *(from application abstract)*

The Upper John Day Habitat project is located on private property approximately 7.9 miles southeast of Prairie City in Grant County, Oregon. This project is a large restoration effort split into two phases covering 1.5 miles of mainstem John Day River and 0.5 miles of Reynolds Creek. Phase I (match funded) will encompass the downstream most 0.55 miles of the mainstem John Day river with Phase II covering the remaining 0.95 miles of the mainstem John Day upstream and 0.5 miles of Reynolds Creek. Spring Chinook salmon and summer steelhead spawn and rear within the project reach. The current instream, riparian and floodplain habitat within the project reach has been degraded by anthropogenic activities in the valley beginning in the mid-19th century. Specifically, the river channel has been straightened to create additional agriculture land and has resulted in a disconnected floodplain and decreased channel complexity. The project objectives are as follows: increase instream habitat and complexity, expand the riparian vegetation corridor, address incised channel and floodplain connectivity, enhance existing wetlands, improve an existing irrigation diversion (mainstem), replacement of a bridge (mainstem), and ensuring year-round fish passage and habitat for all life stages of Salmon and Steelhead. Due to the size and scope of the project both design and implementation will be split into phases, this proposal is requesting funding for Phase II design. Phase I designs are currently underway and expected to be complete by December 2019. Project partners include: landowners, Oregon Department of Fish and Wildlife (screen), Bureau of Reclamation (bridge design), and Bonneville Power Administration (funding, permitting).

Review Team Evaluation

Strengths

- This technical assistance proposal complements a prior project phase that resulted in significant wetland and riparian enhancements, as well as other restoration and protection efforts done in the upper section of the John Day River mainstem.
- The design concept significantly expands existing riparian buffers and reconnects the floodplain, while minimizing flood impacts to landowner structures along the river.
- The application provides clear detail in the technical uploads, including flood inundation maps.
- The design concept includes three design alternatives with a justification on the selected option.

- Steelhead, Chinook, and bull trout will all benefit from the resulting restoration project, located in this high-priority area identified in the Mid-Columbia Steelhead Recovery plan.
- The project will increase the capacity of rearing habitat for spring Chinook.
- The Confederated Tribes of Warm Springs plan to conduct intensive monitoring to document changes resulting from restoration efforts.
- Strong partner involvement and support indicate a high likelihood of success.

Concerns

- The application would be stronger with letters of support from all involved landowners; especially on the west side property.
- The application and maps provide information on both project phases, which is confusing for understanding the current proposal.
- Flooding may still occur under extreme flow conditions.
- Without landowner buy-in, the resulting restoration project may only occur on one side of the river. The prospective design will also be limited by existing infrastructure.

Concluding Analysis

This technical assistance request will provide construction-ready designs and alternative discussion on an extensive floodplain and habitat enhancement along the mainstem John Day River, a high value area of cold water refuge for several salmonid species.

Review Team Recommendation to Staff

Fund

Review Team Priority

2 of 2

Review Team Recommended Amount

\$74,552

Review Team Conditions

N/A

Staff Recommendation

Staff Follow-Up to Review Team

N/A

Staff Recommendation

Fund

Staff Recommended Amount

\$74,552

Staff Conditions

N/A

Open Solicitation-2019 Spring Offering Mid Columbia (Region 6)

Application Number: 220-6011-16962

Project Type: Stakeholder Engagement

Project Name: Bank Stabilization Engagement Project

Applicant: Umatilla SWCD

Region: Mid Columbia

County: Umatilla

OWEB Request: \$6,804

Total Cost: \$23,296

Application Description *(from application abstract)*

The Streambank Stabilization Workshops will take place in Umatilla County. Unstable streambanks pose a problem for landowners in the county due to loss of property, while factors such as excess sediment and lack of riparian vegetation overstory are a threat to salmonid habitat. Salmonids require low turbidity and shaded, cool water for spawning. Restoring stream morphology is complex, and regulations and priorities regarding bank stabilization involve environmental, ecological, and hydrologic factors, including floodplain reconnection and disbursement of high flow energy. Currently, information regarding bank stabilization is available but many landowners are unsure of the methods to properly stabilize banks. Landowners therefore commonly stabilize banks improperly and then face fines and must still find a way to stabilize banks to meet regulations. The Umatilla County Soil and Water Conservation District proposes holding four workshops in the city of Pendleton, Oregon. All workshops will be similar in content, but will be held twice per year over two years, and will take place during flood seasons (spring and fall). Representatives from the Army Corps of Engineers, the Department of State Lands, the Confederated Tribes of the Umatilla Indian Reservation, and the Oregon Department of Agriculture have been asked to speak at the workshops. Participating speakers will present on the topic of streambank stabilization during the same session in order to provide consistency in information and opportunity will be given to landowners to ask questions. Following the presentations, groups will visit field sites that demonstrate bank stabilization methods, both in compliance and not in compliance with current regulations. Engineers will be available to discuss potential projects with participating landowners.

