



OREGON  
**WATERSHED**  
ENHANCEMENT BOARD

Agenda Item H

**Fall 2023 Open Solicitation**

**Grant Offering**

Board Meeting April 22-24, 2024



# Oregon

Tina Kotek, Governor



OREGON  
WATERSHED  
ENHANCEMENT BOARD

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*Agenda Item H 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 H. Fall 2023 Open Solicitation Grant Offering  
April 22-24, 2024, Board Meeting

### I. Introduction

This staff report describes the Fall 2023 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:

- 38 Restoration grants
- 17 Technical Assistance grants
- 7 Engagement grants

### II. Fall 2023 Grant Offering Background and Summary

A total of 134 applications were received requesting over \$25 million. **Attachment A** shows applications submitted by region, project type and funding request.

### III. Review Process

Staff facilitated a review process where all eligible grant applications were evaluated by the agency's six Regional Review Teams (RRT) – made up of technical experts from multiple state and federal agencies and tribes who are local to each region. Staff scheduled site visits for as many proposed projects as possible, with all RRT members invited to attend.

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, which are provided in **Attachment B**. After classifying applications as "Recommended," "Recommended with Conditions," or "Not Recommended," the RRTs then prioritized the projects recommended for funding by application type.

The RRT evaluations and recommendations, along with staff recommendations, were distributed to all applicants. **Attachment C** includes the number of applications recommended for funding for each region by application type, as well as staff-recommended award totals by application type and region. Before the board meeting, staff will forward the board any written comments received from applicants regarding the RRT and staff recommendations.

#### 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 to support projects located in Oregon’s sagebrush/sage-steppe ecosystem that improve greater sage-grouse habitat. The recommended Fall 2023 Open Solicitation Grant awards include four projects in regions four and five that meet the criteria:

- 224-4008, *Suplee's Grouse Habitat & Watershed Enhancement 2* — requesting \$305,540.
- 224-5023, *Seeking Justus on Bully Creek Phase II TA*— requesting \$58,339
- 224-5024, *Willow Creek Again TA* — requesting \$56,139
- 224-5022, *Rockville Basin Stream Restoration Design* — requesting \$56,155

If awarded, total funding for sage-grouse projects since 2015 will be \$16,094,339.

#### V. Funding Recommendation

Staff considered the RRT recommendations and funding availability in developing the staff funding recommendations provided in **Attachment D**. The funding recommendations for the Fall 2023 Open Solicitation Grant Offering are summarized in **Table 1**. This will be the second Open Solicitation grant award for the 2023-2025 biennium, and the first since the board reduced the match requirement to \$1 for Technical Assistance and Engagement applications.

**Table 1: Spending Plan and Funding Recommendations for Fall 2023 Grant Offering**

Grant Type	Current Spending Plan*	Awards to Date	Staff Recommendation	Remaining Spending Plan Balance
Restoration	\$36,500,000	\$8,998,845	\$8,961,687	\$18,539,468
Technical Assistance	\$6,800,000	\$929,070	\$1,894,750	\$3,976,180
Monitoring	\$4,500,000	\$2,235,398	N/A**	\$2,264,602
Engagement	\$2,000,000	\$298,552	\$522,376	\$1,179,072
TOTAL	\$49,800,000	\$12,461,865	\$11,378,813	\$25,959,322

\*Spending plan amount includes funds anticipated to be added in July 2024.

\*\*Monitoring grants are offered during the spring OS grant cycle.

Staff recommend the board adjust the spending plan included on page 12 of the e-book for this meeting and award funds for the staff-recommended projects listed in **Attachment D**.

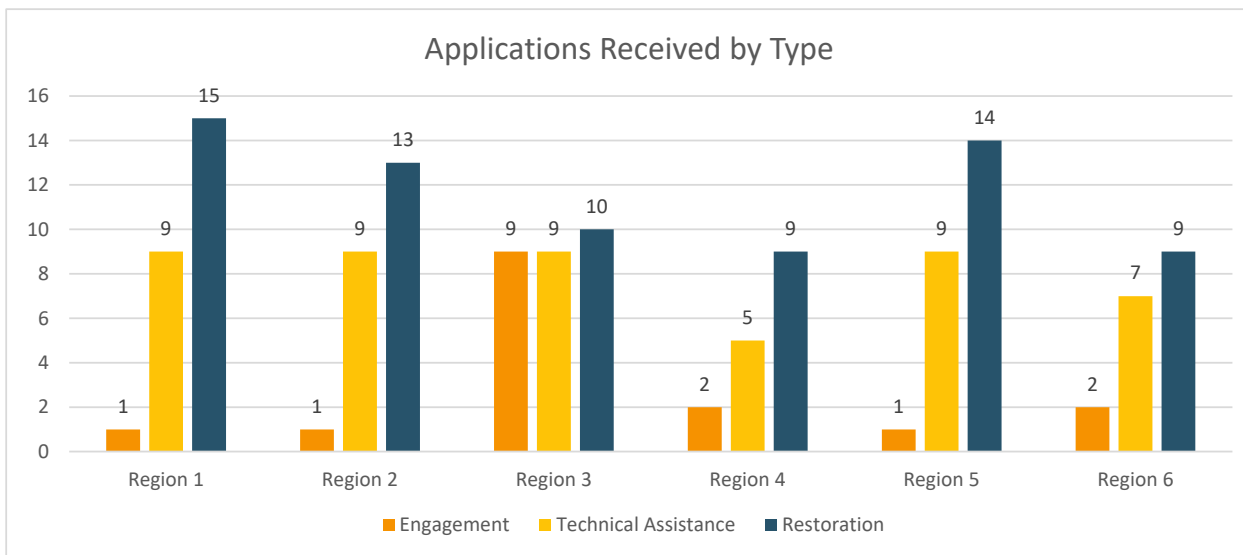
#### VI. Attachments

- A. Grant Applications Submitted
- B. Evaluation Criteria
- C. RRT and Staff Funding Recommendations
- D. Regions 1-6 Funding Recommendations

## Oregon Watershed Enhancement Board Fall 2023 Open Solicitation Grant Offering

### Applications Received by Type

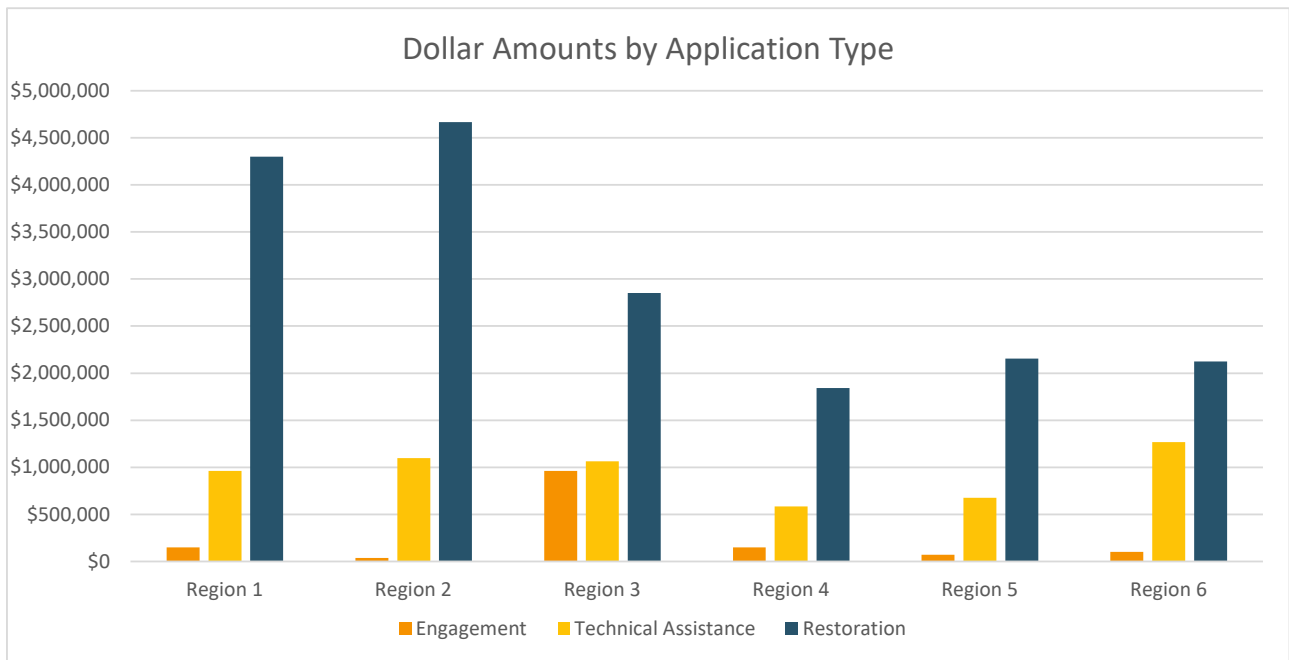
	Engagement	Technical Assistance	Restoration	Totals
<b>Region 1</b>	1	9	15	25
<b>Region 2</b>	1	9	13	23
<b>Region 3</b>	9	9	10	28
<b>Region 4</b>	2	5	9	16
<b>Region 5</b>	1	9	14	24
<b>Region 6</b>	2	7	9	18
<b>Totals</b>	16	48	70	134



# Oregon Watershed Enhancement Board Fall 2023 Open Solicitation Grant Offering

## Dollar Amounts Requested by Application Type

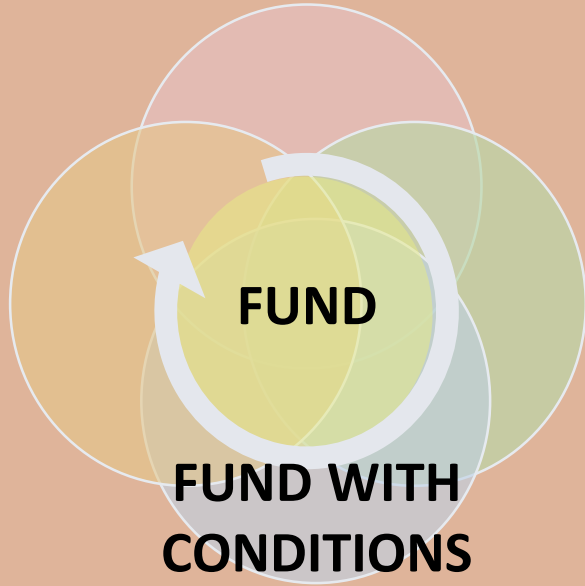
	Engagement	Technical Assistance	Restoration	Totals by Region
<b>Region 1</b>	\$151,103	\$960,221	\$4,299,306	\$5,410,630
<b>Region 2</b>	\$38,773	\$1,098,921	\$4,664,390	\$5,802,084
<b>Region 3</b>	\$963,475	\$1,063,545	\$2,851,443	\$4,878,463
<b>Region 4</b>	\$149,951	\$584,696	\$1,843,432	\$2,578,079
<b>Region 5</b>	\$72,312	\$674,772	\$2,155,008	\$2,902,092
<b>Region 6</b>	\$101,815	\$1,266,617	\$2,123,889	\$3,492,321
<b>Total Requested</b>	<b>\$1,477,429</b>	<b>\$5,648,772</b>	<b>\$17,937,468</b>	<b>\$25,063,669</b>



# Open Solicitation – Restoration Grants

PROVIDE PUBLIC BENEFIT FOR WATER QUALITY, NATIVE FISH AND WILDLIFE HABITAT, OR WATERSHED/ECOSYSTEM FUNCTION

Recommend



Regional team reviews & evaluates each project individually based on how well project meets criteria

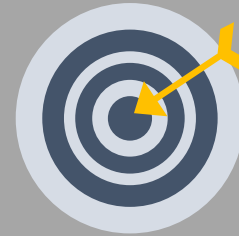
Prioritize



**CRITERIA**

How well project meets criteria for project evaluation & preferences, including:

- Causes over symptoms of disturbance
- Whole watershed approach over site-specific
- Collaboration over single-party



**CERTAINTY OF SUCCESS**

Certainty of success, based on the organizational capacity of the applicant & the likelihood the project will meet its ecological objectives



**BENEFIT TO OREGON PLAN**

Benefit to the Oregon Plan for Salmon & Watersheds, as evidenced by its expected benefits to watershed functions, fish habitat or water quality



**COST BENEFIT**

Project costs relative to the anticipated watershed health benefits

Recommendation to Staff

Staff review recommendations from each regional review team & make a statewide funding recommendation to the Board based on available resources for the grant period & type.

# RESTORATION

Evaluation Criteria  
OAR 695-010-0060

Is the project ready to be implemented?

Does the application clearly state the project objectives & provide information about how those objectives will be met?

Will project be implemented using a clearly defined methods appropriate for addressing the problem?

Does the project address limiting factors or watershed issues by treating the causes rather than the symptoms of disturbance?

Were alternatives to address the identified problem identified & evaluated?

How are watershed benefits adequately quantified in the application?

How are changing climate conditions incorporated & how will project contribute to durable adaptation & resilience for ecosystems?

How has consideration of greenhouse gas emissions or long-term carbon sequestration or storage informed project?

How were likely impacts to the site & adjacent properties during & after project implementation considered?

What specific action(s) will be implemented that are within an explicit geography prioritized in a watershed restoration plan?

**All projects must meet the following:**

- Will the project provide public benefit by supporting improved water quality, habitat, &/or ecosystem functions?
- Does the project demonstrate sound watershed management principles?
- Are project methods adapted to the project location?
- Will professionally accepted restoration approaches be followed?

Does the application provide an overall budget that reflects expected & quantified watershed health benefit?

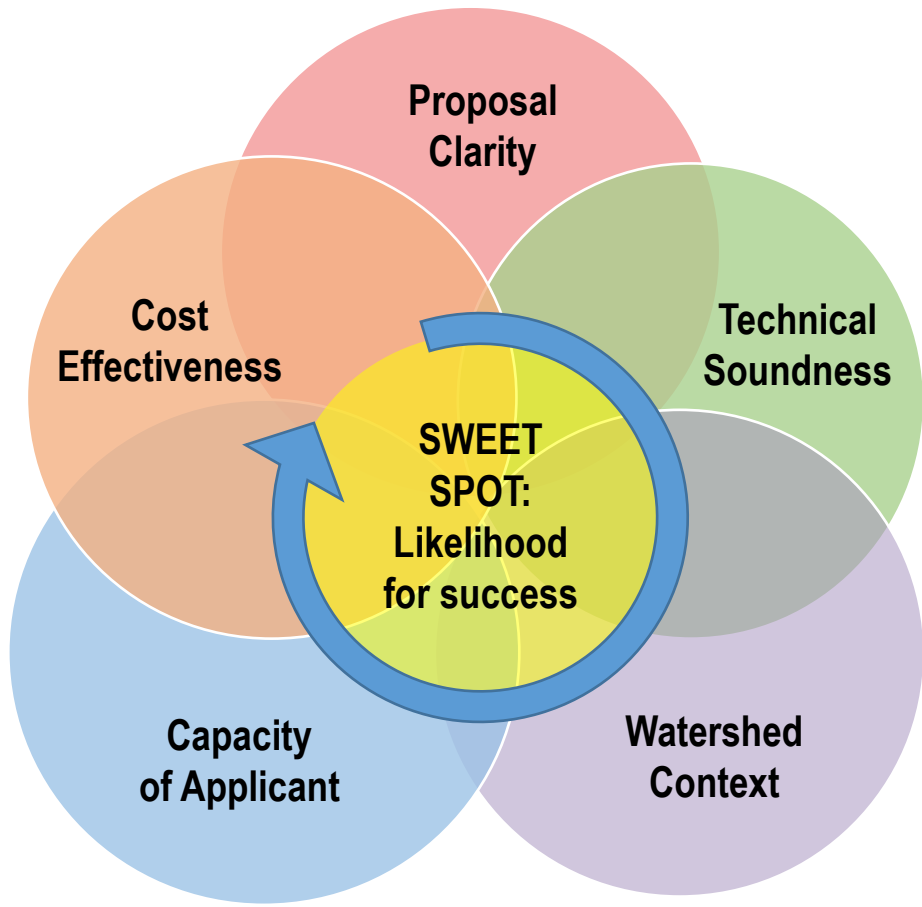
Does the budget reflect necessary costs & reasonable rates for direct costs?

Does the applicant have capacity for successful long-term stewardship & maintenance of the project?

Does the applicant have a proven track record managing projects, completing projects as proposed & reporting?

Will appropriate partners be engaged in the project?

How did/will engagement with local communities disproportionately impacted by climate change inform project?



How does the project address watershed function & ecosystem processes, including water quality & the life stages of fish & wildlife?

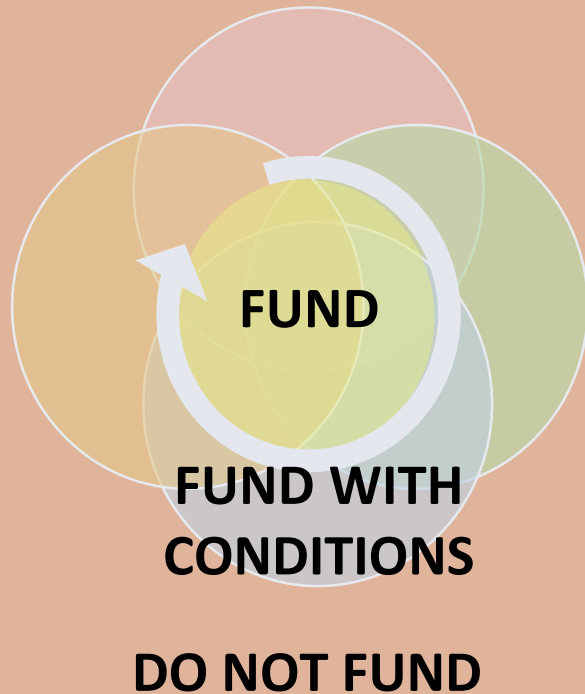
How does the project fit within the context of past & planned future restoration efforts in the watershed?

How will the project promote public awareness that may lead to opportunities for watershed restoration?

# Open Solicitation – Technical Assistance Grants

PROVIDE PUBLIC BENEFIT FOR WATER QUALITY, NATIVE FISH AND WILDLIFE HABITAT, OR WATERSHED/ECOSYSTEM FUNCTION

Recommend



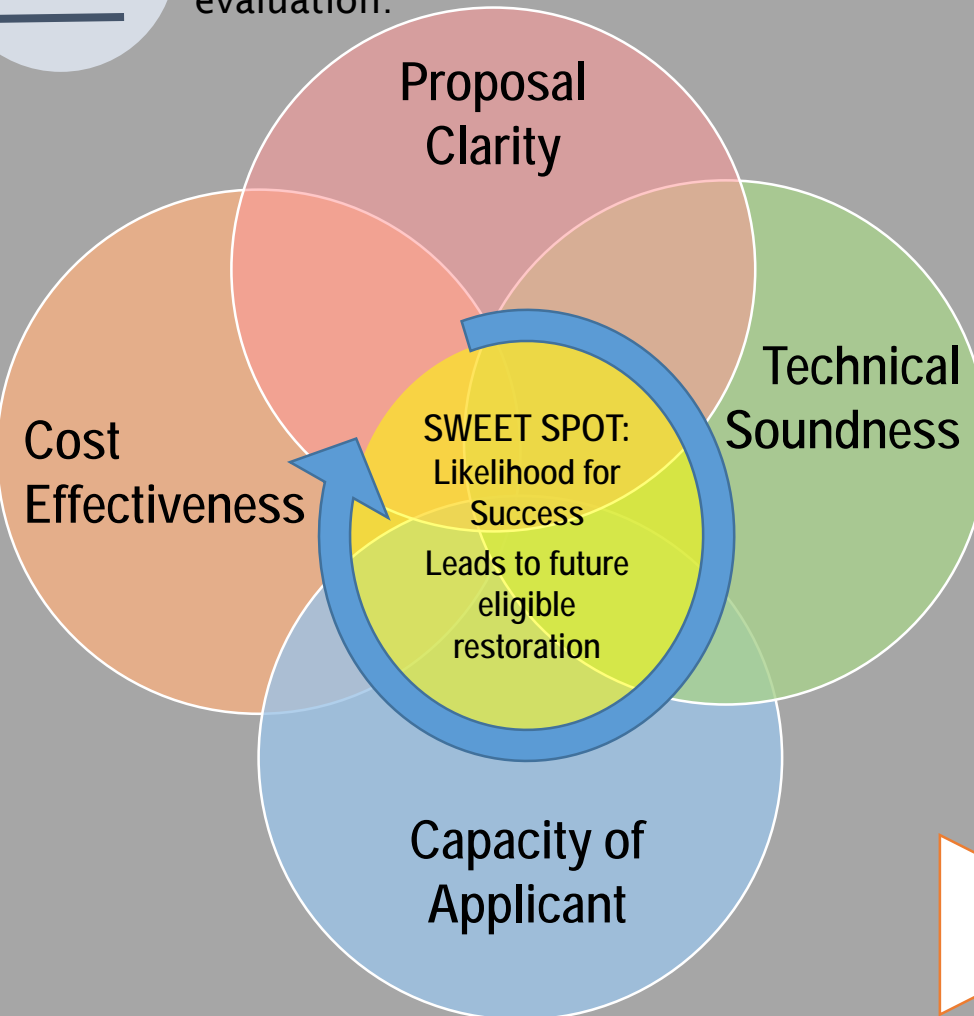
Regional team reviews & evaluates each project individually based on how well project meets criteria

Prioritize



## CRITERIA

How well project meets criteria for project evaluation:



Recommendation to Staff

Staff review recommendations from each regional review team & make a statewide funding recommendation to the Board based on available resources for the grant period & type.

# TECHNICAL ASSISTANCE

Evaluation Criteria  
OAR 695-030-0045

**Technical Design & Engineering** = project feasibility reports, designs, or engineering materials that directly lead to site-specific restoration or acquisition projects within a specified timeframe.

**Resource Assessment & Planning** = information about existing water quality or habitat conditions and processes at an identified scale, and relates those conditions and processes to actions that will directly lead to desired future conditions within a specified timeframe.

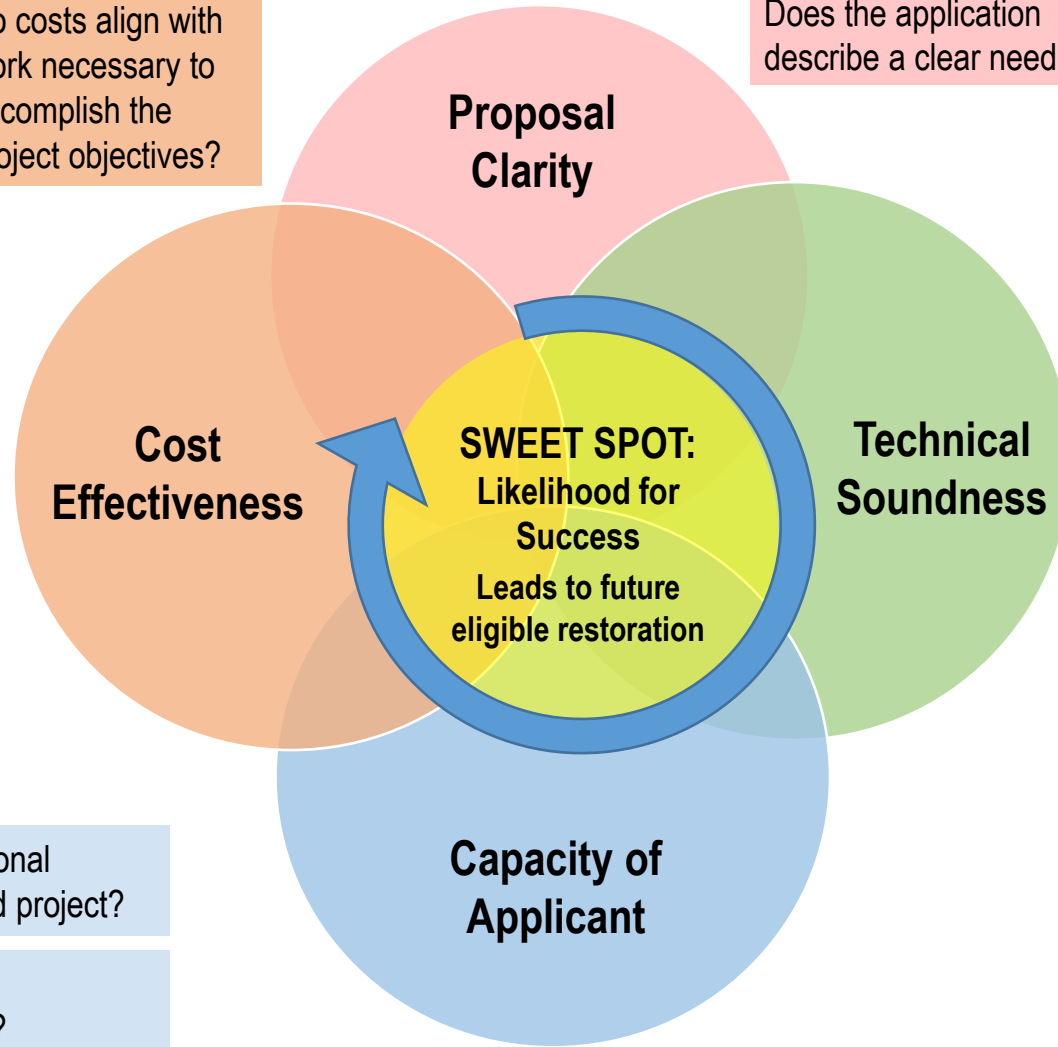
Does applicant have the organizational capacity to implement the proposed project?

Are staff or consultants qualified to accomplish the proposed activities?

Are appropriate audiences engaged in the project?

Do costs align with work necessary to accomplish the project objectives?

Does the application describe a clear need?



How did/will engagement with local communities disproportionately impacted by climate change inform project?

## Technical Design & Engineering

- How does the project address limiting factors in existing conservation or recovery plans?
- Was an alternative analysis completed that demonstrates a range of options were considered?
- Will appropriate data be collected to inform designs?
- Will professionally accepted technical or engineering approaches will be used?
- How are changing climate conditions incorporated & how will project contribute to durable adaptation & resilience for ecosystems?
- How has consideration of greenhouse gas emissions or long-term carbon sequestration or storage informed project?

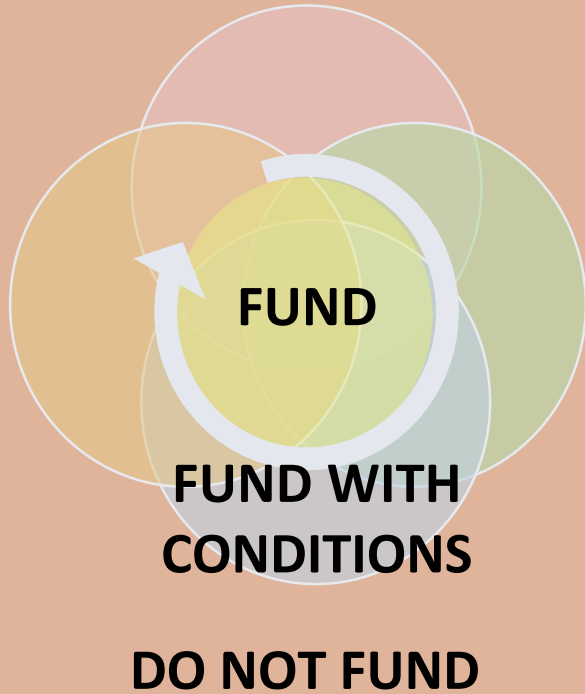
## Resource Assessment & Planning

- Is the project scope & scale feasible? Have the partners demonstrated the ability for collaborative work at this scale?
- Is the process by which data will be managed & shared with partners appropriate?
- Will professionally accepted methods & parameters will be used?
- How are changing climate conditions incorporated & how will project contribute to durable adaptation & resilience for ecosystems?
- How has consideration of greenhouse gas emissions or long-term carbon sequestration or storage informed project?

# Open Solicitation – Engagement Grants

PROVIDE PUBLIC BENEFIT FOR WATER QUALITY, NATIVE FISH AND WILDLIFE HABITAT, OR WATERSHED/ECOSYSTEM FUNCTION

Recommend



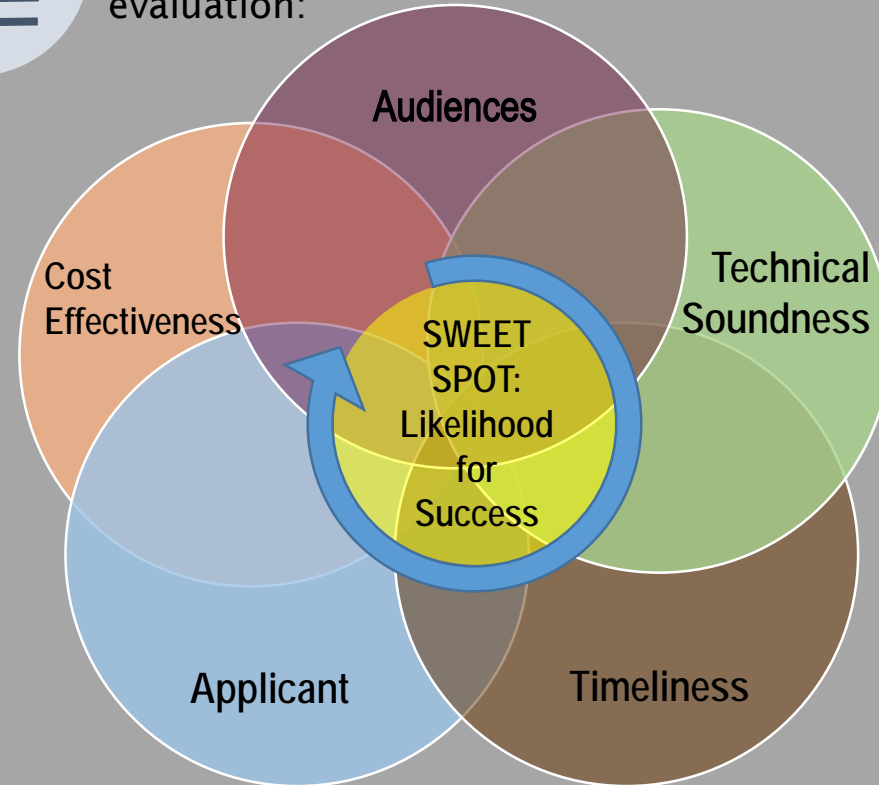
Regional team reviews & evaluates each project individually based on how well project meets criteria

Prioritize



## CRITERIA

How well project meets criteria for project evaluation:



## CERTAINTY OF SUCCESS

Based on the organizational capacity of the applicant & likelihood the project will meet its audience engagement objectives

Recommendation to Staff

Staff review recommendations from each regional review team & make a statewide funding recommendation to the Board based on available resources for the grant period & type.

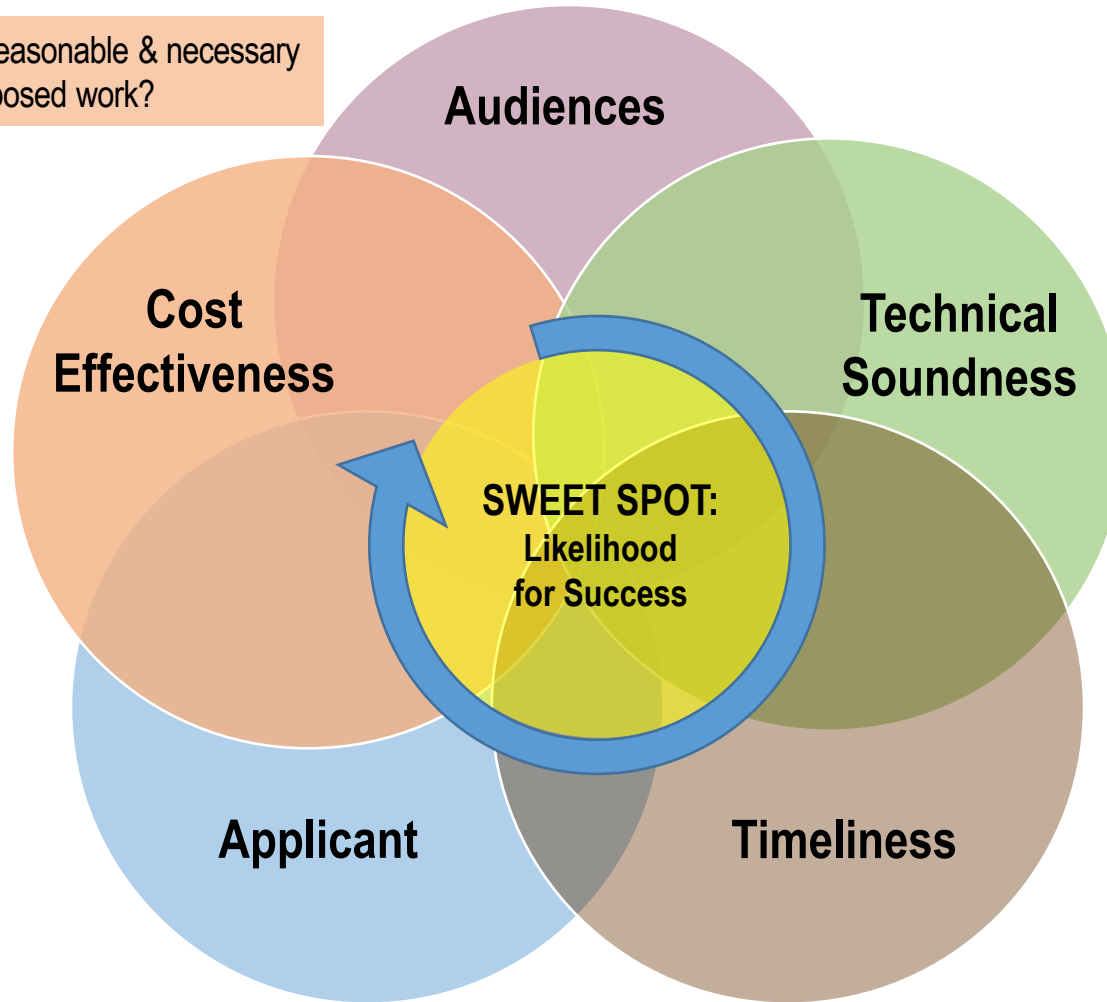
# ENGAGEMENT

## Evaluation Criteria OAR 695-015-0070

“Engagement Project” means a project whose purpose is to communicate and engage with landowners, organizations and the community about the need for, feasibility, and benefit of a specific eligible restoration or acquisitions project or program that leads to development of eligible projects within an identified geography.

**Projects whose primary purpose is education are NOT ELIGIBLE**

Are costs reasonable & necessary for the proposed work?



How is the applicant qualified to implement the project? Do they have relevant experience?

Will engagement result in timely development of eligible restoration or acquisition projects or programs?

How will applicant engage with appropriate audiences in the appropriate geography?

How did/will engagement with local communities disproportionately impacted by climate change inform project?

How is the multi-directional communication among the applicant & audiences likely to be effective?

What is the evidence linking engagement to eligible restoration or acquisition projects or programs?

Will the outcomes of the expected restoration or acquisitions protect or restore fish or wildlife habitat, watershed function, &/or water quality or quantity?

How are changing climate conditions incorporated & how will project contribute to durable adaptation & resilience for ecosystems?

How has consideration of greenhouse gas emissions or long-term carbon sequestration or storage informed project?

**RRT and Staff Funding Recommendations for the Fall 2023 Open Solicitation Grant Offering**

Tables compare the number of projects recommended by each Regional Review Team (RRT) with projects recommended by Staff based on funds available in the 2023-2025 Spending Plan.

**Restoration**

Region	RRT	Staff	%
1	\$ 2,896,178	\$ 1,803,270	62%
2	\$ 4,006,622	\$ 1,475,748	37%
3	\$ 2,109,792	\$ 2,109,792	100%
4	\$ 1,473,601	\$ 1,354,455	92%
5	\$ 1,630,417	\$ 1,203,454	74%
6	\$ 1,409,147	\$ 1,014,968	72%
<b>Total</b>	<b>\$ 13,525,757</b>	<b>\$ 8,961,687</b>	<b>66%</b>

**Technical Assistance**

Region	RRT	Staff	%
1	\$ 518,609	\$ 313,610	60%
2	\$ 936,023	\$ 282,076	30%
3	\$ 141,928	\$ 141,928	100%
4	\$ 584,696	\$ 408,713	70%
5	\$ 625,266	\$ 340,219	54%
6	\$ 1,266,617	\$ 408,204	32%
<b>Total</b>	<b>\$ 4,073,139</b>	<b>\$ 1,894,750</b>	<b>47%</b>

**Engagement**

Region	RRT	Staff	%
1	\$ 151,103	\$ -	0%
2	\$ 38,773	\$ 38,773	100%
3	\$ 243,111	\$ 243,111	100%
4	\$ 149,951	\$ 149,951	100%
5	\$ 72,312	\$ 72,312	100%
6	\$ 18,229	\$ 18,229	100%
<b>Total</b>	<b>\$ 673,479</b>	<b>\$ 522,376</b>	<b>78%</b>

Funding amounts are the totals for Staff Recommended projects

Region	Restoration	Technical Assistance	Engagement	Total
1	\$ 1,803,270	\$ 313,610	\$ -	\$ 2,116,880
2	\$ 1,475,748	\$ 282,076	\$ 38,773	\$ 1,796,597
3	\$ 2,109,792	\$ 141,928	\$ 243,111	\$ 2,494,831
4	\$ 1,354,455	\$ 408,713	\$ 149,951	\$ 1,913,119
5	\$ 1,203,454	\$ 340,219	\$ 72,312	\$ 1,615,985
6	\$ 1,014,968	\$ 408,204	\$ 18,229	\$ 1,441,401
<b>Total</b>	<b>\$8,961,687</b>	<b>\$1,894,750</b>	<b>\$522,376</b>	<b>\$11,378,813</b>

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***OWEB Open Solicitation Regions***

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Region 1: North Coast

Region 2: South Coast

Region 3: Willamette Basin

Region 4: Central Oregon

Region 5: Eastern Oregon

Region 6: Mid-Columbia

# All Regions Fall 2023 Funding Recommendations

## Fall 2022 Funding Recommendations Status

- Staff Recommended Funding
- Below Funding Line

## OWEB Regions

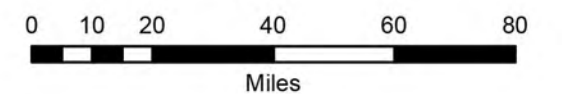
- Region 1
- Region 2
- Region 3
- Region 4
- Region 5
- Region 6



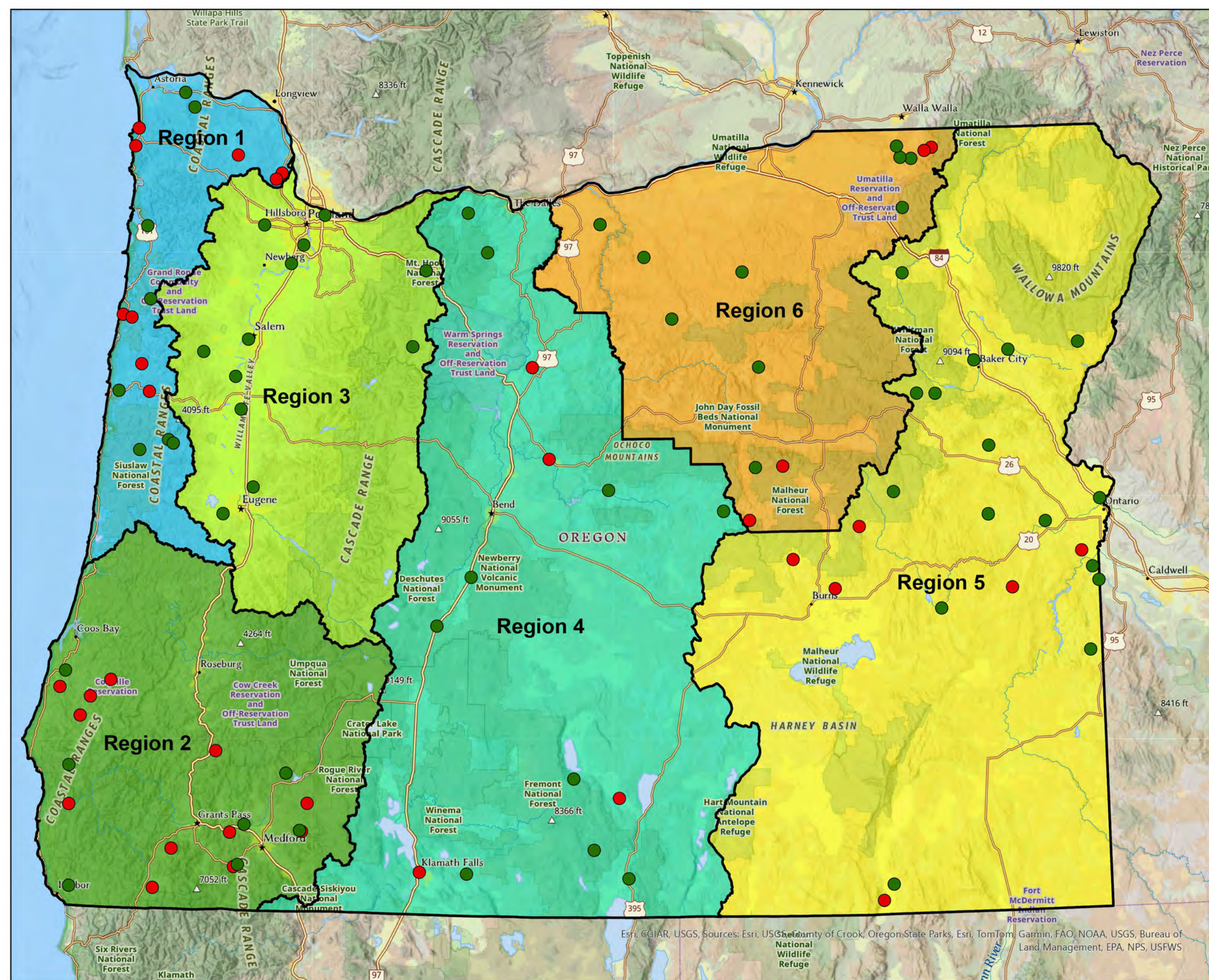
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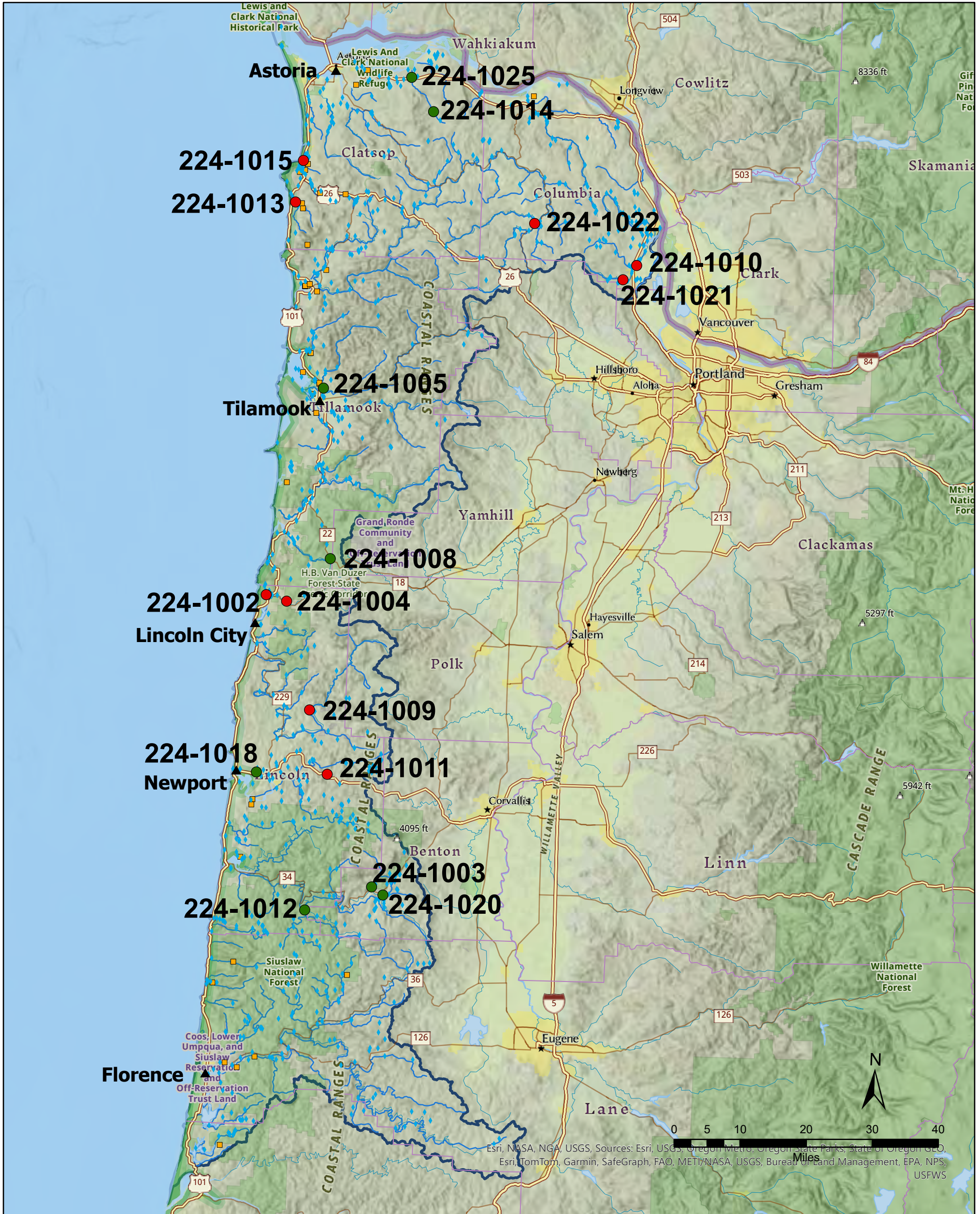
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Esri, CGIAR, USGS, Sources: Esri, USGS, County of Crook, Oregon State Parks, Esri, TomTom, Garmin, FAO, NOAA, USGS, Bureau of Land Management, EPA, NPS, USFWS



# North Coast - Region 1 Fall 2023 Funding Recommendations



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**Funding Recommendation**

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

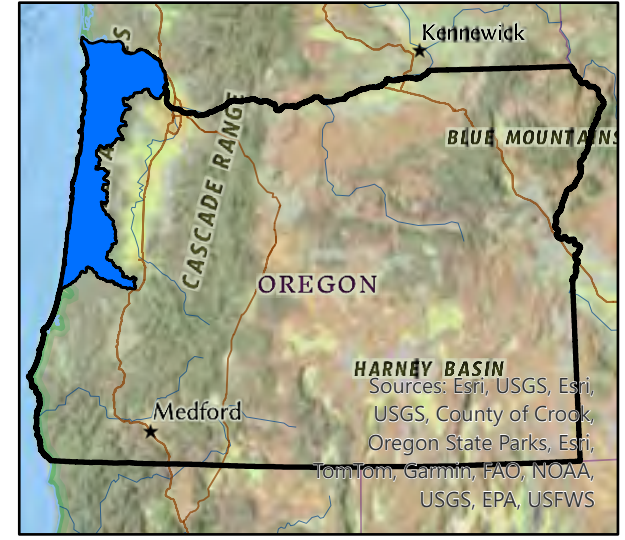
**Previous Grants 1998 - Spring 2022**

- Land Acquisition
- ◆ Restoration
- ▲ Region 1 Cities
- Region 1 Streams
- ▭ OWEB Region 1 Boundary



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**HARNEY BASIN**  
Sources: Esri, USGS, Esri, USGS, County of Crook, Oregon State Parks, Esri, TomTom, Garmin, FAO, NOAA, USGS, EPA, USFWS

Oregon Watershed Enhancement Board: Region 1 Restoration, Technical Assistance, and Engagement

Region 1 - North Coast Restoration				
Projects RECOMMENDED for Funding in Priority Order				
Project #	Grantee	Project Title	Brief Description	Amount Recommended
224-1003	MidCoast WC	Mill/Beaty Creeks (Alsea) LWD, Fish Passage, and Floodplain Restoration	A landscape-scale restoration project in the Alsea watershed will restore floodplain connectivity, address fish passage barriers, and place large wood structures instream to improve habitat complexity.	\$ 408,493
224-1008	Nestucca-Neskowin Watersheds Council	Louie, Baxter, and Horn Creeks Large Wood Habitat Enhancement Project	Instream habitat complexity and water quality will be improved throughout several tributaries of the Nestucca River by placing large wood structures instream.	\$ 321,369
224-1012	Oregon Wildlife Heritage Foundation	Five Rivers Sub-basin Large Wood Helicopter Treatment Project Phase I	Instream habitat complexity will be improved on a landscape-scale in the Five Rivers Basin within the Alsea watershed by placing large wood structures instream.	\$ 742,008
224-1014	North Coast WS Assn	Lower Elk, Coon, Mud and Pigpen Creeks Large Wood and Bridge Enhancement	Instream habitat complexity will be improved in the Nikolai-Wikiup watershed by placing large wood structures instream. Watershed function and fish passage will also be improved by replacing an undersized culvert.	\$ 278,533
224-1005	Trout Unlimited Inc	Tributary to Juno Creek: Fish Passage and Wetland Restoration Project	Fish passage and wetland connectivity will be restored with the removal of two undersized and collapsed culverts on a tributary to Juno Creek in the Tillamook Bay watershed.	\$ 52,867
<b>Total Restoration Projects Recommended for Funding by RRT and OWEB Staff</b>				<b>1,803,270</b>

Projects Recommended but NOT FUNDED in Priority Order				
Project #	Grantee	Project Title	Brief Description	Amount Recommended
224-1004	MidCoast WC	Echo Mountain Fire Recovery and Fish Passage	Upland forest and streamside plantings will occur on lands in the Salmon River watershed impacted by the 2020 Echo Mountain Fire. Two culverts will also be replaced to restore fish passage on Curl Creek.	\$ 398,890
224-1002	Institute for Applied Ecology	Phase 2: Coastal Prairie Restoration at Westwind	Coastal prairie habitat will be restored on a conservation property in the Salmon River watershed. Existing populations of rare flora will be protected and new habitat created for the federally-listed Oregon Silverspot Butterfly.	\$ 204,368
224-1011	Lincoln SWCD	Upper Yaquina SIA Riparian Restoration	Streamside vegetation will be restored and a pollinator meadow established on multiple privately owned properties within the Bales Creek-Upper Yaquina watershed in eastern Lincoln County.	\$ 88,018
224-1009	Lincoln SWCD	Lincoln County Parks Riparian Restoration	Streamside vegetation will be restored at planting sites within three county parks along the Siletz River.	\$ 48,516
224-1010	Columbia SWCD	Scappoose Oak Habitat Restoration & Education	Oak woodland and oak savannah habitats will be restored on a property in Columbia County.	\$ 84,865
224-1015	North Coast Land Conservancy	Shangrila Wetlands Restoration	Trash and debris will be removed, perimeter fencing installed, and native plants installed to restore sensitive wetland habitat on a conservation property in the City of Seaside.	\$ 180,913
224-1013	North Coast WS Assn	ECCR Beaver Habitat Restoration	Understory shrubs will be planted on 1.5 acres of the Ecola Creek Forest Reserve in the City of Cannon Beach to encourage beaver to return to the watershed.	\$ 87,338

Projects NOT RECOMMENDED for Funding by RRT				
Project #	Grantee	Project Title	Amount Requested	
224-1001	City of Bay City	Bay City Patterson Creek Culvert Replacement Project	\$ 876,480	
224-1006	Nestucca-Neskowin Watersheds Council	Sutton Creek Proposal Rock Fish Passage Improvement Project	\$ 400,748	
224-1007	Devils Lake Water Improvement Dist	Invasive Weeds in Devils Lake	\$ 125,900	

Oregon Watershed Enhancement Board: Region 1 Restoration, Technical Assistance, and Engagement

Region 1 - North Coast Technical Assistance				
Projects RECOMMENDED for Funding in Priority Order				
Project #	Grantee	Project Title	Brief Description	Amount Recommended
224-1020	MidCoast WC	Honeygrove Oxbow Reconnection Final Design	Designs will be finished to restore water flow to connect fish passage to one mile of relict oxbow channel habitat on the North Fork Alsea River.	\$ 144,507
224-1018	MidCoast WC	Beaver Creek Valley Scale Floodplain Restoration Design	An analysis of alternatives and shovel-ready design will be produced to restore floodplain connectivity, instream habitat, and streamside vegetation on a series of connected properties in the Beaver Creek subbasin of the Yaquina watershed.	\$ 169,103
<b>Total Technical Assistance Projects Recommended for Funding by RRT and OWEB Staff</b>				<b>313,610</b>

Projects Recommended but NOT FUNDED in Priority Order				
Project #	Grantee	Project Title	Brief Description	Amount Recommended
224-1022	Upper Nehalem WC	Rock Creek Fish Passage Improvement	A fish passage solution will be developed for the City of Vernonia's seasonal swimming pool on Rock Creek in the Upper Nehalem watershed.	\$ 117,040
224-1021	Scappoose Bay WC	South Scappoose and Raymond Creek confluence Floodplain Design	An analysis of alternatives and preliminary designs will be developed for streamside and floodplain restoration at a series of privately owned properties at the confluence of Raymond Creek and South Scappoose Creek in Columbia County.	\$ 87,959

Projects NOT RECOMMENDED for Funding by RRT				
Project #	Grantee	Project Title	Amount Requested	
224-1016	Tillamook Estuaries Partnership	Sitka Sedge Tidal Wetland Restoration - Phase II	\$ 108,900	
224-1017	Institute for Applied Ecology	Coastal Dune Restoration Planning at Westwind	\$ 51,922	
224-1019	Wild Salmon Center	Integrating Life History Diversity and Climate Resilience into SAPs: A Pilot	\$ 116,085	
224-1023	Lower Nehalem WC	Gallagher Slough Fish Passable Tide Gate Upgrade Phase 1	\$ 75,385	
224-1024	Necanicum WC	Skookum Creek Fish Passage and Wetlands Design	\$ 89,320	

Region 1 - North Coast Engagement				
Projects RECOMMENDED for Funding in Priority Order				
Project #	Grantee	Project Title	Brief Description	Amount Recommended
NONE				
<b>Total Engagement Projects Recommended for Funding by RRT and OWEB Staff</b>				

Projects Recommended but NOT FUNDED in Priority Order				
Project #	Grantee	Project Title	Brief Description	Amount Recommended
224-1025	North Coast WS Assn	Big Creek Watershed Restoration Charrette	Targeted landowner outreach will build a shared vision for the Big Creek watershed to facilitate the restoration of chum salmon runs.	\$ 151,103

Projects NOT RECOMMENDED for Funding by RRT				
Project #	Grantee	Project Title	Amount Recommended	
NONE				

Oregon Watershed Enhancement Board: Region 1 Restoration, Technical Assistance, and Engagement

<b>Region 1 Total OWEB Staff Recommended Board Award</b>	<b>2,116,880</b>
<b>Region 1 - 6 Grand Total OWEB Staff Recommended Board Award</b>	<b>11,378,813</b>

# Open Solicitation-Open Solicitation Fall 2023 Restoration

North Coast (Region 1)

**Application Name:** 224-1001-23217

**Project Type:** Restoration

**Project Name:** Bay City Patterson Creek Culvert Replacement Project

**Applicant:** City of Bay City

**Region:** North Coast

**OWEB Request:** \$876,480

**County:** Tillamook

**Total Cost:** \$1,962,180

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**Application Description** This project will eliminate barriers and restore habitat for fish passage along over 300' of Patterson Creek, which runs through Bay City and feeds into Tillamook Bay. The current project is between 5th Street and 9th Street, in Bay City. 2) Fish passage is impaired along this fish-bearing stream. One culvert is a temporary culvert, and is undersized. The other culvert is undersized and failing. 3) The project would replace a 48" culvert installed under emergency authorization with an open bottom box culvert on 7th Street; remove a failing culvert on 8th Street and restore the open channel; and perform enhancement and restoration on the length of Patterson Creek between 5th and 9th Streets. We have worked with Tillamook Estuaries Partnership, Tillamook Bay Watershed Council and ODFW on this project in the past. We are currently working with the private property owners along the creek, TEP, AKS Engineering, as well as Habitat Concepts, TEP Native Plant Nursery, and the Tillamook Beekeepers Association for our habitat restoration activities. We will also use City staff and volunteers in our restoration activities.

## Review Team Evaluation

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### Strengths

- The application and associated site visit clearly articulated a need to restore fish passage on Patterson Creek. The road crossings slated for replacement and removal are severely undersized and limiting fish passage.
- The designs incorporate a plan to re-route a Bay City road and eliminate one of the crossings. This solution will maximize the possible ecological benefit of the project.
- Restoring fish passage on Patterson Creek will restore access to one mile of Oregon coast coho salmon habitat and eight miles of cutthroat trout habitat, provided all the barriers can be addressed.
- The work builds off a successful previously completed project at 2nd Street within the City.
- The applicant has involved local partners to assist with riparian revegetation, including a local beekeeper's association. Community support for the project is evident in the application by the included support letters.

- The City has the relevant design, construction, and contracting experience to complete a road removal and culvert replacement project.
- The City is clearly committed to the project and has been adept in pursuing funding for implementation. The applicant is looking to leverage a loan they received from DEQ that has helped fund the project designs and they have applied for other grants to build the funding package necessary to achieve the proposed outcomes.

### **Concerns**

- The budget does not correlate directly with the objectives provided in the application. Lack of detail in the budget makes it unclear how the expenses are distributed among the different project actions.
- More information on past and ongoing work within the Patterson Creek watershed would clarify the watershed context of the proposed culvert replacements. Visual aids in the application are limited, such as a map noting previous fish passage projects along with the proposed sites.
- The bank stabilization project component is not described well enough in the application to evaluate technical soundness for this action. It is unclear how placing rip-rap will benefit fish and aquatic habitat.
- There is an antiquated fish ladder upstream of the project at 9th Street that also is a fish passage barrier at certain flows and fish life stages. The application does not include details about when and how this barrier will be addressed. Without restoring passage at this location, the project phases described in the application will have limited quantified watershed benefit.
- Patterson Creek originates on Oregon Department of Forestry (ODF) land and there are three additional barriers upstream of the City limits. ODF assessed the costs of addressing the barriers but determined it would result in limited habitat opportunity for fish due to the downstream barriers and site constraints associated with the urban nature of the stream in its lower reaches.
- The City has limited habitat restoration experience and the application does not provide clear information on how natural resource experts will be engaged in the project design.

### **Concluding Analysis**

Patterson Creek is an important tributary to Tillamook Bay and restoring fish passage will be beneficial to populations of anadromous fish species, including Oregon coast coho salmon. The stream is constrained considerably in its lower reaches by a series of barriers at multiple road crossings through the urban area of the City of Bay City. The City's commitment to accomplishing the project is clear but some components of the project are yet unknown, notably the plan to address the upstream crossings that currently reduce the ecological benefit of the restoration proposed in this 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**

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**Staff Follow-Up to Review Team**

n/a

**Staff Recommendation**

Do Not Fund

**Staff Recommended Amount**

\$0

**Staff Conditions**

n/a

# Open Solicitation-Open Solicitation Fall 2023 Restoration

North Coast (Region 1)

**Application Name:** 224-1002-23270

**Project Type:** Restoration

**Project Name:** Phase 2: Coastal Prairie Restoration at Westwind

**Applicant:** Institute for Applied Ecology

**Region:** North Coast

**County:** Lincoln

**OWEB Request:** \$204,368

**Total Cost:** \$263,435

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## Application Description

The goal of this project is to restore 11 acres of coastal prairie to protect existing populations of rare flora and create habitat for the federally threatened Oregon silverspot butterfly (OSB). The coastal prairies are owned by the Westwind Stewardship Group (Westwind) and are located on the Oregon coast approximately five miles north of downtown Lincoln City.

Westwind has two coastal prairies: Iris Meadow and Fraser Farm. Iris Meadow is a pristine, four-acre coastal prairie that has substantial native plant abundance and supports a diverse mix of coastal species not commonly found in other prairies. Iris Meadow is a critical seed source for the Fraser Farm component of this project and other coastal prairie projects. Shrub and fir encroachment along with non-native grasses threaten the native plant community at Iris Meadow and could have devastating impacts if restoration actions do not intervene. Fraser Farm is a seven-acre degraded pasture directly southeast of Cascade Head which hosts OSB. Fraser Farm currently has few native plants and most of the plant community is non-native grasses. As coastal prairies decline, Fraser Farm provides a rare opportunity to restore seven acres within close proximity to an extant OSB population (Cascade Head) and a venue to educate future generations of Oregonians (campers at Camp Westwind) about conservation, wildlife, and stewardship.

To restore Iris Meadow and Fraser Farm we propose to use an integrated pest management approach to treat invasive species and problematic weeds. Specific methods include manual (hand pulling), mechanical (mowing, sawing), chemical (herbicide application) and thermal (flame weeding) treatments. Seed collection at Iris Meadow and other coastal prairies will be used to increase the capacity of genetically appropriate seed for this project.

## Review Team Evaluation

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### Strengths

- The restoration project occurs on a property that is encumbered by a conservation easement held by OWEB. The restoration also builds off an OWEB-funded Technical Assistance grant that produced a design for the proposed restoration.
- The project design focuses on limiting factors affecting native vegetation desirable for wildlife.

- Coastal prairie is a declining habitat type on the coast and is a priority for restoration. The proposed work will restore habitat that could be utilized by the federally listed Oregon silverspot butterfly.
- The timeline for implementation is detailed and appropriate. The method and approach proposed has proven to be successful in other locations on the coast, including the Nestucca Bay Wildlife Refuge.
- The project incorporates potential cultural resources considerations, and the budget includes survey work.
- The applicant has shown ingenuity with their approach to build capacity to increase the availability of native seed necessary for restoring Oregon coastal prairies.
- The applicant has a track record implementing similar types of projects.
- The costs in the budget are reasonable for the expected ecological benefit. Coastal prairie can be an expensive habitat to restore.

### **Concerns**

- The application is unclear regarding the plant material procurement process. Purchasing, growing out, seed collection, propagation, and seed trading are all mentioned but details are missing regarding partner responsibilities, locations, and what types of seed will be involved in the proposed trading.
- The project approach for the Fraser Farm site employs a chemical fallow technique that will leave the site barren for several years. There may be unintended consequences to water quality using this method given the proximity of the site to the Salmon River estuary due to the potential for sedimentation and pollutant runoff. More information on other alternatives considered would have clarified the rationale for the selected approach.
- The application does not contain information on whether permits are required for the proposed restoration.

### **Concluding Analysis**

Coastal prairie habitat will be restored and enhanced within the native range of the Oregon silverspot butterfly, an important and imperiled component of coastal biodiversity. The restoration will occur on conservation lands and the landowner intends to provide long-term stewardship of the project. The site is incorporated into the Cascade Head Biosphere Reserve, which includes the adjacent conservation lands on Cascade Head and the restored Salmon River Estuary. Restoring coastal prairie at this site provides connectivity with these other significant coastal habitats. The technical approach is likely to be successful and the project partners and landowner have the capacity and track record to implement the work.

### **Review Team Recommendation to Staff**

Fund

### **Review Team Priority**

7 of 12

**Review Team Recommended Amount**

\$204,368

**Review Team Conditions**

n/a

**Staff Recommendation**

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**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-Open Solicitation Fall 2023 Restoration

North Coast (Region 1)

**Application Name:** 224-1003-23271

**Project Type:** Restoration

**Project Name:** Mill/Beaty Creeks (Alsea) LWD, Fish Passage, and Floodplain Restoration

**Applicant:** MidCoast WC

**Region:** North Coast

**County:** Benton

**OWEB Request:** \$408,493

**Total Cost:** \$1,322,278

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**Application Description** The Mill-Beaty Creek subbasin includes over 5.2 miles of stream network and drains into the Alsea River one mile downstream from the town of Alsea (Benton County). Proposed restoration actions take place throughout the subbasin, the majority of which upstream from the Mill/Beaty confluence is in Bureau of Land Management (BLM) ownership and managed for late seral reserve conditions. A long history of poor timber practices, agricultural activities, and a private lumber mill in the basin have severely degraded fish and wildlife habitat, and resulted in a channelized, incised stream network with little floodplain connectivity or stream complexity in a majority of the basin. This Phase II effort builds on previous work in the basin over the last two years, and will include replacement of two fish passage barriers, removal of 10,000 cubic yards of anthropogenic fill in the floodplain, development of new inset floodplain areas, placement of at least 550 logs or whole trees instream and in floodplain areas, and 60 acres of riparian plant establishment along 4 miles of stream network. Project partners include all major landowners in the subbasin: the BLM, Weyerhaeuser, US Forest Service, and three private landowners. Project assistance is provided by the Oregon Department of Fish and Wildlife and the Lincoln Soil and Water Conservation District.

## Review Team Evaluation

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### Strengths

- The application describes a need to restore aquatic organism passage and hydrologic function in Mill and Beaty Creeks. Clearly defined site appropriate methods will be used to address impacts from historic timber and agricultural land uses.
- Fish habitat limiting factors will be addressed in the Alsea watershed by improving in-stream habitat complexity, reconnecting the floodplain, and augmenting cold water refugia by storing and holding cooler water.
- The technical approach is sound with large wood structures at a sufficient scale for the stream force and hydrology. As designed, the wood structures are likely to support substrate distribution and improve spawning habitat.
- The project design focuses on targeting and holding cold water refugia areas, which are critical for mitigating climate impacts.

- The plan to control reed canary grass and restore native plant communities is appropriate and has been successful in similar projects.
- The project builds off previously implemented and planned future restoration in the watershed.
- There is ongoing water quality monitoring in the project area that can be used to help characterize the project's benefits to stream temperature over time.
- There are a lot of partners engaged in the effort, including local landowners, state and private forestry, nonprofits, and state and federal natural resource agencies. The project team approach capitalizes on the collaborative capacity of all the partners involved in the project. They collectively have the experience to implement a landscape-level project in the basin.
- The proposed costs are reasonable for the expected ecological benefit as the project addresses multiple key habitat limiting factors.

### **Concerns**

- No significant concerns are noted.

### **Concluding Analysis**

The project adopts a basin scale approach to restoration in the Mill/Beaty watersheds with a breadth of restoration actions proposed across different landownership. The project is ready for implementation with multiple partners poised to provide technical expertise, funding, and materials. The approach is technically sound and the project is likely to succeed in addressing passage barriers, increasing floodplain connection and habitat complexity, restoring a healthy riparian overstory, and improving water quality.

### **Review Team Recommendation to Staff**

Fund

### **Review Team Priority**

1 of 12

### **Review Team Recommended Amount**

\$408,493

### **Review Team Conditions**

n/a

### **Staff Recommendation**

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### **Staff Follow-Up to Review Team**

n/a

### **Staff Recommendation**

Fund

### **Staff Recommended Amount**

\$408,493

**Staff Conditions**

n/a

# Open Solicitation-Open Solicitation Fall 2023 Restoration

North Coast (Region 1)

**Application Name:** 224-1004-23273

**Project Type:** Restoration

**Project Name:** Echo Mountain Fire Recovery and Fish Passage

**Applicant:** MidCoast WC

**Region:** North Coast

**County:** Lincoln

**OWEB Request:** \$398,890

**Total Cost:** \$1,197,990

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**Application Description** This project occurs in the Salmon River basin that was affected by the Echo Mountain Complex fire in 2020. The fire burned trees, scorched soil, created erosion prone slopes; and immediate response fire-fighting efforts compacted soils, crushed culverts, and exacerbated erosion in some areas, negatively affecting water quality and salmon habitat and passage. Following the fire, sediment and debris blocked culverts, invasive weeds took over, and many native bare-root trees planted after the fire did not thrive. The proposed work builds off two previously funded OWEB agreements in this fire affected area, and includes riparian and upland native species planting to control erosion throughout the area, and maintenance of over 80 acres of plantings that have already taken place. Further, proposed work includes bank stabilization and riparian planting along the mainstem Salmon River, and replacing four barrier culverts to restore full aquatic organism passage in the Curl Creek basin. Project partners are 22 private landowners, Lincoln County Public Works, Cascade Relief Team/Landscaping with Love, US Forest Service, and the Lincoln Soil and Water Conservation District.

## Review Team Evaluation

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### Strengths

- Several restoration elements are proposed in the Salmon River basin within the area of impact from the Echo Mountain fire. This project will address fish passage in Curl Creek and implement additional riparian and upland plantings designed to control erosion.
- There is a clear need described in the application for continuing the planting and stewardship work in the Echo Mountain Fire area. This project will build on previous work implemented with two OWEB Post-Fire Recovery grants.
- The plan for the planting is clear and technically sound. Increasing the plantings on the south side of the Salmon River will improve stream shading and address temperature impacts from the fire. Stewardship of plantings is a considerable component of the grant request and is imperative to successfully maintain restored vegetation long-term.

- Two culverts will be replaced to improve aquatic organism passage in the Curl Creek basin, which hosts Oregon coast coho salmon. Results from eDNA indicate the culverts are currently passage barriers by showing fish presence downstream of the crossings but not upstream. Replacing the structures will improve passage to 1.5 miles of stream habitat.
- The proposed bank stabilization treatments are appropriate for the stream energy and site constraints associated with private lands. There is infrastructure adjacent to the river that is vulnerable to stream erosion.
- The applicant has been successful in partnering with local community groups impacted by the fire. Previous projects have proved effective in growing the local capacity to implement restoration.
- The costs for the proposed activities are reasonable considering the ecological benefit expected.

### **Concerns**

- It is challenging to correlate the maps included with the application to the proposed restoration actions outlined in the proposal. It would be helpful if the maps were tied more directly to the outcomes and objectives described.
- It is unclear how the adjacent properties will be impacted by the bank stabilization components of the project.
- At the site visit, the applicant indicated the County no longer has immediate plans to address fish passage at the downstream County-owned culvert. While this structure may be passing some fish, not addressing this lower crossing limits the ecological benefits of the project; the timeline or possibility of doing so is now unknown.

### **Concluding Analysis**

The Echo Mountain Fire in September 2020 caused significant degradation in the Salmon River basin and this project will continue to remedy those impacts. Many plantings have already been installed in the fire impact area. More funding is needed to plant areas that were not planted and to provide stewardship so that the plants can reach a free-to-grow state. The additional benefits of addressing fish passage on Curl Creek and erosion on the mainstem Salmon River will improve the quality of instream habitat for aquatic organisms, including Oregon coast coho salmon.

### **Review Team Recommendation to Staff**

Fund with Conditions

### **Review Team Priority**

6 of 12

### **Review Team Recommended Amount**

\$398,890

### **Review Team Conditions**

Remove county culverts from project objectives and budget.

## Staff Recommendation

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### 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-Open Solicitation Fall 2023 Restoration

North Coast (Region 1)

**Application Name:** 224-1005-23309

**Project Type:** Restoration

**Project Name:** Tributary to Juno Creek: Fish Passage and Wetland Restoration Project

**Applicant:** Trout Unlimited Inc

**Region:** North Coast

**County:** Tillamook

**OWEB Request:** \$52,867

**Total Cost:** \$140,386

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**Application Description** The proposed fish passage and wetland restoration project is located off Latimer Road N. approximately .6 miles east of Highway 101 on Tillamook Creamery property. Here, a tributary to Juno Creek flows out of Tillamook State Forest land and into a multi-stage wetland before passing through two side by side culverts and entering Juno Creek. The two culverts are undersized and collapsing, creating a partial barrier to both adult and juvenile fish at different flow stages. Above the culverts, there are approximately .9 miles of spawning and rearing habitat and a 9-acre wetland complex consisting mostly of the highly invasive reed canary grass (RCG). Just below the culverts is an additional 20 to 25 acres of wetland habitat where Juno Creek proper forms via multiple smaller tributaries. Juno Creek then flows from this wetland complex, under Latimer Rd N., through a culvert that the Natural Resources Conservation Service (NRCS) replaced to fish passage standards and then empties into the Wilson River low in the system near Tillamook Bay. The project proposes removing the two culverts on the former logging road along with road fill and creating a roughened channel ford. This approach will create a stream crossing with a low flow channel and room for higher flows while also keeping the road drivable for emergency access in cases of fire. Furthermore, the proposed roughened channel ford will restore fish passage to the .9 miles of upstream habitat in the tributary to Juno Creek. The project also proposes a wetland restoration aspect that will involve using large machinery to “scrape” the top 18” of soil to remove as many RCG rhizomes as possible in the vicinity of the new ford. OWEB funds will support contracted services needed to construct the roughened channel ford and will supplement funds and in-kind contributions from the Tillamook County Creamery Association, U.S. Fish & Wildlife Service, and Tillamook Estuaries Partnership.

## Review Team Evaluation

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### Strengths

- Two partial barriers will be removed on an unnamed but important tributary of Juno Creek in the Tillamook Bay watershed, providing fish access to high quality rearing habitat.
- The technical approach of establishing a low-water ford crossing is sound, cost-effective, mitigates impacts to adjacent wetlands, and is appropriate for the expected minimal use of the road in the future.

- Field investigations noted fish are present downstream of the existing crossings and quality habitat is located upstream that is currently blocked from fish use by the subject culverts.
- The project will improve floodplain connectivity and have positive benefits to water quality.
- The application provides evidence of the possible benefits to climate change impacts. The crossing removal will help the creek accommodate higher flows with the projected transition to wetter winters and drier summers.
- The proposed work and partnership with the Tillamook Creamery could lead to more restoration upstream of the project site. The applicant is planning a second phase that will look at addressing the reed canary grass-dominated wetland community.
- The project team is qualified to implement the project effectively and plan future planting efforts.

### **Concerns**

- Unfettered access for fish to the project area may be limited by the presence of a tide gate downstream. Its current function and passage ability is unknown, although it is evident that some fish can pass through.

### **Concluding Analysis**

Fish passage barriers will be eliminated on a tributary and represents a cost-effective solution for a considerable ecological benefit. The wetlands present upstream of the barriers could provide rearing habitat for fish, including Oregon coast coho salmon. Future efforts will look at other opportunities to restore native plant communities in the currently invasive plant-dominated wetlands. This project is an important catalyst to beginning more comprehensive watershed restoration in Juno Creek system.

### **Review Team Recommendation to Staff**

Fund

### **Review Team Priority**

5 of 12

### **Review Team Recommended Amount**

\$52,867

### **Review Team Conditions**

n/a

### **Staff Recommendation**

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### **Staff Follow-Up to Review Team**

n/a

### **Staff Recommendation**

Fund

### **Staff Recommended Amount**

\$52,867

**Staff Conditions**

n/a

# Open Solicitation-Open Solicitation Fall 2023 Restoration

North Coast (Region 1)

**Application Name:** 224-1006-23315

**Project Type:** Restoration

**Project Name:** Sutton Creek Proposal Rock Fish Passage Improvement Project

**Applicant:** Nestucca-Neskowin Watersheds Council

**Region:** North Coast

**County:** Tillamook

**OWEB Request:** \$400,748

**Total Cost:** \$550,156

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**Application Description** 1) Sutton Creek is a 1.6-mile tributary of Neskowin Creek located in Neskowin, Tillamook County. Its headwaters are in the Siuslaw National Forest and it flows through a beaver marsh wetland before reaching a residential neighborhood at its confluence with Neskowin Creek. Sutton Creek supports populations of ESA threatened coho salmon, winter steelhead, coastal cutthroat and Pacific lamprey.

2) In the downstream-most reach of the creek, two corrugated metal pipe (CMP) culverts at road crossings are significantly undersized and poorly placed, partially blocking passage for fish . During storm events, the culverts fill with debris creating fish passage barriers and cause water to overtop banks flooding the neighborhood. In 2021, flooding overtopped both culverts resulting in damage to nearly two-dozen homes, washing away road fill at the downstream culvert exposing buried utility lines. One of the crossings is currently unusable.

3) The Nestucca, Neskowin, and Sand Lake Watersheds Council (NNSLWC) convened a technical review team and hired Stillwater Sciences to prepare 100% plans. The restoration project proposed here will replace the bottom culvert with a concrete box culvert following using the plans produced by Stillwater Sciences. This project will restore fish passage to 1.6 miles of spawning and rearing habitat for salmon and steelhead, including 0.8 miles of habitat for ESA listed Oregon Coast coho salmon.

4) The Project Team includes representatives from NNSLWC, the US Fish and Wildlife Service (USFWS), the US Forest Service (USFS), Trout Unlimited and Salmon Super Highway (TU & SSH), Tillamook Estuaries Partnership (TEP), and Proposal Rock Homeowners Association (PRHOA). ODFW will review and approve a Fish Passage Plan and will assist with fish salvage when work area isolation occurs prior to construction activities. USFS staff will provide federal and state permitting assistance for ARBO II and fish salvage under Wyden Authority rules.

## Review Team Evaluation

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### Strengths

- The project is located just upstream of the mouth of Neskowin Creek, which has historically been an important place for juvenile fish to find refuge when they are flushed out during high water events and need to avoid being swept out into the ocean.
- There are multiple partners involved in the project that bring a breadth of technical expertise. Oregon Department of Fish and Wildlife will provide fish salvage for implementation.
- Technical designs for the crossing are complete at 100% and the project is nearly ready for implementation. The designs will restore full volitional passage for all species and life cycles of aquatic organisms to approximately 0.8 miles.
- Flooding in the watershed has caused major infrastructure problems. This project moves beyond a quick fix solution to deliver a crossing that is likely to withstand high water events more effectively.
- Various salmonids and lamprey use Sutton Creek, and there is public land upstream that provides some spawning and rearing habitat.
- The project team is experienced and has a track record implementing similar projects.

### **Concerns**

- It is unclear if Sutton Creek is a high priority location to restore fish habitat. The expected ecological benefit achieved may be lower than other streams in the watershed with more robust fish populations. Productivity of Oregon coast coho salmon is only moderate in Sutton Creek.
- The project site is located within a gated community and the alternative selected may largely be dictated by the homeowner association's preference for transportation and neighborhood planning, rather than for the benefit of fish populations.
- The cost-effectiveness of the project may be low for in-stream habitat that will be made accessible.

### **Concluding Analysis**

Fish passage will be improved on Sutton Creek by constructing a new structure at a washed-out road crossing just upstream of the mouth of the creek. This crossing has already failed and the road is currently unused. Replacing the failing road crossing is a priority for the community to address the need for emergency vehicle access. The application is a resubmit from the last cycle when it was not recommended for funding, primarily due to concerns about the potential lower ecological benefit of focusing on Sutton Creek. The ecological benefit to salmonids and watershed health for the high cost is still unclear.

