



R & E Grant Application 21-23 Biennium

Project #: 21-014

Forks Floodplain Reconnection and Enhancement

Project Information

Requested Cycle: 21-2
R&E Project Request: \$75,000
Other Funding: \$1,174,672
Total Project: \$1,249,672
Spending Start Date: 7/1/2022
Spending End Date: 12/31/2022
Project Start Date: 4/1/2020
Project End Date: 12/31/2022
Organization: CTUIR

Fiscal Officer

Name: Paul Rabb
Address: 46411 Timine Way
Pendleton, OR 97801
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Applicant Information

Name: Ethan Green
Address: 46411 Timine Way
Pendleton, OR 97801
Telephone: 5414297555
Telephone 2: 5419691149
Email: ethangreen@ctuir.org

Past Recommended or Completed Projects

This applicant has no previous projects that match criteria.

Location Information

Where is it?

The project will occur on private land owned or managed by another party

Landowner Information

Name: Lance Bullock
Affiliation: Property Owner
Address: 55299 Walla Walla River Road
Milton-Freewater, OR, 97862
Phone: 541-938-4565

Name: Loren G Bullock
Affiliation: Property Owner
Address: 55409 Walla Walla River Rd
Milton-Freewater, Oregon, 97862
Phone: 541-938-0327

Name: Susan Talbott
Affiliation: Property Owner
Address: 738 Country Club Rd
Yakima , Washington, 98901
Phone: 509-249-6263

Name: Cayuse Vineyards LLC
Affiliation: Property Owner
Address: PO Box 1602
Walla Walla , Washington , 99362
Phone: 509-526-0686

Site Description

Street Address, nearest intersection, or other descriptive location.

The River Fork's project site is located at the confluence of the North Fork Walla Walla River and South Fork Walla Walla River, approximately 5.5 miles upstream from Milton-Freewater, Oregon. The project site include approximately 1,600 feet of the mainstem Walla Walla River downstream of the confluence; 1,600 feet of the North Fork upstream of the confluence; and 800 feet of the South Fork upstream of the confluence.

Directions to the site from the nearest highway junction.

Heading south on Highway 11/ Main Street in Milton-Freewater, turn left onto SE 15th Ave. Continue onto Walla Walla River Road. The project is on the left after approximately 4.5 miles.

Following project completion, public anglers will be allowed the following level of access to the project site:

No access

Please describe what leases, easements, agreements are in place to ensure angler access to the project site, and what is the length of each agreement.

Project # 21-0114
There will be no angler access on the project site as it is located on private property. Angler
Forks Floodplain Reconnection and Enhancement

access exists nearby, both downstream at Marie Dorian Park and upstream at Harris Park. Angler access for tribal members exists upstream as well.

Dominant Land Use Type:

Range/pasture
Cropland
Rural residential

Project Location

General Project Location.

County: UMATILLA
Town/City: Milton-Freewater
ODFW Dist: John Day
Stream/Lake/Estuary Name: South Fork Walla Walla River
Sub-basin: 17070102
Tributary of: Walla Walla River

Specific Project Location.

Latitude		Longitude	
45.89853		-118.30774	

Project Summary

Project Summary

Please provide a couple sentence summary of the proposal.

This project will remove barriers to lateral channel migration, increase floodplain connectivity, increase in-stream habitat complexity, increase off-channel habitat availability, and remove barriers to fish passage to high quality spawning and rearing habitat for ESA-listed Middle Columbia Summer Steelhead, reintroduced spring Chinook Salmon, and other native fishes.

Overall Project Goals

Describe the primary goals or outcomes of the entire project, including elements not requesting funding from R&E.

Improve water quality and quantity by increasing base flow through functional connection with the alluvial aquifer and decrease summer stream temperatures to benefit fish.

Improve geomorphology by restoring the natural form, sinuosity, complexity, and sediment routing of the reach by enhancing large wood to benefit fish spawning and rearing habitat.

Increase lateral connection with the historic floodplain, vertical connection with the alluvial aquifer, and provide year-round passage for all life stages of salmonids through the project reach.

Protect existing riparian vegetation and enhance vegetation to improve geomorphic function and water quality.

Increase the quality, quantity, and diversity of habitat for resident and anadromous fish of all age classes.

Primary objectives of R&E funding

Please describe the measurable objectives for the R&E portion of the funding request.

Implement the final design during the 2022 in-water work window.

Excavate 850 feet of existing levee to reconnect relict side channels.

Restore connectivity to 2150 feet of side channel habitat.

Enhance 4,000 feet of instream spawning and rearing habitat.

Install 63 large wood habitat structures instream and 25 large wood habitat structures in the floodplain.

Rectify two passage barriers by improving two irrigation diversion intakes.

Plant 3 acres with native riparian plants.

Current Situation/Justification

Please describe the current situation and explain why this funding is needed.

Project designs are currently at 80% stage with funding secured to advance to final design by early summer 2021. CTUIR requires cost sharing to implement the project in 2022.

Recreation and Commercial Benefit

This project will provide benefits to:

Recreational fisheries

Commercial fisheries

Explain how this project will contribute to current (and/or potential) fishing opportunities, access, or fisheries management.

