

# BEAR CREEK FISH PASSAGE BARRIERS REMOVAL

Application for U.S. Bureau of Reclamation WaterSMART Funding  
Opportunity R22AS00026

December 2021

Rogue Valley Council of Governments  
(RVCOG)  
UEI: K6WHVFMHR7D3



# BEAR CREEK FISH PASSAGE BARRIERS REMOVAL

December 2021

# TABLE OF CONTENTS

## Bear Creek Fish Passage Barriers Removal

	<u>Page</u>
<b>TECHNICAL PROPOSAL</b> .....	<b>1</b>
Executive Summary.....	1
Location .....	1
Project Need.....	2
Project Description .....	2
1. Technical Studies.....	3
2. Design .....	4
3. Permitting.....	4
4. Construction.....	5
5. As-Built Assessment and Project Completion .....	6
Evaluation Criteria .....	7
PROJECT BENEFITS (Criterion A).....	7
COLLABORATIVE PROJECT PLANNING (Criterion B).....	10
STAKEHOLDER SPPORT (Criterion C).....	11
READINESS TO PROCEED (Criterion D) .....	12
PERFORMANCE MEASURES (Criterion E).....	14
PRESIDENTIAL AND DEPARTMENT OF INTERIOR PRIORITIES (Criterion F).....	15
<b>PROJECT BUDGET</b> .....	<b>16</b>
Funding Plan and Letters of Commitment.....	16
Budget Proposal .....	17
<b>ENVIRONMENTAL AND CULTURAL RESOURCES</b> .....	<b>21</b>
<b>REQUIRED PERMITS OR APPROVALS</b> .....	<b>25</b>
<b>LETTERS OF SUPPORT</b> .....	<b>26</b>
<b>OFFICIAL RESOLUTION</b> .....	<b>26</b>
<b>UNIQUE ENTITY IDENTIFIER</b> .....	<b>26</b>
 <b>Appendices</b>	
A.    Letters of Support.....	A-1
B.    Official Resolution .....	B-1
C.    Site Photos .....	C-1
D.    Overview Map .....	D-1

# TECHNICAL PROPOSAL

## Executive Summary

**Application Date:** December 9, 2021

**Applicant Name:** Rogue Valley Council of Governments (RVCOG)

**Applicant Contact:** Peter Town, Grants and Contracts Administrator, RVCOG

**Applicant Address:** 1155 N 1<sup>st</sup> St, PO Box 3275, Central Point, Oregon 97502

**Project Location:** Bear Creek and E Jackson Street, Medford, Jackson County, Oregon

**Applicant Type:** Category A

**Approximate Construction Start Date:** June 15, 2023

**Approximate Construction Completion:** September 15, 2023

**The proposed project is not located on a Federal facility**

The Rogue Valley Council of Governments (RVCOG) has coordinated a broad partnership of local nonprofit organizations and Oregon State agencies to restore natural channel hydrology and fish passage to a highly disturbed reach of Bear Creek within the City of Medford, Oregon. The project is located on the ancestral lands of the Cow Creek Band of the Umpqua Tribe, the Confederated Tribes of Grand Ronde, Confederated Tribes of Siletz Indians. Bear Creek, a tributary to the Rogue River, provides important spawning and rearing habitat for Southern Oregon and Northern California Coasts (SONCC) coho salmon, which are listed as Threatened under the Endangered Species Act (ESA) and are a culturally significant species for local tribes. As the most urbanized watershed in the Rogue Basin, Bear Creek has had a long history of water quality concerns from a number of sources, including urbanization, agriculture, and water transport (canals). RVCOG proposes to remove two obsolete irrigation structures and one abandoned utility line from the stream channel and restore access to 8 miles of aquatic habitat upstream. This project has been endorsed by the Oregon Department of Transportation (ODOT), Oregon Department of Fish and Wildlife (ODFW), the Rogue River Valley Irrigation District (RRVID), the City of Medford, and the Rogue River Watershed Council, among many other community members.

## Location

The project will involve improvements to four structures on Bear Creek within the City of Medford, as shown in Table 1. The total distance between the most downstream and upstream structures is approximately 1,200 linear feet.

**TABLE 1. BEAR CREEK PASSAGE BARRIERS IN MEDFORD, OREGON**

Structure	Approximate Distance From Downstream Structure	Northing, Easting	Nearest Cross Street	Project Action
#1 RRVID Weirs	--	42.331787, -122.871362	E Jackson St	Restore Passage
#2 Jackson Street Rubble	250 ft	42.331231, -122.871230	E Jackson St	Restore Passage

Structure	Approximate Distance From Downstream Structure	Northing, Easting	Nearest Cross Street	Project Action
#3 City of Medford Sewer Line	60 ft	42.330983, -122.871201	E Jackson St	Restore Passage
#4 RRVID Intake	900 ft	42.328917, -122.869688	E Main St	Fish Passage Assessment

## Project Need

Three primary limiting factors to SONCC and other culturally significant native fish survival within the Bear Creek watershed are water quality, low flow conditions, and fish passage. The watershed, which is approximately 361 square miles entirely within Jackson County, Oregon, contains approximately 290 miles of natural channel streams and greater than 250 miles of irrigation canals (main canals only). The Bear Creek watershed also encompasses all of the primary population centers within Jackson County, including Ashland, Talent, Phoenix, Medford, and Central Point. A Total Maximum Daily Load (TMDL) report completed in 2007 describes several water quality impairments in Bear Creek that are largely related to urbanization and agriculture irrigation. In addition to water quality impacts, Bear Creek experiences greatly diminished stream flows resulting from irrigation withdrawals. Irrigation withdrawals result in unnaturally low flows in the lower watershed, below the Medford Irrigation District diversion. These low flows exacerbate existing water quality impairments within the watershed and cause instream infrastructure to function as passage barriers to aquatic life.

Climate change and severe drought projected for the Rogue Basin will exacerbate existing challenges related to water quality, instream flows, and fish passage in Bear Creek. For example, in June, 2021 snowpack in the Rogue basin was recorded to be 4% of historical averages for that time of year. As a result of these low flow conditions, Reclamation will be very challenged to fulfill instream flow requirements in Bear Creek and there will be little to no opportunity to improve fish passage through increased water allocation. These low flow conditions limit the number of opportunities to improve passage and survival of SONCC coho and other culturally significant fish.

## Project Description

The Bureau of Reclamation (Reclamation) operates and maintains the Rogue River Basin Project, consisting of Federal Project facilities within the Bear Creek, Emigrant Creek and greater Rogue River watersheds. Pursuant to an Endangered Species Act Biological Opinion (BiOp) (consultation number 2003/01098), Reclamation is required to implement several actions in order to reduce effects of the facilities to SONCC coho salmon. All of the BiOp required actions specified for the Bear Creek watershed, such as riparian zone restoration or fish passage improvements, were complete by 2015. However, the BiOp also requires Reclamation and the

facility operators to implement several ongoing actions, such as maintaining minimum in-stream flows and specific ramping rate procedures.

Despite the limited opportunities to improve fish passage through increased flow, RVCOG has identified important opportunities to restore fish passage for many culturally significant species through the removal of three existing barriers (structures #1-3) in Bear Creek, and a fish passage improvement analysis at a fourth structure (#4) that would result in improved access to 8 miles of potential spawning and rearing habitat for several native fish species, including ESA-listed SONCC coho.

The three existing barriers are obsolete infrastructure related to a former irrigation diversion near Jackson Street in Medford. These three structures are the RRVID weirs (#1), the rubble from the former Jackson Street Dam (#2), and an abandoned concrete-encased utility line owned by the City of Medford (#3) that was exposed after the removal of Jackson Street Dam in 2011. ODFW has prioritized these three fish passage barriers for removal. Additionally, RRVID owns and operates a fourth fish passage barrier, a diversion on Bear Creek (#4) approximately 900 feet upstream of the City's utility line that is listed as an ODFW Statewide Fish Passage Priority. This existing diversion requires a retrofit or replacement in order to restore fish passage at the site. Fish passage improvements at these four structures on Bear Creek will restore access to more than 8 miles of upstream habitat to SONCC coho, chinook salmon, steelhead, Pacific lamprey, Klamath small scale sucker, and additional aquatic species.

**The project would include 5 general steps, as described below:**

## **1. Technical Studies**

Each of the four identified in-stream structures impounds flow and maintains grade within the Bear Creek stream channel, currently limiting upstream fish passage. The modification of one or all of these structures is expected to result in channel re-grade that requires careful analysis to identify both risks to adjacent infrastructure and needs to maintain upstream fish access.

Accordingly, the first component of the design process will involve several technical studies to evaluate existing conditions and develop design alternatives within a 1,200-foot reach of Bear Creek. This series of technical studies will include a site survey, a geomorphic analysis, a hydraulics analysis, and an alternatives analysis. These studies will identify specific site constraints, risks associated with each design alternative, modelled changes to hydrology and geomorphology, and a preferred alternative at each location. Information developed during these analyses will also inform engineering design and environmental permitting for the removal or modification of each structure and the in-channel grade adjustments to maintain upstream fish passage.

There are several design alternatives to be analyzed at each barrier location. For example, at barrier location #1 the analysis will compare notching the existing weirs with removal and replacement with a roughened channel. At barrier locations #2 and #3, the alternatives analysis will evaluate the risks of specific designs to adjacent infrastructure, such as the Jackson Street Bridge or the I-5 viaduct. Numerous improvements to barrier location #4 will also be evaluated, however, the project will not fund fish passage improvement at this location. The installation of

grade control structures, such as large wood and engineered log jams, at specific locations throughout the reach will also be evaluated during this alternatives analysis.

Each alternative will be evaluated by the stakeholder group for its ability to meet the project objectives, manage risks to adjacent infrastructure (including the Interstate 5 support structure), permitting feasibility and expected construction costs. A preferred alternative will be selected and advanced to design.

## **2. Design**

Informed by the technical studies described above, the primary focus of the design phases will be to develop construction plans, specifications, restoration planting schedules, and engineer's opinion of probable construction costs. The design process will occur in iterations, increasing in level of detail at each progression. Based on the results of the technical studies, a concept-level, or 30%, design document will be developed of the preferred alternative to be evaluated by project partners and stakeholders. This would include review by ODFW for input related to fish passage criteria. Additionally, to ensure compliance with the ESA, the design will be in compliance with the Stream Restoration and Fish Passage Improvement Actions Standard Local Operating Procedures for Endangered Species (NMFS 2013).