### **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**

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**Staff Follow-Up to Review Team**

n/a

**Staff Recommendation**

Do Not Fund

**Staff Recommended Amount**

\$0

**Staff Conditions**

n/a

# Open Solicitation-Open Solicitation Fall 2023 Restoration

North Coast (Region 1)

**Application Name:** 224-1007-23324

**Project Type:** Restoration

**Project Name:** Invasive Weeds in Devils Lake

**Applicant:** Devils Lake Water Improvement Dist

**Region:** North Coast

**County:** Lincoln

**OWEB Request:** \$125,900

**Total Cost:** \$246,800

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**Application Description** 1. Project location: Devils Lake is located in Lincoln County and a portion borders the city limits of Lincoln City and Otis, along with the unincorporated community of Neotsu. The coastal lake that is managed by the Devils Lake Water Improvement District (District).  
2. The District is seeking grant funding to assist with the cost of using a mechanical harvester to remove invasive and noxious weeds from Devils Lake. As of summer 2022, Devils Lake was 48.6 percent occupied by this vegetation.  
3. The District has leased a mechanical harvester through 2026 to help limit the spread of invasive and noxious weeds in Devils Lake.  
4. Devils Lake Water Improvement District, North Lincoln Sanitary Service, Devils Lake Neighborhood Association, City of Lincoln City

## Review Team Evaluation

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### Strengths

- There is a clear need described for weed management in the project area with over 50% of Devils Lake occupied with invasive aquatic plant species.
- The proposed project builds off a 2023 effort and leverages funding from the legislature.
- The project approach employs the use of grass carp, which have been successful in the past at reducing coverage of aquatic invasive species.

### Concerns

- Some of the aquatic species slated for control are native to Oregon, particularly *Elodea canadensis*.
- The technical approach of using a mechanical harvester is likely to have only a minimal impact on the aquatic vegetation in the lake over time. The equipment has limitations on where it can access the lake and the proposed plan only removes a very small percentage of plant material from the lake. The equipment also may unintentionally harvest juvenile fish.

- The proposed approach addresses the symptoms and not the root causes of the problem. Vegetation is likely thriving in the lake due to high nutrient levels exacerbated by the dense homes around the waterway. Many homes have septic systems and limited, if any, riparian vegetation to aid with filtering runoff.
- Removing aquatic species does not address habitat limiting factors for salmon in the lake. The presence of non-native warmwater fish species is likely having a much larger impact on anadromous fish species such as Oregon coast coho salmon.
- The project focuses on improving recreational values in the lake and not fish and wildlife habitat.

### **Concluding Analysis**

The desire of the Devils Lake community to reduce coverage of aquatic vegetation in the waterway is understandable, given the recreational and economic impacts of the current condition. The continued mechanical removal of vegetation with a mechanical harvester will assist lake managers in temporarily reducing coverage of the plants in key recreational areas but is unlikely to have significant ecological benefit over time or address the root causes of the abundance of vegetation.

### **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**

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### **Staff Follow-Up to Review Team**

n/a

### **Staff Recommendation**

Do Not Fund

### **Staff Recommended Amount**

\$0

### **Staff Conditions**

n/a

# Open Solicitation-Open Solicitation Fall 2023 Restoration

North Coast (Region 1)

**Application Name:** 224-1008-23337

**Project Type:** Restoration

**Project Name:** Louie, Baxter, and Horn Creeks Large Wood Habitat Enhancement Project

**Applicant:** Nestucca-Neskowin Watersheds Council

**Region:** North Coast

**County:** Tillamook

**OWEB Request:** \$321,369

**Total Cost:** \$402,067

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**Application Description** Recent assessments by the Oregon Dept of Fish & Wildlife (ODFW) indicate it's necessary to increase the pace and scale of priority action implementation for the Nestucca OC coho population to meet viability goals needed for Endangered Species Act (ESA) delisting. The Oregon Coast Coho Conservation Plan for the State of Oregon (ODFW 2007) and the Final ESA Recovery Plan for Oregon Coast Coho (NMFS 2016) identify stream complexity as THE primary factor limiting recovery of the Nestucca River coho population. Louie, Baxter, and Horn Creeks, all designated critical OC coho habitat and Essential Salmon Habitat with medium to high intrinsic potential and higher productivity levels compared to other basin streams, are understocked with large wood and lack stream complexity and necessary levels of pool habitat. This project addresses the primary limiting factor by installing 58 large wood structures in these 3 streams at sites on industrial timber and agricultural lands identified in pre-project planning by ODFW's North Coast Watershed District Habitat Restoration Biologist and Nestucca, Neskowin, and Sand Lake Watersheds Council (NNSLWC) Executive Director. Each structure will have 2-8 pieces including key pieces with rootwads. The large wood will be donated by industrial timber land owners Lewis & Clark Timberlands and Stimson Lumber Company. Placements will be made using ground-based equipment, and access paths through riparian areas will be replanted with conifers to restore them and provide a source of future large wood. NNSLWC will provide project management, obtain county permits, secure wood, contract for project elements, and manage contracts. The ODFW Habitat Restoration Biologist will direct the placements. USFS will provide federal and state permitting using ARBOII and Wyden Authority programmatic. OWEB funds will be used to support project management, necessary fees (permits, BOLI, bidding), cultural resources survey (contracted), and contractor costs.

## Review Team Evaluation

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### Strengths

- The project will address a key watershed limiting factor by increasing habitat complexity in Louie and Baxter Creeks and providing critical rearing habitat for juvenile fish, including Oregon coast coho salmon.
- The proposed instream large wood placement will meet state and federal benchmarks identified in plan documents and will likely succeed in increasing floodplain connectivity that will provide broader ecological benefits.

- The planting plan described is technically sound.
- The applicant is successfully engaging with the landowners to implement a project on working lands that could lead to future restoration opportunities.
- The application thoroughly describes the project's potential to mitigate impacts from climate change. The wood placement will provide for improved summer rearing habitat in the future which will be critically important as stream temperatures continue to rise and exacerbate conditions for salmon.
- Louie, Baxter, and Horn Creeks are highly productive for salmonids and serve as important cold water refugia. The project will benefit chum salmon, and Horn Creek is one of only two chum producing streams in the area. Coho redds have also been regularly seen within the project reach.
- The creek is a drinking water source for the city of Pacific City, and the project will have benefits to water quality.
- The project team is experienced implementing this type of restoration and has a proven track record.

### **Concerns**

- The proposed livestock fencing and planting on the lower Horn Creek property is limited. Excluding cattle and additional plantings along the stream reach would provide greater ecological benefits from the investment.

### **Concluding Analysis**

The large wood placement project in priority tributaries within the Nestucca watershed will increase instream habitat complexity, which strategically aligns with several planning documents that support the recovery of Oregon coast coho salmon. The project is likely to succeed in integrating stream habitat restoration on working lands.

### **Review Team Recommendation to Staff**

Fund

### **Review Team Priority**

2 of 12

### **Review Team Recommended Amount**

\$321,369

### **Review Team Conditions**

n/a

### **Staff Recommendation**

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### **Staff Follow-Up to Review Team**

n/a

### **Staff Recommendation**

Fund

**Staff Recommended Amount**

\$321,369

**Staff Conditions**

n/a

# Open Solicitation-Open Solicitation Fall 2023 Restoration

North Coast (Region 1)

**Application Name:** 224-1009-23345

**Project Type:** Restoration

**Project Name:** Lincoln County Parks Riparian Restoration

**Applicant:** Lincoln SWCD

**Region:** North Coast

**County:** Lincoln

**OWEB Request:** \$48,516

**Total Cost:** \$71,314

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**Application Description** This project would concern three county parks along the Siletz River, with most restoration activities occurring at Moonshine Park, and smaller projects at Ojalla Park (44.765061273, -123.914505109) and Jack Morgan Park (44.801479782, -123.899631784).

Moonshine Park, located four miles north of the unincorporated community of Logsdan, is a highly popular location for swimmers and campers during the summertime, and while receiving less traffic during other times of year, it is still frequented in the fall and winter by recreational salmon fishermen. While mature conifer coverage is present along the stream banks throughout most of the park, visitor foot traffic has degraded much of the understory vegetation within the riparian buffer and several invasive species are present, particularly Himalayan blackberry (*Rubus armeniacus*)

Ojalla Park, located further downstream at Siletz River mile 31, is a relatively low-traffic location primarily used for its boat launch which was constructed in 2015 and involved the total removal of trees and ground cover vegetation in the vicinity. Some revegetation was conducted, which we intend to supplement.

Jack Morgan Park is an additional 6 miles downstream of Ojalla, experiences moderate recreational usage levels during the summer, and has a lack of conifers and a large amount of Himalayan blackberry along its stream bank.

Our proposed project would aim to enrich native tree and shrub coverage in the riparian buffer zones of each of these parks and increase plant diversity by removing invasive weeds via mechanical and chemical treatment, planting native shrub species in the project areas, propagating willow along the stream edge, and installing protective fencing in high traffic areas to prevent trampling until plants become established.

Partners will include the Lincoln County Parks & Recreation Department, MidCoast Watershed Council, and the Confederated Tribes of Siletz Indians.

## Review Team Evaluation

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### Strengths

- The project design balances recreational use with promoting riparian vegetation where appropriate in a public park. The approach is technically sound and likely to succeed in converting non-native grass to native plant communities.

- The application documents clearly the ways that the project will mitigate climate changes impacts to the Siletz River over time. Restoring riparian areas will contribute to a reduction in stream temperature in the future when an overstory becomes established.
- Revegetating the identified sites within the park system will reduce sediment inputs to the river at those locations.
- The planting plan includes species that will benefit native pollinators.
- Lincoln County Parks has been working across their portfolio of properties to proactively plan habitat improvement projects. The partnership with the Lincoln SWCD increases capacity to accomplish the work.

### **Concerns**

- The small collective size of the planting areas is likely to have minimal impact on the overall temperature of the Siletz River.
- The planting areas, particularly at Moonshine Park, are heavily utilized by the public. It may be challenging to prevent anthropogenic damage to the installed plants.

### **Concluding Analysis**

The project will have a beneficial impact on riparian conditions in the county parks where planting is proposed. There is a clear need for the project because riparian vegetation in the heavy-use areas are subject to trampling and erosion due to recreational use. This is a relatively small project in acreage, but there are ancillary benefits to the public, including outreach opportunities with these highly visible riparian plantings.

### **Review Team Recommendation to Staff**

Fund

### **Review Team Priority**

9 of 12

### **Review Team Recommended Amount**

\$48,516

### **Review Team Conditions**

n/a

### **Staff Recommendation**

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### **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-Open Solicitation Fall 2023 Restoration

North Coast (Region 1)

**Application Name:** 224-1010-23347

**Project Type:** Restoration

**Project Name:** Scappoose Oak Habitat Restoration & Education

**Applicant:** Columbia SWCD

**Region:** North Coast

**County:** Columbia

**OWEB Request:** \$84,865

**Total Cost:** \$121,821

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**Application Description** 1) This project is located on a property owned by the Port of Columbia County, at the northern tip of the Willamette Valley ecoregion and is part of the Multnomah Channel Bottomlands. Traveling north on W. Lane Road in Scappoose, the property is directly to the east.

2) Only about 5-6% of legacy oak habitat still exists in the Willamette Valley and Coastal ecoregions. Consequently, any remaining oak habitat is of extreme value to the many wildlife species that utilize these environments. There are very few opportunities in Columbia County to participate in oak restoration projects and for the public to see and learn about healthy, functional oak habitat.

The goal of this project is to work with agency partners and volunteers to restore two oak woodland sites and the adjacent field to an oak savannah. Currently the woodland areas are very overcrowded and infested with non-native English hawthorn. The hawthorn impedes the oak's ability to achieve its full growth potential and shades out the native understory species that would naturally occur. The understory suffers from a severe infestation of Garlic mustard (somewhat reduced by seasonal treatments over the last 5 years) as well as other more common invasive species like Himalayan blackberries, Shiny geranium, and Poison hemlock.

3) Funding from OWEB would allow the Columbia SWCD to pursue the following restoration activities: 1) Removal and treatment of hawthorn; 2) Tree thinning; 3) Weed control; 4) Replanting and seeding; 5) Development and installation of informational signs; 6) Building and installment of bird and bat boxes; 7) Monitoring; and 8) Education in the form of outreach, volunteer involvement, and site tours.

4) Project partners include the Port of Columbia County, Oregon Department of Forestry, US Fish & Wildlife Service, Natural Resource Conservation Service, and volunteers.

## Review Team Evaluation

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### Strengths

- The approach to restoring the different oak habitat areas is technically sound; methods are clearly defined in the application. The plan for managing invasive species in concert with reestablishing native vegetation is balanced and appropriate for the site.

- Thinning oaks to promote habitat variability is an appropriate method for oak woodland restoration.
- There are significant large acorn-producing oaks on site that will provide a seed source for oak habitat restoration.
- Oak woodlands and oak savannah are rare and declining habitat types in Scappoose watershed and are a priority for restoration. In this part of the state, oak habitat has been significantly fragmented due to urban development.
- The project is located on the edge of the range of Kincaid's lupine, the host plant for Fender's blue butterfly. With the willing public landowner, the project may lead to future project opportunities for the butterfly and other pollinator species.
- There is potential for engaging the public to promote oak in the community.
- The partnership with the Oregon Department of Forestry to provide some of the labor for the project is a cost-effective approach that will provide additional technical expertise and grow a seasonal labor force within the community.

### **Concerns**

- The goals for reducing weed cover to 10% and native vegetation to 90% seem ambitious given the current conditions of the property, much of which is currently dominated by non-native pasture grasses. This may be achievable in the oak woodland, but the open nature of the oak savannah and the proposed planting density will make this difficult to achieve.
- There is limited staff time in the application and there may not be enough time planned to accomplish the objectives.

### **Concluding Analysis**

Restoring oak woodland and oak savannah at a publicly owned site in Columbia County represents a unique opportunity to enhance and conserve a priority habitat. There are limited locations in this part of the range of Oregon white oak to engage in restoration and conservation of oaks. The thoughtful community engagement approach is likely to be effective in increasing awareness of the important role oaks serve in our watersheds.

### **Review Team Recommendation to Staff**

Fund

### **Review Team Priority**

10 of 12

### **Review Team Recommended Amount**

\$84,865

### **Review Team Conditions**

n/a

## Staff Recommendation

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### 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-Open Solicitation Fall 2023 Restoration

North Coast (Region 1)

**Application Name:** 224-1011-23348

**Project Type:** Restoration

**Project Name:** Upper Yaquina SIA Riparian Restoration

**Applicant:** Lincoln SWCD

**Region:** North Coast

**County:** Lincoln

**OWEB Request:** \$88,018

**Total Cost:** \$141,013

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**Application Description** This project would involve multiple privately owned properties located within the Bales Creek-Upper Yaquina (6th field HUC 171002040102) watershed in eastern Lincoln County. This watershed has been identified as Oregon DEQ 303(d) listed for impairments concerning dissolved oxygen, high temperatures, and bacteria (fecal coliform and E. coli). Excessive sedimentation and lack of riparian vegetation, or replacement of native vegetation with invasive species such as Himalayan blackberry (*Rubus armeniacus*) and reed canary grass (*Phalaris arundinacea*) is another common concern within the watershed. The area is part of an Oregon Department of Agriculture (ODA) Strategic Implementation Area (SIA). The SIA process include an evaluation of parcels in the selected area for violations of water quality law and prioritization of opportunities. The properties in this restoration proposal include parcels identified as having an opportunity for land use improvement that will improve water quality.

The Lincoln Soil & Water Conservation District is currently conducting water quality monitoring as one part of a Strategic Implementation Area program focused on the Upper Yaquina and Little Elk Creek watersheds.

Riparian restoration implementation is another component of the SIA program, and will address watershed concerns through measures such as manual and chemical invasive plant control, native shrub and tree planting, and livestock exclusion fence installation. The implementation of each of these activities will be tailored to the needs of each individual property participating in the project; each of them suffer from the watershed-wide impairments listed above to varying degrees.

Partners will include the Natural Resources Conservation Service and MidCoast Watershed Council.

## Review Team Evaluation

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### Strengths

- The project actions and geography are prioritized in several planning documents for the region. The project is located within the recently completed TMDL for the Yaquina basin, in a priority area for NRCS, and within an ODA Strategic Implementation Area.
- The planting plan and follow-up treatments for stewardship are appropriate for the site and likely to be successful.

- Existing baseline data for stream shading in the Upper Yaquina can be used to determine how this project will affect stream shade over time. Water temperature is also well documented in this part of the basin.
- Creating pollinator habitat in the coast range is valuable and increases the overall ecological benefit of the project.
- Riparian restoration will occur on several different landownerships. The applicant has worked in this reach of the Yaquina to build support for restoration and put together a larger project with greater impact. There is a plan to host additional workshops in Eddyville, which could serve to attract more interest in restoration activities.
- The applicant has capacity to accomplish the project objectives. Technical expertise is being contributed to the project from a variety of sources and the landowners are engaged and active in stewarding their riparian habitat.

### **Concerns**

- It is unclear whether the sequencing of the site preparation and seeding activities is the best approach for the pollinator meadow, it may be a bit ambitious to seed so quickly before non-native vegetation is effectively controlled.
- It is unclear why herbicide is needed for site preparation given the other proposed methods of mechanical removal and weed torches.

### **Concluding Analysis**

Riparian planting in the Upper Yaquina basin addresses the limiting factor of stream temperature on several privately owned parcels along the river. The landowners and project partners are clearly committed to a successful project as evidenced by the level of stewardship work already undertaken at the planting sites. This project could lead to other future riparian planting efforts in the basin.

### **Review Team Recommendation to Staff**

Fund

### **Review Team Priority**

8 of 12

### **Review Team Recommended Amount**

\$88,018

### **Review Team Conditions**

n/a

### **Staff Recommendation**

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### **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-Open Solicitation Fall 2023 Restoration

North Coast (Region 1)

**Application Name:** 224-1012-23358

**Project Type:** Restoration

**Project Name:** Five Rivers Sub-basin Large Wood Helicopter Treatment Project Phase I

**Applicant:** Oregon Wildlife Heritage Foundation

**Region:** North Coast

**County:** Lincoln

**OWEB Request:** \$742,008

**Total Cost:** \$1,297,904

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**Application Description** The Five Rivers Large Wood Helicopter Project will take place in four tributaries of the Five Rivers Sub-basin of the Alsea River on lands managed by the U.S. Forest Service (USFS) and the Bureau of Land Management (BLM).

The Alsea River Basin is located in the Oregon Mid-Coast and its drainage consists of 466 square miles. The basin supports multiple species of anadromous salmonids such as Coho, Fall Chinook, Spring Chinook, Chum, and Winter Steelhead as well as a number of other native species. In 1998, Oregon Coast (OC) Coho Salmon were listed under the Endangered Species Act (ESA).

A recent assessment by Oregon Department of Fish and Wildlife (ODFW) found the Alsea OC Coho population is not meeting its viability goal for ESA-delisting. ODFW and NOAA identified instream complexity and water quality as the limiting factors.

Industrial timber harvest has had significant impacts to stream habitat quality throughout the Oregon Coast Range. Activities such as road building, logging large diameter trees within riparian areas, and the removal of large woody debris reduced stream habitat complexity, adversely impacting the abundance and survival of salmonids.

This proposal is Phase 1 of 2 and funds the large wood treatment of Upper Five Rivers, Green River, East Fork Lobster Creek, and South Fork Lobster Creek using a Chinook helicopter to place whole trees in approximately 4 miles of stream to increase instream complexity and restore natural form and function. This project is proposed to be implemented during the Summer/Fall of 2024.

Project partners include the Oregon Department of Fish & Wildlife, U.S. Forest Service, Bureau of Land Management, and the Oregon Wildlife Foundation.

## Review Team Evaluation

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### Strengths

- Adding large wood instream to increase habitat complexity addresses a key limiting factor for salmon in the Alsea watershed, including Oregon coast coho salmon. This project will restore overwintering habitat for juveniles, a key component necessary for a potential delisting.
- The Five Rivers basin contains high quality fish habitat for several anadromous fish species, including coho and Chinook. The upper reaches of the watershed are in federal land ownership managed primarily as a Late Successional Reserve.
- The placement of large wood structures will activate the riparian zone and restore watershed function.
- Utilizing a helicopter to place the large wood structures is appropriate given the size of the material involved. Road access to the stream reaches is limited; where roads do exist, they are too narrow to accommodate transportation of the large material proposed.
- There is a high likelihood of success given the partners involved and the track record of similar previously completed projects in the basin.
- The application is improved from the previous submittal. Photos of the project stream reaches and information clarifying the staging areas and timeline is provided.

### **Concerns**

- The application is identified as “Phase 1,” but there is limited information provided on what future phases will entail.
- The current wood loading in the streams could have been better articulated in the application to help understand the need for the proposed actions to add more wood.
- It is unclear what role the applicant serves in the project planning and implementation.

### **Concluding Analysis**

The landscape-level large wood project on federal lands will improve instream habitat complexity within the Five Rivers basin in the Alsea watershed, a priority location to restore habitat for fish populations. The project partners are experienced and have a track record of implementing similar large wood projects. The ecological benefit expected from the proposed restoration is high.

### **Review Team Recommendation to Staff**

Fund

### **Review Team Priority**

3 of 12

### **Review Team Recommended Amount**

\$742,008

### **Review Team Conditions**

n/a

## Staff Recommendation

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### Staff Follow-Up to Review Team

n/a

### Staff Recommendation

Fund

### Staff Recommended Amount

\$742,008

### Staff Conditions

n/a

# Open Solicitation-Open Solicitation Fall 2023 Restoration

North Coast (Region 1)

**Application Name:** 224-1013-23361

**Project Type:** Restoration

**Project Name:** ECFR Beaver Habitat Restoration

**Applicant:** North Coast WS Assn

**Region:** North Coast

**County:** Clatsop

**OWEB Request:** \$87,338

**Total Cost:** \$123,238

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**Application Description** This is a resubmit of a project submitted in the 2022 fall funding round that was not recommended for funding. We have substantially revised the project.

The Ecola Creek Forest Reserve (ECFR) is comprised of 1,040 acres within the Ecola Creek watershed, 805 acres of which was managed by Oregon Department of Forestry (ODF) until it was purchased by the City of Cannon Beach in 2010. The ECFR Stewardship Plan (2013) found four major limiting factors to fish presence, one of them was the 'decline of beaver populations' (p.23).

The goal of the project is to support, expand, and retain beaver populations in the watershed by planting native riparian shrubs to bolster the growth of dwindling forage and dam building materials. Recovering beaver habitats in the ECFR will improve habitat conditions for several species of fish including ESA listed salmonids, Pacific lamprey, as well as amphibians, birds and mammals listed in the ODFW Oregon Conservation Strategy.

In 2021, the NCWA used OWEB funds to assess existing and potential beaver habitat using the Beaver Restoration Assessment Tool (BRAT). This helped hone in on areas with high habitat potential but inadequate beaver forage, which are the focus of this project. Both the BRAT assessment and the ECFR Stewardship Plan found limited forage to be a key limiting factor for beaver.

The primary project objective will be to plant native understory shrub species at six project sites on 1.5 acres of the Ecola Creek Forest Reserve, providing forage and dam building materials. Secondary objectives follow recommendations of the Stewardship Plan as well, including invasive plant removal and alder release to coincide with planting and effectiveness monitoring. Restoration efforts will expand on the OWEB funded Ecola Creek Forest Reserve Large Wood Mobilization project (213-1040).

Partners include US Fish and Wildlife Service, National Park Service, Nuveen Natural Capital and the City of Cannon Beach.

## Review Team Evaluation

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### Strengths

- Enhancing beaver habitat is a priority in the north coast. Legacy beaver activity has been noted in the watershed, indicating there is a possibility of attracting the species to return to the project area in Ecola Creek.
- The project provides opportunity for a low-risk habitat restoration technique at a reasonable cost.
- The project builds upon other restoration in the Ecola Creek watershed, including a recently implemented instream large wood placement project.
- The landowner and project partners are enthusiastic about beaver restoration. The City of Cannon Beach has worked to conserve the municipal watershed and is eager to accomplish restoration that benefits watershed health.
- Restoring beaver habitat within the Ecola Creek Forest Reserve will improve floodplain connectivity.
- There are opportunities to raise public awareness at this project location given the high public use of the property.
- The type and location of selected restoration actions is informed by data collected using the BRAT model.
- Restoring woody vegetation is likely to attract beaver back to the stream reaches in Ecola Creek. The methods for utilizing existing alders to build upon existing habitat structures and plant protection is clearly defined in the application.
- The project will be implemented by outside contractors instead of all-volunteer labor proposed in previous applications. This approach is likely to be more successful given the rough terrain that may not be suitable for volunteers to work in.

## **Concerns**

- The volume of uploaded information attached to the application dilutes information specific to the project actions. It is difficult to determine what information is directly related to the proposed project.
- The maps provided in the application lack detail needed to decipher exactly where the six proposed sites are located.
- The sequencing of blackberry treatment while also interplanting and caging trees for protection may not be technically sound. Choosing a contractor with relevant experience to accomplish this without damaging habitat will be imperative.
- It remains unclear why beaver are not currently present at the project site, it may be that existing habitat is not suitable for beaver. Without understanding the causes for beaver to be absent, the proposed restoration may not achieve the expected beaver response within the Ecola Creek watershed.

### **Concluding Analysis**

The project with a committed landowner is cost-effective and aims to encourage beaver in the Ecola Creek watershed. Establishing beaver within the forest could help improve floodplain connectivity and fish habitat. Legacy beaver structures have been encountered within the forest, and the City's enthusiasm in encouraging beaver in the watershed is commendable. This is the third submittal of this application; previous evaluation concerns are addressed by the switch to contractor labor rather than volunteers and refinements to the planting plan. The project will have a greater likelihood of success in restoring riparian conditions that will provide watershed benefits regardless of whether beaver return to the watershed.

### **Review Team Recommendation to Staff**

Fund

### **Review Team Priority**

12 of 12

### **Review Team Recommended Amount**

\$87,338

### **Review Team Conditions**

n/a

### **Staff Recommendation**

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#### **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-Open Solicitation Fall 2023 Restoration

North Coast (Region 1)

**Application Name:** 224-1014-23365

**Project Type:** Restoration

**Project Name:** Lower Elk, Coon, Mud and Pigpen Creeks  
Large Wood and Bridge Enhancement

**Applicant:** North Coast WS Assn

**Region:** North Coast

**County:** Clatsop

**OWEB Request:** \$278,533

**Total Cost:** \$377,733

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**Application Description** The project site is in the Nicolai-Wikiup watershed on land owned and managed by Hampton Lumber, upstream of the Big Creek Fish Hatchery and the town of Knappa, 15 miles east of Astoria. The project is on an 0.85 mile stretch of Elk Creek, a 0.5 mile section of Coon Creek a 0.4 mile section of Mud Creek and a 1 mile section of Pigpen Creek, all tributaries to Big Creek. Industrial logging practices in the watershed have left the channels of both streams largely devoid of structural complexity. The location of the project site, upstream from the Oregon Department of Fish and Wildlife (ODFW) fish hatchery, is identified as a priority stream for threatened salmonid species since it is the only stream reach in the watershed that is not accessible to hatchery fish and, therefore, is considered a high-intrinsic-potential stream reach. This project proposes to install in-stream large wood (LW) in Elk Creek (13 structures), Coon Creek (10 structures), Mud Creek (8 structures), and Pigpen Creek (13 structures), all 6th field tributaries to Big Creek. To accommodate for the large wood structures to be placed into Pigpen Creek the current undersized concrete bridge will be removed and a 50' pre-stressed concrete bridge will be installed. At the end of the Elk Creek reach an alder release will occur within the riparian area for additional wood material and plant diversity enhancement. The project has been identified by the NCWA, ODFW and Hampton Lumber as a restoration priority. Adding large wood is a high priority for these reaches, and will take advantage of the opportunity to build on the structural complexity and partnership success of the Upper Big Creek Floodplain Restoration Project. Also, stream function will increase by connecting this effort to a previous large wood project completed by Oregon Department of Forestry (ODF) just upstream of the recently completed Upper Big Creek Floodplain Restoration Project. Project partners include Hampton Lumber, ODFW and the NCWA.

## Review Team Evaluation

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### Strengths

- Installing large wood structures in the proposed Nicolai-Wikiup watershed stream reaches will improve in-stream habitat complexity, a limiting factor for salmon using the stream.
- The project area is located above a fish hatchery and will only benefit wild fish. Partners are working on a fish passage solution at the hatchery to improve conditions for migrating wild salmon upstream to the project area.

- Previous application evaluation concerns are addressed by refining plant species that will be used and removing the constructed alcoves from the proposal.
- The large wood placement will maximize efficiency by selecting locations in the stream reaches that are easy to access. The design approach to placement is appropriate by incorporating existing structures in the upper watershed that will mitigate and slow flashy flows and capture bedload.
- The landowner is a supportive partner by providing the material necessary for implementation. The partners have the capacity to implement the project and a track record of completing similar restoration.
- The project builds on other restoration in the watershed and creates a larger corridor of connected instream and riparian habitat.
- The costs are reasonable for the expected ecological benefit.

### **Concerns**

- More details are needed in the planting application section to evaluate technical soundness of the planting activities.
- Large wood structure will be placed instream starting in the upper watershed to slow water velocity and mitigate flashy stream flows. Additional information on the stream hydrology and the expected results of the top-down structure placement would clarify why the method is most appropriate to restore watershed conditions.

### **Concluding Analysis**

Instream habitat complexity will be restored to Big Creek tributaries in the Nikolai-Wikiup watershed. A unique aspect of this project is its location in a part of the watershed that is only accessible to wild fish. Natural resources agencies and partners are working on a passage solution that will benefit wild stocks migrating upstream of the hatchery in the future. The project addresses a key limiting factor for Columbia River listed fish species and the partners have a track record of working together to implement restoration.

### **Review Team Recommendation to Staff**

Fund

### **Review Team Priority**

4 of 12

### **Review Team Recommended Amount**

\$278,533

### **Review Team Conditions**

n/a

### **Staff Recommendation**

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**Staff Follow-Up to Review Team**

n/a

**Staff Recommendation**

Fund

**Staff Recommended Amount**

\$278,533

**Staff Conditions**

n/a

# Open Solicitation-Open Solicitation Fall 2023 Restoration

North Coast (Region 1)

**Application Name:** 224-1015-23369

**Project Type:** Restoration

**Project Name:** Shangrila Wetlands Restoration

**Applicant:** North Coast Land Conservancy

**Region:** North Coast

**County:** Clatsop

**OWEB Request:** \$180,913

**Total Cost:** \$226,637

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**Application Description** Shangrila Wetlands is located in Clatsop County within the city limits of Seaside, Oregon. The property was conserved in 2009 using OWEB funding to protect 70 acres of important estuarine and freshwater wetland habitat, including highly productive Coho spawning and rearing habitat. The property's proximity to commercial land use has created human impact challenges since the property was first protected. In recent years these challenges significantly increased resulting in a substantial amount of trespassing and dumping, causing ongoing ecological harm to the site. These activities have negatively impacted water quality, wildlife habitat, and native plant communities by killing vegetation and creating areas of bare ground, dumping toxic and hazardous material in and near wetlands, and digging and causing ground disturbance that leads to erosion. The unvegetated areas also cause erosion of sediment into the wetland during rain events which negatively impacts water quality and salmon habitat as well as decreasing the water holding capacity of the site.

The project area for this proposal includes 11 acres of freshwater forest/shrub wetland including 200 ft of Shangrila creek. We plan to remove all trash and debris from the site, install 2,500 feet of perimeter fencing to restrict human access, and plant native forbs and shrubs into impacted areas. The property is an ecologically and culturally important site and an archeologist will be present during the clean up and fence installation, and will help inform the planting plan. Following the restoration project, NCLC will commit to weekly monitoring of the site to ensure there are no negative impacts to steward for plant establishment success. Other project partners include the Confederated Tribes of Siletz Indians, the Confederated Tribes of Grand Ronde, the City of Seaside, the Necanicum Watershed Council, and Clatsop Community Action.

## Review Team Evaluation

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### Strengths

- Shangrila Wetlands is a 70-acre complex of high-quality wetlands, including tidally-influenced Sitka spruce swamp, that were acquired through an OWEB acquisition project. A conservation easement protects the property's ecological values into perpetuity.
- The need to restore and protect native plant communities within estuarine upland wetland is clear. Houseless camping is a long-term issue impacting property stewardship. Recent sanctioned camping on a neighboring City of Seaside-owned property has exacerbated the problem and there is an urgent need to act to protect the watershed health.

- The proposal to restore impacted areas through planting and fencing is a creative and technically sound approach. The plants selected will restore biodiversity to the damaged areas and the fencing plan will allow for passage of small wildlife while protecting sensitive biological and cultural resources.
- The property connects with other investments in conservation as part of a larger network of protected wetlands, including the neighboring Mill Ponds property.
- There are letters of support from both the Confederated Tribes of the Siletz Indians and the Confederated Tribes of Grand Ronde, highlighting the importance of this project to Tribes.
- The City has a community support officer that is committed to helping the houseless community relocate outside of Shangrila Wetlands and preventing illegal camping within the project area.

### **Concerns**

- The fencing design is carefully considered, but it is unclear whether it will be effective over time. Fencing established in the past has been cut and removed illegally so that campers continue to access the property and damage habitat. Additional information describing how the proposed fencing will be managed differently is needed to understand if this effort could be maintained long-term or will be another stopgap measure.
- Given the complexities of the housing crisis and the myriad of social issues that touch this issue, engaging additional partners may be needed to develop capacity for achieving the habitat outcomes.

### **Concluding Analysis**

Shangrila Wetlands is a high value wetland complex owned by the applicant who is an accredited land trust. The property has been impacted over the last decade by repeated trespassing and illegal camping, worsened in recent years by the housing crisis in Oregon. The project aims to establish fencing and planting to restore and protect the degraded habitat impacted areas on the property. Overall, the planting areas are small in total acreage but important considering the high ecological value of the site. Given the importance of the site and the applicant's demonstrated commitment to stewardship, the project is likely to succeed in meeting the expected ecological outcomes.

### **Review Team Recommendation to Staff**

Fund

### **Review Team Priority**

11 of 12

### **Review Team Recommended Amount**

\$180,913

### **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-Open Solicitation Fall 2023 Technical Assistance

North Coast (Region 1)

**Application Name:** 224-1016-23245

**Project Type:** Technical Assistance

**Project Name:** Sitka Sedge Tidal Wetland Restoration - Phase II

**Applicant:** Tillamook Estuaries Partnership

**Region:** North Coast

**County:** Tillamook

**OWEB Request:** \$108,900

**Total Cost:** \$119,042

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**Application Description** Sitka Sedge Tidal Wetland (SSTW), is a significant opportunity to improve tidal wetland function, habitat complexity, species diversity, and water quality in the Sand Lake Estuary. TEP, in partnership with OR Parks & Recreation District (OPRD), proposes a \$1.8m project to evaluate dike breach and setback flood protection alternatives key to restoration of Beltz Marsh. SSTW will deliver final restoration designs for Beltz Marsh and the three stream crossings under Sandlake Rd. enabling restoration of 68-acres of tidal wetland habitat and 4.7 miles of tributaries being made fully accessible for both spawning and additional rearing habitat.

SSTW, is an unincorporated portion of Tillamook County on Oregon's north coast. SSTW comprises the southern extent of Sand Lake Estuary nested within the 357-acre Sitka Sedge State Natural Area (SSSNA). Tidal wetland access is a critical limiting factor in pursuit of healthy coastal watersheds. Over 70% of Oregon's estuarine wetlands have been lost to conversion. In Sand Lake, loss is due to levee construction and draining that altered tidal wetland function and quality resulting in significant impact to sensitive species and habitats.

SSTW evaluates setback flood protection alternatives for the Tierra Del Mar community to mitigate impacts of Sea Level Rise (SLR). Deliverables include final design drawings and specifications, bid package, and permitting. Pending match includes funds from National Oceanic and Atmospheric Administration's (NOAA) and Restoring Fish Passage through Barrier Removal Grants and an in-kind contribution from OPRD. Other partners include US Fish and Wildlife Service (USFWS), US Forest Service (USFS), OR Dept. of Fish and Wildlife (ODFW), Dept. of Land Conservation & Development (DLCD), OR Dept. of Environmental Quality (DEQ), Nestucca, Neskowin & Sand Lake Watersheds Council (NNSLWC), Tillamook County Public Works (TCPW), Trout Unlimited (TU), and Confederated Tribes of Siletz Indians (CTSI).

## Review Team Evaluation

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### Strengths

- The overall project goal is to eventually restore a matrix of tidal wetland types on the site within the Sand Lake estuary by returning a maximum level of inundation. Estuary habitat is a priority for restoration within the region.

- Sand Lake is unique as its only one of four bar-built estuaries in Oregon. It represents a significant restoration opportunity to restore tidal hydrology and address multiple limiting factors affecting fish and wildlife species. Oregon coastal coho salmon in the Sand Lake watershed will benefit from the increase in rearing habitat.
- The application clearly articulates the need to seek additional funding for the design process due to the complex nature of the proposed geotechnical work, and to create updated topographic surveys and designs for permitting.
- The selected design approach takes into consideration balancing ecological benefit with potential impacts to an adjacent community by providing an additional safeguard against tidal hydrology. The project incorporates future climate change scenarios and benefits that will be realized from restoring wetlands, including carbon sequestration.
- The landowner has been working closely with the adjacent community for years to ensure they have the knowledge they need to feel comfortable with the restoration. The level of communication and collaboration on behalf of the project partners is commendable.
- There are many letters of support provided with the application that indicate a high level of partner involvement.

### **Concerns**

- The setback dike for flood protection will be a very costly part of the constructed project and design, and will limit the ecological benefit of the restoration outcomes. It is unclear if the geotechnical investigation will conclude that it is possible to construct the dike with the soils at the proposed location. Due to the uncertain feasibility and watershed benefit of the setback dike, the path for the technical assistance leading to fish and wildlife habitat restoration is unclear.
- Members of the adjacent community continue to challenge certain aspects of the design solution, causing continued uncertainty as to the feasibility of implementing restoration.
- It is unclear if the budget is sufficient to deliver the proposed outcomes.

### **Concluding Analysis**

Restoring estuary habitat is a priority in Oregon, and this project represents a significant opportunity to do so on conservation lands within the Sand Lake estuary. Altering the levee will return tidal hydrology and the assemblage of estuarine habitats that will benefit fish, aquatic life, and shorebirds. This project will build on previously funded work, but the application lacks an explanation of what has been accomplished with the existing Technical Assistance grant awarded by the OWEB board in April 2022. The additional funds are needed for more extensive geotechnical work related to the proposed setback dike, of which modeling has demonstrated may not be necessary. Further explanation of where the design process is at currently would have been helpful in evaluating the application. The potential watershed benefit for the cost is unclear due to the uncertainty of the feasibility and need for the setback

dike to restore tidal wetland function.

**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**

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**Staff Follow-Up to Review Team**

n/a

**Staff Recommendation**

Do Not Fund

**Staff Recommended Amount**

\$0

**Staff Conditions**

n/a

# Open Solicitation-Open Solicitation Fall 2023 Technical Assistance

North Coast (Region 1)

**Application Name:** 224-1017-23254

**Project Type:** Technical Assistance

**Project Name:** Coastal Dune Restoration Planning at Westwind

**Applicant:** Institute for Applied Ecology

**Region:** North Coast

**County:** Lincoln

**OWEB Request:** \$51,922

**Total Cost:** \$56,922

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**Application Description** The goal of this project is to facilitate the restoration of native dune habitat at Westwind by developing a site-specific restoration plan and collecting native seed. Westwind is a 529-acre property located at the mouth of the Salmon River in Otis, Oregon, and is owned and managed by the non-profit Westwind Stewardship Group. OWEB holds a conservation easement over the site due to its extraordinary conservation value, and the entire property exists within the 102,110-acre UNESCO Cascade Head Biosphere Reserve.

Native sand dune habitat has declined along the Oregon coast since European beachgrass was introduced in the early 1900's to stabilize the landscape. The loss of dynamic, open-sand areas has resulted in the decline of native species and has degraded inland estuary habitat by altering tidal floodplain dynamics. A prime example of this phenomenon is along the 160-acre sand spit at Westwind. This area is ripe for restoration, but there are currently no documented standards or best practices for how to successfully conduct this work. Furthermore, there are inadequate plant materials available to restore the unique species that historically made up coastal dune plant communities.

To lay the foundation for restoring coastal dune habitat at Westwind, the Institute for Applied Ecology will work collaboratively with the Westwind Stewardship Group to write a comprehensive restoration plan. This will be achieved by (1) assessing and mapping current conditions along the sand spit, (2) visiting and gathering information from high-quality remnant and restoration sites along the coast, (3) hosting regional dune restoration practitioners and experts on site to provide guidance, (4) synthesizing information and writing a restoration plan, and (5) collecting and storing seeds from native dune species. Ultimately, this project will guide actions leading to the restoration of native dune habitat at Westwind and be a model for future dune restoration in Oregon.

## Review Team Evaluation

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### Strengths

- There is a clear need for restoring native coastal dune systems on the Oregon coast and the Westwind conservation property at the mouth of the Salmon River is a priority location in which to do so. The dunes are currently dominated by European beachgrass that has stabilized the sand, which limits habitat for species that rely on dynamic sand movement, including the federally listed snowy plover.
- The plan for dune restoration fits in well with camp operations that occur at Westwind. The applicant and landowner have thoughtfully considered an approach that will work for both the human use of the site and the ecology of the dunes.
- The property is conserved in perpetuity by an OWEB conservation easement and contains a plethora of priority habitat types that are declining in Oregon. Westwind is also within the Cascade Biosphere Reserve.

### **Concerns**

- Given the complexities of dune restoration, it may be challenging to achieve some of the desired outcomes with the proposed technical approach, which may not provide enough data to effectively plan for implementation.
- The proposed technical assistance effort focuses on plant communities and is light on geomorphic assessments. It is unclear whether the proposed assessment will contain the data necessary to proceed with the sand destabilization actions to establish a naturally functioning dune system.
- A partnership or contract with a geomorphologist experienced in dune systems and coastal erosion, in addition to expertise in plant ecology, may be needed to create a restoration plan that can achieve dynamic open sand habitat.
- Permitting could be an extensive effort for the type of expected restoration actions. It is unclear how the permitting will be accomplished or who will be responsible.
- The budget does not incorporate items that may be necessary for understanding the physical mechanics of dune restoration. Potential expenses could include drone surveys to characterize existing sand and erosional patterns or engineering to model sand movement. It is unclear whether the project will use professionally accepted methods to collect appropriate data needed to create a plan that will lead to effective dune habitat restoration.

### **Concluding Analysis**

Restoring a native, naturally functioning dune system to the Salmon River estuary is a unique opportunity. Many imperiled species in the state, including the federally listed western snowy plover and pink sand verbena, rely on the dynamic conditions prevalent on sand dunes that are not stabilized by the invasive European beach grass. The isolated nature of the sand spit in relation to other dune systems means that maintaining a native dune community and controlling European beach grass into the future is a real possibility. It is unclear, however, whether the technical assistance proposed in the application will

provide the information necessary to arrive at a restoration project that can achieve the stated habitat outcomes. It is recommended that project partners refocus their technical assistance to include geomorphic assessments that will help provide a greater understanding of the effects of changing the sand dynamics on the spit.

**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**

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**Staff Follow-Up to Review Team**

n/a

**Staff Recommendation**

Do Not Fund

**Staff Recommended Amount**

\$0

**Staff Conditions**

n/a

# Open Solicitation-Open Solicitation Fall 2023 Technical Assistance

North Coast (Region 1)

**Application Name:** 224-1018-23267

**Project Type:** Technical Assistance

**Project Name:** Beaver Creek Valley Scale Floodplain Restoration Design

**Applicant:** MidCoast WC

**Region:** North Coast

**County:** Lincoln

**OWEB Request:** \$169,103

**Total Cost:** \$192,703

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**Application Description** The Beaver Creek Valley-Scale Floodplain Restoration Project is located in the Yaquina River Basin, approximately 2.5 miles west of its confluence with Depot Slough in Toledo, Oregon. This stream has been designated as Essential Salmonid Habitat and is important spawning and rearing habitat for ESA listed Oregon Coast Coho Salmon (coho), Chinook salmon, winter steelhead, Pacific lamprey, and coastal cutthroat trout. This technical assistance project will allow an alternatives analysis and a shovel ready restoration project design that will address factors limiting the recovery and conservation of coho as identified in state and federal conservation and recovery plans. The project will result in designs that will restore floodplain connectivity, instream complexity and healthy riparian habitat on 37 valley-bottom acres and 1.1 miles of stream to increase winter and summer rearing habitat for juvenile salmonids and build resiliency against the impacts of climate change. Project partners include the Oregon Department of Fish and Wildlife and three private landowners.

## Review Team Evaluation

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### Strengths

- The application articulates a clear path from the objectives to the expected project outcomes.
- A variety of approaches will be considered to improve ecological conditions on over 37 acres and 1.1 stream miles, including process-based techniques and re-establishing natural stream sinuosity.
- The project is likely to encourage beaver presence on the landscape by restoring a hardwood shrub component to the floodplain.
- The approach will serve to bring all the landowners involved along in the design process and allow for open communication to ensure that a consensus is achieved for a selected alternative.
- Restoring the stream to a natural channel away from the road and excluding livestock from the stream will result in significant benefits to water quality.
- The project partners include a breadth of expertise, including ODFW and three private landowners.
- The project is cost-effective by using existing LiDAR and bathymetric data in the design process. The budget is appropriate for the deliverable of 90% designs and permits for the site.

## Concerns

- No significant concerns were noted during the review.

## Concluding Analysis

The resulting restoration project within the Beaver Creek basin in the Yaquina watershed will result in improved habitat conditions for aquatic species, including Oregon coast coho salmon. The project will improve water quality, increase instream habitat complexity, and restore native plant communities. The need for the technical assistance is clear within the application and the project partners have the necessary capacity and track record to achieve the proposed outcomes.

## Review Team Recommendation to Staff

Fund

## Review Team Priority

2 of 4

## Review Team Recommended Amount

\$169,103

## Review Team Conditions

n/a

## Staff Recommendation

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### Staff Follow-Up to Review Team

n/a

### Staff Recommendation

Fund

### Staff Recommended Amount

\$169,103

### Staff Conditions

n/a

# Open Solicitation-Open Solicitation Fall 2023 Technical Assistance

North Coast (Region 1)

**Application Name:** 224-1019-23259

**Project Type:** Technical Assistance

**Project Name:** Integrating Life History Diversity and Climate Resilience into SAPs: A Pilot

**Applicant:** Wild Salmon Center

**Region:** North Coast

**County:** Lincoln

**OWEB Request:** \$116,085

**Total Cost:** \$121,903

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**Application Description** Wild Salmon Center (WSC) is facilitating the development of Strategic Action Plans (SAPs) for independent ESU populations to assist coastal partners in prioritizing habitat protection and restoration actions to promote the recovery of Oregon Coast Coho. Each SAP is generated by a diverse local team. Through the process, the team generates a long-term, reach-specific roadmap for habitat protection/restoration, as well as a short term workplan of discrete projects.

WSC is seeking to elevate the integration of climate science and salmon biology into the planning process. A core pillar of the strategy to enhance salmon climate resilience is to promote life history diversity (LHD). Specifically, our goal is to conduct research to assess key data gaps in Oregon Coast Coho LHD that once addressed will ensure that independent populations have the LHD necessary to persist in rapidly changing watershed conditions. In short, we would like 'preparing Coho for climate change' to become the fabric of the plan that sets local teams up for long-term, effective implementation.

We seek to identify the life history pathways in the Coquille and Siletz populations to inform climate resilience strategies in the development of the SAPs for these basins. We will collect water samples and otoliths (ear bones) from Coho carcasses from the 2024 and 2025 runs to measure strontium isotopes. This analysis will help determine the prominent life history strategies being exhibited within the Coquille and Siletz populations by indicating temporal and spatial habitat usage (i.e., freshwater vs. estuarine vs. marine). Used in combination with adult return and habitat data, this snapshot of life history diversity will inform a qualitative assessment of the adaptive capacity of each of the populations and inform the long-term restoration strategies that will be implemented in the SAPs. Partners include: Coquille Watershed Association, Mid-Coast Watershed Council, and Oregon State University.

## Review Team Evaluation

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### Strengths

- The project is a pilot study that, if successful, could be replicated in other priority locations along the coast.
- Filling data gaps to better understand Oregon coast coho salmon life history diversity can be helpful in prioritizing and developing restoration projects.

- The applicant and project partners are qualified and capable of implementing the project.

### **Concerns**

- It is unclear how the resulting data will inform the Strategic Action Plans, which are currently underway. It is also unclear how the data will be utilized to prioritize and plan restoration projects, particularly for rearing habitat preference.
- The sample size for the ear bone collection is small. It is unclear if the resulting data will provide sufficient information to extrapolate to a population scale that can be utilized for restoration project planning.
- The resources and literature cited are from a decade ago. Including more recent literature citations in the application would be helpful to understand the current relevance and effectiveness of the techniques proposed.
- The need for the technical assistance is not well understood from the information in the application. It is unclear if the data is necessary to understand coho life stages differently than what is already known and used for planning restoration.
- Collecting coho heads in the field instead of just the ear bones is expensive and alternatives are not described in the application. Ear bone collection has been done in the past in the field for a more reduced cost. Partnering with ODFW may be a more cost-effective approach to collecting this kind of information.

### **Concluding Analysis**

The proposed technical assistance will be accomplished by a qualified team and the objectives described are likely to be achieved. It is, however, unclear how the proposed work will benefit the Strategic Action Plans in a meaningful way, especially given the small sample size proposed. There is no discussion of how the data will feed into the existing SAP process, which is well underway and nearing conclusion in the watersheds identified for the study. The work appears to be more of a research-focused technical assistance effort rather than one that will directly inform on-the-ground restoration in a way that restoration practitioners can effectively use.

### **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-Open Solicitation Fall 2023 Technical Assistance

North Coast (Region 1)

**Application Name:** 224-1020-23276

**Project Type:** Technical Assistance

**Project Name:** Honeygrove Oxbow Reconnection Final Design

**Applicant:** MidCoast WC

**Region:** North Coast

**County:** Benton

**OWEB Request:** \$144,507

**Total Cost:** \$495,443

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**Application Description** The 125 acre "Honeygrove Oxbow" site is situated immediately downstream from the confluence of Honeygrove Creek and The North Fork Alsea River, and just above the town of Alsea, OR (Benton County). This project aims to restore full hydrologic connection and fish passage to one mile of relict oxbow channel habitat along the North Fork Alsea River, to provide winter rearing habitat, the limiting factor for salmonids in this basin. Upstream access for fish and flow is blocked by a sediment plug and the downstream connection to the oxbow area is a failing, undersized culvert, which blocks access for fish. This second phase of design would continue to advance understanding of physical and biological processes at the site and build on the previous phase of design in which topographic/bathymetric surveys were completed, existing and desired hydrologic conditions were modeled, a geomorphic assessment completed, design alternatives developed, and a preliminary design was selected. This phase will carry those designs through 75%, 90% and Final Designs, both for habitat improvements at the site, as well as for a proposed flood relief channel and structure under Alsea Deadwood Highway. This work will include permit application development and preparation for a CLOMR/LOMR process, the need for which will be determined through this project in meetings with Benton County officials. Project partners include the Bureau of Land Management, US Fish and Wildlife Service, OR Dept of Fish and Wildlife, OR Dept. of Transportation, a consulting Fish Biologist, ESA Associates and Sub-contracted Engineering firms, and private landowners.

## Review Team Evaluation

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### Strengths

- Multiple limiting factors for ESA-listed fish will be addressed by restoring instream habitat complexity and enhancing floodplain connections. The restoration actions will increase overwinter habitat for Oregon coast coho, Chinook, and cutthroat trout.
- The project area includes 125 acres of oxbow habitat and one mile of instream habitat. It represents the largest opportunity to restore off-channel habitat in the Alsea watershed and could also help mitigate flood impacts that negatively impact fish.
- The project is likely to lead to implementation of site-specific restoration by completing 90% designs. The project partners have already achieved 60% designs and the work produced to date has been technically sound and maximizes ecological possibility within the oxbow.

- Excluding livestock from the riparian area will have a myriad of water quality benefits.
- The project is incorporating design alternatives to support habitat for western pond turtles.
- The project team is experienced with implementing similar types of projects and has a breadth of experience needed to accomplish the work. Appropriate people have been engaged to ensure deliverables are achievable, including ODOT staff needed to review designs as related to the Alsea Deadwood Highway.
- The landowners are enthusiastic about reconnecting Honeygrove Creek with its floodplain.
- The budget comprehensive and includes funding for cultural resource surveys.

### **Concerns**

- Flood inundation mapping would have helped better clarify the potential project impacts and constraints.

### **Concluding Analysis**

The Honeygrove Oxbow project will restore an important relict oxbow of the North Fork Alsea River that has been disconnected hydrologically due to legacy farm activities. Restoring full hydrologic connection and fish passage to over a mile of relict oxbow will provide important winter rearing habitat, which is a limiting factor in this basin. The need for the technical assistance work is clear from the application and the expected ecological benefits will be significant. The partnership behind the project is qualified and there is a likelihood of success in achieving the technical assistance objectives and implementing a high quality restoration project in the future.

### **Review Team Recommendation to Staff**

Fund

### **Review Team Priority**

1 of 4

### **Review Team Recommended Amount**

\$144,507

### **Review Team Conditions**

n/a

### **Staff Recommendation**

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### **Staff Follow-Up to Review Team**

n/a

### **Staff Recommendation**

Fund

### **Staff Recommended Amount**

\$144,507

**Staff Conditions**

n/a

# Open Solicitation-Open Solicitation Fall 2023 Technical Assistance

North Coast (Region 1)

**Application Name:** 224-1021-23319

**Project Type:** Technical Assistance

**Project Name:** South Scappoose and Raymond Creek  
confluence Floodplain Design

**Applicant:** Scappoose Bay WC

**Region:** North Coast

**County:** Columbia

**OWEB Request:** \$87,959

**Total Cost:** \$90,709

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**Application Description** This technical assistance project is located on the Raymond Creek and South Scappoose Creek Confluence, a tributary to South Scappoose Creek, Scappoose Bay and the Lower Columbia River (LCR). The site is approximately 3 miles upstream of the City of Scappoose, in southern Columbia County. Written reports and oral histories indicate that all fish species have declined dramatically in the watershed, including this confluence. LCR Coho, Steelhead and Cutthroat were all historically abundant in Raymond Creek, and were observed in limited numbers during ODFW surveys (SBWC Watershed Assessment, 2000). The Limiting Factor Analysis determined this confluence anchor habitat site number two for South Scappoose Creek and Fourth in the watershed. Rural residential development has led to poor instream and riparian conditions, including eroding and undercut banks, fish passage concerns, stream channelization, cattle grazing and crossings, lack of large wood and lack of riparian vegetation (ODFW Aquatic Inventory, 2009). Local landowners have expressed concerns due to recent erosional issues and flooding, leading to this proposal. The project will analyze hydrologic and geomorphic conditions, conduct two-dimensional modeling and restoration designs for adding improvements to instream and riparian conditions. The engineer will use previous designs from the Raymond Creek project landowners that have designs but improve on them for habitat restoration and remove the previous focus of infrastructure. This project includes a number of landowners down stream of the previous technical assistance grant at the confluence, below the confluence and on South Scappoose Creek. The project will work with landowners on alternative analyses, and permitting agencies to find the best alternative for implementing restoration actions. Refined designs will be submitted to permitting entities. Project partners include landowners, Columbia County, CSWCD, ODFW, Waterways and the SBWC.

## Review Team Evaluation

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### Strengths

- The technical design work will utilize data developed during a previous OWEB-funded Technical Assistance grant for the project area. The new approach will improve on past design efforts and incorporate lessons learned in developing restoration alternatives. The project area is expanded from previous submittals and includes high priority sites for floodplain work.

- Raymond Creek has been identified as anchor habitat for salmonids in previous assessments of the Scappoose Bay watershed. The resulting restoration project will address habitat limiting factors for Lower Columbia River fish, including coho, steelhead, and cutthroat.
- The project builds off past investments in the South Scappoose watershed, including a large wood placement project farther upstream in the upper part of Raymond Creek.
- The alternatives analysis considers a range of restoration actions to arrive at a design that will provide ecological uplift within the stream reach.
- The project team has the right assemblage of expertise and a track record of success implementing similar projects.

### **Concerns**

- The sequencing of design review with the necessary landowner engagement is unclear in the application. Timing the planning and engineering work up front prior to communicating with some landowners may not be effective for securing their support for project designs.
- It is unclear how some of the design deliverables will be accomplished as proposed because landowner engagement will need to occur to arrive at a selected alternative. Additional information describing the range of possibilities for restoration actions, how these alternatives will be presented to landowners, and how the preferred alternative will be selected with landowner input before moving forward with 85% design is needed to understand how the project objectives will be accomplished.

### **Concluding Analysis**

OWEB has funded a previous Technical Assistance project along the same stream reach, but a subsequent Restoration application was not funded due to the inclusion of a few project components that were not cost-effective for the expected ecological benefit. In this application, the original data collected will be reincorporated and the project broadened to include several other sites with high potential for ecological benefit. The applicant effectively adapted the work into a new Technical Assistance project that will improve upon the original designs and create new possibility for restoration in a priority stream reach in the Scappoose watershed.

### **Review Team Recommendation to Staff**

Fund

### **Review Team Priority**

4 of 4

### **Review Team Recommended Amount**

\$87,959

### **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-Open Solicitation Fall 2023 Technical Assistance

North Coast (Region 1)

**Application Name:** 224-1022-23322

**Project Type:** Technical Assistance

**Project Name:** Rock Creek Fish Passage Improvement

**Applicant:** Upper Nehalem WC

**Region:** North Coast

**County:** Columbia

**OWEB Request:** \$117,040

**Total Cost:** \$147,040

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**Application Description** The City of Vernonia is looking to improve fish passage within Rock Creek. Currently they install a temporary dam during the summer months to allow the community to come together and have a local swimming pool. This pool is important to the community and therefore complete removal of the dam is not feasible. However, this dam is a fish passage barrier from early June through September.

Rock Creek is a major cool-water tributary to the Nehalem River spanning 28.8 miles upstream of Vernonia. The proposed improvements are meant to mitigate for the existing impediment and provide suitable conditions for fish migration while maintaining the necessary system functionality. Based on ODFW fish surveys, the waterway is critical for migratory and spawning habitat for Fall and Spring Chinook, Coho, Coastal Cutthroat Trout, Winter Steelhead, Lamprey, Largescale Suckers, Sculpins, and Crayfish. With this, it is expected that different life stages of these species are present throughout the year and the variable flow patterns of the creek.

Improvements to fish passage are focused on creating a fish passage friendly side channel that will be opened during the dams operational months.

## Review Team Evaluation

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### Strengths

- A design solution will be developed to address a priority juvenile fish passage barrier on Rock Creek in the Upper Nehalem watershed. Most of Rock Creek is currently inaccessible to juvenile fish migrating upstream to cooler water by the presence of the Nehalem “swimming pool,” which is for used recreation and constructed by a seasonal dam across the creek.
- Rock Creek contains important cold water refugia for juvenile steelhead and Oregon coast coho salmon. Temperatures in the mainstem Nehalem have been increasing; providing access for juveniles to Rock Creek’s cooler waters in the summer is a priority.
- There is a clear need for the technical assistance work. The passage solution is likely to be complicated at the project site due to the temporary nature of the dam and the need for meeting juvenile fish standards.

- The approach is technically sound with the proposed hydrologic modeling appropriate for the expected deliverables.
- The site has been a priority for natural resource agencies and the City of Vernonia for a long time; other relevant partners are finally now engaged in finding a solution. The work builds on a recently funded OWEB Restoration grant that addressed another juvenile barrier caused by City infrastructure located just downstream of the project site.
- The applicant is qualified to implement the project and has a track record of successfully implementing other similar projects. They bring to the project decades of experience and positive working relationships with the City of Vernonia staff.
- Costs are reasonable for a fish passage solution at the project location.

### **Concerns**

- The dam is currently removed when the first adult fish arrives; any resulting restoration project will solely benefit juveniles. There is, however, no fish population survey data provided or referenced that indicates the importance of restoring habitat for juvenile passage at the project site.
- The ponding and pooling associated with the temporary dam creates water quality concerns for fish due to elevated temperatures in Rock Creek. It is unclear if a passage solution will be helpful in addressing water quality impacts to fish habitat.

### **Concluding Analysis**

There are both community and ecological benefits to addressing juvenile fish passage at the project location on Rock Creek within the City of Vernonia. Constructing a solution that works in concert with the City's recreational use of the site will provide important cold water habitat for juvenile fish looking to migrate out of the warm mainstem Nehalem River in the hot summer months when the temporary dam is in place. The applicant has built an effective partnership that has the appropriate technical expertise to evaluate design solutions.

### **Review Team Recommendation to Staff**

Fund

### **Review Team Priority**

3 of 4

### **Review Team Recommended Amount**

\$117,040

### **Review Team Conditions**

n/a

### **Staff Recommendation**

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### **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-Open Solicitation Fall 2023 Technical Assistance

North Coast (Region 1)

**Application Name:** 224-1023-23331

**Project Type:** Technical Assistance

**Project Name:** Gallagher Slough Fish Passable Tide Gate Upgrade Phase 1

**Applicant:** Lower Nehalem WC

**Region:** North Coast

**County:** Tillamook

**OWEB Request:** \$75,385

**Total Cost:** \$96,738

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**Application Description** The Gallagher Slough tide gates are located under Hwy 101 near its intersection with Hwy 53 between Nehalem and Wheeler. The 5 tide gates are deteriorating, top-hinged, wooden doors, 7 ft x 8 ft. Gallagher Slough drains approximately 1,031 acres dominated by agricultural land use and limited impervious area. The existing tide gates limit fish passage to both Gallagher and Pye Sloughs, which intersect just upstream of the gates. Diking, tide gates, and other modifications to the Nehalem Estuary have resulted in a 54.9% reduction in tidal wetland area (Brophy, 2019).

This project will develop 30% conceptual level designs for the Gallagher Slough tide gates. This level of design will be sufficient to determine if the crossing can be retrofitted or if the entire structure will need to be upgraded. To do this, an engineering firm will be contracted. Water monitoring equipment will be deployed by Tillamook Estuaries Partnership to measure water depth, temperature, and salinity inside and outside the gates. The engineering firm will conduct site and bathymetric surveys. This information will be used for a hydraulic analysis to determine the fish passage status of the current structure or the size required of a new structure. That model will also be used to predict the effects of the project on the site's current land use including inundation extent, depth, and frequency over time using tidal data and the locally collected data. This information will inform a water management plan, riparian enhancements upstream, and upstream culvert replacements.

This project is being undertaken in collaboration with the Tillamook County Creamery Association, Tillamook Estuaries Partnership, Oregon Department of Transportation, and the Oregon Department of Fish and Wildlife.

Brophy LS, Greene CM, Hare VC, Holycross B, Lanier A, Heady WN, et al (2019) Insights into estuary habitat loss in the western United States using a new method for mapping maximum extent of tidal wetlands.

## Review Team Evaluation

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### Strengths

- Preliminary design solutions for replacing tide gates will be developed to address a long-standing fish passage barrier on Gallagher Slough, the largest slough in the Nehalem estuary. Historically, the slough provided important rearing habitat for all salmonid fish species and once supported very productive populations.
- The Gallagher Slough tide gates are ranked on ODFW's list of priority fish passage barriers.
- The project is supported by a partnership that includes ODOT, the Tillamook Estuaries Partnership, and the Tillamook County Creamery Association.
- The application indicates future phases of work will address the habitat quality upstream.

### **Concerns**

- The expected ecological benefit of a tide gate replacement or modification at the project location remains unclear given the lack of quality habitat upstream. Water management changes, particularly an increase in the amount of time that the tide gate will be open and at an increased elevation, will be necessary for the project to benefit fish and wildlife and the application contains limited detail about water management alternatives the landowners might be willing to consider.
- Water quality in Gallagher Slough is very poor. Increased tidal exchange from a new tide gate may help address temperature and dissolved oxygen to a certain extent. Other land management changes, such as increasing riparian buffers and changing livestock management practice to protect riparian areas, may be necessary to realize any habitat benefits from increased fish passage into Gallagher Slough. It is unclear whether this is a consideration on this site.
- The resulting restoration project will likely be expensive for the expected habitat benefits.

### **Concluding Analysis**

The application is the second submittal of this Technical Assistance project at Gallagher Slough; the first application was not recommended for funding. Gallagher Slough historically provided important rearing habitat for fish, including Oregon coast coho salmon. The current tide gate structure is a set of five top-hinged, wooden doors with an outdated design that does not provide optimal fish passage. Replacing or upgrading the tide gate could provide access to tidal estuary habitat that is critical for juvenile fish. Providing new access to fish, however, will have limited ecological benefit due to the poor water quality, high water temperatures, lack of riparian shade, and intensive grazing found along the slough's reach. The ecological benefit concerns from the previous review are still applicable. The current application indicates this project will be a phased approach, and the upstream habitat will be addressed in a future phase. More details about what a future phase could entail would be helpful in evaluating the potential ecological benefit of the phases together.

### **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**

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**Staff Follow-Up to Review Team**

n/a

**Staff Recommendation**

Do Not Fund

**Staff Recommended Amount**

\$0

**Staff Conditions**

n/a

# Open Solicitation-Open Solicitation Fall 2023 Technical Assistance

North Coast (Region 1)

**Application Name:** 224-1024-23371

**Project Type:** Technical Assistance

**Project Name:** Skookum Creek Fish Passage and Wetlands Design

**Applicant:** Necanicum WC

**Region:** North Coast

**County:** Clatsop

**OWEB Request:** \$89,320

**Total Cost:** \$96,228

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**Application Description** 1) Skookum Creek is a tributary of the Neawanna system and drains into Stanley Lake just south of the Seaside Airport. Stanley Lake then drains into the Necanicum via a ~0.3-mile stretch of Mill Creek, making Skookum Creek a tidally influenced lowland tributary of the Necanicum system. Skookum Creek is currently obstructed by a private road with two undersized culverts. This has caused impassable conditions for fish as well as flooding. This funding would provide resources to complete an 80% fish passage improvement design, conduct geotechnical and ecological surveying of the site and clarify what potential permitting requirements may need to be met for restoration. Major partners for this project include the landowner, Watershed Council and Chinook Indian Nation.

## Review Team Evaluation

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### Strengths

- The project is the first step in improving fish passage in a priority system within the Necanicum watershed. There are numerous fish passage barriers throughout Skookum Creek that have reduced floodplain connectivity and limited access to upstream habitat.
- Skookum Creek has high habitat intrinsic potential for Oregon coast coho salmon. Restoring fish passage along the creek will result in increased spawning and rearing habitat. There is a lot of restoration opportunity in the watershed with the extensive high quality wetland habitat fringing the creek.
- The approach incorporates professionally accepted methods and appropriate data, including geotechnical assessments, topographic surveys, and cultural resource surveys, to develop restoration design.
- The project team is qualified to complete the project and the partnership with the Chinook Indian Nation adds value to the proposed cultural resources survey.
- The project is cost-effective as the funding request will result in 80% designs and provide a basis for a future restoration proposal.

### Concerns

- There are numerous other driveway crossings that are possible passage barriers along Skookum Creek, additional information is needed to understand how this project was prioritized.
- There is limited detail in the application describing the stream habitat characterization, wetland, and road crossings, making it difficult to understand the project need within the context of the greater Skookum Creek watershed. An explanation of the natural systems and built environment around the creek is needed to evaluate the significance of the fish passage barrier at the selected driveway.
- ODFW data does not show Oregon coast coho distribution upstream of the project site.
- It is unclear what the budget line items for project coordination and permit research are intended to accomplish. Additional information describing how these expenses relate to the project activities is needed to evaluate whether costs align with work necessary to accomplish the objectives.

### **Concluding Analysis**

Skookum Creek in the Necanicum watershed presents an opportunity restore fish spawning and rearing habitat. Although ODFW data does not show coho above the selected driveway, the stream is characterized as having high intrinsic potential and it is possible with restored passage that the distribution of the species could expand. Details describing watershed context are minimal in the application; it is unclear how the crossing was prioritized over other fish passage barriers in the watershed.

### **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**

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### **Staff Follow-Up to Review Team**

n/a

### **Staff Recommendation**

Do Not Fund

### **Staff Recommended Amount**

\$0

### **Staff Conditions**

n/a

# Open Solicitation-Open Solicitation Fall 2023 Engagement

North Coast (Region 1)

**Application Name:** 224-1025-23372

**Project Type:** Engagement

**Project Name:** Big Creek Watershed Restoration Charrette

**Applicant:** North Coast WS Assn

**Region:** North Coast

**County:** Clatsop

**OWEB Request:** \$151,103

**Total Cost:** \$192,304

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**Application Description** This project includes the lower portion of Big Creek, tributary to the Columbia River. The project area includes the estuary transition and lower watersheds of Big and Little Creek as identified in Return of the Redds. The floodplains of Big Creek and Little Creek have been significantly altered from a historic gravel mine and are all in private ownership.

The stream sections have eroding and degraded streambanks, lack riparian habitat, and have degraded aquatic habitat. The lower reaches are low gradient and have historically supported chum salmon spawning habitat. Previous explorations for restoration were discouraged by a critical landowner. Land ownership has changed and an interest in exploring restoration efforts have been expressed.

The project is designed to compile information on the historical development of conditions, evaluate landowner needs and identify alternative projects to restore the reach for anadromous fish with a focus on chum salmon.

Project partners will include the landowners in the reach, Clatsop County, Clatsop Works, Clatsop Community College, DSL, ODFW, ODOT, NOAA, and USFWS.

## Review Team Evaluation

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### Strengths

- The engagement project expands previously completed outreach in the watershed. The applicant has worked for a few years on developing outreach materials, including films and other publications, that highlight critical watershed health issues. The documentary that will be produced could be an effective way to engage additional landowners.
- The Big Creek watershed is a priority location to restore habitat for chum salmon. This project builds off the 2022 Strategic Action Plan for chum developed for the Youngs Bay and Big Creek watersheds.
- There is potential for chum-focused restoration in the project area and the engagement work has potential to lead to the identification and development of new projects that restore or enhance reaches of habitat.

- The strategy presented in the application is comprehensive with many types of materials and outreach proposed, including production of maps, videos, and publications.
- There are diverse partners involved in the project with the necessary capacity to accomplish the objectives. Utilizing the local college's expertise will add capacity to the project and engage a new partner.

### **Concerns**

- The approach involves a combination of information gathering and landowner outreach; however, the sequencing of these activities is unclear. Without a clear timeline and understanding of the critical points where landowners will be contacted, it is unclear whether the approach will be successful in leading to timely development of fish habitat restoration.
- The application lacks historical context on the production of the Strategic Action Plan and the "Return of the Redds" campaign. More information would be helpful to understand how this proposal fits in with these past efforts.
- It is challenging to understand the link of some deliverables with future restoration objectives.
- The large number of landowners in the area will make it challenging to build contiguous restoration that will have a measurable effect on chum salmon.
- The scope of work provided by the potential contractor is unclear and lacks detail needed to understand costs listed in the budget.
- There are inconsistent numbers for proposed meetings between the budget and what is described in the narrative.
- The high cost of the project may not be reasonable for accomplishing the proposed objectives.

### **Concluding Analysis**

The Big Creek watershed is a priority location to restore habitat for Columbia River chum salmon. Building off a recently completed strategic action plan, a new strategy to reach 100 landowners in the watershed is proposed to engage in a charrette-type process to foster a shared vision of chum habitat restoration. More detail is needed to understand the rationale connecting the proposed engagement activities with timely development of eligible restoration or acquisition projects.

### **Review Team Recommendation to Staff**

Fund

### **Review Team Priority**

1 of 1

### **Review Team Recommended Amount**

\$151,103

**Review Team Conditions**

n/a

**Staff Recommendation**

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**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

# South Coast - Region 2 Fall 2023 Funding Recommendations

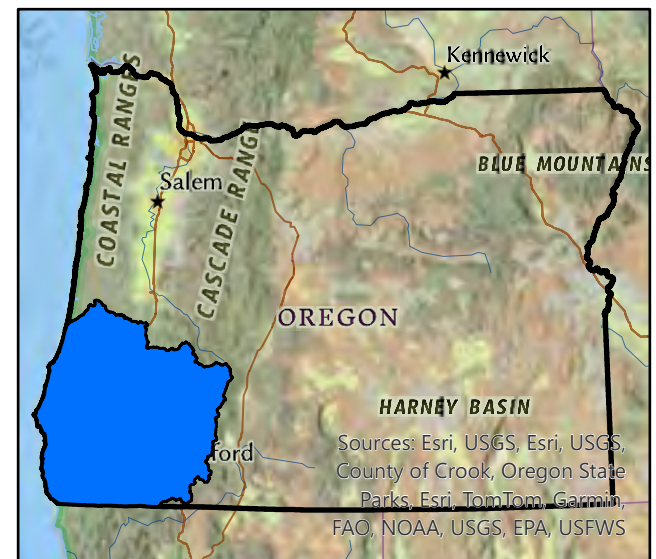


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Oregon Watershed Enhancement Board: Region 2 Restoration, Technical Assistance, and Engagement

Region 2 - Southwest Oregon Restoration				
Projects RECOMMENDED for Funding in Priority Order				
Project #	Grantee	Project Title	Brief Description	Amount Recommended
224-2005	National Forest Foundation	Blackberry Creek Bridge Aquatic Organism Passage	An undersized culvert impeding all upstream fish migration will be replaced with a bridge to open approximately one mile of cool water stream habitat for native fish in Blackberry Creek, a tributary to the upper Elk River.	\$ 206,965
224-2002	Rogue River WC	Elk Creek River Mile (RM) 4.7 Ecological Restoration	Habitat will be restored for native salmon in two miles of Elk Creek, located in the Upper Rogue River, by placing large wood structures instream and restoring the native plant community.	\$ 841,780
224-2013	Curry SWCD	Nell Creek Fish Passage Implementation	Fish passage to three-quarters of a mile of stream habitat will be restored in Nell Creek, a tributary to the Chetco River. The project will remove a concrete sill and an undersized road culvert and replac it with a countersunk pipe arch culvert.	\$ 82,771
224-2003	Rogue River WC	Little Butte Creek River Mile (RM) 16.7 Ecological Restoration	Habitat will be restored for native salmon in nearly one mile of Little Butte Creek by restoring the native plant community, removing a seasonal push-up dam to improve upstream fish passage, adding large wood instream, and improving irrigation water conveyance efficiency.	\$ 344,232
<b>Total Restoration Projects Recommended for Funding by RRT and OWEB Staff</b>				<b>1,475,748</b>

Projects Recommended but NOT FUNDED in Priority Order				
Project #	Grantee	Project Title	Brief Description	Amount Recommended
224-2010	South Umpqua Rural Community Partnership	Highland Ditch Water Resource and Fish Protection Project	Highland Ditch Irrigation District water users will remove a diversion structure to improve fish passage upstream and upgrade the current irrigation infrastructure to improve stream flows on Clear Creek below Galesville reservoir near Azalea.	\$ 339,446
224-2006	Illinois Valley WC	Crooks Creek Large Wood Structure Placement	Stream conditions will be restored for salmon in Crooks Creek, near the town of Selma, by placing large wood instream to improve spawning and rearing habitat.	\$ 136,622
224-2012	Applegate Partnership, Inc.	Hamilton Road Invasive Species Removal	Invasive plant species will be removed and replaced with native stream-side vegetation along the lower 1.5 miles of Hamilton Road and the Applegate River.	\$ 475,909
224-2007	Coquille Watershed Association	Lower Steel Creek Restoration 2	Stream conditions will be improved for salmon in Steel Creek, a tributary of the East Fork Coquille River, by placing large wood and boulders instream, removing five small concrete weirs that are barriers for juvenile fish, removing invasive plant species, and planting native vegetation streamside.	\$ 125,596
224-2009	Coquille Watershed Association	Dement Creek Sub-basin Inflation & Cultural Monitoring	Stream conditions will be improved for salmon in Dement Creek, a tributary to the South Fork Coquille River, by placing large wood and boulders instream, removing invasive plant species, and planting native vegetation along the streamside.	\$ 266,654
224-2004	Coos SWCD	Albertson-Gatov Tidegates and Working Lands Restoration	Tidal habitat will be restored on two properties totaling 35 acres along the lower Coquille River in Coos County by upgrading existing tidegates, creating new tidal channel habitat, and planting native tree and shrubs.	\$ 982,741
224-2008	Illinois Valley WC	East Fork Habitat Enhancement and Channel Stabilization	Stream habitat will be restored for salmon in the East Fork Illinois River near Cave Junction by installing large wood structures instream to reactivate a side channel and planting stream-side vegetation to reduce the speed of water and stabilize the streambank.	\$ 203,906

Projects NOT RECOMMENDED for Funding by RRT				
Project #	Grantee	Project Title		Amount Requested
224-2001	South Umpqua Rural Community Partnership	Days Creek Phase II		\$ 136,282
224-2011	Applegate Partnership, Inc.	Watts Toppin Dam Fish Passage Project_ Construction Completion		\$ 521,486

Oregon Watershed Enhancement Board: Region 2 Restoration, Technical Assistance, and Engagement

Region 2 - Southwest Oregon Technical Assistance				
Projects RECOMMENDED for Funding in Priority Order				
Project #	Grantee	Project Title	Brief Description	Amount Recommended
224-2019	Coquille Watershed Association	North Bank Ln. Infrastructure Upgrades for Fish Passage & Community Resiliency	Designs to replace undersized culverts impeding fish passage on the lower Coquille River will be developed to restore the Beaver Hill Wetland Reserve.	\$ 248,330
224-2018	Trout Unlimited Inc	Rogue Basinwide Flow Restoration Water Right Valuation Project	A valuation analysis of the surface water rights market value in the Rogue Basin will be commissioned to support efforts that will enhance streamflow in target areas and benefit habitat for anadromous fish species.	\$ 33,746
<b>Total Technical Assistance Projects Recommended for Funding by RRT and OWEB Staff</b>				<b>282,076</b>

Projects Recommended but NOT FUNDED in Priority Order				
Project #	Grantee	Project Title	Brief Description	Amount Recommended
224-2017	Trout Unlimited Inc	MID NF and SF Little Butte Creek Fish Passage Project	Design alternatives will be developed for fish passage improvement at the North Fork Little Butte Dam and the South Fork Little Butte Creek Dam on Little Butte Creek near Lake Creek.	\$ 156,372
224-2022	Curry SWCD	Curry Cultural TA	Partners in the Curry Watersheds will explore and develop standardized roles and responsibilities to help bring clarity to the Section 106 permitting process and better understand how to protect cultural resources when implementing restoration.	\$ 152,000
224-2016	Trout Unlimited Inc	Brophy Ditch Big Butte Cr Flow Restoration Project	Current water conditions and water use will be evaluated for the Brophy Ditch on the North Fork Big Butte Creek. Evaluations will identify opportunities to conserve water instream, deliver water efficiently, and benefit salmon.	\$ 139,896
224-2014	The Understory Initiative	Developing Plant Materials for Climate-Adapted Riparian Restoration in the Rog	Existing collection and production of local and climate-adapted native seeds from forbs, grasses, woody shrubs, and trees will be expanded to build the native plant materials supply chain, currently a limiting factor for riparian habitat restoration projects across the Rogue River basin.	\$ 117,343
224-2020	Coquille Watershed Association	North Fork Coquille River Subbasin Geomorphic Assessment	An assessment will be completed in the North Fork Coquille River, located near Myrtle Point, to investigate the stream processes causing stream bank erosion and develop effective management strategies.	\$ 88,336

Projects NOT RECOMMENDED for Funding by RRT				
Project #	Grantee	Project Title	Amount Requested	
224-2015	The Freshwater Trust	Gold Ray Floodplain Restoration Technical Assistance Project	\$ 76,416	
224-2021	Illinois Valley WC	Illinois Valley Country Club Restoration Project	\$ 86,482	

Region 2 - Southwest Oregon Engagement				
Projects RECOMMENDED for Funding in Priority Order				
Project #	Grantee	Project Title	Brief Description	Amount Recommended
224-2023	Applegate Partnership, Inc.	Applegate Wildfire Resiliency Outreach	An engagement effort focused on landowners, agencies, fire departments, and other audiences across a checkerboard of land ownership in the Applegate River watershed will identify opportunities to implement fuel reduction on private lands and to update the watershed's Community Wildfire Protection.	\$ 38,773
<b>Total Engagement Projects Recommended for Funding by RRT and OWEB Staff</b>				<b>38,773</b>

Projects Recommended but NOT FUNDED in Priority Order				
Project #	Grantee	Project Title	Brief Description	Amount Recommended
NONE				

Oregon Watershed Enhancement Board: Region 2 Restoration, Technical Assistance, and Engagement

Projects <i>NOT RECOMMENDED</i> for Funding by RRT			
Project #	Grantee	Project Title	Amount Requested
NONE			

<b>Region 2 Total OWEB Staff Recommended Board Award</b>	<b>1,796,597</b>
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<b>Region 1 - 6 Grand Total OWEB Staff Recommended Board Award</b>	<b>11,378,813</b>
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# Open Solicitation-Open Solicitation Fall 2023 Restoration

Southwest Oregon (Region 2)

**Application Name:** 224-2001-23362

**Project Type:** Restoration

**Project Name:** Days Creek Phase II

**Applicant:** South Umpqua Rural Community Partnership

**Region:** Southwest Oregon

**County:** Douglas

**OWEB Request:** \$136,282

**Total Cost:** \$381,792

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## Application Description

1. The Days Creek Watershed is located on BLM land specifically managed by the South River Resource Area for the general public Section 33. T. 29. R.3 W. Willamette Meridian as well as the adjoining private landowner the Allen Family.
2. To continue the restoration work that began in July 2015 as Days Creek Phase I with the goal to capture and retain spawning gravel as well as increasing form and function of Days Creek to retain cool water within the hyporheic zone. Phase I has accomplished retention of gravel and hyporheic objectives.
3. To install 217 root wad trees and 188 boulder to increase pools through the entire three miles of Phase II in the Days Creek watershed. Of the three miles of Days Creek there are one mile of private landownership participating in Phase II restoration objectives. Primary goals are to install boulders to assist in aggrading gravel and pool development as well as the installation of thirty-foot-long trees with their attached root wads. The treed root wads would aid in pool development and aggradation of spawning gravels, there are numerous areas within Days Creek watershed where bed rock is the dominate geological feature that prevents sustainable aggradations of gravels for spawning. To retain and aggrade spawning gravel for anadromous fish species as well as native mussel species and Lamprey species the proposed structures would aid in greatly improving habitats f

## Review Team Evaluation

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### Strengths

- The project builds on an earlier phase located below the proposed reach which resulted in placed log structures accumulating substrate and improving instream habitat.
- The landowners are engaged and committed to the project, as demonstrated by active involvement in project development and implementation.
- Days Creek supports Endangered Species Act-listed coho and Pacific lamprey. Improving stream function and instream habitat conditions will benefit these species' ability to spawn and rear successfully.
- The project team has capacity and relevant experience to implement the project.