Under current site conditions, the project reach lacks important salmonid habitat including large wood, pools, and low velocity environments. In addition, current irrigation practices limit migration of salmonids through the reach. This project will address habitat and passage issues. Just upstream of the project, CTUIR is constructing a spring chinook hatchery. While benefits to recreational, commercial, and treaty fisheries will be realized elsewhere in the basin, this project will benefit overall fish population by increasing availability of suitable spawning and rearing habitats.

Percent benefit split between Commercial and Recreational anglers:

50 % Commercial

50 % Recreational

Please explain, or justify, how the percentage split was determined:

This project is intended to improve conditions for Spring Chinook among other focal species, which are targeted in the mainstem Columbia River by recreational, commercial, and treaty fisheries. The project will also promote recovery of Middle Columbia River Summer Steelhead and Bull trout.

This project has been identified as an ODFW priority for:

Does this project directly support implementation of the ODFW Strategic Plan and/or current Fish Division priorities?

Yes

ODFW's involvement in this project would demonstrate "effective stewardship of Oregon's fish, wildlife, and their habitats" in accordance with their mission statement.

Please briefly explain when this was identified as a priority and what process or workgroup was used

to identified this as an ODFW priority.

Identify any plan or other document that identifies this priority.

Middle Columbia River Steelhead Distinct Population Segment ESA Recovery Plan - The project will address limiting factors in tributary habitat listed in section 6.4.3.

Conservation and Recovery Plan for Oregon Steelhead Populations in the Middle Columbia River Steelhead Distinct Population Segment - This project will address primary limiting factors identified in this plan.

Walla Walla Subbasin Plan - The project reach was determined to have high restoration potential based on the EDT analysis conducted for this plan.

The Oregon Plan - The project will address the key elements of the Oregon Plan through voluntary actions with multiple collaborators.

Oregon Conservation Strategy - The project address limiting factors addressed in this plan such as passage barriers and channel complexity, loss of riparian habitat, floodplain function.

Revised Recovery Plan for the Coterminous United States Population of Bull Trout (USFWS 2015) - this project will address threats to Bull trout identified by this plan.

Mid-Columbia Recovery Unit Implementation Plan for Bull Trout - this project will implement actions identified by this plan.

Is this project part of an approved Salmon-Trout Enhancement Program (STEP) activity?

No

This project is intended to benefit the following species:

Other Fish Species

bull trout

Spring Chinook Salmon

Lamprey

Summer Steelhead

This project will benefit anglers or fishery by providing:

Habitat Enhancements

Habitat Enhancements

The primary purpose of this project is to improve/increase:

In water structure, complexity, and habitat

Wetland - restoration or creation

Flow and/or connectivity

Water quality

Fish passage

Planting or vegetation management

Project Description

Schedule

Activity	Date	RE Funding
Mobilization	June 2022	No

Levee and side channel excavation	July 2022	Yes
Placement of in-stream structures	July 2022	Yes
Improvement to two irrigation intakes	August 2022	Yes
Planting and site restoration	September 2022	Yes

Permits

Permit	Secured?	Date Expected
USACE/DSL Joint Permit	No	By June 2022
Umatilla County Zoning Permit	No	By June 2022
Umatilla County Floodplain Development Permit	No	By June 2022
ODEQ 401 Water Quality Certification	No	By June 2022
HIP ESA Section 7 Consultation	No	By June 2022

Project Design and Description

Please describe in detail the methods or approach that will be used to achieve the project objectives.

The Confederated Tribes of the Umatilla Indian Reservation (CTUIR) is preparing to implement a habitat restoration project on the Walla Walla River at the confluence of the North and South Fork Walla Walla Rivers. The project area is approximately 5 miles SE of Milton-Freewater, OR in Umatilla County, OR. The project site includes approximately 1,600 feet of the mainstem Walla Walla River, downstream of the confluence; 1,600 feet of the North Fork channel upstream of the confluence; and 800 feet of the South Fork channel upstream of the confluence. The project reach lacks important salmonid habitat including large wood, pools, and low velocity environments. Various site constraints exist along the North Fork, South Fork, and mainstem Walla Walla River, which limit floodplain connectivity and contribute to lack of geomorphic complexity.

This project will reconnect the relict channels by removing strategic portions of the mainstem levee, add habitat complexity with the addition of large wood structures, and improve two irrigation diversions, one on the North Fork which acts as a fish passage barrier during low flows and one on the mainstem which can cause juvenile fish entrainment due to the fish bypass pipe becoming disconnected from the mainstem post flood. This project incorporates the primary touchstones described in the 2008 Umatilla River Vision (Jones et al. 2008) while addressing limiting factors identified by other regional plans.

Large wood will be installed using a vibratory pile driver or excavation and ballast, the precise method to be determined as plans are developed depending on the depth to bedrock. The levee and side channel will be excavated in select areas to reach the desired elevations and slope. Some grading and clearing of material along the side channel alignment will occur to ensure the desired slope is attained as to avoid stranding of fish during low water.