Based on this review and input, the design would be developed to a level that that is sufficient for permitting. During this design phase, the geomorphic analysis and hydraulic modeling results will be utilized to develop rock sizing for engineered streambed material, evaluate scour potential and assess bed mobility assessment, while meeting and maintaining fish passage requirements. Recommendations related to large wood elements or grade control structures would also be designed during this phase.

During the final design phases, additional elements will be finalized, such as site management, construction staging and access, stream bypass, inwater work isolation, and revegetation planting schedules.

## **3. Permitting**

Work below the OHW level of Bear Creek will trigger the need for a Clean Water Act (CWA) Section 404 Permit from the US Army Corps of Engineers (Corps) and a Removal-Fill Permit from the Department of State Lands (DSL). The issuance of a federal (Corps) permit will also trigger the need to obtain a 401 Water Quality Certification for the project from the Department of Environmental Quality (DEQ).

Depending on the design specifics, the project may qualify for General Authorization for Waterway Habitat Restoration (OAE 141-089-0780 through 141-089-0795) or Notice for Exemption of Certain Voluntary Habitat Restoration Activities (OAR 141-085-0534) from DSL.

The projects would qualify for Nationwide 27 (Aquatic Habitat Restoration, Establishment, and Enhancement Activities). The 2017 Nationwide Permits and their associated regional conditions

and Water Quality Certifications remain in effect through their scheduled March 18, 2022, expiration date or until the Corps issues a final rule reissuing those Nationwide Permits. As part of the Nationwide Permit Application, the project will need to show compliance with the SLOPES for Stream Restoration and Fish Passage Improvement Actions (NMFS 2013).

## 4. Construction

Project construction will occur in phases. Passage improvement at each structure will be constructed separately. A cofferdam will be constructed to isolate Bear Creek from the construction area at the site of each structure rather than isolation of the entire 1,200-foot reach. This will allow removal of all or part of the original passage barrier and construction of a modified section of stream channel to be completed “in the dry.” This work area isolation approach will prevent contamination of the creek from concrete, silt, sandblasting abrasive, or other contaminants, and prevent physical harm to aquatic life.

Upon completion of construction tasks, the cofferdam will be removed. All construction work will be accomplished during the ODFW-established in-water work period of June 15 to September 15 for Bear Creek (ODFW 2008). At each structure work is estimated to take from 2 to 4 weeks for modification to the existing structure and between 2 to 4 weeks for replacement with a fish passage improvement. At each site, a parking or right-of-way access exists on the left side of the creek and a pedestrian path and gravel O&M road exists on the right side of the creek, including a small area of riparian vegetation. Less than an acre of riparian habitat in the project area will be affected by construction-related activities. RVCOG and the selected construction contractor will employ a suite of measures to minimize adverse impacts to the site and adjacent lands during and after implementation:

*Access Routes.* Access routes will be flagged to limit extents of impacts and mature trees and sensitive areas will be fenced to protect critical root zones from heavy equipment. Areas where soils have been impacted by heavy equipment will be de-compacted prior to vegetating.

*Water Management:* The contractor will be required to submit a water management plan to ensure they meet all requirements for isolating work areas while protecting the stream, minimizing turbidity and coordinating fish salvage efforts by qualified biologists.

*Fish Passage:* Downstream fish passage will be maintained during construction via gravity-flow bypass. Upstream fish passage will not be provided during construction, which mimics each of the site’s existing condition during summer low flow periods (the barriers are effectively fish passage barrier in the summer).

*Equipment Maintenance:* Equipment will be checked daily for fuel and fluid leaks and will only be allowed to operate within the isolated work areas. Spill kits will be kept onsite. Erosion and Sediment Control. Construction will be conducted in accordance with an Erosion and Sediment Control Plan. Best management practices will include: 1) sediment control barriers around the



perimeter of the work area, 2) temporary seeding and erosion control measures between project phases, and 3) site restoration/revegetation during the fall and winter immediately following the completion of each construction phase.

*Other best management practices* may include hydroseeding, temporary mulching, covering stockpiled soil, matting, and other practices to minimize the movement of soil. All limits of clearing and grading will be flagged; the un-impacted portions of streams will be flagged as no-work zones.

*Stream Stability:* Risks of each preferred alternative will be evaluated and determined to be minimal. Based on the average slope of the stream and the height of each structure, it is estimated that the direct impacts to the stream profile from removing each structure will be localized.

*Flood Water Surface Elevation:* The existing Balm Grove Dam is located below the 100-year floodplain as indicated by the Federal Emergency Management Agency (FEMA). Each project will be designed to avoid any changes to the 100-year flood water surface elevation after implementation.

## **5. As-Built Assessment and Project Completion**

Approximately 6 months following construction, the project team would complete a thorough as-built assessment of habitat conditions throughout the entire reach including structure #s 1-3. Through this process, the project team would ensure the construction is complete and functions according to designed specifications. State and Federal fish passage requirements would be compared to as-built condition at each structure location and would be validated.

The Stream Function Assessment Method (SFAM) was developed to provide a standardized, rapid, more function-based method for assessing stream function statewide. As required by Oregon Department of State Lands (DSL), this SFAM survey will be conducted for the entire reach, including structure #s 1-3, before and after project construction in order to measure improvements to habitat at the site.

Four functional groups provide the basis for a function-based assessment for streams:

1. *Hydrologic functions:* include movement of water through the watershed and the variable transfer and storage of water along the stream channel, its floodplain, and associated alluvial aquifer.
2. *Geomorphic functions:* encompass hydraulic and sediment transport processes that generate variable forces within the channel and the variable input, transfer and storage of sediment within the channel and adjacent environs that are generally responsible for channel form at multiple scales.
3. *Biological functions:* include processes that result in maintenance and change in biodiversity, trophic structure, and habitat within the stream channel.

4. *Water quality functions*: encompass processes that govern the cycling, transfer, and regulation of energy, nutrients, chemicals and temperature in surface and groundwater, and between the stream channel and associated riparian system.

## Evaluation Criteria

### PROJECT BENEFITS (Criterion A)

#### ***Benefits to Ecological Values (Sub-Criterion A.1)***

Stream functions are dynamic and interrelated physical, chemical and biological processes that create and maintain the character of a stream and the associated riparian system, and determine the flux of energy, materials and organisms through or within a stream system. Stream values are the ecological and societal benefits that the stream system provides, determined by (a) the opportunity to provide a particular function and (b) the local significance of that function.

In a practical manner, a function can either be expressed or not expressed at a given site, but a value is the context of that function in the broader landscape. For example, a stream site may be effective for removing nutrients, but the value of the stream reach performing that function is higher if there is a higher concentration of nutrients entering the reach from upstream (opportunity), and there are uses downstream that would benefit from lower nutrient concentrations (significance). Four functional groups provide the basis for a function-based assessment for stream.

#### **The project will benefit the following ecological functions of the Bear Creek watershed:**

- *Fish passage* – The project will restore passage to an 8-mile reach that is designated critical habitat for SONCC.
- *Bank erosion* – The project will reduce bank erosion within the restored reach through stabilization of the channel bed and banks.
- *Lateral migration* – The project will improve channel migration downstream through the removal of existing impoundments and restoration of more natural channel hydrology.
- *Incision* – The project will reduce channel incision through the construction of a stabilized stream channel and the existing fish passage barrier locations
- *Embeddedness* – The project will reduce stream substrate embeddedness through the removal of impoundments that aggrade sediments through restoring the timing and volume of regular flows through the project location.
- *Channel bed variability* – The project will construct a more natural stream channel bed at each fish passage barrier location, which improve habitat complexity and increase variability within the channel.
- *Riparian vegetation* – The removal of several impoundments will improve the timing and volume of flows within the stream channel and subsequently encourage the establishment of riparian vegetation.
- *Large Wood* – The installation of large wood within Bear Creek will increase channel bed variability, habitat complexity, and aquatic biodiversity.

**The project will benefit the following ecological values of the Bear Creek watershed:**

- *Water Quality* – The removal of three impoundments to flow and a subsequent increase in velocity and volume will improve several water quality impairments within the project area. An Oregon Department of Environmental Quality (DEQ) 2018/2020 Draft Integrated Report identifies this reach of Bear Creek as impaired for fish and aquatic life, fishing, and water contact recreation due to pH, dissolved oxygen, temperature, fecal coliform bacteria, and e. coli bacteria (DEQ, 2019). Some water quality impairments, such as fecal coliform and e. coli bacteria, will not be addressed through affected from this project. However, the project may have measurable affects for several impairments. Removal of existing impoundments to flow will reduce the aggradation of polluted sediment, increase oxygenation of flows, and decrease the temperature warming effects of ponding.
- *Aesthetic and Continuity* – The Bear Creek Greenway is a 20-mile, paved, multi-use trail that is located adjacent to Bear Creek and runs throughout the project location. The aesthetic value of this local resource for recreation will be greatly improved through the removal of exposed utility lines and concrete rubble piles in order to restore the channel to more natural stream hydrology.
- *Restoration of flow* – The removal of three impoundments to flow within Bear Creek will reduce surface water evaporation that results from larger surface areas of ponded water and will improve stream velocities and temperatures for the 10-mile reach between structure #4 and the Rogue River confluence.

***Benefits to Drought Resiliency for Fish and Wildlife (Sub-Criterion A.2b)***

As described above, the project will restore access to an 8-mile reach of Bear Creek that contains 10,734 WUA (square feet/ 1,000 feet) or 442,069 square feet of total habitat. This 8-mile reach of additional habitat is designated critical habitat by Section 7 of the Endangered Species Act for SONCC coho and functions as important spawning and rearing habitat for additional native fish species, such as chinook salmon, steelhead, Pacific Lamprey, and Klamath small-scale sucker. SONCC adult spawning occurs from November through January (ODFW, 2003). Downstream juvenile migration in Bear Creek occurs from mid-February through mid-July. Juvenile rearing in the mainstem of Bear Creek occurs year-round. This project will yield benefits to multiple native fish species during multiple life stages throughout the year.