### Concerns

- The application lacks design information needed to determine whether the project approach will achieve the proposed instream habitat restoration objectives.
- The inclusion of photos in future applications would provide visual context for site conditions and structure placement approaches that is needed to determine technical soundness.
- The current land use was not described making it unclear if there was the potential for livestock to impact the stream and riparian areas.
- The lack of a plant establishment plan made it difficult to evaluate the likelihood of planting success.
- Restoration effectiveness monitoring was identified in the project schedule, but the application lacks a description of activities that would be undertaken.
- It is unclear whether root wad, boulder, and log quantities are for the proposed phase or inclusive of all project phases.
- The application narrative lacks clarity and proofreading future submissions is encouraged.
- Excavation work and off-channel work locations are not detailed on maps included in the application.
- Including specific water quality impairment parameters would help strengthen the proposal, providing a better understanding of the stream conditions and anticipated range of benefits.
- The project calls for placing root wads near road crossings in several locations. It is unclear how infrastructure will be protected from damage resulting from log movement.

### **Concluding Analysis**

The installation of boulder and log structures will aid in aggrading spawning gravel and pool development, improving instream habitat for salmonids. The phased approach supports the restoration of larger stream segments but without design and other supporting information it is difficult to determine the likelihood of success for the proposed restoration approaches.

### **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**

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### **Staff Follow-Up to Review Team**

N/A

**Staff Recommendation**

Do Not Fund

**Staff Recommended Amount**

\$0

**Staff Conditions**

N/A

# Open Solicitation-Open Solicitation Fall 2023 Restoration

Southwest Oregon (Region 2)

**Application Name:** 224-2002-23234

**Project Type:** Restoration

**Project Name:** Elk Creek River Mile (RM) 4.7 Ecological Restoration

**Applicant:** Rogue River WC

**Region:** Southwest Oregon

**OWEB Request:** \$841,780

**County:** Jackson

**Total Cost:** \$1,609,970

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**Application Description** The project at Elk Creek River Mile (RM) 4.7 is Phase 4 of multi-year actions throughout the sub-basin. With a drainage area of 134 square miles, Elk Creek joins the Rogue River 3 miles upstream of Trail. Elk Creek has degraded water quality, stream processes, and aquatic and terrestrial habitats that negatively affect ecosystems. Riparian forests are reduced, grazed, and infiltrated with noxious weeds. Unimpeded livestock access to the creek increases sedimentation and nutrient inputs. Simplified channels and large wood removal eliminate channel complexity, aquatic habitat, and floodplain interactions. Excessive winter runoff from land-use and irrigation practices during the growing season decrease water quantity availability during the summer. These cumulative impacts also elevate summer water temperatures, threatening cold water fish populations. Rogue River Watershed Council (RRWC) proposes a combination of significant ecological restoration actions, covering 2.2 miles of creek, by enhancing the mainstem, three secondary channels, and a lower section of Tributary G. This will be accomplished by placing large wood at 57 strategic locations and rehabilitating 25.3 acres of riparian forest to recover the native plant community, using noxious weed control, natural recruitment of native species, and riparian fencing (3.2 miles). These actions will restore critical stream processes, improve water quality, and fish and wildlife habitat conditions. Public awareness is also an essential component to promote restoration efforts and generate public interest through media outlets and project tours. The project area is identified in the Upper Rogue Coho Salmon Strategic Action Plan, developed with partners to address limiting factors and stressors. This project is supported by the US Army Corps of Engineers and Upper Rogue Oak Initiative/ NFWF funding with input from US Forest Service and Bureau of Land Management staff.

## Review Team Evaluation

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### Strengths

- The scope of work in the proposed solution section of the application has clear objectives and activities described and supported by the inclusion of high quality, clear design diagrams and photos of past implemented projects. Clarity provided in application details indicates a high likelihood of achieving the objectives to improve instream and riparian habitat conditions.
- The applicant will hire a qualified contractor that has implemented similar habitat restoration projects successfully.

- The applicant uses a successful “release and natural recruit” approach to restoring riparian areas in which invasive plant species are removed to expose native seed banks and allow natural regrowth.
- The application describes a well-developed project. The video links in the application are helpful for better understanding the project area and proposed restoration approaches.
- The applicant has capacity and relevant experience to implement the project with a consistent track record for implementing similar high-quality projects.
- The project addresses watershed limiting factors affecting Endangered Species Act-listed coho. Proposed restoration approaches improve instream habitat complexity benefiting juvenile rearing opportunities during both summer and winter months, addressing actions identified in the draft Upper Rogue Coho Strategic Action Plan.
- The application budget includes details clearly describing project costs. The proximity of the wood source to the project site allows for longer logs to be selected for the instream structures and is cost effective by minimizing haul costs.
- Elk Creek is a high priority area for restoration of habitats important to coho and is designated as “core” habitat in the Upper Rogue Coho Strategic Action Plan (RRWC, 2022). The enhancement actions proposed are identified in federal coho recovery plans.
- The project promotes upland forest health by utilizing dead and dying trees for placement instream.
- The instream structure design will encourage the stream to migrate and form sinuous channels that will create improved instream and floodplain habitats. The selection of the large wood sites was driven by temperature data and confirmed fish use.

### **Concerns**

- No concerns identified.

### **Concluding Analysis**

The effort builds on similar projects completed in the watershed and has a high likelihood of success in achieving expected ecological outcomes.

### **Review Team Recommendation to Staff**

Fund

### **Review Team Priority**

2 of 11

### **Review Team Recommended Amount**

\$841,780

### **Review Team Conditions**

N/A

## Staff Recommendation

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### Staff Follow-Up to Review Team

N/A

### Staff Recommendation

Fund

### Staff Recommended Amount

\$841,780

### Staff Conditions

N/A

# Open Solicitation-Open Solicitation Fall 2023 Restoration

Southwest Oregon (Region 2)

**Application Name:** 224-2003-23236

**Project Type:** Restoration

**Project Name:** Little Butte Creek River Mile (RM) 16.7  
Ecological Restoration

**Applicant:** Rogue River WC

**Region:** Southwest Oregon

**OWEB Request:** \$344,232

**County:** Jackson

**Total Cost:** \$688,411

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**Application Description** The ecological restoration project at Little Butte Creek RM 16.7 is Phase 1 of multi-year actions in this section of the sub-basin. With a drainage area of 196 square miles upstream, South Fork joins North Fork near the town of Lake Creek to form Little Butte Creek, which flows into the Rogue River at Eagle Point. The project location is just downstream of the Forks, and connected with the restoration occurring on South Fork. Little Butte Creek has degraded water quality, stream processes, and aquatic and terrestrial habitats that negatively affect ecosystems. Riparian forests are reduced, grazed, and infiltrated with noxious weeds. Simplified channels and lack of large wood eliminate channel complexity, aquatic habitat, and floodplain interactions, and irrigation practices decrease water quantity. These cumulative impacts also elevate summer water temperatures, threatening cold water fish populations. Rogue River Watershed Council proposes multiple ecological restoration actions, covering 0.8 miles of creek: 1.) riparian rehabilitation on 6.1 acres to recover the native plant community through noxious weed control, 2.) fish passage improvement at a seasonal push-up dam along with irrigation water conveyance efficiency, and 3.) large wood placement at 14 strategic locations. These actions will restore critical stream processes and improve water quality and habitat conditions. Public awareness is also an essential component to promote the restoration efforts and generate interest with adjacent water users. The project area is identified in the Upper Rogue Coho Salmon Strategic Action Plan, developed with partners to address limiting factors and stressors. This project is in partnership with a private landowner, Wild Salmon Center/ NOAA Restoration Center, Bureau of Land Management, and Rogue River-Siskiyou National Forest.

## Review Team Evaluation

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### Strengths

- The multiple ecological restoration actions, including riparian restoration, fish passage improvement, and large wood placement are priorities specifically identified in the Draft Upper Rogue Coho Strategic Action Plan.
- The project will benefit Endangered Species Act- listed coho, steelhead, and other native species by improving critical instream habitat, removing passage issues at a seasonal push-up dam, and helping address water temperatures.

- The applicant has been successfully employing a “release and natural recruit” technique to restoring riparian areas in which invasive plant species are removed to expose native seed banks and allow natural regrowth.
- The design approach is technically sound, including consideration of stream size and velocity as well as design alternatives.
- The project is in a reach of Little Butte Creek where restoration of quality riparian and stream conditions could significantly contribute to restoring temperatures needed for fish survival during the summer months as well as help to extend the cool stream flow further downstream.
- The applicant is working hard to engage landowners in the Little Butte Creek watershed and the project site could serve as a demonstration site to recruit future restoration projects.
- The project provides an opportunity to raise public awareness about the benefits of watershed restoration that could catalyze additional landowner participation in future restoration. This project could incentivize other landowners who are unsure about working with government agencies.
- Fencing part of the stream addresses impacts to water quality and the riparian area by livestock, helping to reduce bacterial inputs.

### **Concerns**

- Project costs are provided as lumped sums; it is difficult to evaluate whether costs are reasonable, necessary, and adequate for achieving the proposed restoration actions. The lack of budget items in supplies and materials made it unclear how items like irrigation pipe or fish screens were included in the project budget.
- The irrigation system design is at 30% and it is unclear how the project schedules, permitting and costs would be impacted if there were significant changes in design approach.
- A section of property along the south side of the stream will not be fenced due to a livestock crossing.

### **Concluding Analysis**

The effort builds on similar projects completed in the Little Butte watershed and is likely to succeed in achieving expected ecological outcomes. The project engineer and manager are both experienced with working in this system and their design approach is technically sound and has a high likelihood of restoring stream and floodplain function along with improving instream habitat in the project reach.

### **Review Team Recommendation to Staff**

Fund

### **Review Team Priority**

4 of 11

### **Review Team Recommended Amount**

\$344,232

**Review Team Conditions**

N/A

**Staff Recommendation**

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**Staff Follow-Up to Review Team**

N/A

**Staff Recommendation**

Fund

**Staff Recommended Amount**

\$344,232

**Staff Conditions**

N/A

# Open Solicitation-Open Solicitation Fall 2023 Restoration

Southwest Oregon (Region 2)

**Application Name:** 224-2004-23260

**Project Type:** Restoration

**Project Name:** Albertson-Gatov Tidegates and Working Lands Restoration

**Applicant:** Coos SWCD

**Region:** Southwest Oregon

**County:** Coos

**OWEB Request:** \$982,741

**Total Cost:** \$1,324,934

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## Application Description

The project area consists of two separately owned properties (Albertson and Gatov) which make up a combined 35 acres of tidally influenced wetland pastures located between river miles 9-12 along both banks of the lower Coquille River, in between the towns of Bandon and Coquille, in Coos County, Oregon.

- The Albertson site was historically documented as a forested tidal swamp with shrub understory. Development for agriculture was facilitated by installation of culvert(s) with at least one tide gate in the early 1900s. That culvert and tidegate, undersized by modern standards, has deteriorated to the point of failure. The stream on the property was never channelized but has been severely impacted by grazing and minimal riparian vegetation remains. Water quality is low, and fish access is limited. Proposed work includes levee repairs, replacement, and upgrade of tidegate infrastructure, installation of 2 livestock crossings, 4710ft of fencing, and 5200 native trees/shrubs to restore the riparian habitat along 2723ft of tidal channels, 0.20acres of tidal ponds, and 1930ft of the south bank of the mainstem Coquille.
- The Gatov site was historically managed as a small family dairy. The tidegate drainage system consists of 650ft of buried wooden box culvert, tidegated beneath the ground surface at ~60ft back from the bank of the mainstem Coquille. There is no above-ground stream system or channel network associated with this drainage system, rather it was designed to capture and drain out flood flows and stormwater that would pond at low lying elevations on the interior pasture. Proposed work at this location includes replacement/upgrade of the existing tidegate, removal of the buried drain tile, creation of 1383ft of new tidal channel habitat, including 0.12acres of tidal wetland ponds; 1410' of riparian fencing to exclude livestock, and planting 1100 native trees/shrubs along the channel and pond network.
- Partners include Coos SWCD, NRCS, and ODFW.

## Review Team Evaluation

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### Strengths

- The project complements other tide gate replacement and tidal wetland habitat restoration projects in the area on similar properties with active agricultural operations.
- The project team is experienced working in tidally influenced agricultural areas and has adapted lessons learned from earlier efforts into the project's development.

- Tidally influenced habitat will be restored on 35 acres between the two properties, which will address a critical habitat limiting factor for Endangered Species Act-listed coho by creating winter rearing opportunities. The proposed actions are consistent with recommendations in coho recovery plans.

### **Concerns**

- OWEB funds will primarily be used for the tide gate infrastructure and installation. Landowner cost share will result primarily from payments from NRCS through the EQIP program to landowners for the same tide gate work after it has been installed and inspected. The applicant's intention is to have the landowners utilize the resulting EQIP funds paid to them as tide gate cost-share for plant stewardship activities post-implementation. There is no clear mechanism, letters of support, or agreements in place to ensure the funds will be used for plant stewardship. It is unclear whether stewardship is needed for ten years to get the plantings to the "free to grow stage."
- The project encompasses two properties. Complications in permitting on one site could impact the ability to implement on the other site while working through the approval process.
- Additional information in the application on the fencing approach would help clarify why fencing doesn't enclose the entire wetland area on one of the properties.
- The applicant is encouraged to contact Oregon Water Resources Department to make sure permits are not required for groundwater or pond development.
- It is unclear whether the proposed project would improve water quality, and whether parameters other than temperature would help illustrate the project improvements on water quality.

### **Concluding Analysis**

Restoring historic tidal areas is important to the recovery of critical habitats supporting Endangered Species Act- listed coho. The project will help restore fish access and habitat opportunities along with helping the management of the property for its agricultural uses.

### **Review Team Recommendation to Staff**

Fund

### **Review Team Priority**

10 of 11

### **Review Team Recommended Amount**

\$982,741

### **Review Team Conditions**

N/A

### **Staff Recommendation**

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### **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-Open Solicitation Fall 2023 Restoration

Southwest Oregon (Region 2)

**Application Name:** 224-2005-23269

**Project Type:** Restoration

**Project Name:** Blackberry Creek Bridge Aquatic Organism Passage

**Applicant:** National Forest Foundation

**Region:** Southwest Oregon

**County:** Curry

**OWEB Request:** \$206,965

**Total Cost:** \$3,141,812

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**Application Description** The Blackberry Creek Bridge Aquatic Organism Passage project to replace an aging, fish-blocking culvert is a high priority for migratory fish within the Elk River Watershed on the southern Oregon coast. Blackberry Creek is a north-facing sub-watershed, providing cold water refugia for smolts escaping warmer summer temperatures of the mainstem. Removing the barrier creates access to this cold-water habitat, helping to boost ecological resilience—increasingly vital in the face of rapid climate change. The Blackberry Creek culvert is the only known remaining barrier for ESA-threatened Southern Oregon/Northern California Coast (SONCC) coho salmon migration on National Forest lands within the Elk River Watershed. Replacing Blackberry Creek culvert with a bridge will benefit several anadromous fish species, at all freshwater life stages, by opening access to the full extent of habitat for spawning, rearing, and migration. It will also benefit resident native fish and aquatic organisms. The project entails removing one in-stream barrier – an impassable culvert and associated log weir where Forest Road 5325 crosses Blackberry Creek, and the associated 11,700 cubic yards of fill material. The culvert will be replaced with a bridge to allow for fish passage, and instream habitat will be restored through the placement of large woody debris. These project actions will result in significant measurable benefits to the target species. SONCC coho will gain access to 0.75 miles of additional high-quality habitat. Chinook salmon, Klamath Mountain Province steelhead, and Pacific lamprey will gain access to two miles of high-quality habitat. Project partners include the National Forest Foundation (project management, procurement, contract administration), USDA Forest Service Rogue River-Siskiyou National Forest (designs, permitting, technical oversight, fish salvage, monitoring), and the Curry WatershedsPartnership (community outreach, monitoring).

## Review Team Evaluation

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### Strengths

- The application clearly articulates the urgent need for culvert replacement.
- The project is ready for implementation with sound engineering designs developed by United States Forest Service engineers.
- The proposed restoration approach is technically sound and restores natural morphologic and hydrologic function, supporting sediment transport and fish passage.

- The project will address watershed limiting factors affecting Endangered Species Act-listed coho, steelhead, Chinook, and Pacific lamprey by removing the passage barrier.
- Alternative design options were evaluated before selecting the proposed strategy.
- The application budget is appropriately detailed. The site conditions, constraints, and the quantified ecological benefits all justify the cost of the project. Blackberry Creek contains important spawning and rearing habitat and provides critical cool water refugia during the summer months.
- The application has clear objectives and activities likely to achieve the objectives. For example, Objective 1 describes a clear step by step process describing each action necessary for removal of the impassable culvert and replacing it with a new bridge that fully allows aquatic organism passage.
- The project is part of the coho strategic action plan for the Elk River.

### **Concerns**

- Curry County could require a "No Net Rise" Certification, which would add significant costs and extend the project timeline.

### **Concluding Analysis**

Restoring full passage to all life stages of aquatic organisms at this location will provide access to critical spawning and rearing habitat in an area of cold water refugia. The project will enable restoration of stream hydrologic processes within Blackberry Creek. The design is technically sound and the partnership surrounding the project is highly experienced, indicating a high likelihood of success.

### **Review Team Recommendation to Staff**

Fund

### **Review Team Priority**

1 of 11

### **Review Team Recommended Amount**

\$206,965

### **Review Team Conditions**

N/A

### **Staff Recommendation**

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### **Staff Follow-Up to Review Team**

N/A

### **Staff Recommendation**

Fund

### **Staff Recommended Amount**

\$206,965

### **Staff Conditions**

N/A

# Open Solicitation-Open Solicitation Fall 2023 Restoration

Southwest Oregon (Region 2)

**Application Name:** 224-2006-23286

**Project Type:** Restoration

**Project Name:** Crooks Creek Large Wood Structure Placement

**Applicant:** Illinois Valley WC

**Region:** Southwest Oregon

**County:** Josephine

**OWEB Request:** \$136,622

**Total Cost:** \$172,673

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**Application Description** 1) The project is located approximately 7 miles East of the town of Selma on public lands managed by the Bureau of Land Management (BLM) on Crooks Creek within the Deer Creek watershed. The project reach is immediately upstream of the 23 engineered LWM structures constructed during 2023 along the adjoining downstream 1.5 mile reach that involved private partnering lands as well as public lands.

2) The Deer Creek watershed is listed in the BLM Western Aquatic Restoration Strategy (2015) as a focus area in which priority actions are needed to address legacy impacts. Legacy impacts such as loss of Large Woody Material (LWM) in this system has accelerated sediment transport from the project area and has resulted in a significant loss of storage capacity.

3) The proposed project seeks to construct 13 engineered LWM structures instream using approximately 52 logs and other available LWM pieces along a 0.5 mile reach of Crooks Creek. The proposed work – in conjunction with the extensive work accomplished in 2023 immediately downstream of the project reach – is considered vital to fully realizing desired instream LWM levels for the watershed.

4) Project partners include the Bureau of Land Management (BLM) (Medford District, Grants Pass Field Office), Oregon Department of Fish and Wildlife (ODFW), the Oregon Watershed Enhancement Board (OWEB), and the applicant (Illinois Valley Watershed Council (IVWC)).

## Review Team Evaluation

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### Strengths

- The instream winter and summer habitat in Crooks Creek is important for steelhead, Endangered Species Act-listed coho, and cutthroat in the Illinois basin.
- The application presents a clear connection between climate change concerns and the project goal of restoring natural processes that build climate resilience.
- The project approach is technically sound with materials and placement approaches tailored to site conditions with an emphasis on low impact to the riparian area during implementation.
- The applicant has capacity and relevant experience to oversee the project.
- The project team has a consistent track record for implementing similar high-quality projects.

- The project is ready for implementation with final designs and permits in place along with materials and contractors secured.
- The handwritten letters of support were helpful and communicate a strong connection with landowners and their support and ownership in the project and its deliverables, indicating long-term sustainability of the investment.

### Concerns

- The application lacked site photos and photos depicting examples from previous work that would help provide visual context to match the application narrative.
- The application lacked information describing the condition of the riparian areas.
- The tax lot maps included in the application do not adequately describe site conditions.

### Concluding Analysis

The installation of large wood will improve spawning and rearing habitat for salmonids and other aquatic organisms. Adding large wood to Crooks Creek will increase the sinuosity and complexity of stream channel characteristics and enhance fish habitat and restore floodplain and stream function.

### Review Team Recommendation to Staff

Fund

### Review Team Priority

6 of 11

### Review Team Recommended Amount

\$136,622

### Review Team Conditions

N/A

### Staff Recommendation

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### 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-Open Solicitation Fall 2023 Restoration

Southwest Oregon (Region 2)

**Application Name:** 224-2007-23311

**Project Type:** Restoration

**Project Name:** Lower Steel Creek Restoration 2

**Applicant:** Coquille Watershed Association

**Region:** Southwest Oregon

**County:** Coos

**OWEB Request:** \$125,596

**Total Cost:** \$157,048

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**Application Description** Steel Creek is a highly productive tributary of the East Fork Coquille River & has important spawning and rearing habitat for coho, Chinook, Steelhead, cutthroat, & Pacific lamprey. Steel Creek is a part of the Yankee Run 6th field sub-watershed (a Focus Watershed in the BLM Western Oregon Aquatic Restoration Strategy) & enters downstream of Brewster Canyon, near the rural community of Dora. The Steel Creek drainage is 2,646 acres with ~1,500 acres under BLM management. Since 2017, the partners have focused a number of high priority watershed improvement actions in Steel Creek, including: sediment abatement (GRAIP surveys, non-fish culvert replacements, road decommissioning), in-stream aquatic habitat improvement (wood placement), & invasive species control (English ivy, Himalayan blackberry, gorse removal & treatment). While water quality & mobilized sediment loads appear better than other nearby streams, the Steel Creek drainage has been altered by anthropogenic activities, including: historic logging practices, road building, agriculture, & introduction of invasive plant species. Currently, Steel Creek is Oregon Department of Environmental Quality-listed (DEQ 303-d) for biological criteria. Restoration actions proposed in this application focus on lower Steel Creek & include large wood & boulder placement, removing five small concrete weirs that are barriers for juvenile fish, & treating & planting the riparian area. Restoration will improve water quality & quantity, and fish & wildlife habitat in a holistic & whole-watershed approach. OWEB funding will be used to support the instream & riparian habitat enhancements with match through BLM, CREP, USFWS, ODFW, & the private landowner. This application seeks additional funding to cover inflation costs for the final phase of a holistic watershed restoration approach in the Steel Creek drainage that has been supported by a collaborative of several partners to address all priority limiting factors.

## Review Team Evaluation

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### Strengths

- The large wood placement is key to aggrading streambed material after the fish passage barrier is removed. In addition to impeding fish passage, the concrete weirs have restricted sediment movement, preventing the formation of pools and spawning areas.
- The project area is enrolled in the Conservation Reserve Enhancement Program.
- Lower Steel Creek has high intrinsic potential habitat for Endangered Species Act-listed coho and is a highly productive tributary for native fish.

- Steel Creek is on the Environmental Protection Agency's 303(d) list of water quality impaired waterbodies for temperature. The proposed work to improve riparian conditions and instream habitat conditions will help decrease water temperature.
- A large portion of the upper drainage is managed as late seral reserves by the Bureau of Land Management. This management increases the opportunity for future natural large wood recruitment into the stream system.
- The project builds on previous successful instream habitat enhancement efforts on Steel Creek.
- The project team is experienced and suited to deliver the proposed objectives.
- The application clearly articulated the need for additional funding to support the previously funded OWEB project 222-2025 by describing the numerous delays due to additional survey work, increased cultural resource monitor needs, the low availability of local wood suitable for the project, and increased fuel costs.

### **Concerns**

- The lower 2 structures may be subject to moving on the bedrock due to smaller myrtle trees proposed to anchor them in place. The applicant will need to ensure the stability of the structure placement.

### **Concluding Analysis**

There are uncertainties around the archaeological needs for the site and the applicant is taking a conservative approach in developing the budget to ensure adequate coverage in the event significant cultural resources are determined to be in the project area. The project has a high likelihood of implementation success in achieving the structure removal and log placement restoration objectives designed to improve the health of Steel Creek and benefit the fish species using the system.

### **Review Team Recommendation to Staff**

Fund

### **Review Team Priority**

8 of 11

### **Review Team Recommended Amount**

\$125,596

### **Review Team Conditions**

N/A

### **Staff Recommendation**

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### **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-Open Solicitation Fall 2023 Restoration

Southwest Oregon (Region 2)

**Application Name:** 224-2008-23313

**Project Type:** Restoration

**Project Name:** East Fork Habitat Enhancement and Channel Stabilization

**Applicant:** Illinois Valley WC

**Region:** Southwest Oregon

**County:** Josephine

**OWEB Request:** \$203,906

**Total Cost:** \$421,524

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**Application Description** 1) The project is located along the East Fork Illinois River about 4.7 Rivermiles upstream of Highway 199 near Cave Junction. The project reach extends along about a 900-foot-long reach and is within the Southern Oregon Coastal Basin, a priority basin.

2) This area provides critical habitat for Coho Salmon, an ESA listed species. Mining, past timber harvest, road construction, and channel modifications within the watershed have impacted aquatic habitat along river. The channel within the project reach has incised and migrated to the west resulting in a loss of riparian vegetation along the bank and reduction in morphologic complexity. The river lacks riparian canopy along the bank and bank and channel habitat complexity. The proposed project is the first phase of a larger East Fork Illinois River habitat enhancement and restoration project. The success of this project will be used to demonstrate the benefit of these actions to other landowners along the East Fork Illinois River.

3) Project work includes installing large wood structures, excavating a portion of a gravel bar to reactivate a side channel, and planting riparian vegetation along the westerly streambank. The nine large wood structures will be placed along the west bank to reduce velocities along the bank and stabilize benches that will be planted with cottonwoods and willows. These large wood structures will provide cover and create and maintain scour pockets for aquatic organisms including Coho Salmon. The structures provide refuge from high velocities, increase bed material sorting and increase bed complexity. Three large wood structures placed on the east side of the primary channel to direct flow into side channels increasing inundation frequency increase habitat availability and access to a broader range of habitats.

4) Project partners include landowners, City of Cave Junction, Josephine County, OWEB, DWPP, IVSWCD, ODSL, ODFW, NOAA, USACE, BLM, USFS, and the applicant (IVWC).

## Review Team Evaluation

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### Strengths

- The proposed project complements instream habitat improvements made by the United States Forest Service higher in the watershed.
- The project unites agency partners working with the landowners and an experienced engineer to develop workable solutions to address stream function degradation and bank erosion issues.

- The landowners are motivated and looking for a solution to the rapidly eroding stream banks, making the work timely and likely to be maintained over the long term.
- The project will provide an outreach opportunity for other landowners in the system experiencing similar erosion problems, presenting solutions that provide habitat restoration rather than traditional rip rap bank hardening approaches.
- The proposed large wood structures are intended to redirect flows, creating scour pools that provide more complex habitat and improve hyporheic flow through trapped substrate which will help cool water temperatures. Activation of the side channels will improve juvenile coho rearing habitat opportunities.

### **Concerns**

- The project treats a small reach of the stream and addresses symptoms of degradation rather than causes.
- Other alternative restoration solutions were not explored as thoroughly as they could have been due to the desire for less reliance on heavy equipment to minimize the impact from equipment.
- Taking a systemic approach through a technical assistance offering would provide the ability for larger scale planning and the potential to address larger stream reaches with a better understanding of the system's hydrologic drivers and factors impacting the stream and riparian area.
- This stream reach has dried up in the past, making it hard to quantify fish benefits that could be realized during summer months. Lack of willingness in the area to allow access to private lands for fish survey work has resulted in no historical data.

### **Concluding Analysis**

This river system has been heavily altered through historic mining and land use activities. It is flashy with flow events that quickly erode banks, transport sediment and debris, and scour riparian vegetation. Finding workable solutions within the current land use pattern to help restore more natural stream processes and function is important to the future of the fisheries in the system and this project provides a highly visible opportunity to demonstrate solutions that address the needs of the ecosystem and the property owners.

### **Review Team Recommendation to Staff**

Fund

### **Review Team Priority**

11 of 11

### **Review Team Recommended Amount**

\$203,906

### **Review Team Conditions**

N/A

## Staff Recommendation

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### 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-Open Solicitation Fall 2023 Restoration

Southwest Oregon (Region 2)

**Application Name:** 224-2009-23316

**Project Type:** Restoration

**Project Name:** Dement Creek Sub-basin Inflation & Cultural Monitoring

**Applicant:** Coquille Watershed Association

**Region:** Southwest Oregon

**County:** Coos

**OWEB Request:** \$266,654

**Total Cost:** \$333,324

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**Application Description** Dement Creek is a 9,700-acre tributary to the South Fork Coquille River (SFCR) located near Broadbent, OR in Coos County. As one of the major tributaries to the SFCR, Dement Creek has been prioritized for restoration because it has reaches with high intrinsic potential for coho and provides spawning and rearing habitat for coho, fall Chinook, winter steelhead, coastal cutthroat trout, and Pacific lamprey. Currently, Dement Creek is impacted from the legacy of past land use practices such as splash dams, stream cleaning, clear cutting, extensive road building, and conversion of the lower watershed to pastures for livestock grazing. These actions have exacerbated limiting factors including high levels of sediment loading, high summer water temperatures, and lack of habitat complexity. A watershed assessment was completed in 2020 and has allowed CoqWA to prioritize stream reaches, riparian reaches, road sections and failing infrastructure for effective habitat and sediment abatement restoration actions. Together with the BLM, ODFW, Coos Curry CREP technician, and private landowners, CoqWA will address all prioritized actions identified in the assessment. Specifically, we will improve instream habitat by constructing 16 large woody debris (LWD) structures, 17 LWD & boulder structures, increase riparian buffers on pastures through planting 9.5 acres and fence setbacks, and decrease sediment loading by improving drainage on 4.2 miles of roads in the basin. These whole watershed restoration actions will optimally address the site- limiting factors identified in the basin, providing improved habitat complexity and water quality for anadromous fish in Dement Creek through a win-win approach. This application is an effort to support a previously funded OWEB project, OWEB Agreement # 221-2036-19584. Specifically, this application seeks to acquire additional funding to cover inflation costs of materials & labor and contracting an on-site cultural resource monitor.

## Review Team Evaluation

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### Strengths

- The South Fork Coquille Sediment Study provides context for the proposed project, indicating that the most effective locations to address sediment loading and channel degradation are in main tributaries, like Dement Creek.
- Dement Creek provides spawning and rearing habitat for Endangered Species Act-listed coho, fall Chinook, winter steelhead, coastal cutthroat trout, and Pacific lamprey.

- Proposed road improvement actions will address priority water quality concerns related to temperature and sediment inputs. Continued water quality monitoring for turbidity and water temperature is likely to document sediment reduction after project implementation.
- The applicant has capacity and relevant experience to implement the project.
- The project is based on restoration priorities identified in a recently completed watershed assessment. The applicant has developed a sound approach for conducting watershed assessments while working with landowners and stakeholders to implement prioritized on-the-ground projects.
- A diversity of partners, including multiple state and federal agencies, Coos County, industrial timber, and the participating agricultural landowners, support the project.
- The project will help the applicant continue building relationships with agricultural producers, which could lead to additional restoration opportunities in the area.
- The application clearly articulated the need for additional funding to support the previously funded OWEB project 221-2036 by describing the cost increases encountered due to additional cultural survey work, increased on-site cultural resource monitor needs, as well as increases in project material and labor costs necessary to implement cultural resources protection.

### **Concerns**

- A temporary landowner-built fence excluding livestock while blackberry clearing is not wildlife friendly.
- The application does not address protection for exposed soils during the transition between blackberry removal and plant establishment, which can result in sediment entering streams during winter storms.
- The applicant should consider applying for a limited license from Oregon Water Resources Department to assist in irrigation of proposed plantings. This would reduce the labor and cost of trucking in tanked water.

### **Concluding Analysis**

This application requests additional funding to cover increased project costs incurred by a previously funded OWEB project Dement Creek has a history of splash dams, stream cleaning, and road building and the lower portion of the stream is impacted by livestock grazing. The project will take a phased approach to address poor instream habitat conditions and impaired water quality, which are top priority limiting factors affecting coho production in Dement Creek.

### **Review Team Recommendation to Staff**

Fund

### **Review Team Priority**

9 of 11

### **Review Team Recommended Amount**

\$266,654

**Review Team Conditions**

N/A

**Staff Recommendation**

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**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-Open Solicitation Fall 2023 Restoration

Southwest Oregon (Region 2)

**Application Name:** 224-2010-23328

**Project Type:** Restoration

**Project Name:** Highland Ditch Water Resource and Fish Protection Project

**Applicant:** South Umpqua Rural Community Partnership

**Region:** Southwest Oregon

**County:** Douglas

**OWEB Request:** \$339,446

**Total Cost:** \$1,174,526

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**Application Description** The South Umpqua Rural Community Partnership (501(c)3) is partnering with 11 stakeholder water users of the Highland Ditch Irrigation District to improve irrigation efficiency, water quality, dam removal and fish passage safety. The project is located on the main stem of Clear Creek below Galesville reservoir near Azalea in Douglas County. As a result of an OWEB Outreach Grant stakeholders formed a Douglas County, Oregon irrigation district (see uploaded official documentation). The district members have resolved to correct an egregious and chronic condition of water mismanagement, ESA listed Oregon Coastal Coho salmon kills and adverse impacts on species of concern in the South Umpqua basin. The senior 1911 water right is distributed via a 3.2 mile open ditch that is subject to evaporation, transpiration, inefficient water distribution, pollution from livestock, temperature increases and frequent ditch containment failures. The Cow Creek stream above and below the ditch's diversion dam are prime spawning habitat for Coho salmon. The Galesville reservoir is a critical source of Umpqua basin urban and agricultural water supplies. On behalf of the irrigation district, surcp.org has provided via an OWEB TA Grant, engineered designs to modernize the irrigation system and remove the diversion dam. This project will eliminate adverse impacts of the antiquated irrigation ditch on water quantity, quality and potential threats to Coho, Steelhead, Pacific lamprey, the Umpqua Chub etc. Of particular interest is the removal of the ditch's primitive diversion dam that will benefit multi-season multi-species fish migrations. Project partners include the South Umpqua Rural Community Partnership, Oregon Water Resources Department, Oregon Department of Fish and Wildlife, The US Fish and Wildlife Service, National Oceanic and Atmospheric Administration, the Bureau of Land Management, the South Umpqua Coho Recovery Collaborative and the Highland Ditch Irrigation District members.

## Review Team Evaluation

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### Strengths

- Dam removal will restore channel morphology and function and improve migration pathways for Endangered Species Act-listed coho and other aquatic organisms. There have been fish kills in the ditch in the past due to the antiquated and poorly designed dam and diversion infrastructure.

- A diversity of partners supports the project through participation in project development or funding, including South Umpqua Rural Community Partnership, Oregon Department of Fish and Wildlife (ODFW), National Oceanic and Atmospheric Administration, Bureau of Land Management, South Umpqua Coho Recovery Collaborative, Highland Ditch Irrigation District members, United States Forest Service, United States Fish and Wildlife Service, and Oregon Department of Water Resources.
- The proposed project developed as a result of OWEB engagement and technical assistance grants. The process provides a template to help other struggling ditch users in Southern Douglas County find solutions to water diversion issues.

### **Concerns**

- Project designs are only at 30%. Final designs for the dam removal and irrigation infrastructure could result in revised project costs, causing the estimates in the application to no longer be sufficient for completing the restoration, and revised project configuration, which may change how the project affects landowners.
- While most of the irrigators are supportive of the project, some have not yet agreed to project implementation.
- The final routing of the main pipeline and the locations of the pumping stations have not yet been determined, making it unclear whether the proposed solution is technically sound and supported by the community.
- A Certified Water Rights Examiner will be needed to ensure compliance with water law and point of diversion transfers will be needed. The proposed budget and project timeline do not account for this necessary work. It is unclear from the application if the Oregon Department of Fish and Wildlife fish screen program has been engaged in the project. A Fish Screen is required for the water rights certificate.

### **Concluding Analysis**

The applicant is partnering with the Highland Ditch Irrigation District to improve irrigation efficiency, water quality, and fish passage through removal of the current diversion dam and upgrading to a pumping and piped irrigation conveyance system. The evaluation concerns should be addressed in a revised application.

### **Review Team Recommendation to Staff**

Fund

### **Review Team Priority**

5 of 11

### **Review Team Recommended Amount**

\$339,446

### **Review Team Conditions**

N/A

## Staff Recommendation

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### 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-Open Solicitation Fall 2023 Restoration

Southwest Oregon (Region 2)

**Application Name:** 224-2011-23355

**Project Type:** Restoration

**Project Name:** Watts Toppin Dam Fish Passage  
Project\_Construction Completion

**Applicant:** Applegate Partnership, Inc.

**Region:** Southwest Oregon

**County:** Josephine

**OWEB Request:** \$521,486

**Total Cost:** \$1,094,669

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**Application Description** The Watts Toppin Fish Passage Project addresses the need for fish passage improvement at the Watts Toppin Irrigation Dam located at RM 2.1 on Williams Creek. Watts Toppin Dam is listed on the Oregon Department of Fish and Wildlife (ODFW) Statewide Fish Passage Priority List as the 4th highest priority in the Applegate Watershed. The proposed project will improve fish passage conditions at Watts Toppin Dam through construction of a roughened channel. The project will benefit ESA-listed Coho Salmon, Chinook Salmon, Steelhead Trout (summer and winter runs), Coastal Cutthroat Trout, and Pacific Lamprey.

While our original application spotlighted these project goals, it is essential to note that significant cost increases have arisen since our 2021 application. This has necessitated a revised funding request, as our projected construction budget has surged from an initial \$400,000 to nearly \$874,000. This escalation is attributed to various factors, including inflation, increased material needs, and additional permitting expenses. The subsequent sections of this application will comprehensively address these cost-related challenges and the need for additional funding.

The proposed project seeks to build upon the recently completed Lower Bridgepoint Fish Passage Project (OWEB grants 219-2014, 220-2015), located on BLM land approximately 1 mile downstream of Watts Toppin Dam. The successfully completed project at Lower Bridgepoint Diversion was similar in scale and design to the proposed project at Watts Toppin. Together, these projects will substantially improve access to valuable upstream spawning and rearing habitats.

A finalized roughened channel design has been developed. Requested funds will support contracted services solely for project construction and permitting support. Project partners include the Rogue Basin Partnership, BLM, Paul Allen Family Foundation through American Rivers, OWRD, Williams Cr WC, Trout Unlimited, and Middle Rogue Steelheaders.

## Review Team Evaluation

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### Strengths

- Watts Toppin Dam is the third highest priority group of barriers on the ODFW fish passage barrier list for the Upper Rogue and there are no barriers upstream on the mainstem of Williams Creek.

- The barrier impairs access to high intrinsic potential habitat for Endangered Species Act- listed coho. Successful implementation will improve access to over 12, 23, 35, and 11 miles of high-quality habitat for Chinook, coho, steelhead and lamprey respectively.
- The project builds on the downstream Lower Bridgepoint Diversion fish passage improvement completed in 2020.
- The applicant has capacity and relevant experience to implement the project.
- The applicant is engaging appropriate partners and partner support is documented in letters included in the application.
- The project team has a consistent track record for implementing similar high-quality projects.
- The application clearly articulated the need for additional funding to support OWEB project 222-2010 by describing the cost increases encountered since the 2021 application, from an initial \$400,000 to nearly \$874,000. This escalation is attributed to various factors, including inflation, increased material needs to meet permitting requirements, and additional permitting expenses.

### **Concerns**

- Alternatives considered were limited because irrigators were not in favor of dam removal as an alternative and will not agree with any plan that involves dam removal.
- The project mitigates the symptoms of the watershed disturbance problem rather than the cause because the dam will be left in place with a roughened channel being built directly below to facilitate fish passage.
- The likelihood of the project being a catalyst for realizing conserved water instream seems low at this point.

### **Concluding Analysis**

Williams Creek is an important producer of salmon and steelhead for the Applegate River system. The proposed solution, an instream roughened channel over the existing dam structure, will maintain water users' ability to access their allocated water while improving and extending the window for fish passage. Alternatives to address fish passage were limited because irrigators were not in favor of dam removal as an alternative. By leaving the dam in place, the project mitigates the symptoms of the problem rather than removing the cause. While the review team is supportive of the goal of improving fish passage, the design approach is not optimal, and the increased costs are not justified for the proposed approach. Dam removal is the preferred alternative if the costs are increasing.

### **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**

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**Staff Follow-Up to Review Team**

N/A

**Staff Recommendation**

Do Not Fund

**Staff Recommended Amount**

\$0

**Staff Conditions**

N/A

# Open Solicitation-Open Solicitation Fall 2023 Restoration

Southwest Oregon (Region 2)

**Application Name:** 224-2012-23359

**Project Type:** Restoration

**Project Name:** Hamilton Road Invasive Species Removal

**Applicant:** Applegate Partnership, Inc.

**Region:** Southwest Oregon

**County:** Jackson

**OWEB Request:** \$475,909

**Total Cost:** \$602,256

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**Application Description** The Hamilton Road Invasive Removal project takes place within the riparian area along the lower 1.5 miles of Hamilton Road and the Applegate River. This area includes public lands, private lands and the confluence of Forest Creek and the Applegate River. The project is located approximately 1.5 miles west of Ruch Oregon in Jackson County and will treat 35 acres of Applegate River and Forest Creek riparian area south of the Highway 238 and Hamilton Road intersection.

Thickets of Himalayan blackberry along with Tree of Heaven, Black Locust and other noxious weeds and previous mining activities on Forest Creek contribute to the degradation of riparian function reducing conditions favorable to the succession of fire resistant native riparian vegetation. Lack of both hardwood and conifer recruitment along with understory shrubs such as ninebark and willow leads to elevated summer water temps for observed populations of SONCC Coho and Chinook Salmon, Steelhead, Trout, and Pacific Lamprey. Additionally, this riparian corridor has an increased risk of fire due to dense invasives such as blackberry and transient populations that use the wide roadway shoulder. Such activity has and will contribute to fire and complete destruction of the native riparian vegetation as occurred at the mouth of Forest Creek in July 2023. The project proposes cut and release, maintenance and planting of native vegetation, while limiting vehicular access and transient camping on the side of the roadway by utilizing strategically placed hardscape.

Project partners include the Jackson County Parks and Roads Department, private landowners, the Bureau of Land Management, and the Applegate Valley Fire Department's Firewise Program. The project will leverage completed riparian restoration on the west side of the river in Cantrall Buckley Park and in place upland fuels reduction projects like the Prescription for Safety and NRCS Conservation Implementation Strategy recently awarded to treat private

## Review Team Evaluation

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### Strengths

- Restoring functioning riparian zones is a high priority recovery action for Endangered Species Act-listed coho.
- The applicant has capacity and relevant experience to implement the project.

- The overall project cost is reasonable for the expected watershed benefits. The application and budget narrative clearly justify the high plant stewardship costs due to employing manual techniques to address invasive blackberries and tree species in the 35-acre project area. Manual techniques are preferred to address community concerns over herbicide use.
- The applicant engages appropriate partners and partner support is documented in letters included in the application describing partner involvement in project activities.
- The project will provide opportunity for raising public awareness about invasive plant species and riparian restoration due to wildfire concerns. The high visibility of the project could lead to future restoration opportunities.

### **Concerns**

- It is unclear if higher plant density will result in increased mortality without supplemental watering. Monitoring survival and determining the cause if survival drops below planting goals will require assessing the site to determine the cause and adapting to address it.
- Reed canary grass is abundant in the area and there is no plan to actively treat it due to its extensive distribution upstream.

### **Concluding Analysis**

Removing invasive plants and trees and replacing them with native shrub and tree species will increase species richness and diversity and increase shade within the riparian area, creating more suitable water temperatures for salmon and suitable habitat for other riparian species.

### **Review Team Recommendation to Staff**

Fund

### **Review Team Priority**

7 of 11

### **Review Team Recommended Amount**

\$475,909

### **Review Team Conditions**

N/A

### **Staff Recommendation**

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#### **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-Open Solicitation Fall 2023 Restoration

Southwest Oregon (Region 2)

**Application Name:** 224-2013-23360

**Project Type:** Restoration

**Project Name:** Nell Creek Fish Passage Implementation

**Applicant:** Curry SWCD

**Region:** Southwest Oregon

**County:** Curry

**OWEB Request:** \$82,771

**Total Cost:** \$313,647

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**Application Description** This project is located on Nell Creek, which is an anadromous fish bearing tributary to the Chetco River that enters near river mile 7.5. Fish access into Nell Creek is currently blocked near the confluence of Nell Creek and the Chetco River by a concrete sill and by an undersized road culvert. Through this project, the concrete sill will be removed and replaced with a short segment of roughened channel, and the undersized road culvert will be replaced with a countersunk pipe arch culvert. Project partners include the Oregon Department of Fish and Wildlife, the South Coast Watershed Council, and the project landowners.

## Review Team Evaluation

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### Strengths

- The applicant has capacity and relevant experience to implement the project.
- The overall project cost is reasonable for the expected watershed benefits.
- The restoration methods are clearly defined and appropriate to address fish passage issues and restore a more natural stream function.
- The project is ready for implementation in the summer 2024 field season with the design process complete and match funding secured.
- The scope of work in the proposed solution section of the application has clear objectives and activities described and supported by the inclusion of high quality, clear design diagrams, and photos of project components. The project has a high likelihood of achieving the objectives to improve stream function and resolve fish passage constraints.

### Concerns

- No Significant Concerns identified.

### Concluding Analysis

Fish access into Nell Creek is currently blocked by a concrete sill and by an undersized road culvert near the confluence with the Chetco River. Through this project, the concrete sill will be removed and replaced with a short segment of roughened channel, and the undersized road culvert will be replaced with a countersunk pipe arch culvert allowing Endangered Species Act-listed coho unhindered access to

important cool water spawning and rearing habitat.

**Review Team Recommendation to Staff**

Fund

**Review Team Priority**

3 of 11

**Review Team Recommended Amount**

\$82,771

**Review Team Conditions**

N/A

**Staff Recommendation**

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**Staff Follow-Up to Review Team**

N/A

**Staff Recommendation**

Fund

**Staff Recommended Amount**

\$82,771

**Staff Conditions**

N/A

# Open Solicitation-Open Solicitation Fall 2023 Technical Assistance

Southwest Oregon (Region 2)

**Application Name:** 224-2014-23227

**Project Type:** Technical Assistance

**Project Name:** Developing Plant Materials for Climate-Adapted Riparian Restoration in the Rogue Basin

**Applicant:** The Understory Initiative

**Region:** Southwest Oregon

**County:** Jackson

**OWEB Request:** \$117,343

**Total Cost:** \$149,102

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**Application Description** The Rogue Native Plant Partnership (RNPP) exists to facilitate a robust native plant materials economy in the Rogue River Basin of southwest Oregon. This proposal builds the native plant materials supply chain, currently a limiting factor for riparian habitat restoration projects across our region. Specifically, RNPP proposes expanding the existing collection and production (grow-out) of local and climate-adapted native seeds from riparian forbs, grasses, woody shrubs, and trees, as well as stakes of workhorse riparian shrubs. This project will benefit restoration projects across the Rogue Basin, including Jackson, Josephine, and Curry counties, improving long-term habitat viability by providing the means of climate change adaptation through locally adapted plant material selection.

Though this proposal does not implement restoration projects directly, it creates the “green infrastructure” to allow reseeding, plug planting, staking, and other plant-based restoration work to occur in a region increasingly impacted by climate change.

Project partners include The Understory Initiative (species selection and prioritization, seed collection, and technical assistance to farmers), White Oak Farm/Silver Springs Nursery (seed and coppice bed production, technical advice for establishing new growers), The Freshwater Trust and Rogue Basin Partnership (education and outreach).

## Review Team Evaluation

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### Strengths

- The application describes a clear need for the plant seed source. The recent wildfire seasons in Oregon underscore the urgency as entities struggle to find genetically appropriate seed for fire recovery.
- Establishing sources of native seed will address a long-term need for restoration practitioners to have access to genetically appropriate, locally developed seed sources. In coming years, collection will expand to include northern California for supply of adapted seed suited for drier climates.
- Appropriate partners are engaged in the project as evidenced through letters of support from The Freshwater Trust, Rogue Basin Partnership, Southern Oregon Seed Growers and Rogue Native Plant Partnership.

- The applicant has capacity and relevant experience to implement the project.

### **Concerns**

- The applicant presented a general description of the main tasks associated with project implementation but did not drill down into specific details. For example, additional information on how the farmers would be identified and recruited, how the pricing structure would be developed, how the incentive payments to farmers for growing the seeds would be structured, and who would be collecting the seed and how those costs would be covered in the proposed budget. Expanded details are needed to understand how the project would be implemented and ultimately institutionalized.

### **Concluding Analysis**

This proposal builds a native plant materials supply chain, currently a limiting factor for riparian habitat restoration projects across the state. The project will benefit restoration projects across the Rogue Basin, including Jackson, Josephine, and Curry counties, improving long-term habitat viability by providing the means of climate change adaptation through locally adapted plant material selection. The project provides the technical resources and creates the infrastructure to allow plant-based restoration to occur in a region increasingly impacted by climate change.

### **Review Team Recommendation to Staff**

Fund

### **Review Team Priority**

6 of 7

### **Review Team Recommended Amount**

\$117,343

### **Review Team Conditions**

N/A

### **Staff Recommendation**

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#### **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-Open Solicitation Fall 2023 Technical Assistance

Southwest Oregon (Region 2)

**Application Name:** 224-2015-23233

**Project Type:** Technical Assistance

**Project Name:** Gold Ray Floodplain Restoration Technical Assistance Project

**Applicant:** The Freshwater Trust

**Region:** Southwest Oregon

**County:** Jackson

**OWEB Request:** \$76,416

**Total Cost:** \$99,416

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**Application Description** The Gold Ray Floodplain Forest is located in Jackson County between the towns of Central Point and Gold Hill. The proposed project area is adjacent to the BLM Upper and Lower Table Rock recreation areas and county and state park lands. In 2009, Jackson County worked with the Rogue Valley Council of Governments (RVCOG) to successfully remove a 30+ foot tall channel spanning dam on the Rogue. The Gold Ray Dam had limited fish passage and held back coarse sediments for nearly a century. Dam removal immediately invigorated river habitat and resulted in fish returning to the hatchery at Lost Creek Dam nearly 1 month earlier than previously reported.

While dam removal improved fish passage and sediment transport processes, the project did not address the 350-acre floodplain forest upstream of the dam. Currently more than 150 acres of the floodplain lack overstory trees and are covered exclusively in invasive blackberry. Where mature overstory trees have persisted, the understory is dominated by invasives, limiting the ability of trees to establish. In addition to degrading the ecological conditions at the site, the high cover of flammable invasive species poses a fire risk.

The Freshwater Trust (TFT) proposes to administer a planning process through which the two primary landowners (Jackson County and Oregon Department of Fish & Wildlife) will identify site specific management and restoration actions that align with the landowners' desired future conditions, develop 10% designs for selected actions, develop the information needed for permitting, and develop cost estimates. This project will set the stage for implementation work on the full 350-acre project area and make it possible for TFT, Rogue River Watershed Council, Jackson Soil and Water Conservation District, RVCOG and other local partners to secure implementation funding and play a variety of roles in implementing the single largest floodplain restoration opportunity in the Rogue basin.

## Review Team Evaluation

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### Strengths

- The proposed project focuses on restoring the footprint from the Gold Ray Dam removal site, which is one of the rare large, connected floodplain areas in the upper Rogue. The application clearly describes the ecological significance of the site, the factors limiting the site's potential, and the importance of the proposed design technical assistance to develop successful restoration approaches.
- Landowners are engaged in identifying actions that align with shared priorities, reviewing the suite of potential future restoration projects, and developing a prioritized list of projects for the design process.
- The project team has relevant experience and knowledge designing and implementing technical assistance work that resulted in restoration.

## **Concerns**

- It is unclear whether the direct engagement of only the two public landowners will allow for a complete range of alternatives to be considered. The audience needs to be expanded to include other partners and user groups, including the Cow Creek Tribe.
- A plan for long-term maintenance is vital for control of invasive species and vegetation establishment and needs to be included in the project deliverables.
- The pathway from technical assistance to restoration is vague.
- In addition to vegetation, the restoration plan should consider other habitat needs, such as increased channel complexity and instream habitat, in the design.
- The watershed context is not clearly described regarding process and function. This information would help to determine whether the proposed approach adequately addresses causes rather than symptoms of disturbance.
- Additional detail describing restoration alternatives that could be considered and the processes for selecting the best alternative are needed to understand the planning approach.
- It is unclear if 10% design will be sufficient for developing detailed costs estimates.

## **Concluding Analysis**

When the Gold Ray Dam was removed, fish passage and sediment transport processes improved but the project did not address changing water levels as the river moved from an impoundment to free flowing. The floodplain forest upstream of the dam degraded and resulted in a riparian area dominated by invasive blackberry. Restoration of this floodplain in the upper Rogue will provide a variety of benefits to stream function and the species dependent upon this important habitat type and the first step is to engage landowners in the development of priorities and plans for restoration that will put the floodplain back on an ecologically functioning and resilient trajectory. The application presented an outline for

implementing a process to result in restoration, but it is unclear if the audience involved in the process was too narrow to result in commitment to wholistic restoration. The design process should be expanded to consider all watershed functions and develop solutions to meet the complex situation 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**

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**Staff Follow-Up to Review Team**

N/A

**Staff Recommendation**

Do Not Fund

**Staff Recommended Amount**

\$0

**Staff Conditions**

N/A

# Open Solicitation-Open Solicitation Fall 2023 Technical Assistance

Southwest Oregon (Region 2)

**Application Name:** 224-2016-23274

**Project Type:** Technical Assistance

**Project Name:** Brophy Ditch Big Butte Cr Flow Restoration Project

**Applicant:** Trout Unlimited Inc

**Region:** Southwest Oregon

**County:** Jackson

**OWEB Request:** \$139,896

**Total Cost:** \$144,214

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**Application Description** This proposed flow restoration project will evaluate current conditions and water use of Brophy Ditch on the North Fork Big Butte Creek in Jackson County for opportunities to conserve water instream and provide efficient water delivery through conveyance efficiencies to benefit the irrigators as well as ESA-listed threatened Coho salmon, state-listed Spring Chinook, summer and winter steelhead, Pacific Lamprey, and cutthroat trout. Big Butte Creek is the only tributary of the Rogue River that Spring Chinook use to spawn which makes preserving flows, especially during migration essential. This project will occur in one of the highest-priority watersheds in the Rogue River Basin for flow restoration and address limiting factors specifically identified by multiple plans for recovery of federal and state-listed fish species.

Brophy Ditch has high transmission losses and even though the irrigators divert their full water right and are on a rotation, they do not receive their full allotment. The ditch will be surveyed, and the amount of conserved water will be evaluated through a seepage study, water rights assessment, and crop water requirement evaluation. Opportunities to permanently dedicate conserved water from this senior water right instream for the benefit of fish, wildlife, and the public will be identified and quantified. The final report will include summary of opportunities for conserved water, preliminary designs for conveyance efficiency alternatives, and cost estimates. Project partners include the Big Butte District Improvement Company (irrigators), OWRD, Jackson SWCD, BLM, Rogue River WC, Medford Water Commission, Rogue Basin Partnership, Wild Salmon Center, and Middle Rogue Steelheaders.

## Review Team Evaluation

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### Strengths

- If the technical assistance project leads to conserved water instream, it will have the most senior water right in the stream reach (1920).
- The proposal clearly describes the project phases from outreach to technical assistance and describes a clear pathway to restoration actions that benefit Endangered Species Act-listed coho, Chinook, steelhead, lamprey, and cutthroat.
- The applicant is evaluating appropriate alternatives in piping and pump systems that create efficiencies in water use and the potential for conserved water.

- The project manager and applicant have a high capacity and consistent track record with similar projects. Appropriate partners have roles in the proposed project, including the Bureau of Land Management, Jackson Soil and Water Conservation District, the Jackson County Watermaster, Rogue River Watershed Council, Rogue Basin Partnership, and Wild Salmon Center, increasing the likelihood of success for resulting restoration projects.
- The landowners utilizing the ditch have been talking to the Jackson County Watermaster for years trying to get help with the diversion system and their support for the project is evidenced in letters provided in the application.

### **Concerns**

- Project costs for engineering are provided as lumped sums; it is difficult to evaluate whether costs are reasonable, necessary, and adequate for achieving the proposed technical assistance actions.
- Better quantifying the potential volume of water that can be converted to instream use and how it will benefit the stream reach would help in evaluating the cost effectiveness of the resulting restoration work.

### **Concluding Analysis**

The Big Butte Creek watershed is important to Rogue fisheries and provides the primary resource for the Rogue Valley's drinking water. The system has been over allocated and climate change is negatively impacting summer stream flows making fish passage more difficult in summer months through the higher gradient stream reaches. The project will evaluate current conditions and water use of Brophy Ditch on North Fork Big Butte Creek in Jackson County for opportunities to conserve water instream and provide efficient water delivery through conveyance efficiencies to benefit irrigators as well as ESA-listed coho salmon and other aquatic organisms.

### **Review Team Recommendation to Staff**

Fund

### **Review Team Priority**

5 of 7

### **Review Team Recommended Amount**

\$139,896

### **Review Team Conditions**

N/A

### **Staff Recommendation**

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### **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-Open Solicitation Fall 2023 Technical Assistance

Southwest Oregon (Region 2)

**Application Name:** 224-2017-23275

**Project Type:** Technical Assistance

**Project Name:** MID NF and SF Little Butte Creek Fish Passage Project

**Applicant:** Trout Unlimited Inc

**Region:** Southwest Oregon

**County:** Jackson

**OWEB Request:** \$156,372

**Total Cost:** \$174,918

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**Application Description** This Project addresses the need for fish passage improvement at two high priority dams listed on the ODFW Statewide Fish Passage Priority List: MID North Fork Little Butte Dam (RM 0.9) on N Fork Little Butte Creek and MID South Fork Little Butte Creek Dam (RM 1.1) on S Fork Little Butte Creek in Jackson County near Lake Creek, Oregon. These two dams divert water to the Joint System Canal that supplies water to Medford Irrigation District (MID) and Rogue River Valley Irrigation District (RRVID) that serve 2,220 patrons. The proposed project will develop fish passage alternatives and designs for these two diversions that will provide fish passage to over 30 miles of habitat, benefiting ESA-listed Coho Salmon, Fall Chinook Salmon, summer and winter Steelhead Trout, Pacific Lamprey, Cutthroat Trout, and smallscale suckers.

Little Butte Creek watershed has been identified as a high priority by many local, state, and federal strategic restoration, water quality improvement, and fish species recovery/management plans. Significant ecological restoration, fish passage barrier removal, irrigation improvement, and flow restoration projects have and are occurring throughout Little Butte Creek. NOAA's Coho Recovery Plan identifies fish passage barriers and water withdrawals as key limiting factors to all life stages of Coho. Twenty miles of habitat above the dams has been identified as high intrinsic potential and the watershed is a known stronghold for Coho salmon in the Rogue. Upstream passage and low flows are primary limiting factors for summer and winter steelhead and coho in the Upper Rogue Basin according to ODFW's 2021 Rogue-South Coast Multi-Species Conservation and Management Plan.

The proposed project will complement MID and RRVID's current efforts to conserve water and modernize their irrigation system. Partners include MID and RRVID, RRWC, FCA, Rogue Basin Partnership, JSWCD, BLM, Medford Water Commission, Wild Salmon Center, and Middle Rogue Steelheaders.

## Review Team Evaluation

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### Strengths

- Endangered Species Act-listed coho, Chinook, lamprey, and cutthroat benefit will benefit from improved access to cold water refugia and high-quality habitat resulting from implementation of restoration actions recommended by this technical assistance project.
- Project partners, including Rogue River Watershed Council, Rogue Basin Partnership, Wild Salmon Center, and Jackson Soil and Water Conservation District, have a high capacity and consistent track record for successfully developing and implementing solutions to fish passage issues.

- The engineering firm is experienced with designing and implementing similar projects in this watershed.
- The budget includes funds for cultural resource consultation and investigation at the proposed restoration sites.

### **Concerns**

- A benefit to streamflow was mentioned in the application but there was no supporting evidence that this or conserved water for instream use would be a project result.
- The North and South Fork irrigation diversion infrastructure is part of the Bureau of Reclamation's (BOR) Rogue River Basin Project, but BOR does not seem to be involved in the project.
- A more extensive description of how the work fits into the larger efforts to upgrade and pipe the entire irrigation conveyance system and provide for fish access, as envisioned in the Water for Irrigation Streams and Economies effort, would provide important context for understanding how this project fits into larger plans for improving irrigation efficiency and fish passage in the Little Butte and Bear Creek watersheds.
- Project costs are provided as lumped sums; it is difficult to evaluate whether costs are reasonable, necessary, and adequate for achieving the proposed technical assistance actions.

### **Concluding Analysis**

The North Fork Little Butte Creek dam is listed as the number 12 priority barrier and the South Fork Little Butte Creek dam as the number 47 priority barrier in the Rogue on the ODFW's Statewide Fish Passage Priority List. On the North Fork Little Butte Creek, passage is impaired to an estimated 9.8 miles of coho habitat and on the South Fork Little Butte Creek, passage is impaired to 17.1 miles of high-quality coho habitat. Both dams also limit habitat for Pacific Lamprey. This project complements the significant investment in habitat restoration and fish passage in this watershed over the last 20 years.

### **Review Team Recommendation to Staff**

Fund

### **Review Team Priority**

3 of 7

### **Review Team Recommended Amount**

\$156,372

### **Review Team Conditions**

N/A

### **Staff Recommendation**

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### **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-Open Solicitation Fall 2023 Technical Assistance

Southwest Oregon (Region 2)

**Application Name:** 224-2018-23279

**Project Type:** Technical Assistance

**Project Name:** Rogue Basinwide Flow Restoration Water Right Valuation Project

**Applicant:** Trout Unlimited Inc

**Region:** Southwest Oregon

**County:** Jackson

**OWEB Request:** \$33,746

**Total Cost:** \$44,137

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**Application Description** The specific ecological problem we seek to address is impaired stream flow in the Rogue River Basin of southwest Oregon. Here, water withdrawals have led to a reduction in habitat quantity and quality for native fishes including ESA-listed Coho Salmon. This is a widely acknowledged and primary limiting factor to fish production, growth, and survival in the Rogue. The SONCC Coho Recovery Plan repeatedly cites the need for improved instream flows as a high priority recovery action for ESA-listed Coho Salmon. Improving streamflows is also supported by ODFW's Native Fish Conservation Policy and Rogue Spring Chinook and Fall Conservation Plans. In the long run, this proposal represents an important step toward realizing the ecological objective of enhanced streamflow benefiting ESA-listed Coho Salmon, summer and winter Steelhead Trout, Fall and state-sensitive Spring Chinook Salmon, Cutthroat Trout, Pacific Lamprey and other native aquatic species by increasing the quality and amount of available habitat for rearing juveniles, migrating adults while also helping maintain suitable water temperatures and water quality.

We seek to commission a valuation analysis of the market value of surface water rights in the Rogue Basin to support efforts to enhance streamflow in target reaches to benefit habitat for anadromous fish species. An up to date valuation is an essential tool to garner landowner support for future flow restoration projects. Having a water right valuation in hand when approaching water right holders to discuss ways to improve instream flows helps solidify interest in water transactions, such as leases or transfers, and allows the water user to make an informed decision based off of their projected compensation. Project partners include ODFW, OWRD, RRWC, JSWCD, RBP, Middle Rogue Steelheaders, and Wild Salmon Center.

## Review Team Evaluation

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### Strengths

- The application clearly makes the case for the development of an agricultural water right valuation for the Rogue River Basin. Incentives are important to get landowners on board with project work that results in increased instream flows. For this incentives process to work, a critical piece of information required is the monetary value of the water right.
- The applicant's team is highly experienced in the Rogue Basin and Trout Unlimited has been a leader in stream flow enhancement efforts in the region.

- The proposed project will use existing available data, including an outdated, 2014 water valuation analysis to complete an evaluation of current trends in water use.
- The proposed project builds on previously funded engagement that identified the need for this technical assistance project.

### Concerns

- The application did not describe how the resulting products would be distributed to other groups engaged in stream restoration work in the Rogue Basin.

### Concluding Analysis

Trout Unlimited will contract with WestWater Research to complete an analysis of the market value of surface water in the Rogue Basin to support efforts to enhance streamflow in target reaches to address limiting factors for anadromous fish species. Increasing stream flows by reducing out of stream water demands is a top priority throughout the Rogue Basin. In many sub-watersheds or stream reaches, water temperature is elevated by water withdrawals and is the primary limiting factor to fish production. Projects that seek to enhance instream flow are necessary to ensure the long-term viability of native fish species, including ESA-listed coho, by creating permanent instream flow to build climate resilience.

### Review Team Recommendation to Staff

Fund

### Review Team Priority

2 of 7

### Review Team Recommended Amount

\$33,746

### Review Team Conditions

N/A

### Staff Recommendation

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#### Staff Follow-Up to Review Team

N/A

#### Staff Recommendation

Fund

#### Staff Recommended Amount

\$33,746

#### Staff Conditions

N/A

# Open Solicitation-Open Solicitation Fall 2023 Technical Assistance

Southwest Oregon (Region 2)

**Application Name:** 224-2019-23288

**Project Type:** Technical Assistance

**Project Name:** North Bank Ln. Infrastructure Upgrades for Fish Passage & Community Resiliency

**Applicant:** Coquille Watershed Association

**Region:** Southwest Oregon

**County:** Coos

**OWEB Request:** \$248,330

**Total Cost:** \$363,650

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**Application Description** The North Bank Lane (NBL) Infrastructure Upgrades for Fish Passage & Community Resiliency project is an integral component to the Beaver Hill Wetland Reserve Restoration project (OWEB grant #: 221-2046 & 222-2011). NBL is a Coos County managed road and is a major thoroughfare for local ranchers, timber hauling trucks, and homes between the communities of Bandon and Coquille, OR. The Beaver Hill Wetland is characterized by an invasive reed canary grass monoculture with a deeply incised channel, informally named Leslie Creek, running between a private access road (though an undersized 36" culvert) and NBL through two 12'x8' corrugated steel arch culverts before reaching the Coquille River. Both the private access road and county road culverts are creating hydrologic constrictions to the tidal wetland, restricts fish access to rearing habitat, and simultaneously are of concern for community use should the undersized infrastructure fail during a volatile storm event.

This proposal seeks design funding to replace the undersized NBL culverts with at least a 45' bridge, designs for the private access road, and additional cultural resource investigations for our recently identified fill spoil sites and upland tree harvest locations (where the wood will be donated to the upcoming wetland restoration activities). This funding will also allow CoqWA staff to oversee designs, develop a robust planting plan, and begin the complex permitting process. CoqWA will continue to partner with CIT, the Leslie Family, Coos County Rd. Department, ODFW, USFWS, and NRCS among other interested restoration practitioners to develop a suite actions to reach our goals.

## Review Team Evaluation

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### Strengths

- The overall project cost is reasonable for the expected watershed benefits and engineering costs are appropriate to achieve 100% designs.
- The applicant is engaging appropriate partners and partner support is documented in letters included in the application and by project match contributions.
- The project team has a consistent track record for implementing similar high-quality technical assistance projects that lead to off-channel habitat restoration in the Coquille basin.

- Prior work has shown that the applicant has built a diverse and robust team including the Coquille Indian tribe, Coos County Road Department, Oregon Department of Fish and Wildlife, United States Fish and Wildlife Service, Natural resources Conservation Service, Wolf Water Resources, and landowners.
- The application describes a process to develop a memorandum of understanding for tribal access to engage youth planting crews from the tribes, improving the likelihood of long-term project stewardship.

### **Concerns**

- The applicant has a large workload of similar projects that could affect their capacity to continue completing projects in a timely manner.

### **Concluding Analysis**

The loss of historical wetlands and off-channel refugia is a key limiting factor for Oregon Coast coho. The Beaver Hill Wetland Reserve Restoration Project will enhance 50 acres of slow water refugia and winter rearing habitat critical for salmonids.

### **Review Team Recommendation to Staff**

Fund

### **Review Team Priority**

1 of 7

### **Review Team Recommended Amount**

\$248,330

### **Review Team Conditions**

N/A

### **Staff Recommendation**

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#### **Staff Follow-Up to Review Team**

N/A

#### **Staff Recommendation**

Fund

#### **Staff Recommended Amount**

\$248,330

#### **Staff Conditions**

N/A

# Open Solicitation-Open Solicitation Fall 2023 Technical Assistance

Southwest Oregon (Region 2)

**Application Name:** 224-2020-23314

**Project Type:** Technical Assistance

**Project Name:** North Fork Coquille River Subbasin  
Geomorphic Assessment

**Applicant:** Coquille Watershed Association

**Region:** Southwest Oregon

**County:** Coos

**OWEB Request:** \$88,336

**Total Cost:** \$93,776

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**Application Description** The North Fork Coquille River (NFCR), located in Coos County, Oregon, is a significant waterway that provides critical habitat for fish and wildlife, serves as the sole municipal drinking water source for the City of Myrtle Point (CoMP), and effects water quality downstream at the City of Coquille (CoC). Unfortunately, the river is subject to ongoing erosion and sedimentation, threatening its long-term stability and the health of surrounding ecosystems and agriculture. The Coquille Watershed Association has already identified one source of erosion and sediment input along the lower NFCR at the Robinson property and seeks to implement a bank stabilization project in the future. To better understand the geomorphic processes that govern the river's behavior and develop effective management strategies, a comprehensive survey of the NFCR is required. This proposed project aims to perform a detailed geomorphic assessment of the NFCR, covering approximately 53 miles from the river's headwaters to its confluence with the South Fork Coquille River. The basin-wide remote assessment will include a range of field-based measurements and an analysis of available data (channel cross-sections, bathymetric surveys, bank profiles, and topographic surveys). The assessment will be combined with a geomorphic survey of 9.5 river miles, the entirety of the lower NFCR, to create a finalized geomorphic analysis. Project partners include Coos Soil and Water Conservation District, Coquille Indian Tribe, Natural Resource Conservation Service, Oregon Department of Fish and Wildlife, CoMP, CoC, Business Oregon, and U.S. Bureau of Land Management. The results of this project will be critical for developing effective river management strategies that promote long-term stability and ecological health. The survey data will be used to inform the development of sediment management actions, guide habitat restoration efforts, and identify areas of the river most vulnerable to erosion and sedimentation.

## Review Team Evaluation

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### Strengths

- The proposed project aims to perform a detailed geomorphic assessment of the North Fork Coquille River covering approximately 53 miles from the river's headwaters to its confluence with the South Fork Coquille River. The products from this work will inform restoration project identification, prioritization, and design.
- Acquisition of LiDAR imagery adds to a robust data set that will also be useful for site specific restoration designs.

- Resulting projects designed to improve the health of the stream and associated riparian areas have the potential to improve water quality by increasing temperature and reducing sedimentation.
- The applicant has a technical team of qualified experts to help guide the project, including Natural Resource Conservation Service, Bureau of Land Management, Oregon Department of Fish and Wildlife, the Cities of Coquille and Myrtle Point, Business Oregon, and Coquille Indian Tribe.
- Previous application evaluation concerns are addressed by the addition of a detailed scope of work and inclusion of a detailed budget.

### **Concerns**

- There is no context provided for the application narrative describing the water treatment plant closing their intakes, and how the deliverables for this project will help to address the problem.
- Restoration addressing the magnitude and causes of stream degradation is likely to be expensive. It will be important to manage the expectations of landowners interested in addressing bank erosion in isolation.

### **Concluding Analysis**

Understanding the drivers causing erosion in the North Fork Coquille River system will be important to focus efforts on meaningful actions that address bank erosion and subsequent loss of riparian areas. The resulting information will also provide a communication tool for outreach to landowners and the community that can build support for and participation in future restoration. The North Fork Coquille River basin has high salmonid production potential; resulting restoration projects will improve habitat for Endangered Species Act-listed coho, Chinook, and steelhead if they address the causes of instability.

### **Review Team Recommendation to Staff**

Fund

### **Review Team Priority**

7 of 7

### **Review Team Recommended Amount**

\$88,336

### **Review Team Conditions**

N/A

### **Staff Recommendation**

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### **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-Open Solicitation Fall 2023 Technical Assistance

Southwest Oregon (Region 2)

**Application Name:** 224-2021-23366

**Project Type:** Technical Assistance

**Project Name:** Illinois Valley Country Club Restoration Project

**Applicant:** Illinois Valley WC

**Region:** Southwest Oregon

**County:** Josephine

**OWEB Request:** \$86,482

**Total Cost:** \$99,682

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**Application Description** The proposed restoration project area is located within the boundary of the Illinois Valley Country Club, owned by the City of Cave Junction. Multiple salmon-bearing streams are within the project area including George Creek and Brooks Creek (and unnamed tributary). All provide habitat for coho salmon (ESA-listed), winter-run steelhead, coastal cutthroat trout, and sculpin. Brooks Creek and its unnamed tributary flow into George Creek, which in turn empties into the Illinois River at river mile 54. The main factors limiting fish habitat potential are simplified, straightened stream channels lacking in-stream complexity, poor quality riparian vegetation, inadequate fish passage, and disturbed hydrology. Most existing stream crossings either do not meet fish passage criteria or are undersized. All the stream channels were likely subjected to straightening and clearing decades ago and are devoid of instream structure needed for juvenile rearing habitat, or to retain spawning substrate. Riparian habitats require significant restoration due to the overwhelming presence of Himalayan blackberry throughout much of the project area. Streamflow is also limited because of development encroaching on stream corridors, where wetland habitats that likely once provided surface flow have become fragmented. This Technical Assistance grant would provide the funding to: 1) design stream crossing structures that meet fish passage criteria, 2) develop a riparian plan to increase shade potential and plant diversity, 3) explore the possibility of remeandering and enhancing stream channels to increase sinuosity and habitat complexity, and 4) gain a thorough understanding of surface and groundwater flow to ensure that George Creek captures as much water as possible to provide high-quality juvenile rearing habitat, and potentially adult spawning habitat. Project partners include the City of Cave Junction, Oregon Department of Fish and Wildlife, and River Design Group.