Review Team Evaluation

Strengths

- The application is well-written, provides a detailed description of goals, and includes letters of support from participating agencies.
- Proposed workshops will include a diverse set of speakers from relevant regulatory agencies, natural resource professionals, and restoration engineers.
- The described stakeholder engagement is timely with the recent high flows and serious bank erosion issues in the county, and offers an opportunity to initiate discussions on restoration and resulting benefits.

- The workshop concept has potential to increase restoration projects in Umatilla County, and possibly be replicated in other basins.

Concerns

- The budget will require some correction as it includes lodging costs for local speakers.
- The focus of the workshops is on “stabilization” rather than restoration. The results of the stakeholder engagement may be limited to projects treating the symptoms rather than the causes of instability. The application should include more details about the opportunities for restoration in the watershed, making it clear that not all stabilization actions are eligible for OWEB restoration funding

Concluding Analysis

With more frequently occurring high flows that result in increased bank erosion, this stakeholder engagement series of workshops are timely. Landowners don't always know about specific regulations or alternatives addressing eroding streambanks. OWEB stakeholder engagement efforts should focus on restoring watershed process and function (or natural stream function) rather than bank armoring. The applicant secured a diverse set of presenters capable of covering all aspects of riparian and instream methods that help to stabilize river banks and maintain natural stream function.

Review Team Recommendation to Staff

Fund

Review Team Priority

2 of 3

Review Team Recommended Amount

\$6,804

Review Team Conditions

N/A

Staff Recommendation

Staff Follow-Up to Review Team

N/A

Staff Recommendation

Do Not Fund; falls below staff-recommended funding line

Staff Recommended Amount

\$0

Staff Conditions

N/A

Open Solicitation-2019 Spring Offering Mid Columbia (Region 6)

Application Number: 220-6012-17034 **Project Type:** Stakeholder Engagement
Project Name: Umatilla Mainstem Engagement
Applicant: Umatilla Basin WS Foundation
Region: Mid Columbia **County:** Umatilla
OWEB Request: \$21,158 **Total Cost:** \$33,658

Application Description *(from application abstract)*

This project focuses on landowner engagement in order to support the Confederated Tribes of the Umatilla Indian Reservations efforts to complete a mainstem assessment & action plan on the Umatilla River. This assessment will cover the Umatilla headwaters at the North & South Forks as well as the tributaries Widhorse, lower Mckay, and the off reservation mainstem stretch of the Umatilla River to the town of Echo, Oregon. This assessment will provide partners with a guide towards prioritizing future restoration efforts on the mainstem of the Umatilla River. Currently, no such document exist for the Umatilla River and partners in the basin feel that it is critical for strategic project implementation in order to provide effective uplift to the system. The tributaries and upper stretch of the Umatilla River were chosen because of the need for project prioritization and additional data for strategic project implementation. Birch Creek was left out because of an existing up to date assessment and action plan that was completed by the project partners in 2016. The project partners are the Umatilla Basin Watershed Council, Confederated Tribes of the Umatilla Indian Reservation, Umatilla Soil & Water Conservation District, Oregon Department of Fish & Wildlife, and the Umatilla County Public Works, City of Echo, and the City of Pendleton.

Review Team Evaluation

Strengths

- The applicant has a proven track record of engaging partners and landowners, and experience in utilizing social media to get the word out and track interest.
- Umatilla County's secured match indicates they are interested in being involved.
- Previous engagement efforts provided important lessons learned that are incorporated in this proposal.
- The timing is appropriate; with the advent of the Umatilla Mainstem Assessment it is valuable to engage landowners prior to any on-the-ground data gathering.
- The watershed council has taken an active role as a landowner interface for restoration and other watershed related activities, such as this assessment.