According to ODFW’s letter support (Appendix A), this project will dramatically improve passage for the native migratory fish of Bear Creek as described in following order of importance:

1. *Upstream passage by juvenile salmon and steelhead in summer.* Juvenile steelhead, coho and some chinook salmon migrate upstream in summer in Bear Creek to reach thermal refuge near the community of Phoenix. Cooler water is likely provided by springs and the nature of the water table in the Phoenix area and in Talent, and potentially by snowmelt from Mount Ashland entering Bear Creek through Ashland Creek. Unfortunately, three

- existing barriers in this project block migration of juvenile fish. The severity of the blockage increases during drought when it is even more important that juvenile fish find cooler water. Improved passage can be expected to improve for summer survival of wild summer and winter steelhead, coho salmon, and fall chinook salmon. Improved survival will be due in part to reduced predation on juveniles congregated below and jumping at these barriers.
2. *Upstream passage by fall chinook adults during spawning.* The spawning distribution of fall chinook salmon in Bear Creek was limited to the lower reaches of the creek prior to the removal of the Jackson Street Dam in 2011. Since 2011, fall chinook have been spawning in Bear Creek in or near Ashland every year. Unfortunately, the sewer line is a significant barrier to migration of chinook adults, especially when irrigation district releases end for the year. Temporary sandbag ladders have been needed to ensure chinook passage in recent years. Improved passage can be expected to improve spawning distribution of fall chinook and maintain good distribution of spawners regardless of drought, as well as improving the overall health of spawners by eliminating unsuccessful attempts to pass the abandoned sewer line.
  3. *Upstream passage by all native migratory fish at low flows.* As stated above, successful passage at the abandoned sewer line improves significantly when flows reach around 60 cfs. Flows in Bear Creek during the October-May spawning period usually reach this level by early December, but not always. Climate projections include forecasts of greater streamflow variation. This project will ensure passage for adults throughout the spawning season: fall chinook, coho, summer steelhead, cutthroat trout, Klamath smallscale suckers, winter steelhead and Pacific lamprey.

### ***Benefits to Watershed Management (Sub-Criterion A.2c)***

The project will provide ecological benefits to an approximate 8-mile reach of Bear Creek upstream of the project and an approximate 10-mile reach of Bear Creek downstream of the project. The primary ecological benefits to the 8-mile reach upstream of the project will be fish passage to important rearing and spawning habitat to many fish species that are both federally protected and culturally significant to the local tribes. The Bear Creek confluence with the Rogue River is located approximately 10-miles downstream of the structure #4 and ecological benefits from the project are also expected to transfer downstream into the Rogue River main stem. The project will have measurable downstream benefits to water chemistry, temperature, stream velocity, seasonal water volume, and habitat complexity.

Restoration of fish passage at Structure #s 1-3 is one of the most important steps that our community can take to directly benefit aquatic life in the Bear Creek Watershed. The proposed restoration actions will improve hydraulics, channel morphology, physiochemical and biology functions and have benefits to native fish and wildlife habitat, water quality, and watershed health.

*Hydraulic Function.* Bear Creek will have more access to the floodplain through removal structure #s 1-3 and regrading of the stream channel.

*Geomorphology Function.* The three fish passage barriers will no longer be an impediment to natural sediment and wood transport through Bear Creek. Stored sediments previously impounded behind each structure will be released, and the stream will reestablish a natural channel. In addition, spot work within the channel and the addition of large wood, boulders, and riparian vegetation will provide for diverse bed forms and dynamic equilibrium.

*Biology Functions.* Native fish passage, instream habitat, and habitat connectivity will be greatly improved with the removal of structure #s 1-3. The addition of large wood, boulders, and riparian vegetation are expected to benefit fish, wildlife, and invertebrate species.

### ***Benefits to Multiple Users (Sub-Criterion A.2d)***

At the project location, the Bear Creek corridor and the adjacent Bear Creek Greenway pedestrian path follows an ancient travel route used by the Shasta and Takelma Indians over centuries of moving amongst seasonal food sources. The restoration of seasonal flow to the ancestral lands of local tribes will provide important benefits to the first foods and culturally significant species.

The project location is as listed by DEQ as impaired for fish and aquatic life, fishing, and water contact recreation due to pH, dissolved oxygen, temperature, fecal coliform bacteria, and e. coli bacteria (DEQ, 2019). As a result, the project is not anticipated to provide immediate benefits to instream recreation, such as boating and fishing. However, the project will provide potential long-term benefits through incremental changes to water quality and eventual de-listing of water quality impairments.

Improvement of the Bear Creek corridor will also provide indirect benefits to public health and the local economy that depend on this natural resource as a public amenity for recreation, mental health benefits, and economic development opportunities.

## **COLLABORATIVE PROJECT PLANNING (Criterion B)**

The three fish passage barrier removals and the fish passage assessment of a fourth barrier (#4) are identified in the Rogue Basin Action Plan (Strategy 3.2). ODFW's Statewide Fish Passage Priority List (2019) identifies the City of Medford Utility Line (#3) and the RRVID intake (#4) as statewide priorities. The following statewide and regional plans and related strategies were each developed collaboratively. Each of the following plans either identifies or supports the prioritization of this project:

- *ODFW Statewide Fish Passage Priority List (2019):* Fish passage prioritization and inventory is a requirement of the ODFW's Fish Passage Program through Oregon Revised Statute (ORS) 509.585 (3) and is based on the needs of migratory fish. This

- planning document identifies the City of Medford Utility Line (#3) and the RRVID intake (#4) as statewide priorities.
- *Link:* <https://www.dfw.state.or.us/fish/passage/docs/2019%20Prioritization%20List.xlsx>
  - *Rogue Basin Partnership (RBP) Rogue Restoration Action Plan (2016):* This Action Plan is designed to identify priorities and to help accelerate the scale and effectiveness of conservation and restoration in the Rogue Basin for the benefit of water quality, water quantity, and fish and wildlife habitats over the next ten years (2015-2025). Strategy 3.2 – Implement Priority Removal Projects according to the ODFW Priority List (above), supports the identification and implementation of this project.
    - *Link:* <https://roguebasinpartnership.org/our-plans/>
  - *NOAA Fisheries Southern Oregon Northern California Coast Coho Salmon Recovery Plan (2014):* The goal of the plan is to restore SONCC coho salmon to healthy, self-sustaining numbers so that the protections of the Endangered Species Act are no longer.
    - *Link:* <https://roguebasinstorymap.org/recovery-plans-reports-studies/>
  - *ODFW Fall Chinook Conservation Plan (2013):* This conservation plan provides guidance to fishery managers in relation to key elements of the Native Fish Conservation Policy and ensures fish management programs for both fall and spring chinook salmon in the Rogue River Basin complement each other.
    - *Link:* <https://roguebasinstorymap.org/recovery-plans-reports-studies/>
  - *Rogue Basin Action Plan for Resilient Watershed and Forests in A Changing Climate (2013):* The Southern Oregon Forest Restoration Collaborative, in conjunction with several partners and under the guidance of Climate Solutions University, has put together a plan for resilient forests and watersheds in a changing climate. The following strategies support identification and implementation of this project:
    - Strategy 1.3a – Gather relevant information and create partnerships to collaboratively achieve objectives
    - Strategy 3.1a – Collaborate with ongoing efforts to create water efficiencies
    - Strategy 4.5c – Create implementation project with focus on climate adaptation and ecosystem services
    - *Link:* <https://www.mfpp.org/wp-content/uploads/2011/04/SOFRC-Watersheds-and-Forests-Climate-Adaptation-Plan-FINAL21.pdf>

## STAKEHOLDER SPPORT (Criterion C)

As demonstrated by the letters of support (Appendix A), the project has received significant support from a diversity stakeholders given the scale, type, and complexity of the project. The following stakeholders will support the project

- Rogue River Valley Irrigation District (RRVID) is an irrigation district within the agricultural community of the Rogue Basin, which represents 810 separate water users that irrigate nearly 9,000 acres within a 66-square mile area.

- Oregon Department of Fish and Wildlife (ODFW) Rogue District Fish Biologist, Dan VanDyke, has described the anticipated ecological benefits of the project in the attached letter of support (Appendix X). ODFW has committed to supporting the project through design and permitting document review, construction monitoring, and additional project implementation elements.
- Oregon Department of Transportation (ODOT) owns and operates the I-5 viaduct, which is critical infrastructure within and adjacent to the project area. ODOT has committed to providing technical support to ensure associated risks are adequately assessed and mitigated.
- The City of Medford owns the utility line (structure #3) and has committed cash and in-kind support for the project.
- Rogue Basin Partnership represents and supports the following member organizations in order to conserve and restore the Rogue Basin: Applegate Partnership and Watershed Council, City of Ashland, The Beaver Coalition, Cow Creek Band of Umpqua Tribe of Indians, Illinois Valley Soil and Water Conservation District, Illinois Valley Watershed Council, Jackson County Soil and Water Conservation District, Lomakatsi Restoration Project, Lower Rogue Watershed Council, Medford Water Commission, Native Fish Society, Rogue Riverkeeper, Rogue River Watershed Council, Rogue Valley Council of Governments, Southern Oregon Climate Action Now, Souther Oregon Forest Restoration Collaborative, Southern Oregon Land Conservancy, The Freshwater Trust, Trout Unlimited, Valleys of the Rogue Watershed Council, and WaterWatch.
- Rogue River Watershed Council works with organization and landowners to conserve and improve streams and the land that surrounds them within the upper Rogue Basin.
- Based on early conversations we anticipate additional project partners to support or endorse the project after a funding award. These partners include and are not limited to Jackson County, National Marine Fisheries Service (NMFS), US Fish and Wildlife Service, Cow Creek Band of Umpqua Tribe of Indians, Confederated Tribes of the Siletz.

## **READINESS TO PROCEED (Criterion D)**

The project budget outlining estimated costs for specific tasks is provided in a following section of this application. A description of required permits for this project is also provided in a section below. The majority of the project occurs on properties that are regulated waters of the United States and Waters of the State and approvals for the work will be provided by the State and Federal permitting processes described below. Property that provides project site access is owned by Jackson County, City of Medford, and RVVID. RVCOG has working relationships with each of these property owners and will be granted permission to access for the duration of the project.

Reclamation has not yet been contacted directly for potential environmental and cultural resource compliance requirements. However, RVCOG has consulted with several environmental permitting professionals develop a thorough approach and estimate to all elements of project

implementation, including environmental permitting according the Reclamation requirements. Table 2 below provides an estimated project implementation schedule for the duration of the proposed work.