## Review Team Evaluation

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### Strengths

- While the habitat has been greatly simplified and disconnected, the habitat in the upper portions of George Creek has potential for spawning and rearing for ESA-listed coho. The proposed project would complement similar restoration planned in other tributaries nearby.
- The project location has potential for outreach to the community to promote watershed health awareness.
- The satellite imagery and drawings were helpful to understand the property in its watershed context.

- The applicant has retained the services of an experienced engineering firm.

### **Concerns**

- The application is unclear regarding how much flexibility there is with the current land use and the ability to create sufficient space for functional riparian and habitat areas. It is unclear if the City of Cave Junction is still spreading wastewater on the golf course and if so, where on the property that activity is occurring.
- It is unclear which stream crossings are proposed for restoration designs.
- It is unclear whether there is water in all the ditches and channels proposed for restoration designs and, if water is present, when the water is there.
- Information on water rights, including a map, would have been helpful to understanding the volume of water on site and clarify whether fish passage upgrades are warranted. The application noted that it's going to be difficult to meet federal fish passage requirements for the proposed culvert designs.
- The budget did not include a specific line item for the riparian plan.

### **Concluding Analysis**

Restoring simplified stream and riparian habitat on George Creek and improving access for salmonids to potential spawning and rearing habitat has value but having a better understanding of the potential for meaningful restoration actions is important prior to investing in design development.

### **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**

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### **Staff Follow-Up to Review Team**

N/A

### **Staff Recommendation**

Do Not Fund

### **Staff Recommended Amount**

\$0

### **Staff Conditions**

N/A

# Open Solicitation-Open Solicitation Fall 2023 Technical Assistance

Southwest Oregon (Region 2)

**Application Name:** 224-2022-23370

**Project Type:** Technical Assistance

**Project Name:** Curry Cultural TA

**Applicant:** Curry SWCD

**Region:** Southwest Oregon

**County:** Curry

**OWEB Request:** \$152,000

**Total Cost:** \$164,500

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**Application Description** Last year, the CWP aspired to bring together state, federal, and tribal partners to the table to form relationships, understand one another's Section 106 process, and to attempt to create some clarity for partners doing the work on the ground. The objective of this workshop was to establish a standardized process that steps CWP and Agency project managers through roles and responsibilities in the Section 106 compliance process when their agency is the designated Lead Federal Agency. From those conversations, we continue to work on bringing some internal and external clarity to Section 106 compliance where applicable.

We request that OWEB would help us to further this work, as we have already invested much time, money, and relationship-building into the process to date. Specifically, we would like to look at the development of Section 106 Flow Chart, and an MOU between CWP and Bureau of Land Management and US Forest Service (common federal partners and funders) to clarify some roles and responsibilities for Section 106 tasks. In addition, we would like to engage with private archeologists, tribes, and SHPO to programmatically assess areas and activities of cultural resource concern within our service area.

Project partners at this time include Oregon Parks and Recreation Department, Bureau of Land Management, US Forest Service, US Army Corps of Engineers, National Oceanic and Atmospheric Administration, Confederated Tribes of the Siletz Indians, Confederated Tribes of the Grand Ronde, Coquille Indian Tribe, and the Tolowa Dee-ni' Nation.

Peter Hatch best said it at our Section 106 meeting this year- "We need to have a broader conception of what living in this place together looks like. Section 106 is work that we do together for the benefit of ALL people."

## Review Team Evaluation

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### Strengths

- The applicant has built a technical team of qualified experts and project partners to help guide the project including representatives from Oregon Parks and Recreation Department, Bureau of Land Management, US Forest Service, US Army Corps of Engineers, National Oceanic and Atmospheric Administration, Confederated Tribes of the Siletz Indians, Confederated Tribes of the Grand Ronde, Coquille Indian Tribe, and the Tolowa Dee-ni' Nation.

- Archaeological compliance costs may be lessened for future restoration projects through establishing a standardized approach and process.
- Cultural resource specialists from agencies are largely unavailable due to workloads and their capacity is limited. Tribes also face capacity issues. Engaging all parties involved early in the process with a clearly described roles and responsibilities will improve the efficiency and effectiveness of this important work.
- The products from this work will help with permitting and implementation of ten ground disturbing restoration projects the applicant has identified for implementation between 2025-2028.

### **Concerns**

- Using a programmatic, blanket approach to Section 106 compliance may be unrealistic when future project locations and design approaches are not yet available.

### **Concluding Analysis**

The development of a Section 106 Flow Chart, and an MOU between common federal partners and restoration partners will help to clarify some roles and responsibilities for the Section 106 compliance process when their agency is the designated Lead Federal Agency. This can result in reduced costs, cut staff and consultant time, improve agency permit reviews, and minimize risk to a project's schedule and budget.

### **Review Team Recommendation to Staff**

Fund

### **Review Team Priority**

4 of 7

### **Review Team Recommended Amount**

\$152,000

### **Review Team Conditions**

N/A

### **Staff Recommendation**

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### **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-Open Solicitation Fall 2023 Engagement

Southwest Oregon (Region 2)

**Application Name:** 224-2023-23239

**Project Type:** Engagement

**Project Name:** Applegate Wildfire Resiliency Outreach

**Applicant:** Applegate Partnership, Inc.

**Region:** Southwest Oregon

**County:** Jackson

**OWEB Request:** \$38,773

**Total Cost:** \$67,714

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**Application Description** Located in the Klamath Mountains ecoregion of southwest Oregon, the Applegate Valley's landscape harbors high levels of biodiversity, a multitude of Threatened and Endangered species, and habitat that is primed for destructive wildfires. Several fires have burned in the Applegate in recent years, including the 38,000-acre Miller Complex in 2017. Contributing to the wildfire risk and ecological degradation, is the die-off of mature conifer trees. Max Bennett (retired Forestry Agent, Oregon State University Extension Service) recently published research that states southwest Oregon is experiencing the highest concentration of Douglas Fir mortality in the state.

The Applegate Partnership & Watershed Council (APWC) secured \$2 million in funding from the National Resource Conservation Service (NRCS) to implement fuels reduction work on private lands through a Conservation Implementation Strategy (CIS) in the Applegate. Concurrently, APWC is seeking U.S. Department of Agriculture (USDA) funding to update the watershed's Community Wildfire Protection Plan (CWPP). These two extremely important endeavors will require extensive outreach to landowners, agencies, fire departments, and other stakeholders, across a checkerboard of landownership. Outreach will be essential to coordinate our efforts to maximize benefits to the local ecology and community.

Key partners: APWC, Rogue Forest Partners (RFP), A Greater Applegate (AGA), Klamath-Siskiyou Wildlands Center (KS Wild), The Bureau of Land Management (BLM), The U.S. Forest Service (USFS), Oregon Department of Forestry (ODF), Oregon State University Extension Service (SOEC), U.S. Fish and Wildlife Service (USFWS), Jackson and Josephine County Fire Chiefs, Jackson County Soil and Water Conservation District (JCSWCD), and the NRCS Central Point Service Center. Consulting tribal parties are the Confederated Tribes of Grand Ronde, Confederated Tribes of Siletz Indians, Coquille Indian Tribe, and Cow Creek Band of Umpqua Indians.

## Review Team Evaluation

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### Strengths

- The applicant secured \$2 million in funding from the National Resource Conservation Service (NRCS) to implement fuels reduction on private lands through a Conservation Implementation Strategy and is seeking U.S. Department of Agriculture funding to update the watershed's Community Wildfire Protection Plan. These two extremely important endeavors require extensive engagement with landowners, agencies, fire departments, and other partners.

- Engagement efforts focus on connecting landowners to forest health restoration actions that maximize benefits to the local ecology and community.
- The proposed work is timely due to the need to build interest and support in the community to take advantage of funding through the NRCS.
- The application describes an effective implementation team, building on years of forest health planning in this area. The applicant is engaging appropriate partners to assist in landowner, partner, and agency engagement and can do a much better job of connecting to the landowners than a federal agency would alone.

### **Concerns**

- No Significant concerns identified.

### **Concluding Analysis**

The proposal coincides with an increased interest by landowners to undertake actions to take actions to reduce impacts from wildfire smoke and the likelihood of catastrophic wildfire. Landowner engagement will promote activities that decrease the threat and likelihood of severe fire; increase forest resilience and mitigate the effects of drought, fire, insects, disease, and climate change; and provide sustainable plant communities, watershed conditions, and healthy oak, riparian, and old growth habitat.

### **Review Team Recommendation to Staff**

Fund

### **Review Team Priority**

1 of 1

### **Review Team Recommended Amount**

\$38,773

### **Review Team Conditions**

N/A

### **Staff Recommendation**

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#### **Staff Follow-Up to Review Team**

N/A

#### **Staff Recommendation**

Fund

#### **Staff Recommended Amount**

\$38,773

#### **Staff Conditions**

N/A

# Willamette Basin - Region 3 Fall 2023 Funding Recommendations



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 NAD 1983 Oregon Statewide Lambert (Intl Feet) 3/13/2024 10:21 AM

**Funding Recommendation**

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

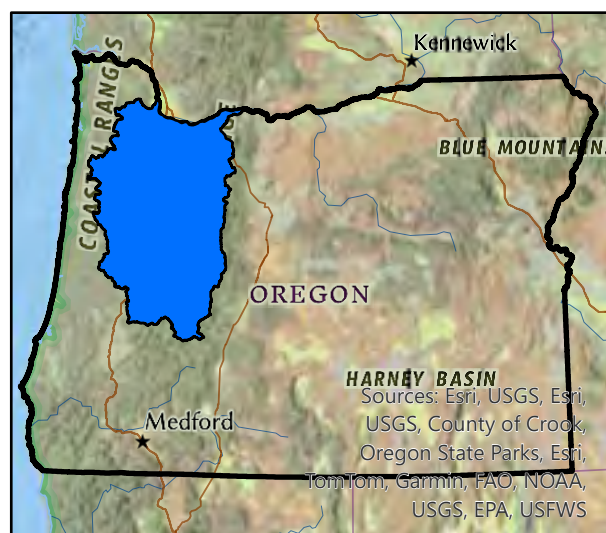
**Previous Grants 1998 - Spring 2022**

- Land Acquisition
- ◆ Restoration
- ▲ Region 3 Cities
- Region 3 Streams
- ▭ OWEB Region 3 Boundary



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**HARNEY BASIN**  
 Sources: Esri, USGS, Esri, USGS, County of Crook, Oregon State Parks, Esri, TomTom, Garmin, FAO, NOAA, USGS, EPA, USFWS

Oregon Watershed Enhancement Board: Region 3 Restoration, Technical Assistance, and Engagement

**Region 3 - Willamette Basin Restoration**

**Projects RECOMMENDED for Funding in Priority Order**

Project #	Grantee	Project Title	Brief Description	Amount Recommended
224-3009	City of Hillsboro	Riparian Forest Rescue! Save our unique urban forest from the invasive ash borer	Proactive action will be taken to save riparian and floodplain forest at the Jackson Bottom Wetlands Preserve from imminent negative impacts of the invasive emerald ash borer. The project will convert an Oregon ash forested habitat to a diverse vegetation community that is a more stable, self-sustaining ecosystem that can adapt to outside environmental influences.	\$ 78,000
224-3010	Long Tom WC	Greenhill oak and prairie restoration phase 2	Native oak and prairie ecosystem function will be restored through prescribed burning, brush management, weed control, and planting native species across 223 acres on four private properties, contributing to a 500-acre habitat corridor in a high-priority conservation area.	\$ 263,576
224-3004	Clackamas River Trout Unlimited	Cub Creek Restoration Phase II	Salmon habitat will be restored in the Upper Clackamas Basin by reconnecting historic stream channel networks and floodplains, adding large wood instream to improve habitat, and replanting streamside areas affected by wildfire.	\$ 321,579
224-3006	Luckiamute WC	Expanding the Benefit: The Forest Awakens	Streamside vegetation will be restored along nearly a mile of the Little Luckiamute River, which will improve habitat for beaver, salmon species, cutthroat, and lamprey.	\$ 89,964
224-3005	Metro	Coffee Lake Creek Wetlands Restoration	Wetland function and vegetation communities will be restored on a 64-acre Metro property on Coffee Lake Creek. The project will restore the stream channel and floodplain, contribute cold water to a Willamette tributary, and support a wide variety of native wildlife.	\$ 228,060
224-3003	The Freshwater Trust	Upper Sandy River Basin Habitat Restoration Project - Camp Creek and Still Cree	The abundance and productivity of Sandy basin salmon and steelhead populations will increase by restoring access to habitat and accelerating the recovery of naturally functioning conditions within the stream channels and floodplain areas of the Zigzag River.	\$ 488,355
224-3001	Willamette Riverkeeper	Minto-Brown Island Oxbow Slough Restoration	Invasive plant species will be removed to restore aquatic and streamside habitats in the Minto Island Anchor Habitat in Salem. Diverse native plant communities will be reestablished to improve the resilience of forests and wetlands to endure future stressors and changes, including climate change.	\$ 423,484
224-3002	Columbia Slough WC	Little Four Corners	A one-mile corridor in the Columbia Slough Watershed will be restored by removing invasive plant species and garbage and installing native trees and shrubs, which will provide water quality and habitat benefits.	\$ 216,774
<b>Total Restoration Projects Recommended for Funding by RRT and OWEB Staff</b>				<b>2,109,792</b>

**Projects Recommended but NOT FUNDED in Priority Order**

Project #	Grantee	Project Title	Brief Description	Amount Recommended
NONE				

**Projects NOT RECOMMENDED for Funding by RRT**

Project #	Grantee	Project Title	Amount Requested
224-3007	Coast Fork Willamette WC	Increasing Complexity in Mosby Creek Floodplain Habitat	\$ 384,657
224-3008	North Clackamas Watershed Council	Riparian Restoration for Kellogg Creek Restoration & Community Enhancement Project	\$ 356,994

Oregon Watershed Enhancement Board: Region 3 Restoration, Technical Assistance, and Engagement

Region 3 - Willamette Basin Technical Assistance				
Projects RECOMMENDED for Funding in Priority Order				
Project #	Grantee	Project Title	Brief Description	Amount Recommended
224-3011	Greenbelt Land Trust	Luckiamute Confluence Planning and Design	Restoration design alternatives will be developed to evaluate options for restoring natural floodplain processes and habitat conditions for juvenile spring Chinook salmon, winter steelhead, lamprey, and other riparian forest wildlife at the confluence of the Luckiamute River and the Willamette River.	\$ 52,750
224-3013	Greenbelt Land Trust	CBow Ridge: Management Planning for Climate Resilience	A ten-year management plan will be developed for a 1,600-acre conservation property that will guide climate-resilient adaptive management of forest, grassland, oak, and riparian habitats.	\$ 89,178
<b>Total Technical Assistance Projects Recommended for Funding by RRT and OWEB Staff</b>				<b>141,928</b>

Projects Recommended but NOT FUNDED in Priority Order				
Project #	Grantee	Project Title	Brief Description	Amount Recommended
NONE				

Projects NOT RECOMMENDED for Funding by RRT				
Project #	Grantee	Project Title		Amount Requested
224-3012	The Freshwater Trust	Sandy Basin Climate Change Analysis		\$ 159,053
224-3014	Pudding River WC	Pudding River West Cascades Headwater Tributary Stream Restoration Action Plan (WHTSAP)		\$ 32,079
224-3015	Middle Fork Willamette WC	Finalizing Floodplain Restoration Designs & Permitting for Elijah Bristow State Park - Phase 3		\$ 307,444
224-3016	Long Tom WC	Chaa-mali Collaborative Ecocultural Management Plan, Technical Assistance		\$ 140,140
224-3017	Human Access Project	Treating the Harmful Cyanobacterial Bloom at Ross Island Lagoon		\$ 89,639
224-3018	North Santiam WC	North Santiam Post-Fire Watershed Resource Assessment and Prioritization Guide		\$ 99,938
224-3019	Friends of Tryon Creek	Tryon Creek State Natural Area Cultural Restoration Plan		\$ 93,324

Region 3 - Willamette Basin Engagement				
Projects RECOMMENDED for Funding in Priority Order				
Project #	Grantee	Project Title	Brief Description	Amount Recommended
224-3025	Oregon Agricultural Trust	Protecting Oak Habitat on Willamette Valley Farmland	Willamette Valley landowners whose property contains remnant native oak habitat will be engaged to consider using working land conservation easements to protect the land and habitat in perpetuity.	\$ 129,047
224-3020	Oswego Lake Watershed Council	Oregon White Oak Habitat Restoration in a Suburban Community	The community of Lake Oswego will be engaged in a process to create a Oregon White Oak Strategic Action Plan that will direct coordination of actions to protect and restore Oregon white oak, reduce wildfire risk, and address climate impacts across 1,900 acres of oak habitat.	\$ 114,064
<b>Total Engagement Projects Recommended for Funding by RRT and OWEB Staff</b>				<b>243,111</b>

Projects Recommended but NOT FUNDED in Priority Order				
Project #	Grantee	Project Title	Brief Description	Amount Recommended
NONE				

Projects NOT RECOMMENDED for Funding by RRT				
Project #	Grantee	Project Title		Amount Requested
224-3021	Aprovecho DBA Center for Rural Livelihoods	Coast Divide Restoration Project		\$ 194,956

Oregon Watershed Enhancement Board: Region 3 Restoration, Technical Assistance, and Engagement

224-3022	Coast Fork Willamette WC	Working Lands Stakeholder Engagement for Community Buy In and Effective Regional Coordination	\$ 127,880
224-3023	Greater Yamhill Watershed Council	Chehalem Mountain Groundwater Stakeholder Engagement	\$ 33,619
224-3024	Pudding River WC	WOAH! White Oak Access Hubs: Publicly accessible oak & prairie restoration in the NE Will. Valley	\$ 52,932
224-3026	Long Tom WC	Chaa-mali Collaborative Ecocultural Management Plan, Engagement	\$ 199,811
224-3027	Greater Oregon City WC	Beaver Lake Restoration Approaches - Phase 2	\$ 45,430
224-3028	Clackamas River Basin Council	Clackamas Riparian Restoration and Community Engagement Project	\$ 65,736

<b>Region 3 Total OWEB Staff Recommended Board Award</b>	<b>2,494,831</b>
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<b>Region 1 - 6 Grand Total OWEB Staff Recommended Board Award</b>	<b>11,378,813</b>
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# Open Solicitation-Open Solicitation Fall 2023 Restoration

Willamette Basin (Region 3)

**Application Name:** 224-3001-23253

**Project Type:** Restoration

**Project Name:** Minto-Brown Island Oxbow Slough Restoration

**Applicant:** Willamette Riverkeeper

**Region:** Willamette Basin

**County:** Marion

**OWEB Request:** \$423,484

**Total Cost:** \$530,515

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**Application Description** This restoration project will take place in the Minto Island Anchor Habitat at Minto Brown Island Park, located in, and owned by the City of Salem, Oregon. Restoration and invasive species removal activities will occur in and around Oxbow Slough, which is hydrologically connected to the mainstem Willamette River in Marion County.

Aquatic and riparian invasive species are present and spreading within areas along the Willamette River. The combination of increasing invasive cover and increasing water temperatures, high nutrient inputs, and reduced dissolved oxygen contribute to water quality and habitat degradation in sloughs, side channels, wetlands, ponds, and floodplains along the mainstem river. Sloughs and other backwater/slow water habitats are critical refugia for anadromous and resident Endangered Species Act (ESA)-listed Chinook and steelhead along with other diverse species of fish and wildlife.

Invasive plant species have displaced functional aquatic and riparian habitats. Water primrose species have reduced open water in the Slough by an estimated 75 percent, lowered dissolved oxygen, reduced habitat quality, and been a source of invasive plant propagules. Wildlife habitat quality and quantity is now limited due to the effects of invasive plants.

Prior to the spread of invasive species, the slough was used for fishing, swimming, and paddling. These uses are currently precluded due to the abundance of invasive plants in the slough.

This project will improve off channel habitat conditions and re-establish diverse and resilient floodplain and aquatic plant communities. Planting of native vegetation, including tribally important species such as wapato, will improve habitat complexity, water quality, and reduce fragmentation of suitable wildlife refugia. Project activities will also provide an opportunity for community and tribal outreach as well as return the Slough to conditions that allow for appropriate recreation.

## Review Team Evaluation

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### Strengths

- The application has clear objectives and actions describing a technically sound approach for removing aquatic and riparian weeds and restoring the native plant community. Invasive plant species occupy approximately 75% of the available space in Oxbow Slough, which is located in the City of Salem Minto-Brown Park. Removing and controlling these invasive plant species will open habitat for native fish near the Willamette River.

- Oxbow Slough is situated in a Conservation Opportunity Area near downtown Salem in the Minto Island Anchor Habitat.
- Technically sound methods will be used to remove and control *Ludwigia hexapetala* (*Ludwigia*) and other aquatic and riparian weeds that are displacing functional aquatic, riparian, and floodplain forest habitat, which is leading to loss of ecosystem structure and function.
- Off-channel sites are selected for treating *Ludwigia*; these locations are more manageable and treatment in these areas are more likely to succeed in controlling this aquatic invasive weed.
- *Ludwigia* lowers available dissolved oxygen, controlling it will improve water quality in Oxbow Slough for aquatic species.
- The planting plan includes considerations for climate change in the selection of plant species that will be used.
- Reducing invasive species and re-establishing diverse native plant communities will improve the resilience of forests and wetlands to endure future stressors caused by changing climate conditions.
- The applicant and partners have previous experience with treating and controlling *Ludwigia* through OWEB investment in the Willamette Focused Investment Partnership. The applicant has developed an effective playbook for treating *Ludwigia* to achieve functional habitats.
- City of Salem commitment to the project is demonstrated by match and coordination of a significant community outreach effort to raise awareness about *Ludwigia*, how it spreads, and how volunteers can be involved in controlling it.
- The budget is appropriate for the proposed intensive weed management and follow up planting.

### **Concerns**

- *Ludwigia* is a tough invasive aquatic species to control, reducing its population to maintain long-term habitat resilience will be difficult. The City of Salem, however, has a dedicated volunteer base that the City has successfully mobilized to help maintain other locations previously impacted by *Ludwigia*.
- Several plants are listed only by genus in the application; adding the species would be helpful for better understanding the planting approach.
- The potential fish habitat benefits to Willamette River salmonid species may be overstated in the application because there is limited connectivity between Oxbow Slough and the Willamette. Oxbow Slough is, however, hydrologically connected to the mainstem Willamette. The proposed restoration will improve water quality, which will likely contribute to water quality in the Willamette River that is important to Endangered Species Act-listed salmon.

### **Concluding Analysis**

Minto Brown Park is the largest and a highly valued greenspace within the City of Salem and is identified as an anchor habitat. While Ludwigia is a challenging species to control and it is unlikely to be eradicated; it is important to find places where progress can be made and maintained to protect habitat in priority locations. The Minto-Brown Island Oxbow Slough project provides one of those opportunities to re-establish diverse and resilient floodplain and aquatic plant communities needed to support native aquatic and wildlife species. With the partners involved and the City's commitment, the project is likely to succeed in controlling Ludwigia long-term to maintain these habitat gains.

**Review Team Recommendation to Staff**

Fund

**Review Team Priority**

7 of 8

**Review Team Recommended Amount**

\$423,484

**Review Team Conditions**

N/A

**Staff Recommendation**

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**Staff Follow-Up to Review Team**

N/A

**Staff Recommendation**

Fund

**Staff Recommended Amount**

\$423,484

**Staff Conditions**

N/A

# Open Solicitation-Open Solicitation Fall 2023 Restoration

Willamette Basin (Region 3)

**Application Name:** 224-3002-23263

**Project Type:** Restoration

**Project Name:** Little Four Corners

**Applicant:** Columbia Slough WC

**Region:** Willamette Basin

**County:** Multnomah

**OWEB Request:** \$216,774

**Total Cost:** \$326,801

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**Application Description** The Columbia Slough is Oregon's most highly developed and industrialized watershed, with many small, disconnected habitats and thin riparian areas surrounded by urban development. This patchwork landscape removes critical shade from the water, suppresses the natural regeneration of native trees and shrubs, and reduces urban stormwater infiltration. Columbia Slough Watershed Council's (CSWC) Stewardship Program works to improve and enhance the watershed's ecosystems. The Council has a Healthy Industrial Lands Initiative (HILI) through which we have connected to many private landowners interested in improving their riparian habitat along their property. This project aims to enhance a 1-mile corridor of riparian forest around Little Four Corners and create a climate-resilient landscape. Little Four Corners is a high-value area for natural resources in the watershed, home to the confluences of the Middle and Inverness Sloughs, the large Inverness Pond, dozens of ground swelling springs that supply critical cool, clean water to the system, and large galleries of riparian forest that are increasingly rare in the watershed. Currently, much of this project area is in a highly degraded state from nonnative species pressure and at risk of completely losing its riparian canopy. This project will include management of invasive species, trash removal, revegetating the riparian forest and emergent wetlands, and community outreach to inform stakeholders of the benefits of the work. Mosaic Ecology is a natural resource management firm with expertise in integrating natural areas with the human environment. Mosaic Ecology will work on the implementation of invasive species removal and planting of native shrubs and trees.

## Review Team Evaluation

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### Strengths

- The application has a clear description of the watershed problem and technically sound methods to address it by removing invasive weeds and trash along the Columbia Slough and restoring the riparian plant community.
- The project is in the Columbia Slough Watershed Council's Healthy Industrial Lands Initiative area. This area is at high risk of losing additional urban tree canopy and is potentially the only greenspace opportunity in the watershed.
- Restoring riparian vegetation will increase shade that can improve water quality.

- The project builds on previous OWEB investments in the Healthy Industrial Lands Initiative Project, and there is potential to leverage Oregon Department of Environmental Quality 319 funds.
- The applicant is engaging 37 landowners to restore a one-mile riparian corridor along the Columbia Slough. Previous outreach has been effective in securing landowner commitment to participate in the Healthy Industrial Lands Initiative. Landowner support for the project is demonstrated with letters included in the application, and some landowners have already completed restoration through the OWEB Small Grant Program. The proposed project builds on this momentum.
- Restoring corridors of riparian vegetation along the Columbia Slough will create a climate resilient landscape in an urban area.
- The project provides opportunity for promoting public awareness about watershed restoration that could lead to future project opportunities.
- The applicant considered alternatives to determine an approach that is most appropriate for the site conditions. For example, using lower cost bareroot plant stock for all the plantings was considered; however, the applicant decided to incorporate larger plant stock to address concerns that newly planted bareroot plants are likely to be trampled because they are more difficult to see. Once the site is cleared of invasives species, it could encourage access and camping; using larger plant stock could help prevent people walking on newly planted areas. The planting approach also includes strategies for reducing the spread of invasive species during project implementation and fast-growing trees species will be used that will likely provide shade benefits sooner.
- The applicant is working with Mosaic Ecology, which has relevant experience with similar restoration.
- The budget is reasonable and appropriate for the proposed restoration.

## Concerns

- There is heavy camping use in the area by people without housing. Removing and preventing future camping is a major motivation for landowner participation and one of the justifications for the project. It is unclear how habitat benefits will be maintained with cooperative landowners if expectations related to camping are not met. For example, blackberry currently is naturally preventing camping in some of the project area. If the project strategies do not limit camping in the future as planned, it is unclear what will prevent landowners from allowing blackberry to grow back.
- It is unclear in the application how strategies may be different for public versus private properties; for example, how public access will be managed to protect recently restored areas. It will also be challenging to remove camping from the project area while at the same time improve public access to green spaces. Including a map in the application that shows public and private lands in different colors along with separating the explanation of restoration strategies into methods for public versus private lands would be helpful for clarifying the project.

- The Oregon Department of Environmental Quality Nonpoint Source Pollution plan reference in the application is unclear; however, the project does address shade priorities identified in the 2006 Willamette Total Maximum Daily Load for temperature.
- The project area may not be the best location for creating snags out of mature trees for habitat due to safety concerns and the high priority for maintaining existing shade. The applicant is encouraged to focus on installing the proposed nesting boxes and allow snags to naturally occur over time.

### **Concluding Analysis**

Neighborhoods in the Columbia Slough Watershed are some of the most ethnically diverse and low-income areas in Oregon. Neighborhoods in East Portland also have a proportionally lower tree canopy compared to more affluent parts of Portland. Restoring a one-mile corridor of native riparian vegetation will increase shade and reduce habitat fragmentation. The project will achieve the greatest opportunity for ecological uplift in the Columbia Slough, which was created by the applicant's thoughtful and strategic engagement of industrial landowners. The resulting habitat corridor is likely to serve as an anchor for watershed health and ecosystem functionality in an urban landscape.

### **Review Team Recommendation to Staff**

Fund with Conditions

### **Review Team Priority**

8 of 8

### **Review Team Recommended Amount**

\$216,774

### **Review Team Conditions**

Do not create snags, allow snags to naturally form over time instead.

### **Staff Recommendation**

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#### **Staff Follow-Up to Review Team**

N/A

#### **Staff Recommendation**

Fund with Conditions

#### **Staff Recommended Amount**

\$216,774

#### **Staff Conditions**

Do not create snags, allow snags to naturally form over time instead. The application scope of work shall be modified to remove snags from the project actions.

# Open Solicitation-Open Solicitation Fall 2023 Restoration

Willamette Basin (Region 3)

**Application Name:** 224-3003-23265

**Project Type:** Restoration

**Project Name:** Upper Sandy River Basin Habitat Restoration  
Project - Camp Creek and Still Creek

**Applicant:** The Freshwater Trust

**Region:** Willamette Basin

**County:** Clackamas

**OWEB Request:** \$488,355

**Total Cost:** \$1,132,678

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**Application Description** The Freshwater Trust (TFT) and US Forest Service (USFS) are taking the lead on the Upper Sandy River Basin Habitat Restoration Project - Camp Creek and Still Creek project on behalf of the Sandy River Basin Partners (the Partners). The Sandy River originates on Mt. Hood and flows 56 miles northwest before entering the Columbia River near Portland, Oregon. The proposed project will address primary limiting factors by increasing off channel habitat/floodplain connectivity and large wood abundance on Camp Creek and Still Creek; two priority tributaries of the Zigzag River (an upper Sandy sub-watershed). Proposed work is on public land managed by the USFS located near Zigzag, Oregon in Clackamas County.

Sandy River salmon and steelhead populations have declined over the last century due to degradation of habitat and other factors. The Partners have identified the upper Sandy sub-watershed among the top areas providing high quality habitat for the basin's native fish. The Partners are aligned on a near term goal of restoring this priority watershed to advance Sandy basin-scale restoration.

Restoration actions to be undertaken as part of the proposed project include tipping mature conifers to add key pieces of large wood to the stream channel and placing large wood via heavy lift helicopter to construct large wood jams. The design intents of these actions are to increase habitat complexity and diversity and increase side channel/ floodplain hydrologic connectivity to benefit salmon and steelhead. This project is part of a larger, multi-year, watershed-scale restoration effort and builds on similar successful projects completed in the basin by TFT and the Partners since 2008.

## Review Team Evaluation

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### Strengths

- The proposed restoration is part of a large-scale strategy that builds on momentum from and leverages OWEB investments in previously successful restoration that includes 29 miles of improved stream habitat in the Upper Sandy Basin.
- The map included in the application depicting planned and completed restoration provides a comprehensive overview of the long-term Upper Sandy Basin restoration strategy implementation.

- The proposed restoration actions will address watershed limiting factors to Endangered Species Act (ESA)-listed fish recovery by restoring large wood abundance and increasing off-channel habitat for Chinook, coho, and steelhead spawning and juvenile rearing.
- The Lower Columbia River Conservation and Recovery Plan for Oregon Populations of Salmon and Steelhead identifies the Sandy River basin as a high restoration priority; the upper Sandy subwatershed where Still and Camp Creeks are located is identified as a priority area within the basin.
- The methods are appropriate for restoring natural processes at the reach-scale by increasing off-channel habitat, floodplain connectivity, and large wood abundance, which will restore habitat elements most limiting to ESA-listed fish. Adding instream structures and reactivating the floodplain connection with the streams will also slow water flow and allow for additional hyporheic exchange that will cool water temperatures important for building resilience to changing climate conditions.
- The project builds on restoration already completed in Still Creek. Areas selected in the lower Still Creek reach will benefit from additional wood to provide additional off-channel habitat.
- The project team has a consistent track record for implementing similar high-quality projects in the Upper Sandy Basin since 2008. The team has relevant experience for designing the restoration treatments.
- The Sandy River Basin Partners support for the project is demonstrated by a letter included in the application.
- Project costs are similar to other large wood placement on public lands and the large wood already staged at Still Creek will be efficient to move into the stream, which will result in cost savings.

## Concerns

- Additional technical details at the site scale would be helpful to better understand the proposed restoration actions, such as conceptual drawings, a longitudinal profile, or an annotated LiDAR map. For example, site specific plans for reactivating side-channels would be helpful to understand methods and how the applicant determined expected outcomes. It is unclear how the applicant determined the expected number of feet of side-channel that will be reactivated without more information about the design or modeling completed. While restoration on US Forest Service managed lands has less risk and a high level of engineering and design is not necessary, providing information about the tools used to determine the method would provide helpful context for evaluating the project.
- It is unclear from the description of alternatives considered why a lower cost ground-based large wood installation is not feasible and why helicopter placement is necessary. Information explaining why helicopter placement will result in a better outcome would be helpful for evaluating the cost effectiveness of the approach.

- Additional information in the objectives and actions explaining the monitoring activities is needed to evaluate whether costs associated with the Monitoring Lead and Post Project Effectiveness Monitoring are reasonable and necessary expenses.

### **Concluding Analysis**

The proposed project builds on a phased stream restoration strategy that has been implemented since 2008 and has a record of producing quantified fish response to habitat improvements. The Sandy River watershed provides habitat to numerous ESA-listed fish species, making it a priority area for instream habitat restoration.

### **Review Team Recommendation to Staff**

Fund

### **Review Team Priority**

6 of 8

### **Review Team Recommended Amount**

\$488,355

### **Review Team Conditions**

N/A

### **Staff Recommendation**

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#### **Staff Follow-Up to Review Team**

N/A

#### **Staff Recommendation**

Fund

#### **Staff Recommended Amount**

\$488,355

#### **Staff Conditions**

N/A

# Open Solicitation-Open Solicitation Fall 2023 Restoration

Willamette Basin (Region 3)

**Application Name:** 224-3004-23287

**Project Type:** Restoration

**Project Name:** Cub Creek Restoration Phase II

**Applicant:** Clackamas River Trout Unlimited

**Region:** Willamette Basin

**County:** Clackamas

**OWEB Request:** \$321,579

**Total Cost:** \$696,473

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**Application Description** The Cub Creek Restoration Phase II Project is in Cub Creek, which is a tributary to the Clackamas River located in the Upper Basin in Clackamas County approximately forty miles upstream of the North Fork Reservoir. Cub Creek has been recognized as a high priority watershed with several essential projects identified to improve degraded stream conditions and impacts from the 2020 Lionshead Fire. Phase II builds upon Phase I work conducted by project partners by addressing key factors limiting salmonid-production identified in the Lower Columbia River Conservation and Recovery Plan; factors include the lack of habitat connectivity and complexity, lack of instream large wood, and low numbers of riparian conifers and native vegetation. Work done during Phase II will improve habitats to standard conditions issued by NOAA-Fisheries and the Forest Service in the Northwest Forest Plan, and increase the resiliency of the watershed to climate impacts. Proposed work includes: 1) the cut (removal) of approximately 25,000 cubic yards of alluvium from eroding banks and burned riparian areas, 2) filling of incised channels to a Stage 0 channel condition, and 3) addition of a minimum of 380 pieces of large wood to add roughness to the floodplain and meet the USDA Forest Service standard of 106 pieces of large wood per mile. Project objectives include the creation of complex pools, gravel retention and aggradation, high and low flow fish refugia, and reconnection of side-channel and floodplain habitats. Additionally, native trees and shrubs will be planted to stabilize eroding banks, and native grass seed mix will be spread across 7-10 acres of the riparian zones along the stream. Project actions will occur over a 10-acre area along the first stream mile of lower Cub Creek, which was severely burned with 99% tree mortality during the 2020 Lionshead Fire. Project partners include Trout Unlimited, USDA Forest Service, and Oregon Department of Fish and Wildlife.

## Review Team Evaluation

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### Strengths

- The application has clearly stated project objectives and actions for promoting lateral and vertical floodplain connectivity in Cub Creek, a tributary of the Clackamas River.
- The methods are appropriate for addressing habitat degradation and loss of ecosystem function caused by construction of roads, recreation, development, wildfires, historic logging activities, and land management practices that have led to disconnecting the floodplain, channel incision, and decreasing large wood structure in the stream needed to retain spawning gravels.
- The project is ready to be implemented with designs completed.

- Primary watershed limiting factors to Endangered Species Act (ESA)-listed fish recovery identified in a US Forest Service Watershed Restoration Plan for Cub Creek, the Lower Columbia River Conservation and Recovery Plan for Oregon Populations of Salmon and Steelhead, and the Clackamas River Basin Action Plan will be addressed.
- Cub Creek has some of the coldest water temperatures in the Clackamas Basin, restoring habitat will provide cold water refugia that will be important for building ecosystem resilience and adaption for climate change.
- The resulting wood density planned for the restoration treatment is technically sound and appropriate for the stream.
- There is little risk for restoration to negatively impact adjacent areas because the project site is surrounded by US Forest Service (USFS) lands.
- The project builds on ongoing efforts in the Upper Clackamas Basin to improve fish habitat; there are also future plans to further increase lateral floodplain connectivity by replacing a bridge located adjacent to the project area. This restoration in the Upper Clackamas Basin leverages habitat investments in the lower basin through the Clackamas Basin Focused Investment Partnership.
- Appropriate partners are involved in the project design and implementation. The USFS Enterprise Team designed the project and has relevant qualifications and expertise to implement the proposed restoration.
- The applicant has successfully partnered with USFS to implement a similar project.
- Alternatives were identified and evaluated before selecting a restoration strategy.
- The project cost aligns with the expected watershed benefits.

### **Concerns**

- Monitoring described in the application is limited to redd surveys; it is unclear if this will be sufficient to evaluate the project effectiveness in meeting expected habitat outcomes.
- Technical details describing how the design was determined are limited in the application. Including a longitudinal profile and site information in the application, such as elevation data and river flows, would provide helpful context to understand the design approach at the project site. While restoration on USFS managed lands has less risk and a high level of engineering and design is not necessary, providing information about the tools used to determine the method for restoring the site would provide helpful context for evaluating the project.

### **Concluding Analysis**

The project is in a large Upper Clackamas subwatershed that provides habitat for ESA-listed fish and species of concern, including Lower Columbia River Coho salmon, Lower Columbia River spring

Chinook, winter steelhead, bull trout, cutthroat trout, and lamprey species. The proposed restoration will address degraded stream conditions caused by recent fires and previous land and stream management. Together with the stream habitat restoration occurring through the Clackamas Focused Investment Partnership, the phased projects planned in Cub Creek contributes to whole watershed restoration in the Clackamas Basin that is restoring ecosystem processes.

**Review Team Recommendation to Staff**

Fund

**Review Team Priority**

3 of 8

**Review Team Recommended Amount**

\$321,579

**Review Team Conditions**

N/A

**Staff Recommendation**

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**Staff Follow-Up to Review Team**

N/A

**Staff Recommendation**

Fund

**Staff Recommended Amount**

\$321,579

**Staff Conditions**

N/A

# Open Solicitation-Open Solicitation Fall 2023 Restoration

Willamette Basin (Region 3)

**Application Name:** 224-3005-23290

**Project Type:** Restoration

**Project Name:** Coffee Lake Creek Wetlands Restoration

**Applicant:** Metro

**Region:** Willamette Basin

**County:** Clackamas

**OWEB Request:** \$228,060

**Total Cost:** \$1,847,945

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**Application Description** The Coffee Lake Creek Wetland Restoration project will restore biodiversity and wetland functions within 64 acres of former agricultural land now owned by Metro. The site is located within a 351-acre natural area in the City of Wilsonville, Oregon. Proposed restoration actions will restore channel complexity, floodplain inundation, wetland hydrology, contribute cold water to a Willamette tributary, and reintroduce native wetland plant communities, in turn supporting a wide variety of native wildlife.

The site is a very low-gradient area where Pleistocene era glacial floods created a depressional landscape of dense scrub-shrub peat wetland without defined stream channels. These conditions encouraged organic matter accumulation and sequestered carbon from the atmosphere in the form of decaying plants and animals. Peat soils are a unique resource since they act as carbon sink that can sequester and store atmospheric carbon dioxide when flooded and vegetated, and act as a carbon source to the atmosphere when drained. The site was drained in the late 1800s using ditching and drain tile.

The purpose of the project is to increase biodiversity and improve water quality using two primary strategies. First, the project will change the way water moves around the site. Second, we will replace the reed canarygrass that dominates the site with a wide variety of native trees, shrubs, forbs, sedges and rushes (including declining and culturally significant species), mimicking the natural vegetation (scrub shrub wetland and emergent wetland) found at this location prior to settlement.

Project actions include detailed engineering, permitting, partner coordination, earthmoving to fill drainage channels and construct ponds and swales, wood placement, BDAs, weed control using mowing, herbicides and removal by hand, and dense planting. Benefits will include improved water quality and habitat for a wide variety of birds, amphibians, reptiles, small mammals, insects and fish.

## Review Team Evaluation

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### Strengths

- The application has clear objectives and actions describing plans to restore the hydrology and native wetland vegetation communities on 64 acres of former agricultural lands located within a 351-acre natural area in the City of Wilsonville.

- A technically sound approach is proposed for connecting Coffee Lake Creek with its floodplain. This will slow and filter stormwater and increase groundwater filtration, which will improve hydrologic function and water quality at the project site. Biodiversity will improve by implementing a planting plan tailored to the restored wetland conditions.
- The project is ready to be implemented with designs completed and site preparation already underway.
- The applicant and its partners are working to create a wildlife movement corridor between the Tualatin and Willamette Rivers; the project site provides connectivity between the upstream Tualatin National Wildlife Refuge and the Willamette River. Wildlife will have access to move through the restored areas. There are multiple sensitive and at-risk species in adjacent areas that may move in and access this site such as Northern red-legged frog, western pond turtle, willow flycatcher, and yellow breasted chat.
- Alternatives were identified and evaluated before selecting a restoration strategy.
- Restoring wetland function will increase potential carbon sequestration by restoring the peat soil-building process. Peat soils act as a carbon sink that can sequester and store atmospheric carbon dioxide when flooded and vegetated.
- Contractors engaged to design and implement the restoration are qualified and have relevant experience with similar projects.
- The applicant has capacity to successfully steward and maintain restored habitat conditions in the long-term.
- The applicant has already invested in outreach to raise public awareness about the restoration project. Continued outreach will provide opportunity for promoting public awareness about watershed restoration that could lead to future project opportunities.

## **Concerns**

- The project site is completely covered with reed canary grass, which will be challenging to control long-term and maintain restored habitats.
- Noise and light pollution will likely impact wildlife on site, which could limit the habitat benefits from restoration.
- Downstream passage barriers will prevent salmonids and lamprey from accessing the site; however, the project could create outreach opportunities to recruit landowners in a future project that addresses these barriers.

- A support letter from City of Wilsonville indicating community support for the project would further demonstrate appropriate partners are engaged.

### **Concluding Analysis**

The proposed project has a high likelihood of success for restoring essential wetland function and plant communities that will provide habitat for declining species, improve water quality in an urban setting, and restore the ability of peat soils to capture atmospheric carbon.

### **Review Team Recommendation to Staff**

Fund

### **Review Team Priority**

5 of 8

### **Review Team Recommended Amount**

\$228,060

### **Review Team Conditions**

N/A

### **Staff Recommendation**

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#### **Staff Follow-Up to Review Team**

N/A

#### **Staff Recommendation**

Fund

#### **Staff Recommended Amount**

\$228,060

#### **Staff Conditions**

N/A

# Open Solicitation-Open Solicitation Fall 2023 Restoration

Willamette Basin (Region 3)

**Application Name:** 224-3006-23307

**Project Type:** Restoration

**Project Name:** Expanding the Benefit: The Forest Awakens

**Applicant:** Luckiamute WC

**Region:** Willamette Basin

**County:** Polk

**OWEB Request:** \$89,964

**Total Cost:** \$148,388

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**Application Description** The project is located along 0.8 miles of the Little Luckiamute River, downstream of Falls City, in the heart of Polk County. The Luckiamute Watershed Council (LWC) secured a previous OWEB grant in 2015 for riparian revegetation and enhancement at the project site and another site on the mainstem Luckiamute River. Project work was designed to address the problems of discontinuous and degraded riparian condition at both sites. While work at the site on the mainstem Luckiamute River progressed as planned and is completed under the previous funds, a variety of external challenges at the project site caused significant delays. Site preparation was completed in 2021, first planting in 2022, and an interplanting in 2023. Two years of plant establishment are completed, and the site is on a positive trajectory to 31.8 acres of a resilient, diverse riparian forest. However, delays and expansion of the project acreage in response to changing conditions on the ground have resulted in increased costs and a budget gap. Grant funds are requested to address that gap and see the project through to completion. Requested funds will support plant establishment activities for the final three years to follow through and get the plantings to a free-to-grow stage. Other activities include installation of live cuttings, interplantings, and a project tour. Most of the acreage is enrolled in the Conservation Reserve Enhancement Program (CREP) and the project is an excellent example of conservation in association with working agricultural lands. The landowners are active partners; they have installed livestock exclusion fencing and are contributing to weed management. Willamette Habitat Restoration Fund, Bonneville Environmental Foundation, and the Polk Soil and Water Conservation District are the other partners on the project.

## Review Team Evaluation

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### Strengths

- The application has clear objectives and actions describing a technically sound approach for restoring the ecological functions of riparian buffers on the Little Luckiamute River that are appropriate for the site conditions.
- The project builds on and will complete existing restoration that has been underway since 2015. There is evidence on site that the floodplain is starting to recover and is becoming a biological hotspot.

- The project is ready to be implemented and is timely to follow up on previous plant installation and weed treatment with additional investment needed for the site to achieve the planned ecological outcomes.
- The project site is located in a low gradient valley that is ideal for restoring riparian buffers and allowing the stream to reconnect with its floodplain to restore watershed function.
- The proposed revegetation actions will address habitat and water quality limiting factors impacting Upper Willamette River steelhead, Pacific lamprey, and cutthroat trout.
- The project reach is located within critical habitat for Upper Willamette River winter steelhead.
- The project provides an example of working lands restoration. The landowner supports giving the river space needed to restore function and is working sheep fencing around restored areas to allow for this space. The landowner is also committed to helping to maintain restored conditions.
- Improving riparian habitat will build ecosystem resilience and durable adaptation to changing climate conditions.
- The applicant has relevant experience implementing similar planting projects in partnership with landowners.
- Project costs are reasonable for proposed revegetation and plant establishment activities.

### **Concerns**

- There may be a missed opportunity for achieving a greater ecological uplift at the site by not considering in-channel restoration alternatives, such as a Stage 8 approach, to address channel incision and restore a multiple threaded channel. The landowner owns both sides of a one-mile reach and has supported encouraging river processes. Since the fisheries values at the site are modest, however, the benefits of a large-scale instream project may not be worth the cost.

### **Concluding Analysis**

Investing in the final stages of restoring the riparian plant community is important for demonstrating success that could potentially recruit restoration projects with nearby landowners. The project was interrupted by a number of administrative setbacks that prevented the site from achieving a free to grow condition. The landowner has patiently worked with the Grantee to navigate the issues to keep the project moving forward. Additional investment is needed to achieve ecological targets and is important to build social buy in for voluntary restoration on working lands.

### **Review Team Recommendation to Staff**

Fund

### **Review Team Priority**

4 of 8

### **Review Team Recommended Amount**

\$89,964

**Review Team Conditions**

N/A

**Staff Recommendation**

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**Staff Follow-Up to Review Team**

N/A

**Staff Recommendation**

Fund

**Staff Recommended Amount**

\$89,964

**Staff Conditions**

N/A

# Open Solicitation-Open Solicitation Fall 2023 Restoration

Willamette Basin (Region 3)

**Application Name:** 224-3007-23330

**Project Type:** Restoration

**Project Name:** Increasing Complexity in Mosby Creek  
Floodplain Habitat

**Applicant:** Coast Fork Willamette WC

**Region:** Willamette Basin

**County:** Lane

**OWEB Request:** \$384,657

**Total Cost:** \$704,393

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**Application Description** This project is located in the Mosby Creek subbasin, on the mainstem of Mosby Creek. The project aims to support wildlife, hydrology, and fisheries resources within Mosby Creek. Mosby Creek is the only undammed sub-basin in the Coast Fork, making it ideal for instream restoration. Building off previous efforts in the basin, this project is timely and important in the face of a changing climate.

Primary project objectives for this proposal include enhancing habitat for Northwestern pond turtles (NWPT). NWPT's are a BLM Priority Bureau Sensitive Species and are currently being petitioned for listing as "Threatened" under the Endangered Species Act. Encouraging NWPT recruitment within the watershed by diverting mainstem stream flow into shaded floodplain side channels will also provide rearing habitat for salmonids and create winter storms and summer thermal refugia for aquatic organisms. The project would benefit fish and wildlife species, primarily Northwestern pond turtle, native fish, and amphibians. This project will be completed by CFWWC staff and managed through a cooperative partnership between the Bureau of Land Management - Upper Willamette Field Office, Coast Fork Willamette Watershed Council (CFWWC) and Weyerhaeuser Company – South Valley (Weyco). Additional consultation with Oregon Department of Fish and Wildlife will take place as needed.

## Review Team Evaluation

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### Strengths

- The application has clear objectives and activities for enhancing Northwestern pond turtle habitat on Mosby Creek.
- The project is ready to be implemented with designs completed.
- The project builds on previous OWEB Technical Assistance, Restoration, and Monitoring investments in Mosby Creek.
- Reactivating the floodplain can improve off-channel fish habitat that will likely provide winter storm and summer refugia and can provide water quality benefits.

- Project designs were provided in the application that included inundation and water depth information determined from hydrologic modeling.
- The project has potential for adding turtle habitat in an area that lacks this type of habitat. The applicant is also collaborating with Oregon Department of Fish and Wildlife (ODFW) staff with specialization in turtle habitat.
- The project will provide an opportunity for promoting public awareness about watershed restoration that could lead to future project opportunities. In particular, the project is designed to build trust with adjacent landowners and interest in restoring watershed conditions.
- The application budget includes a detailed explanation that describes context for project costs.
- The applicant has capacity to implement the project.

### **Concerns**

- It is unclear whether the turtle basking islands are designed for basking or nesting and how creating basking islands are likely to succeed in achieving the expected habitat goals. Turtles tend to prefer logs for basking rather than an island and the proposed revegetation actions will shade potential basking habitat. Additional information is needed to evaluate whether the design approach aligns with the target life stage for Northwestern turtles.
- Maintaining restored habitat on the islands will be challenging because it will be difficult to access the islands to control weed populations, which will limit the quality of the habitat.
- It is unclear how the proposed alcove connection will sustain long-term. It is likely high sediment loads moving downstream in Mosby Creek will fill in the narrow connection that will be excavated, and then the alcove connection will be lost. The design approach proposed for creating a lateral floodplain connection with a former side-channel depends on locking the floodplain features in place instead of building flexibility and working with the natural stream processes. This solution focuses on treating symptoms of watershed disturbance rather than the cause.
- Excess fill generated from the proposed excavation will be placed in the floodplain and then plants will be installed on the fill. It is unclear how this strategy will improve floodplain function when adding the fill will further limit the floodplain area. Also, the fill will be excavated from an area that has significant weed populations and will likely contain a weed seed bank. It will be challenging to control future weed growth in the planted areas.
- A support letter from ODFW staff involved in the turtle habitat restoration components would demonstrate support and importance of an investment for Northwestern pond turtles at the project site.

- The project cost is high for the expected ecological benefit due to the small scale of the project footprint and risk that the alcove connection is unlikely to sustain in the long-term. There may be alternative design approaches that could meet the project objectives using less of the proposed project elements to reduce overall cost.
- The proposed project seems driven by the urgency to replace turtle habitat located nearby at an existing mill pond that is under consideration for removal. It may be more cost effective to engage that landowner in a conversation to consider alternatives for improving habitat at this location that is already utilized by turtles.

### **Concluding Analysis**

The project is designed to balance working within the constraints of a small site and building relationships with landowners that has potential for leading to significant future restoration. There is merit to starting with small, low risk restoration to build relationships with landowners that could lead to a large-scale watershed effort. Since the Northwestern pond turtle is likely to be listed as threatened under the Endangered Species Act, restoring their habitat is a priority. Given the high cost for the project footprint, detail explaining the importance of the Mosby Creek turtle population relative to the broader population needed for recovery would be helpful for evaluating the priority of the proposed investment relative to the benefit. If the application is resubmitted, the applicant is encouraged to: (1) clarify what type of turtle habitat is the target outcome, basking or nesting, and explain how the proposed restoration will achieve that habitat outcome; and (2) describe whether restoration options could be considered at the existing mill pond to enhance turtle habitat in a more cost-effective 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**

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### **Staff Follow-Up to Review Team**

N/A

### **Staff Recommendation**

Do Not Fund

### **Staff Recommended Amount**

\$0

### **Staff Conditions**

N/A

# Open Solicitation-Open Solicitation Fall 2023 Restoration

Willamette Basin (Region 3)

**Application Name:** 224-3008-23335

**Project Type:** Restoration

**Project Name:** Riparian Restoration for Kellogg Creek  
Restoration & Community Enhancement Project

**Applicant:** North Clackamas Watershed Council

**Region:** Willamette Basin

**County:** Clackamas

**OWEB Request:** \$356,994

**Total Cost:** \$448,403

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**Application Description** The North Clackamas Watersheds Council and multiple private landowners will restore riparian vegetation around the Kellogg Creek impoundment, which is in the design process for a large-scale, high priority restoration with the removal of Kellogg Dam. When the dam is removed (currently planning for 2027 construction) and the impoundment restored, the restored Kellogg Creek, its junction with the Willamette River, and the properties restored in this project will create 55.88 acres of contiguous habitat of confluence rearing and migratory habitat for all Willamette River salmonids and Pacific lamprey. The critical location of this project makes this habitat valuable well beyond the size of the project footprint.

This riparian restoration is a critical component to leveraging the success of the Kellogg Creek Restoration & Community Enhancement Project, which is addressing the highest-priority fish passage barrier in Oregon owned by ODOT, and which has received the largest grant in NOAA Fisheries history (\$15M) . By restoring riparian properties around the current impoundment we will 1)create contiguous habitat with the restored future stream/wetland complex, 2)control invasives prior to construction of the new channel, which will otherwise be at risk of invasive incursions during construction from neighboring properties.

The project includes invasive species control, site prep, and maintenance required to establish a mixed riparian forest resilient to climate change & Emerald Ash Borer impact. The project meets equity goals and is located near a high school that is 59% free/reduced lunch students.

Partners include private landowners, all of which have already signed access agreements and three of which are already engaged in the first phases of restoration., The City of Milwaukie, North Clackamas Parks & Recreation District, American Rivers, North Clackamas Parks & Recreation District, Oak Lodge Water Services, Mosaic Ecology and many other partners.

## Review Team Evaluation

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### Strengths

- The application has a clear goal of reestablishing 40 acres of riparian floodplain forest along Kellogg Creek.
- The mouth of Kellogg Creek is a priority for protecting cold-water refuge for Endangered Species Act-listed fish and for implementing stream temperature reduction restoration strategies, especially after the Kellogg Dam is removed.
- The visibility of the restoration site locations provide opportunity for promoting public awareness about watershed restoration that could lead to future project opportunities.
- The applicant has effectively engaged the community, including underserved communities, and an interagency team in project development.

### **Concerns**

- The project objectives are general; stating objectives as measurable actions would clarify the methods and expected outcomes from restoring riparian floodplain forest.
- The applicant was previously awarded a Technical Assistance grant to develop a conceptual design to restore the channel and floodplain for Kellogg Creek after the dam is removed. Information describing how the proposed riparian floodplain forest restoration relates to this previous design work would be helpful to understand how the project fits within the context of past and planned future restoration efforts in the watershed.
- The sequencing of the proposed revegetation actions with future plans for the Kellogg Dam removal and Kellogg Creek channel restoration is unclear. Planting in areas adjacent to the creek could be problematic for accessing sites for future stream or riparian restoration. Removing the dam will likely impact the channel due to movement of sediment load accumulating behind the dam. It may be more effective to wait and see how the stream responds to dam removal and how channel conditions change before implementing a riparian restoration strategy.
- It is unclear from the application whether all the landowners needed to achieve the estimated 40 acres of restored riparian forest are committed to the project. While the narrative indicates planning is moving forward with landowners, the attached map has landowners sorted with three landowners identified as “participation confirmed” and six landowners identified as “discussions underway/likely participation.” Based on clarification provided during the site visit, additional conversations are needed to confirm landowner participation to reach the 40-acre outcome.
- It is unclear from the application how the number of hours in the budget for the Engagement Coordinator relates to the scope of work and is necessary for achieving the restoration project.

### **Concluding Analysis**

It is unclear why restoring riparian floodplain forest along Kellogg Creek is proposed at this time. Significant planning is underway to remove the Kellogg Dam and restore the stream channel, which will

be key in achieving ecological benefits from other complimentary actions, such as revegetation. Restoring vegetative community now could create logistic challenges for future dam removal and channel restoration. Without additional information describing how the various components planned for Kellogg Creek are coordinated and sequenced, it is unclear why restoring the riparian floodplain forest should be completed now.

**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**

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**Staff Follow-Up to Review Team**

N/A

**Staff Recommendation**

Do Not Fund

**Staff Recommended Amount**

\$0

**Staff Conditions**

N/A

# Open Solicitation-Open Solicitation Fall 2023 Restoration

Willamette Basin (Region 3)

**Application Name:** 224-3009-23354

**Project Type:** Restoration

**Project Name:** Riparian Forest Rescue! Save our unique urban forest from the invasive ash borer.

**Applicant:** City of Hillsboro

**Region:** Willamette Basin

**OWEB Request:** \$78,000

**County:** Washington

**Total Cost:** \$1,068,006

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**Application Description** The goal of the Riparian Forest Rescue Restoration Project at Jackson Bottom Wetlands Preserve (Hillsboro, Oregon) is to save our riparian and floodplain forest by proactively restoring and managing hundreds of acres of Oregon ash forested habitat to alleviate the imminent negative impacts of the invasive emerald ash borer beetle. This project will transform our forest from a "single" tree species dominated community, to a diverse vegetation community, making our forest a more stable, self-sustaining ecosystem that can adapt to outside environmental influences such as invasive species, climate change, and human impacts. This project will provide substantial ecological and community benefits, including protecting critical wildlife habitat and a major wildlife movement corridor along the Tualatin River, shading the water to protect aquatic organisms from stressful high-water temperatures, improving water quality by filtering pollutants, and providing shaded nature trails for hiking and education classes. Project partners include Clean Water Services, Tualatin Soil Water Conservation District, U.S. Department of Forestry, Oregon Department of Forestry, and the Nature Conservancy.

## Review Team Evaluation

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### Strengths

- The application has clearly stated project objectives and actions to proactively restore and manage an Oregon ash forest to alleviate the imminent negative impacts of the invasive emerald ash borer (EAB) on 142 acres of forested floodplain wetlands and 34 acres of riparian corridor in the Jackson Bottom Wetlands Preserve.
- A clear rationale is described in the application for a novel approach that was developed through consultation with multiple experts to strategize the best actions for limiting the impacts expected from EAB infestation. Actions include thinning ash forests, diversifying the forest stand species to maintain wildlife habitat, inoculating recently cut ash with fungi to accelerate decomposition, and using insecticides that have been successful in locations experiencing EAB infestations.
- The proposed method will proactively remove ash that will be vulnerable to EAB and replacing it with a diversity of tree species. This will promote stand health that will continue to provide wildlife habitat benefits when existing ash stands are impacted by EAB. The restored stand will also maintain shade that will protect water quality benefits. Replacing and maintaining the forest stand before EAB impacts the ash forest is also important to prevent reed canary grass from dominating the site.

- The project is ready to be implemented with the actions timed to be completed quickly and before EAB moves into Jackson Bottom Wetlands Preserve.
- The applicant will monitor the effectiveness of the approach and share lessons learned with other restoration practitioners planning for EAB.
- The project provides opportunity for promoting public awareness about the importance of forest ecosystems, the EAB threat, how to recognize EAB damage, and how to reduce EAB spread by protecting or replacing their own ash trees.
- Partner support is demonstrated by multiple letters included in the application.
- Costs are reasonable for the work proposed and use of insecticides.
- The applicant has capacity to implement the project.

### **Concerns**

- Design alternatives were not included in the application; clarifying information was provided during the site visit that indicated because the approach was determined through research and consultation with experts making inroads in preventing EAB impacts, other alternatives are already known to be likely to fail.
- A large number of 15-gallon trees will be installed in an area with high beaver activity that may not be cost-effective without robust tree protection.

### **Concluding Analysis**

Jackson Bottom Wetlands Preserve is a predominately Oregon ash forest that provides habitat to a diversity of aquatic and terrestrial wildlife. EAB is currently only two miles from Jackson Bottom and will likely cause devastating impacts to this habitat once it moves into the preserve. For these habitats to maintain any benefit to wildlife, treatment needs to occur as soon as possible. The applicant has developed a well-researched novel approach to limit impacts of EAB and prevent total loss of tree canopy by converting the site from a stand dominated by a single tree species to a diversified stand. EAB is a new threat and there are limited strategies known to effectively protect habitats. Someone needs to go first in testing tactics to help the rest of the restoration community plan for the impacts of EAB. The proposed actions at Jackson Bottom Wetlands Preserve provides a proving ground that could increase the understanding of options to manage for EAB.

### **Review Team Recommendation to Staff**

Fund

### **Review Team Priority**

1 of 8

### **Review Team Recommended Amount**

\$78,000

**Review Team Conditions**

N/A

**Staff Recommendation**

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**Staff Follow-Up to Review Team**

N/A

**Staff Recommendation**

Fund

**Staff Recommended Amount**

\$78,000

**Staff Conditions**

N/A

# Open Solicitation-Open Solicitation Fall 2023 Restoration

Willamette Basin (Region 3)

**Application Name:** 224-3010-23363

**Project Type:** Restoration

**Project Name:** Greenhill oak and prairie restoration phase 2

**Applicant:** Long Tom WC

**Region:** Willamette Basin

**County:** Lane

**OWEB Request:** \$263,576

**Total Cost:** \$339,471

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**Application Description** This project proposes to restore and enhance native oak and prairie ecosystem function through the implementation of prescribed burning, brush management, weed control, and seeding/planting native species across 223 acres of remnant upland prairie, oak savanna, and oak woodland on four private properties, contributing to a 500-acre habitat corridor of private lands in a high-priority conservation area as designated by the Rivers to Ridges Partnership, the Oregon Conservation Strategy, and The Nature Conservancy. The "Greenhill" neighborhood hosts some of the last remaining intact WV grassland habitats on private land in the Long Tom Watershed and has been the focus of over a decade of past investments in restoration with highly engaged and supportive landowners. Numerous rare and listed plants occur in the vicinity and the sites host viable habitat for rare species expansion. Project partners include the US Fish and Wildlife Service Partners in Wildlife Program, Institute for Applied Ecology, Willamette Valley Fire Collaboration (Ecostudies Institute), and University of Oregon's Institute for Ecology and Evolution. LTWC will work alongside landowners and partners to adaptively manage this rare grassland ecosystem using a diversity of tools including burning, herbicides, mowing, weedeating, hand removal, and strategically timed livestock grazing. In the face of increasing threats by high-intensity wildfires, the suppression of prairie plant communities by woody plants and introduced grasses and forbs, and depleted soil conditions, interventions such as those provided by this project will support the gradual adaptation of species and habitats to changing conditions in the Valley. This project promises to maximize resilience of rare and vital ecosystems in the face of climate change.

## Review Team Evaluation

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### Strengths

- The application has clear objectives and methods for preserving and enhancing the native plant community composition across 223 acres of Willamette Valley prairie and oak ecosystems on private lands.
- A balance of technically sound, site appropriate methods will be used to restore oak-prairie habitat by treating the understory, managing invasive plant species, ecological burning, and enhancing native plant communities through seeding and planting bulbs and plugs. The proposed restoration approach will set landowners up to be able to maintain the habitat gains.
- The project will address habitat limiting factors that leads to a general loss of biodiversity in prairie and oak habitats, including loss of fire, conifer encroachment, and invasive plants.

- The project is ready to be implemented with burn plans in place.
- The project expands on restoration previously completed in an OWEB-funded phase one project by expanding the footprint of restored habitats onto neighboring properties to a total of 503 acres.
- Landowners engaged in the project are willing to put fire on the landscape, and their neighbors are also supportive. Monitoring planned for the project will inform future burn strategies. The project outcome has potential for increasing capacity for and use of prescribed fire in the area by providing lessons learned and a demonstration site.
- The application provides a clear explanation describing how livestock can be used as a tool to manage habitat and what is needed for grazing to be successful.
- The effects of changing climate on the site conditions, such as increased in drought and change in invasive species distribution, was used to inform restoration strategies.
- Alternatives were identified and evaluated before selecting a restoration strategy.
- The applicant has capacity and relevant experience implementing restoration projects in partnership with landowners.
- Landowner support for the project is demonstrated by match.
- The project provides opportunity for promoting public awareness about watershed restoration that could lead to future project opportunities.
- The budget narrative provides a clear explanation for how costs were determined; in particular, the description for the staff hours effectively explains why the level of staffing is needed to accomplish the project. Project costs are reasonable and necessary for the proposed restoration.

### **Concerns**

- No concerns identified.

### **Concluding Analysis**

Landowners involved in this project share a unified vision for a ridgetop-to-ridgetop restoration approach across their properties. This project also provides an opportunity to demonstrate how voluntary conservation and working lands can effectively be integrated together. The project is located in the mid-elevation fringe area of the Willamette Valley that is a priority for restoring oak and prairie habitats because they have been largely displaced on the valley floor by various land uses. There is a high likelihood for this project to succeed because of the restoration scope and scale, diversity of partners involved, and integration of land management actions with habitat restoration.

### **Review Team Recommendation to Staff**

Fund

### **Review Team Priority**

2 of 8

**Review Team Recommended Amount**

\$263,576

**Review Team Conditions**

N/A

**Staff Recommendation**

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**Staff Follow-Up to Review Team**

N/A

**Staff Recommendation**

Fund

**Staff Recommended Amount**

\$263,576

**Staff Conditions**

N/A

# Open Solicitation-Open Solicitation Fall 2023 Technical Assistance

Willamette Basin (Region 3)

**Application Name:** 224-3011-23261

**Project Type:** Technical Assistance

**Project Name:** Luckiamute Confluence Planning and Design

**Applicant:** Greenbelt Land Trust

**Region:** Willamette Basin

**County:** Polk

**OWEB Request:** \$52,750

**Total Cost:** \$54,773

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**Application Description** The Luckiamute Confluence property is nestled between two tracts of the Luckiamute Landing State Natural Area, five miles north of Albany, on Willamette River mile 110.5. Greenbelt Land Trust recently acquired this 106 acre property, which is a critical addition to an expansive network of protected lands. This complex establishes 1,300 acres of protected floodplain forest habitat. Additionally, it is positioned between the Willamette River (with 0.42 mi of frontage), the Luckiamute River, and just upstream of the Santiam. The confluence of these rivers make it one of the most significant sites for fish & wildlife in the mid-Willamette. The Willamette Planning Atlas highlights it as one of the best opportunities for restoration on the Willamette.

Key features of this property are that half of the site is in the two-year flood zone and the potential for allowing lateral migration of the river. Few sites allow for such significant natural processes to occur. In order to facilitate greater river / floodplain connectivity, Greenbelt is partnering with River Design Group to develop a hydro restoration alternatives analysis that also includes the 30% engineering design. This design requires extensive GIS and remote sensing analysis, field surveys, data processing, hydrology and hydrolic modeling. This will inform how best to improve overall habitat conditions for juvenile spring Chinook salmon and Steelhead.

OWEB has invested heavily in Luckiamute Watershed Council's restoration of LSNA. Our project takes lessons learned from LSNA, dramatically expands the impact of those projects, and creates possibilities for dynamic river processes to be restored that weren't possible when this parcel was privately owned. We'll partner closely with OPRD & LWC to build off one another's efforts.

This project will also develop a climate smart revegetation plan for the 100 acres of agricultural land that will be retired and planted to a diverse floodplain forest.

## Review Team Evaluation

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### Strengths

- The project site is nestled between two tracts of the Luckiamute Landing State Natural Area (LSNA). The LSNA was ranked by Oregon Parks and Recreation Department (OPRD) as the seventh most important area to prioritize restoration across its 255-property ownership.

- The application has clear objectives and activities for developing an alternatives analysis and 30% design to increase connectivity between the Willamette River and its floodplain, restore watershed natural processes, and improve habitat conditions for juvenile spring Chinook salmon, winter steelhead, lamprey, and other riparian forest wildlife.
- A clear need for the proposed Technical Assistance is described in the application to develop and carry out a project that will restore fish and wildlife habitat. Two-year inundation maps indicate 50% of the Luckiamute Confluence property floods and provides juvenile habitat. The Technical Assistance is likely to succeed in leading to a project that will increase the frequency and duration of floodplain inundation needed to restore rearing habitat for salmon on the Willamette River.
- Future fish and wildlife projects will build on restoration completed on the adjacent LSNA property. The applicant will also incorporate lessons learned from the Luckiamute Watershed Council project located on the LSNA property to inform planting strategies.
- An alternatives analysis will be completed that will include future climate change scenarios.
- The property will be protected by a conservation easement, which will protect future habitat investments.
- Partner project support is demonstrated with letters from OPRD and the Luckiamute Watershed Council.
- The contractor is qualified for accomplishing the proposed activities and has completed modeling and design for similar projects along the mainstem Willamette River and its tributaries.
- The applicant has capacity and relevant experience to implement the project.
- Costs are reasonable for the proposed restoration alternatives analysis and 30% design product.

### **Concerns**

- Revegetation planning described in the objectives is not included in the project timeline.

### **Concluding Analysis**

The resulting restoration project will address the lack of river-to-floodplain connectivity and riparian deforestation along the Willamette River and its tributaries. Land use activities that straightened the Willamette and hardened banks with revetments has significantly diminished opportunities for the Willamette River to meander and connect to its historic floodplain, which has degraded or eliminated critical habitat for juvenile spring Chinook salmon and steelhead. Restoring channel complexity on the Willamette at tributary confluence areas, like the Luckiamute River, will create slow moving backwaters. This floodplain habitat is critical for providing rearing and refuge habitat for spring Chinook salmon and steelhead along their seaward migration. Restoring floodplain function at the confluence of the Luckiamute and Willamette river is likely to succeed in providing significant ecological uplift.

### **Review Team Recommendation to Staff**

Fund

**Review Team Priority**

1 of 2

**Review Team Recommended Amount**

\$52,750

**Review Team Conditions**

N/A

**Staff Recommendation**

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**Staff Follow-Up to Review Team**

N/A

**Staff Recommendation**

Fund

**Staff Recommended Amount**

\$52,750

**Staff Conditions**

N/A

# Open Solicitation-Open Solicitation Fall 2023 Technical Assistance

Willamette Basin (Region 3)

**Application Name:** 224-3012-23264

**Project Type:** Technical Assistance

**Project Name:** Sandy Basin Climate Change Analysis

**Applicant:** The Freshwater Trust

**Region:** Willamette Basin

**County:** Clackamas

**OWEB Request:** \$159,053

**Total Cost:** \$216,267

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**Application Description** The Sandy River basin lies directly east of the Portland Metro Area. The Sandy River Basin Partners (SRBP), including representatives from US Forest Service, Bureau of Land Management, Oregon Department of Fish & Wildlife, Metro, City of Portland, Clackamas and Multnomah counties, East Multnomah Soil & Water Conservation District, The Freshwater Trust (TFT), and other entities, have invested millions of dollars since 2007 restoring the basin's aquatic habitat following a comprehensive Sandy River Basin Aquatic Habitat Restoration Strategy.

Monitoring has shown statistically significant increases in production of coho and steelhead smolts and spawning spring and fall Chinook adults since implementation of the Strategy. However, climate change threatens these gains. Warming migration corridors may affect access to restored upper basin spawning grounds and the survival of emigrating juveniles. Anticipated decreases in summer flows and increased winter flood frequency may alter limiting factors. Given the complexity of salmon and steelhead life histories and the interaction of predicted effects, the magnitude and location of likely impacts and most effective mitigation measures are unknown.

TFT is seeking funding that will enable the SRBP to use Ecosystem Diagnosis and Treatment (EDT) to analyze the effect of two levels of possible climate change on spring and fall-run Chinook, coho, and winter steelhead in the Sandy, assess risks to current restoration investments, and identify new projects to allay those risks. EDT is a life-stage model widely used in the Pacific Northwest that considers interacting and cumulative effects and estimates fish population responses to habitat conditions. The analysis will consider shifts in water temperature, flow, habitat surface area, and bed scour anticipated under a changing climate. A limiting factors analysis will be conducted for each level of climate change, guiding creation of a prioritized list of mitigating projects.

## Review Team Evaluation

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### Strengths

- The application describes a need for assessing restoration strategies to determine if adjustments should be made for climate to protect past habitat project investments.

- The applicant and partners have capacity and experience in effectively collaborating at the proposed scope and scale of the project. The applicant has used the proposed Ecosystem Diagnosis and Treatment (EDT) model for the Sandy River watershed in the past.
- The applicant is engaging a contractor with relevant qualifications in climate change analysis.
- Project costs are appropriate for the work described.
- Models will be cross checked with the widely used US Forest Service NorWeST stream temperature database and the US Geological Survey National Hydraulic Model.
- Project support is demonstrated by letters from the Portland Water Bureau and the Sandy River Basin Partners.

### **Concerns**

- Additional information is needed to understand how the proposed Technical Assistance is necessary for fish and wildlife habitat restoration and protection. An explanation describing how the expected products will be different from previous EDT model results would be helpful to understand how the Technical Assistance can inform future restoration.
- It is unclear whether the proposed use of the EDT model is appropriate for the anticipated results. It appears that modeling will occur at a course scale and then results will be applied at a fine scale site-specific level. Detail describing how the modelling results will be stepped down to inform site-specific restoration planning is needed to understand the likelihood for the proposed method to succeed in generating a list of locations and actions that will offset climate change impacts to Endangered Species Act (ESA)-listed fish habitat. Including examples of how the expected EDT results will provide information about stream temperature and flow, channel width or habitat surface area, and bed scour under changing climate conditions would be helpful for understanding how the Technical Assistance product can be used as proposed.
- The Technical Assistance approach is channel-based and species focused; it may miss an opportunity for results to improve understanding of how climate change is impairing broader watershed processes.
- Data sharing is limited and will not be shared unless requested by a partner.
- It is unclear from the application whether the applicant, contractor, or a combination of both will be involved in completing the EDT analysis and Viable Salmonid Population Parameter (VSP) estimates.

### **Concluding Analysis**

Significant investment has been made to implement the Sandy River Basin Aquatic Habitat Restoration Strategy. Monitoring has shown statistically significant increases in the production of coho and steelhead smolts and spawning spring and fall Chinook adults since implementation of that strategy. Assessing possible impacts of climate change on the abundance, productivity, capacity, and life history diversity of

ESA-listed salmon and steelhead populations in the Sandy to update restoration strategies may be needed to maintain these previous gains. Additional information is needed to understand how the proposed EDT model approach is the most effective tool to accomplish this. If the application is resubmitted, the applicant is encouraged to provide additional detail describing how the model results will be used, potential restoration actions that might be identified and prioritized from the results, how those strategies might be different from the current restoration strategy that has proven to be successful, and examples of where a similar use of the EDT model under changing climate conditions has been done, if possible.

**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**

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**Staff Follow-Up to Review Team**

N/A

**Staff Recommendation**

Do Not Fund

**Staff Recommended Amount**

\$0

**Staff Conditions**

N/A

# Open Solicitation-Open Solicitation Fall 2023 Technical Assistance

Willamette Basin (Region 3)

**Application Name:** 224-3013-23281

**Project Type:** Technical Assistance

**Project Name:** CBow Ridge: Management Planning for Climate Resilience

**Applicant:** Greenbelt Land Trust

**Region:** Willamette Basin

**County:** Lane

**OWEB Request:** \$89,178

**Total Cost:** \$98,678

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## Application Description

CBow Ridge is an impressive 1600 ac permanently conserved property owned by Greenbelt Land Trust. It is located 2 mi east of Coburg, and 5 mi north of Springfield in Lane County. CBow bridges the Willamette Valley and the West Cascades ecoregions, rising 1800' from the valley floor to the ridge. Acquired through the BPA/ODFW Willamette Wildlife Mitigation Program, CBow supports a diverse assemblage of strategic habitats of the Oregon Conservation Strategy (OCS), including over 550 ac of oak woodland, 14.5 miles of streams, plus grasslands and conifer forest. CBow supports important plants and wildlife, many of which are Strategy Species in the OCS. The property's size and connectivity to public forest lands make it an exceptionally valuable refugia and corridor for wildlife.

CBow has a history of grazing and timber harvest since the 1930s, with minimal forest stewardship. Its overstocked forests, steep slopes, hot aspect, and proximity to rural communities make climate adapted management on the property critical, especially proactive fuels management to prevent catastrophic wildfire. An extensive road system is vulnerable to erosion, while grazing has promoted invasive plant species, impacted streams, and threatened water quality.