Concerns

- The application is unclear on whether this engagement effort will continue if the assessment stalls.
- It is unclear from the application whether there is ODFW involvement or support for this project.
- Some of the application metrics are tied directly to the assessment instead of this Stakeholder Engagement project proposal; other indicators of project success were vague and may be difficult to quantify.

Concluding Analysis

This proposal will focus on landowner outreach along a section of the Umatilla River that has garnered interest from stakeholders for restoration and protection. The watershed council has a proven track record of public outreach and building collaboration amongst partners – even those not usually involved in restoration. Not only will these efforts help foster support and understanding of the assessment and action plan, it will provide an opportunity to discuss restoration alternatives with landowners not familiar with watershed restoration.

Review Team Recommendation to Staff

Fund

Review Team Priority

3 of 3

Review Team Recommended Amount

\$21,158

Review Team Conditions

N/A

Staff Recommendation

Staff Follow-Up to Review Team

N/A

Staff Recommendation

Do Not Fund; falls below staff-recommended funding line

Staff Recommended Amount

\$0

Staff Conditions

N/A

Open Solicitation-2019 Spring Offering

Mid Columbia (Region 6)

Application Number: 220-6013-17051

Project Type: Stakeholder Engagement

Project Name: John Day Basin Partnership
Stakeholder Outreach Campaign

Applicant: North Fork John Day WC

Region: Mid Columbia

County: Grant

OWEB Request: \$81,721

Total Cost: \$104,376

Application Description *(from application abstract)*

1) The John Day Basin Partnership (JDBP) is a collaborative of 28 organizations working to enhance the pace, scale, and impact of restoration that benefits aquatic and terrestrial ecosystems, agriculture, and economic opportunities for communities in the John Day River Basin. The JDBP is finalizing a Strategic Action Plan that identifies and prioritizes "ridge-to-ridge" restoration activities throughout fifteen sub watersheds of the basin. The Focused Investment Partnership (FIP) funding focuses outreach on three priority areas (Butte/30 mile creek, Headwaters of the North Fork John Day River and Camp Creek/Middle Fork John Day River) while efforts in this project are aimed at the other 12 non-FIP sub watersheds of the basin.2) The JDBP recognizes that public support and landowner involvement are vital to sustaining the forward progress of restoration in the basin. Targeted outreach that supports land owner collaboration and participation in restoration work is an absolute necessity when working to address limiting factors throughout an 8,100 sq. mile basin that is predominately privately owned and operated. Furthermore, engaging stakeholders in the restoration process is essential for project adaptation that provides maximum value to both working lands and healthy ecosystem function.3) This project provides broad communication support to the JDBP through outreach materials such as newsletters and informational handouts, questionnaires for gauging landowner concerns and interests, hosting informative presentations, and organizing a series of restoration service events for assisting landowners. We will track efforts to maximize effectiveness for receiving and responding to community input and how to best engage landowners for facilitating restoration agreements. Through these avenues, this project will increase public awareness of the JDBP and inform, educate and document landowner cooperation in restoration efforts.4) See attached list of 28 partners.

Review Team Evaluation

Strengths

- A consistent message about restoration opportunities will benefit all stakeholders in the basin, including Watershed Councils, Soil and Water Conservation Districts, tribes, state and federal agencies, and NGOs.
- The applicant addressed all concerns noted in the previous application evaluation.
- This proposal will expand outreach to cover all the areas outside the JDBP's Focused Investment Partnership watersheds, taking advantage of the FIP momentum.

Concerns

- This is an ambitious proposal and will need a lot of partner involvement to manage the work load and be successful.

Concluding Analysis

The John Day Basin Partnership has worked over the last four to five years organizing to address natural resource concerns in the John Day Basin for the next 50 years. This stakeholder engagement proposal will reach out to landowners and stakeholders in those watersheds not currently within the OWEB FIP geographic areas – hence creating restoration opportunities for submission to OWEB’s Open Solicitation or other funding sources.

Review Team Recommendation to Staff

Fund

Review Team Priority

1 of 3

Review Team Recommended Amount

\$81,720

Review Team Conditions

N/A

Staff Recommendation

Staff Follow-Up to Review Team

N/A

Staff Recommendation

Fund

Staff Recommended Amount

\$81,720

Staff Conditions

N/A