**TABLE 2. ESTIMATED PROJECT IMPLEMENTATION SCHEDULE**

<b>Start Date</b>	<b>End Date</b>	<b>Element</b>	<b>Description</b>
February 1, 2022	January 1, 2023	<b>Approve Construction Funding</b>	Secure match funding for the 2023 construction phase through identified stakeholders, OWEB, tribes, American Rivers, Resources Legacy Fund
<b>March 15, 2022</b>	--	<b>Project Kickoff</b>	Internal project kickoff meeting with RVCOG and project partners; Begin development of solicitation for contractors, identify application review committee members and process.
April 1, 2022	--	<b>Publish RFP</b>	Publish solicitation, request for proposal (RFP) for design and permitting work
April 18, 2022	--	<b>Award Contract</b>	Conduct review committee meeting and select contractor; begin contracting for award
May 2, 2022		<b>External Project Kickoff</b>	Conduct meeting with contractors and develop timeline and project approach
May 9, 2022	August 15, 2022	<b>Cultural Resources</b>	Conduct cultural resources fieldwork; Draft, finalize, and submit cultural resources reporting requirements for permit applications
	May 31, 2022	<b>Site Survey</b>	Conduct topographic and cartographic survey of project area
	November 18, 2022	<b>Water Resources and NEPA permitting</b>	Conduct required water resources delineation fieldwork; develop and submit JPA, County, City, and NEPA permitting documents
	August 22, 2022	<b>Community Engagement</b>	Solicit community feedback on project elements, phasing and design
	August 22, 2022	<b>H&amp;H Modelling, Risk Assessment, Alternatives Analysis</b>	Develop DRAFT reports for H&H modelling and alternatives analysis
August 22, 2022	September 19, 2022	<b>30% Design</b>	Draft 30% design documents for preferred alternative
	November 18, 2022	<b>60% Design</b>	Draft 60% design documents for preferred alternative
	November 18, 2022	<b>Develop and finalize DEQ permit Application</b>	1200C permit application submittal
October 24, 2022	November 18, 2022	<b>Finalize and Submit Permits</b>	JPA, County, NEPA, Programmatic Section 7
November 18, 2022	March 15, 2022	<b>Receive and Respond to Comments</b>	Advance construction plans while awaiting permit approval
March 15, 2023	--	<b>Secure permits</b>	Based on estimated review timelines
March 15, 2023	April 30, 2023	<b>Final Plans, Specifications and Estimates</b>	Develop construction bid package



Start Date	End Date	Element	Description
March 15, 2023	June 1, 2023	<b>Construction Contract Procurement and Contract Award</b>	RVCOG manages bid documents and construction contractor selection
June 15, 2023	September 15, 2023	<b>In-water work construction</b>	Construct preferred alternatives at each location
September 15, 2023	October 23, 2023	<b>Site stabilization</b>	Install landscape design and revegetation
November 1, 2023	--	<b>Close Permits</b>	Complete reporting requirements of environmental permit applications
June 1, 2024	--	<b>As-Built Assessment</b>	Complete as-built survey and evaluate project for fish passage effectiveness

## PERFORMANCE MEASURES (Criterion E)

As described in the 2012 BiOp, Reclamation uses a process to predict the amount of habitat created from the various proposed restoration actions, which is measured as weighted usable area (WUA). This metric is used to measure changes in habitat for culturally significant fish species as it relates to changes in flow and changes in channel complexity and has not historically been used to measure changes in habitat related to fish passage improvement. However, this WUA metric was developed specifically for the Rogue Basin and has been applied in similar contexts. Thus, WUA is one of two metrics that can be used to measure the project’s benefits to fish habitat.

According to Table 25 of the 2012 BiOp, the fish passage improvement at the City of Medford utility line (#3) will restore access to an 8-mile reach of Bear Creek that contains 10,734 WUA (square feet/ 1,000 feet) or 442,069 square feet of total habitat. The access to upstream habitat is dependent on minimum flow requirements. This 8-mile reach has been designated as critical habitat for SONCC coho salmon and is important spawning and rearing habitat for additional native fish species, such as chinook salmon, steelhead, Pacific Lamprey, and Klamath Sucker.

Presently, abundance of SONCC coho salmon is significantly depressed in the Bear Creek watershed. Smolt trapping surveys have demonstrated few SONCC coho salmon are surviving in the watershed. Over a period of 6 years, the Oregon Department of Fish and Wildlife (ODFW) smolt-trapping program captured 329 SONCC coho salmon smolts; two years resulted in none captured. ODFW discontinued the program after 2006, however NMFS does not expect that smolt abundance has meaningfully changed since then. Adult spawning counts have not occurred regularly in Bear Creek, but they have demonstrated low numbers of SONCC coho salmon spawning in the watershed. The Bear Creek watershed assessment reported that production of SONCC coho salmon smolts is approximately 3.7 SONCC coho salmon smolts per mile of habitat in the Bear Creek mainstem (RVCOG 2001a). Unfortunately, recent estimates for the number of SONCC coho salmon returning to the Upper Rogue River population are not available due to a lack of surveys. The last available surveys that did occur resulted in an estimated number of wild spawners for the Upper Rogue River population was estimated of approximately 319 to 2,929.

## Monitoring Plan

State and federal regulatory programs are responsible for maintaining the quantity, quality, and beneficial uses of streams (2008 USACE/USEPA Final Compensatory Mitigation Rule, Oregon's Removal Fill Law). Therefore, SFAM has been designed to assess both the functions and values that streams provide. As a component to the Joint Permit Application (JPA) requirements of Department of State Lands (DSL), an SFAM survey will be required for the entire project reach before construction. Approximately 6 months after project construction, the project team will conduct an SFAM survey and results analysis in order to measure changes in ecological function and ecological values of aquatic habitat at each structure location.

Additionally, as a component to annual fish passage and aquatic habitat monitoring in the basin, the ODFW Rogue District will conduct a rapid bio-assessment using ODFW protocols for the entire reach including the three structure locations. In partnership of this effort, RRVID and City of Medford staff have committed to conducting biannual photo point monitoring at each of the three structure locations for 5 years post-construction.

## PRESIDENTIAL AND DEPARTMENT OF INTERIOR PRIORITIES (Criterion F)

**Climate Change:** *E.O. 14008 emphasizes the need to prioritize and take robust actions to reduce climate pollution; increase resilience to the impacts of climate change; protect public health; and conserve our lands, waters, oceans, and biodiversity.*

Juvenile SONCC coho, chinook, and steelhead rear in the Bear Creek watershed over multiple seasons before migrating to the ocean. Salmonid life history patterns expose the fish to adverse conditions exacerbated by climate change. Increased flooding frequency and intensity can limit adult access to preferred spawning areas, and high flows can scour stream substrates impacting embryo survival (Battin et al. 2007). Decreased low flows and increased summer water temperatures reduced habitat capacity for juvenile fish and sustained extreme water temperatures can lead to fish mortality (Richter and Kolmes 2005).

Although the precise impacts are challenging to predict, climate change will likely increase the limiting factors affecting the focal fish populations in Bear Creek. The University of Washington estimates that average annual air temperatures in Southern Oregon are projected to rise through the twenty-first century, resulting in warmer and drier summers (Climate Change Impacts Group 2011). Long-term stream temperature patterns suggest that many Pacific Northwest streams are exhibiting warming attributable to climate change (Isaak et al. 2012).

Although the potential ecological responses to climate change are complex and not precisely predictable, the projected regional trajectories of increased winter flooding, decreased summer and fall stream flows, and elevated temperatures in streams are likely to compound already degraded habitat conditions. The effects of degraded and lost habitat quality and complexity

could be amplified through climate change (Beechie et al. 2013). With the anticipated changes in precipitation patterns and resulting altered hydrology, particularly during the summer when flows are at their lowest and higher seasonal water temperatures, there will likely be further loss of areas that provide cool water refugia and resting habitat critical to salmonid survival.

Targeted restoration actions, such as fish passage removal and large wood placement, can help buffer natural systems against the negative impacts of climate change (Beechie 2012). A project goal is to improve the longitudinal connectivity of Bear Creek, allowing temperature dependent migration of juvenile salmonids and other species to seek thermal refugia.

## PROJECT BUDGET

### Funding Plan and Letters of Commitment

RVCOG has developed a broad partnership of support for the project, as evidenced by the letters of support (Appendix A) and the numerous commitments of financial resources by project stakeholders. Table 3 below summarizes the source and type of each financial commitment.

**TABLE 3. ESTIMATED PROJECT IMPLEMENTATION BUDGET**

<b>Non-Federal Entity</b>	<b>Type of Commitment</b>	<b>Contingencies/Constraints</b>	<b>Record of Commitment</b>	<b>Date Available</b>	<b>Amount</b>
City of Medford	Cash	Alternatives Analysis and H&H modelling	Letter of Commitment	March 1, 2022	\$40,000
Rogue River Valley Irrigation District (RRVID)	In-Kind Labor	Design Review	Letter of Commitment	March 1, 2022	\$2,200
Oregon Department of Transportation (ODOT)	Project Kickoff	Design Review	Letter of Commitment	March 1, 2022	\$23,424
Oregon Department of Fish and Wildlife (ODFW)	In-Kind Labor	Fish passage guidance review, environmental permits review, construction observation	Verbal	March 1, 2022	\$5,000
Rogue River Watershed Council (RRWC)	Cash / In-Kind Labor	Community engagement, public outreach	Verbal	March 1, 2022	\$1,200
Rogue Basin Partnership (RBP)	In-Kind Labor	Community engagement, public outreach	Letter of Commitment	March 1, 2022	\$900
City of Medford	In-Kind Labor	Construction equipment and labor	Letter of Commitment	March 1, 2022	\$70,000
<sup>1</sup> Oregon Watershed Enhancement Board Grant	Cash	Construction materials / labor	Planned Grant Application – Restoration Program <i>Not confirmed</i>	March 1, 2023	\$125,000
<sup>1</sup> Freshwater Trust	Cash	Construction materials / labor	<i>Not confirmed</i>	March 1, 2023	\$125,000

<b>Non-Federal Entity</b>	<b>Type of Commitment</b>	<b>Contingencies/Constraints</b>	<b>Record of Commitment</b>	<b>Date Available</b>	<b>Amount</b>
<sup>1</sup> Resources Legacy Fund	Cash	Construction materials / labor	Planned Grant Application	March 1, 2023	\$125,000
<sup>1</sup> Jackson Soil and Water Conservation District	Cash	Construction materials / labor	Not confirmed	March 1, 2023	\$125,000
<sup>1</sup> American Rivers	Cash	Construction materials / labor	Planned Grant Application	March 1, 2023	\$125,000
<sup>1</sup> Cow Creek Band of Umpqua Tribe of Indians	Cash	Construction materials / labor	Preliminary Verbal – Not confirmed	March 1, 2023	\$125,000
<sup>1</sup> Confederated Tribe of Siletz Indians	Cash	Construction materials / labor	Preliminary Verbal – Not confirmed	March 1, 2023	\$125,000
<b>Non-Reclamation Subtotal</b>					<b>\$267,724</b>
<b>Requested Reclamation Funding</b>					<b>\$801,651.00</b>

<sup>1</sup>Indicates one of several potential and combined funding sources for an unconfirmed funding source of \$125,000. Only one \$125,000 amount was used for the subtotal calculation

The project implementation plan and budget have been developed to ensure that 25% of each project element or phase is funded by an organization outside of Reclamation. This funding plan structure would allow RVCOG to fulfill the 25% match requirement at task or phase whether or not unforeseen circumstances, such as a technical challenge or weather-related emergency, prevent the project from proceeding to the subsequent phase.