Greenbelt must develop a Management Plan (and stand-alone Forest Plan) to be reviewed/approved by BPA and ODFW. Recognizing CBow will experience significant climate impacts, Greenbelt will integrate our regular management planning approach with the five-step Climate Adaptation Workbook, a system developed by the Northern Institute of Applied Climate Science/USFS. We will welcome tribal input, complete site inventories, identify goals/desired future conditions, and collaborate with partners to iteratively adapt our objectives in the face of climate change vulnerabilities and build an adaptive management framework. Partners will include Trout Mountain Forestry, BLM, ODF, ODFW, BPA, USFWS and many Rivers to Ridges Partnership members.

## Review Team Evaluation

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### Strengths

- A clear need for the proposed Technical Assistance is described in the application to develop a management plan for CBow Ridge, which is a 1,600-acre permanently conserved property with a diverse assemblage of Oregon Conservation Strategy habitats, including stream, oak woodland, grassland, and conifer forest.
- Professionally accepted methods and parameters will be used to assess habitats, and there is a plan for managing and sharing data described in the application.
- Climate change impacts and vulnerabilities on the property will be assessed. This information will be used to identify and incorporate climate adaptation strategies into the management plan.
- A diversity of partners with relevant expertise will be engaged in the management planning process.
- The contractor is qualified for developing the Forest Management Plan and has completed and implemented similar plans in the Willamette Basin.
- The applicant has capacity and relevant experience developing similar management plans for other conservation properties in the Willamette Basin.
- Costs are reasonable for developing a ten-year management plan.

### **Concerns**

- No concerns identified.

### **Concluding Analysis**

CBow is one of the largest privately held conservation properties in the Willamette Valley, which provides a unique opportunity to restore habitats at a large scale from the valley floor up to large tracts of Bureau of Land Management and other conserved lands in Coburg Hills. Often habitat restoration in the Willamette focuses on connecting north-south habitat corridors. This project will improve important east-west aligned habitat connections. The Technical Assistance is likely to succeed in leading to fish and wildlife habitat projects, from stream and prairies to closed canopy forest, that will benefit a diversity of native species and contribute to a more resilient landscape.

### **Review Team Recommendation to Staff**

Fund

### **Review Team Priority**

2 of 2

### **Review Team Recommended Amount**

\$89,178

### **Review Team Conditions**

N/A

### **Staff Recommendation**

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**Staff Follow-Up to Review Team**

N/A

**Staff Recommendation**

Fund

**Staff Recommended Amount**

\$89,178

**Staff Conditions**

N/A

# Open Solicitation-Open Solicitation Fall 2023 Technical Assistance

Willamette Basin (Region 3)

**Application Name:** 224-3014-23329

**Project Type:** Technical Assistance

**Project Name:** Pudding River West Cascades Headwater  
Tributary Stream Restoration Action Plan (WHTSAP)

**Applicant:** Pudding River WC

**Region:** Willamette Basin

**County:** Clackamas

**OWEB Request:** \$32,079

**Total Cost:** \$39,073

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**Application Description** Five of the Pudding River headwater tributaries originate in the forests of the West Cascades ecoregion. These clear flowing water ecosystems transition the the Willamette Valley ecoregion south to southeast of the City of Silverton in Marion County and south-southwest of the City of Molalla in Clackamas County. The waterways of interest: Abiqua, Butte, Drift, Rock and Silver Creeks. Throughout the area of interest, there are small pockets of treasured habitat such as those seen at Silver Falls State Park.

Abiqua and Butte Creeks support the majority of the Molalla-Pudding, ESA-listed Upper Willamette River steelhead. Protecting this resilient genetic sequence is key to preserving biodiversity locally and worldwide. Afforded protection under federal law and Oregon's Native Fish Conservation Policy, it is critical that the Pudding River Watershed Council (PRWC) develop a prioritized, place-based action plan for focused stream habitat restoration investment.

In order to effectively accomplish the task of protecting biodiversity and building resilient ecosystems for an uncertain future, a well-defined goal with a clear set of actions needs to be identified, prioritized, and communicated to potential partners. Technical assistance funding is being requested to form a special working group tasked with the goal of aggressively developing specific, measurable, attainable, realistic and timebound stream restoration targets. This guiding document will be peer-reviewed prior to final adoption. The formal project partners include members of the Pudding River Board of Directors: J. Marshall and C. Michelson. They are highly qualified, bringing years of experience to the planning process. Additional participation will be requested from the community and stakeholders. Based on the leadership and commitment of a small set of dedicated volunteers, the original vision of the Oregon Plan for Salmon and Watersheds will be accomplished.

## Review Team Evaluation

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### Strengths

- The tributaries targeted for resource assessment and planning Technical Assistance are the most important in the Pudding Watershed for Endangered Species Act-listed Upper Willamette River steelhead. These tributaries will benefit from strategic restoration that increases floodplain connection and reduces instream temperatures.
- Landowners impacted by the Beachie Creek wildfire will be invited to participate in community listening sessions to provide input related to how post-fire revegetation work is progressing.
- The applicant Board members will be actively engaged in the planning process.

## Concerns

- The project goal and objectives are broad, and it is unclear how the proposed activities are necessary and likely to lead to fish and wildlife habitat restoration within a specific timeframe.
- Details explaining the activities that will be completed to achieve the project objectives is needed to evaluate technical soundness of the project. For example, information describing the protocols and parameters that will be used for compiling data and what the expected product will be from the data compilation is needed to understand how professionally accepted methods will be used.
- Some of the work planned is not described in the objectives and activities. For example, listening sessions are identified in the project timeline; however, information explaining how these will be implemented is missing in the project objectives. As a result, it is unclear how the listening sessions will be designed to engage rural agricultural producers in managing instream flows as described in the engagement question.
- It is unclear whether the assessment and planning will focus on public or private lands, or both. Information describing the landscape identified for resource assessment and planning would be helpful for evaluating the proposed activities and better understand the potential path to future eligible restoration.
- The project timeline to complete the project within five months may not be feasible.
- It is unclear whether appropriate audiences will be engaged in the Technical Assistance activities. The key participants identified are limited to Pudding River Watershed Council staff and board members. It is unclear if other participants or experts will be engaged. Additional detail describing the relevant experience of the participants completing the work is needed to evaluate the capacity of the applicant to accomplish the data analysis and project development proposed without external expertise.
- It is unclear how the proposed activities are separate from work completed under the watershed council capacity grant.

## Concluding Analysis

The path from resource assessment and planning to actions that directly lead to future fish and wildlife

habitat projects is unclear. Additional information is needed to understand the assessment and planning activities and products. Also, expanding engagement to external participants, such as agency partners with relevant experience and resources, to encourage collaborative planning is typically important for a project to succeed in leading to future eligible 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**

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**Staff Follow-Up to Review Team**

N/A

**Staff Recommendation**

Do Not Fund

**Staff Recommended Amount**

\$0

**Staff Conditions**

N/A

# Open Solicitation-Open Solicitation Fall 2023 Technical Assistance

Willamette Basin (Region 3)

**Application Name:** 224-3015-23346

**Project Type:** Technical Assistance

**Project Name:** Finalizing Floodplain Restoration Designs & Permitting for Elijah Bristow State Park - Phase 3

**Applicant:** Middle Fork Willamette WC

**Region:** Willamette Basin

**County:** Lane

**OWEB Request:** \$307,444

**Total Cost:** \$384,035

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**Application Description** The 437-acre project area within Elijah Bristow State Park (EBSP) is at the confluence of the Middle Fork Willamette River with Lost Creek, below Dexter Dam, and between the Lane County towns of Jasper and Lowell. Historically this area was a dynamic floodplain with multiple, braided channels, ephemeral islands, and cottonwood gallery forests. Located below 3 large dams that have modified flows and altered the sediment regime, the dynamism of this floodplain has been lost. Gravel mining and berm building have further contributed to a static environment.

From 2018 to present the Middle Fork Willamette Watershed Council (MFWWC) has worked with collaborating partners and contractors to draft conceptual process-based floodplain restoration designs, engaged diverse stakeholders and begun finalizing restoration designs.

The MFWWC also contracted Chronicle Heritage (formerly PaleoWest) to conduct cultural resource surveys in the Upper and Lower project areas. Surveys of the Lower Zone (LZ) reported cultural resource sites. Based on these results and the need for survey coverage of areas proposed as fill sources for the project, further cultural resource surveys are needed to inform restoration designs.

Discussions surrounding the relocation of a streamflow gauge and degraded levee within the LZ project area have progressed with agency partners, but more discussion and planning is needed to finalize these decisions and move forward with restoration designs and the Section 408 process.

The MFWWC and the Technical Team of partners from Oregon Parks and Recreation Department (OPRD), Oregon Department of Fish and Wildlife (ODFW), Confederated Tribes of Grand Ronde (CTGR), US Forest Service (USFS), and US Army Corps of Engineers (USACE) seek funding to contract Chronicle Heritage to conduct further cultural resource surveys in the LZ, contract Wolf Water Resources to finalize engineered designs, and develop restoration proposals for implementation in the Upper Zone.

## Review Team Evaluation

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### Strengths

- The application has clear objectives and activities outlining steps needed to create permit ready designs for a process-based floodplain restoration project at Elijah Bristow State Park.

- The project builds on a phased planning approach that has included modeling, alternative analysis, community engagement, and design phases broken into the upper and lower zones of the Elijah Bristow State Park.
- The resulting restoration project will address habitat limiting factors from the Upper Willamette River Conservation and Recovery Plan for Chinook Salmon and Steelhead by restoring river and floodplain processes that will create diverse habitats for all salmonid life stages, including instream pool and off channel habitats.
- A professionally accepted engineering approach will be used to finalize designs for a Stage 0 informed process-based floodplain restoration project.
- The proposed restoration approach is likely the best alternative to achieve the highest potential ecological uplift that addresses impacts from a dam impairing stream processes. For example, wood structure placed instream will be beneficial for collecting fine sediment released from the reservoir.
- The contractor has relevant qualifications and extensive experience designing floodplain process-based restorations strategies.
- The applicant is engaging appropriate audiences, including state park user groups, communities, and Tribes.

### **Concerns**

- The applicant has two previously awarded Technical Assistance grants totaling \$150,000 and no fund reimbursements have been requested. It is unclear what progress has been made with these previous grant awards. Additional information is needed in the application describing the progress made in achieving the objectives from those grants and why additional funding is needed at this time. For example, providing sample designs for the upper zone would provide helpful context.

- The future restoration project will require moving a US Geological Survey (USGS) operated gauging station used by the US Army Corps of Engineers (USACE), which will impact long-term gauging data and options for future gauging techniques. Implementing a final restoration design will depend on the feasibility of moving this station. The application lacks information describing progress made with USGS and USACE regarding the gauging station since the previous Technical Assistance and Engagement grant awards. The path to implementing final designs generated from this Technical Assistance request is unclear without evidence indicating USGS and USACE are receptive to a design that requires relocating the gauging station or an explanation for how the design can be adapted if the gauge cannot be moved. Without more information on the feasibility of relocating the gauging station and deauthorizing the associated levee, the likelihood of achieving the Technical Assistance objectives is uncertain. Given this uncertainty related to these site constraints in the lower zone project area, there may be merit to focusing on the upper zone restoration in the near term and then pursue designs in the lower zone once options with USGS and USACE for the gauge and levee are more clear.
- Implementing a Stage 0 informed restoration approach below a flood control dam may have uncertain results due to the influence of the dam on stream flows and the supply of large wood; however, there is still significant potential for restoring floodplain conditions.
- The descriptions of the project phases and sequencing is unclear across different sections of the application.

### **Concluding Analysis**

Utilizing a process-based restoration approach at Elijah Bristow State Park will restore a portion of the Middle Fork Willamette River back to a dynamic, braided multi-channel meandering river through a cottonwood gallery floodplain forest. This will provide habitat benefits for key indicator species such as Oregon chub, western pond turtle, spring Chinook salmon, and beaver. The site provides opportunity to be highly visible to the public and serve as an example of process-based floodplain restoration strategies for areas between headwaters and downstream zones. The applicant has taken a deliberate, intentional design approach because this large-scale project is complex with infrastructure constraints and a diversity of audiences engaged at Elijah Bristow State Park. The likelihood the project will succeed is unclear without additional information about progress made on previous design phases and how the resulting design will be implemented if the gauging station cannot be moved and the levee deauthorized. The proposed project has a high cost with an uncertain implementation path to fish and wildlife habitat 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**

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**Staff Follow-Up to Review Team**

N/A

**Staff Recommendation**

Do Not Fund

**Staff Recommended Amount**

\$0

**Staff Conditions**

N/A

# Open Solicitation-Open Solicitation Fall 2023 Technical Assistance

Willamette Basin (Region 3)

**Application Name:** 224-3016-23352

**Project Type:** Technical Assistance

**Project Name:** Chaa-mali Collaborative Ecocultural Management Plan, Technical Assistance

**Applicant:** Long Tom WC

**Region:** Willamette Basin

**OWEB Request:** \$140,140

**County:** Lane

**Total Cost:** \$161,787

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## Application Description

Chaa-mali (also known as Andrew Reasoner Wildlife Preserve) is a 293-acre, privately owned property in Lane County, with a 151-acre conservation zone comprising mixed oak woodlands, oak savanna, prairie, and a 142-acre forestry management zone. It is located in the Long Tom Watershed about 10 miles SW of Eugene. Since acquiring the property in 2004 the Carnine family has worked with restoration partners to improve and maintain the oak and prairie habitats. Legacy trees, greater than 200 years old, dot the property including incense cedar, ponderosa pine, and white and black oaks. Prairie acres and meadow openings in woodlands support native herbaceous species.

Long Tom Watershed Council has recently completed oak release activities across 130 acres; work that was outlined in a 2017 land management plan (LMP). With this structural work complete, an updated LMP is needed to lay out strategies for promoting the establishment of native prairie and woodland species, reducing encroachment of trees and shrubs, and preventing the establishment and spread of introduced plant species. The new LMP will consider climate change impacts and adaptation strategies and include a comprehensive prescribed fire plan for the entire conservation zone for the short to long term. Subject experts from Indigenous and Western management backgrounds will inform the LMP, which will have ecocultural restoration principles and goals integrated throughout.

The updated LMP will include technical expertise of prescribed fire partners, Indigenous practitioners, and other local restoration partners. We are requesting support for staff time for research, surveying, mapping, and plan writing, as well as for subject expert contributions. A companion engagement grant will support facilitated visioning and planning meetings with Native and non-Native partners involved at Chaa-mali. The engagement process will form the collaborative and advisory body to carry out the LMP actions.

## Review Team Evaluation

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### Strengths

- The application has clear goals and objectives for weaving together western and Indigenous knowledge to update a land management plan for a 293-acre, privately owned property in Lane County.

- The project site is in an area that is a priority for oak habitat and the site is protected by a conservation easement.
- The project builds on previous habitat investments by OWEB and Bonneville Power Administration.
- The forestry zone management and operations plan will be updated and will incorporate strategies for climate adaptation.
- Appropriate partners are engaged in the project.
- Project support, including the landowner's commitment to the project, is demonstrated by letters included in the application.

### **Concerns**

- Objectives and budget line items appear to overlap with the companion Engagement grant application. It is unclear how the costs and activities are separated across the two grants to ensure there is not duplication in the tasks and costs for the same work.
- It is unclear if the proposed Technical Assistance investment is needed to achieve ecological uplift at the site. Significant planning and restoration has already been successfully completed on the site. While the existing management strategy could be improved by shifting to Indigenous interactive management, some of the objectives have an unclear connection to achieving ecological uplift that is not already occurring. The combined total of the Technical Assistance and companion Engagement grant requests is nearly \$340,000 to update a plan for a site where management and restoration is already restoring habitat conditions. More information describing how this significant investment is necessary for achieving habitat restoration and protection that is more successful than what is already occurring now would be helpful to understand the Technical Assistance need.
- Additional information describing how the variety of people listed in the budget are involved in the project and what tasks they will be completing is needed to evaluate whether costs are reasonable for achieving the proposed objectives. It is unclear how the staffing and contracted services are necessary for accomplishing the proposed activities because the project management table does not describe everyone listed in the budget.

### **Concluding Analysis**

The thoughtful process described for the Chaa-mali Collaborative Ecocultural Management Plan project has potential to become a model for collaboration. An Indigenous-led planning and stewardship approach to manage for gathering plant materials is culturally appropriate and can be beneficial for habitat. The concept of reciprocity with the landscape is an effective technique for maintaining oak and prairie habitat. The ecological benefit for the high cost is, however, unclear because habitat restoration is already successfully occurring on the project site. A description of the additional habitat gains expected to occur from the planning approach that cannot occur without the proposed Technical Assistance would be helpful to understand the need for the significant investment.

**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**

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**Staff Follow-Up to Review Team**

N/A

**Staff Recommendation**

Do Not Fund

**Staff Recommended Amount**

\$0

**Staff Conditions**

N/A

# Open Solicitation-Open Solicitation Fall 2023 Technical Assistance

Willamette Basin (Region 3)

**Application Name:** 224-3017-23364

**Project Type:** Technical Assistance

**Project Name:** Treating the Harmful Cyanobacterial Bloom at Ross Island Lagoon

**Applicant:** Human Access Project

**Region:** Willamette Basin

**County:** Multnomah

**OWEB Request:** \$89,639

**Total Cost:** \$791,571

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**Application Description** A Harmful Cyanobacterial Bloom (HCB) in Ross Island Lagoon (RIL) on the Willamette River near Portland, OR threatens environmental and human health. Manipulation of the lagoon over the last century has contributed to the HCB, which has been occurring with increasing frequency and intensity, and has led to the recent ODEQ listing of the lagoon as impaired for cyanobacteria. Since 2017, Human Access Project has partnered with Oregon State University to 1) lead analysis and design, and 2) support a very diverse and engaged group of stakeholders, towards identifying a feasible and effective solution for suppressing the HCB. Through this process, constructing a flushing channel has emerged as the most promising and most sustainable long-term solution, but also involves the most complex modeling and design. The channel would be located on the upstream end of the lagoon to reintroduce flow to the lagoon, suppressing cyanobacteria growth by introducing cooler, more turbulent water. This technical assistance request would support developing the technical design and cost details for the flushing channel. Tasks to be funded under this technical assistance award involve experimenting with channel dimensions and locations within and existing hydrodynamic/water quality model, estimating the effect of channel configurations on measures of algal activity, engineer's cost estimate, and development of a monitoring and evaluation plan. Finally, this project would support significant coordination with other scientists and management agencies and public outreach. Key project partners include property owners Ross Island Sand and Gravel and Portland Parks and Recreation (property owners), and Oregon Department of State Lands, Portland Bureau of Environmental Services, Multnomah County, East Multnomah Soil and Water Conservation District, Confederated Tribes of Grand Ronde, CRITFC, Vive NW, PHCAG, USGS, ODFW, OSMB, Oregon DEQ, PHCAG, OMSI, St. John's NA, and US Senator Merkley & Wyden.

## Review Team Evaluation

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### Strengths

- Many of the previous application evaluation concerns were addressed, including providing a support letter from the landowner and additional detail describing the proposed Technical Assistance activities and products. The application also includes information describing progress that has been made since the last submission.

- Data was collected that demonstrates Harmful Cyanobacterial Blooms (HCB) are affecting water quality at Ross Island Lagoon, and a solution that reduces or prevents future HCBs will address a priority identified in the 303(d) list of water quality impaired waterbodies.
- Methods appropriate for the site will be used such as the 2D flood model of the lower Willamette.
- Potential alternatives were considered for addressing the HCBs.
- Partner support is demonstrated by letters included in the application.
- The applicant and technical partner are qualified to complete the proposed technical assistance. The partnership blends the appropriate technical expertise with community engagement experience that will result in the capacity necessary to implement the project.

### **Concerns**

- The budget line items mixes costs and income sources instead of budgeting for only project expenses, making it difficult to evaluate whether the project costs are reasonable and necessary for the proposed activities. It is unclear how the budget relates to the proposed activities and how OWEB funds are needed to accomplish the tasks when there is a significant amount of funds expected from other sources.
- It is unclear why only the flushing channel alternative will be considered and why design alternatives that incorporate additional fish habitat benefits are not feasible. Rearing and refuge habitat is a priority for migrating Endangered Species Act-listed fish in the lower Willamette River. Currently the availability of this habitat is highly limited and there may be opportunity to increase it through this project. For example, considering a stream process-based, flow-through channel that allows the river to run through the lagoon year-round may provide greater ecological uplift by providing fish access to the lagoon for needed winter rearing habitat. While the flushing channel may provide fish habitat benefits during the spring and early summer, it will be limited because fish will avoid the lagoon once water temperatures are too warm. Facilitating winter access to the lagoon allows for an outcome where fish can use it for rearing during an appropriate season with safe water temperatures. The resulting restoration project will likely require an expensive solution and building fish habitat and water quality co-benefits will make it more cost effective. While the selected flushing channel alternative design may be approved for permit, it may not provide the greatest opportunity for ecological lift. Information describing site constraints that prevent considerations of other design alternatives is needed to understand why the flushing channel is the only feasible option.

### **Concluding Analysis**

HCBs in Ross Island Lagoon are impacting water quality and human health. The proposed project will integrate a high level of community engagement with a focus on collaboration to address an issue greatly affecting watershed health and community access to the river. The design approach, however, may be missing an opportunity to consider alternatives that could lead to additional habitat uplift and instead focuses more on human recreational access 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**

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**Staff Follow-Up to Review Team**

N/A

**Staff Recommendation**

Do Not Fund

**Staff Recommended Amount**

\$0

**Staff Conditions**

N/A

# Open Solicitation-Open Solicitation Fall 2023 Technical Assistance

Willamette Basin (Region 3)

**Application Name:** 224-3018-23367

**Project Type:** Technical Assistance

**Project Name:** North Santiam Post-Fire Watershed  
Resource Assessment and Prioritization Guide

**Applicant:** North Santiam WC

**Region:** Willamette Basin

**County:** Marion

**OWEB Request:** \$99,938

**Total Cost:** \$101,938

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**Application Description** Over the last 10 years, the wildfire regime has shifted dramatically in the Pacific Northwest. With this technical assistance, North Santiam Watershed Council (NSWC) will collaborate with local and regional partners, researchers and agencies including the U.S. Geological Survey Integrated Water Science (IWS) Program, U.S Army Corps of Engineers and U.S. Forest Service PNW Research, on new postfire data, field-based surveys and modeling in the North Santiam to synthesize information and update its resource assessment. This project effort will focus on ESA-Listed subwatersheds of the North Santiam River, specifically the Little North Santiam and the Breitenbush River. Using data and information from the U.S Forest Service (USFS) BAER reports and the Beachie Creek Fire – Erosion Threat Assessment/Reduction Team (ETART) Summary Report (FEMA 2020), the NSWC seeks to understand new data in order to assess a new baseline of resources related to soils, vegetation, water quality, road infrastructure and ecosystem process in the fire footprint. This will allow strategic planning of actionable, long-term restoration guidance in the Breitenbush and Little North Santiam subwatersheds and will consider climate resiliency based on framework from the North Santiam Watershed Council – Watershed Restoration Action Plan (NSWC 2014), the Santiam Watershed Resiliency Action Plan (Partners of North Santiam Watershed 2018), and the Upper North Santiam Watershed Revision (USFS 2007). This effort will also engage the local community and non-governmental organizations who are still assisting with postfire recovery in the watershed and have eyes on the ground with recovery. We will also reach out to other watersheds councils that have experienced large-scale wildfires in the Willamette River Basin. NSWC looks to assist other watersheds councils and partners in postfire recovery planning before a wildfire event, and lessons learned.

## Review Team Evaluation

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### Strengths

- There is a clear need to address post-fire impacts and plan for restoration in the Breitenbush and Little North Santiam subwatersheds. The proposed Technical Assistance has potential for better understanding baseline conditions after the 2020 wildfires needed to support watershed planning.
- The consultants are qualified to provide watershed related Technical Assistance.

- The project builds on complementary work in the watersheds, including: USFS Breitenbush River Stage 0 Floodplain Restoration, Marion County Parks implementing restoration in parks impacted by the 2020 wildfires, and Confederated Tribes of the Warm Springs (CTWS) work in areas impacted by the Lionshead Fire.
- Partner support is demonstrated by letters from Oregon Department of Fish and Wildlife, Confederated Tribes of Grand Ronde, CTWS, City of Salem, Marion County, South Santiam Watershed Council, and Marion Soil and Water Conservation District.

## Concerns

- The path from resource assessment and planning to actions that directly lead to future fish and wildlife habitat and water quality projects is unclear. Incorporating examples of eligible watershed projects and their outcomes would be helpful to understand how the action plan report and story map will lead to prioritizing activities that restore fish and wildlife habitat or water quality.
- Additional detail explaining how existing data will be used, what new data will be collected and how it will be different from existing data, and what protocols and parameters will be used is needed to evaluate technical soundness of the approach.
- Federal and state agencies have already collected considerable data in areas affected by the 2020 wildfires. Information is needed to understand how the proposed action plan is needed in addition to existing federal plans.
- It is unclear how the story map is needed for assessing habitat conditions for the purpose of leading to future eligible fish and wildlife habitat or water quality projects.
- It is unclear whether appropriate audiences will be engaged in the project. US Forest Service (USFS) and Bureau of Land Management (BLM) manage large portions of Breitenbush and Little North Santiam subwatersheds. The application, however, does not indicate whether these agencies will be participating in the project and there are no letters of support indicating agency project support. Also, it is unclear how private landowners will be engaged beyond outreach meetings. Additional information in the project objectives and activities describing how the applicant plans to engage federal agencies and private landowners is needed to evaluate whether appropriate audiences are likely to be involved in the project. It is unclear how the proposed Technical Assistance is likely to succeed in leading to future restoration projects without more direct involvement of USFS, BLM, and private landowners in identifying and prioritizing the projects.
- Without details describing the rationale for the expected path from the Technical Assistance products to timely restoration, the project has a high cost for uncertain restoration outcomes.

## Concluding Analysis

The Breitenbush and Little North Santiam subwatersheds were severely impacted by the 2020 wildfires that damaged soils, vegetation, and ecosystem processes, which degraded fish and wildlife habitat and

water quality. Strategic planning to understand the new baseline conditions and prioritize efforts has potential for leading to projects that restore watershed conditions and benefit fish and wildlife habitat or water; however, collaboration will be important for the Technical Assistance products to effectively lead to future restoration. If the application is resubmitted, the applicant is encouraged to provide additional information describing: (1) the methods and parameters that will be used, (2) the restoration guidance, story map, and action plan products, (3) how products will be used to carry out future eligible restoration, and (4) how federal agencies and private landowners will be engaged to prioritize 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**

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**Staff Follow-Up to Review Team**

N/A

**Staff Recommendation**

Do Not Fund

**Staff Recommended Amount**

\$0

**Staff Conditions**

N/A

# Open Solicitation-Open Solicitation Fall 2023 Technical Assistance

Willamette Basin (Region 3)

**Application Name:** 224-3019-23373

**Project Type:** Technical Assistance

**Project Name:** Tryon Creek State Natural Area Cultural Restoration Plan

**Applicant:** Friends of Tryon Creek

**Region:** Willamette Basin

**County:** Multnomah

**OWEB Request:** \$93,324

**Total Cost:** \$125,074

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**Application Description** At 675 acres, Tryon Creek State Natural Area (TCSNA) is one of the largest natural areas in the Portland-Vancouver Region, and the 8th largest property managed by the Oregon Parks and Recreation Department (OPRD) within the Willamette Basin. It covers approximately 20% of the Tryon Creek Watershed, situated on the line between Multnomah and Clackamas counties, and bordered by urban development. TCSNA's location at the confluence of the Willamette River makes it a promising habitat for coho salmon, steelhead, lamprey, and other species listed under the Endangered Species Act -- their access is currently obstructed by the Highway 43 culvert, but that culvert is slated for removal/mitigation. The current vegetation patterns reflect the area's history of logging, development, and fire suppression. Restoration volunteers have played a crucial role in maintaining existing patches of native vegetation, and Friends of Tryon Creek (FOTC) has done riparian planting in partnership with OPRD and Tryon Creek Watershed Council (TCWC). But critically, there is no complete up-to-date assessment and prioritization of TCSNA, meaning park management lacks the essential information required to make informed decisions to protect and restore fish and wildlife habitat and natural watershed processes. FOTC seeks a Technical Assistance grant to create a such a plan that will be based in Western ecological science and also in Indigenous Traditional Ecological Knowledge. The proposed Cultural Restoration Plan will help land managers make scientifically grounded decisions that enhance habitat while drawing on specialized knowledge and proven restoration techniques practiced by Native people over generations. Key activities are surveys, assessment, research, mapping, and plan development, with guidance from subject matter experts. Key partners include OPRD, TCWC, the Confederated Tribes of the Grande Ronde, and the Confederated Tribes of the Siletz.

## Review Team Evaluation

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### Strengths

- The application describes a need to consider Indigenous land management when understanding and restoring degraded landscapes because Indigenous people have shaped the ecology and species composition in their ancestral territory and homelands.
- The project scope and scale is feasible, and the partners have a history collaborating within the Tryon Creek State Natural Area.
- Plans for managing and sharing data are described in the application.

- Appropriate audiences are engaged in the project.
- Partner support is demonstrated by letters included in the application.

### **Concerns**

- The path from resource assessment and planning to actions that directly lead to future fish and wildlife habitat projects is unclear. Incorporating examples of potential projects and their outcomes that may be included in the Cultural Restoration Plan would provide helpful context to understand how this plan will allow Oregon Parks and Recreation Department (OPRD) to prioritize activities that restore fish and wildlife habitat.
- The application indicates the lack of a restoration plan for Tryon Creek State Natural Area prevents OPRD from strategically addressing challenges. There are, however, several planning and assessment products available for Tryon Creek; for example, the 2019 Tryon Creek Watershed Council Watershed Assessment of Tryon Creek and the OPRD Tryon Creek State Natural Area Comprehensive Plan. It is unclear why new data collection is needed and how information from these previous plans and associated surveys will be used in the proposed planning process.
- Only the Rapid Bio-Assessment protocol used to describe the distribution and abundance of salmonid species is referenced. Additional detail explaining other survey protocols selected for assessing vegetation, habitat, wildlife resources, and cultural uses is needed to determine whether professionally accepted methods and parameters will be used to complete surveys not related to fish.
- It is unclear whether costs align with the project objectives without additional information describing survey methods.
- It is unclear why the Confederated Tribes of the Grand Ronde (CTGR) and the Confederated Tribes of the Siletz Indians (CTSI) are listed as key partners in the project abstract when the Tribes are not included as participants in the proposed activities and there are no letters of support from the Tribes. While the project incorporates a unique opportunity to work with qualified Indigenous consultants that are members of these Tribes, it appears that the Tribes are not partners in this project. Due to the unclear referencing related to working with people that are members or staff of Tribes, the partnership with the CTGR and the CTSI may be overstated.
- It is unclear how some of the staff time in the budget relates to implementing the proposed activities because some staff are missing from the Project Management table. Additional information is needed about the roles of each staff in implementing the project to evaluate whether qualifications match the proposed work.

### **Concluding Analysis**

The Tryon Creek State Natural Area has over 600 acres of protected forest within the Portland urban area. The proposed project has potential for providing a model for integrating Western science and

Indigenous cultural practice into watershed resource assessment and planning. If the application is resubmitted, the applicant is encouraged to provide additional information that describes: (1) how other plans for Tryon Creek will be identified and the related data mined to use in the planning process or to identify information gaps to be addressed by new surveys, (2) why new surveys are needed, (3) what protocols will be used and associated parameters that will be collected, and (4) the rationale connecting the resource assessment and planning products with future fish and wildlife habitat or water quality 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**

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**Staff Follow-Up to Review Team**

N/A

**Staff Recommendation**

Do Not Fund

**Staff Recommended Amount**

\$0

**Staff Conditions**

N/A

# Open Solicitation-Open Solicitation Fall 2023 Engagement

Willamette Basin (Region 3)

**Application Name:** 224-3020-23277

**Project Type:** Engagement

**Project Name:** Oregon White Oak Habitat Restoration in a Suburban Community

**Applicant:** Oswego Lake Watershed Council

**Region:** Willamette Basin

**County:** Clackamas

**OWEB Request:** \$114,064

**Total Cost:** \$230,114

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**Application Description** The Oswego Lake Watershed Council (OLWC) is requesting \$XXXXXX to engage community stakeholders in development of the Lake Oswego Oak Strategic Action Plan (LOOSAP) which will define a program for oak protection and restoration on 1900 acres of significant oak habitat within the City of Lake Oswego. Oregon white oaks have been identified as an imperiled habitat by the Oregon Conservation Strategy and Metro has used aerial photography to map the location of significant Oregon white oaks throughout the metropolitan area. Lake Oswego has been identified as having a significant high density area of oak habitat. OLWC has worked for four years supporting Oregon white oak woodland restoration on 22 acres of Westlake Homeowners Association common property which is within this 1900 acres. We have seen the need to expand these activities into adjacent properties. These properties have a variety of landowners and a strategic action plan is needed to coordinate oak restoration throughout the community.

A significant portion of oak habitat is owned by two of the primary stakeholders, City of Lake Oswego and Lake Oswego School District. Both support this project and will be active participants. Another significant portion is owned as common property by a number of Homeowner Associations (HOAs). Three HOA's are already engaged and more will be recruited through the LOOSAP development process. The rest of the significant oak habitat is owned by business and individual property owners who will be included through outreach efforts from Neighborhood Associations and OLWC supported Urban Forest Committees. The end result will be a strategic action plan that has identified restoration projects with committed participants and funding identified to support enhancement and preservation of Oregon white oak habitat. LOOSAP will be available as a template for actions taken by other Metro area communities committed to preserving Oregon white oak habitat.

## Review Team Evaluation

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### Strengths

- Previous application evaluation concerns are addressed by quantifying potential oak habitat patches that could be restored, clearly defining engagement approaches and linking these strategies to restoration project recruitment targets, and providing budget detail needed to evaluate whether costs are reasonable and necessary for the proposed work. The revised application describes a clearer rationale connecting the proposed engagement activities with timely development of oak habitat restoration that will include invasive plant removal, oak release, and reducing irrigation, which promotes deep rooting and resistance to fungus in oaks.
- Metro aerial photography used to map oak habitat locations identified Lake Oswego as having a significantly high density of Oregon white oak.
- The communication strategy with homeowner associations is technically sound because these organizations represent a large portion of the community that can participate in restoration projects or as volunteers.
- A large number of community members, including homeowners' associations, businesses, city planners, fire department, and schools, will be engaged to promote stewardship of oak habitat and fire resilient landscapes.
- Volunteers will be trained on how to identify Mediterranean oak borer when gathering information about the location and health of oak trees in the City of Lake Oswego. The Mediterranean oak borer has potential to be a significant threat to Oregon oak communities and early detection is important.
- Engaging a local college student to complete GIS mapping is a cost-effective strategy for expanding capacity to complete the project.
- Partner support is demonstrated by letters included in the application. The City of Lake Oswego and the school district own large portions of property in the area that have oak and are committed to be involved in the project.

## Concerns

- The application indicates culturally responsive techniques for maintaining healthy oak habitat will be used as an outcome of the proposed engagement; however, there is no description explaining what restoration actions will be considered that are culturally responsive. Information explaining who will provide the Cultural Restoration Consultation, their role in implementing the project activities, and examples of culturally responsive actions that may be identified would be helpful to better understand technical soundness of this project element.
- Urban Forest Committees are identified in multiple objectives as target audiences. Additional information explaining what these committees are and who participates in them would be helpful for better understanding audiences that will be engaged.

- The ecological value of restoring oak habitat in an urban area is limited; however, oak in urban areas can provide habitat for migratory birds.

### **Concluding Analysis**

Oregon white oak ecosystems are highly imperiled in the Willamette Valley. While urban oak restoration will have limited ecological uplift compared to larger rural landscapes, it will likely build resilience for changing climate conditions. Restoring a diversity of tree structures and encouraging multiple layers of vegetation in urban areas will also likely provide temperature benefits by addressing heat islands. The proposed project to engage an urban community in oak habitat restoration has potential to serve as a template for other organizations working in residential areas to restore habitats.

### **Review Team Recommendation to Staff**

Fund

### **Review Team Priority**

2 of 2

### **Review Team Recommended Amount**

\$114,064

### **Review Team Conditions**

N/A

### **Staff Recommendation**

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#### **Staff Follow-Up to Review Team**

N/A

#### **Staff Recommendation**

Fund

#### **Staff Recommended Amount**

\$114,064

#### **Staff Conditions**

N/A

# Open Solicitation-Open Solicitation Fall 2023 Engagement

Willamette Basin (Region 3)

**Application Name:** 224-3021-23295

**Project Type:** Engagement

**Project Name:** Coast Divide Restoration Project

**Applicant:** Aprovecho DBA Center for Rural Livelihoods

**Region:** Willamette Basin

**County:** Lane

**OWEB Request:** \$194,956

**Total Cost:** \$199,336

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**Application Description** 1) Michaels Creek (Long Tom/Willamette); Conrad Creek (Lake Creek/Siuslaw). Adjacent to Blachly in Lane County.

2) Historical logging activity has impacted the resilience of the project area's forests and watersheds substantially. Half of the project's stream mileage originates and flows through plantations. Logging-related impacts to Conrad Creek have reduced suitable beaver habitat with resulting negative impacts on water storage capacity, stream flows, temperature and access by listed coho salmon. National Marine Fisheries Service's 2016 Oregon Coast Coho recovery plan prioritizes restoration of forested headwaters wetlands that are beaver habitat as well. We propose restoration of the Conrad Creek wetlands by installation of a Beaver Dam Analogue.

Nearly 2/3 of the project area is in oversimplified plantations which reflect industrial priorities and lack the ecological functionality and resilience associated with structural complexity and biological diversity. To restore riparian function degraded by previous management practices, we propose assembling the baseline data necessary for preparing an ecological forest management plan focused on ecological function, as is consistent with OWEB's mission to "restore healthy watersheds and natural habitats." Field data inventoried under this proposal will enable future preparation of an Ecological Forestry Management Plan to rest the project's headwater streams and degraded forest wetland, in accordance with President Biden's Executive Order on Strengthening the Nation's Forests, Communities, and Local Economies: for "ecological treatments that create resilient forest conditions."

3) Engage collaborators in framing and conducting site assessment techniques; a website; public engagement events; stakeholder tours; Technical Review of inventory plan.

4) Sierra Club; Beyond Toxics; Siuslaw Watershed Council; ODFW; Lane County Extension; ODP&R; Sustainable Northwest; many others.

## Review Team Evaluation

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### Strengths

- A Forest Management Plan could be helpful in leading to needed collaboration with Bureau of Land Management (BLM) to address forest health across their checkerboard land ownership in the Coast Range.

## Concerns

- The project scope of work is unclear, and the path from the proposed objectives to timely and actionable restoration or acquisition projects is uncertain.
- It is unclear whether appropriate audiences will be engaged because the application lacks details needed to understand who the target audiences are, how they were identified, and their potential interest in the Michaels and Conrad Creeks.
- It is unclear from the activities described in the application how audiences will be engaged through multi-directional communications.
- It is unclear how the proposed data collection and beaver dam analogue (BDA) installation is related to engaging audiences in multi-directional communications, or whether installing a BDA is site appropriate for Conrad Creek.
- Letters of support from BLM and the partners listed to participate in the project would provide evidence needed to determine whether there is support and commitment to the project.
- BLM has a management plan for the project area and data that is available on request. It is unclear why the proposed data collection is needed.
- It is unclear if the applicant has relevant experience and qualifications to implement the proposed scope of work.
- The project cost is high for the proposed work.

## Concluding Analysis

BLM is already managing a plan for the area and the applicant can provide input to that agency. The evidence indicating the engagement activities are necessary for carrying out projects to protect or restore fish and wildlife habitat or improve water quality is unclear.

## 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

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## Staff Follow-Up to Review Team

N/A

**Staff Recommendation**

Do Not Fund

**Staff Recommended Amount**

\$0

**Staff Conditions**

N/A

# Open Solicitation-Open Solicitation Fall 2023 Engagement

Willamette Basin (Region 3)

**Application Name:** 224-3022-23299

**Project Type:** Engagement

**Project Name:** Working Lands Stakeholder Engagement for Community Buy In and Effective Regional Coordination

**Applicant:** Coast Fork Willamette WC

**Region:** Willamette Basin

**County:** Lane

**OWEB Request:** \$127,880

**Total Cost:** \$200,640

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**Application Description** This project will take place in the Upper Willamette Basin, comprising the Long Tom, Coast Fork Willamette, Middle Fork Willamette, and McKenzie Watersheds.

A multitude of organizations provide resources and services to landowners, which our research shows leads to overwhelm and makes it hard for landowners to implement new conservation projects. Likewise, service providers lack a sustainable approach that holistically addresses landowner issues and provides a sustained platform for planning, outreach, and relationship building that are the foundation of successful and sustainable on-the-ground projects.

Through this project, we will engage regional service providers to develop and pilot a coordinated, programmatic approach to landowner engagement centered around holistic on-farm planning. We will also engage agricultural landowners in local listening sessions to solicit concerns, understand barriers, integrate the priorities of our agricultural community into our approach, and ensure that the tools we are developing meet the needs and interests of local landowners. We will host landowner engagement events and produce materials to generate interest, gain community buy-in, and connect interested landowners to actionable plans and resources for developing new implementable projects.

Project partners include the Upper Willamette Soil and Water Conservation District, the Upper Willamette Stewardship Network, and the Long Tom, Middle Fork Willamette, and McKenzie Watershed Councils.

## Review Team Evaluation

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### Strengths

- Agricultural landowners will be engaged through multi-directional strategies, including listening sessions, farm tours, and outreach materials.
- There is merit for organizations engaging landowners in watershed related planning to coordinate to prevent losing landowners interested in voluntary conservation on working lands.
- The applicant and partners are qualified to implement the proposed activities and have a history of working with landowners.

## Concerns

- The problem statement focuses on challenges with existing service programs and how organizations engage with landowners instead of describing the watershed problem and habitat limiting factors that will be addressed. It is unclear what habitat or watershed function will benefit from the eligible restoration or acquisition projects expected from the proposed engagement activities. Without details describing the habitat potential, it is difficult to evaluate the extent to which outcomes of the expected restoration or acquisition will protect or restore fish and wildlife habitat or improve water quality or quantity.
- It is unclear how landowners will be engaged to recruit participation in listening sessions, farm tours, and technical assistance field visits. The recruitment strategy for the listening sessions will be important for the focused groups to include enough representation for the applicant and partners to fully learn landowner needs and how farmers are making decisions on working lands. A variety of approaches will likely be needed to reach a diverse audience of landowners to accomplish the proposed objectives; the application lacks detail describing what is planned to recruit that landowner participation.
- Proposed objectives and success indicators focus more on strategic planning to build a partnership framework and less on engaging target audiences. It is unclear how objectives related to internal group decision making and program framework development is engaging appropriate audiences in multi-directional communications that will lead to timely development of eligible restoration or acquisition projects. It is also unclear how the program development will incorporate landowner perspectives needed to understand the complexity of agricultural operations and the barriers they experience in balancing working lands with fish and wildlife habitat restoration or protection.
- It is unclear how state and federal agency partners that manage the funding mechanisms for implementing eligible restoration or acquisition projects will be engaged. Since part of the objectives is working with landowners to develop plans for implementation, it will be important to work with potential funding partners to ensure investment occurs in a timely manner since delays are known to cause landowners to lose interest in programs.
- More detail is needed to understand the honoraria costs included in the budget. While honoraria are an effective method to remove financial barriers to participation and ensure diverse voices are participating in the conversation, it is unclear from the project objectives how these honoraria will be managed, including how the applicant plans to offer them, engage potential recipients, and select who shall receive them.

## Concluding Analysis

The rationale connecting the proposed engagement activities with timely development of eligible restoration or acquisition projects is unclear. Information describing the target habitats or watershed functions is needed to understand potential outcomes of the expected restoration or acquisition projects. Also, evidence indicating the engagement activities are necessary for carrying out those projects to

protect or restore fish and wildlife habitat or improve water quality is needed to understand the rationale.

**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**

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**Staff Follow-Up to Review Team**

N/A

**Staff Recommendation**

Do Not Fund

**Staff Recommended Amount**

\$0

**Staff Conditions**

N/A

# Open Solicitation-Open Solicitation Fall 2023 Engagement

Willamette Basin (Region 3)

**Application Name:** 224-3023-23318

**Project Type:** Engagement

**Project Name:** Chehalem Mountain Groundwater Stakeholder Engagement

**Applicant:** Greater Yamhill Watershed Council

**Region:** Willamette Basin

**County:** Yamhill

**OWEB Request:** \$33,619

**Total Cost:** \$35,819

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**Application Description** The Chehalem Mountain Groundwater Limited Area (GLA) is located in Yamhill and Washington County. This GLA was designated by the Oregon State Department of Water Resources in 1991. This area is within the Chehalem Valley, part of the larger Willamette River basin. The Chehalem Valley is within the rapidly growing metropolitan Portland area. Because of rapid population growth, water needs continue to increase. In addition, much of the area is not served by central water and sewage systems, so many homes depend on individual wells and septic systems. To obtain ample water supplies, wells commonly must be drilled to depths of several hundred feet.

Existing work is being done on the Washington County side of the GLA to develop an understanding of groundwater use. Little is known about water use and quantity issues on the Yamhill County side of the GLA.

This project is a pilot approach that will demonstrate how engagement related to water quantity issues can lead to restoration projects that have multiple benefits to both water quantity and quality. The proposed work will include communication and engagement with landowners, organizations and the community about water quantity issues in the Chehalem Mountain area. Stakeholder engagement will lead to development of restoration projects within the area.

Major waterbodies include Ayers Creek, Bryan Creek, Hess Creek, and several tributaries to Chehalem Creek, the Tualatin River and Wapato Creek. All waterbodies are tributaries to the Willamette River.

Project partners include the Yamhill Soil and Water Conservation District, Tualatin Soil and Water Conservation District and Tualatin River Watershed Council. The Oregon Water Resources Department has been and will be involved in the project in an ongoing capacity. The Oregon Department of Fish and Wildlife, Yamhill County, and City of Newberg will also be included in project planning and implementation.

## Review Team Evaluation

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### Strengths

- The applicant will engage water users through a survey and outreach campaign in an area designated as groundwater limited in Yamhill County.
- The project provides an opportunity to raise awareness about the connections between groundwater use and groundwater supply concerns.
- The technical consultant involved in the project has experience with groundwater issues.
- Translation services are included in the budget for engaging Spanish speaking communities.

## **Concerns**

- The evidence linking proposed engagement activities to eligible restoration or acquisition projects is unclear, such as information describing the potential path from the landowner survey to timely development of actionable projects that benefit groundwater resources. Describing examples of potential actions that could result from the engagement project, such as potential water conservation practices that residential or agricultural landowners may implement, would provide context for understanding potential watershed outcomes.
- Additional information is needed to evaluate whether appropriate audiences will be engaged in the appropriate geography. For example, a description of the types of land use in the project area, including the distribution of agriculture, forestry, small woodlands, rural residential and urban areas, and whether certain types of landowners will be prioritized for engagement would be helpful for understanding target audiences.
- Information describing current ground water use, and how surface water and groundwater are potentially connected in the project area, would be helpful for understanding the potential future watershed benefits that could be achieved.
- Population is rapidly growing in the project area due to the proximity to Portland, and there are no limitations on domestic well or septic systems in the area. It is unclear how future restoration actions resulting from the Engagement project will address water quantity problems if new users can be approved to utilize any conserved water. It is unclear whether there are efforts by the applicant or partners, such as the county, to limit groundwater use and maintain water conservation gains in the future.
- The application has only one letter of support from the Soil and Water Conservation District; additional letters indicating support from partners, such as from Oregon Water Resources Department, would demonstrate momentum is building that can lead to timely development of eligible restoration or acquisition projects. Engaging other groups or agencies implementing similar work to help strategize landowner outreach and planning future restoration projects could increase the applicant's capacity.

## **Concluding Analysis**

The rationale connecting the proposed engagement activities with timely development of eligible restoration or acquisition projects that address groundwater supply concerns is unclear. Evidence indicating the engagement activities are necessary for carrying out those projects to protect or restore fish and wildlife habitat or improve water quality is needed to understand the rationale.

**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**

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**Staff Follow-Up to Review Team**

N/A

**Staff Recommendation**

Do Not Fund

**Staff Recommended Amount**

\$0

**Staff Conditions**

N/A

# Open Solicitation-Open Solicitation Fall 2023 Engagement

Willamette Basin (Region 3)

**Application Name:** 224-3024-23338

**Project Type:** Engagement

**Project Name:** WOA! White Oak Access Hubs: Publicly accessible oak & prairie restoration in the NE Will. Valley

**Applicant:** Pudding River WC

**Region:** Willamette Basin

**County:** Marion

**OWEB Request:** \$52,932

**Total Cost:** \$64,933

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## Application Description

### 1. Project location

Stakeholder engagement with four public facing institutions:

Mt. Angel Abbey - 132 acres of oak habitat and opportunity for expansion

Corban University - 59 acres of oak habitat and opportunity for expansion

Oregon Garden - 21 acres of oak habitat

Willamette University - opportunity for small oak prairie near state capital

### 2. Project Need

Oregon white oak woodlands and savannas are some of the most important habitats in the Willamette Valley. In the northeastern part of Marion County it is difficult to find accessible, large-scale restored white oak habitat. Creating these model restoration sites would not only better support wildlife, but also greatly benefit public access to white oak habitat and local knowledge of white oak restoration best practices.

### 3. Proposed Work

Pudding River WC plans to work with each stakeholder to create a long-term conservation, restoration, and management plan for their Oregon white oak habitat, and outline future restoration projects for each site

Additionally, PRWC plans to work with each stakeholder to create a white oak outreach plan, so that visitors can directly engage with white oak restoration and be inspired to apply restoration techniques on their own property, if applicable

### 4. Project Partners

The Oregon Garden

Corban University

Willamette University  
Mt. Angel Abbey  
Marion SWCD  
Clackamas SWCD  
Heritage Seedlings

## Review Team Evaluation

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### Strengths

- The application clearly identifies engagement activities, project locations, and appropriate audiences.
- Engaging with public facing institutional landowners has potential for leading to landowner engagement on private lands in Marion County to restore oak habitat.
- The application includes a description of how restoring oak habitat contributes to climate adaptation and ecosystem resilience.
- Partner support is demonstrated by letters of support.
- The contractor involved in the project has experience planning and implementing oak habitat restoration with landowners.

### Concerns

- Additional detail describing the potential oak habitat that could be restored is needed to determine if an investment can lead to meaningful restoration with measurable ecological uplift. Information that quantifies the potential habitat at the project sites would be helpful for understanding the importance of the identified sites in providing habitat value. For example, providing estimated acres of oak woodland, oak savannah, and campus infrastructure at each site would provide context for understanding potential habitat outcomes of the expected future restoration. Without additional information to understand the importance of the sites for restoring and protecting oak habitat, it is unclear whether engagement and planning efforts can lead to the funding needed to implement restoration.
- Oak is sparse in urban areas and the path to ecologically significant restoration outcomes that could potentially result from the Salem Willamette University site is uncertain.

### Concluding Analysis

Oak restoration at public facing sites has potential for restoring stepping-stones of habitat in Marion County that could raise awareness and lead to future projects on private lands that connect corridors of habitat. The potential path to habitat restoration is clearer for three of the four sites identified. If the project is resubmitted, the applicant is encouraged to address the above concerns and focus on oak habitat located at Corban University, Mt. Angel Abbey, and The Oregon Garden.

**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**

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**Staff Follow-Up to Review Team**

N/A

**Staff Recommendation**

Do Not Fund

**Staff Recommended Amount**

\$0

**Staff Conditions**

N/A

# Open Solicitation-Open Solicitation Fall 2023 Engagement

Willamette Basin (Region 3)

**Application Name:** 224-3025-23341

**Project Type:** Engagement

**Project Name:** Protecting Oak Habitat on Willamette Valley Farmland

**Applicant:** Oregon Agricultural Trust

**Region:** Willamette Basin

**County:** Linn

**OWEB Request:** \$129,047

**Total Cost:** \$141,550

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**Application Description** 1) Oregon Agricultural Trust's (OAT's) project will partner with farmers and ranchers for conservation on privately owned agricultural (ag) lands in our Willamette Valley focus region covering parts of Washington, Clackamas, Yamhill, Polk, Marion, Benton, Linn, and Lane counties (see map) and all or part of 17 watershed councils.

2) Compared to pre-European settlement, less than 10% of the Willamette Valley's oak woodlands and less than 3% of oak savanna remains today. Nearly all of this remaining oak habitat is located on privately owned (often ag) lands.

Willamette Valley farmland is more at risk of fragmentation and development than any other region of Oregon. When farmland and its associated habitat is developed, any public investments in wildlife and watersheds are irrevocably lost. Moreover, landscape-scale conservation is much more efficient on land that is not fragmented. Therefore, using working land conservation easements to prevent development and fragmentation in the Willamette Valley will enable effective implementation of regional conservation efforts.

This funding will help OAT build existing and new relationships with owners of ag land with associated oak habitat in this region in order to protect this land and increase landowner participation in conservation activities funded by OWEB and NRCS.

3) Project activities are:

- a) 1:1 meetings with 20 existing and new landowner partners and pursue easements with 6 property owners
- b) develop 1 video, 1 pamphlet & 1 PowerPoint for vineyard owners highlighting a success story and explaining the benefits of donated easements
- c) share materials at presentations at 2 conferences for vintners and on social media/website
- d) project coordination, including managing partnerships and funder relations

4) This project will lay the groundwork for an RCPP we hope to receive in Spring 2024 with Confederated Tribes of Grand Ronde, Long Tom Watershed Council & Coast Fork Willamette Watershed Council.

## Review Team Evaluation

## **Strengths**

- The application describes strategies for engaging landowners to build interest in conservation easements that will contribute to preserving the Willamette Valley's native oak habitats located on agricultural lands.
- The project builds on momentum generated from engagement activities completed with a previous OWEB grant, and there is potential for the current project to leverage the Natural Resource Conservation Service Regional Conservation Partnership Program. The applicant is strategically moving through the region to protect habitat on working lands.
- Ninety percent of the Willamette Valley is privately owned lands; recovering native species that rely on oak will require working on private lands. Species recovery plans typically prioritize protecting habitat over restoration and conservation easements are a tool for accomplishing this protection.
- There is a clear path from the proposed landowner engagement to potential on-the-ground habitat protection projects.
- The applicant is incorporating succession planning as part of the conversation with agricultural landowners. Succession plans are a tool for preventing farms from being converted to other uses.
- Project support is demonstrated by a large number of letters from a diversity of organizations.
- The applicant has relevant experience for implementing the proposed landowner engagement and a track record implementing similar work in other Oregon geographies.

## **Concerns**

- Some of the metrics quantifying expected outcomes, such as number of landowner and meetings, are not consistent throughout the application.

## **Concluding Analysis**

Most priority habitats in the Willamette Basin, including riparian, oak woodland, forest, wetland, and prairie, are located on private lands. Meaningful recovery of threatened and endangered species will rely on protection and restoration on private lands in addition to public lands. Conservation Easements provide a path to protect habitat first and establish locations for future restoration that builds further ecological uplift. The proposed engagement provides an opportunity to establish new options for agricultural landowners to participate in conservation and could serve as a model for engaging landowners on working lands more broadly across the state.

## **Review Team Recommendation to Staff**

Fund

## **Review Team Priority**

1 of 2

## **Review Team Recommended Amount**

\$129,047

**Review Team Conditions**

N/A

**Staff Recommendation**

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**Staff Follow-Up to Review Team**

N/A

**Staff Recommendation**

Fund

**Staff Recommended Amount**

\$129,047

**Staff Conditions**

N/A

# Open Solicitation-Open Solicitation Fall 2023 Engagement

Willamette Basin (Region 3)

**Application Name:** 224-3026-23351

**Project Type:** Engagement

**Project Name:** Chaa-mali Collaborative Ecocultural Management Plan, Engagement

**Applicant:** Long Tom WC

**Region:** Willamette Basin

**OWEB Request:** \$199,811

**County:** Lane

**Total Cost:** \$270,531

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**Application Description** Chaa-mali (also known as the Andrew Reasoner Wildlife Preserve) is a 293 acre, privately owned property in Lane County with a 151 acre conservation zone comprising mixed oak woodlands and prairie and a 142 acre forestry management zone. The property is located in the Long Tom Watershed, about 10 miles southwest of Eugene. Since acquiring the property in 2004, the Carnine family has worked collaboratively with restoration partners to improve and maintain the oak woodland and prairie habitats. The Carnine family has expressed their commitment to Indigenous-led management at Chaa-mali, made possible through years of hosting the Traditional Ecological Inquiry Program (TEIP) at Chaa-mali, as well as other collaborative prescribed and cultural fire initiatives. There is a need to bring together the various partners involved in stewarding this land to create a shared vision and updated management plan. Specifically, there is a need to support the Native partners to participate with their time, experience, and expertise. We propose a robust engagement process that includes facilitated planning meetings with TEIP staff and community members, Indigenous advisors and mentors, and local restoration staff from Long Tom Watershed Council, McKenzie River Trust, EcoStudies Institute, and the Upper Willamette Stewardship Network. These facilitated gatherings will build relationships, establish roles and decision making processes, and create a vision for future ecocultural restoration at Chaa-mali. In addition, collaborative field survey days, focused on different land management topics and led by subject experts and advisors, will inform the content of the updated land management plan, which is proposed to be supported by a companion Technical Assistance grant. The TA grant will support writing an updated management plan, guided and informed by the collaborative process outlined in this engagement grant.

## Review Team Evaluation

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### Strengths

- The application has clear goals and objectives for weaving together western and Indigenous knowledge to update a land management plan for a 293-acre, privately owned property in Lane County.
- The project site is in an area that is a priority for oak habitat and the site is protected by a conservation easement.
- The project builds on previous habitat investments by OWEB and Bonneville Power Administration.

- Appropriate audiences will be engaged within an appropriate geography.
- There is a rationale linking the facilitated management plan meetings to create a vision for future habitat restoration and protection.
- The tour with neighbors could lead to additional future restoration that expands the footprint of restored habitats.
- Project support, including the landowner's commitment to the project, is demonstrated by letters included in the application.

### **Concerns**

- It is unclear why the proposed engagement project is needed to communicate with landowners and the community about the need for planning long-term stewardship of oak and prairie habitats at Chaa-mali. The target audiences identified for engagement provided letters indicating their project support. It is unclear what additional engagement is needed if the target audiences are already involved in the project.
- Objectives and budget line items appear to overlap with the companion Technical Assistance grant application. It is unclear how the costs and activities are separated across the two grants to ensure there is not duplication in the tasks and costs for the same work.
- Many of the success indicators are general and will be difficult to measure.
- It is unclear how Tribal governments will be engaged in the project. The application objectives and action section generally references engaging Tribes; specific Tribes are not identified though. Specific Tribes are generally referenced in the application uploads and in connection to the Tribal Liaison listed under target audiences; however, it is unclear if and how Tribal governments will be involved in the project.
- The application does not include an explanation describing how Traditional Ecological Inquiry Program families will be engaged to recruit participation in the meetings.
- Staff cost is high compared to other engagement projects; however, detail is provided explaining how costs were determined.

### **Concluding Analysis**

The thoughtful process described for the Chaa-mali Collaborative Ecocultural Management Plan project has potential to become a model for collaboration. An Indigenous-led planning and stewardship approach to manage for gathering plant materials is culturally appropriate and can be beneficial for habitat. The concept of reciprocity with the landscape is an effective technique for maintaining oak and prairie habitat. It is, however, unclear why the high-cost Engagement project is needed in addition to the companion Technical Assistance grant when all the target audiences have demonstrated support for and are participating in the proposed planning process.

**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**

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**Staff Follow-Up to Review Team**

N/A

**Staff Recommendation**

Do Not Fund

**Staff Recommended Amount**

\$0

**Staff Conditions**

N/A

# Open Solicitation-Open Solicitation Fall 2023 Engagement

Willamette Basin (Region 3)

**Application Name:** 224-3027-23356

**Project Type:** Engagement

**Project Name:** Beaver Lake Restoration Approaches - Phase 2

**Applicant:** Greater Oregon City WC

**Region:** Willamette Basin

**County:** Clackamas

**OWEB Request:** \$45,430

**Total Cost:** \$45,431

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**Application Description** Beaver Lake and Mompano Dam are located within the 21,573-acre Abernethy Creek watershed. The creek is a tributary of the Willamette River entering near Oregon City, below Willamette Falls. The Greater Oregon City Watershed Council has been working with the Beaver Lake Homeowners Association and various community stakeholders since 2021 to advance understanding of the lake, dam, fish ladder and associated risks and challenges. Modification of the existing fish ladder is needed to ensure native migratory fish have access to over 8 miles of high-quality spawning and rearing habitat upstream of the dam. Water quality issues at the lake have been identified including shallowing due to sedimentation, seasonal temperature increases, harmful algal growth, and eutrophication. In the first phase of the project, a steering committee was formed made up of stakeholder representatives, watershed council members and staff, and technical expertise. The steering committee developed and presented background on the project for the HOA board which was well received. Subsequent to the presentation, additional work was identified to more effectively scope the challenges associated with the dam and develop a suite of proposed alternatives for consideration. This Phase 2 proposal seeks additional funding and time to implement the recommended actions identified by the steering committee for planning assistance.

## Review Team Evaluation

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### Strengths

- There is a clear need for engaging the community and homeowners association to communicate the benefit of proposed restoration actions developed by a steering committee to improve fish passage, water quality, and riparian and instream habitat at Beaver Lake and Mompano Dam.
- The proposed communication strategy and methods is a technically sound approach to effectively engage homeowners. Engagement with the homeowners association is important to generate support for restoration actions on Beaver Lake and Mompano Dam.
- Potential future restoration ideas under consideration are likely to address fish habitat limiting factors and water quality concerns identified for the lake, including sedimentation, seasonal temperature increases, harmful algal growth, and eutrophication.

## Concerns

- The proposed project is a continuation of engagement work funded through a previous OWEB grant award. The objectives in the current application mirror the previous application objectives; however, the application lacks details describing what was completed with the previous grant and why additional funds are needed for the same objectives. It is unclear if the applicant ran out of funds to complete the objectives from the previous award or how the proposed phase two project is different or building on the phase one project underway. Additional information describing outreach already completed with homeowners, lessons learned from this engagement, and how the applicant determined what work still needs to be completed with a phase two project would be helpful for understanding the need for an additional project phase.
- Additional information describing the steering committee participants and their role in achieving the proposed engagement goals and objectives would be helpful for understanding the project. For example, it is unclear if the steering committee will be involved in the workshops and whether the participants have relevant experience for recommending restoration.
- Information describing actions planned for after the final workshop to move towards future project implementation is needed to understand the path connecting the proposed engagement with timely development of eligible fish and wildlife habitat restoration.
- Since two projects located upstream of Beaver Lake are already funded through federal infrastructure funds, information describing these projects would be helpful for better understanding potential outcomes expected from future habitat and water quality restoration.
- It is difficult to evaluate whether costs are reasonable and necessary for the engagement products because project costs are provided as lumped sums in the budget.

## Concluding Analysis

Information describing progress in achieving the objectives from the phase one application is needed to understand the context for the phase two application. For example, a description of actions completed, why previous objectives were not achieved, lessons learned, and how those lessons were applied to adapting the rationale or strategy for getting to future habitat and water quality restoration projects would provide context for evaluating the phase two proposal.

## 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

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### Staff Follow-Up to Review Team

N/A

### Staff Recommendation

Do Not Fund

### Staff Recommended Amount

\$0

### Staff Conditions

N/A

# Open Solicitation-Open Solicitation Fall 2023 Engagement

Willamette Basin (Region 3)

**Application Name:** 224-3028-23374

**Project Type:** Engagement

**Project Name:** Clackamas Riparian Restoration and Community Engagement Project

**Applicant:** Clackamas River Basin Council

**Region:** Willamette Basin

**County:** Clackamas

**OWEB Request:** \$65,736

**Total Cost:** \$85,923

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**Application Description** This project will occur at two locations: Milo McIver State Park along the Clackamas River and lower Eagle Creek just above its confluence with the Clackamas River. Focal areas are outside of the Clackamas Partnership FIP projects.

The Clackamas River Basin Council's Clackamas Riparian Restoration and Community Engagement Project aims to improve fish and wildlife habitat and engage diverse communities, including Indigenous tribes, with the intent to foster a welcoming space for future restoration activities. Currently, the Clackamas River Basin Council is planning restoration projects in the Lower Eagle Creek area and in and around Milo McIver State Park. Our organization seeks to engage the nearby landowners, recreationists, park users and tribes with an unique and strategic community outreach approach that includes riparian restoration and the inclusion of Indigenous-made art pieces at the two parks.

Local Tribes are impacted by reduced populations of salmonids and Pacific lamprey, which are essential to their cultural traditions. In addition, Indigenous people have experienced a loss of traditional artwork across the Clackamas basin, which historically stood alongside our local rivers, further impacting their cultural identity and heritage. This project strives to engage locals with the reintroduction of traditional art and interpretation in the basin. Including traditional perspectives provides a deeper understanding of reference conditions and can guide a more ethical approach to restoration that can benefit and engage tribal and non-tribal communities. Through this project, we hope to highlight the important connection and cultural relationship between people and watersheds.

Project's partners include the Drinking Water Providers Partnership, members of the Confederated Tribes of Grand Ronde as well as members of other local Tribes. Other partners include Oregon State Parks, Clackamas River Water Providers, We Love Clean Rivers, and the US Forest Service.

## Review Team Evaluation

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### Strengths

- Landowners and community members in areas impacted by the 2020 wildfire will be engaged to solicit interest in restoring native riparian vegetation. Restoring riparian areas will provide water quality benefits and leverage ecological gains achieved through instream fish habitat restoration completed by the Clackamas Focused Investment Partnership.
- Restoring riparian vegetation will likely build ecosystem resilience and durable adaptation to changing climate conditions.

- The applicant is qualified to implement the expected revegetation project elements.

### **Concerns**

- It is unclear how the activities related to installing traditional art are necessary for future fish and wildlife habitat or water quality protection or restoration. While the art pieces may bring in community and Tribal people, they may not be the right audience for participating in restoration at the project sites. Additional information describing the evidence linking these engagement activities described in Objective 3 of the application to the expected riparian revegetation outcomes is needed to understand the path to future eligible habitat restoration. The art pieces appear to be a majority of the project budget and it is unclear how it will be a cost-effective engagement approach.
- It is difficult to evaluate whether costs are reasonable and necessary for the engagement products because project costs are provided as lumped sums in the budget.

### **Concluding Analysis**

The evidence indicating the engagement activities are necessary for carrying out projects to protect or restore fish and wildlife habitat or improve water quality is unclear. Additional information describing the rationale connecting the proposed engagement activities with timely development of eligible restoration or acquisition projects is needed to evaluate whether the project is 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**

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### **Staff Follow-Up to Review Team**

N/A

### **Staff Recommendation**

Do Not Fund

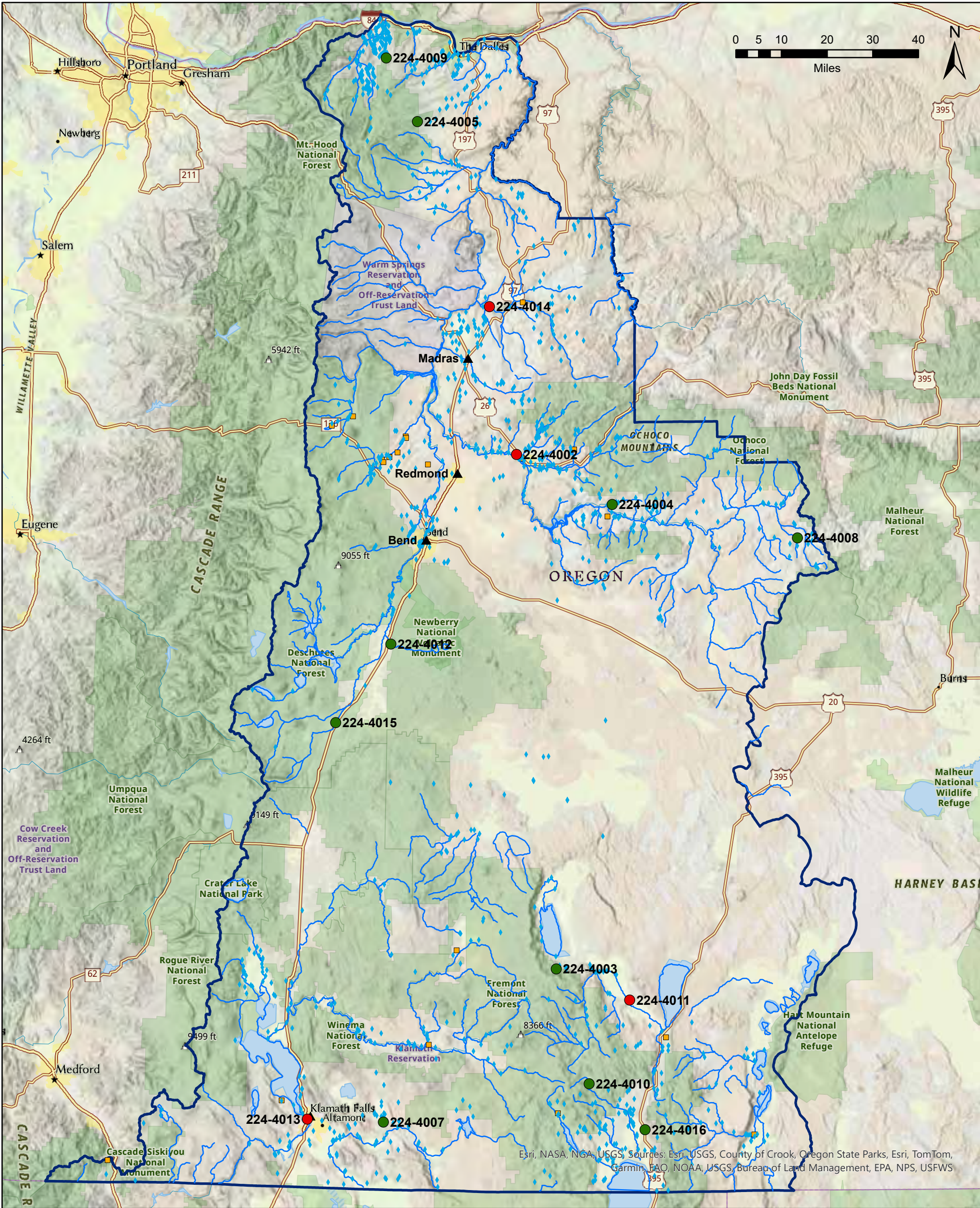
### **Staff Recommended Amount**

\$0

### **Staff Conditions**

N/A

# Central Oregon - Region 4 Fall 2023 Funding Recommendations



C:\Users\willspk\GIS C Drive\GIS\_Files\_on\_Z\_Drive\Projects\Review Team Meetings\2023\Fall\Cycle1  
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**Funding Recommendation**

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

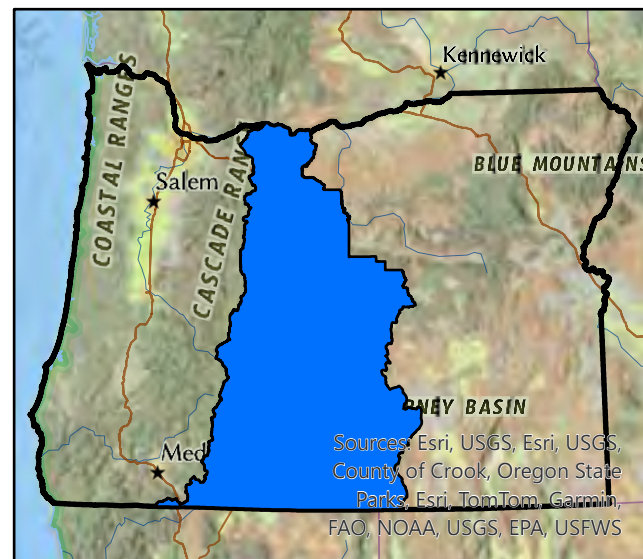
**Previous Grants 1998 - Spring 2022**

- Land Acquisition
- ◆ Restoration
- ▲ Region 4 Cities
- Region 4 Streams
- ▭ OWEB Region 4 Boundary



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Sources: Esri, USGS, Esri, USGS, County of Crook, Oregon State Parks, Esri, TomTom, Garmin, FAO, NOAA, USGS, EPA, USFWS

Oregon Watershed Enhancement Board: Region 4 Restoration, Technical Assistance, and Engagement

Region 4 - Central Oregon Restoration				
Projects RECOMMENDED for Funding in Priority Order				
Project #	Grantee	Project Title	Brief Description	Amount Recommended
224-4008	Crook SWCD	Suplee's Grouse Habitat & Watershed Enhancement 2	A suite of restoration actions will be implemented across high-priority sage steppe habitat to address threats to sage grouse.	\$ 305,540
224-4003	Lake County Umbrella Watershed Council	Summer Lake Slash Management Restoration	Prescribed fire will be applied to slash piles from previous forest thinning located in steppe terrain that will require forestry and fuels specialists to plan, permit, and implement.	\$ 191,825
224-4009	Hood River WS Group	Neal Creek Phase 3 Habitat Restoration Project	Large wood will be flown in via a helicopter and placed in and along Neal Creek on Hood River County lands to improve habitat for native fish.	\$ 375,500
224-4005	Wasco SWCD	Fifteenmile Creek Large Wood Enhancement	Large wood will be flown in via a helicopter and placed in and along Fifteen mile creek on public lands to improve habitat for native fish.	\$ 182,600
224-4004	Crooked River WC	Horse Heaven BeaverHOODs Project	Beaver dam analogs, riparian planting, and fencing will be implemented along Horse Heaven Creek to protect and restore instream habitat for native fish.	\$ 170,090
224-4007	Klamath SWCD	Hankins Irrigation and Livestock Management	New irrigation infrastructure will be installed in addition to off-channel stock water storage to reduce soil erosion from floods and remove livestock access to Buck Creek to improve water quality.	\$ 128,900
<b>Total Restoration Projects Recommended for Funding by RRT and OWEB Staff</b>				<b>1,354,455</b>

Projects Recommended but NOT FUNDED in Priority Order				
Project #	Grantee	Project Title	Brief Description	Amount Recommended
224-4002	Crooked River WC	Lower Crooked Water Quality & Watershed Stability Restoration - Silva Ranch	Instream, streambank, and side channel habitat will be restored along the Crooked River on private land downstream of the City of Prineville and adjacent to previous OWEB investments.	\$ 119,146

Projects NOT RECOMMENDED for Funding by RRT				
Project #	Grantee	Project Title	Amount Requested	
224-4001	Crooked River WC	Lower Crooked Water Quality & Watershed Stability Restoration - King Ranch	\$ 190,988	
224-4006	Wasco SWCD	Young Life Washington Family Ranch Juniper Removal Project Phase 1	\$ 178,843	

Region 4 - Central Oregon Technical Assistance				
Projects RECOMMENDED for Funding in Priority Order				
Project #	Grantee	Project Title	Brief Description	Amount Recommended
224-4010	Lake County Umbrella Watershed Council	Cox Flat Stage Zero Planning and Design	A final design plan will be produced at Cox Flat along Thomas Creek that will facilitate restoration actions to restore floodplain function to a stage zero condition.	\$ 117,453
224-4012	Deschutes Land Trust	Paulina Creek Preserve TA	A restoration plan will be developed to identify and prioritize projects to restore instream, riparian, and meadow habitat along Paulina Creek on privately owned land.	\$ 291,260
<b>Total Technical Assistance Projects Recommended for Funding by RRT and OWEB Staff</b>				<b>408,713</b>

Projects Recommended but NOT FUNDED in Priority Order				
Project #	Grantee	Project Title	Brief Description	Amount Recommended
224-4011	Lakeview SWCD	Lower Chewaucan Reconnaissance and Wetland Restoration Plan	Large-scale natural resource characterization and restoration planning will span three private properties totaling 25 thousand acres to develop projects that will improve wetland and riparian habitat adjacent to the Chewaucan River downstream of Paisley, OR.	\$ 86,323

Oregon Watershed Enhancement Board: Region 4 Restoration, Technical Assistance, and Engagement

224-4013	Klamath SWCD	Klamath Falls Yellow Flag Iris Project	Drones will be used to identify and map yellow flag iris populations along and adjacent to the Klamath River downstream of the city of Klamath Falls to support strategic control of this invasive species.	\$ 45,615
224-4014	Trout Unlimited Inc	Trout Creek Ranch Process-Based Restoration	A restoration plan will be developed along Trout Creek to focus on process-based habitat enhancement solutions on property owned and managed collectively by PGE and Confederated Tribes of the Warm Springs.	\$ 44,045

<b>Projects NOT RECOMMENDED for Funding by RRT</b>				
Project #	Grantee	Project Title		Amount Requested
NONE				

<b>Region 4 - Central Oregon Engagement</b>				
<b>Projects RECOMMENDED for Funding in Priority Order</b>				
Project #	Grantee	Project Title	Brief Description	Amount Recommended
224-4015	Upper Deschutes WC	Gilchrist Mill Pond Dam Fish Passage Feasibility Study	Resource agencies and the landowner will be engaged to develop alternatives and a preferred solution to provide fish passage at the Gilchrist Mill Pond Dam on the Little Deschutes River.	\$ 74,962
224-4016	Lake County Umbrella Watershed Council	Lake County Meadow Resilience Conservation Engagement	The engagement project will involve various conservation partners and support hiring a staff member with Pheasants Forever to engage private land owners to facilitate meadow habitat restoration in Lake County.	\$ 74,989
<b>Total Engagement Projects Recommended for Funding by RRT and OWEB Staff</b>				<b>149,951</b>

<b>Projects Recommended but NOT FUNDED in Priority Order</b>				
Project #	Grantee	Project Title	Brief Description	Amount Recommended
NONE				

<b>Projects NOT RECOMMENDED for Funding by RRT</b>				
Project #	Grantee	Project Title		Amount Requested
NONE				

<b>Region 4 Total OWEB Staff Recommended Board Award</b>	<b>1,913,119</b>
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<b>Region 1 - 6 Grand Total OWEB Staff Recommended Board Award</b>	<b>11,378,813</b>
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# Open Solicitation-Open Solicitation Fall 2023 Restoration

Central Oregon (Region 4)

**Application Name:** 224-4001-23303

**Project Type:** Restoration

**Project Name:** Lower Crooked Water Quality & Watershed Stability Restoration - King Ranch

**Applicant:** Crooked River WC

**Region:** Central Oregon

**County:** Crook

**OWEB Request:** \$190,988

**Total Cost:** \$785,413

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**Application Description** 1) Identify the project location -The King Ranch project site is located within the Lower Crooked River Strategic Restoration (LCRSR) area, on the north side and adjacent to the Crooked River immediately downstream of the Lytle Creek confluence with the river in the lower Prineville valley approximately six miles west from the city of Prineville, Crook County.