As indicated in Table 3 above, there is one pending funding request for the construction phase that has not yet been approved or confirmed. These funding requests are for phases that will begin March 2023. RVCOG understands that the project would not proceed to the construction phase, if these pending funding requests are not approved by March 2023. However, based on numerous factors RVCOG is confident these two specific funding needs will be met by additional project stakeholders for the project’s construction phase. There are numerous additional stakeholders throughout the region that have expressed verbal support and interest in this project and were not able to develop letters of commitment by the December 9, 2021. These unconfirmed stakeholders listed above, such as American Rivers, have well-known interests in the primary ecological benefits of this project (fish passage, water quality, and drought resiliency). Each of these stakeholders are frequent participants and financial supporters of similar projects in the region.

## Budget Proposal

Tables 4-7 below detail the total project costs, the sum of all allowable items of costs, including all required cost sharing and voluntary committed cost sharing, including third-party

contributions, that are necessary to complete the project.

**Table 4 -Total Project Cost Summary**

SOURCE	AMOUNT
Costs to be reimbursed with the requested Federal funding	\$801,651.00
Value of third-party contributions	\$267,724
<b>TOTAL PROJECT COST</b>	<b>\$1,069,375.00</b>

**Table 5 - Total Project Cost Estimate**

Design / Engineering Tasks	Budget Narrative	Task Cost	Cost-Share Confirmed	Cost-Share – not yet approved
A. H&H / Engineering Review / Alternatives Analysis	A thorough review and hydraulics analysis of structure #s1-4	\$90,000	\$40,000 – City of Medford	
B. Identify preferred alternative and concept design	Develop a preferred alternative and concept plan for structure #s1-4	\$30,000		
<b>C. Design</b>				
Structure 3 - sewer line	Develop 30%, 60%, and complete design plansets for structure #s1-3	\$30,000	\$23,424 - ODOT	
Structure 2 - dam rubble		\$30,000		
Structure 1 - weirs		\$50,000		
<b>D. Permitting</b>				
Categorical Exclusion	Develop and submit a categorical exclusion for inwater work to occur at structure #s1-3	\$30,000	\$2,200 – RRVID \$900 - RBP	
ESA Section 7 Programmatic (SLOPES V)	Develop and submit a programmatic permit application for inwater work to occur at structure #s1-3	\$15,000	\$5,000 – ODFW	
Joint Permit Application	Develop and submit a Joint Permit Application (USACE, DSL, DEQ, ODFW) for inwater work to occur at structure #s1-3	\$15,000	\$1,200 – RRWC	
DEQ 1200C Application	Develop and submit NPDES permit application to DEQ for structure #s1-3	\$5,000		
Cultural Resources Section 106	Develop and submit a Section 106 permit application to SHPO for structure #s1-3	\$35,000		
<b>E. Construction</b>	See Table 6 below	<b>\$704,375</b>	\$70,000 – City of Medford	\$125,000 OWEB
<b>F. Project Management / Administration</b>	See Table 7 below	<b>\$35,000</b>		
<b>TOTAL Design, Permitting, and Construction</b>		<b>\$1,069,375</b>		

Table 6 – Detailed Construction Cost Estimate

Bear Creek 3 barriers - Grant App-Level Construction Cost Estimate						
12/3/2021						
BID ITEM	SECTION	ITEM DESCRIPTION/ NARRATIVE	QUANTITY	UNIT MEASURE	UNIT PRICE	COST
<b>PART 00200 - TEMPORARY FEATURES AND APPURTENANCES</b>						
	00210	MOBILIZATION	ALL	LS	10%	\$56,000
	00221	TEMPORARY PROTECTION AND DIRECTION OF TRAFFIC	1	LS	\$10,000	\$10,000
	00280	EROSION CONTROL	1	LS	\$20,000	\$20,000
	01230	WORK AREA ISOLATION AND STREAM DIVERSION	1	LS	\$60,000	\$60,000
	00290	POLLUTION PREVENTION PLAN	1	LS	\$1,500	\$1,500
<b>PART 00300 - REMOVAL</b>						
	00305	CONSTRUCTION SURVEY WORK	1	LS	\$15,000	\$15,000
	00310	REMOVAL OF STRUCTURES AND OBSTRUCTIONS (DEMOLITION)	1	LS	\$125,000	\$125,000
	00320	CLEARING AND GRUBBING	1	LS	\$10,000	\$10,000
	00330	GENERAL EXCAVATION	1000	CY	\$35	\$35,000
	00390	RIPRAP CLASS 700 (BRIDGE PIER PROTECTION)	500	TN	\$55	\$27,500
<b>PART 01000 - STABILIZATION</b>						
	01030	PERMANENT SEEDING	0.5	ACRE	\$6,000	\$3,000
	01040	REVEGETATION	1	LS	\$10,000	\$10,000
<b>PART 01200 - STREAM ENHANCEMENTS</b>						
	01210	ENGINEERED STREAMBED MATERIAL (ESM)	2750	TN	\$75	\$206,250

**Bear Creek 3 barriers - Grant App-Level Construction Cost Estimate**

12/3/2021

BID ITEM	SECTION	ITEM DESCRIPTION/ NARRATIVE	QUANTITY	UNIT MEASURE	UNIT PRICE	COST
	01210	STREAMBED EXCAVATION	1330	CY	\$25	\$33,250

<b>DIRECT ITEM CONSTRUCTION SUBTOTAL</b>	<b>\$ 612,500</b>
<b>ESTIMATE UNCERTAINTY CONTIGENCY (15%)</b>	<b>\$ 91,875</b>
<b>TOTAL OPINION OF PROBABLE COST FOR CONSTRUCTION</b>	<b>\$ 704,375</b>

**Table 7. Detailed RVCOG Budget**

BUDGET ITEM DESCRIPTION	BUDGET NARRATIVE	COMPUTATION	Quantity Type	TOTAL COST
<b>\$/Unit</b>		<b>Rate</b>	Hours	
<b>Salaries and Wages</b>				
Gregory Stabach: Natural Resources Planning Manager, RVCOG	Project management, consultation with contractors and subject matter experts.	\$43.27	205	\$8,870
Peter Town: Community Development, RVCOG	Grant administration, procurement management.	\$29.27	191	\$5,590
<b>Fringe Benefits</b>				
Gregory Stabach		\$43.53	205	\$8,925
Peter Town		\$41.38	191	\$7,905
<b>Indirect Costs</b>				
Type of rate		14%	Salary and Wages	\$3,710
<b>TOTAL ESTIMATED PROJECT MANAGEMENT COSTS</b>				<b>\$35,000</b>

## ENVIRONMENTAL AND CULTURAL RESOURCES

It is assumed that the proposed projects would qualify for a recognized Categorical Exclusion (CE), under 516 DM14.5.C(3) *Minor construction activities associated with authorized projects which correct unsatisfactory environmental conditions or which merely augment or supplement, or are enclosed within existing facilities;* or 516 DM14.5E(2) *Small Reclamation Projects Act grants and loans where the work to be done is confined to areas already impacted by farming or development activities, work is considered minor, and where the impacts are expected to be localized.*

In the Reclamation NEPA Handbook, the criteria and exceptions included in a Categorical Exclusion Checklist (CEC) that must be considered in evaluating whether or not a CE is applicable and appropriate are listed below. The majority of the criteria and exceptions (extraordinary circumstances) are set forth in 43 CFR 46.215. Evaluation of Criteria for CE:



**1. This action would have a significant effect on the quality of the human environment (40 CFR 1502.3).**

Information from the other criteria listed below is needed in order to address this criterion. The technical studies listed below will be used to assess the effects the proposed project would have the quality of the human environment.

**2. This action would have highly controversial environmental effects or involve unresolved conflicts concerning alternative uses of available resources (NEPA Section 102(2)(E) and 43 CFR 46.215(c)).**

It is not believed that the proposed project is controversial. This project has been endorsed by the Oregon Department of Transportation (ODOT), Oregon Department of Fish and Wildlife (ODFW), the Rogue River Valley Irrigation District (RRVID), the City of Medford, and the Rogue River Watershed Council, among many other community members.

**3. This action would have significant impacts on public health or safety (43 CFR 46.215(a)).**

A number of issues arise relative to public health and safety. The most common concerns for this project is related to water quality. A Total Maximum Daily Load (TMDL) report complete in 2007 describes several water quality impairments in Bear Creek that are largely related to urbanization and agriculture irrigation. In addition to water quality impacts, Bear Creek experiences greatly diminished stream flows from irrigation conveyance by the end of June each year. Irrigation results in unnaturally low flows in the lower watershed, below the Medford Irrigation District diversion. These low flows exacerbate existing water quality impairments within the watershed and cause instream infrastructure to function as passage barriers to aquatic life.

Climate change and severe drought projected for the Rogue Basin will exacerbate existing challenges related to water quality, instream flows, and fish passage in Bear Creek. For example, in June, 2021 snowpack in the Rogue basin was recorded to be 4% of historical averages for that time of year. As a result of these low flow conditions, Reclamation will be very challenged to fulfill instream flow requirements in Bear Creek and there will be little to no opportunity to improve fish passage through increased water allocation. These low flow conditions limit the number opportunities to improve SONCC coho and other culturally significant fish passage and survival.

The project's implementation will be sensitive to the water quality concerns described above and, as an element to the required NPDES permit, the project will develop and implement a Stormwater Pollution Prevention Plan (SWPPP) complete with redundant best management practices (BMP) and water quality monitoring during the project's construction phase.

**4. This action would have significant impacts on such natural resources and unique geographical characteristics as historic or cultural resources; parks, recreation, and refuge lands; wilderness areas; wild or scenic rivers; national natural landmarks; sole or principal drinking water aquifers; prime farmlands; wetlands (EO 11990);**

**flood plains (EO 11988); national monuments; migratory birds; and other ecologically significant or critical areas (43 CFR 46.215 (b)).**

The proposed project removes man-created structures within designated critical habitat of SONCC coho. The proposed projects would improve stream habitat, instream flows, and fish passage to restore access to 8 miles of upstream habitat, resulting in a beneficial effect to natural resources.

**5. This action would have highly uncertain and potentially significant environmental effects or involve unique or unknown environmental risks (43 CFR 46.215(d)).**

The proposed projects are localized and the removal of man-created structures and restoration of habitat. There would be no significant or unknown environmental risks associated with the removal of these artificial structures.

**6. This action would establish a precedent for future action or represent a decision in principle about future actions with potentially significant environmental effects (43 CFR 46.215 (e)).**

The proposed projects are not innovative or precedent setting. The projects would follow the ODFW fish passage design standards SLOPES for Stream Restoration and Fish Passage Improvement Actions (NMFS 2013) developed for these types of the projects and.

**7. This action would have a direct relationship to other actions with individually insignificant but cumulatively significant environmental effects (43 CFR 46.215 (f)).**

Based on the work conducted by the Rogue Valley Council of Governments over the years, the proposed projects would not have any adverse cumulative effects. Their plans have examined long-range plans and other plans developed by agencies, organizations or individuals:

- Rogue Basin Coordinating Council. 2006. Watershed health factors assessment. Prepared for the Rogue Basin Coordinating Council in performance of OWEB grant #204-939. Grants Pass, Oregon.
- RVCOG (Rogue Valley Council of Governments). 1997. Southwest Oregon Salmon Restoration Initiative. Phase 1: A plan to stabilize the native coho population from further decline.
- RVCOG (Rogue Valley Council of Governments). 2001a. Bear Creek watershed assessment.
  - Phase II – Bear Creek tributary assessment. Central Point, Oregon.
- RVCOG (Rogue Valley Council of Governments). 2001b. Bear Creek watershed assessment. Phase II-Bear Creek tributary assessment. Part II-Bear Creek and tributaries; Eastern interface unit; Larson and Lone Pine Creeks subwatersheds.
- RVCOG (Rogue Valley Council of Governments). 2001c. Bear Creek Watershed Assessment, Phase II-Bear Creek tributary assessment. Part II-Bear Creek and tributaries; Eastern delta unit; Upton and Whetstone subwatersheds.

**8. This action would have significant impacts on properties listed, or eligible for listing, on the National Register of Historic Places as determined by Reclamation (in coordination with a Reclamation cultural resources professional, LND 02-01)(43 CFR 46.215 (g)).**

A Cultural Resource Assessment and Section 106 consultation will be required. This will include:

- Background research to determine what surveys have been done in the past and if any known historic or cultural resources exist in the area
- Development of the Area of Potential Effect (APE), which defines the limits of the project.
- A minimum of a pedestrian survey will be complete for the APE.
- If resources are discovered during the pedestrian survey, then subsurface investigation is required. This will require an Archeological Permit from SHPO.
- Perform subsurface investigation
- Document findings in a Cultural Resource Assessment and submit it to SHPO and Tribes for a 30-day consultation period.

Southern Oregon has 5 Tribes that are very active in Section 106 consultations. In general Southwest Oregon is Highly Likely To Contain Significant Cultural Resources and, as a result, RVCOG and contracted consultants have deep experience working with the local tribes through this process.

**9. This action would have significant impacts on species listed, or proposed to be listed, on the List of Endangered or Threatened Species, or have significant impacts on designated critical habitat for these species (43 CFR 46.215 (h)).**

The proposed project removes man-created structures within designated critical habitat of SONCC coho. The proposed projects would improve stream habitat, instream flows, and fish passage to restore access to 8 miles of upstream habitat, resulting in a beneficial effect to natural resources. The project will be designed to comply with ODFW fish passage design standards and SLOPES for Stream Restoration and Fish Passage Improvement Actions (NMFS 2013).

**10. This action would violate a Federal, tribal, State, or local law or requirement imposed for protection of the environment (43 CFR 46.215 (i)).**

Work below the OHW level of the Bear Creek will trigger the need for a Clean Water Act (CWA) Section 404 Permit from the US Army Corps of Engineers (Corps) and a Removal-Fill Permit from the Department of State Lands (DSL). The issuance of a federal (Corps) permit will also trigger the need to obtain a 401 Water Quality Certification for the project from the Department of Environmental Quality (DEQ).

Depending on the design specifics, the project may qualify for General Authorization for Waterway Habitat Restoration (OAE 141-089-0780 through 141-089-0795) or Notice for Exemption of Certain Voluntary Habitat Restoration Activities (OAR 141-085-0534) from DSL. The projects would qualify for Nationwide 27 (Aquatic Habitat Restoration, Establishment, and Enhancement Activities). The 2017 Nationwide Permits and their associated regional conditions and Water Quality Certifications remain in effect through their scheduled March 18, 2022, expiration date or until the Corps issues a final rule reissuing those Nationwide Permits. As part

of the Nationwide Permit Application, the project will need to show compliance with the SLOPES for Stream Restoration and Fish Passage Improvement Actions (NMFS 2013).

**11. This action would affect ITAs (to be completed by Reclamation official responsible for ITAs) (512 DM 2, Policy Memorandum dated December 15, 1993).**

Any ITAs in or near the affected area would be identified in coordination with Reclamation. The results of any efforts to resolve ITA concerns would be documented and included with the CEC.

12. This action would have a disproportionately high and adverse effect on low income or minority populations (EO 12898) (43 CFR 46.215 (j)).

**The proposed project involves the removal of man-made structures. This action would not have a high or adverse effect on low income or minority populations.**

**13. This action would contribute to the introduction, continued existence, or spread of noxious weeds or non-native invasive species known to occur in the area or actions that may promote the introduction, growth, or expansion of the range of such species (Federal Noxious Weed Control Act, EO 13112, and 43 CFR 46.215 (l)).**

BMPs will be implemented during construction to control the introduction and spread of noxious weeds or non-native species, per SLOPES.

## REQUIRED PERMITS OR APPROVALS

As described in above sections and based research conducted by environmental permitting professionals, the RVCOG anticipates the following permit requirements and associated review timelines:

- Joint Permit Application (JPA) – Department of State Lands (DSL) Removal/Fill - 120 days, which includes review by the following:
  - US Army Corps of Engineers (USACE) Removal/Fill – Nationwide Permit 27
  - Environmental Protection Agency, Clean Water Act
  - Department of Environmental Quality (DEQ) Section 401 Water Quality
  - Oregon Department of Fish and Wildlife (ODFW)
  - Oregon Parks and Recreation Department (OPRD)
  - Oregon Water Resources Department (OWRD)
  - Tribal Governments - 120 days
- Programmatic Permit for Section 7 of the Endangered Species Act – SLOPES IV Restoration (NMFS) – 14 days
- Section 106 Cultural Resources Consultation – 30 days
- Reclamation Categorical Exclusion, NEPA – 14 days
- DEQ 1200C – 30 days

- Jackson County LUCS – 30 days
- City of Medford Land Use Review – 120 days

## **LETTERS OF SUPPORT**

See Appendix A for Letters of Support from the following organizations:

- Oregon Department of Transportation
- Oregon Department of Fish and Wildlife
- Rogue River Valley Irrigation District
- Rogue Basin Partnership
- Rogue River Watershed Council

## **OFFICIAL RESOLUTION**

See Appendix B for the Official Resolution Attachment.

## **UNIQUE ENTITY IDENTIFIER**

As indicated in the Grants.Gov Application submittal, RVCOG Unique Entity Identifier is K6WHVFMHR7D3.

Appendix A  
**Letters of Support**

---

**From:** Davenport, CalLee <callee\_davenport@fws.gov>  
**Sent:** Wednesday, December 8, 2021 12:11 PM  
**To:** Luke Johnson; Peter Town  
**Subject:** RE: [EXTERNAL] USFWS Bear Creek Fish Passage Barrier Removals

Howdy Luke and Peter,

Luke, I certainly appreciated the visit with you earlier about the potential projects in the Bear Creek drainage as the stream winds its way through the city of Medford and wanted to write back to you both that the USFWS is supportive of the initiative undertaken by RVCOG to improve fish passage in the stream for salmonids and other aquatic species. As I had mentioned on our call, I have worked on a number of stream and riparian projects the past 10 years in the Rogue basin with a variety of the project partners you'd identified (ie RRWC, RBP, and ODFW to name a few) through our private lands program, the Partners for Fish and Wildlife (PFW) Program, to improve both instream and riparian habitat in a number of Rogue tributaries, with Bear Creek being one of them. In conjunction with both Lomakatsi Restoration Project and Cascade Christian High School, we were able to address invasives on a stretch of Bear Creek's riparian area near the high school and restore it back to a more normal scenario.

While I am unable to provide any implementation funding at this time as things are somewhat unknown with our current Continuing Resolution, as I had mentioned to you on the phone, we are very interested in staying in the loop with you and other project partners as the project gains momentum. In support of the project, I would be happy to assist with any future technical review of project plans as they are developed and become available. There may be also be a potential for future funding, either through our PFW or Fish Passage Programs, as well as a potential for funding as Congress moves forward with both the recent Infrastructure and Build Back Better bills.

Please don't hesitate to contact me, and I look forward to seeing how these projects develop.

Take care,

CalLee

CalLee Davenport, Oregon State Coordinator  
Partners for Fish & Wildlife Program  
Regional Pollinator Coordinator, DOI Regions 9 & 12  
U.S. Fish and Wildlife Service  
Oregon Fish & Wildlife Office  
2600 SE 98th Avenue, Suite 100  
Portland, OR 97266  
E-mail: [callee\\_davenport@fws.gov](mailto:callee_davenport@fws.gov)

(503) 231-6924 (direct line)  
(503) 231-6179 (main office line)  
(503) 231-6195 (fax)

Check out our [website](#) or connect with us on [Facebook](#)

---

**From:** Luke Johnson <LJohnson@esassoc.com>  
**Sent:** Wednesday, December 8, 2021 11:27 AM

To: Davenport, CalLee <callee\_davenport@fws.gov>; Peter Town <ptown@rvcog.org>

Subject: [EXTERNAL] USFWS Bear Creek Fish Passage Barrier Removals

**This email has been received from outside of DOI - Use caution before clicking on links, opening attachments, or responding.**

Hi CalLee,

Thanks for the great conversation today regarding the fish passage barriers removal in Bear Creek described below. As discussed, I am working with the RVCOG to finalize the application materials. Thank you in advance for your response to Peter Town at RVCOG describing USFWS' endorsement of the project and interest in future support.