2) Briefly state the project need - The Crooked River Watershed Council and Natural Resources Conservation Service, through a Regional Conservation Partnership Program (RCPP), are working with private landowners between the City of Prineville and Smith Rocks State Park to implement the LCRSR. The LCRSR is a comprehensive project intended to address key watershed deficiencies as recognized by the Mid-C Steelhead Recovery Plan (ODFW 2010), NRCS Hydrology Study (NRCS 2010), Lower Crooked River Watershed Assessment (CRWC 2008), and the Deschutes Sub basin Plan (DBWG 2008) which includes floodplain reconnection, improved flows riparian habitat restoration and improved water quality.

3) Describe the proposed work - The proposed work includes bio-engineered bank stabilization and floodplain reconnection for improved flow and water quality on 0.50 miles of the Crooked River. Revegetating riparian habitat on 8.04 acres association within stream habitat restoration work for riparian habitat restoration.

4) Identify project partners - Partners include USDA-NRCS (designs, permits, wetland delineation, and some project oversight), Ochoco Irrigation District (irrigation system improvements), Crook County Soil & Water Conservation District (landowner outreach and project evaluation), King Ranch landowner (Greg and Karen Huston), and the U.S. Bureau of Reclamation (potential funder). Other traditional partners have offered letters of support but have no defined role in the project.

## Review Team Evaluation

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### Strengths

- The proposed project is part of a larger Lower Crooked River strategy the applicant and partners are implementing through the Natural Resources Conservation Service (NRCS) Regional Conservation Partnership Program (RCPP) to address key watershed limiting factors prioritized in watershed and recovery plans. The match funding provided by NRCS is secured and will support final design development, permitting, and some restoration actions (e.g. bank stabilization).

- Improving side-channel and alcove features may offer instream habitat benefits and potential stream cooling affects through hyporheic exchange.
- Given the nexus with NRCS's RCPP program, design plans will be reviewed by NRCS engineers to ensure suitability and technical soundness.
- Previous application evaluation concerns are addressed by including more detail regarding the planting and seeding components as well as more detail around water quality monitoring and data collection/analysis.

## **Concerns**

- The proposed streambank stabilization will likely treat symptoms rather than root causes of watershed disturbance and may prioritize protection of agricultural lands over restoring natural watershed function. The river naturally wants to laterally migrate in the valley and stabilization will hinder this natural process. The instream habitat value of these treatments will be limited because most of the proposed large wood structures will not interact with the river for most of the year.
- The application lacks details describing the restoration approach for plant installation. Additional information explaining the equipment needed, such as utilization of a stinger, augur, backhoe or other similar type equipment is needed to understand whether the methods used will be successful to establish riparian vegetation.
- It is unclear whether the design considered high flow and flood prone events that periodically get released from Prineville reservoir. It is mentioned the alcove and side channels are designed for 1.25 year peak flow (roughly ordinary high water). The application does not mention whether or how high flow events were modeled. This information is needed to understand and demonstrate that the restoration structures will maintain stability while promoting natural process and function.
- It is unclear whether the proposed restoration actions for this project, working in conjunction with restoration actions proposed for a project directly across the river to the South, could have unintended consequences to adjacent properties. Given both projects propose streambank stabilization, there is not enough information in the application to discern how this project may interact and complement the project across the river to the South.
- Within the larger Lower Crooked River strategy area the applicant and partners are implementing through the NRCS Regional Conservation Partnership Program (RCPP), no projects by the applicant have been implemented thus far. It is unclear whether the applicant will be able to successfully permit and implement project activities within this geography.

## **Concluding Analysis**

A suite of restoration actions will be implemented to improve fish and wildlife habitat and water quality along the Crooked River. Existing high value agriculture dominates the historic floodplain of the Crooked River in this valley located downstream of Prineville. The actions proposed are standard and effective

practices to enhance habitat; however, the proposal lacks evidence needed to understand the potential ecological benefit expected from the investment.

**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**

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**Staff Follow-Up to Review Team**

N/A

**Staff Recommendation**

Do Not Fund

**Staff Recommended Amount**

\$0

**Staff Conditions**

N/A

# Open Solicitation-Open Solicitation Fall 2023 Restoration

Central Oregon (Region 4)

**Application Name:** 224-4002-23305

**Project Type:** Restoration

**Project Name:** Lower Crooked Water Quality & Watershed Stability Restoration - Silva Ranch

**Applicant:** Crooked River WC

**Region:** Central Oregon

**County:** Crook

**OWEB Request:** \$119,146

**Total Cost:** \$521,326

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**Application Description** 1) The proposed work takes place on the Silva Ranch, located within the Lower Crooked River Strategic Restoration (LCRSR) area, approximately 4.5 miles northwest of Prineville, Crook County. The project reach extends from approximately river mile (RM) 43 to RM 44.3.

2) The Crooked River Watershed Council and Natural Resources Conservation Service, through a Regional Conservation Partnership Program (RCP), are working with private landowners between the City of Prineville and Smith Rocks State Park to implement the LCRSR. The LCRSR is a comprehensive project intended to address key watershed deficiencies as recognized by the Mid-C Steelhead Recovery Plan (ODFW 2010), NRCS Hydrology Study (NRCS 2010), Lower Crooked River Watershed Assessment (CRWC 2008), and Deschutes Sub basin Plan (DBWG 2008) which all include an element of degraded instream habitat, water quality, and riparian habitat within the 19-mile Prineville valley reach of the mainstem Crooked River in Central Oregon.

3) The Silva Ranch project will include 1,680 linear feet of instream habitat restoration treatments, bio-engineering bank stability, water quality improvement and riparian habitat restoration treatments including riparian planting on X acres.

4) Specific project partners include Portland General Electric, Crooked River Ditch Company, Crooked River Weed Management Area, Crook County SWCD, Confederated Tribes of the Warm Springs, City of Prineville, Oregon Watershed Enhancement Board, US Bureau of Reclamation, Ochoco Irrigation District, and the Oregon Department of Fish and Wildlife.

## Review Team Evaluation

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### Strengths

- The project is part of a larger Lower Crooked River strategy the applicant and partners are implementing through the Natural Resources Conservation Service (NRCS) Regional Conservation Partnership Program to address key watershed limiting factors prioritized in watershed and recovery plans. The match funding provided by NRCS is secured and will support final design development, permitting, and some restoration actions (e.g. bank stabilization).
- Sloping back streambanks, installing large wood structures, and restoring riparian vegetation to stabilize the bank can be a technically sound approach for arresting erosion while providing habitat benefit.

- The proposed restoration actions will build connectivity among restoration investments by tying directly into work completed by the neighboring Deschutes Land Trust and the City of Prineville.
- The application includes letters of support from partners and the landowner demonstrating that appropriate partners are engaged in the project.
- Previous project evaluation concerns are addressed by including additional details regarding revegetation treatments, engagement with adjacent landowners, and water quality monitoring parameters.
- Given the nexus with NRCS's RCPP program, design plans will be reviewed by NRCS engineers to ensure suitability and technical soundness.

### **Concerns**

- The proposed streambank stabilization will likely treat symptoms rather than root causes of watershed disturbance and may prioritize protection of agricultural lands over restoring natural watershed function. The instream habitat value of these treatments will be limited because most of the proposed large wood structures will not interact with the river for most of the year.
- Within the larger Lower Crooked River strategy area the applicant and partners are implementing through the NRCS Regional Conservation Partnership Program (RCPP), no projects by the applicant have been implemented thus far. It is unclear whether the applicant will be able to successfully permit and implement project activities within this geography.
- The application lacks information describing how the wetland feature will be maintained or who will be responsible for the maintenance. The memo provided by the applicant's consultant helped articulate how maintenance is likely to occur, but no entity is identified for how this work will be implemented to maintain the restoration investments.
- It is unclear how anticipated water quality benefits yielded from this project will improve upon existing conditions. It is unclear whether pre-project data exists. It is also unclear why only Nitrogen is being evaluated post-project, per objective six in the application. The optional monitoring section of the application is blank.

### **Concluding Analysis**

Restoration actions will be implemented to improve instream habitat and streambank stability along the Crooked River downstream of the City of Prineville. This section of the Crooked River has been heavily modified to support high value agriculture, making it a challenging environment to implement conservation actions that complement existing land use. This project and the project located on the King ranch (224-4001) are geographically close to one another and have very similar restoration actions, this project on Silva ranch is being recommended for funding primarily due to its proximity to other restoration investments directly upstream (Ochoco Preserve) and across the river (City of Prineville wetlands). The applicant is encouraged to consider other water quality parameters deemed important for the Crooked

River to track in its monitoring strategy.

**Review Team Recommendation to Staff**

Fund

**Review Team Priority**

7 of 7

**Review Team Recommended Amount**

\$119,146

**Review Team Conditions**

N/A

**Staff Recommendation**

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**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-Open Solicitation Fall 2023 Restoration

Central Oregon (Region 4)

**Application Name:** 224-4003-23306

**Project Type:** Restoration

**Project Name:** Summer Lake Slash Management Restoration

**Applicant:** Lake County Umbrella Watershed Council

**Region:** Central Oregon

**County:** Lake

**OWEB Request:** \$191,825

**Total Cost:** \$242,670

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**Application Description** 1) The Summer Lake Slash Management Restoration project area will focus on an approximately 556 acres within an overall 1,800- acre area with multiple ownerships. Two private landowners make up about 1,358 acres with the remaining 475 acres under BLM management. The project area is flanked by three wildfire scars and the US Forest Service and BLM have been focused on conducting thinning treatments to the boundaries.

2) This project area has recently been thinned via other funding sources. Thousands of slash piles are now on the landscape. Slash management of these piles has been compromised by the increased pace and scale of fir die off. With so much standing dead trees, steep slopes and history of unpredictable fire behavior, it is imperative to have all available technical support and contingency plans in place to safely and effectively conduct the prescribed burning of these particular slash piles.

3) The implementation of a slash management project would successfully complete a wildfire contingency line spanning nearly 10 miles from Paisley to the project area west boundary. Additionally, the treatment would improve watershed function in four sub-watersheds of the region. The proposed work would include a thorough and professionally crafted burn plan, followed by the prescribed fire implementation. This team will have technical and logistic support from multiple partners to help reduce risk and collaborate on best management practices for all aspects of the burn.

4) Partners would include Lake County Umbrella Watershed Council, Bureau of Land Management, Fremont-Winema National Forest, Oregon Department of Forestry, High Desert Rangeland Fire Protection Association, and private landowners.

## Review Team Evaluation

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### Strengths

- The applicant, partners, and landowners have a long history of working together implementing similar forest health projects.
- The proposal clearly describes and justifies the need to hire outside consultants to aid the project team in implementing prescribed fire for slash piles within the project area.
- The project area is surrounded by previous fire scars; the project site represents the last green forest cover that is critically important to a plethora of wildlife species.

- The project area is a critical transition zone for ungulates migrating to different habitats during their life cycle. A restored forest community with appropriate spacing allows for more sunlight and precipitation that will increase vigor on browse species (e.g. bitterbrush).
- The project team, along with specialized consultants, will develop a burn plan that will be reviewed by local, state, and federal agencies who have been involved with the project thinning leading to the prescribed fire.
- The project budget requested funds for herbicide treatments and reseedling to ensure success post project.
- The project costs are high for prescribed fire, but the proposal clearly articulates why the costs are needed due to site conditions, complexity, and associated risks.

### **Concerns**

- No concerns were raised.

### **Concluding Analysis**

This project proposes the use of prescribed fire for slash management across 556 acres previously thinned to improve forest health. As part of the thinning, thousands of piles were created. Management of these piles via burning has been compromised by drought conditions and fir die off within the treatment area. Now deemed too risky for landowners to manage, it is imperative to seek outside experts to assist the project team in successfully applying fire to restore site habitat conditions and mitigate risk.

### **Review Team Recommendation to Staff**

Fund

### **Review Team Priority**

2 of 7

### **Review Team Recommended Amount**

\$191,825

### **Review Team Conditions**

N/A

### **Staff Recommendation**

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#### **Staff Follow-Up to Review Team**

N/A

#### **Staff Recommendation**

Fund

#### **Staff Recommended Amount**

\$191,825

**Staff Conditions**

N/A

# Open Solicitation-Open Solicitation Fall 2023 Restoration

Central Oregon (Region 4)

**Application Name:** 224-4004-23336

**Project Type:** Restoration

**Project Name:** Horse Heaven BeaverHOODs Project

**Applicant:** Crooked River WC

**Region:** Central Oregon

**County:** Crook

**OWEB Request:** \$170,090

**Total Cost:** \$254,945

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**Application Description** The Horse Heaven BeaverHOODs project is located on 3.2 miles of Horse Heaven crk in the Crooked River Watershed near Post in Crook County. About 80% of the stream conditions in this reach are largely degraded with unnatural stream erosion actively occurring and essential riparian vegetation mostly absent. However, in the upper reach of this stretch (about 0.7 miles) is an area trending towards proper functioning displaying the potential for the entire stretch. This reach has had riparian vegetation improvements and beavers are beginning to be active in this area. There are two restoration components for the 3.2 miles of Horse Heaven creek. One includes bioengineering with Beaver Dam Analogs (BDAs) in six reaches to manage erosion, reconnect floodplains and encourage beaver activity expansion. The second restoration activity is riparian vegetation management in seven reaches with hardwood planting and caging. These restoration activities are intended to jump start instream and riparian processes by providing the system with the necessary tools to heal itself over time as evident in the upper most reach.

The Horse Heaven BeaverHOODs project is Phase 2 of riparian restoration work on Horse Heaven crk and a continuum of investments made by many partners including USFWS, the landowner, Western Beavers Cooperative, OWEB and the Crooked River Watershed Council (CRWC). Oregon Wildlife Foundation (OWF) and USFWS funding was used to implement BDAs and riparian planting in 3 reaches of the project area. OWEB funding has been used to place appropriate reaches into the CREP program to help with riparian vegetation management. Western Beavers Cooperative, the landowner and the CRWC have been supportive partners all along the way. Western Beavers Cooperative has prepared a planning and design report for the 3.2 miles of Horse Heaven crk in the project area and identified areas of high success for BDAs.

## Review Team Evaluation

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### Strengths

- The project is ready for implementation. The Conservation Reserve Enhancement Program (CREP) agreements are in place, materials are staged onsite, and contractors are ready to go.
- The applicant is engaging appropriate partners to assist with implementation of the conservation actions.
- The proposed restoration approach is technically sound, incorporating riparian revegetation and livestock fencing in conjunction with beaver dam analogues (BDAs).

- Horse Heaven creek is a perennial tributary to the Upper Crooked River. Adult redband trout are known to use this reach of the creek to seek thermal refuge and spawn. This project will create instream habitat complexity and an improved riparian plant community that will improve upon current conditions.
- Landowner and project support is articulated in letters of support provided in the application.
- The proposed project monitoring is robust and appropriate to determine project success.
- The project is building off a previous phase of beaver dam analogues installed in 2023, as well as past juniper removal and fish passage restoration on the ranch.
- The project cost is detailed, clear, and reasonable for the expected watershed health benefits.

### **Concerns**

- The project area is broken up into multiple reaches which have different restoration actions and management. to the application narrative and maps are unclear regarding where restoration actions and complementary CREP activities will occur.
- It is unclear how post-project maintenance of the BDA structures will be approached and managed. For example, it is unclear whether BDA structures that become compromised will be rebuilt and if so by whom. It would have been helpful to understand what adaptive management strategies will occur to ensure restoration is successful.
- The application does not include enough technical information to understand whether the proposed restoration actions are appropriate for existing aquatic species. For example, a description of current fisheries use by life cycle and whether freshwater mussels are present within this section of Horse Heaven Creek is needed to evaluate whether the project approach is site adapted and technically sound.
- It is unclear why several of the structures built in phase I had soil/substrate dumped on top as the "final layer" and why some of the stability posts were left sticking up so high and not cut down. This is inconsistent with established methods and design criteria, which may hinder the structure's ability to perform as intended and may create immediate fish passage concerns.
- A grazing management plan for the project area may provide a better understanding of future land use and its compatibility with ecological restoration.

### **Concluding Analysis**

Instream and riparian habitat restoration is proposed along Horse Heaven Creek, a perennial tributary to the Upper Crooked River above Prineville reservoir. The landowner and applicant have a long history of working collaboratively on restoration projects. The project team has demonstrated success in implementing this type of project, in addition to being able to mobilize community volunteers to promote the importance of beaver on the landscape.

**Review Team Recommendation to Staff**

Fund

**Review Team Priority**

5 of 7

**Review Team Recommended Amount**

\$170,090

**Review Team Conditions**

N/A

**Staff Recommendation**

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**Staff Follow-Up to Review Team**

N/A

**Staff Recommendation**

Fund

**Staff Recommended Amount**

\$170,090

**Staff Conditions**

N/A

# Open Solicitation-Open Solicitation Fall 2023 Restoration

Central Oregon (Region 4)

**Application Name:** 224-4005-23339

**Project Type:** Restoration

**Project Name:** Fifteenmile Creek Large Wood Enhancement

**Applicant:** Wasco SWCD

**Region:** Central Oregon

**County:** Wasco

**OWEB Request:** \$182,600

**Total Cost:** \$397,850

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**Application Description** Fifteenmile Creek is a perennial Wild and Scenic River that originates near Lookout Mountain in the Mt. Hood National Forest. From the Forest Boundary, it flows ENE 12.3 miles to the town of Dufur, OR and eventually empties into the Columbia River just below The Dalles Dam. The project area is located within the Fifteenmile Creek Headwaters HUC-12 subwatershed (170701050301) which is primarily located in Wasco County on the National Forest. The creek enters privately owned and city of Dufur managed lands in its downstream reaches. This subwatershed was identified as the highest priority for restoration efforts in Fifteenmile watershed restoration plans (Rossel, 2010; WCSWCD 2003) and by federal, tribal, and state partners with interests in the health and function of the watershed. The subwatershed has been impacted by forest harvest, road construction, recreation, land use conversions and water diversions. Historical forestry practices reduced natural large woody material (LWM) in the stream channel. Some natural recovery of large wood deficits has occurred in upstream reaches of the creek on the National Forest within and near wilderness areas but downstream reaches that have had more intensive management still lack large wood. The lack of stream channel and floodplain large wood has led to a loss of stream channel and floodplain processes. The Wasco County Soil and Water Conservation District will partner with The Mt. Hood National Forest to add large wood at 10 project sites in Fifteenmile Creek on the National Forest to improve channel and habitat complexity for steelhead and other aquatic fauna such as Pacific Lamprey, interior Columbia redband trout, and Cope's Giant Salamanders. Due to a lack of roads available to access sites along the creek where large wood will be added, helicopters will be used to place wood in the stream and its floodplains.

## Review Team Evaluation

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### Strengths

- The restoration methods are clearly defined and appropriate to address habitat limiting factors affecting mid-Columbia steelhead, redband trout, and lamprey.
- The application has clear objectives and activities for achieving the objectives. Utilizing helicopters to place large wood is effective and efficient at adding instream structure especially in areas where road access is not possible.
- The applicant's partner, Mt. Hood National Forest, has demonstrated experience with planning and implementing helicopter placed large wood. Their staff will be onsite during implementation directing field placement of large wood.

- The project is ready for implementation with permitting complete and match funding secured.
- Pre-project unit level monitoring consisting of pebble counts and existing large wood within the channel bankfull width will drive the helicopter placement to maximize habitat complexity and potential for side channel activation.
- This project builds on momentum the applicant is achieving working with downstream private landowners on streamflow restoration during the irrigation season.

### Concerns

- The application lacks design schematics articulating what these structures will look like and exactly where they will be placed. More information is needed to better understand how effective the restoration approach will be in achieving the desired ecological outcomes.

### Concluding Analysis

Habitat restoration is proposed along the publicly owned reaches of Fifteenmile Creek, a tributary to the Columbia River. This section of Fifteenmile Creek is ecologically diverse, with western red cedar and Douglas fir established in the riparian areas and adjacent uplands supporting Oregon white oak associated plant communities, thus supporting an array of fish and wildlife species. Instream habitat in the project reach is good, this project will build long term resilience for aquatic species.

### Review Team Recommendation to Staff

Fund

### Review Team Priority

4 of 7

### Review Team Recommended Amount

\$182,600

### Review Team Conditions

N/A

### Staff Recommendation

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### Staff Follow-Up to Review Team

N/A

### Staff Recommendation

Fund

### Staff Recommended Amount

\$182,600

### Staff Conditions

N/A

# Open Solicitation-Open Solicitation Fall 2023 Restoration

Central Oregon (Region 4)

**Application Name:** 224-4006-23342

**Project Type:** Restoration

**Project Name:** Young Life Washington Family Ranch Juniper Removal Project Phase 1

**Applicant:** Wasco SWCD

**Region:** Central Oregon

**County:** Jefferson

**OWEB Request:** \$178,843

**Total Cost:** \$231,518

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**Application Description** This project is located 25 miles east of Madras, Oregon on the Southern portion of the Young Life Washington Family Ranch in Jefferson County. Through a strategic planning process with funding from a previous OWEB grant, ranch managers along with agencies such as OSU Extension, Wasco and Jefferson County Soil and Water Conservation Districts, Natural Resources Conservation Service (NRCS) and Oregon Department of Fish and Wildlife (ODFW), developed a Coordinated Resource Management Plan (CRMP) for the ranch to identify, prioritize and address resource concerns through a top-down watershed approach. Juniper thinning was identified as a high priority activity; this grant if successful, will address 550 acres of juniper encroachment, which has a negative effect on water quality, quantity, and upland and riparian habitat. Although water consumption by juniper may vary due to a number of factors, consumption by mature trees has been shown to total anywhere from 115 to 144 liters per day (Abdallah et al., 2020; Mata-Gonzalez et al., 2021) Western juniper roots grow out and not down which restricts water infiltration and impacts upland species roots and surrounding vegetation. Practices will include mechanical removal using an excavator and skid steer mounted flails, as well as hand cutting with a chainsaw on the steeper slopes not accessible by large machinery. Project partners include Young Life Washington Family Ranch, Wasco County Soil and Water Conservation District (SWCD), and the NRCS.

## Review Team Evaluation

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### Strengths

- The proposed project is a result of a ranch-wide comprehensive resource assessment and analysis which identifies this project as a high priority for restoration.
- The project is located at the headwaters of the Muddy Creek sub-basin, which is an appropriate location to start restoration work on the ranch.
- The landowner's approach to livestock management is aligned with ecological uplift, providing for sustained protection of restoration investments.
- The project area is focused on north slopes, which are prioritized areas for juniper removal given their association with deeper soils, moisture retention, and resilience to invasive species.

- The equipment operation will take place in winter, preferably on frozen soils to minimize disturbance.

### Concerns

- The proposed approach of utilizing a masticator for juniper treatment is not appropriate for the site. The mulch produced does not break down quickly, particularly in low precipitation zones, causing degradation to the existing plant community and soil health.
- The mastication of juniper trees in the project area will create a thick duff layer and high fuel load on the ground, potentially impacting wildlife movement, forage, and contributing to future wildfire concerns. It is unclear whether the project's proposed ecological benefits will be offset by the impacts caused by mastication.
- The application does not provide an alternatives analysis demonstrating this approach to be the most technically sound at achieving ecological uplift. It would have been helpful to learn why other approaches commonly used for juniper removal are not considered.
- It is unclear how juniper will be kept from re-growing in the project area. The application does not include a maintenance plan. On the site visit, past juniper treatment areas that utilized mastication equipment were visited and live limbs were evident on cut trees, which will continue to grow.

### Concluding Analysis

This restoration project proposes to remove phase II Western juniper from north slopes in upper reaches of the Muddy Creek basin, a tributary to the John Day River. The applicant is partnering with the Young Life ranch to begin implementation on their recently developed management plan. There is high capacity in the applicant and landowner to implement the project; however, the approach to restore the site's stage steppe habitat do not appear to be technically sound.

### 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

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### Staff Follow-Up to Review Team

N/A

### Staff Recommendation

Do Not Fund

### Staff Recommended Amount

\$0

**Staff Conditions**

N/A

# Open Solicitation-Open Solicitation Fall 2023 Restoration

Central Oregon (Region 4)

**Application Name:** 224-4007-23350

**Project Type:** Restoration

**Project Name:** Hankins Irrigation and Livestock Management

**Applicant:** Klamath SWCD

**Region:** Central Oregon

**County:** Klamath

**OWEB Request:** \$128,900

**Total Cost:** \$198,650

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**Application Description** This project is located east of Klamath Falls, between the towns of Dairy and Bonanza. The property borders and drains directly into Buck Creek, a tributary of the Lost River. Water quality limiting parameters are DO, temperature, ammonia toxicity and chlorophyll. Nutrient loading in the Lost River directly contributes to a decrease in water quality. The flows in the Lost River are highly regulated with numerous withdrawals for irrigation, return-flows from irrigation, channelization, and impoundments (Lost River Aquatic Vegetation Report, 2005). The Lost River is a spawning habitat for endangered suckers and other native fish species. The distance from the Hankins property to the Lost River is less than one mile via Buck Creek. The landowner currently irrigates with open ditches and wild flood, which has been resulting in uneven and inefficient irrigation. There is also a water gap on Buck Creek where the landowner's cows drink. Piping the mainline ditch would result in water savings through less seepage and more water left instream, as well as more efficient irrigation. NRCS water savings calculations estimate a planned 57% irrigation efficiency, equating to a savings of 749 acre feet annually, whereas the current system efficiency is estimated at 20% or less. This would in turn reduce runoff and nutrient loading and sedimentation to Buck Creek. The project also proposes installing a watering facility and pump along the canal on the south side of the property, which would eliminate the need for cattle to drink from the creek and improve riparian conditions and nutrient loading to the creek as well. The fence along the canal will also be replaced to keep cattle out of the riparian area and protect the site-capable vegetation, as well as reducing nutrient loading and erosion. Project partners in addition to the KSWCD include the landowner and NRCS.

## Review Team Evaluation

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### Strengths

- The application provides clear and well-articulated objectives, supporting maps, and photos demonstrating where and how the project activities will be implemented.
- The proposed solution of utilizing red top risers throughout the pastures will create an on-demand watering system that will allow the landowner to be more efficient with water use.
- The conditions leading to degraded water quality on Buck Creek and Lost River are well documented. The current system of pumping excess water into a canal and allowing wild flooding creates massive soil erosion, inefficient use of water, and high-power costs.

- The applicant and landowner are engaging the Natural Resources Conservation Service (NRCS) to assist with implementation of the conservation actions. The NRCS has the appropriate set of expertise, skill sets, and experience to successfully implement this project type.
- The proposed project will address key water quality parameters of concern associated with the Lost River basin including dissolved oxygen (DO), temperature, ammonia toxicity, and chlorophyll. The project as designed will completely remove sediment from entering Buck Creek using red top risers coupled with the removal of a cattle access point on Buck Creek by developing off-channel watering sources.
- The application includes a quote from a reliable vendor for each aspect of this project. The budget also includes a contingency line item for construction services which demonstrates a thoughtful and realistic approach to consider for project implementation.

### **Concerns**

- The application does not include a letter of support from the landowner. This will help demonstrate interest and commitment to change the current irrigation infrastructure and support using the proposed new system.
- There is no public awareness mentioned in the application. Given the project site is surrounded by similar types of land uses and irrigation systems, there may be value in demonstrating the success of the project to the community that may spawn interest for similar projects.
- The proposed fencing is not wildlife friendly. The application states all fencing in the area is not wildlife friendly thus limiting wildlife from accessing the project area. Not using wildlife friendly fencing, however, is a missed opportunity to change the trajectory of fence type in the area. Pronghorn antelope are known to be prevalent in the area and barbed wire fencing is a known limiting factor affecting their ability to access habitat.

### **Concluding Analysis**

The project proposes irrigation management solutions and fencing to improve water quality and reduce water use on perennial pastures in the Lost River basin. The methods proposed are proven approaches to meet the ecological goals identified this project.

### **Review Team Recommendation to Staff**

Fund with Conditions

### **Review Team Priority**

6 of 7

### **Review Team Recommended Amount**

\$128,900

### **Review Team Conditions**

Fencing installed as part of the project will be wildlife friendly per NRCS specifications.

## Staff Recommendation

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### Staff Follow-Up to Review Team

N/A

### Staff Recommendation

Fund

### Staff Recommended Amount

\$128,900

### Staff Conditions

Fencing installed as part of the project will be wildlife friendly per NRCS specifications.

# Open Solicitation-Open Solicitation Fall 2023 Restoration

Central Oregon (Region 4)

**Application Name:** 224-4008-23353

**Project Type:** Restoration

**Project Name:** Suplee's Grouse Habitat & Watershed Enhancement 2

**Applicant:** Crook SWCD

**Region:** Central Oregon

**County:** Crook

**OWEB Request:** \$305,540

**Total Cost:** \$539,356

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**Application Description** Our project is on the eastern edge of the Crooked River Watershed and is a beautiful mix of sage steppe, meadows, and riparian habitat. It provides habitat for redband trout, Rocky Mountain elk, pronghorn, mule deer, sage grouse, and many other species that rely on intact native plant communities. The area also supports working lands used for livestock and hay production, providing the lifeblood of a vibrant rural community committed to stewardship for the benefit of ecosystem resilience and future ranching generations. Factors contributing to degradation include improper grazing management, tillage of lands that would not support crop production, ongoing fire suppression, drought cycles, flood events, and the little understood effects of climate change. These factors challenge our ability to maintain ecosystem resilience and beneficial native plant communities for the survival of all life that relies on the area for survival. Previously, landowners have made extensive grazing changes, cut thousands of acres of juniper, and treated weeds in order to boost the resilience of native rangelands.

Technical and funding partners include NRCS, USFWS, ODFW, Crooked River Weed Management Area, and the Crooked River Watershed Council. Proposed activities will reduce western juniper density, improve sage grouse habitat, improve herbaceous and shrubby vegetative cover, control noxious weed encroachment, increase infiltration, improve livestock distribution, reduce barriers to wildlife migration, improve floodplain connection, and reduce overland flow and surface erosion. With a project area that spans over 20,000 acres, OWEB's financial assistance will help to construct 8,524 feet of lay down fence, 6,000 feet of wildlife friendly cross fencing, remove 9,735 feet of fence, build 20 artificial beaver dams, install 7 livestock water developments, and remove 439 acres of western juniper. This is the second phase of a previous project that was completed in 2017.

## Review Team Evaluation

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### Strengths

- The applicant, partners, and landowners have a long history of working together implementing similar projects promoting wildlife habitat enhancement and managed livestock grazing.
- The proposed laydown fencing is appropriate for the site; it will be used to keep cattle away when needed and then laid down to promote wildlife movement. There are large herds of elk and sage-grouse use in the area. The landowner demonstrates working knowledge of the seasonal approach required for laydown fence to be successful.

- The proposed actions address key limiting factors affecting sage-grouse habitat, including the enhancement of native bunch grass communities, invasive annual grass control, predator perch removal via juniper removal, and managed livestock grazing.
- The spring developments associated with the project will contribute to improved livestock management, are equipped with escape ramps, and serve as valuable water sources for wildlife.
- Culvert removal and beaver dam analogues will improve aquatic species passage and habitat availability and complement proposed upland habitat enhancements.
- The landowner has implemented herbicide treatments focused on annual invasive grasses on portions of their property adjacent to the project site. This project will build upon this work providing connectivity of improved native sage steppe plant communities important to sage-grouse.

### **Concerns**

- The application does not describe the depths typically associated with livestock well development. The costs associated with well drilling seem low. There is not enough information in the application to determine whether the budget amount will be adequate to achieve this action.

### **Concluding Analysis**

This landscape scale project in the upper reaches of the Crooked River watershed in Grant County will enhance the sage steppe landscape to restore habitat critical for sage-grouse and other wildlife species. The multitude of actions proposed are proven methods to achieve ecological uplift for fish and wildlife.

### **Review Team Recommendation to Staff**

Fund

### **Review Team Priority**

1 of 7

### **Review Team Recommended Amount**

\$305,540

### **Review Team Conditions**

N/A

### **Staff Recommendation**

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### **Staff Follow-Up to Review Team**

N/A

### **Staff Recommendation**

Fund

### **Staff Recommended Amount**

\$305,540

### **Staff Conditions**

N/A

# Open Solicitation-Open Solicitation Fall 2023 Restoration

Central Oregon (Region 4)

**Application Name:** 224-4009-23368

**Project Type:** Restoration

**Project Name:** Neal Creek Phase 3 Habitat Restoration Project

**Applicant:** Hood River WS Group

**Region:** Central Oregon

**County:** Hood River

**OWEB Request:** \$375,500

**Total Cost:** \$935,670

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**Application Description** The Neal Creek Phase 3 Habitat Enhancement project is located on Neal Creek in Hood River County, OR, exclusively on Hood River County forestland and outside of the FEMA floodplain boundary. 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. Based on ODFW sampling and population estimates, 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 that are disconnected from the floodplain and have limited amounts of large wood and pool habitat elements.

The purpose of this project is to restore aquatic habitat as an aid to the recovery of ESA-listed winter steelhead and coho. Improving instream habitat is listed as a priority action within the Hood River Basin Strategic Action Plan (2021) and numerous local planning and assessment documents.

The project will enhance two miles of Neal Creek by returning a section of Neal Creek to its historic channel length and adding approximately 693 pieces of large wood to the channel, resulting in the reconnection of over 20 acres of floodplain. This project builds upon Phase 1 and 2 of Neal Creek habitat restoration, which were constructed in 2021 and 2022 and restored a total of 1.25 miles of Neal Creek and its floodplain for juvenile rearing and adult holding and spawning habitat.

Project partners include Hood River Watershed Group (applicant, project manager), Confederated Tribes of the Warm Springs (cash match, materials), and Hood River County.

## Review Team Evaluation

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### Strengths

- The application describes a clear need for utilizing helicopter placement for large wood. Due to the lack of road access, this approach is technically sound and proven to be effective and efficient.

- The project will address limiting factors for Endangered Species Act (ESA)-listed salmonids, specifically coho and steelhead.
- The project builds on previous OWEB restoration grants that supported instream habitat restoration.
- The applicant and partners have a long history of working together implementing similar instream habitat restoration projects.
- The applicant's design consultant has a proven track record of designing projects that successfully achieve ecosystem restoration.
- The project designs were reviewed by Bonneville Power Administration (BPA) as part of the project's nexus with the Confederated Tribes of the Warm Springs, ensuring project technical soundness and viability.
- Through large wood placement, the project outcomes will increase channel length and stream-floodplain interaction, processes known to mitigate climate impacts projected for the area.
- The landowner is Hood River County. These forest lands are managed to protect riparian buffers and water quality adding value to the proposed instream project activities.

### **Concerns**

- The project is building on two previous phases of instream habitat restoration on Neal Creek to benefit aquatic species, yet no information is provided on where and what was accomplished in those two previous phases of work. The application lacks a description of how this work ties into and complements previous phases of work.

### **Concluding Analysis**

This project continues instream habitat restoration work on Neal Creek, a clear water tributary to the Hood River. Neal Creek is a high priority for aquatic species due to its clear water and high intrinsic potential to improve habitat for ESA-listed salmonid species.

### **Review Team Recommendation to Staff**

Fund

### **Review Team Priority**

3 of 7

### **Review Team Recommended Amount**

\$375,500

### **Review Team Conditions**

N/A

### **Staff Recommendation**

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### **Staff Follow-Up to Review Team**

N/A

**Staff Recommendation**

Fund

**Staff Recommended Amount**

\$375,500

**Staff Conditions**

N/A

# Open Solicitation-Open Solicitation Fall 2023 Technical Assistance

Central Oregon (Region 4)

**Application Name:** 224-4010-23282

**Project Type:** Technical Assistance

**Project Name:** Cox Flat Stage Zero Planning and Design

**Applicant:** Lake County Umbrella Watershed Council

**Region:** Central Oregon

**County:** Lake

**OWEB Request:** \$117,453

**Total Cost:** \$134,453

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**Application Description** 1)The proposed project is located in Lake County within the 21,705-acre Upper Thomas Creek Sub-watershed in an area known as Cox Flat. Thomas Creek originates near Cougar Peak at Hilario Spring at an elevation of about 6,900 feet and flows east-southeast for about 40 miles where it drains to the Goose Lake at an elevation of 4700 ft.

2) Cox Flat is a large dry meadow dominated by pasture grasses and sagebrush with some scattered willows along Thomas Creek. Thomas Creek is ODEQ 303(d) listed for temperature and biological criteria with potential to impact the fish community, comprised of 9 natives, four of which are endemic to the Goose Lake basin and federally listed as species of concern. Beavers are present in the drainage but greatly diminished from historic levels due to riparian impacts and loss of wetlands. In terms of impacts to stream and valley conditions, the drainage was most recently affected by the Cougar Peak Fire in 2021. Channel head cutting and incision up through Cox Flat on both private and Forest Service lands are observed. There is a lack of valley hydrologic connection and a loss of wetlands and water table that dominated Cox Flat historically.

3) Based on its geomorphology, gradient and valley width, Cox Flat would have historically been a fully connected valley bottom and has potential to be so again, complete with water table close to the surface, hydrologic connection valley-wide, and wetlands conducive to substantial beaver activity. This project seeks to provide technical assistance to prepare for restoration implementation with the goal of returning this landscape to Stage Zero conditions. The project area will extend 3 miles from private to public lands and include approximately 175 acres.

4) Project partners include the US Forest Service (Fremont-Winema National Forest), Lake County Umbrella Watershed, Oregon Department of Fish and Wildlife, US Fish and Wildlife, private landowners, and River Design Group, Inc.

## Review Team Evaluation

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### Strengths

- The application has clear objectives and activities that demonstrate a clear pathway to developing 60% design plans and permitting.

- The applicant is partnered with Fremont Winema National Forest and a specialized USFS enterprise team that focuses on determining whether landscapes can be restored to a stage zero condition. Their report uploaded to the application clearly demonstrates this approach to be appropriate for the project area.
- This project will build upon many restoration efforts in the Thomas Creek watershed that have focused on fish passage and aquatic habitat restoration.
- The project team consisting of the applicant, Fremont Winema National Forest staff, forest service enterprise team, and engineering consultant have the appropriate expertise to develop a technically sound restoration design plan.
- A portion of the project footprint has already been NEPA approved, setting the stage for completing NEPA on the remaining part of the project.
- The landowners are supportive of the project as evidenced by their letters of support included with the application.
- The surrounding uplands have been severely impacted by stand replacement wildfires. As a result, many burned trees were removed along the forest service road. This material is decked in multiple locations adjacent to the project area and can be incorporated into the future restoration project.

### **Concerns**

- It is unclear whether the Fremont Winema National Forest range staff and their permittees are informed or engaged in this project. It will be imperative to engage these individuals early in the design process to ensure there is a common understanding and agreement for how future livestock resting and grazing management will occur post project implementation.

### **Concluding Analysis**

This technical assistance proposal will support the Lake County Umbrella Watershed Council in engaging with the Fremont Winema National Forest staff to plan and design Lake County's first stage zero project across public and private land. Cox Flat meadows has all the right ingredients to support this type of restoration design.

### **Review Team Recommendation to Staff**

Fund

### **Review Team Priority**

1 of 5

### **Review Team Recommended Amount**

\$117,453

### **Review Team Conditions**

N/A

## Staff Recommendation

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### Staff Follow-Up to Review Team

N/A

### Staff Recommendation

Fund

### Staff Recommended Amount

\$117,453

### Staff Conditions

N/A

# Open Solicitation-Open Solicitation Fall 2023 Technical Assistance

Central Oregon (Region 4)

**Application Name:** 224-4011-23304

**Project Type:** Technical Assistance

**Project Name:** Lower Chewaucan Reconnaissance and Wetland Restoration Plan

**Applicant:** Lakeview SWCD

**Region:** Central Oregon

**County:** Lake

**OWEB Request:** \$86,323

**Total Cost:** \$105,073

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**Application Description** The Chewaucan Watershed consists of a 53-mile-river, several tributaries, and many flood irrigated pasturelands, which provide stopovers and breeding grounds for thousands of migratory and resident bird populations. These marshes also provide sustainable forage for family ranching operations. Lake Abert, a hypersaline lake within this watershed, additionally supports migratory birds. The river and surrounding area provides habitat for the Chewaucan redband trout, mule deer, and sage grouse. 5 catastrophic wildfires have ravaged 75 percent of the upper watershed, likely resulting in drastic changes to the entire catchment. It is imperative that resource leaders conduct a comprehensive analysis to prioritize restoration actions and implement them as soon as possible. While the upper watershed has been assessed, Lakeview SWCD is undertaking a comprehensive analysis of the working wetlands in the lower 17 miles of the Chewaucan Basin, approx. 25,000 acres known as the Upper and Lower Chewaucan Marshes. A field reconnaissance will provide information necessary to understand the current watershed conditions as well as identify source problems and restoration priorities. Partners will compile this information in a comprehensive Action Plan used to implement on-the-ground restoration activities. Known natural resource concerns include invasive weeds, infrastructure inadequacies, streambank erosion, and potential threats to aquatic habitat. Our project would begin in early fall 2024 with a workshop to engage stakeholders and compile existing information. Reconnaissance would occur in spring and summer of 2025, with a final report including detailed findings and a prioritized Action Plan by early winter of 2025. This will allow on-the-ground work to begin in the spring of 2026. Project partners include Lake County Umbrella Watershed Council, private landowners, Oregon Department of Fish & Wildlife, and Intermountain West Joint Venture.

## Review Team Evaluation

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### Strengths

- Previous application evaluation concerns are addressed by including more detail regarding the potential restoration projects to be considered as well as providing evidence the consultant has the appropriate expertise to be successful.
- Baseline watershed conditions data will be collected for the Chewaucan working wetlands to prioritize future restoration. The project area has never been fully assessed for its fish and wildlife habitat enhancement potential. Local technical experts have indicated the area has ecological importance to migratory birds, sage-grouse, and redband trout.

- The project footprint spans a large geography in the Chewaucan River Basin that is privately owned by only three landowners. Access to this approximately 25,000-acre area was previously not possible. New management and landowner willingness have opened new opportunities for conservation.
- Wet meadows and marshes located in the project area support nesting habitat for a suite of birds. For example, the area is known for supporting large quantities of Sandhill cranes and Trumpeter swans.
- The Chewaucan marsh is located along the Pacific flyway within the SONEC region and is adjacent to other similar type habitats significant to migratory birds, such as Lake Abert and the Warner Lakes Valley.
- Sage steppe habitat designated as core areas for greater sage-grouse surrounds the Chewaucan marsh; the wet meadows on the project site are important habitat features for sage-grouse and provides habitat connectivity with the surrounding area.
- Partner support for the project is demonstrated by letters of support included in the application.

### **Concerns**

- It is not clear whether the baseline assessment described in the application will lead to future restoration that addresses the root cause of degraded fish and wildlife habitat. The Chewaucan River has been ditched and channelized to support agricultural production and is disconnected from the adjacent meadows. There is no mention of potential projects focused on river restoration or floodplain reconnection that could restore natural river, floodplain, and hydrologic processes.
- The landscape has been heavily modified to support agriculture. It is unclear how willing the landowners are to make land use changes that will be recommended to improve fish and wildlife habitat and water quality.

### **Concluding Analysis**

An assessment and characterization of lands encompassing approximately 25,000 acres will be completed to develop restoration projects. Understanding existing resources and the conservation potential within a large geography is a reasonable first step to strategize future restoration investments.

### **Review Team Recommendation to Staff**

Fund

### **Review Team Priority**

3 of 5

### **Review Team Recommended Amount**

\$86,323

### **Review Team Conditions**

N/A

## Staff Recommendation

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### 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-Open Solicitation Fall 2023 Technical Assistance

Central Oregon (Region 4)

**Application Name:** 224-4012-23308

**Project Type:** Technical Assistance

**Project Name:** Paulina Creek Preserve TA

**Applicant:** Deschutes Land Trust

**Region:** Central Oregon

**County:** Deschutes

**OWEB Request:** \$291,260

**Total Cost:** \$328,760

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**Application Description** Paulina Creek Preserve (Preserve) is 1,099 acres and is located six miles northeast of the City of La Pine, Oregon. DLT plans to convey roughly 366 acres of the Preserve to the U.S. Forest Service (USFS) while retaining ownership of the remaining 734 acres (see map). The Preserve contains approximately 4 miles of Paulina Creek and is largely bordered by federal land managed by the USFS and Bureau of Land Management (BLM). The Preserve has been altered through decades of private ownership and agricultural land use. Irrigation infrastructure has diverted flows and largely decoupled Paulina Creek from its historic floodplain. In addition, grazing and alfalfa production have reduced native plant diversity, including species associated with wet and dry meadows and wetlands.

Technical assistance funds will be used to create a comprehensive stream and floodplain restoration design that identifies, prioritizes, and sequences actions that will lead to an ecologically functioning Preserve. Ultimately, this design will include restoration actions that enhance resiliency in a changing climate by: (1) diversifying flow paths and instream hydraulics of Paulina Creek; (2) restoring floodplain connectivity; (3) enhancing riparian, wetland and meadow vegetative health, including pollinator habitats; (4) increasing wildlife corridor capacity of the area; (5) restoring forest conditions to reduce threat of catastrophic wildfire and increase resilience to climate related stress. The design will also include interpretive and trail elements that will allow for public access that protects conservation values while promoting education about natural history and Klamath Tribes ancestral use and stewardship (elements not funded by OWEB).

Primary design review partners will include the USFS, Upper Deschutes Watershed Council (UDWC), Oregon Department of Fish and Wildlife (ODFW), Klamath Tribes, and U.S. Fish and Wildlife Service. Supporting partners include the BLM and the City of La Pine.

## Review Team Evaluation

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### Strengths

- The applicant owns the land and will protect it in perpetuity for the purpose of conservation of fish and wildlife habitat.
- The landowner has staff dedicated towards project planning and design in addition to a dedicated pool of volunteers that can help with future site stewardship.

- The property hosts a suite of habitat types, including stream, riparian, meadow, and forests. The project will consider a holistic design to improve upon all habitat types for the benefit of fish, wildlife, and water quality.
- The application is supported by an appropriate list of local and federal partners, including the Klamath Tribes.
- The outcome of this application will produce 100% design sets as well as initiate the necessary permitting.
- Restoration of streamflow as a result of converting water rights associated with the property once desired vegetation is established may provide a more consistent connectivity of Paulina Creek to the Little Deschutes River downstream. This will add value to the Endangered Species Act (ESA)-listed Oregon spotted frog, known to occur along the Little Deschutes River downstream of the project site.

### **Concerns**

- The cost effectiveness of individual project components is difficult to evaluate due to the use of lump sums in the application budget.
- The application does not include photos of the property or project site. This is needed to understand existing conditions and whether future restoration outcomes are achievable.
- The application states future forest restoration will be informed by the large woody debris needs for aquatic restoration. That is not technically sound, future forest restoration should be driven by needs associated with creating healthy and resilient native forests.

### **Concluding Analysis**

The applicant recently purchased the property where the project will take place. Historical grazing and agricultural infrastructure currently hinder the landscape's ability to provide meaningful habitat for fish and wildlife. This technical assistance project will support the necessary planning and design that will drive future restoration.

### **Review Team Recommendation to Staff**

Fund

### **Review Team Priority**

2 of 5

### **Review Team Recommended Amount**

\$291,260

### **Review Team Conditions**

N/A

### **Staff Recommendation**

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### **Staff Follow-Up to Review Team**

N/A

**Staff Recommendation**

Fund

**Staff Recommended Amount**

\$291,260

**Staff Conditions**

N/A

# Open Solicitation-Open Solicitation Fall 2023 Technical Assistance

Central Oregon (Region 4)

**Application Name:** 224-4013-23333

**Project Type:** Technical Assistance

**Project Name:** Klamath Falls Yellow Flag Iris Project

**Applicant:** Klamath SWCD

**Region:** Central Oregon

**County:** Klamath

**OWEB Request:** \$45,615

**Total Cost:** \$45,616

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**Application Description** This project will focus on noxious weed assessment in Klamath Falls stretching from Lake Ewauna to the Keno Dam including the North Canal drainage ditch and adjacent canals due to dense infestation of Yellow Flag Iris (YFI). There is a strong need from multiple organizations, agencies, and landowners to treat and manage YFI in this area to maintain water quality, wildlife habitat and agricultural systems. Klamath Soil and Water Conservation District and the Klamath CWMA propose a phased plan through assessment, treatment, and maintenance to eradicate YFI. The infested site is 20 river miles with 47.21 miles of shoreline including nine islands along Klamath River, 6 miles of drainage ditch and roughly 1,500 acres of marsh to be assessed. We propose a complete assessment of YFI using drones to create aerial imagery that will be paired with GIS classification software to pinpoint the YFI presence. We will be working with professors at Oregon Institute of Technology locally to provide the assessment. We will use the assessment in the treatment phase of the project to calculate cost, capacity and to aid herbicide applicators in treating the entire extent of the infestation. YFI is firmly established in this area, causing a decrease in biodiversity to aquatic ecosystems, wildlife habitat and is negatively impacting agriculture. This new technology could potentially revolutionize the technical assessment of projects in the basin and increase the scale at which we can address problems in the future, while reducing the expense of doing so.

## Review Team Evaluation

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### Strengths

- The application clearly describes how data will be acquired. The project will utilize drones and calibrated software to detect yellow flag iris during the flowering stage.
- The project approach of utilizing calibrated drones will cover a large area, 20 river miles and six miles of canals, making the effort efficient and cost effective. This approach is technically sound, providing accurate distribution and occurrence data for yellow flag abundance.
- The applicant will enlist staff from the Oregon Institute of Technology, who have the equipment, expertise, and experience to be successful in drone-based mapping and data processing.
- The project is building on momentum from several entities working independently on yellow flag iris. This effort will allow for a more collaborative approach with partners to be more strategic with controlling yellow flag iris.

- The applicant is engaging the right set of partners who will use the data collected to actively control yellow flag iris across the project footprint.
- The project includes a robust community engagement approach to educate and inform the community on the natural resource concerns associated with yellow flag iris.

### Concerns

- The cost effectiveness of the contracted services is difficult to evaluate due to the use of lump sums in the application budget.
- It is unclear whether permits will be required to fly drones so close to Klamath Falls and nearby airports. Information on permitting for utilizing drones in the project area is needed to evaluate this aspect of the application.
- The application will benefit from briefly describing the various considerations necessary to apply aquatic herbicides, such as licensing, nearby irrigation, and application rates.
- The application timeline has treatment occurring in July 2024. It is unclear whether the drone mapping, data processing, and plan development will be complete in time for partners to begin strategically treating yellow flag iris by July 2024.

### Concluding Analysis

This project will strategically and efficiently map the occurrence and distribution of the invasive yellow flag iris along the Klamath River and adjacent wetlands downstream of the Link River dam. The utilization of drones will allow for a complete and thorough survey to guide future restoration.

### Review Team Recommendation to Staff

Fund

### Review Team Priority

4 of 5

### Review Team Recommended Amount

\$45,615

### Review Team Conditions

N/A

### Staff Recommendation

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### 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-Open Solicitation Fall 2023 Technical Assistance

Central Oregon (Region 4)

**Application Name:** 224-4014-23357

**Project Type:** Technical Assistance

**Project Name:** Trout Creek Ranch Process-Based Restoration

**Applicant:** Trout Unlimited Inc

**Region:** Central Oregon

**County:** Jefferson

**OWEB Request:** \$44,045

**Total Cost:** \$45,120

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**Application Description** Trout Creek is an important tributary for Redband Trout and ESA-listed Mid-Columbia summer steelhead in the lower Deschutes Basin, yet suffers extensively from poor water quality and lack of riparian vegetation throughout much of its length. In addition, warming air temperatures and drought linked to climate change are exacerbating existing degraded conditions within this high desert basin. Recognizing the importance of Trout Creek to the viability and recovery of native fish populations, particularly wild summer steelhead, a diverse group of state and federal agencies, non-governmental organizations (Trout Unlimited, Native Fish Society), and co-landowners (Confederated Tribes of the Warm Springs, Portland General Electric) is attempting to restore self-sustaining fluvial processes (e.g., beaver dam building, wood accumulation) along 1.75 miles of lower Trout Creek in Jefferson County, OR. This project area was identified by a riparian vegetation modeling effort completed in 2023 by Trout Unlimited. Despite a levee removal and channel reconstruction project completed within the project area in 2008, existing conditions can be characterized by simplified instream habitat, floodplain disconnection, and lack of riparian vegetation. In particular, spawning and rearing habitat for summer steelhead is reduced and water quality is poor (i.e., high summer temperatures and excessive sedimentation). The project team is proposing to design a Low-Tech Process-Based Restoration (LTPBR) project that utilizes temporary, hand built structural elements (e.g., Beaver Dam Analogs and woody debris jams), which are plentiful in intact riverscapes, to amplify natural hydrologic, geomorphic, and biological processes. Lastly, a monitoring plan will be developed with the goal of quantifying progress towards restoration goals.

## Review Team Evaluation

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### Strengths

- The project will enlist an experienced contractor to develop 100% designs to support beaver dam analogues (BDAs) and post assisted log structures (PALS) installation.
- The project is identified and prioritized by the Pelton Round Butte Fish Committee, a group of local, state, federal, and tribal natural resource agencies. This Committee will also review and approve final designs.
- Trout Creek is a high priority for aquatic habitat restoration given its importance for the recovery of mid-Columbia steelhead.

- ODFW completed an aquatic habitat inventory of the property in 2023. This will provide necessary baseline data available that the applicant can use to evaluate restoration success.
- The costs associated with the project outcomes are appropriate.
- Native riparian vegetation upstream and downstream of the project site is well established. This project will tie into those existing conditions providing continuity in high quality habitat.

### **Concerns**

- The application does not include any photos of the project site. This is helpful to understand existing conditions and whether future restoration outcomes identified are achievable.
- The application briefly discusses failures associated with a 2008 restoration project that was implemented in the project area; however, the application does not provide details regarding what actions were implemented to fully determine whether the proposed approach outlined in this application will be successful at overcoming those failures.
- It is unclear whether low-tech process-based restoration is the best approach. The application may benefit from a discussion around considering different alternatives to restoration and why this approach is preferred.
- The potential for BDA and PALS material to become dislodged and move downstream is likely due to the flashy hydrologic nature of Trout Creek through the project reach. There is no discussion on considering potential impacts to downstream instream infrastructure (e.g. ODFW screw trap and irrigation diversions).

### **Concluding Analysis**

This technical assistance will support a construction ready design plan to implement low tech process-based solutions to improve instream and floodplain habitat. This project builds off a plethora of restoration work in the Trout Creek basin. The application lacks details justifying the restoration approach.

### **Review Team Recommendation to Staff**

Fund

### **Review Team Priority**

5 of 5

### **Review Team Recommended Amount**

\$44,045

### **Review Team Conditions**

N/A

### **Staff Recommendation**

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### **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-Open Solicitation Fall 2023 Engagement

Central Oregon (Region 4)

**Application Name:** 224-4015-23229

**Project Type:** Engagement

**Project Name:** Gilchrist Mill Pond Dam Fish Passage Feasibility Study

**Applicant:** Upper Deschutes WC

**Region:** Central Oregon

**County:** Klamath

**OWEB Request:** \$74,962

**Total Cost:** \$84,362

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**Application Description** The Gilchrist Mill Pond Dam Fish Passage Feasibility Study project is located in Gilchrist, Oregon along the Little Deschutes River. Gilchrist Forest Products is the owner of the Gilchrist Mill Pond Dam, and reached out to Oregon Department of Fish and Wildlife (ODFW) in July of 2023 to begin discussing the topic of replacing the fish passage structure at the dam. The existing wooden fish passage structure has deteriorated and is no longer functioning. In addition, a road with a culvert just downstream from the dam may also be serving as a fish passage barrier. Potential project partners including ODFW, U.S. Forest Service, and the Upper Deschutes Watershed Council (UDWC) were invited to the site by Gilchrist Forest Products for a site visit in August 2023. Since that meeting it has been discussed that U.S. Fish and Wildlife Service should be added as a partner. The landowner and partners have agreed that this proposal would fund a feasibility study to better understand site conditions including fish species upstream and downstream of the dam. Based on what is learned about species that are present, the feasibility study will assess conditions at the dam and culvert and consider options to create fish passage at the site via an alternatives analysis process to consider various options. By bringing the landowner and stakeholders together to work through a feasibility study, a preferred alternative for restoration can be developed. The UDWC envisions coordinating this feasibility study effort by bringing all these partners together over approximately 12-18 months and hiring a consultant to help conduct this feasibility study with the outcome being a preferred alternative for restoration of fish passage.

## Review Team Evaluation

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### Strengths

- The applicant is engaging appropriate partners to assist in landowner and agency engagement. Each partner works within a unique niche and collectively the partners represent a wide range of expertise to facilitate future fish passage and habitat restoration.
- The timeline in the application indicates a clear pathway to on-the-ground restoration.
- The application and photos clearly articulate the fish passage problem.
- The fish passage solution will open up over 100 miles of available habitat upstream along the Little Deschutes River that benefit native fish.

- The mill pond currently supports a population of Endangered Species Act (ESA)-listed Oregon spotted frogs. Restoration outcomes will improve upon existing habitat and create new habitat for the frogs.
- The engagement approach of convening partners, synthesizing existing data, and completing a feasibility study for fish passage to reach a preferred alternative is technically sound to yield positive results.

### **Concerns**

- The application does not include engagement with the broader community of Gilchrist. Given the rural nature of the community, this is a potential missed opportunity to engage members of the community on important natural resource issues in their local community.
- It is understood that mill operations convert from a surface water right to a groundwater right once the 1913 priority date on the Deschutes River is no longer being met. North Unit Irrigation District (NUID) is the senior water right holder who makes the call to regulate off junior water right holders such as the mill. The project may benefit from engaging with NUID and adding them as a partner.

### **Concluding Analysis**

Private landowners and agencies will be engaged to facilitate future fish passage solutions at the Gilchrist Mill Pond located on the Little Deschutes River in the community of Gilchrist. The dam was outfitted with a fish ladder in the 1980's that is now broken. The application demonstrates a high likelihood of achieving consensus on fish passage solutions.

### **Review Team Recommendation to Staff**

Fund

### **Review Team Priority**

1 of 2

### **Review Team Recommended Amount**

\$74,962

### **Review Team Conditions**

N/A

### **Staff Recommendation**

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### **Staff Follow-Up to Review Team**

N/A

### **Staff Recommendation**

Fund

### **Staff Recommended Amount**

\$74,962

### **Staff Conditions**

N/A

# Open Solicitation-Open Solicitation Fall 2023 Engagement

Central Oregon (Region 4)

**Application Name:** 224-4016-23344

**Project Type:** Engagement

**Project Name:** Lake County Meadow Resilience  
Conservation Engagement

**Applicant:** Lake County Umbrella Watershed Council

**Region:** Central Oregon

**County:** Lake

**OWEB Request:** \$74,989

**Total Cost:** \$159,989

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**Application Description** 1) In the ecologically vital Closed Basin Watershed of Lake County, Oregon there is an urgent need for coordinated wet meadow conservation. Lacking natural external water outlets, water accumulates in local lakes, wetlands, and aquifers, enhancing mesic areas replenishes these water sources. Wet meadows promote soil health, water access, vital habitat and productivity of working lands.

2) This arid closed basin system faces a range of exceptional water related challenges. With adverse effects from rising global temperatures and extreme drought, wet meadow ecosystems and working lands throughout Eastern Oregon are increasingly at stake. Diminishing resources such as forage, cover, water, and connectivity for both livestock and wildlife, and stress on our ranching communities require an urgent and thoughtful approach. Much of western waterways are owned by individual ranchers. Piecemeal conservation strategies are inadequate to achieve lasting impact for the environment and agriculture community. A watershed scale approach to conservation restoration is key to ecosystem resiliency.

3) The goal of the proposal is to connect, inform, and engage with Lake County landowners (within the Warner, Goose Lake, Abert, and Summer Lake Watersheds) to provide opportunities for landowners to witness the benefits of wet meadow restoration to enhance vegetative growth, improve soil health, increase water infiltration and retention, reduce erosion, raise water tables, and enhance late season water flows. A proactive approach to landowner engagement will help launch the "NEW" NRCS CIS Program and expand the program throughout Lake County's closed basin watersheds.

4) Project partners include Lake County Umbrella Watershed Council (LCUWC), Natural Resource Conservation Service (NRCS), Pheasants Forever (PF), Intermountain West Joint Venture (IWJV), ThePivot.Earth, (TPE) and Private Landowners.

## Review Team Evaluation

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### Strengths

- The applicant is engaging appropriate partners to assist in landowner, partner, and agency engagement. Each partner works within a unique niche and collectively the partners represent a wide range of expertise to facilitate future meadow resilience projects on private lands in Lake County.

- The proposed work is timely given the need to build interest and support in the community to take advantage of current programs offered through the Natural Resources Conservation Service (NRCS) to benefit meadow habitat conservation. The proposed project will boost NRCS's capacity in Lake County to deliver programs.
- The applicant and partners have successfully engaged rural private landowners for conservation efforts in the past. A landowner who's already involved in meadow habitat restoration on their land has offered to use their property as a demonstration for other landowners.
- The proposed project leverages partner expertise (e.g Pivot Earth, Pheasants Forever, Intermountain Joint Venture) to drive engagement with landowners specific to meadow habitat opportunities that benefit fish and wildlife and water quality.
- The engagement approach of hiring capacity for Pheasants Forever, developing a communications plan, conducting field tours and community driven workshops, and building trust to facilitate landowner engagement in conservation programs to restore meadow habitats is technically sound and likely to yield positive results.

### **Concerns**

- The desired skill set identified for the new Pheasants Forever staff member leans heavily on technical skills to plan, design, and permit projects as well as technically sound social and team building skills to engage and build trust with rural private landowners. It is unclear if all these desirable skills can be attained with a seasonal position located in Lake County. If all these desirable attributes cannot be recruited for, the project outcomes may be limited.
- It is unclear whether Pivot Earth is the appropriate partner to lead the communications and workshop components. The organization is new to Lake County and has limited experience with engaging private landowners for the purposes of meadow habitat conservation in Lake County.

### **Concluding Analysis**

Engagement will address key limiting factors in developing meadow habitat restoration opportunities on private lands in Lake County. The project team is robust, diverse, and locally driven to bridge the gap between private landowners and conservation programs.

### **Review Team Recommendation to Staff**

Fund

### **Review Team Priority**

2 of 2

### **Review Team Recommended Amount**

\$74,989

### **Review Team Conditions**

N/A

## Staff Recommendation

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### Staff Follow-Up to Review Team

N/A

### Staff Recommendation

Fund

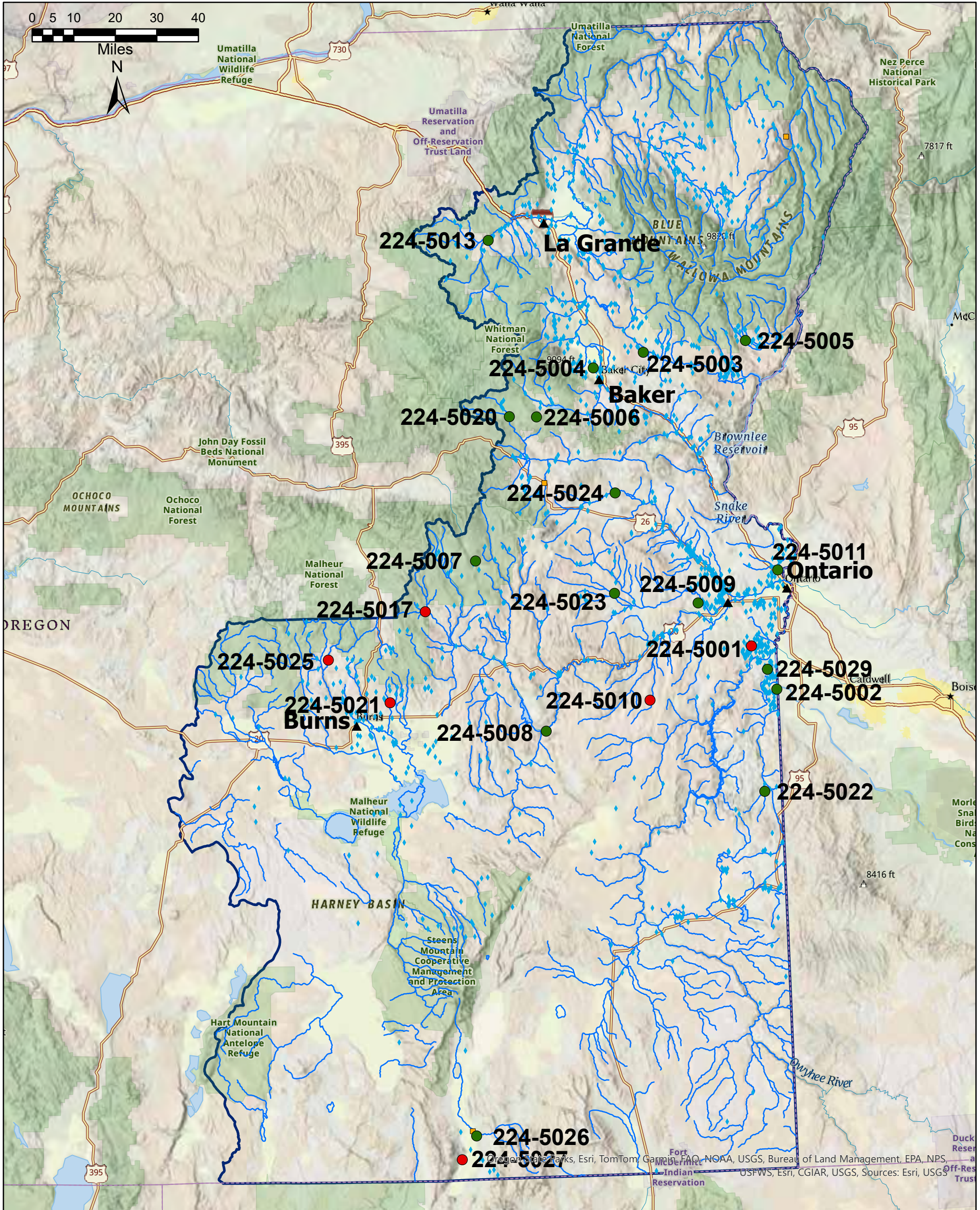
### Staff Recommended Amount

\$74,989

### Staff Conditions

N/A

# Eastern Oregon - Region 5 Fall 2023 Funding Recommendations



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 NAD 1983 Oregon Statewide Lambert (Intl Feet) 3/13/2024 10:54 AM

**Funding Recommendation**

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

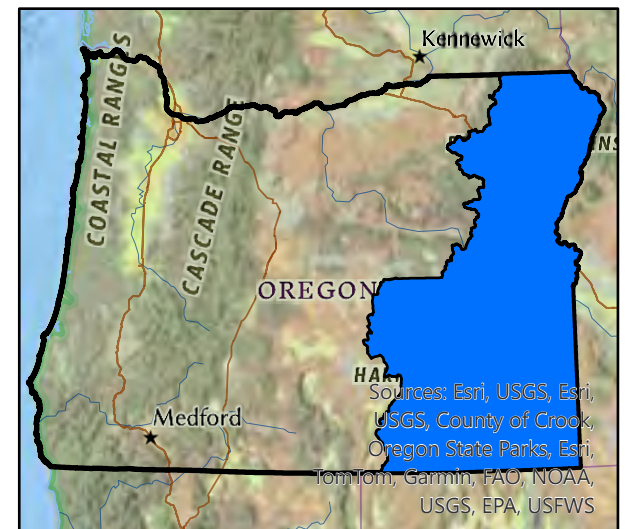
**Previous Grants 1998 - Spring 2022**

- Land Acquisition
- ◆ Restoration
- ▲ Region 5 Cities
- Region 5 Streams
- ▭ OWEB Region 5 Boundary



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Sources: Esri, USGS, Esri, USGS, County of Crook, Oregon State Parks, Esri, TomTom, Garmin, FAO, NOAA, USGS, EPA, USFWS

Oregon Watershed Enhancement Board: Region 5 Restoration, Technical Assistance, and Engagement

Region 5 - Eastern Oregon Restoration				
Projects RECOMMENDED for Funding in Priority Order				
Project #	Grantee	Project Title	Brief Description	Amount Recommended
224-5007	Malheur WC	Filling the Leaks in Crane Creek	Crane Creek, a bull trout-bearing tributary to the north fork of the Malheur River will undergo stage 0 restoration to return the riverbed to its original elevation. The project also includes constructed instream wood habitat features, streamside planting, and plant protection. Restoration will restore aquatic, streamside, and valley bottom habitats on Crane Creek.	\$ 210,350
224-5006	Powder Basin WC	Trout Creek Ecosystem Resiliency	A low-tech processed-based restoration approach will be used to restore aquatic, streamside, and valley bottom habitats important for beaver, redband trout, and Columbia spotted frog in the north fork of the Burnt River watershed.	\$ 118,543
224-5002	Owyhee WC	Red Hawk Water Quality Improvement	Sediment, nutrient, and bacteria impacts on water quality in the Snake River will be reduced by converting 151 flood-irrigated acres to sprinkler application.	\$ 131,649
224-5003	Keating SWCD	Duncan Ditch Irrigation	Sediment, nutrient, and bacteria impacts on water quality in the Powder River will be reduced by converting 120 flood-irrigated acres to sprinkler irrigation.	\$ 202,127
224-5004	Baker Valley SWCD	Palmer-Denham Irrigation	Flood irrigation on forty acres will be converted to sprinkler application and an irrigation delivery ditch will be abandoned to improve water quality in the Powder River.	\$ 71,159
224-5005	Eagle Valley SWCD	Halfway Habitat Restoration Project	Degraded streamside vegetation, eroding streambanks, and compromised aquatic habitat will be restored to improve bull trout viability in the Pine Creek basin near Halfway.	\$ 72,835
224-5013	Tri-County CWMA	Upper Grande Ronde Invasive Weed Control 2024-2026	Leafy spurge, spotted knapweed, rush skeleton weed, and diffuse knapweed will be contained and controlled on the upper Grande Ronde River to continue a long-standing effort to improve upland, streamside, and aquatic habitats.	\$ 106,836
224-5008	Malheur WC	Travelling Riverside Blues	Two livestock water gaps will be removed and replaced with watering troughs to improve streamside vegetation, aquatic habitat, and water quality in an Oregon Department of Fish and Wildlife management area on the Malheur River.	\$ 93,079
224-5009	Malheur WC	Steely Eyed Water Quality Improvement revisited	Water quality in Bully Creek, a tributary to the Malheur River, will be improved by converting seventy-five flood irrigated acres to sprinkler irrigation.	\$ 153,221
224-5011	Malheur WC	In the Hart of Jacobsen Gulch revised	Twenty flood-irrigated acres will be converted to sprinkler application to improve water quality in Jacobsen Gulch, a tributary to the Snake River.	\$ 43,655
<b>Total Restoration Projects Recommended for Funding by RRT and OWEB Staff</b>				<b>1,203,454</b>
Projects Recommended but NOT FUNDED in Priority Order				
Project #	Grantee	Project Title	Brief Description	Amount Recommended
224-5017	Malheur WC	Hey Rip Van Winkle! Wake Up. Time to Cut Trees!	Encroaching Juniper and small pine will be thinned on 640 acres in northern Malheur County to improve forest health, wildlife habitat, and reduce the likelihood of catastrophic wildfire.	\$ 171,508
224-5010	Malheur WC	Further On Down The Road. Mile Post 56 Phase II	Flood irrigation on 125 acres will be converted to sprinkler application to improve water quality in the Malheur River.	\$ 157,689
224-5001	Owyhee WC	Pollywog Water Quality Improvement	Twelve flood-irrigated acres will be converted to sprinkler application to improve water quality in the lower Owyhee River.	\$ 104,351
Projects NOT RECOMMENDED for Funding by RRT				
Project #	Grantee	Project Title	Amount Requested	
224-5018	Wallowa Resources	Upper Wallowa River Restoration Project	\$ 524,591	

Oregon Watershed Enhancement Board: Region 5 Restoration, Technical Assistance, and Engagement

**Region 5 - Eastern Oregon Technical Assistance**

<b>Projects RECOMMENDED for Funding in Priority Order</b>				
Project #	Grantee	Project Title	Brief Description	Amount Recommended
224-5020	Powder Basin WC	Designing for Beaver in the Burnt River Basin	Final design and environmental permitting will be completed for low-tech process-based beaver habitat and valley bottom restoration on six streams in the North Fork Burnt River watershed.	\$ 73,200
224-5023	Malheur WC	Seeking Justus on Bully Creek Phase II TA	Preliminary designs and permitting will be completed for a stream restoration project near Wesfall that will improve water quality, streamside vegetation, and upland habitats important for native fish and wildlife in the area.	\$ 58,339
224-5024	Malheur WC	Willow Creek Again TA	Preliminary designs and permitting will be completed for a stream restoration project located in core sage-grouse habitat near Brogan. The project will improve redband trout and beaver habitats, water quality, and floodplain function.	\$ 56,139
224-5022	Owyhee WC	Rockville Basin Stream Restoration Design	Final design and permitting will be completed for a stream restoration project near Rockville that will improve water quality, streamside vegetation, and upland habitat in an area important for sage-grouse conservation.	\$ 56,155
224-5026	Harney SWCD	Casey Wet Meadow Floodplain Diversion Restoration	Preliminary designs that address degraded flood irrigation infrastructure will be completed to develop a restoration project that will benefit Pacific Flyway migratory birds in southern Harney County.	\$ 96,386
<b>Total Technical Assistance Projects Recommended for Funding by RRT and OWEB Staff</b>				<b>340,219</b>

**Projects Recommended but NOT FUNDED in Priority Order**

Project #	Grantee	Project Title	Brief Description	Amount Recommended
224-5025	Harney County Watershed Council	Smith Brothers Floodplain Infrastructure	Preliminary designs will be completed for an irrigation infrastructure improvement project that will benefit sage-grouse, aquatic species, and migratory waterfowl north of Burns.	\$ 95,853
224-5021	Harney County Watershed Council	Soldier Creek Wet Meadow Restoration Project	Preliminary designs will be completed for an irrigation water management and stream restoration project that will benefit migratory waterfowl and aquatic species northeast of Burns.	\$ 95,853
224-5027	Harney SWCD	Colony Creek Wet Meadow Flood Irrigation	Preliminary designs will be completed for an irrigation water management project that will benefit migratory waterfowl and aquatic species in southern Harney County.	\$ 93,341

**Projects NOT RECOMMENDED for Funding by RRT**

Project #	Grantee	Project Title	Amount Requested
224-5019	Owyhee Irrigation District	Design of Kingman Lateral	\$ 49,506

**Region 5 - Eastern Oregon Engagement**

**Projects RECOMMENDED for Funding in Priority Order**

Project #	Grantee	Project Title	Brief Description	Amount Recommended
224-5029	Owyhee WC	Owyhee Collab and Confab	Agricultural landowners and natural resource management agencies will be engaged to develop projects that will improve rangeland conditions and water quality in the Owyhee and Malheur watersheds.	\$ 72,312
<b>Total Engagement Projects Recommended for Funding by RRT and OWEB Staff</b>				<b>72,312</b>

Oregon Watershed Enhancement Board: Region 5 Restoration, Technical Assistance, and Engagement

Projects Recommended but NOT FUNDED in Priority Order				
Project #	Grantee	Project Title	Brief Description	Amount
NONE				

Projects NOT RECOMMENDED for Funding by RRT				
Project #	Grantee	Project Title	Amount Requested	
NONE				

<b>Region 5 Total OWEB Staff Recommended Board Award</b>	<b>1,615,985</b>
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<b>Region 1 - 6 Grand Total OWEB Staff Recommended Board Award</b>	<b>11,378,813</b>
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# Open Solicitation-Open Solicitation Fall 2023 Restoration

Eastern Oregon (Region 5)

**Application Name:** 224-5001-23228

**Project Type:** Restoration

**Project Name:** Pollywog Water Quality Improvement

**Applicant:** Owyhee WC

**Region:** Eastern Oregon

**County:** Malheur

**OWEB Request:** \$104,351

**Total Cost:** \$133,617

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**Application Description** The Pollywog Water Quality Improvement project is located 6.6 miles NW of Adrian between the Cow Hollow and Twilight Water Quality Improvement areas. The project area consists of 12 acres of furrow irrigated row crop farmland. Tailwater containing sediment, nutrients and bacteria flow off the project area through a series of small drainages then into the Lower Owyhee River. Slopes in the project area range from 2-8%. These steep slopes combined with overland flow irrigation methods soil erosion rates are increased across a greater portion of the project. The proposed work includes converting 12 acres from furrow irrigation to sprinkler irrigation through the installation of 105 solid set sprinklers and all required water conveyance, pressurization, and electrical infrastructure. Project partners include the landowner, Owyhee Watershed Council and Agrilines Irrigation.

## Review Team Evaluation

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### Strengths

- The application has clear objectives and activities for achieving the objectives. The restoration methods are clearly defined and appropriate to address degraded water quality in the Owyhee River Basin.
- The maps and handouts included in the application provide ample detail for understanding the project vicinity and locations of proposed restoration components along with its proximity to prior implemented projects.
- The irrigation system will serve as a demonstration to other landowners and may encourage future water conservation projects.
- The application identifies five restoration alternatives, and the applicant will implement the appropriate alternative based on field shape and economic feasibility. For example, the solid set irrigation is appropriate for the topography at the project site.
- The new irrigation system will reduce sediment, nutrient, and bacteria runoff from the project site, which will improve water quality in the Lower Owyhee River. Flood to sprinkler irrigation conversion is a DEQ Total Maximum Daily Load (TMDL) action plan priority.

- The Owyhee Watershed Council has a proven track record of managing projects as proposed and according to the project schedule.
- Project costs are substantiated with an irrigation company bid, reflect costs necessary to implement the irrigation conversion, and is based on current market rates.

### **Concerns**

- No concerns were expressed at review.

### **Concluding Analysis**

Converting twelve flood irrigated acres to solid set irrigation will reduce irrigation wastewater in the project area and reduce sediment, nutrient, and bacteria runoff. The project is likely to succeed in continuing work in the Adrian area that implements ODA and the DEQ water quality improvement objectives for the Owyhee and Snake Rivers.