The Rogue Valley Council of Governments (RVCOG) has coordinated a broad partnership of local nonprofit organizations and Oregon State agencies to restore natural channel hydrology and fish passage to a highly disturbed reach of Bear Creek within the City of Medford, Oregon. The project is located on the ancestral lands of the Cow Creek Band of the Umpqua Tribe, the Confederated Tribes of Grand Ronde, Confederated Tribes of Siletz Indians. Bear Creek, a tributary to the Rogue River, provides important spawning and rearing habitat for Southern Oregon and Northern California Coasts (SONCC) coho salmon, which are listed as Threatened under the Endangered Species Act (ESA) and are a culturally significant species for local tribes. As the most urbanized watershed in the Rogue Basin, Bear Creek has had a long history of water quality concerns from a number of sources, including urbanization, agriculture, and water transport (canals). RVCOG proposes to remove two obsolete irrigation structures and one abandoned utility line from the stream channel and restore access to 8 miles of aquatic habitat upstream. This project has been endorsed by the Oregon Department of Transportation (ODOT), Oregon Department of Fish and Wildlife (ODFW), the Rogue River Valley Irrigation District (RRVID), the City of Medford, the Rogue River Watershed Council, and the U.S. Fish and Wildlife Service (USFWS), among many other community members.

The proposed restoration actions are consistent with recommendations from the Rogue Basin Partnership's Rogue Restoration Action Plan (Strategy 3.2). The project will benefit rearing habitats important to ESA-listed coho and help address water quality issues, such as temperature, by removing impoundments to flow and increasing channel complexity. The project will restore fish passage to additional species, such as fall Chinook, Pacific lamprey, summer and winter steelhead, suckers, and cutthroat trout. Two of the barriers to be removed are 2019 ODFW Statewide Fish Passage Priorities. We anticipate this project will provide benefits to native fish populations to Bear Creek and the Rogue River Basin overall.

Best,

**Luke Johnson**

he | him

Ecologist / Environmental Scientist

**ESA | Environmental Science Associates**

819 SE Morrison Street, Suite 310

Portland, OR 97214

mobile: 612.418.4984

[ljohnson@esassoc.com](mailto:ljohnson@esassoc.com) | [esassoc.com](http://esassoc.com)

Stay in Touch: [Join Our Newsletter](#)





# Oregon

Kate Brown, Governor

Department of Transportation

Region 3

3500 NW Stewart Parkway

Roseburg, Oregon, 97470-1600

Phone: (541) 957-3500

Fax: (541) 672-6148

November 16, 2021

U.S Bureau of Reclamation  
WaterSMART – Environmental Water Resources Grant  
Denver Federal Center  
Bldg 67, Rm 152  
6<sup>th</sup> Avenue and Kipling Street  
Denver, CO 80225

Dear WaterSMART Grant Review Committee:

The Oregon Department of Transportation (ODOT) strongly supports the Rogue Valley Council of Government (RVCOG) proposal for the Bear Creek Fish Passage Barrier Removal Project in Medford, Oregon. ODOT looks forward to participating in a broad partnership to enhance stream hydrology and to restore fish passage to Bear Creek, which functions as important habitat for fish and wildlife in the basin. In the context of increased drought frequency and subsequent increased water temperatures in our region, the hydrologic and fish passage benefits of this project are decisively important for Bear Creek.

The proposed restoration actions are consistent with recommendations from the Rogue Basin Partnership's Rogue Restoration Action Plan (Strategy 3.2). The project will benefit rearing habitats important to ESA-listed coho and help address water quality issues, such as temperature, by removing impoundments to flow and increasing channel complexity. The project will restore fish passage to additional species, such as fall Chinook, Pacific lamprey, summer and winter steelhead, suckers, and cutthroat trout. Two of the barriers to be removed are 2019 ODFW Statewide Fish Passage Priorities. We anticipate this project will provide benefits to native fish populations to Bear Creek and the Rogue River Basin overall.

In addition to this letter, the project has significant support as evidenced by letters of support and match contributions from many agencies and organizations throughout the Rogue River Valley. ODOT is also encouraged that RVCOG has experience with managing riparian restoration and administering federal grant funds. Technical consultants experienced with this type of dynamic stream system will be utilized to plan, design, construct the project.

ODOT will provide support in the form of staff time to analyze potential hydrological effects to state owned assets immediately upstream along Bear Creek. This work will be completed by a team of professionals, including survey, hydraulics, geotechnical and bridge. At this time our best estimate of support will include approximately 160 hours of time from this team and 40 hours of time by myself resulting in approximately \$23,424 of direct staff time. Thank you for bringing yet another high value project to our greater Medford community and the Rogue River Valley. We look forward to working with you and building upon past restoration success within the Bear Creek Watershed.

Sincerely,

Darrin Neavoll  
ODOT Region 3 Manager



# Oregon

Kate Brown, Governor

## Department of Fish and Wildlife

Rogue Watershed District Office

1495 East Gregory Road

Central Point, OR 97502

(541) 826-8774

Fax (541) 826-8776

December 1, 2021

Peter Town  
Grants and Contracts Administrator  
Rogue Valley Council of Governments  
155 N 1<sup>st</sup> St, PO Box 3275  
Central Point, OR 97502

Dear Mr. Town,

Your agency is coordinating a grant application to conduct an engineering and alternatives analysis to improve fish passage at artificial structures in Bear Creek in downtown Medford. The project will also implement a project to improve passage at an abandoned sewer line, one of the four artificial structures. All sites are related to the old Jackson Street Dam Removal Project, one of the first dam removal projects of the modern era. This letter is intended to describe the ecological uplift to be expected from project completion, along with ODFW commitment to the project.

Typical of the Rogue watershed, these barriers are partial barriers to fish passage. When conditions are good for passage, fish can pass these sites. When conditions are bad for passage, such as during low flows, fish migration is blocked. The barriers are most severe for juvenile salmon and steelhead.

ODFW has monitored passage at these sites since the start of the current drought cycle around 2013. Fish begin to have success passing the abandoned sewer line at a flow of around 40 cfs, and success improved significantly at 60 cfs (including some juvenile passage). At lower flows ODFW has constructed temporary fish ladders to successfully improve passage. Collectively this work has provided insight to aid in the review of this proposal.

This project will dramatically improve passage for the native migratory fish of Bear Creek as described in following order of importance:

1. Upstream passage by juvenile salmon and steelhead in summer. Juvenile steelhead, coho and some chinook salmon migrate upstream in summer in Bear Creek to reach thermal refuge near the community of Phoenix. Cooler water is

likely provided by springs and the nature of the water table in the Phoenix area and in Talent, and potentially by snowmelt from Mount Ashland entering Bear Creek through Ashland Creek. Unfortunately, three barriers in this project block migration of juvenile fish. The severity of the block increases during drought when it is even more important that juvenile fish find cooler water. Improved passage can be expected to improve over summer survival of wild summer and winter steelhead, coho salmon, and fall chinook salmon. Improved survival will be due in part to reduced predation on juveniles congregated below and jumping at these barriers.

2. Upstream passage by fall chinook adults during spawning. The spawning distribution of fall chinook salmon in Bear Creek was limited to the lower reaches of the creek prior to the removal of the Jackson Street Dam. Since 2011, fall chinook have been spawning in Bear Creek in or near Ashland every year. Unfortunately, the sewer line is a significant barrier to migration of chinook adults, especially when irrigation district releases end for the year. Temporary sandbag ladders have been needed to ensure chinook passage in recent years. Improved passage can be expected to improve spawning distribution of fall chinook and maintain good distribution of spawners regardless of drought, as well as improving the overall health of spawners by eliminating unsuccessful attempts to pass the abandoned sewer line.
3. Upstream passage by all native migratory fish at low flows. As stated above, successful passage at the abandoned sewer line improves significantly when flows reach around 60 cfs. Flows in Bear Creek during the October-May spawning period usually reach this level by early December, but not always. Climate projections include forecasts of greater streamflow variation. This project will ensure passage for adults throughout the spawning season: fall chinook, coho, summer steelhead, cutthroat trout, Klamath smallscale suckers, winter steelhead and Pacific lamprey.

The Rogue District of ODFW believes this project provides significant benefits for native migratory fish and fish production in Bear Creek. The alternatives analysis will ensure that the final design protects nearby infrastructure while also restoring passage. ODFW will assist with project completion through a variety of actions: design review; fish surveys as needed; and assistance during permitting activities.

Thank you for submitting this proposal!



Dan Van Dyke  
ODFW Rogue District Fish Biologist



**MEDFORD**  
PUBLIC WORKS

December 1, 2021

U.S Bureau of Reclamation  
WaterSMART – Environmental Water Resources Grant  
Denver Federal Center  
Bldg 67, Rm 152  
6<sup>th</sup> Avenue and Kipling Street  
Denver, CO 80225

**SUBJECT: WATERSMART GRANT - BEAR CREEK FISH PASSAGE**

Dear WaterSMART Grant Review Committee:

The City of Medford strongly supports the Rogue Valley Council of Government (RVCOG) proposal for the Bear Creek Fish Passage Barrier Removal Project in Medford, Oregon. The City of Medford looks forward to participating in a broad partnership to enhance stream hydrology and to restore fish passage to Bear Creek, which functions as important habitat for fish and wildlife in the basin. In the context of increased drought frequency and subsequent increased water temperatures in our region, the hydrologic and fish passage benefits of this project are decisively important for Bear Creek.

The proposed restoration actions are consistent with recommendations from the Rogue Basin Partnership's Rogue Restoration Action Plan (Strategy 3.2). The project will benefit rearing habitats important to ESA-listed coho and help address water quality issues, such as temperature, by removing impoundments to flow and increasing channel complexity. The project will restore fish passage to additional species, such as fall Chinook, Pacific lamprey, summer and winter steelhead, suckers, and cutthroat trout. Two of the barriers to be removed are 2019 ODFW Statewide Fish Passage Priorities. We anticipate this project will provide benefits to native fish populations to Bear Creek and the Rogue River Basin overall.