### **Review Team Recommendation to Staff**

Fund

### **Review Team Priority**

13 of 13

### **Review Team Recommended Amount**

\$104,351

### **Review Team Conditions**

N/A

### **Staff Recommendation**

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#### **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-Open Solicitation Fall 2023 Restoration

Eastern Oregon (Region 5)

**Application Name:** 224-5002-23230

**Project Type:** Restoration

**Project Name:** Red Hawk Water Quality Improvement

**Applicant:** Owyhee WC

**Region:** Eastern Oregon

**County:** Malheur

**OWEB Request:** \$131,649

**Total Cost:** \$366,349

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**Application Description** The Red Hawk Water Quality Improvement project is located 5 miles SE of Adrian in the Black Jack Butte Water Quality Improvement area. The project area consists of 151 acres of furrow irrigated row crop farmland. Tailwater containing sediment, nutrients and bacteria flow off the project area into a small drainage then directly into the Snake River. The proposed work includes converting 151 acres from furrow irrigation to sprinkler irrigation through the installation of 2 pivot sprinkler systems and all required water conveyance, pressurization, and electrical infrastructure. Project partners include the landowner, Owyhee Watershed Council and Agrilines Irrigation.

## Review Team Evaluation

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### Strengths

- The application has clear objectives and activities for achieving the objectives. The restoration methods are clearly defined and appropriate to address degraded water quality in the Snake River Basin.
- The maps and handouts included in the application provide ample detail for understanding the project vicinity and proposed restoration components, along with its proximity to prior implemented projects.
- Pivot irrigation is appropriate for the topography. The irrigation system will serve as a demonstration to other landowners and may encourage future water conservation projects.
- The application identifies four restoration alternatives, and the applicant will implement the appropriate alternative based on field shape, economic feasibility, and crop rotation.
- The new irrigation system will reduce sediment, nutrient, and bacteria runoff from the project site, which will improve water quality in the Snake River. Flood to sprinkler irrigation conversion is a DEQ Total Maximum Daily Load (TMDL) action plan priority.
- The Owyhee Watershed Council has completed irrigation water management projects near Adrian and has the capacity to implement the project as proposed.
- The Owyhee Watershed Council has a proven track record of managing projects as proposed and according to the project schedule.

- Project costs are substantiated with an irrigation company bid, reflect costs necessary to implement the irrigation conversion, and is based on current market rates.

### **Concerns**

- The application lacks details describing the restoration approach for the field corners that will not be irrigated post project, and it is unclear how weeds and invasive plants will be managed.

### **Concluding Analysis**

Converting 151 flood irrigated acres to pivot irrigation will reduce irrigation wastewater in the project area and reduce sediment, nutrient, and bacteria runoff. The project is likely to succeed in continuing work in the Adrian area that implements ODA and the DEQ water quality improvement objectives for the Snake River.

### **Review Team Recommendation to Staff**

Fund

### **Review Team Priority**

3 of 13

### **Review Team Recommended Amount**

\$131,649

### **Review Team Conditions**

N/A

### **Staff Recommendation**

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### **Staff Follow-Up to Review Team**

N/A

### **Staff Recommendation**

Fund

### **Staff Recommended Amount**

\$131,649

### **Staff Conditions**

N/A

# Open Solicitation-Open Solicitation Fall 2023 Restoration

Eastern Oregon (Region 5)

**Application Name:** 224-5003-23231

**Project Type:** Restoration

**Project Name:** Duncan Ditch Irrigation

**Applicant:** Keating SWCD

**Region:** Eastern Oregon

**County:** Baker

**OWEB Request:** \$202,127

**Total Cost:** \$413,973

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**Application Description** Located within the Keating SWCD and in the Keating Valley just 24 miles east of Baker City, Oregon; this project site falls within the Lower Powder Strategic Implementation Area (SIA), a focus area that was established in association with Oregon Department of Agriculture's Water Quality Program.

This property utilizes flood irrigation water, diverted from the Powder River via the Duncan Ditch and Basche Ditch to irrigate 120 acres of pasture/hay ground. Flood irrigation at this site is found to be the least efficient manner of irrigation. When the ground is flooded, more water than is necessary for the vegetation, or that can be held by the soil is applied to the field, causing marshy saturated ground, increased erosion and runoff, and excess sediment inputs into the Powder River Watershed. Not only is this impacting water quality on this Oregon Department of Environmental Quality (DEQ) 303(d) listed stream, but the current irrigation practices are flooding the neighboring property, misusing irrigation water.

The Duncan Ditch Irrigation Project proposes to convert from flood to two center pivots with two pumping stations (one on the Basche Ditch and one on the Duncan Ditch) to irrigate 120 acres of pasture ground more efficiently; two pumping stations are necessary due to the Basche Ditch being unable to handle the additional water flow on its own.

The landowner is partnering with Keating SWCD and the Lower Powder Irrigation District to install this project and improve water quality in the Powder River Watershed.

## Review Team Evaluation

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### Strengths

- The restoration methods are clearly defined and appropriate to address degraded water quality in the Powder River Basin.
- The maps uploaded with the application show that the work is within an Oregon Department of Agriculture (ODA) Strategic Implementation Area (SIA) and Oregon Department of Environmental Quality (DEQ) conducts water quality monitoring in the area, demonstrating the water quality improvement work is a priority for both agencies.
- Converting from flood to sprinkler irrigation will improve water quality and quantity in the Powder River, a priority stream for conservation in the Keating Valley.

- When installed, the irrigation conversion may be a catalyst for other conservation projects in the Lower Powder SIA, which is an area where landowners have not completed many conservation practices in the past.
- The landowner is actively working to improve stock water and irrigation practices on their property, indicating the irrigation system is likely to be implemented and operated as proposed.
- The project team, including the landowner, have the capacity to implement and maintain the project as proposed.
- The Keating SWCD has a proven track record of managing and completing projects as proposed and according to the project schedule.
- The budget reflects costs necessary to implement the irrigation conversion and is based on current market rates.

### **Concerns**

- No significant concerns were discussed at review.

### **Concluding Analysis**

Converting 120-acres from flood to sprinkler irrigation in the Keating Valley will reduce water diversion for current crop production and improve water quality in the Powder River. Improving water resource conditions at the project site will support implementation of ODA's Lower Powder SIA program. The Partnership of the Keating SWCD and the landowner may encourage additional on-farm conservation in the area. Irrigation water management is a top priority for the Powder River Basin and irrigation conversion is likely to succeed in providing a watershed benefit.

### **Review Team Recommendation to Staff**

Fund

### **Review Team Priority**

4 of 13

### **Review Team Recommended Amount**

\$202,127

### **Review Team Conditions**

N/A

### **Staff Recommendation**

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### **Staff Follow-Up to Review Team**

N/A

### **Staff Recommendation**

Fund

### **Staff Recommended Amount**

\$202,127

**Staff Conditions**

N/A

# Open Solicitation-Open Solicitation Fall 2023 Restoration

Eastern Oregon (Region 5)

**Application Name:** 224-5004-23232

**Project Type:** Restoration

**Project Name:** Palmer-Denham Irrigation

**Applicant:** Baker Valley SWCD

**Region:** Eastern Oregon

**County:** Baker

**OWEB Request:** \$71,159

**Total Cost:** \$122,159

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**Application Description** The Palmer-Denham Irrigation Project is located in Baker Valley, five miles northwest of Baker City, Oregon and just one mile from the Powder River. The site utilizes flood irrigation water on 40 acres of pasture ground, conveyed via the 17th Street Ditch to the Palmer-Denham ditch, an open earthen ditch that stretches across and irrigates the property. Flood water runoff at the site is contributing to erosion concerns, sediment inputs and water quality impacts to the Powder River, an Oregon Department of Environmental Quality (DEQ) 303(d) list stream.

The project proposes installing 2,550 feet of mainline and one five tower pivot, converting 40 acres of flood irrigated pasture ground to a more efficient sprinkler irrigation system. With the new system in place, this section of the earthen Palmer-Denham Ditch will be decommissioned (as supported by the landowner and the Baker Valley Irrigation District) eliminating erosion and flood irrigation runoff concerns at the site entirely. The landowner, Ward Farms, is partnering with the Baker Valley Soil and Water Conservation District, the Baker Valley Irrigation District, and Living Water Irrigation to install the project, improve water use efficiency, and mitigate the current water quality concerns.

## Review Team Evaluation

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### Strengths

- The irrigation conversion methods are clearly defined and appropriate to address degraded water quality in the Powder River Basin.
- The maps included in the application provide ample detail for understanding the project vicinity and proposed restoration components, along with its proximity to prior implemented projects.
- Converting from flood to sprinkler irrigation will have water quality and quantity benefits to the Powder River, a priority stream for conservation in the Baker Valley.
- The application identifies three restoration alternatives, and the applicant will implement the appropriate alternative based on field shape, economic feasibility, and crop rotation.
- When installed, the irrigation conversion may be a catalyst for other irrigation water management projects in the area.

- The landowner is actively working to improve irrigation practices on their property, indicating the irrigation system is likely to be implemented and operated as proposed.
- The project team, including the landowner, have the capacity to implement and maintain the project as proposed.
- The Baker Valley SWCD has a proven track record of managing and completing projects as proposed and according to the project schedule.
- The budget reflects costs necessary to implement the irrigation conversion and is based on current market rates.

### **Concerns**

- No concerns were discussed at review.

### **Concluding Analysis**

Converting forty flood irrigated acres to pivot irrigation will reduce irrigation wastewater in the project area and reduce sediment, nutrient, and bacteria runoff. The project is likely to succeed in continuing work in the Baker City area that implements ODA and the DEQ water quality improvement objectives for the Powder River.

### **Review Team Recommendation to Staff**

Fund

### **Review Team Priority**

5 of 13

### **Review Team Recommended Amount**

\$71,159

### **Review Team Conditions**

N/A

### **Staff Recommendation**

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### **Staff Follow-Up to Review Team**

N/A

### **Staff Recommendation**

Fund

### **Staff Recommended Amount**

\$71,159

### **Staff Conditions**

N/A

# Open Solicitation-Open Solicitation Fall 2023 Restoration

Eastern Oregon (Region 5)

**Application Name:** 224-5005-23235

**Project Type:** Restoration

**Project Name:** Halfway Habitat Restoration Project

**Applicant:** Eagle Valley SWCD

**Region:** Eastern Oregon

**County:** Baker

**OWEB Request:** \$66,250

**Total Cost:** \$122,685

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**Application Description** Pine Creek, a tributary to the Snake River, runs through the property and is adjacent to the project site, located about one mile from Halfway, Oregon. Pine Creek is deemed “Critical Habitat Designated for Bull Trout” in the Pine/Indian/Wildhorse Core Area, and was recently ranked fourth out of 23 habitat areas of importance; it has been a key focus for fish recovery over the past decade due to efforts by Oregon Department of Fish and Wildlife (ODFW), Idaho Power Company, Powder Basin Watershed Council and Eagle Valley SWCD to re-establish migratory Bull Trout populations within Pine Creek.

The proposed Halfway Habitat Restoration project is a continuation of work that began under the recently completed Technical Assistance Grant #222-5042 Halfway to Fix Fish Habitat. Through the TA we have obtained all required permits (Oregon Department of State Lands GA and Baker County Flood Plain) as well as received a 90% construction-ready design to address the bank erosion, sedimentation, degraded fish habitat, and loss of riparian vegetation concerns that the site continues to experience.

Project partners include the landowner, Eagle Valley SWCD, Idaho Power Company, and US Fish and Wildlife Service (USFWS) who have reviewed the proposed project and are in full support. Idaho Power Company will provide construction oversight via an on-staff engineer and fish biologist.

## Review Team Evaluation

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### Strengths

- The scope of work in the proposed solution section of the application has clear objectives and activities for reducing bank erosion, improving aquatic habitat, and restoring riparian vegetation.
- The project follows a technical assistance phase and is ready for implementation with secured match, environmental permitting in process, and 90% design plans.
- The maps and photos included in the application provide ample detail for understanding the project vicinity and proposed restoration components, along with its proximity to prior implemented projects.
- The proposed restoration approach is technically sound, is substantiated with a 90% design package, and incorporates stream restoration methods to improve bull trout habitat and water quality that have been proven effective in the Pine Creek area.

- The proposed restoration will address water quality improvement actions identified in local planning efforts by Oregon Department of Agriculture (ODA) and Department of Environmental Quality (DEQ), and US Fish and Wildlife Service (USFWS) bull trout recovery guidance.
- The project team, including the landowner, have the capacity to implement and maintain the project as proposed. The project team is experienced with similar restoration efforts.
- The Eagle Valley SWCD has a proven track record of managing and completing projects as proposed and according to the project schedule.
- The budget reflects costs necessary to implement the restoration and is based on current market rates.
- Construction materials, including trees and boulders, will be sourced on-site and near the work area, which improves the cost effectiveness of the project.

### **Concerns**

- USFWS may provide match funding for the project. For this to occur, cultural resources and Endangered Species Act (ESA) consultation are required and the status of these environmental compliance requirements is unclear.
- The restoration approach may not match the site conditions. The large wood may be undersized for Pine Creek high flow conditions and the identified planting methods may be insufficient to achieve robust plant survival.

### **Concluding Analysis**

The Eagle Valley SWCD is proposing to restore fish habitat, riparian function, and improve water quality on Pine Creek near Halfway. The restoration is prioritized in bull trout regional assessments and recovery plans from USFWS and Oregon Department of Fish and Wildlife. The project is likely to succeed in restoring stream function and habitat by reducing erosion, increasing shade and improving water quality that will benefit native migratory fish.

### **Review Team Recommendation to Staff**

Fund

### **Review Team Priority**

6 of 13

### **Review Team Recommended Amount**

\$66,250

### **Review Team Conditions**

N/A

### **Staff Recommendation**

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### **Staff Follow-Up to Review Team**

N/A

**Staff Recommendation**

Fund Increased

**Staff Recommended Amount**

\$72,835

**Staff Conditions**

A budget error for the indirect costs was found in the staff budget review. Indirect costs should be moved from external cash to the column for OWEB funds to provide the Federally Accepted 'de minimis' Indirect Cost Rate. This will increase the OWEB award to \$72,835.

# Open Solicitation-Open Solicitation Fall 2023 Restoration

Eastern Oregon (Region 5)

**Application Name:** 224-5006-23251

**Project Type:** Restoration

**Project Name:** Trout Creek Ecosystem Resiliency

**Applicant:** Powder Basin WC

**Region:** Eastern Oregon

**County:** Baker

**OWEB Request:** \$118,543

**Total Cost:** \$230,002

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**Application Description** This project is on Trout Creek in the North Fork Burnt River watershed, approximately 40 miles southwest of Baker City, southeast of Whitney Valley on lands administered by the Whitman Ranger District of the Wallowa Whitman National Forest. Watershed issues addressed are: 1) degraded groundwater recharge and water storage functions, 2) limited water table maintenance supporting narrower riparian vegetation communities, 3) limited zones for water quality filtering, and 4) excessive bank erosion resulting in streambeds with abundant fine silts. Throughout the 2.5-mile project reach, the creek is incised, not connected with its broad historic floodplain, and beaver are not present. The result is a stream with an altered potential riparian vegetation community including upland species, simplified aquatic habitat and one that is more efficient at routing water out of the system. Both Trout Creek and the North Fork Burnt River experience very low summer base flows and water temperatures that exceed state water quality standards (303d water quality impaired for water temperature). We propose to utilize low-tech process-based restoration techniques (beaver dam analogues – BDAs and post-assisted log structures - PALS) to reconnect Trout Creek with its historic floodplain and facilitate restoration of the native willow community by fencing to exclude ungulates from four protection areas (totaling 5.54 acres) and developing upland water sources for domestic livestock. This is a collaborative project between the Powder Basin Watershed Council and Wallowa Whitman National Forest, Whitman Ranger District (WWNF). OWEB funds will be used to support PBWC staff, pay youth crews to implement the work, contract upland water developments, and purchase supplies (PPE, equipment and tools). Funds have been secured through the WWNF Blues Collaborative Forest Landscape Restoration Program (CFLRP) to construct buck and pole fencing for the riparian protection areas.

## Review Team Evaluation

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### Strengths

- Previous application evaluation concerns are addressed by including an updated project design, adding clarity regarding environmental compliance requirements, providing locations of stock watering facilities, and using lessons learned from completing a similar project in the summer of 2023 to inform the budget, construction labor, and implementation effectiveness.
- Site appropriate restoration methods will be used that include low-tech process-based techniques, such as beaver dam analogs (BDA) and post assisted log structures (PALS), to improve water storage function, riparian vegetation communities, and water quality on Trout Creek.

- Upland livestock watering systems will be installed, providing infrastructure to help keep domestic livestock away from Trout Creek and increase the chance of achieving expected stream restoration outcomes.
- The project concept is based on a similar project on Camp Creek in Baker County administered by the Powder Basin Watershed Council.
- The project will address watershed limiting factors, including stream channel incision, floodplain disconnection, limited valley bottom water storage, and degraded riparian vegetation conditions. Restoring aquatic and valley bottom ecosystem habitats will benefit beaver, redband trout, and Columbia spotted frog, which are species of concern in Oregon.
- The project team has the capacity and relevant experience to implement the project.
- The applicant has a consistent track record for implementing similar high-quality projects in Baker County.
- The overall project cost is reasonable for the expected watershed benefits and the budget is built from recent experience on a nearby similar type project.

### **Concerns**

- Including a description in the application of the results from the Camp Creek project installed in 2023 would be helpful to evaluate whether the restoration approaches are appropriate solutions for the proposed project site.

### **Concluding Analysis**

The Powder Basin Watershed Council proposes to restore a 2.5-mile reach of the Trout Creek aquatic and valley bottom ecosystem 45-miles southwest of Baker City. The project outcomes will provide ecosystem services by distributing cold and clean water temporally and spatially, providing abundant quality fish and wildlife habitat and increasing resiliency to wildland fire.

### **Review Team Recommendation to Staff**

Fund

### **Review Team Priority**

2 of 13

### **Review Team Recommended Amount**

\$118,543

### **Review Team Conditions**

N/A

### **Staff Recommendation**

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### **Staff Follow-Up to Review Team**

N/A

**Staff Recommendation**

Fund

**Staff Recommended Amount**

\$118,543

**Staff Conditions**

N/A

# Open Solicitation-Open Solicitation Fall 2023 Restoration

Eastern Oregon (Region 5)

**Application Name:** 224-5007-23256

**Project Type:** Restoration

**Project Name:** Filling the Leaks in Crane Creek

**Applicant:** Malheur WC

**Region:** Eastern Oregon

**County:** Grant

**OWEB Request:** \$210,350

**Total Cost:** \$405,065

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## Application Description

1) Project Location: Crane Prairie, near where Crane Creek crosses the FS 1663 road, 24 air miles from the town of Prairie City, OR.

2) Project Need: Crane Creek is a perennial fish-bearing stream within the Upper North Fork Malheur watershed and Crane Creek sub-watershed. From its confluence with the North Fork Malheur River up to the intersection with Little Crane Creek, Crane Creek is also critical habitat for Bull Trout. Above this confluence Crane Creek is considered a temperature barrier for Bull Trout, in large part due to degraded conditions within its headwater reaches. Within Crane Prairie, a broad depositional reach approximately 5 miles upstream from Critical Habitat, Crane Creek has incised over 3 feet and stream functions are impaired due to homogenous, single-thread channel habitat as well as consistently high summer temperatures and inadequate riparian vegetative cover.

3) Proposed work: The project reach is 4,750 linear feet and will cover about 30 acres of riparian and wet meadow.

Restoration activities will include:

- Redistribute sediment in up to 30 acres of valley bottom to fill incised channels, raise streambed elevation, which will reactivate a complex network of channels and wetlands.
- We estimate this will be a little less than 4,000 cubic yards of removal and 4,000 cubic yards of fill.
- Strategically place 125 whole trees and 125 racking logs and tops from upland areas near the project site, in addition to 500 cubic yards of slash within the Crane Creek valley bottom.
- Plant approximately 5,000 willow stakes and 4,000 potted plants including alder, cottonwood, and aspen.
- Construct 0.25 miles of snow fence to exclude 80 acres of pasture along Crane Creek from livestock grazing
- Thin, hand pile, and burn 27 acres adjacent to Crane Prairie

4) Project partners include the Prairie City Ranger District USFS, Oregon Department of Fish & Wildlife, Oregon Natural Desert Association, Burns Paiute Tribe, and the Malheur WSC.

## Review Team Evaluation

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### Strengths

- Maps, water quality data, photos, designs, and planting plan included with the application clearly describe the proposed project.
- The proposed restoration approach is technically sound and is leveraging similar stream restoration on Summit Creek, a nearby stream where restoration to stage 0 conditions was successful.
- The project implementation schedule is reasonable for the project designs and the construction sequence is appropriate for stage 0 restoration.
- The proposed restoration will address actions identified in local, state, and federal bull trout recovery plans by restoring the stream channel form and function, floodplain connectivity, and reestablishing riparian vegetation.
- The planting plan and subsequent plant protection methods are appropriate to restore the riparian area.
- The project team, including US Forest Service habitat restoration personnel, has a consistent track record for designing and implementing similar high-quality projects.
- The applicant has a proven track record for implementing riparian planting projects.
- Project costs are commensurate with the expected watershed benefits to stream, floodplain, and riparian habitats, as well as water quality.

### **Concerns**

- The photos included in the application lack dates, which would be helpful context to understand how they relate to the proposed project.

### **Concluding Analysis**

A stage 0 restoration approach is proposed to improve aquatic, riparian, and wet meadow habitat conditions. This restoration approach has proven to provide significant ecological value for the cost in similar landscapes and the design was reviewed by the US Forest Service regional stream restoration team. This project is likely to succeed in providing significant ecological value for the investment.

### **Review Team Recommendation to Staff**

Fund

### **Review Team Priority**

1 of 13

### **Review Team Recommended Amount**

\$210,350

### **Review Team Conditions**

N/A

## Staff Recommendation

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### Staff Follow-Up to Review Team

N/A

### Staff Recommendation

Fund

### Staff Recommended Amount

\$210,350

### Staff Conditions

N/A

# Open Solicitation-Open Solicitation Fall 2023 Restoration

Eastern Oregon (Region 5)

**Application Name:** 224-5008-23278

**Project Type:** Restoration

**Project Name:** Travelling Riverside Blues

**Applicant:** Malheur WC

**Region:** Eastern Oregon

**County:** Malheur

**OWEB Request:** \$93,079

**Total Cost:** \$124,629

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## Application Description

1) Adjacent to Riverside, Oregon on ODFW's Riverside Wildlife Management Area property.

2) Cattle are using two large water gaps on the Malheur River to access water from two upland pastures. The gaps cross ODFW owned and managed land, but serve as the only water source for the BLM pastures.

The gaps are poorly designed. They are too large and the cattle can easily skirt around the fences and access the adjacent protected riparian areas. Cattle are degrading the riparian area vegetation for a substantial length of the Malheur River.

The slopes down to the river are very steep. Cattle are reluctant to go back up the hill once they have had a drink. Like one rancher says "Gravity sucks." This is an added incentive for them to go around the fences and graze the riparian area. The steepness also adds to the problem of erosion, and the potential for sediment reaching the river.

The lack of riparian vegetation is negatively affecting redband trout, aquatic habitat, and water quality in the Malheur River.

3) We are proposing to:

- close both water gaps ,
- drill two wells for livestock water to a depth of 120 feet,
- install solar pumps and solar panels to deliver water to troughs,
- install 8 (4 at each site) 1,700 gallon rubber tire troughs, which is enough for 3-days storage for 120 Cow/calf pairs at the hottest time of the year,
- install 200 feet of pipe (1.5" pvc schedule 40) to deliver water to the troughs,
- 600 feet of heavy duty fence to protect the wells and solar panels.

4) Partners are ODFW, and the Malheur WSC.

## Review Team Evaluation

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### Strengths

- Maps, photos, designs, and well log research included with the application clearly describe the proposed project.
- The restoration methods are clearly defined and appropriate to address degraded riparian habitat on Oregon Department of Fish and Wildlife (ODFW) managed property by replacing streamside water gaps with solar powered pump well sourced watering troughs for livestock use.
- The proposed placement of the off-channel livestock watering system is technically sound and based on lessons learned from nearby wells.
- Riparian habitat restoration, water quality improvement, and improved livestock management are all prioritized actions for the project reach in the Malheur River and identified in several watershed and wildlife restoration action plans.
- The proposed restoration will address known sources of water quality impairment, specifically stream temperature and bacteria, that are identified in the Malheur River total maximum daily load (TMDL) action plan.
- Redband trout, an Oregon listed species of concern, occupy this reach of the Malheur River and the proposed restoration will improve habitat for this sensitive species.
- The applicant and project team has a consistent track record for implementing similar high-quality projects, including riparian planting, fencing, and livestock management in Malheur County.
- Project costs are commensurate with the expected watershed benefits to stream and riparian habitats, as well as water quality.

### **Concerns**

- It is difficult to determine where the wells will be located due to the coarse scale of the maps provided.
- One well will be located near a road, and it is unclear how this location will be secure from vandalism.
- It is unclear how moving the domestic livestock away from the Malheur River will impact adjacent uplands and if the installed watering system is sufficient to encourage balanced forage utilization throughout the upland pastures.

### **Concluding Analysis**

The Malheur Watershed Council is proposing to restore aquatic habitat and riparian function and improve water quality on the Malheur River near Riverside. The restoration is an Oregon Department of Environmental Quality and Oregon Department of Fish and Wildlife priority. The project is likely to succeed in achieving the expected watershed benefits.

### **Review Team Recommendation to Staff**

Fund

**Review Team Priority**

8 of 13

**Review Team Recommended Amount**

\$93,079

**Review Team Conditions**

N/A

**Staff Recommendation**

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**Staff Follow-Up to Review Team**

N/A

**Staff Recommendation**

Fund

**Staff Recommended Amount**

\$93,079

**Staff Conditions**

N/A

# Open Solicitation-Open Solicitation Fall 2023 Restoration

Eastern Oregon (Region 5)

**Application Name:** 224-5009-23283

**Project Type:** Restoration

**Project Name:** Steely Eyed Water Quality Improvement revisited

**Applicant:** Malheur WC

**Region:** Eastern Oregon

**County:** Malheur

**OWEB Request:** \$153,221

**Total Cost:** \$309,979

## Application Description

- 1) The project is located in the Vale Bench priority area approximately 10 air miles from Vale.
  
- 2) Water quality improvement in the Malheur Basin is one of the top restoration priorities. The current flood-irrigation system impairs water quality through bacteria and chemical-laden runoff during irrigation. 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-plus years across the Malheur Basin. This is one of Malheur WSC's first projects in the new priority area in the Vale Bench. Malheur WSC recently was successful in obtaining a BOR WaterSmart grant which will pipe irrigation delivery canals in the Vale Bench Priority area. Piping the earthen laterals will save water and improve water management.
  
- 3) We plan to improve water quality in Bully Creek and the Malheur River by converting 75 acres of flood-irrigated pasture and hay fields to sprinkler irrigation by installing:
  - Pivot 1
  - Pivot 2
  - 20 HP pump
  - 5 HP pump
  - pivot tie in (2)
  - pump station 1
  - pump station 2
  - electrical allowance
  - 2400 feet of conduit
  - 2400 feet of 6-inch pipe
  - 7624 feet 4-inch pipe
  - 1180 feet 10-inch pipe
  - 8224 feet trench lay and back fill
  - 19 Risers
  - 6 big-gun carts

- fitting allowance
- Flow meter
- Idaho Power electrical connection
- Water Right Transfer

4) Project partners include the landowners, Vale Irrigation District, NRCS and the Malheur WSC.

## Review Team Evaluation

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### Strengths

- Previous application evaluation concerns are addressed by explaining why two pumps are necessary to operate the pivot system, how Bureau of Reclamation (BOR) Water Smart funds contribute to upcoming work in the Vale Bench area, and why the project location is strategic.
- Alternatives to the proposed approach are considered and pivot irrigation is the most appropriate for the geography, water quality improvement, and soil conservation.
- The irrigation system will serve as a demonstration to other Vale Bench landowners and may encourage future water conservation projects.
- The new irrigation system will reduce sediment, nutrient, and bacteria runoff from the project site, and improve water quality in Bully Creek and the Malheur River. Flood to sprinkler irrigation conversion is an Oregon Department of Environmental Quality (DEQ) Total Maximum Daily Load (TMDL) action plan priority.
- The applicant has secured funding from the BOR Water Smart program to implement irrigation water management work in the Vale Bench, demonstrating that the applicant is engaging with appropriate partners to implement water conservation.
- The project team has the capacity to implement and maintain the project as proposed.
- The Malheur Watershed Council has a proven track record of managing and completing projects as proposed and according to the project schedule.

### Concerns

- No concerns were expressed at review.

### Concluding Analysis

Converting 75 irrigated acres from flood to sprinkler application will reduce irrigation wastewater. The proposed irrigation conversion in the Vale Bench area will further efforts to implement Oregon Department of Agriculture and DEQ water quality improvement objectives by reducing sediment, nutrient, and bacteria delivery to Bully Creek and the Malheur River.

### Review Team Recommendation to Staff

Fund

**Review Team Priority**

9 of 13

**Review Team Recommended Amount**

\$153,221

**Review Team Conditions**

N/A

**Staff Recommendation**

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**Staff Follow-Up to Review Team**

N/A

**Staff Recommendation**

Fund

**Staff Recommended Amount**

\$153,221

**Staff Conditions**

N/A

# Open Solicitation-Open Solicitation Fall 2023 Restoration

Eastern Oregon (Region 5)

**Application Name:** 224-5010-23284

**Project Type:** Restoration

**Project Name:** Further On Down The Road. Mile Post 56  
Phase II

**Applicant:** Malheur WC

**Region:** Eastern Oregon

**County:** Malheur

**OWEB Request:** \$157,689

**Total Cost:** \$297,417

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## Application Description

1. This project is near Harper, Oregon adjacent to 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 has been systematically improving water quality through irrigation system conversions over the past 20 plus years across the Malheur Basin. This particular project will complement several recently completed and ongoing water quality improvement projects in the Harper Priority area. This is Phase II on this particular property. There has been statistically significant improvement in this stretch of the Malheur River. We think this is due to projects like this one.
3. The proposed project will convert 125 acres of flood-irrigated fields to sprinkler irrigation by installing:
  1. a new pivot converting 125 acres from flood to sprinkler
  2. 1,550 feet of 12-inch PIP 80# pipe for the mainline
  3. 1 new bubbler
  4. 1 30 hp pump
  5. 1 electrical panel for the pivot
  6. 3,000 feet of cable-con wire
  7. Electrical allowance
  8. 1 flow meter
  9. Apply for a water-right transfer
4. Partners include the landowner, Vale Oregon Irrigation District, and the Malheur WSC.

## Review Team Evaluation

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### Strengths

- The application has clear objectives and activities for achieving the objectives. The restoration methods are clearly defined and appropriate to address degraded water quality in the Malheur River Basin.
- The photos, maps, and water quality data included in the application provide ample detail for understanding the project vicinity, proposed restoration components, and its proximity to prior implemented projects.
- Pivot irrigation is appropriate for the topography. The irrigation system will serve as a demonstration to other landowners and may encourage future water conservation projects.
- The application identifies three restoration alternatives, and the applicant will implement the appropriate alternative based on field shape and economic feasibility.
- The new irrigation system will reduce sediment, nutrient, and bacteria runoff from the project site, and improve water quality in the Malheur River. Flood to sprinkler irrigation conversion is an Oregon Department of Environmental Quality (DEQ) Total Maximum Daily Load (TMDL) action plan priority.
- The Malheur Watershed Council has completed irrigation water management projects and has the capacity to implement the project as proposed and according to schedule.
- Project costs are substantiated with an irrigation company bid, reflect costs necessary to implement the irrigation conversion, and is based on current market rates.
- Three phase power installed during a previously installed flood to pivot project will supply needed power to this phase and is a cost-effective approach.

### **Concerns**

- The project management section of the application does not identify who is responsible for project design and implementation. This information is needed to evaluate whether qualified staff or contractors will be implementing the project.
- It is unclear if the estimated costs are sufficient to accomplish the proposed objectives because the irrigation company quote uploaded with the application is for an amount larger than what is detailed in the application budget.

### **Concluding Analysis**

Converting 125 irrigated acres from flood to sprinkler application will reduce irrigation wastewater. The proposed irrigation conversion near Harper will further efforts to implement Oregon Department of Agriculture and DEQ water quality improvement objectives by reducing sediment, nutrient, and bacteria delivery to the Malheur River.

### **Review Team Recommendation to Staff**

Fund

**Review Team Priority**

12 of 13

**Review Team Recommended Amount**

\$157,689

**Review Team Conditions**

N/A

**Staff Recommendation**

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**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-Open Solicitation Fall 2023 Restoration

Eastern Oregon (Region 5)

**Application Name:** 224-5011-23285

**Project Type:** Restoration

**Project Name:** In the Hart of Jacobsen Gulch revised

**Applicant:** Malheur WC

**Region:** Eastern Oregon

**County:** Malheur

**OWEB Request:** \$43,655

**Total Cost:** \$91,603

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## Application Description

1) The project site is about 5 miles from Ontario. It is within the Jacobsen Gulch priority area and very near the Snake River.

2) Water quality improvement in the Malheur Basin is one of the top restoration priorities for the Malheur Watershed Council. Willow Creek has been a focus area for the Council and other agencies since the late 1990s. Improved water quality is achieved through on-farm irrigation infrastructure improvements and management. The Council in cooperation with irrigation districts and private landowners has been systematically improving water quality through irrigation system conversions over the past 20 plus years across the Malheur Basin. This project complements several recently completed and on-going water quality improvement projects in the Jacobsen Gulch priority area.

3)The proposed project will convert 20 acres of flood irrigated fields to sprinklers by installing:

- One 15 HP pump
- Electrical panel for the pump
- One filter
- One flow meter
- 600 feet of 6-inch 125# pipe
- 800 feet of 4-inch 125# pipe
- 400 feet of 3-inch 125# pipe
- 60 feet of 10-inch 80# pipe
- 1,800 feet dig lay and backfill pipe
- Misc valves and tees
- 1,360 feet of wheel lines
- Handlines to irrigate poplar trees and corners
- Idaho Power hook-up
- Water Right Transfer

4) Partners are the landowner, NRCS, Owyhee Irrigation District and the Malheur WSC.

## Review Team Evaluation

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## **Strengths**

- Previous application evaluation concerns are addressed by clarifying how the irrigation method is appropriate for irrigating poplars and why the landowner prefers irrigating the poplars with hand lines. It may be more difficult; however, the poplars will likely be harvested and not replanted.
- Water quality monitoring data collected in Jacobsen Gulch is summarized and uploaded with the application. The data clarifies the strategic nature of the proposed irrigation conversion in the Jacobsen Gulch priority area by tracking water quality improvements that have occurred after previous irrigation projects were implemented.
- Maps included in the application provide ample detail for understanding the project vicinity and proposed restoration components, along with its proximity to prior implemented projects.
- Hand and wheel line sprinkler irrigation is appropriate for the topography in the project location. The irrigation system will serve as a demonstration to other landowners in the area and may encourage future water conservation projects.
- The poplars on the property, while not native or in a natural configuration, provide wildlife habitat. The irrigation system will maintain this valuable habitat until the trees are harvested.
- The new irrigation system will reduce sediment, nutrient, and bacteria runoff from the project site, and improve water quality in the Snake River. Flood to sprinkler irrigation conversion is an Oregon Department of Environmental Quality (DEQ) Total Maximum Daily Load (TMDL) action plan priority.
- Irrigation water management in Jacobsen Gulch is a priority for the Malheur Watershed Council, the Owyhee Irrigation District, and the Natural Resources Conservation Service (NRCS).
- The project team has the capacity to implement and maintain the project as proposed.
- The Malheur Watershed Council has a proven track record of managing and completing projects as proposed and according to the project schedule.

## **Concerns**

- The irrigation company quote uploaded with the application is from 2022 and it is unclear if the application budget is sufficient to complete the work in 2026, as scheduled in the application.

## **Concluding Analysis**

Converting twenty irrigated acres from flood to sprinkler application will reduce irrigation wastewater. While limited in scale, the proposed irrigation conversion in the Jacobsen Gulch priority area will further efforts to implement Oregon Department of Agriculture and DEQ water quality improvement objectives by reducing sediment, nutrient, and bacteria delivery to the Snake River.

## **Review Team Recommendation to Staff**

Fund

**Review Team Priority**

10 of 13

**Review Team Recommended Amount**

\$43,655

**Review Team Conditions**

N/A

**Staff Recommendation**

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**Staff Follow-Up to Review Team**

N/A

**Staff Recommendation**

Fund

**Staff Recommended Amount**

\$43,655

**Staff Conditions**

N/A

# Open Solicitation-Open Solicitation Fall 2023 Restoration

Eastern Oregon (Region 5)

**Application Name:** 224-5013-23300

**Project Type:** Restoration

**Project Name:** Upper Grande Ronde Invasive Weed Control  
2024-2026

**Applicant:** Tri-County CWMA

**Region:** Eastern Oregon

**County:** Union

**OWEB Request:** \$106,836

**Total Cost:** \$172,716

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**Application Description** Located within the Upper Grande Ronde River Watershed, approximately 10 miles west of La Grande, the Upper Grande Ronde Invasive Weed Control project seeks to contain and control leafy spurge, spotted knapweed, rush skeletonweed, and diffuse knapweed along the Grande Ronde River and its tributaries for three consecutive seasons. Historic anthropogenic disturbances along the Upper Grande Ronde River have negatively impacted this watershed by creating disturbances that have altered the natural watershed function as well as introduce invasive species. Those invasive species have since had time to spread throughout the Upper Grande Ronde area creating competition for important native vegetation. The project area has been a high priority for restoration in recent years with many projects occurring for habitat improvement for many fish and wildlife species, including Chinook salmon, steelhead, and bull trout. This habitat improvement comes with more soil disturbance and flood plain changes, as well as many plantings of native riparian vegetation.

OWEB has continuously supported Tri-County's efforts to inventory, treat, and monitor noxious weeds in this area, and many of the historic populations are now limited to very small sites. Leafy spurge is a deep-rooted perennial that persists sporadically throughout the project area as just a few plants rather than large patches as it was historically. This project is in a maintenance phase to keep those few plants from spreading and creating large patches once again. The goal of this project is to treat all known sites of leafy spurge, spotted knapweed, rush skeletonweed, and diffuse knapweed along the Upper Grande Ronde River and its tributaries. The Confederated Tribes of the Umatilla Indian Reservation, Wallowa Whitman National Forest, Oregon Parks and Recreation Department, and private landowners all plan contribute to the project for noxious weed control on properties owned or managed by them within the project area.

## Review Team Evaluation

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### Strengths

- The application has clearly stated objectives and a systematic approach.
- The project is ready for implementation with motivated landowners who have participated in the project during each phase of implementation.
- The applicant continues to monitor past noxious weed treatment, which will inform upcoming work and measure program success.

- The strategy of treating weed infestations from the outside perimeter towards the center over consecutive years is a technically sound approach to reducing weed extent and density on the landscape.
- Staff and hired contractors assess adjacent lands as well as the treatment areas to identify potential sources of weeds that could reinfest a treated site, improving the effectiveness of the program. This also provides opportunity to engage additional landowners to participate in the weed treatment program.
- The proposed work is a priority for Oregon Department of Fish and Wildlife (ODFW), the US Forest Service (USFS), and the Confederated Tribes of the Umatilla Indian Reservation (CTUIR) who are actively restoring aquatic habitats in the project area.
- The applicant has successfully built relationships with private landowners through a systematic approach to developing and implementing projects.
- The project is cost-effective and has many components for the price, including weed treatment, inventory, monitoring, and engagement.
- The project team has the capacity to implement and maintain the project as proposed.
- The Tri-County Cooperative Weed Management Area (CWMA) has a proven track record of managing and completing projects as proposed and according to the proposed schedule.

### **Concerns**

- The photos in the application are labelled with only the year and do not have captions describing what each photo is conveying. Captions describing habitat condition and treatment progress will add to proposal clarity.

### **Concluding Analysis**

Tri-County CWMA proposes to continue treatment of several invasive weeds in the Upper Grande Ronde River Basin near La Grande. This is phase eight, and the prior seven phases demonstrate effective inventory, treatment, and monitoring techniques, all leading to a high functioning program. There are many relevant project partners working towards the success of the project, including a Tribe, state and federal agencies, and private landowners.

### **Review Team Recommendation to Staff**

Fund

### **Review Team Priority**

7 of 13

### **Review Team Recommended Amount**

\$106,836

### **Review Team Conditions**

N/A

## Staff Recommendation

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### Staff Follow-Up to Review Team

N/A

### Staff Recommendation

Fund

### Staff Recommended Amount

\$106,836

### Staff Conditions

N/A

# Open Solicitation-Open Solicitation Fall 2023 Restoration

Eastern Oregon (Region 5)

**Application Name:** 224-5017-23340

**Project Type:** Restoration

**Project Name:** Hey Rip Van Winkle! Wake Up. Time to Cut Trees!

**Applicant:** Malheur WC

**Region:** Eastern Oregon

**OWEB Request:** \$171,508

**County:** Harney

**Total Cost:** \$218,933

## Application Description

1) The project is near Calamity Creek, about a mile off the Van-Drewsey Road.

2) We are treating 640 acres. Juniper is invading 425 acres of sage-grouse core habitat. Juniper out-compete native bunchgrass, forbs and shrubs, which are necessary habitats for sage-grouse life cycle. Juniper provide perches for avian species that predate on young sage-grouse. Juniper and small pine are invading 215 acres of forest on steep slopes. The invasion is degrading forest health, wildlife habitat, and could foster insects, disease, and disastrous wildfire. A one-acre aspen stand is need of protection from grazing.

3) Chainsaws will be used to cut 425 acres of "low density" juniper. Slash will be lopped and scattered and kept below 4-feet to avoid creating perches.

Chainsaws will be used to thin 215 acres of overstocked pine and remove invading juniper. (97 acres Medium density 118 acres low density.)

Prescription :

-- Thin from below removing trees up to 10-inch DBH to create 16 ft X 16 ft spacing between trees below 10-inch DBH. Remove less vigorous trees up to 15-inch DBH if within 5 feet of a leave tree. Reduce to 180-200 trees per-acre .

-- Remove all juniper.

-- Prioritize retaining vigorous ponderosa pine over Douglas-fir.

-- Cut any trees that show advanced signs and symptoms of dwarf mistletoe, or if they are showing symptoms of bark beetle infestation.

-- Remove dead and dying trees; leave snags over 20-inch DBH.

--Low Density --remove juniper

Aspen Browsing

--Protect a 1-acre aspen stand from browsing with 900 feet of buck-and-pole fence.

Post-Project Maintenance

The treated area will be inspected annually to determine if actions should be taken. Criteria include counts of juniper trees per-acre. Action will be needed if there are 10 or more trees per-acre. These actions could include mechanical treatment of small or large areas with loppers and/or chainsaws.

Monitoring will occur for a minimum of 10 years.

4) Partners are the landowner and Malheur WSC.

## Review Team Evaluation

## **Strengths**

- The restoration methods are clearly defined and appropriate to address juniper and small pine encroachment in core sage-grouse habitat in northeast Harney County.
- The photos, maps, and designs included in the application provide ample detail for understanding the project vicinity and proposed restoration components.
- The project will address watershed limiting factors, including forest health, wildlife habitat, and large-scale wildfire potential. These limiting factors are identified as concerns in local, state, and federal watershed restoration guidance documents.
- The project builds on previous Natural Resources Conservation Service (NRCS) and US Forest Service (USFS) forest management efforts in the area.
- The Malheur Watershed Council (MWC), thinning contractor, and the landowner have the capacity to implement and maintain the project as proposed.
- The Malheur Watershed Council has a proven track record of managing and completing projects as proposed and according to the project schedule.
- The project cost to remove encroaching conifers and protect aspen with buck-n-pole fencing reflects the quantified watershed health benefits expected from the investment.

## **Concerns**

- The photos uploaded with the application show areas of high-density conifer encroachment. Thinning these conifer stands may result in invasive annual grass (IAG) and weed establishment without seeding newly opened areas. The application lacks details describing how IAG or weed establishment will be managed post thinning. More information is needed to better understand the likelihood of success for the proposed methods to restore habitat in a core sage-grouse habitat.
- Benefits from a restoration investment may be limited if the thinning occurs in a grid pattern rather than resulting in a mosaic of open forest and dense thickets important for native wildlife.

## **Concluding Analysis**

The MWC proposes to enhance watershed resiliency and improve wildlife habitat with a variety of treatment methods, including aspen protection and conifer thinning. Each of these treatments will provide habitat benefit to native wildlife, including sage-grouse.

## **Review Team Recommendation to Staff**

Fund

## **Review Team Priority**

11 of 13

## **Review Team Recommended Amount**

\$171,508

**Review Team Conditions**

N/A

**Staff Recommendation**

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**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-Open Solicitation Fall 2023 Restoration

Eastern Oregon (Region 5)

**Application Name:** 224-5018-23375

**Project Type:** Restoration

**Project Name:** Upper Wallowa River Restoration Project

**Applicant:** Wallowa Resources

**Region:** Eastern Oregon

**County:** Wallowa

**OWEB Request:** \$524,591

**Total Cost:** \$1,389,604

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**Application Description** Enhancing and restoring priority habitat conditions for threatened ESA listed Bull trout (*Salvelinus confluentus*) and Kokanee salmon (*Oncorhynchus nerka*) in the West Fork of the Wallowa River in Joseph, Oregon is the focus of this project. The project area encompasses 2,000 feet of the Wallowa River, beginning near the confluence of BC Creek and flowing into Wallowa Lake. This section of river is primarily managed for recreation with a mix of small property ownership, small businesses, and Wallowa Lake State Park. This area is a large attraction for tourists and important to the Wallowa County economy.

The project area provides important spawning and rearing habitat for our focal salmonid species, as a direct input to Wallowa Lake. The Natural floodplain function along the reach has been degraded by anthropogenic encroachment and development (channelization), thereby reducing habitat quality and quantity. This restoration project aims to enhance and restore habitat for kokanee salmon spawning, and all life stages of bull trout while protecting private and public property from the effects of catastrophic flooding by improving bank stability. Additionally this project seeks to capitalize on its location to create significant opportunities for outreach to the general public, the project location host nearly 500,000 visitors each year. It also serves as a model for floodplain restoration in a semi-developed areas that is FEMA and NOAA compliant.

The combined habitat and social benefits provide a profound opportunity to showcase a constructive win/win example for the coexistence of people and nature. Project partners include: Oregon Parks and Recreation Department, Oregon Department of Fish and Wildlife, Nez Perce Tribes, US Fish and Wildlife Department, multiple private landowners, and Wallowa Resources. This consortium of stakeholders creates an opportunity for significant outreach to a diverse group of Oregonians.

## Review Team Evaluation

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### Strengths

- The project will address watershed limiting factors, including habitat complexity for native fish, riparian habitat, and floodplain function on the Wallowa River at Wallowa Lake State Park by installing large wood structures in the stream channel, planting riparian vegetation, and allowing the river access to its natural floodplain.

- The proposed restoration will address actions identified in local, state, and federal recovery plans to benefit bull trout, an Endangered Species Act (ESA)-listed fish in Wallowa County.
- The project will provide opportunity for raising public awareness about aquatic, riparian, and floodplain restoration at Wallowa Lake State Park, a setting visited by 500,000 people annually.
- The project team includes local, state, and federal agencies as well as landowners and the Nez Perce Tribe. They have the capacity for successful long-term stewardship and maintenance of the project.
- Wallowa Resources has a proven track record managing, completing, and reporting on projects as proposed.

### **Concerns**

- The application lacks a basis of design report needed to determine whether the project approach will achieve the proposed restoration objectives. The proposed restoration is in a high use area including roads, a state park, businesses, and residential development. Clear evidence and analysis showing the work will achieve the proposed objectives is not included in the application.
- The application lacks both a hydraulic and sediment transport analysis, which are needed to evaluate whether all the restoration approaches are appropriate solutions for the project site.
- The application lacks details describing the restoration sequencing approach. For example, it is unclear how the habitat restoration can be successful without replacing the Marina Lane bridge, which is a primary cause of the sediment transport problem in the project reach.

### **Concluding Analysis**

A stream restoration approach is proposed to improve aquatic, riparian, and floodplain habitat conditions at Wallowa Lake State Park. The method proposed for floodplain restoration has proven to provide significant ecological value for the cost in similar landscapes. The application lacks necessary technical soundness information to determine likelihood of success of the restoration approach at the project site. If the application is resubmitted, the applicant is encouraged to provide a current basis of design report and a sediment transport and hydraulic analysis that specifically addresses stream flow and sediment distribution in a reach that does not currently transport sediment adequately.

### **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

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### Staff Follow-Up to Review Team

N/A

### Staff Recommendation

Do Not Fund

### Staff Recommended Amount

\$0

### Staff Conditions

N/A

# Open Solicitation-Open Solicitation Fall 2023 Technical Assistance

Eastern Oregon (Region 5)

**Application Name:** 224-5019-23148

**Project Type:** Technical Assistance

**Project Name:** Design of Kingman Lateral

**Applicant:** Owyhee Irrigation District

**Region:** Eastern Oregon

**County:** Malheur

**OWEB Request:** \$49,506

**Total Cost:** \$101,077

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**Application Description** The project is the design for piping of 5,880 ft of open canal, and design of the inlet and outlet structures. The Kingman lateral is the first major sub-lateral of the North Canal, OID's main canal, and has a maximum diversion of 125 CFS. The project will likely be complete three months after awarded. This project is located outside of Adrian, OR (43°43'37.68"N 117°10'40.41") on a federal facility that is operated by the OID. OID has been awarded a WaterSmart grant from USBR for 50% of this project.

The design project is for OID to select a qualified engineer or engineering firm to design the conversion of the Kingman Lateral from an open channel to a piped canal. This conversion is expected to provide a lasting repair to a canal segment that has been a slope stability concern of OID since the 1970s. During that time OID has performed many patches to the lining materials all of which have proved to have been temporary fixes because the hillside that supports the canal is subject to periodic movement. This movement has proven to be too much of a stressor to all the different canal linings that have been implemented. Piping the canal with HDPE will provide the needed permanent fix of the canal segment that will ensure the reliability of irrigation water some ~6,500 acres of productive farmland. It is also expected to save 475AF annually. All the benefits of the piped canal are not possible without the needed funding. The funding from the state requires engineering. OID doesn't employ a licensed engineer and the cost of the engineering is a heavy burden on the OID rate payers who have struggle through a third straight year of drought and reduced water allotments.

The expected activities necessary regarding this design project are development of criteria for the engineering needed and qualifications required; publish an RFP that follows applicable competitive bidding laws; select an engineer and provide oversight and reporting of the project until completion.

## Review Team Evaluation

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### Strengths

- The applicant has construction capacity to implement irrigation improvement projects that may result from the technical assistance.
- The project is in a priority area identified in a NRCS watershed planning process and the future irrigation piping project has potential to address water quality concerns and water loss from seepage.

### Concerns

- The schedule in the application indicates the project design will be complete prior to securing the OWEB grant; it is uncertain how OWEB funding can contribute to the design process.
- It is unclear what data will be collected to inform the design or if professionally accepted technical approaches will be used.
- It is unclear if the Owyhee Irrigation District has the administrative capacity to implement the project as proposed. Engaging a technical team who are qualified to help guide the project could provide the capacity needed to accomplish the proposed technical assistance.
- Project costs are provided as lump sums, it is difficult to evaluate whether costs are reasonable, necessary, and adequate for achieving the proposed technical assistance.
- It is unclear if the estimated costs are sufficient to accomplish the proposed objectives because the application lacks details explaining how costs are determined.

### **Concluding Analysis**

Developing a design to convert the Kingman Lateral from an open ditch to a pipeline conveyance system will lead to improved water conservation in the Owyhee River Basin. However, the application narrative does not articulate a stepwise design process and it is unknown how project cost is determined. If the application is resubmitted, the applicant is encouraged to assemble a technical team who are experienced with planning design projects for watershed 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**

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#### **Staff Follow-Up to Review Team**

N/A

#### **Staff Recommendation**

Do Not Fund

#### **Staff Recommended Amount**

\$0

#### **Staff Conditions**

N/A

# Open Solicitation-Open Solicitation Fall 2023 Technical Assistance

Eastern Oregon (Region 5)

**Application Name:** 224-5020-23252

**Project Type:** Technical Assistance

**Project Name:** Designing for Beaver in the Burnt River Basin

**Applicant:** Powder Basin WC

**Region:** Eastern Oregon

**County:** Baker

**OWEB Request:** \$73,200

**Total Cost:** \$138,300

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**Application Description** The Powder Basin Watershed Council (PBWC) has established a working partnership with the Wallowa Whitman National Forest (WWNF), Whitman Ranger District whereby the PBWC assists the WWNF in accomplishing its natural resource goals and objectives by bringing additional expertise and funding to implement projects on WWNF lands. The current emphasis of the partnership is implementing actions in the North Fork Burnt River watershed to facilitate beaver colonization and overall ecosystem resiliency. The Camp Creek Ecosystem Resiliency Project is the first of these projects with planning underway for another project on Trout Creek to begin implementation in 2024. In addition to these streams, there are numerous miles of stream in the watershed that are potentially sites for low-tech process-based restoration (LTPBR). A Beaver Restoration Assessment Tool (BRAT) assessment of the Burnt River watershed report (Macfarlane et al. 2019) provides PBWC with strong guidance on where to implement LTPBR. The proposed project will assess, design and complete all needed permitting and environmental compliance work on six streams in the North Fork Burnt River watershed including upper Trout Creek, Alder Creek, Gimlet Creek, Dry Creek, China Creek and California Gulch. Segments of these streams to be assessed will total approximately 13 miles. Assessment work will include aquatic/vegetation inventories, digital mapping, on-site field visits to determine appropriate project approach for each stream, table top exercises to determine initial LTPBR restoration structure locations, field visits to ground truth structure layout, coordination with WWNF range staff to develop actions to address ungulate grazing (where needed), waterway alteration permitting and National Environmental Policy Act compliance. The result will be implementation-ready projects. WWNF Staff will participate in the assessment/design and complete NEPA/Heritage. OWEB funds will support PBWC staff to complete the work.

## Review Team Evaluation

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### Strengths

- The application describes a clear need to develop technical designs to implement low tech process based (LTBR) stream restoration in the Upper Burnt River watershed.
- The application narrative clearly describes what permits are needed and the partner coordination required to achieve the technical assistance design objectives.
- The maps uploaded with the application clearly demonstrate the project area and proximity to past and upcoming similar projects in the upper Burnt River watershed.

- LTBR is a priority for the Powder Basin Watershed Council and partners and the proposed technical assistance is informed by an OWEB funded engagement grant.
- The Low-Tech Process-Based Restoration of Riverscapes Design Manual (Wheaton et al. 2019) will be used to guide the design process, ensuring appropriate data will be collected and professionally accepted design approaches will be used.
- Developing designs on many sites in the watershed during a single design effort will efficiently lead to multiple projects that will accelerate achieving restoration benefits in the watershed.
- The Powder Basin Watershed Council has the technical and organizational capacity to implement the project as proposed.
- Project costs align with the work necessary to accomplish the project objectives and the multi-site approach is cost effective.

### Concerns

- It is unclear who is on the advisory technical team referenced in the application, making it difficult to determine if the team is qualified to accomplish the proposed objectives.

### Concluding Analysis

The Powder Basin Watershed Council proposes to complete design and permitting required for several project sites to address degraded aquatic, floodplain, and riparian habitat conditions in the Upper Burnt River Watershed. The resulting restoration guided by the design work will occur in Columbia Spotted Frog and Redband Trout habitat and restore habitat necessary for beaver colonization.

### Review Team Recommendation to Staff

Fund

### Review Team Priority

1 of 8

### Review Team Recommended Amount

\$73,200

### Review Team Conditions

N/A

### Staff Recommendation

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### Staff Follow-Up to Review Team

N/A

### Staff Recommendation

Fund

### Staff Recommended Amount

\$73,200

**Staff Conditions**

N/A

# Open Solicitation-Open Solicitation Fall 2023 Technical Assistance

Eastern Oregon (Region 5)

**Application Name:** 224-5021-23266

**Project Type:** Technical Assistance

**Project Name:** Soldier Creek Wet Meadow Restoration Project

**Applicant:** Harney County Watershed Council

**Region:** Eastern Oregon

**County:** Harney

**OWEB Request:** \$95,853

**Total Cost:** \$96,952

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**Application Description** 1). Soldier Creek wet meadows is located about 9 miles northeast of Burns, Oregon in Harney County. It is located below the Malheur National Forest north of Hwy 20 and east of hwy 395. The Soldier Creek, LLC owns the property where the project will take place.

2). The Soldier Creek wet meadow habitat needs restoration. The objective is to improve wet meadow habitat through restoring and improving the current irrigation infrastructure: (a) Stop and reverse incising and erosion of meadow and channels that are disconnecting flow from floodplain; (b) Replace and improve floodplain infrastructure to effectively flood wet meadow habitat; (c) Improve forage for spring migratory waterbirds and improve habitat for local wildlife and neotropical nesting birds.

3). The requested funds will support survey and design for restoration of the Soldier Creek project area. Funding will support a topographic survey and development of a digital elevation model, drafted engineering design sufficient for permitting and cost estimation, and invitation of regulatory compliance.

4). Partners: Harney County Watershed Council, Harney Soil and Water Conservation District, Ducks Unlimited, Oregon Water Resources Department, and landowner/irrigator.

## Review Team Evaluation

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### Strengths

- The design work proposed in the application is supported by several assessments stating that flood irrigated wet meadow restoration is critical in the project area to provide habitat for Pacific Flyway migratory birds.
- Appropriate stakeholders are engaged in the project and the project team has accomplished similar technical assistance work.
- The Harney County Watershed Council has the capacity to manage and implement the project as proposed.
- Project actions, including the topographic survey and development of a digital elevation model, are technically sound to accomplish a preliminary design and initiate regulatory permitting and clearance.

## Concerns

- The application describes a generalized design approach that does not clearly provide information about how the approach is site specific.
- It is unclear how staff time in the budget relates to implementing the proposed activities. Additional information is needed about the roles of each staff in implementing the project to evaluate whether staff costs align with work necessary to accomplish project objectives.
- The application indicates the project will affect sage-grouse but does not describe how sage-grouse will benefit from the future restoration.
- It is unclear if the estimated costs are sufficient to accomplish the proposed objectives because the application lacks details explaining how costs are determined.

## Concluding Analysis

The Harney County Watershed Council proposes to complete preliminary design sufficient to inform a restoration project budget and initiate regulatory compliance for an irrigation water delivery project near Burns. The project has potential for improving wet meadow habitat that could benefit Pacific flyway migratory birds. Information describing the site-specific restoration opportunities would be helpful to understand the extent to which the project is a priority for investment.

### Review Team Recommendation to Staff

Fund

### Review Team Priority

7 of 8

### Review Team Recommended Amount

\$95,853

### Review Team Conditions

N/A

## Staff Recommendation

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### 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-Open Solicitation Fall 2023 Technical Assistance

Eastern Oregon (Region 5)

**Application Name:** 224-5022-23280

**Project Type:** Technical Assistance

**Project Name:** Rockville Basin Stream Restoration Design

**Applicant:** Owyhee WC

**Region:** Eastern Oregon

**County:** Malheur

**OWEB Request:** \$56,155

**Total Cost:** \$67,655

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**Application Description** The Rockville Basin Stream Restoration Design project is located approximately 28 miles South of Adrian near the rural community of Rockville. Riparian restoration, enhancement and expansion in the arid high desert Owyhee Basin landscape is a high priority for improving water quality, aquatic/terrestrial habitat, and flood plain function. This project will facilitate 100% survey, design and permitting tasks required to implement stream restoration actions on approximately 1.4 miles of Carter and Spring Creeks. Project partners include: the Private landowner, NRCS and Owyhee Watershed Council.

## Review Team Evaluation

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### Strengths

- The application describes a clear need for restoration designs to improve instream, riparian, and upland habitats in an area identified as habitat for sage-grouse and mule deer.
- The technical assistance project will lead to restoration that will improve water quality in a priority area.
- The resulting design will address watershed limiting factors identified in wildlife management and water quality improvement conservation and recovery plans.
- The Owyhee Watershed Council (OWC) has the capacity to implement the project as proposed as well as acquire all construction permits needed for restoration construction.
- OWC, NRCS (Natural Resources Conservation Service), and the landowner have a longstanding working relationship and the partnership can complete the project activities.
- The landowner has completed several conservation projects on their property. The proposed technical assistance will engage other landowners and may encourage further conservation on neighboring properties.
- Costs in the budget align with the proposed work and are commensurate with the expected watershed benefit.

### Concerns

- Including wildlife habitat maps for sage-grouse and mule deer distribution in the application would provide helpful context to understand the expected habitat outcomes from the future restoration.
- It is unclear how the resulting design will address hay meadow management, including harvest methods, which will be necessary to improve sage-grouse conservation.

### **Concluding Analysis**

The Owyhee Watershed Council is proposing to design a stream and riparian restoration project south of Adrian in the Rockville area. The resulting restoration will improve water quality, vegetation composition, and floodplain connectivity on 1.4 miles of stream tributaries to Succor Creek, which will benefit sage steppe, riparian, and aquatic habitats.

### **Review Team Recommendation to Staff**

Fund

### **Review Team Priority**

4 of 8

### **Review Team Recommended Amount**

\$56,155

### **Review Team Conditions**

N/A

### **Staff Recommendation**

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### **Staff Follow-Up to Review Team**

N/A

### **Staff Recommendation**

Fund

### **Staff Recommended Amount**

\$56,155

### **Staff Conditions**

N/A

# Open Solicitation-Open Solicitation Fall 2023 Technical Assistance

Eastern Oregon (Region 5)

**Application Name:** 224-5023-23291

**Project Type:** Technical Assistance

**Project Name:** Seeking Justus on Bully Creek Phase II TA

**Applicant:** Malheur WC

**Region:** Eastern Oregon

**County:** Malheur

**OWEB Request:** \$58,339

**Total Cost:** \$66,039

## Application Description

1) The project is on Bully Creek, a tributary of the Malheur River. It is 5 air miles from the Westfall airport, and 42 air miles to Ontario.

2) The stream has down cut 8-10 feet and has no connection to its flood plain. The meadow is dry and the vegetation consists of pasture grasses and weedy species. This contributes to negative habitat problems with redband trout, spotted frogs, sage-grouse, and water quality.

DEQ considers Bully Creek to be in the "very poor" water quality category.

The agency lists the following parameters as being of concern:

- chlorophyll a
- bacteria
- nutrients
- sediment
- temperature

Functioning streamside vegetation is key to solving many water quality, aquatic habitat, and sage-grouse habitat problems.

3) A drone will be used for a topographic survey of the entire 1.6-mile reach. In addition, riparian analyses, and hydrologic and hydraulic analyses will be conducted. A 90%-design will provide alternatives for a future restoration project. Sections of the riparian area requiring future planting will be identified along with a suite of optimal shrub and tree species. All permits will be obtained.

When implemented (we have NRCS funding) the project will:

- Gradually improve connectivity to the floodplain,
- Maintain and improve riparian vegetation,
- Enhance aquatic and wildlife habitat.
- Capture, store and safely release flood waters, which will,
  - o Reduce erosion,
  - o Return cooler water to the stream

o Filter sediment and nutrients.

This is Phase II of a multi-phased project. Phase I treated 3,500 feet of Bully Creek upstream of the proposed project.

The landowner has entered into a contract with NRCS to implement stream and riparian restoration. Once designs and permits are in place, the subject of this proposal, construction will commence.

4) Partners include Larry Justus, RSI engineering, Malheur WSC, and NRCS.

## Review Team Evaluation

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### Strengths

- The application describes a clear need for an engineered design to restore a 1.6-mile reach of Bully Creek. The photos uploaded with the application demonstrate the restoration need to reduce erosion, improve riparian vegetation, and restore aquatic habitat.
- The resulting restoration project will benefit Columbia spotted frog, redband trout, and sage-grouse, which are species of conservation concern in Oregon.
- Riparian restoration in this arid sage-steppe landscape can reduce impacts of catastrophic wildfire as well as improve watershed resiliency as climate change occurs.
- The technical assistance is for a second phase of stream and riparian restoration in Bully Creek. This project will add to the phase 1 restoration and the applicant will apply lessons learned from phase 1, specifically lessons related to planting methods and using increased plant densities.
- An alternative analysis completed demonstrates a range of options will be considered as the team approaches final designs.
- The applicant has the organizational capacity to implement the project as proposed and the project team is qualified to accomplish the proposed activities.
- The landowner is engaged in land conservation and is willing to adjust grazing management practices to achieve land and wildlife conservation objectives.
- Appropriate partners are engaged with the design effort, including the watershed council, NRCS (Natural Resources Conservation Service), the landowner, and an experienced design consultant.
- Project costs align with the work necessary to accomplish the project objectives.

### Concerns

- The application states that NRCS has committed funding to the restoration phase of the project, but it is unclear how the agency can commit funding at this stage of project development.

### **Concluding Analysis**

The Malheur Watershed Council is proposing to design a stream and riparian restoration project on Bully Creek near Westfall. The resulting restoration will improve stream function, riparian vegetation, floodplain connectivity, and water quality, which will benefit sage steppe, riparian, and aquatic habitats.

### **Review Team Recommendation to Staff**

Fund

### **Review Team Priority**

2 of 8

### **Review Team Recommended Amount**

\$58,339

### **Review Team Conditions**

N/A

### **Staff Recommendation**

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#### **Staff Follow-Up to Review Team**

N/A

#### **Staff Recommendation**

Fund

#### **Staff Recommended Amount**

\$58,339

#### **Staff Conditions**

N/A

# Open Solicitation-Open Solicitation Fall 2023 Technical Assistance

Eastern Oregon (Region 5)

**Application Name:** 224-5024-23292

**Project Type:** Technical Assistance

**Project Name:** Willow Creek Again TA

**Applicant:** Malheur WC

**Region:** Eastern Oregon

**County:** Malheur

**OWEB Request:** \$56,139

**Total Cost:** \$63,839

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## Application Description

1) Willow Creek. 3.1 miles upstream from the Malheur Reservoir. 16 air miles from Brogan, OR.

2)The 1.3 miles of Willow Creek in the project reach is deficient in riparian habitat, floodplain function, and habitat complexity. The project is in core sage-grouse habitat area and is classified as a redband multi-use stream reach per ODFW. It also part of the new ODFW Beaver Habitat Focus Area.

Wet meadow/riparian habitat for sage-grouse is lacking. Willow Creek does not meet standards for nutrients, bacteria and other parameters. This reach lacks habitat complexity for redband trout and other aquatic life.

Several restoration projects (funded by OWEB and NRCS) are in different phases of planning and completion directly upstream and downstream from the project reach. When all of these projects are completed, we will have restored over 5 contiguous stream miles and make a significant improvement to aquatic and riparian habitat.

3) A drone will be used for a topographic survey of the entire reach. In addition, riparian analyses, and hydrologic and hydraulic analyses will be conducted. A 90% design will provide alternatives for a future restoration project.

Sections of the riparian area requiring future planting will be identified along with a suite of optimal shrub and tree species most adaptable and beneficial to this stream reach.

The landowner has entered into a contract with NRCS to implement stream and riparian restoration. Once designs and permits are in place, the subject of this proposal, constructions will commence.

4) Partners include the Walkers, RSI engineering, Malheur WSC and NRCS.

## Review Team Evaluation

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### Strengths

- The application describes a clear need for an engineered design to restore a 1.3-mile reach of Willow Creek. The photos uploaded with the application demonstrate the restoration need to reduce erosion, improve riparian vegetation, and restore aquatic habitat.
- The resulting restoration project will benefit redband trout and the project site is in an ODFW (Oregon Department of Fish and Wildlife) beaver habitat focus area.
- Riparian restoration in this arid sage-steppe landscape can reduce impacts of catastrophic wildfire as well as improve watershed resiliency as climate change occurs.
- The technical assistance will lead to restoration that builds on previous stream and riparian restoration in Willow Creek. The applicant will apply lessons learned from past restoration, specifically lessons related to planting methods and using increased plant densities.
- An alternative analysis completed demonstrates a range of options will be considered as the team approaches final designs.
- The applicant has the organizational capacity to implement the project as proposed and the project team is qualified to accomplish the proposed activities.
- The landowner is engaged in land conservation and is willing to adjust grazing management practices to achieve land and wildlife conservation objectives.
- Appropriate partners are engaged with the design effort, including the watershed council, NRCS (Natural Resources Conservation Service), the landowner, and an experienced design consultant.
- Project costs align with the work necessary to accomplish the project objectives.

### **Concerns**

- The application states that NRCS has committed funding to the restoration phase of the project, but it is unclear how the agency can commit funding at this stage of project development.

### **Concluding Analysis**

The Malheur Watershed Council is proposing to design a stream and riparian restoration project on Willow Creek near Brogan. The resulting restoration will improve stream function, riparian vegetation, floodplain connectivity, and water quality, which will benefit sage steppe, riparian, and aquatic habitats.

### **Review Team Recommendation to Staff**

Fund

### **Review Team Priority**

3 of 8

### **Review Team Recommended Amount**

\$56,139

### **Review Team Conditions**

N/A

## Staff Recommendation

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### Staff Follow-Up to Review Team

N/A

### Staff Recommendation

Fund

### Staff Recommended Amount

\$56,139

### Staff Conditions

N/A

# Open Solicitation-Open Solicitation Fall 2023 Technical Assistance

Eastern Oregon (Region 5)

**Application Name:** 224-5025-23310

**Project Type:** Technical Assistance

**Project Name:** Smith Brothers Floodplain Infrastructure

**Applicant:** Harney County Watershed Council

**Region:** Eastern Oregon

**County:** Harney

**OWEB Request:** \$95,853

**Total Cost:** \$96,752

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**Application Description** 1) Smith Brothers floodplain restoration site is about 17 miles north of Burns, Oregon in Harney County surrounded by BLM land along the Silvies River and is off the Lone Pine Road system. This project area is also located within sage grouse High Priority Area of Conservation.

2) The Smith Brothers floodplain needs assistance due to its dilapidated check dam within the Silvies River, its lack of fish passage, and its field irrigation ditches have washed out.

3) The requested funds will support survey and design for restoration of the instream check dam, fish passage structure, washed out ditch, restoration of bank stabilization around proposed in-stream project sites and ditch turnout water control structures. Funding will support a topographic survey and development of a digital elevation model, drafted engineering design sufficient for permitting and cost estimation, and initiation of regulatory compliance.

4) Partners: Landowner, Harney County Watershed Council, Harney Soil and Water Conservation District, Ducks Unlimited, Oregon Water Resource Department, and Oregon Department of Fish and Wildlife.

## Review Team Evaluation

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### Strengths

- The application describes a clear need for an engineered design to restore fish passage, arrest streambank erosion, and modernize irrigation infrastructure. The photos uploaded with the application demonstrate the restoration need to improve irrigation infrastructure, improve fish passage, and reduce streambank erosion.
- The design work proposed in the application is supported by several assessments stating that flood irrigated wet meadow restoration is critical in the project area to provide habitat for Pacific Flyway migratory birds.
- Appropriate partners are engaged in the project and the project team has accomplished similar technical assistance work.

- The Harney County Watershed Council has the capacity to manage and implement the project as proposed.
- Current land management is pasture and does not include hay production, which improves sage-grouse habitat requirements.
- The project actions, including the topographic survey and the development of a digital elevation model, are technically sound to accomplish a preliminary design and initiate regulatory permitting and clearance.

### **Concerns**

- The map included in the application indicates the project site is located north of the SONEC region, which may indicate the potential Pacific flyway migratory bird habitat benefits will be limited.
- The application lacks information indicating the restoration design will address sage-grouse habitat limiting factors, such as habitat loss from juniper encroachment. This would provide helpful context to evaluate the extent to which future restoration will benefit sage grouse present in the project area.

### **Concluding Analysis**

The Harney County Watershed Council proposes to complete preliminary design sufficient to inform a restoration project budget and initiate regulatory compliance for an irrigation water delivery, fish passage, and erosion reduction project near Burns. The resulting design work is likely to lead to restoration that improves water quality and wildlife habitat and may benefit Pacific Flyway birds.

### **Review Team Recommendation to Staff**

Fund

### **Review Team Priority**

6 of 8

### **Review Team Recommended Amount**

\$95,853

### **Review Team Conditions**

N/A

### **Staff Recommendation**

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#### **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-Open Solicitation Fall 2023 Technical Assistance

Eastern Oregon (Region 5)

**Application Name:** 224-5026-23325

**Project Type:** Technical Assistance

**Project Name:** Casey Wet Meadow Floodplain Diversion  
Restoration

**Applicant:** Harney SWCD

**Region:** Eastern Oregon

**OWEB Request:** \$96,386

**County:** Harney

**Total Cost:** \$98,184

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**Application Description** 1) The Casey wet meadow diversions are located on South Branch and North Branch of Trout Creek just south of mile marker 4.5 of the Whitehorse Ranch Road in southern Harney County southeast of Fields, Oregon.

2) The existing structures and ditch intersection network needs replacement due to its (a) inability to effectively regulate water to historical wet meadow floodplains; (b) inability to flood wet meadows when low flows occur.

3) The requested funds will support a survey and engineer design for replacement designs. Funding will support a topographic survey and development of a digital elevation model, draft engineering design sufficient for permitting and cost estimating, and initiation of regulatory compliance.

4) Project partners include Ducks Unlimited, Harney Soil and Water Conservation District, Trout Creek Land Trust and the landowners/irrigators.

## Review Team Evaluation

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### Strengths

- The application describes a need for an engineered design to restore flood irrigation infrastructure. The maps uploaded with the application demonstrate the project's proximity to other restoration in the Trout Creek area.
- The design work proposed in the application is supported by several assessments stating that flood irrigated wet meadow restoration is critical in the project area to provide habitat for Pacific Flyway migratory birds.
- Appropriate partners are engaged in the project and the project team has accomplished similar technical assistance work.
- The final design will consider the potential effects of dam building by beavers on irrigation diversions and the Oregon Department of Fish and Wildlife (ODFW) will advise the design regarding fish passage.

- The Harney Soil and Water Conservation District (SWCD) has the capacity to manage and implement the project as proposed.
- Project actions are technically sound to accomplish the technical assistance objectives.

### **Concerns**

- The application describes a generalized design approach that does not clearly provide information about how the approach is site specific.
- It is unclear how staff time in the budget relates to implementing the proposed activities. Additional information is needed about the roles of each staff in implementing the project to evaluate whether staff costs align with work necessary to accomplish project objectives.
- It is unclear if the estimated costs are sufficient to accomplish the proposed objectives because the application lacks details explaining how costs are determined.

### **Concluding Analysis**

The Harney SWCD proposes to complete preliminary designs to inform a restoration project budget and initiate regulatory compliance for an irrigation water delivery project near Fields. The resulting design work is likely lead to restoration that improves Pacific Flyway bird habitats.

### **Review Team Recommendation to Staff**

Fund

### **Review Team Priority**

5 of 8

### **Review Team Recommended Amount**

\$96,386

### **Review Team Conditions**

N/A

### **Staff Recommendation**

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### **Staff Follow-Up to Review Team**

N/A

### **Staff Recommendation**

Fund

### **Staff Recommended Amount**

\$96,386

### **Staff Conditions**

N/A

# Open Solicitation-Open Solicitation Fall 2023 Technical Assistance

Eastern Oregon (Region 5)

**Application Name:** 224-5027-23327

**Project Type:** Technical Assistance

**Project Name:** Colony Creek Wet Meadow Flood Irrigation

**Applicant:** Harney SWCD

**Region:** Eastern Oregon

**County:** Harney

**OWEB Request:** \$93,341

**Total Cost:** \$95,560

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**Application Description** 1) The Colony Creek irrigation system is located on Colony Creek, just 5 miles from the Nevada border in southern Harney County southeast of Fields, Oregon.

2) The existing irrigation infrastructure needs replacement due to its inability to adequately distribute surface water to historical wet meadow floodplains.

3) The requested funds will support survey and design for the improvement, and replacement of the water delivery infrastructure and control structures. Funding will also support a topographic survey and development of a digital elevation model, draft engineering design sufficient for permitting and cost estimating, and initiation of regulatory compliance.

4) Project partners are the Harney Soil and Water Conservation District, Oregon Department of Fish and Wildlife, Oregon Water Resource Department, Ducks Unlimited and the landowners/irrigators.

## Review Team Evaluation

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### Strengths

- Previous application evaluation concerns are addressed by clarifying the water rights on the farm and where the irrigation points of diversion are located.
- The application describes a need for an engineered design to restore flood irrigation infrastructure on the property to adequately flood-irrigate the historical floodplain for haying and grazing while providing spring forage for migrating waterbirds through the SONEC region.
- The design work proposed in the application is supported by several assessments stating that flood irrigated wet meadow restoration is critical in the area for Pacific Flyway migratory birds.
- Appropriate partners are engaged in the project and the project team has accomplished similar technical assistance work.
- The Harney Soil and Water Conservation District (SWCD) has the capacity to manage and implement the project as proposed.

### Concerns

- The application describes a generalized design approach that does not clearly provide information about how the approach is site specific.
- The application lacks information demonstrating a range of alternative design options will be considered that include addressing variable flow conditions and the influence of the county road culverts on hydrology at the site.
- The project objectives lack site specific detail for the remote work area; it is unclear if project costs align with the work necessary to accomplish those objectives.

### **Concluding Analysis**

The Harney SWCD proposes to complete preliminary design sufficient to inform a restoration project budget and initiate regulatory compliance for an irrigation water delivery project near Fields. The project has potential for improving wet meadow habitat that could benefit Pacific flyway migratory birds. Information describing the site-specific restoration opportunities would be helpful to understand the extent to which the project is a priority for investment.