The City is confident in RVCOG's abilities and experience with managing riparian restoration, and administering federal grant funds. To assist in making this project a reality the City of Medford is offering a cash match of \$40,000. The City is also committing an in-kind match valued at \$70,000 to remove and dispose of the City sewer pipe and concrete encasement. City in-kind work is contingent on this project providing a dewatered work area and safe access to the encasement for construction equipment including a 10 wheel dump truck.



**MEDFORD**  
PUBLIC WORKS

Thank you for considering the funding of this essential project to restore salmon access and habitat to the Bear Creek Watershed.

Sincerely,

Roger E. Thom, P.E.  
Consultant Projects Leader  
City of Medford, Oregon  
541/774-2129

Rogue River Valley Irrigation District

---

3139 Merriman Road Medford, OR 97501 (541) 773-6127 Fax (541) 773-5420

Website: [www.rrvld.org](http://www.rrvld.org)

November 30, 2021

U.S Bureau of Reclamation  
WaterSMART – Environmental Water Resources Grant  
Denver Federal Center  
Bldg. 67, Rm 152  
6<sup>th</sup> Avenue and Kipling Street  
Denver, CO 80225

Dear WaterSMART Grant Review Committee:

Rogue River Valley Irrigation District strongly supports the Rogue Valley Council of Government (RVCOG) proposal for the Bear Creek Fish Passage Barrier Removal Project in Medford, Oregon. Rogue River Valley Irrigation District looks forward to participating in a broad partnership to enhance stream hydrology and to restore fish passage to Bear Creek, which functions as important habitat for fish and wildlife in the basin. In the context of increased drought frequency and subsequent increased water temperatures in our region, the hydrologic and fish passage benefits of this project are decisively important for Bear Creek.

The proposed restoration actions are consistent with recommendations from the Rogue Basin Partnership's Rogue Restoration Action Plan (Strategy 3.2). The project will benefit rearing habitats important to ESA-listed coho and help address water quality issues, such as temperature, by removing impoundments to flow and increasing channel complexity. The project will restore fish passage to additional species, such as fall Chinook, Pacific lamprey, summer and winter steelhead, suckers, and cutthroat trout. Two of the barriers to be removed are 2019 ODFW Statewide Fish Passage Priorities. We anticipate this project will provide benefits to native fish populations to Bear Creek and the Rogue River Basin overall.

In addition to this letter, the project has significant support as evidenced by letters of support and match contributions from many agencies and organizations throughout the Rogue River Valley. Rogue River Valley Irrigation District is also encouraged that RVCOG has experience with managing riparian restoration and administering federal grant funds. Technical consultants experienced with this type of dynamic stream system will be utilized to plan, design, construct the project.

Rogue River Valley Irrigation District will provide support in the form of staff time. Staff time will support the development of construction ready design and contracting documents. Follow-up staff time will be allocated to support contractor selection and construction inspection activities.

At this time our best estimate of support will include 20 in-kind hours of time provided by Laurie Sanderson, Office Administrator and 40 in-kind hours of time by myself resulting in approximately \$2500.00 in-kind of staff time.

Thank you for bringing yet another high value project to our greater Medford community and the Rogue River Valley. We look forward to working with you and building upon past restoration success within the Bear Creek Watershed.

Sincerely,

A handwritten signature in black ink, appearing to read "Brian Hampson". The signature is fluid and cursive, with a long horizontal stroke extending to the right.

Brian Hampson  
Secretary/Manager  
Rogue River Valley Irrigation District





November 18, 2021

U.S Bureau of Reclamation  
WaterSMART – Environmental Water Resources Grant  
Denver Federal Center  
Bldg 67, Rm 152  
6<sup>th</sup> Avenue and Kipling Street  
Denver, CO 80225

Dear WaterSMART Grant Review Committee:

Rogue River Watershed Council strongly supports the Rogue Valley Council of Government's (RVCOG) proposal for the Bear Creek Fish Passage Barrier Removal Project in Medford, Oregon. We have participated in a broad partnership to improve fish passage with many other organizations in the Rogue Basin. Fish passage improvements in this region have been extensive over the past 15 years (including the removal of large dams on the Rogue like Savage Rapids, Gold Hill Diversion, and Gold Ray). Improving passage for salmonids (including threatened Coho Salmon), lamprey, and Klamath Smallscale Suckers in tributaries is a logical next step, particularly as droughts become more severe and summers become warmer. In this context, the hydrologic and fish passage benefits from this project are important for Bear Creek.

The proposed restoration actions are consistent with the Rogue Basin Partnership's Rogue Restoration Action Plan (Strategy 3.2). Two of the barriers this project will address are 2019 ODFW Statewide Fish Passage Priorities. The project will primarily benefit upstream passage for adult and juvenile native fish but will also improve rearing habitats by removing impoundments to flow and increasing channel complexity.

In addition to this letter, the project has substantial support as evidenced by letters of support and match contributions from many agencies and organizations throughout the Rogue River Valley. We have worked with RVCOG on many projects (including fish passage) in the past and are encouraged by their involvement. They have the experience to administer large grants and the relationships with local municipalities and special districts to develop and implement a complex project like this. Technical consultants experienced with this type of dynamic stream system will be utilized to plan, design, and construct the project.

Thank you for bringing yet another high value project to the Rogue Basin. We look forward to working with you and building upon past restoration successes in the region.

Sincerely,

A handwritten signature in blue ink that reads 'Brian R. Barr'. The signature is stylized with a long horizontal stroke at the end.

Brian R. Barr  
Executive Director

Rogue River Watershed Council  
89 Alder Street, Central Point, OR 97502  
541.423.6158  
[www.rogueiverwc.org](http://www.rogueiverwc.org)





U.S Bureau of Reclamation  
WaterSMART – Environmental Water Resources Grant  
Denver Federal Center  
Bldg 67, Rm 152  
6<sup>th</sup> Avenue and Kipling Street  
Denver, CO 80225

December, 1 2021

Dear WaterSMART Grant Review Committee:

Rogue Basin Partnership (RBP) strongly supports the Rogue Valley Council of Government (RVCOG) proposal for the Bear Creek Fish Passage Barrier Removal Project in Medford, Oregon. RBP looks forward to participating in a broad partnership to enhance stream hydrology and to restore fish passage to Bear Creek, which functions as important habitat for fish and wildlife in the basin. In the context of increased drought frequency and subsequent increased water temperatures in our region, the hydrologic and fish passage benefits of this project are decisively important for Bear Creek.

The proposed restoration actions are consistent with recommendations from RBP's Rogue Restoration Action Plan (Strategy 3.2). The project will benefit rearing habitats important to ESA-listed coho and help address water quality issues, such as temperature, by removing impoundments to flow and increasing channel complexity. The project will restore fish passage to additional species, such as fall Chinook, Pacific lamprey, summer and winter steelhead, suckers, and cutthroat trout. Two of the barriers to be removed are 2019 ODFW Statewide Fish Passage Priorities.

This project has significant stakeholder support as evidenced by letters of support and match contributions from many agencies and organizations throughout the Rogue River Valley. RBP is well aware of RVCOG's ample experience with managing riparian restoration and administering federal grant funds. Technical consultants experienced with this type of dynamic stream system will be utilized to plan, design, construct the project.

RBP will provide support in the form staff time. Staff time will support the development of construction ready design and contracting documents. Follow-up staff time will be allocated to support contractor selection and construction inspection activities.

At this time our best estimate of support will include 12 hours (\$900) of time provided by RBP Fish Passage Working Group Coordinator. Thank you for bringing yet another high value project to our greater Medford community and the Rogue River Valley. We look forward to working with you and building upon past restoration success within the Bear Creek Watershed.

Sincerely,

Sara Mosser  
Rogue Basin Partnership Coordinator

Appendix B  
**Official Resolution**

**ROGUE VALLEY COUNCIL OF GOVERNMENTS**

**RESOLUTION #2021-06**

**Resolution to Approve Submission of an Application under the  
WaterSMART Environmental Resources Projects for Fiscal Year 2022  
Notice of Funding Opportunity No. R22AS00026**

WHEREAS, to submit an application under the WaterSMART Environmental Resources Projects for Fiscal Year 2022 program, per Notice of Funding Opportunity R22AS00026, the applicant is required to adopt an official resolution;


NOW, THEREFORE, BE IT RESOLVED, that the RVCOG Board of Directors approve the following:

Let it be verified that:

1. The RVCOG Executive Director has legal authority to enter into an agreement and has the authority to review and support the application being submitted;
2. The RVCOG Board of Directors has reviewed the Notice of Funding Opportunity R22AS00026 and supports an application for a WaterSMART project;
3. The RVCOG, through its Board of Directors and Executive Director, agrees to be responsible for the in-kind contributions specified in the project funding plan;
4. The RVCOG, through its Board of Directors and Executive Director, agrees to work with the Bureau of Reclamation to meet established deadlines for entering into a grant or cooperative agreement.


ADOPTED by the Board of Directors at a regular meeting thereof on December 1, 2021.

BY:

  
\_\_\_\_\_  
Jim Lewis  
Board President

02 DEC 21  
\_\_\_\_\_  
Date

ATTEST:

  
\_\_\_\_\_  
Ann Marie Alfrey  
Executive Director

12-2-2021  
\_\_\_\_\_  
Date

# Appendix C

## **Site Photographs**

Appendix C – Bear Creek Fish Passage Barriers Removal



**Photo 1 (September, 2021):** Structure #1 (weirs) standing downstream looking upstream.



**Photo 2 (September, 2021):** Structure #1 (weirs) standing upstream looking downstream.



**Photo 3 (September, 2021):** Structure #2 (rubble) standing downstream looking upstream.



**Photo 4 (September, 2021):** Structure #2 (sewer line) in foreground and structure #2 (rubble) in background standing upstream looking downstream.





**Photo 5 (September, 2021):** Structure #3 (sewer line) on left standing on river left looking upstream.



**Photo 6 (September, 2021):** Structure #3 (sewer line) standing downstream looking upstream.



**Photo 7 (September, 2021):** Structure #4 (RRVID intake) standing on river right looking downstream.



**Photo 8 (September, 2021):** Structure #4 (RRVID intake) standing downstream looking upstream.





**Photo 9 (September, 2021):** Structure #4 (RRVID intake) standing downstream looking upstream.

# Appendix D

## Map



SOURCE: ESRI, 2019; ESA, 2021

Bear Creek Fish Passage Barriers

## Bear Creek Fish Passage Barriers Removal Overview