### **Review Team Recommendation to Staff**

Fund

### **Review Team Priority**

8 of 8

### **Review Team Recommended Amount**

\$93,341

### **Review Team Conditions**

N/A

### **Staff Recommendation**

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#### **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-Open Solicitation Fall 2023 Engagement

Eastern Oregon (Region 5)

**Application Name:** 224-5029-23349

**Project Type:** Engagement

**Project Name:** Owyhee Collab and Confab

**Applicant:** Owyhee WC

**Region:** Eastern Oregon

**County:** Malheur

**OWEB Request:** \$72,312

**Total Cost:** \$73,712

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**Application Description** The Owyhee Collab and Confab stakeholder engagement effort will primarily focus on the Owyhee Basin with some overlap into the Malheur basin as many of our watershed issues and management jurisdictions are county wide. The Owyhee basin geography is vast with many different landownerships and several significant competing priority watershed issues/limiting factors ranging from water quality in the lower basin, to invasive annual grass establishment in the upper basin. Climate change impacts compound these issues and create a need for restoration and management work to be strategic and impactful. For this to happen, natural resource land managers must work together to prioritize and implement restoration actions. This proposal will provide OWC additional capacity to work with partners across many different landownerships to prioritize restoration work and lead to projects that will address both upper basin and lower basin watershed issues/limiting factors.

Project partners include:

Vale District BLM, NRCS, ODFW, Malheur SWCD, OWRD, ODA, USFWS, Malheur Cattlemans Association, Farm Bureau, Owyhee Irrigation District, Vale LIT, Burns -Paiute Tribes, DEQ, Malheur County Court, Malheur County Vector/Weeds Department, Malheur County Road Department, Oregon DSL, Malheur Watershed Council, Jordan Valley Irrigation District, Vale Oregon Irrigation District, South Board of Control, Jordan Valley Cooperative Weed Management Area, OSU Extension, and private landowners.

## Review Team Evaluation

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### Strengths

- Appropriate community members representative of the geography, including local, state, and federal agencies, Tribes, and private landowners, will be engaged to improve rangeland conditions and water quality in the Owyhee basin.
- Appropriate communication techniques, including partnership development, meeting coordination, and print media resources, will be used to raise awareness about water quality improvement in the river corridors and rangeland improvement in the uplands.
- The application provides a clear description of the parties that need to be engaged and strategies that will be used to build support for watershed restoration in Malheur County.

- Restoration that could result from the proposed engagement is likely to improve aquatic and rangeland habitats in the Owyhee basin.
- There is a clear path from the proposed landowner engagement to potential on-the-ground water quality and rangeland improvement work.
- The applicant has the capacity to implement the project actions as proposed. They have a proven track record in the Owyhee Basin and have recently hired additional staff.
- Project costs are commensurate with the expected engagement results and the engagement effort is likely to leverage restoration funds from a variety of local, state, and federal sources.

### **Concerns**

- No concerns were expressed at review.

### **Concluding Analysis**

The Owyhee Watershed Council proposes to increase engagement capacity in Malheur County to develop water conservation and upland range management projects. The engagement will highlight the importance of improved water quality, sage-grouse habitat, and sage-steppe landscapes and how private landowners and public land managers can facilitate these improvements.

### **Review Team Recommendation to Staff**

Fund

### **Review Team Priority**

1 of 1

### **Review Team Recommended Amount**

\$72,312

### **Review Team Conditions**

N/A

### **Staff Recommendation**

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#### **Staff Follow-Up to Review Team**

N/A

#### **Staff Recommendation**

Fund

#### **Staff Recommended Amount**

\$72,312

#### **Staff Conditions**

N/A

# Mid-Columbia - Region 6 Fall 2023 Funding Recommendations



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**Funding Recommendation**

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

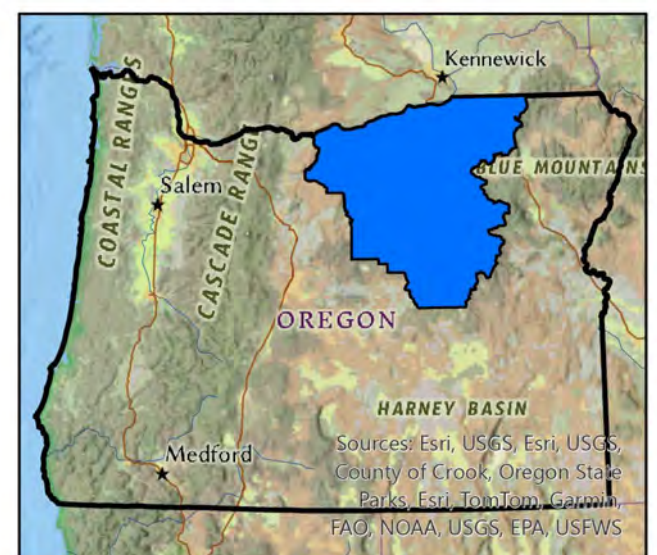
**Previous Grants 1998 - Spring 2022**

- Land Acquisition
- ◆ Restoration
- ▲ Region 6 Cities
- Region 6 Streams
- ▭ OWEB Region 6 Boundary



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Oregon Watershed Enhancement Board: Region 6 Restoration, Technical Assistance, and Engagement

Region 6 - Mid-Columbia Basin Restoration				
Projects RECOMMENDED for Funding in Priority Order				
Project #	Grantee	Project Title	Brief Description	Amount Recommended
224-6002	Confederated Tribes Umatilla Indian Reserva	Meacham Creek RM 10-11 Floodplain and In-Stream Habitat Restoration	A phased restoration approach will be implemented on Meacham Creek, outside Pendleton to address lack of floodplain connectivity, fish habitat, and watershed process.	\$ 280,596
224-6008	Sherman SWCD	Lower Grass Valley Canyon Low-Tech Process-Based Restoration	A low-tech process-based approach to improve instream habitat will be implemented in Lower Grass Valley Canyon, a tributary to the Lower John Day River.	\$ 60,100
224-6006	Morrow SWCD	Morrow County Grassland Restoration of Annual Grass-Invaded Habitat	Rangeland health will be improved in Morrow County by treating 3,500 acres for invasive annual grasses.	\$ 191,950
224-6007	Walla Walla Basin Watershed Foundation	Couse Creek RM4 Floodplain and Aquatic Habitat Restoration Phase 2	A low-tech process-based approach to improve streamside vegetation and instream habitat conditions will be implemented in Couse Creek, a tributary to the Walla Walla River.	\$ 160,374
224-6004	Wheeler SWCD	Thirtymile Watershed Forest Management	Juniper removal and forest thinning will address forest health on private lands to improve wildlife habitat in the Thirtymile Creek watershed, a tributary to the Lower John Day River.	\$ 321,948
<b>Total Restoration Projects Recommended for Funding by RRT and OWEB Staff</b>				<b>1,014,968</b>

Projects Recommended but NOT FUNDED in Priority Order				
Project #	Grantee	Project Title	Brief Description	Recommended
224-6001	South Fork John Day WC	South Fork John Day Upland Enhancements	Rangeland health and wildlife habitat will be improved in the South Fork John Day watershed by developing upland water sources, treating and protecting aspen communities, and removing juniper.	\$ 394,179

Projects NOT RECOMMENDED for Funding by RRT				
Project #	Grantee	Project Title	Amount Requested	
224-6003	South Fork John Day WC	Battle Creek Upland Improvements	\$ 119,401	
224-6005	Wheeler SWCD	Horse Mountain Sediment Abatement and Wildlife Habitat Enhancement	\$ 175,300	
224-6009	Mid John Day WC	Yellow Jacket Creek Aspen Restoration and Forestry Improvement	\$ 420,041	

Region 6 - Mid-Columbia Basin Technical Assistance				
Projects RECOMMENDED for Funding in Priority Order				
Project #	Grantee	Project Title	Brief Description	Amount Recommended
224-6011	Monument SWCD	Lower Cottonwood Creek Instream Restoration Design	Designs that address irrigation diversions, instream habitat, and bank stabilization will be completed in Cottonwood Creek, a tributary to the North Fork John Day River.	\$ 128,918
224-6013	South Fork John Day WC	Murderers Creek Phase 2 Design	Designs will be completed for instream habitat, floodplain connection, fish passage, and beaver habitat availability in the Murderers Creek watershed, a tributary to the South Fork John Day River.	\$ 139,401
224-6014	Gilliam SWCD	Gilliam County Consultation Assistance	Environmental permitting and cultural resource compliance will be completed to implement low-tech process-based restoration in Hay Creek, a tributary to the Lower John Day River.	\$ 86,433
224-6016	Walla Walla Basin Watershed Foundation	Couse Creek RM 8 Low Tech Restoration Design	Final design and environmental permitting will be completed for low-tech process-based restoration on Couse Creek, a tributary to the Walla Walla River.	\$ 53,452
<b>Total Technical Assistance Projects Recommended for Funding by RRT and OWEB Staff</b>				<b>408,204</b>

Projects Recommended but NOT FUNDED in Priority Order				
Project #	Grantee	Project Title	Brief Description	Amount Recommended

Oregon Watershed Enhancement Board: Region 6 Restoration, Technical Assistance, and Engagement

224-6012	South Fork John Day WC	BARK Aquatic Organism Passage Phase 1	Designs that address fish passage at four culverts will be completed in the South Fork John Day watershed.	\$ 168,357
224-6015	Walla Walla Basin Watershed Foundation	Big and Little Meadow Canyon Creeks Assessment and Action Plan	An assessment and action plan will be developed to address water quality and habitat improvement in Big and Little Meadow Canyon Creeks, tributaries to the North Fork Walla Walla River	\$ 76,810
224-6017	Walla Walla Basin Watershed Foundation	NF Walla Walla River RM 5.2-8.8 Design Advancement from Conceptual to Final	Designs will be completed to restore river function and improve habitat complexity and floodplain connection on the North Fork Walla Walla River.	\$ 613,246

Projects <i>NOT RECOMMENDED</i> for Funding by RRT				
Project #	Grantee	Project Title		Amount Requested
NONE				

Region 6 - Mid-Columbia Basin Engagement				
Projects RECOMMENDED for Funding in Priority Order				
Project #	Grantee	Project Title	Brief Description	Amount Recommended
224-6019	Walla Walla Basin Watershed Foundation	Stormwater Engagement	Landowners, homeowners, and partners will be engaged to discuss the need for green stormwater infrastructure in Milton-Freewater and regions outside the urban growth boundary of Umatilla County.	\$ 18,229
<b>Total Engagement Projects Recommended for Funding by RRT and OWEB Staff</b>				<b>18,229</b>

Projects Recommended but NOT FUNDED in Priority Order				
Project #	Grantee	Project Title	Brief Description	Amount Recommended
NONE				

Projects <i>NOT RECOMMENDED</i> for Funding by RRT				
Project #	Grantee	Project Title		Amount Requested
224-6018	Walla Walla Basin Watershed Foundation	Walla Walla Engagement Project		\$ 83,586

<b>Region 6 Total OWEB Staff Recommended Board Award</b>	<b>1,441,401</b>
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<b>Region 1 - 6 Grand Total OWEB Staff Recommended Board</b>	<b>11,378,813</b>
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# Open Solicitation-Open Solicitation Fall 2023 Restoration

Mid Columbia (Region 6)

**Application Name:** 224-6001-23244

**Project Type:** Restoration

**Project Name:** South Fork John Day Upland Enhancements

**Applicant:** South Fork John Day WC

**Region:** Mid Columbia

**County:** Grant

**OWEB Request:** \$394,179

**Total Cost:** \$721,012

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**Application Description** This project is located in the Southwestern most portion of Grant County, in the headwaters of the South Fork John Day River, at the heads of Flat, and Brisbois creeks. This also incorporates the headwaters of the South Fork of Beaver Creek. The South Fork John Day River upland health restoration is important for improved water quantity/quality, and wildlife habitat. The area is listed as critical winter and summer range for Mule Deer and Elk. This area is also the priority area for the South Fork John Day Watershed Council's (SFJDWC) Regional Conservation Partnership Program (RCPP) through the NRCS.

We are partnering across 4 different landowners, Keerins Ranch, IZ Ranch, Lewellyn property, and Gallaway property. This project in conjunction with the South Fork John Day Watershed Council's RCPP, and additional OWEB projects, will achieve a large-scale restoration effort for the South Fork John Day Upland Health.

We are proposing to match RCPP, Environmental Quality Incentive Program (EQIP), and private landowner efforts which include 7 upland water developments, 318 acres of Juniper and Conifer removal, 1.5 acres aspen protective fence, and 6,000 feet of pasture fence. This will also compliment previously awarded and completed OWEB projects totaling 495 acres of aspen enhancement and conifer removal and 1 upland water development (Grant #'s: 218-6005, 219-6015, and 220-6014).

We are requesting OWEB funding for an additional 265 acres of Juniper removal, 250 acres of Juniper/Conifer removal, and protection of 6 acres of Aspen through Buck and Pole Fencing.

## Review Team Evaluation

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### Strengths

- Previous application evaluation concerns are addressed by including information on previously completed restoration actions, improved detail on site conditions, and utilizing buck and pole fencing to protect aspen.
- Partner roles are clearly defined. The project team has a consistent track record for implementing similar projects.

- The proposed restoration will address juniper encroachment, protect aspen, and install spring developments that will improve upland habitat conditions and minimize grazing impacts to sensitive aspen areas.
- The proposed actions will reduce wildfire risk through juniper removal.
- There is a high level of landowner interest in the project and the proposed actions build on previous landowner efforts and the South Fork John Day Watershed Council's Resource Conservation Partnership Project (RCP).  
Partnership Project (RCP).
- The South Fork John Day Watershed Council has a long history of working on similar landscape-scale efforts with multiple landowners.

### **Concerns**

- Additional detail on the spring developments and land management goals would be helpful context to better understand all the potential habitat benefits of the proposed project.
- It is unclear how the project fits into the larger South Fork John Day Juniper Prioritization.
- Project costs are provided as lumped sums, it is difficult to evaluate whether costs are reasonable, necessary, and adequate for achieving the proposed objectives.
- Removing juniper treats symptoms instead of causes of watershed disturbance; it will be challenging to maintain habitat gains without addressing lack of fire and impacts of grazing in the long-term.

### **Concluding Analysis**

The South Fork John Day Watershed Council proposes to create resilient upland habitat through juniper removal, aspen protection, and spring developments. The proposed treatments will benefit wildlife habitat, including critical winter and summer range for mule deer and elk. Additional information on how this project is prioritized in the broader South Fork John Day landscape is needed to understand the expected watershed benefits for the cost.

### **Review Team Recommendation to Staff**

Fund

### **Review Team Priority**

6 of 6

### **Review Team Recommended Amount**

\$394,179

### **Review Team Conditions**

N/A

### **Staff Recommendation**

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### **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-Open Solicitation Fall 2023 Restoration

Mid Columbia (Region 6)

**Application Name:** 224-6002-23257

**Project Type:** Restoration

**Project Name:** Meacham Creek RM 10-11 Floodplain and In-Stream Habitat Restoration

**Applicant:** Confederated Tribes Umatilla Indian Reservation

**Region:** Mid Columbia

**County:** Umatilla

**OWEB Request:** \$280,596

**Total Cost:** \$821,465

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**Application Description** The CTUIR's proposal for the Meacham Creek RM 10-11 Instream Design project will be the 5th year of floodplain restoration in the Meacham Creek Watershed. The Project area encompasses 105 acres of channel, streambank, and floodplain habitat between RM 9.1 and RM 10.1 on Meacham Creek, just downstream of the confluence of Camp Creek in T01N, R33E, in portions of sections 5 and 8, Umatilla County, Oregon. The Project area is located on USFS land, but directly abuts privately held parcels. In addition, the Union Pacific Railroad (UPRR) railway runs down the east edge of the valley and parallel to the river corridor. The project was designed to meet ARBO II permitting requirements.

Over the past 150 years, the Meacham Creek floodplain has been disconnected from its floodplain due to the development and construction of the UPRR line that runs parallel to the stream. The development of the rail line led to extensive diking for protection, logging for fuel, and vegetation alteration has ultimately left Meacham Creek straightened and confined against the valley wall disconnected from its floodplain. These impacts have resulted in a decrease in channel complexity, a lack of woody materials, a substantial loss of floodplain connectivity and an overall simplification of floodplain processes. Meacham Creek lacks floodplain connectivity and habitat complexity for Endangered Species Act-listed Middle Columbia summer steelhead and Columbia River bull trout, as well as Chinook salmon, Pacific lamprey, and other first foods that utilize the watershed.

The CTUIR is partnering with several agencies including US Forest Service, Bonneville Power Administration, US Environmental Protection Agency, Union Pacific Railroad, and National Oceanic and Atmospheric Administration Fisheries' Pacific Coastal Salmon Recovery Fund.

## Review Team Evaluation

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### Strengths

- The project builds on previous OWEB investments in floodplain connectivity and fish habitat in Meacham Creek.
- The proposed restoration will address watershed limiting factors and habitat restoration needs for ESA-listed fish identified in the Umatilla River Vision, including floodplain connectivity and fish spawning and rearing habitats.

- A technically sound, holistic approach will be used to restore watershed function and ecosystem processes.
- The proposal describes restoration alternatives and the rationale for the selected design is appropriate to achieve the project goals.
- Proposed actions will address yearly removal and treatment of non-native species and incorporates seasonal planting of native species.
- The applicant has established appropriate partnerships with agencies, landowners, and other partners in the region.
- Partner support is demonstrated by the letter of support and match contribution.
- Project costs are clear and align with the proposed work.

### **Concerns**

- Including detail in the application explaining results from monitoring completed on past projects could provide helpful information on the lessons learned and effectiveness of past restoration efforts.
- The application indicates watershed limiting factors identified in the Meacham Creek Watershed Assessment and Action Plan will be addressed but lacks detail on how the project is prioritized in that plan.

### **Concluding Analysis**

The Confederated Tribes of the Umatilla Indian Reservation are proposing to continue large-scale restoration work on Meacham Creek that was started in 2011. The proposed actions will address the lack of floodplain connectivity caused by the railroad line and provide off-channel spawning and rearing fish habitat. The holistic approach to addressing watershed process in Meacham Creek will benefit ESA-listed Mid-Columbia steelhead, bull trout, Chinook salmon, Pacific lamprey, and other CTUIR first foods in the watershed.

### **Review Team Recommendation to Staff**

Fund

### **Review Team Priority**

1 of 6

### **Review Team Recommended Amount**

\$280,596

### **Review Team Conditions**

N/A

### **Staff Recommendation**

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### **Staff Follow-Up to Review Team**

N/A

**Staff Recommendation**

Fund

**Staff Recommended Amount**

\$280,596

**Staff Conditions**

N/A

# Open Solicitation-Open Solicitation Fall 2023 Restoration

Mid Columbia (Region 6)

**Application Name:** 224-6003-23272

**Project Type:** Restoration

**Project Name:** Battle Creek Upland Improvements

**Applicant:** South Fork John Day WC

**Region:** Mid Columbia

**County:** Grant

**OWEB Request:** \$119,401

**Total Cost:** \$159,257

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**Application Description** The Battle Creek Ranch is located in Grant County, Oregon, approximately 2.5 miles West of the town of Dayville. This property includes the Battle Creek watershed, with multiple side tributaries. The Battle Creek Ranch is 1,462 acres with approximately 5,000 acres of BLM allotted ground intermixed with the private land. The Southeast corner of the property is bordered by the ODFW Phillip W. Schneider Wildlife Area and classified as critical winter range habitat for mule deer.

Battle Creek is listed as a Critical Habitat Stream for Mid-Columbia Steelhead and is also listed on the DEQ 303d list for temperature with a 7-day average of daily maximum of 74.5 with 122 days exceeding temperature standards.

Vernoy Walker recently purchased this property in 2022, and we have toured the property multiple times with many partners in order to assist in developing a master restoration plan for the ranch. This property is dealing with legacy livestock use issues, degraded upland vegetation, stream channel incision, Juniper encroachment, and invasive species (annual grass and noxious weeds).

We are requesting OWEB support in order to address 190 acres of Juniper encroachment and re-develop 2 BLM upland water sources. This will compliment annual grass control efforts by Grant SWCD, and the private landowner, as well as upland water developments by the landowner.

## Review Team Evaluation

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### Strengths

- Previous application evaluation concerns are addressed by removing irrigation reservoir components from the project.
- The grazing management plan provided in the application includes a reduction in animal units and incorporates rotational grazing which will protect habitat improvements in the long-term.
- Restoration efforts has potential to improve water quality and the diversity of instream habitat in Battle Creek.
- Landowner support is demonstrated by a commitment to seeding after noxious weed treatments.

- Project costs are reasonable for the proposed juniper removal.

### Concerns

- The project objectives are not clear and lack details. Separating the activities into multiple, measurable objectives would clarify the project scope of work.
- The application identifies improvements to surface and ground water as an expected watershed benefit based on a study that is not cited in the application.
- It is unclear how the proposed project will implement actions prioritized in a watershed restoration plan. For example, Battle Creek is not a high priority stream for providing benefit to steelhead and the juniper removal is not in a priority location.
- The application lacks enough information to understand technical soundness and benefits of the water developments. Additional information explaining the design, budget, and partner support for the water developments is needed to evaluate whether the methods are technically sound, and costs reflect the quantified watershed benefits. For example, the location of the water developments next to a stream may require a more extensive permitting process.

### Concluding Analysis

The South Fork John Day Watershed Council is working with a new landowner to address legacy land management issues in the Battle Creek watershed. The proposed project has potential to improve upland health in critical mule deer winter range by removing juniper in Mid and Lower Battle Creek and treating annual grasses and noxious weeds; however, quantified watershed health benefits for the cost are unclear.

### 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

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### Staff Follow-Up to Review Team

N/A

### Staff Recommendation

Do Not Fund

### Staff Recommended Amount

\$0

**Staff Conditions**

N/A

# Open Solicitation-Open Solicitation Fall 2023 Restoration

Mid Columbia (Region 6)

**Application Name:** 224-6004-23289

**Project Type:** Restoration

**Project Name:** Thirtymile Watershed Forest Management

**Applicant:** Wheeler SWCD

**Region:** Mid Columbia

**County:** Wheeler

**OWEB Request:** \$321,948

**Total Cost:** \$430,164

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**Application Description** 1) This project is located in the Thirtymile Watershed, approximately 15 miles Northeast of Fossil, OR in Wheeler County. Thirtymile Creek is one of the three highest priority areas in the Atlas Prioritization ranking (John Day Basin Partnership, 2018). 2) The expansion of western juniper (*Juniperus occidentalis*), over-stocked forests, limited water availability, invasion of annual grasses, and climate change has degraded the state of the Thirtymile Watershed. Historical wildfire suppression has allowed the encroachment of western juniper into forest stands and grasslands where the species previously did not inhabit. This encroachment impedes aquifer recharge resulting in water quality and quantity issues, as well as degrading wildlife habitat and food source through the loss of native vegetation. As western juniper expands into forest stands and increases canopy cover, resource competition and fuel load that risk catastrophic wildfires also increases. Dense forest stands have higher resource competition as canopy cover restricts healthy mature trees from thriving. 3) This project proposes to address the negative impacts western juniper imposes and thin overstocked forest stands to a healthy density to restore multiple functions in the Thirtymile Watershed. The project will also develop one spring and install pasture/crossing fencing to improve water storage capacity and help distribute grazing. 4) Project partners include OWEB, NRCS, ODF, and the landowner.

## Review Team Evaluation

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### Strengths

- Previous application evaluation concerns are addressed by attaching the forest management plan and explaining mule deer and elk movement across the property.
- The application includes clearly defined objectives and methods that are appropriate for increasing forest health.
- The landowner is using a forest management plan for the property to improve forest health conditions by addressing juniper encroachment, reducing beetle infestations, and improving fire resilience.
- The proposed actions will treat the cause of degraded forest health instead of the symptoms.
- Restoration alternatives were identified and evaluated for addressing the watershed problem.

- Similar work is occurring in the watershed through the Lower John Day Canyons Restoration Initiative, Resource Conservation Partnership Program (RCPP).
- The landowner has successfully completed Natural Resources Conservation Service (NRCS) projects focused on forest stand health.
- Project costs includes funds for an Oregon Department of Forestry (ODF) forester to be engaged in the project to inventory forest stands and certify completed work.

### **Concerns**

- The Umatilla National Forest Plan and Mid-Columbia steelhead recovery plans are noted in the application, but it is unclear how the project implements specific actions prioritized in these plans.
- The application lacks detail for the spring development design. It is unclear if the spring source will be adequate for current grazing management needs.

### **Concluding Analysis**

Wheeler SWCD is proposing to address forest health in the Thirtymile watershed through juniper treatment and forest thinning. The landowner has demonstrated commitment to pursuing restoration on the property and has successfully completed similar projects. Restoring Thirtymile watershed function and forest health will improve desired grass and forb communities, forage productions, and wildlife habitat.

### **Review Team Recommendation to Staff**

Fund

### **Review Team Priority**

5 of 6

### **Review Team Recommended Amount**

\$321,948

### **Review Team Conditions**

N/A

### **Staff Recommendation**

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#### **Staff Follow-Up to Review Team**

N/A

#### **Staff Recommendation**

Fund

#### **Staff Recommended Amount**

\$321,948

#### **Staff Conditions**

N/A

# Open Solicitation-Open Solicitation Fall 2023 Restoration

Mid Columbia (Region 6)

**Application Name:** 224-6005-23294

**Project Type:** Restoration

**Project Name:** Horse Mountain Sediment Abatement and Wildlife Habitat Enhancement

**Applicant:** Wheeler SWCD

**Region:** Mid Columbia

**County:** Wheeler

**OWEB Request:** \$175,300

**Total Cost:** \$235,763

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**Application Description** 1) This project is located in central Wheeler County, on privately owned property approximately 18 miles north of the town of Mitchell, Oregon. This project lies on Horse Mountain, which is located within the Service Creek Watershed. 2) There are no known stream systems throughout the property, however, all drainages on the property have several spring systems and all water sources drain into the mainstem of the John Day River. Due to historic fire suppression the landscape has become heavily encroached by western juniper compromising the watersheds function of capturing, storing, and safely releasing water back into the system (Barrett 2007). During storm events excessive sediment loads are transported into the John Day River affecting water quality. In addition, water quantity is compromised as western juniper encompasses a majority of the sagebrush-steppe grasslands prohibiting native bunchgrass communities from establishing and flourishing resulting in increased surface runoff as more bare soil is present. Past grazing management has also altered the natural disturbance dynamics causing the native plant communities to be degraded. Aspen Woodlands have also been threatened as invasive western juniper encroaches reducing wildlife forage and shelter, ultimately removing their presence from the landscape. 3) This project area offers a unique combination of terrain and aspects allowing potential productive habitat year around with forage and habitat cover and increased water quality/quantity. This area encompasses a large amount of north facing slopes, which are priority areas for restoration efforts as grass communities in these areas have deep, nutrient rich soils that allow retention to become more resilient. This project proposes to remove 494 acres of western juniper, develop two springs, and protect one aspen stand. 4) Project partners include OWEB, CTWS, Wheeler SWCD, and the landowner.

## Review Team Evaluation

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### Strengths

- The proposed project will address limiting factors for upland health in the Horse Mountain area that were caused by previous land management activities.
- Treating primarily the northern aspects and locations with the densest juniper populations is a technically sound strategy to restore a resilient landscape.
- The proposed fencing approach to aspen restoration will improve aspen stands and the fencing will be wildlife friendly.

- Applicant has capacity to accomplish the project goals and has successfully implemented similar projects.
- Project costs are reasonable for the proposed juniper removal.
- The Confederated Tribes of Warm Springs contribution demonstrates partner support.

### **Concerns**

- Additional detail is needed to better understand proposed activities and methods, such as using SMART objectives and details explaining how objectives will be accomplished.
- Some of the treatments proposed may not be effective. For example, hand-cut juniper will be moved to the drainage bottom and burned; this approach will not meet the objective of reducing sedimentation because it will likely scarify the drainage bottom and lead to erosion.
- The application lacks a grazing management strategy. With overgrazing listed as a cause of watershed degradation, information is needed to understand grazing management plans to evaluate whether appropriate methods will be used to sustain long-term watershed benefit from the investment.
- Including a description of other juniper removal work in the Service Creek watershed would be helpful to understand how the approach is strategic and fits within past and future restoration.
- The Natural Resources Conservation Service (NRCS) is not listed as a partner, but the application states spring development designs will be completed to NRCS standards. It is unclear who will create the designs and whether they will be qualified to generate designs that meet NRCS and Oregon engineering standards.

### **Concluding Analysis**

The Wheeler SWCD is proposing to improve the ecological condition of a property in the Service Creek watershed by removing juniper, protecting aspen stands, and developing spring sites. Overgrazing, drought, and fire suppression are the main causes of watershed degradation in the project area, and the proposed methods will address impacts from these stressors; however, the project may not be ready for implementation. The application lacks details necessary to evaluate the project methods and potential ecological benefits to fish and 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

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### Staff Follow-Up to Review Team

N/A

### Staff Recommendation

Do Not Fund

### Staff Recommended Amount

\$0

### Staff Conditions

N/A

# Open Solicitation-Open Solicitation Fall 2023 Restoration

Mid Columbia (Region 6)

**Application Name:** 224-6006-23297

**Project Type:** Restoration

**Project Name:** Morrow County Grassland Restoration of Annual Grass-Invaded Habitat

**Applicant:** Morrow SWCD

**Region:** Mid Columbia

**County:** Morrow

**OWEB Request:** \$191,950

**Total Cost:** \$280,700

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**Application Description** Our proposed project is focused on restoring grassland habitat located within the Columbia Plateau Ecoregion, specifically the foothills to the north of the Umatilla National Forest. This area is identified by Oregon Department of Fish and Wildlife as a conservation opportunity area extending from Rock Creek to Butter Creek. Historically this habitat was comprised of lush bunchgrass prairies and healthy riparian corridors. It has since been degraded by agriculture, over grazing, fire, urban growth, changing climate, and encroachment by invasive species including exotic annual grasses. Invasive annual grasses have out competed desirable species, reduced native species diversity, suppressed forage production, decreased the nutritional quality of forage, and disrupted the historical fire regime. These shifts have negatively impacted livestock and wildlife species by reducing the quantity and quality of available forage resulting in poor production and population declines. Research conducted throughout our county over the last 4 years found that annual grass selective herbicides applied in a moderately infested area can be an effective way to restore rangeland habitat and improve the quantity, quality, and composition of vegetation. Given these results we propose the Morrow County Grassland Restoration of Annual Grass Invaded Habitat project. The proposed project aims to restore 3,500 acres of annual grass invaded rangeland habitat using the selective herbicide Rejuvra. Project area was selected with input from NRCS and ODFW and encompasses 120,000 AC between Willow Creek and Rhea Creek. A range of elevations, soil types, precipitation ranges and plant communities will be treated. Project partners contributing financially and with project implementation include Morrow Soil and Water Conservation District, Oregon Department of Fish and Wildlife, Natural Resource Conservation Service, Morrow County Weed Department, and Heppner Rural Fire District.

## Review Team Evaluation

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### Strengths

- Previous application evaluation concerns are addressed by reducing the size of the proposed treatment area around Heppner and providing documentation of landowner interest.
- The strategy for selecting treatment areas is technically sound for maintaining intact rangeland habitat while working to restore areas moderately infested with invasive annual grasses. Areas with 15-60% annual invasive grass cover and an existing stand of native perennial bunchgrasses, forbs, and shrubs will be targeted for treatment to reduce the need for reseeding because these areas can naturally regenerate following the suppression of annuals.

- Proposed work addresses multiple regional recovery plans, including Oregon Department of Fish and Wildlife (ODFW) mule deer and elk management plans.
- Project costs are reasonable for the proposed chemical and aerial herbicide application.
- Landowner and partner commitment is demonstrated by the letters of support and the match contribution.

### **Concerns**

- Previous application evaluation concerns related to grazing management plans are not addressed. It is unclear how grazing management will be evaluated to prioritize site selection for herbicide application.
- The roles of the wildlife biologist listed in the application budget is unclear.
- The plan for long-term maintenance post-treatment is unclear from the application.

### **Concluding Analysis**

The Morrow SWCD proposes to treat and restore 3,500 acres of rangeland habitat for annual grasses using herbicide in Morrow County surrounding Heppner. The project area was selected with input from ODFW and Natural Resources Conservation Service (NRCS) and there are multiple relevant partners contributing to the project. The proposed strategy of chemical and aerial application has proven successful in surrounding counties.

### **Review Team Recommendation to Staff**

Fund

### **Review Team Priority**

3 of 6

### **Review Team Recommended Amount**

\$191,950

### **Review Team Conditions**

N/A

### **Staff Recommendation**

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### **Staff Follow-Up to Review Team**

N/A

### **Staff Recommendation**

Fund

### **Staff Recommended Amount**

\$191,950

### **Staff Conditions**

N/A

# Open Solicitation-Open Solicitation Fall 2023 Restoration

Mid Columbia (Region 6)

**Application Name:** 224-6007-23302

**Project Type:** Restoration

**Project Name:** Couse Creek RM4 Floodplain and Aquatic Habitat Restoration Phase 2

**Applicant:** Walla Walla Basin Watershed Foundation

**Region:** Mid Columbia

**County:** Umatilla

**OWEB Request:** \$160,374

**Total Cost:** \$231,462

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**Application Description** 1. Project Location: Couse Creek is a tributary of the Walla Walla River located near Milton-Freewater in Umatilla County. The proposed project area includes a half-mile reach beginning at River Mile 4.

2. Project Need: Couse Creek is a primary spawning and rearing area for ESA-listed summer steelhead. An OWEB-funded 2020 watershed assessment documented limited aquatic habitat complexity, seasonally dry reaches, and high summer water temperatures. The RM 4 project area has limited floodplain connection, dry stream terraces dominated by invasive species, and impaired hydrology and sediment routing.

3Proposed Work: The project is the second phase of an effort to use a low-tech, process-based restoration approach to restore the natural hydraulic functions that facilitate healthy riparian vegetation and diverse instream habitat. Phase one produced the restoration design and treated 1/4 mile of the stream by installing 38 instream wood structures. Phase two will treat the remaining 1/4 mile by installing the Post-Assisted Log Structures (PALS) and Beaver Dam Analogs (BDA) described in the design document. In addition to instream treatment, the project includes invasive species removal and riparian planting on the floodplain terraces.

4) Partners include WWBWC, OWEB, the landowner, and Bonneville Power Administration as a funding partner.

## Review Team Evaluation

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### Strengths

- The watershed problem is clearly identified, and the restoration methods are appropriate for addressing it.
- A technically sound approach will be used to restore natural hydraulic functions in Couse Creek that facilitate healthy riparian vegetation and diverse instream habitat.
- The project will address watershed limiting factors, including floodplain connection, seasonally dry reaches, high summer water temperatures, and invasive plant species.
- Couse Creek is an important tributary in the Walla Walla basin with both spawning and rearing habitat for ESA-listed steelhead.

- The project builds on a previous OWEB investment in Couse Creek for design and implementation of low-tech process-based restoration.
- The selected contractor has extensive experience installing effective low-tech process-based restoration.
- Removal of invasive plant species and establishing native riparian vegetation is critical to project success. Landowner commitment to using existing irrigation to maintain treated areas indicates a high likelihood for success in achieving desired riparian vegetation long-term.

### **Concerns**

- Additional detail describing how this project fits within the context of past and future restoration efforts in the watershed would provide helpful context for understanding habitat benefits for the cost.
- Project costs are high compared to similar projects in other locations. Staff time and contracted services seem high given project designs are complete, and landowners are committed to the project. Detail explaining how cost were estimated is needed to evaluate whether costs are reasonable and necessary to accomplish the objectives.
- Mechanical treatment of invasive plant species has a higher cost compared to chemical treatment and is often less effective. Information explaining the rationale for using mechanical treatment would be helpful to evaluate technical soundness of this project component.

### **Concluding Analysis**

The project builds on efforts by the Walla Walla Watershed Council to use low-tech process-based restoration in Couse Creek and address watershed limiting factors affecting ESA-listed fish. Natural hydrologic function will be restored that will facilitate a healthy riparian vegetation and improve instream habitat conditions. Local volunteers will actively participate in restoration actions that will help to build awareness of the benefits of low-tech process-based restoration and improve the likelihood of additional projects to be implemented in the basin.

### **Review Team Recommendation to Staff**

Fund

### **Review Team Priority**

4 of 6

### **Review Team Recommended Amount**

\$160,374

### **Review Team Conditions**

N/A

### **Staff Recommendation**

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### **Staff Follow-Up to Review Team**

N/A

**Staff Recommendation**

Fund

**Staff Recommended Amount**

\$160,374

**Staff Conditions**

N/A

# Open Solicitation-Open Solicitation Fall 2023 Restoration

Mid Columbia (Region 6)

**Application Name:** 224-6008-23320

**Project Type:** Restoration

**Project Name:** Lower Grass Valley Canyon Low-Tech  
Process-Based Restoration

**Applicant:** Sherman SWCD

**Region:** Mid Columbia

**County:** Sherman

**OWEB Request:** \$60,100

**Total Cost:** \$76,086

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**Application Description** The project is located on Grass Valley Canyon (GVC) Creek approximately 5 miles from the mouth. GVC Creek is a tributary to the John Day River and the John Day River drains into the Columbia River. It is approximately 14 miles East of Wasco in Sherman County. Due to historic intensive land-use coupled with impacts from large episodic floods it prevented the recovery of aquatic habitat quantity and quality throughout much of the mainstem of Grass Valley Canyon Creek. The lower 7 miles of Grass Valley Canyon Creek suffers from a lack of perennial surface flow, reduced channel geomorphic complexity, and a lack of riparian and wetland vegetation. This project will explore the efficacy of using structural treatments to expedite the recovery and expansion of aquatic and wetland habitat in Grass Valley Canyon Creek through installation of greater than 30 beaver dam analog structures. This 'pilot' level project will work to increase pool habitat, create needed in-channel complexity, and expand existing channel habitat by up to 2 km, and create up to 2 ac. of wetland habitat capable of supporting wetland and riparian vegetation. The reach is currently protected by a riparian fence and is enrolled in CREP. Project partners include NRCS, FSA, BLM, ODFW, and Sherman County Area Watershed Council.

## Review Team Evaluation

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### Strengths

- The proposed project will address reduced channel complexity caused by high flow events and prior land management in Lower Grass Valley.
- The project builds on a previous OWEB investment to complete an assessment, a restoration treatment plan for the proposed stream reach, and environmental permitting required for project implementation.
- The design approach is technically sound and appropriate for the site conditions by extending the area of pool habitat, activating secondary stream channels, and restoring riparian vegetation.
- The project area is fenced to exclude cattle and the landowner will maintain the fence. This will contribute to long-term protection of the investment.

- The proposed restoration will address actions identified in the Mid-Columbia steelhead recovery plan.
- The approach for installing beaver dam analogs (BDAs) will facilitate learning as a pilot project that could inform future restoration actions. There is beaver activity upstream of the project area in Hay Canyon; however, the Lower John Day beaver population is limited. This pilot project could demonstrate the benefit of installing BDAs to expedite the recovery and expansion of aquatic and wetland habitat in Grass Valley Canyon Creek in the absence of beaver activity needed to build and sustain healthy habitat.
- The selected contractor is experienced with low-tech process-based restoration throughout the Lower John Day basin.
- The project has potential to raise awareness about watershed restoration and be leveraged to engage other landowners in future projects.
- Project costs are appropriate for anticipated watershed benefits that will be gained for ESA-listed steelhead.

### **Concerns**

- Including detail in the application objectives describing monitoring activities referenced in the wrap up section that explain how sites will be monitored, what the schedule will be, and the expertise available would be helpful to understand how effectiveness of this pilot project will be evaluated.
- The connection of Grass Valley to the John Day River is dependent on snowpack and may often be disconnected to steelhead movement during some times of the year, which will limit potential benefits for ESA-listed fish.

### **Concluding Analysis**

Low-tech process-based restoration in Grass Valley is a technically sound and cost-effective treatment method for the site. The restoration approach is likely to succeed in restoring aquatic and wetland habitat and lead to additional work in the Grass Valley watershed that addresses flow and fish habitat needs. The proposed project builds on previous OWEB investments and compliments multiple low-tech process-based restoration projects completed in the Lower John Day.

### **Review Team Recommendation to Staff**

Fund

### **Review Team Priority**

2 of 6

### **Review Team Recommended Amount**

\$60,100

### **Review Team Conditions**

N/A

## Staff Recommendation

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### Staff Follow-Up to Review Team

N/A

### Staff Recommendation

Fund

### Staff Recommended Amount

\$60,100

### Staff Conditions

N/A

# Open Solicitation-Open Solicitation Fall 2023 Restoration

Mid Columbia (Region 6)

**Application Name:** 224-6009-23334

**Project Type:** Restoration

**Project Name:** Yellow Jacket Creek Aspen Restoration and Forestry Improvement

**Applicant:** Mid John Day WC

**Region:** Mid Columbia

**County:** Wheeler

**OWEB Request:** \$420,041

**Total Cost:** \$617,441

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**Application Description** Yellow Jacket Creek is a tributary to Parrish Creek in eastern Wheeler County. Yellow Jacket Creek and its tributaries have significant aspen stands that are suffering from conifer encroachment. In addition, surrounding forest stands are overstocked and are susceptible to insects and disease.

OWEB funds are requested to remove encroaching conifers including western juniper on 20 acres around the aspen stands, to install 6000' of brush fence and 4100' of buck and pole fencing around aspens for protection from large ungulate browsing, for 295 acres pre-commercial thinning of overstocked forest stands in Yellow Jacket Creek and one tributary, and to remove 175 acres of western juniper from the west slope of Yellow Jacket Creek. This project also proposes to develop four springs and reseed 50 acres of disturbed ground.

Partners include OWEB, the landowner, Mid John Day Watershed Council and Oregon Department of Forestry for technical advice.

## Review Team Evaluation

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### Strengths

- The application has clear objectives and activities focused on watershed health.
- Livestock grazing has been eliminated from the property for the last five years and will be reintroduced in a careful, prescribed approach. This reduced grazing will sustain the effectiveness of the proposed restoration approach.
- New landowners at the project site have 10-year stewardship goals focused on forest health, juniper encroachment, and loss of aspen stands. This strategic planning indicates a high likelihood for long-term sustainability of watershed health benefits.
- Landowner support is demonstrated by previously completed restoration and match commitment.
- Costs are appropriate for the proposed work and anticipated watershed benefits.

### Concerns

- The Natural Resources Conservation Service (NRCS) is not listed as a partner, but the application states spring development designs will be completed to NRCS standards. It is unclear who will create the designs and whether they will be qualified to generate designs that meet NRCS and Oregon engineering standards.
- The application lacks site characteristics and design details for the spring developments needed to evaluate whether the approach is technically sound and appropriate for the sites.
- It is unclear why spring developments are needed without grazing management strategies articulated in the application.
- The application discusses working with the Oregon Department of Forestry (ODF), but they are not listed as a partner and their role is not described in the application project management table. It is unclear whether the applicant is engaging experts needed to develop a forest management plan.

### **Concluding Analysis**

The Mid-john Day Watershed Council is working with new landowners to improve upland health in the Parrish Creek watershed by protecting aspen stands, thinning forest stands, removing juniper, and installing spring developments. Additional details explaining spring developments and forest stocking levels is needed to evaluate the technical soundness of the project methods. If resubmitted, the applicant is encouraged to address the concerns noted above.

### **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**

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#### **Staff Follow-Up to Review Team**

N/A

#### **Staff Recommendation**

Do Not Fund

#### **Staff Recommended Amount**

\$0

#### **Staff Conditions**

N/A

# Open Solicitation-Open Solicitation Fall 2023 Technical Assistance

Mid Columbia (Region 6)

**Application Name:** 224-6011-23258

**Project Type:** Technical Assistance

**Project Name:** Lower Cottonwood Creek Instream Restoration Design

**Applicant:** Monument SWCD

**Region:** Mid Columbia

**County:** Grant

**OWEB Request:** \$128,918

**Total Cost:** \$131,093

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**Application Description** 1) The proposed project will take place on private property owned by Kurt Boyer, located 2 miles south of the town of Monument, along lower Cottonwood Creek (HUC 1707020209) in Grant County, Oregon.

2) Cottonwood Creek is a 303(d) listed stream for temperature that provides spawning and rearing habitat to ESA listed Mid-Columbia River steelhead. High water temperatures and low summer flows are the primary limiting factors to steelhead populations in Cottonwood Creek, a major tributary to the North Fork John Day River. Smallmouth bass have expanded their range several miles into the Cottonwood watershed, cross competing for habitat resources and adding predation pressure to native species. Land use changes throughout the watershed have modified hydrologic timing, resulting in very efficient (flashy) transport of basin runoff.

3) This grant proposes to develop engineered designs for three Points of Diversion (POD), instream habitat and bank stabilization features, along approximately 0.7 miles of Cottonwood Creek. The designs will include stable pools for three PODs, low-tech process-based restoration (LTPBR) structures such as beaver dam analogues (BDA) and post assisted log structures (PALS), along with two bank stabilization features. POD designs will limit landowner maintenance within the riparian zone. LTPBR structures will improve LWD retention, attenuate flows, improve floodplain connectivity, aggregate sediment, and increase riparian hardwood productivity. The increased physical complexity within the channel may be utilized by steelhead, but to greater benefit, BDAs are thought to limit the movement of smallmouth bass upstream protecting high quality habitat above the project site. Two locations that exhibiting bank instability will have structural wood placements to allow the riparian zone to establish, reduce sediment inputs, and protect property infrastructure.

4) Partners for the project include Kurt Boyer (LO), ODFW, CTWS and Monument SWCD.

## Review Team Evaluation

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### Strengths

- The application clearly describes the need, proposed solution, and project objectives. Uploads of photos and maps included in the application provide context to better understand the application.
- The restoration actions that will be designed will address habitat limiting factors identified in local plans, such as high-water temperature, channelization, channel incision, and floodplain connectivity.

- Creating stable irrigation points of diversion will reduce the need for the landowner to use heavy machinery in the riparian area for maintenance purposes. Facilitating a solution that balances land management goals with habitat provides a high likelihood for the investment to lead to a sustainable watershed health benefit.
- The landowner, ODFW, CTWS, and the SWCD are engaged to implement the project.
- The applicant has engaged appropriate agencies, which included discussions with OWRD prior to submitting the application.
- Costs are reasonable for the work proposed; budget detail is clear and aligns with proposed objectives.

### **Concerns**

- Additional detail describing the concerns related to small mouth bass distribution in Cottonwood Creek and their impacts to native fish would be helpful for better understanding why the proposed solution is appropriate.

### **Concluding Analysis**

Monument SWCD is proposing to develop restoration designs that will improve three irrigation points of diversion and address instream habitat and bank stabilization along Cottonwood Creek, a tributary to the North Fork John Day River. The resulting restoration actions will be implemented in ESA-listed Mid-Columbia steelhead habitat and address limiting factors identified in recovery plans. The actions also align with the ODFW Action Plan for Beaver Modified Landscapes to accelerate beaver habitat in the Cottonwood/Fox watershed, which is identified as a Beaver Emphasis Area.

### **Review Team Recommendation to Staff**

Fund

### **Review Team Priority**

1 of 7

### **Review Team Recommended Amount**

\$128,918

### **Review Team Conditions**

N/A

### **Staff Recommendation**

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### **Staff Follow-Up to Review Team**

N/A

### **Staff Recommendation**

Fund

### **Staff Recommended Amount**

\$128,918

**Staff Conditions**

N/A

# Open Solicitation-Open Solicitation Fall 2023 Technical Assistance

Mid Columbia (Region 6)

**Application Name:** 224-6012-23262

**Project Type:** Technical Assistance

**Project Name:** BARK Aquatic Organism Passage Phase 1

**Applicant:** South Fork John Day WC

**Region:** Mid Columbia

**County:** Grant

**OWEB Request:** \$168,357

**Total Cost:** \$168,757

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**Application Description** This project is a result of the South Fork John Day Passage Barrier Inventory performed by retired ODFW District Fish Biologist, Jeff Neal, and funded by OWEB grant #: 216-6031. The inventory identified 77 full or partial barriers in the Steelhead critical habitat streams of Deer Creek, Murderers Creek, and Cougar Gulch.

Through partnership with the Malheur National Forest - Blue Mountain Ranger District and Grant Soil and Water Conservation District, we have identified 4 passage barriers to address in phase 1 in order to begin opening access to over 94 miles of critical habitat in the South Fork John Day Watershed.

We are requesting OWEB support in order to secure design, through Grant SWCD, for 4-culverts, identified in the Passage Inventory, and prioritized by the Malheur National Forest. 3 of these culverts are located within the Murderers Creek watershed (Tex Creek, Sugar Creek and Dans Creek) and 1 is located in the Deer Creek watershed (Buck Creek).

## Review Team Evaluation

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### Strengths

- The application clearly describes objectives and project activities to address fish passage at four culverts in the South John Day watershed.
- Addressing four fish passage barriers will provide habitat for ESA-listed Mid-Columbia steelhead and redband trout in the South Fork John Day watershed.
- The expected future restoration actions are identified in the Mid-Columbia Steelhead Recovery plan and prioritized in the South Fork John Day Passage Barrier Inventory.
- The current culverts are designed for a 50-year storm; the new design will use a technically sound engineering approach by designing new culverts for 100-year storms.
- The engineer that will design the culverts has relevant experience.

- Appropriate partners are engaged in the project, such as the Malheur National Forest and Grant SWCD; Malheur National Forest support is demonstrated by a letter of support included in the application.
- The design costs per culvert are appropriate.

### **Concerns**

- It is unclear whether a range of alternatives will be considered during the design process.
- The project is part of a larger strategy to open 94 stream miles of critical habitat in the South Fork John Day River Watershed by addressing 77 full or partial fish passage barriers. Detail is needed on the map to better understand the strategy; for example, identifying the complete and partial barriers identified in the SFJD passage barrier inventory and showing the four culverts selected for this project in relation to the remaining barriers.
- Additional detail describing how the culverts selected were prioritized would be helpful for better understanding the broader approach for strategically addressing the 77 barriers. The selected sites are prioritized as 3, 6, 23, and 44 out of the total of 77 culverts. It is unclear why these sites were selected instead of downstream barriers.
- It is unclear whether native freshwater mussels will be considered in the design process.
- The number of hours to manage the grant seem high for the work associated with managing contractor services; additional details describing how project management hours were estimated is needed to evaluate whether the cost is reasonable.

### **Concluding Analysis**

The South Fork John Day Watershed Council is proposing to develop restoration designs to address fish passage at four culverts in the Murderers and Deer Creek watersheds. The culverts were selected from barriers identified in an OWEB funded assessment used to prioritize fish passage projects in the South Fork John Day watershed. The Council and the Malheur National Forest have an ongoing partnership to identify and treat passage barriers and improve access to over 94 miles of critical habitat in the South Fork John Day watershed.

### **Review Team Recommendation to Staff**

Fund

### **Review Team Priority**

5 of 7

### **Review Team Recommended Amount**

\$168,357

### **Review Team Conditions**

N/A

## Staff Recommendation

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### 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-Open Solicitation Fall 2023 Technical Assistance

Mid Columbia (Region 6)

**Application Name:** 224-6013-23268

**Project Type:** Technical Assistance

**Project Name:** Murderers Creek Phase 2 Design

**Applicant:** South Fork John Day WC

**Region:** Mid Columbia

**County:** Grant

**OWEB Request:** \$139,401

**Total Cost:** \$139,801

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**Application Description** The Murderers Creek watershed covers approximately 84,962 acres and is a tributary to the South Fork John Day River in Grant County, Oregon. The Phase 2 project area is located approximately 5.5 miles upstream of the confluence with the South Fork John Day River. It extends another 2 miles along Murderers Creek to the confluence with the South Fork Murderers Creek, and includes the lower 0.3 miles of Duncan Creek and 0.7 miles along Todd Creek. The property within the project area is owned by the Oregon Department of Fish and Wildlife - Phillip W. Schneider Wildlife Area.

Murderers Creek is part of the John Day River system, one of the last major free-flowing rivers in the Columbia River system and is one of the last to contain wild steelhead with no intentional hatchery inputs. Murderers Creek is the largest of the 5 keystone tributaries used by steelhead within the South Fork subbasin and therefore is very valuable to sustaining or increasing steelhead production. It is also one of the most important tributaries for spawning within the South Fork subbasin and is used by roughly 59% of steelhead that enter the SF John Day River (MCWA, 1997).

The Council just completed the first phase of instream restoration on 2.5 miles of Murderers Creek this past summer including large wood placement, BDAs/PALs, fencing, and riparian planting. We are hope to build upon our restoration efforts by proposing to design an additional 3 miles of stream habitat augmentation for Steelhead and juvenile Chinook that addresses key limiting production issues such as juvenile cover, beaver habitat availability, headcuts/passage, floodplain connection, and incision.

Project partners include the South Fork John Day Watershed Council and Oregon Department of Fish and Wildlife.

## Review Team Evaluation

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### Strengths

- The proposal has clearly articulated objectives for developing engineered designs.

- Restoration actions will be designed to address watershed limiting factors impacting ESA-listed fish on three miles of Murderers Creek, including instream habitat, fish passage, stream incision, and floodplain connection.
- Murderers Creek is a high priority stream for ESA-listed Mid-Columbia steelhead and priority rearing habitat for spring Chinook; over 50% of the steelhead in the South Fork John Day River utilize Murderers Creek.
- The project builds on previous OWEB investments in Murderers Creek to improve instream fish habitat, water quality, and floodplain connection. Lessons learned from the Phase 1 low-tech process-based restoration approach will be incorporated into the design process for Phase 2.
- Fish passage issues that will be addressed in this project were identified in a previously OWEB funded assessment.
- The project is located on the Oregon Department of Fish and Wildlife (ODFW) owned Phillip W. Schneider Wildlife Area. ODFW project support is demonstrated by participation in design review and future implementation.
- The project team has a consistent track record for implementing similar projects.
- Design products will be reviewed by ODFW and Bonneville Power Administration (BPA).

### **Concerns**

- It is unclear whether native freshwater mussels will be considered in the design process.
- Project costs are provided as lumped sums, it is difficult to evaluate whether costs are reasonable, necessary, and adequate for achieving the proposed technical assistance.

### **Concluding Analysis**

The South Fork John Day Watershed Council is proposing to develop restoration designs to address limiting factors in the Murderers Creek watershed, including instream habitat, lack of floodplain connection, fish passage, and beaver habitat availability. Proposed designs will include three stream miles of low-tech stream process-based restoration, placement of instream large wood structure, and actions to address channel incision. Murderers Creek is a tributary to the South Fork John Day River and is the largest of five main tributaries to the South Fork containing critical habitat for ESA-listed Mid-Columbia steelhead and Chinook salmon.

### **Review Team Recommendation to Staff**

Fund

### **Review Team Priority**

2 of 7

### **Review Team Recommended Amount**

\$139,401

**Review Team Conditions**

N/A

**Staff Recommendation**

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**Staff Follow-Up to Review Team**

N/A

**Staff Recommendation**

Fund

**Staff Recommended Amount**

\$139,401

**Staff Conditions**

N/A

# Open Solicitation-Open Solicitation Fall 2023 Technical Assistance

Mid Columbia (Region 6)

**Application Name:** 224-6014-23293

**Project Type:** Technical Assistance

**Project Name:** Gilliam County Consultation Assistance

**Applicant:** Gilliam SWCD

**Region:** Mid Columbia

**County:** Gilliam

**OWEB Request:** \$86,433

**Total Cost:** \$111,933

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## Application Description

- 1) The project will allow for restoration located within the Hay Creek Watershed in Gilliam County, which is a tributary to the lower John Day River.
- 2) Hay Creek represents an important spawning tributary for the summer run Mid-Columbia River steelhead that utilizes the watershed and is the focus of collaborative restoration efforts intended to support fisheries restoration, improve stream habitat, restore natural stream processes, enhance streamflow, and enhance surface water during baseflow conditions. However, much of the main channel on Dryfork Hay Creek is subject to low and often intermittent surface flow during summer, a period critical to the survival of rearing juvenile steelhead following emergence from gravel during spring. Low and non-existent surface flow also contributes to high summer stream temperatures and reduced riparian vegetation abundance and extent. These conditions render the Hay Creek watershed a population sink for threatened steelhead, in which a high rate of returning adult steelhead produce few eggs and surviving juveniles capable of completing their life cycle.
- 3) The Gilliam SWCD currently has Low-Tech Process Based Designs for two portions of the Hay Creek Watershed that address restoration concerns. However, current changes in requirements, such as cultural resource compliance and increased permitting obligations, have resulted in the need to hire cultural resources and permitting contractors to ensure all mandatory components are met prior to implementation. The Gilliam SWCD will engage in the procurement of contractors to meet all mandatory components to ensure compliance in preparation for the implementation of approximately 9 miles of Low-Tech Process Base Restoration in the Hay Creek watershed.
- 4) Partners include Gilliam-East John Day Watershed Council, ODFW, NRCS, OWRD, CTWS, and OWEB.

## Review Team Evaluation

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### Strengths

- Project objectives are clearly described, including the rationale for needing cultural resource consultation to complete permit processes for low-tech process-based stream restoration on Hay Creek.

- The low-tech process-based designs are already completed; this project will address cultural resource surveys and regulatory environmental permitting needed for implementing future restoration actions.
- Hay Creek is a high priority watershed for steelhead and has been a focal area for restoration by the applicant.
- The applicant has extensive experience with similar types of permitting and restoration; they are planning appropriately and considering steps needed for implementation.
- The budget is appropriate for the proposed work and the budget narrative describes roles of staff and contractors, including number of hours for cultural survey and staff time needed for individual permits.

### **Concerns**

- The application problem statement focuses on the need for cultural resource compliance to receive permits for a restoration project and does not describe the original watershed problem at the project site. Information describing the problem that generated the restoration project, target habitat that will benefit, and previously completed designs would be helpful to understand context for the proposed technical assistance.
- Including maps in the application showing the Area of Potential Effect (APE) for the planned restoration and needed for environmental compliance would be helpful to understand the planned approach.
- Partner roles with Oregon Department of Fish and Wildlife (ODFW) and Oregon Water Resources Department (OWRD) are not clearly described in the application.

### **Concluding Analysis**

Gilliam SWCD is proposing to complete environmental regulatory permitting and cultural resource compliance in preparation to implement nine miles of low-tech process-based restoration in the Hay Creek watershed. Hay Creek is a critical habitat for ESA-listed Mid-Columbia steelhead and the resulting restoration actions will address habitat limiting factors in the watershed. Technical Assistance is needed to address increased permitting compliance requirements for timely implementation of restoration.

### **Review Team Recommendation to Staff**

Fund

### **Review Team Priority**

3 of 7

### **Review Team Recommended Amount**

\$86,433

### **Review Team Conditions**

N/A

## Staff Recommendation

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### Staff Follow-Up to Review Team

N/A

### Staff Recommendation

Fund

### Staff Recommended Amount

\$86,433

### Staff Conditions

N/A

# Open Solicitation-Open Solicitation Fall 2023 Technical Assistance

Mid Columbia (Region 6)

**Application Name:** 224-6015-23298

**Project Type:** Technical Assistance

**Project Name:** Big and Little Meadow Canyon Creeks  
Assessment and Action Plan

**Applicant:** Walla Walla Basin Watershed Foundation

**Region:** Mid Columbia

**County:** Umatilla

**OWEB Request:** \$76,810

**Total Cost:** \$111,604

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**Application Description** Big and Little Meadow Canyon Creeks are located approximately 12 miles southeast of Milton-Freewater in Umatilla County, Oregon. Both creeks are tributaries of the North Fork Walla Walla River, which flows into the mainstem Walla Walla River approximately 9 miles downstream of its confluence with Big and Little Meadow Canyon Creeks. The two creeks are neighboring sub watersheds with a smaller unnamed creek in between them. (See Big and Little Canyon Creek Assessment and Action Plan Map). The creeks originate where springs drain into two large wetted meadows in their uplands. The assessment area encompasses 4.86 square miles from their confluences with the North Fork Walla Walla River up to their headwater springs. The current conditions of aquatic habitat, water temperature and flow are unknown for these subwatersheds.

The Big and Little Meadow Creeks Assessment will complement other water quality and habitat improvement efforts in the basin. Several floodplain and habitat restoration, spring reconnection, fish passage, and riparian restoration projects downstream of this assessment area have been completed or are in the design stage, including the North Fork Sam's Rea five-mile restoration project.

Big and Little Meadow Canyon Creeks have the potential to provide off-channel rearing habitat for ESA-listed steelhead, bull trout and redband trout and deliver additional spring and summer flow to the North Fork Walla Walla River. This assessment will allow us to understand current aquatic habitat conditions, temperature and flow rates for Big and Little Canyon Creeks. This will be done by conducting stream and habitat surveys as well as setting up two monitoring sites for flow and temperature. This assessment area is also located in a Strategic Implementation Area (SIA) designated by the Oregon Department of Agriculture, which focuses on implementing projects that improve water quality in local watersheds.

## Review Team Evaluation

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### Strengths

- Previous application evaluation concerns are addressed by including a landowner map, eliminating the SWAT analysis, adding mussel mapping, and providing information on landowner buy-in.
- Project objectives and proposed actions to assess current conditions in the Big and Little Meadow Canyon Creeks subwatersheds are clearly identified.

- There is a high likelihood for the technical assistance to lead to future watershed restoration; multiple landowners are already working with the watershed council on habitat restoration in the North Fork Walla Walla River.
- Professionally accepted methods will be used to survey fish habitat and water quality.
- The watershed council is familiar with the selected survey protocols and has completed similar analyses on other projects.
- There is a clear need for the assessment because habitat conditions are not well understood in the proposed reaches in Big and Little Meadow Canyon Creeks subwatersheds.
- Costs are reasonable for the work proposed.

### **Concerns**

- Additional detail describing restoration actions that could be considered would be helpful for better understanding the planning approach and how it will directly lead to restoring desired future watershed conditions. For example, introducing upland ponds is listed as a potential restoration action and it is unclear why ponds are one of the proposed actions and desired future conditions post-assessment.
- The project area is within the Dry-Couse Creek Strategic Implementation Area (SIA), but it is unclear how the proposal will relate to the SIA and who will be implementing SIA work.
- The location for the proposed survey work that will be conducted is unclear from the application. There is potential to improve 14 miles of steelhead, redband, and bull trout habitat; however, only 8 of the 14 miles will be surveyed.

### **Concluding Analysis**

The Walla Walla Basin Watershed Council is proposing to develop an assessment and action plan for Big and Little Meadow Canyon Creeks, which are tributaries to the North Fork Walla Walla River. The Big and Little Meadow Canyon Creeks Assessment will complement other water quality and habitat improvement efforts in the basin. The North Fork Walla Walla is critical spawning and rearing habitat for ESA-listed Mid-Columbia steelhead; both Big and Little Meadow Canyon Creeks are listed as high priority for restoration in Mid-Columbia Steelhead Recovery Plan.

### **Review Team Recommendation to Staff**

Fund

### **Review Team Priority**

6 of 7

### **Review Team Recommended Amount**

\$76,810

### **Review Team Conditions**

N/A

## Staff Recommendation

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### 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-Open Solicitation Fall 2023 Technical Assistance

Mid Columbia (Region 6)

**Application Name:** 224-6016-23312

**Project Type:** Technical Assistance

**Project Name:** Couse Creek RM 8 Low Tech Restoration Design

**Applicant:** Walla Walla Basin Watershed Foundation

**Region:** Mid Columbia

**County:** Umatilla

**OWEB Request:** \$53,452

**Total Cost:** \$83,211

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**Application Description** Couse Creek is a tributary of the Walla Walla River located near the town of Milton-Freewater, in Umatilla County. The proposed project area is a one-mile reach beginning at River Mile 8 and is entirely on private property owned by one landowner. 2) Spawning and rearing habitat is limited in the Walla Walla Basin. Couse Creek is an important spawning and rearing area for threatened Mid-Columbia steelhead. A 2020 OWEB-funded watershed assessment documented suitable habitat in the upper half of the watershed and impaired conditions downstream. From river miles 7-9, WWBWC observed limited habitat complexity, impaired physical and hydraulic processes, high summer water temperatures, and seasonally dry stream reaches. 3) The proposed project will produce a restoration design for low-tech, process-based treatments to improve steelhead spawning and rearing conditions in a one-mile reach of Couse Creek at RM 8-9. The project aims to restore the hydraulic processes such as erosion, deposition, channel aggradation, and tree recruitment that characterize healthy and productive riverscapes. The project's long-term objective is to improve conditions for steelhead in Couse Creek by increasing channel complexity and decreasing stranding mortalities due to thermal barriers and dry stream reaches. 4) Project partners include OWEB, WWBWC, BPA, and the landowner who owns the project reach.

## Review Team Evaluation

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### Strengths

- Project objectives for developing a restoration design and initiating required environmental compliance permitting are clearly described in the application.
- Couse Creek is a tributary of the Walla Walla River, and the project will benefit spawning and rearing habitat for ESA-listed Mid-Columbia steelhead.
- The proposed project provides an opportunity to address limited stream channel complexity, floodplain connectivity, limited flow, and temperature throughout the stream reach on Couse Creek.
- Appropriate low-tech process-based restoration approaches will be used to improve steelhead spawning and rearing conditions in a one-mile reach of Couse Creek.

- The applicant has a successful track record of implementing low-tech process-based restoration in Couse Creek.
- The project is part of a broader approach to address habitat limiting factors impacting ESA-listed fish on river miles 7-9 of Couse Creek.
- The landowner is actively engaged in the project, which is demonstrated by a letter of support included with the application.
- Costs are appropriate for the proposed technical assistance.

### **Concerns**

- The application states hardened crossings will be included in the project design as needed to maintain an access road along the length of the project area needed for grazing operations. It is unclear whether the potential watershed benefits will be reduced due to the impacts of this project constraint or maintenance associated with the access road.
- The transition between the low-tech process-based restoration that will be designed for river mile 8 into river mile 7 is unclear. River mile 7 will require more detailed engineering designs to address infrastructure. Additional information describing this transition point is needed to understand how the restoration for river mile 8 will be designed to avoid potential impacts to river mile 7.
- The proposed project will achieve a 10-30% conceptual design level and it is unclear from the application whether engineering will be needed in the future to reach a 100% design for implementation. The benefit of the proposed technical assistance may be limited for the cost if significant additional investment is needed to achieve 100% design.

### **Concluding Analysis**

The Walla Walla Watershed Council is proposing to complete a restoration design and initiate environmental compliance permitting for a one-mile of low-tech process-based restoration on Couse Creek beginning at river mile 8. The long-term objective of the project is to improve stream conditions for steelhead and Chinook salmon in Couse Creek by increasing channel complexity and decreasing fish stranding due to thermal barriers and dry stream reaches. Restoration actions were identified for the project reach from the Couse Creek Watershed Assessment and Action Plan and this reach falls in the Dry-Couse Creek Strategic Implementation Area.

### **Review Team Recommendation to Staff**

Fund

### **Review Team Priority**

4 of 7

### **Review Team Recommended Amount**

\$53,452

### **Review Team Conditions**

N/A

## Staff Recommendation

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### Staff Follow-Up to Review Team

N/A

### Staff Recommendation

Fund

### Staff Recommended Amount

\$53,452

### Staff Conditions

N/A

# Open Solicitation-Open Solicitation Fall 2023 Technical Assistance

Mid Columbia (Region 6)

**Application Name:** 224-6017-23326

**Project Type:** Technical Assistance

**Project Name:** NF Walla Walla River RM 5.2-8.8 Design  
Advancement from Conceptual to Final

**Applicant:** Walla Walla Basin Watershed Foundation

**Region:** Mid Columbia

**County:** Umatilla

**OWEB Request:** \$613,246

**Total Cost:** \$768,385

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**Application Description** 1) The North Fork Walla Walla River (NFWWR) is an 18-mile-long tributary of the Walla Walla River near RM 52, Milton Freewater, OR. The project area is RM 5.2-8.8.

2) The NFWWR is identified as a Strategic Implementation Area by the Oregon Department of Agriculture (ODA) Priority Protection and Restoration Area in the Walla Walla Sub Basin Plan and a Tier-1 project in the Walla Walla 2050 Plan, as well as the DEQ 303D list for water temperature. The NFWWR was severely impacted by the flood of 2020, the largest on record, which resulted in direct and indirect "take" of Endangered Species Act (ESA) salmonids. Aquatic Habitat inventory was conducted to determine habitat status and potential areas for restoration. Mid-Columbia Steelhead and bull trout inhabit the project area, both listed as Threatened ESA species with populations declining and status trending toward high risk of extinction.

3) The RM 5.2-8.8 design process will advance existing engineered designs from the 15% conceptual level to 100% final. Design concepts will reflect holistic watershed characteristics and address causes, not symptoms, based on watershed and reach scale analysis to produce the most appropriate and effective treatments for sustainable, long-term restoration of riverine processes and proper floodplain function. Environmental resiliency will be a component of the designs to address potential impacts from drivers of hydrological characteristics such as climate change, ongoing logging operations, and anthropogenic development in the headwaters. Other project objectives include improving connectivity, improving and expanding salmonid habitat complexity and suitability, and buffering against catastrophic events.

4) This WWBWC project has support from landowners, USFWS, ODFW BPA, OWEB, OWRD, CTUIR, NMFS, and other interested parties. Project performance will be gauged through WWBWC's effectiveness monitoring staff. BPA funds maintenance and adaptive management.

## Review Team Evaluation

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### Strengths

- The project builds on previous OWEB investments in the North Fork Walla Walla River for both technical assistance and restoration actions focused on restoring river process and improving aquatic and riparian habitat.
- The North Fork Walla Walla River is a spring fed stream that provides cool summer flows, making it an ideal location to restore habitat conditions for ESA-listed salmonids. The proposed design work for river mile 5.2 to 8.8 will lead to restoring riverine processes and proper floodplain function that connects with high quality habitat located above river mile 8.8.
- The proposed restoration approach will maintain side channels that were created by flooding events in 2020.
- Landowners have been engaged in the proposed restoration work for multiple phases and letters of support and cooperative agreements are included in the application showing landowner commitment.
- There is a diversity of partner engagement for the project, which is demonstrated by letters of support and match contributions from Bonneville Power Administration (BPA), Oregon Department of Fish and Wildlife (ODFW), US Fish and Wildlife Service (USFWS), and landowners.

### **Concerns**

- There has been significant investment in the North Fork Walla Walla River. Including information in the application describing completed phases, successes, and lessons learned would provide helpful context to understand the potential scope and scale of the expected watershed benefit.
- The objectives broadly state outcomes that describe why restoration is needed and lacks details describing what technical assistance will be completed. Using SMART objectives with details describing how those objectives will be accomplished would provide helpful context to understand how the Technical Assistance is likely to succeed in leading to fish and wildlife habitat restoration.
- Additional detail is needed in the application describing how staff and contractor hours were estimated to evaluate whether the high number of hours is appropriate for the scope of work.
- Additional information in the application describing how restoration treatment alternatives and strategies were considered is needed to evaluate whether a range of options were considered.
- The need for LiDAR is not clearly articulated in the application.

### **Concluding Analysis**

The Walla Walla Basin Watershed Council is proposing to develop final restoration designs on the North Fork Walla Walla River from river mile 5.2 to 8.8 that focuses on improving floodplain connectivity, increasing habitat complexity, and restoring river function. The North Fork Walla Walla River is primary spawning and rearing habitat for ESA-listed Mid-Columbia steelhead and has seasonal use by bull trout. The proposed efforts build on previously funded OWEB investments; however, additional information describing how this project fits within the context of past and planned future restoration efforts in the

watershed is needed to better understand potential watershed benefits for the cost.

**Review Team Recommendation to Staff**

Fund

**Review Team Priority**

7 of 7

**Review Team Recommended Amount**

\$613,246

**Review Team Conditions**

N/A

**Staff Recommendation**

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**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-Open Solicitation Fall 2023 Engagement

Mid Columbia (Region 6)

**Application Name:** 224-6018-23323

**Project Type:** Engagement

**Project Name:** Walla Walla Basin Engagement Project

**Applicant:** Walla Walla Basin Watershed Foundation

**Region:** Mid Columbia

**County:** Umatilla

**OWEB Request:** \$83,586

**Total Cost:** \$101,549

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**Application Description** The Walla Walla Basin Watershed Council (WWBWC) seeks to engage stakeholders in and around Milton-Freewater, Oregon in the Walla Walla River (WWR) Basin, with a focus on the upper WWR, Couse Creek, Little WWR system and connected alluvial aquifer. Engagement activities will support projects aimed at addressing some of the basin's hydrological and ecological issues, including degraded stream flows, floodplain connection, surface-groundwater interaction, water quality, fish passage, riparian conditions, and aquatic habitat complexity as well as considering these in the context of climate change predictions. To address fish passage and habitat issues, the WWBWC and Confederated Tribes of the Umatilla Indian Reservation (CTUIR) will engage directly with landowners to identify potential project partners on the upper WWR and Couse Creek. WWBWC will engage with individuals throughout the basin who possess senior water rights to develop partners for irrigation efficiency projects directed at protecting water in-stream via Oregon's Allocation of Conserved Water program. Stakeholders will be sought to partner in pursuing the goals of replicating floodplain connection, recharging the shallow aquifer, and improving related ecological and hydrological system functions. Additionally, various stakeholder engagement activities will be carried out to familiarize potential stakeholders with the WWBWC's work, the basin's hydrological and ecological issues and the potential for projects. The aim of these engagement activities is to develop future partners and projects necessary to address the basin's degraded hydrological and ecological systems. In various capacities, the WWBWC will seek to partner with landowners, holders of water rights, CTUIR, Oregon Department of Fish and Wildlife (ODFW), Little WWR Working Group, local irrigation districts and other stakeholders.

## Review Team Evaluation

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### Strengths

- The applicant has the capacity and relevant experience to implement a variety of engagement methods and communication strategies.
- The project objectives include relevant restoration actions expected to result from the engagement.
- There is a demonstrated need for the community to better understand how watershed conditions can lead to instream habitat decline and impacts to fish populations.

- Appropriate communication techniques, such as tours and public events, will be used to engage community members and partners on the ground to understand successful and potential restoration projects.

### **Concerns**

- Additional information describing the specific pathway from proposed engagement to eligible restoration or acquisition projects is needed to understand the evidence linking the general watershed outreach activities proposed to fish and wildlife habitat restoration or protection.
- The application lacks information describing activities completed with the previous OWEB funded engagement grant. Details explaining what was accomplished with that grant and why additional engagement is still needed would provide helpful context to evaluate whether the proposed actions can lead to timely development of eligible restoration or acquisition projects.
- The application lacks information indicating support from partner agencies; their participation will be important for identifying and developing future projects.
- Success indicators are general instead of quantitative and will be difficult to measure.

### **Concluding Analysis**

The Walla Walla Basin Watershed Council proposes to engage landowners and water right holders in the Upper Walla Walla River and Couse Creek watersheds to develop future projects that address the basins altered hydrology and fish habitat needs. The Council will provide information to the community to improve understanding of watershed health and generate voluntary actions that lead to projects like addressing fish passage, instream habitat complexity, groundwater levels, and stream flow. Information describing the outcomes of work completed from the previous engagement grant is needed to understand why additional engagement is needed and is likely to succeed in leading to timely development of eligible restoration or acquisition 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**

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### **Staff Follow-Up to Review Team**

N/A

### **Staff Recommendation**

Do Not Fund

**Staff Recommended Amount**

\$0

**Staff Conditions**

N/A

# Open Solicitation-Open Solicitation Fall 2023 Engagement

Mid Columbia (Region 6)

**Application Name:** 224-6019-23332

**Project Type:** Engagement

**Project Name:** Stormwater Engagement

**Applicant:** Walla Walla Basin Watershed Foundation

**Region:** Mid Columbia

**County:** Umatilla

**OWEB Request:** \$18,229

**Total Cost:** \$18,230

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**Application Description** Location: This engagement project covers areas within Milton-Freewater City Limits, the Urban Growth Boundary (UGB), and regions outside the UGB in Umatilla County; specifically the Highway-11 (S-1) and Nichols Canyon (S-2) drainage areas.

**Need:** The Walla Walla Basin Watershed Council (WWBWC) has previously been contacted by one resident of the S-2 drainage with concerns about stormwater runoff in this area. This concern was twofold; 1) it causes mild flooding within the drainages and 2) water quality in the Walla Walla River is affected. While stormwater runoff is not necessarily a year-round threat in our location, water quality impacts do approximately align with various lifecycle stages of critical species within our basin. Additionally, as climate change continues the need to address stormwater runoff will continue to grow. Our region is anticipated to receive more precipitation as rainfall and the snow that may still fall is likely to melt more quickly; both factors will lead to an increase in runoff events.

**Work:** This project will focus on engaging with the home and landowners, relevant local and state agencies, and other project partners within S-1 and S-2 drainages. The engagement will focus on outreach regarding green stormwater infrastructure (GSI) possibilities within the area. Efforts will include outreach events, educational materials, and one-on-one and group meetings with landowners to discuss the need for and potential benefits of GSI installation.

**Partners:** Project partners will include but are not limited to the Umatilla County Conservation District, state and local government agencies, the Walla Walla Water 2050 Basin Advisory Committee (led by Oregon, Washington, and CTUIR), and others interested in the health of the Walla Walla River Watershed as a whole.

## Review Team Evaluation

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### Strengths

- The applicant is using appropriate engagement techniques, including outreach events and one-on-one meetings, to reach constituents.
- The application describes a clear communication plan, including a tracking system to identify the most effective communication strategies for each audience.

- The proposed engagement is likely to address water quality concerns identified in the Dry-Couse Creek Strategic Implementation Area (SIA).
- The engagement process described demonstrates the applicant is experienced in this type of work.
- Partner support for the project is demonstrated by the letters of support.
- The application includes climate considerations by describing potential impacts of anticipated higher rainfall on stormwater runoff.
- The applicant followed recommendations from a previously submitted technical assistance application to focus on engagement prior to designing solutions.

### **Concerns**

- Additional detail describing how water quality monitoring data will be analyzed and used in engagement is needed to better understand how it will provide opportunities for multi-directional communication among audiences.
- Including Spanish translation of outreach materials may be helpful to engage all appropriate audiences in the project geography.
- It is unclear whether there is confirmed documentation of pollutants referenced in the application.

### **Concluding Analysis**

The Walla Walla Basin Watershed Council proposes engagement to plan and implement green stormwater infrastructure (GSI) in Milton-Freewater and areas outside the urban growth boundary in Umatilla County. The Council is planning focused outreach events, informational materials, and one-on-one meetings regarding GSI. The application outlines clear goals to secure landowner support and describes a comprehensive detailed plan of engagement that is measurable.

### **Review Team Recommendation to Staff**

Fund

### **Review Team Priority**

1 of 1

### **Review Team Recommended Amount**

\$18,229

### **Review Team Conditions**

N/A

### **Staff Recommendation**

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### **Staff Follow-Up to Review Team**

N/A

### **Staff Recommendation**

Fund

**Staff Recommended Amount**

\$18,229

**Staff Conditions**

N/A