A POD is located on the North Fork and another is located on the mainstem, though it was originally located on the South Fork. Each POD is currently configured as a surface ditch flowing to a rotating drum screen with bypass return pipes. The North Fork POD requires gravel push-up dams each year to maintain flow into the diversion ditches. These push-up dams can block fish passage during low-flow conditions. The mainstem diversion fish bypass pipe is configured in such a way that it likely causes juvenile fish entrainment.

The preferred alternative for both PODs is a roughened riffle design. A channel-spanning roughened riffle is proposed downstream of each POD to provide the water surface elevation necessary to supply the water right. Boulders will be placed within the roughened riffle for hydraulic complexity and roughness.

The mainstem POD will be moved to its original location on the South Fork. The fish screen will be relocated or rebuilt adjacent to the new POD on the South Fork. After irrigation water flows through the intake structure, it will be screened and conveyed to the existing ditch through a new pipe or new excavated ditch. A return pipe will be constructed to convey excess water and fish from the screen back to the South Fork, with the outfall at the downstream end of the roughened riffle.

The North Fork POD will remain in the current location and utilize the current fish screen set-up. The intake will be reconfigured using a constructed berm and roughened riffle to limit the need to build push-up dams during low flow. Flow measuring devices will be installed at each existing fish screen location in order to allow the landowner to monitor flow rates. Irrigation improvements are shown on Drawings 7.0-7.4.

Please note that a document titled "Comment Responses" was attached to this application. It provides more thorough responses to many of the reviewers' comments. We felt this was the most efficient way to address comments in addition to the changes made directly in the application because many of the fields in this application have small word limits.

Engineering

Does the project involve capital improvement, engineering, site grading or other construction?

Yes

Not associated with ODFW

Project Management and Maintenance

What is the life expectancy of R&E funded construction, structures, equipment, supplies, data or fishery?

The project is expected to reestablish natural watershed processes, meaning the project is expected to be self-sustaining in perpetuity. Individual installed log structures may only last for 25-50 years, but it is expected that habitat creating processes initiated by the installation of the structures will be sustained.

Who is responsible for long term management, maintenance, and oversight of the project beyond what is funded by R&E.

CTUIR is responsible for maintenance as agreed to in landowner riparian conservation agreements for the life of the agreements (5 years). Landowners assume maintenance after.

Will the project require ongoing maintenance?

Yes

CTUIR will conduct photopoint monitoring and periodic habitat surveys during the life of the riparian conservation agreements. CTUIR monitoring and evaluation program will continue population and spawning surveys throughout the reach not directly associated with this project.

Is there a plan to collect baseline data and to conduct monitoring efforts to measure the effectiveness of the project?

No

Project Funding

Funding

Have you applied for OWEB funding for this project?

Yes

OWEB application number: 220-6027-17339

Awaiting a decision from the panel.

OWEB restoration grant was submitted during the spring of 2021. Decisions will likely be announced during fall of 2021.

Has this proposal, or similar proposal for this project location, previously been denied by OWEB or other funding source?

Yes

CTUIR applied for OWEB technical assistance grant to complete the design but was not awarded funds. CTUIR is paying for the design with BPA funds.

Other Funding Source	Type	Secured	Dollar Value	Comments
OWEB Restoration Grant	Cash	Pending	300000	CTUIR has applied for restoration grant funds. Funding recommendation is pending review.
ODEQ	Cash	Pending	45800	CTUIR has applied for ODEQ 319 funds. Funding recommendation is pending review.
BPA Accords Funding	Cash	Secured	828872	BPA Accords Funding will cover the remaining cost of implementation as part of our FY22 project spending.
		Total	1174672	

Budget

Item	Unit Number	Unit Cost	In-kind or non-cash contributions	Funding from other sources	R&E Funds	Total Costs
PROJECT MANAGEMENT						
			0	0	0	0
		SUBTOTAL	0	0	0	0
IN-HOUSE PERSONNEL						
			0	0	0	0
		SUBTOTAL	0	0	0	0
CONTRACTED SERVICES						
Environmental Controls - Permit Compliance-Best Management Practices	1	3500.00	0	3500	0	3500
Mobilization and Demobilization	1	135000.00	0	135000	0	135000
Clearing, Grubbing, Stockpile and Disposal	1	30000.00	0	30000	0	30000
Temporary Stream Crossing	2	2500.00	0	5000	0	5000
Temporary Work Area Isolation	25	1000.00	0	25000	0	25000
Excavation - Levee Removal and Side Channel Inlets	1600	8.00	0	12800	0	12800
Excavation - Side Channel Grading	340	6.00	0	2040	0	2040
Excavation - Remove Levee Armoring	360	8.00	0	2880	0	2880
Place Material - Side Channel Inlets	160	8.00	0	1280	0	1280
Place Material - Dispose on Site	1960	4.00	0	7840	0	7840
LWM Structure - Apex Jam	7	14000.00	0	98000	0	98000
LWM Structure - Flow Deflection Jam	8	12000.00	0	96000	0	96000
LWM Structure - Side Channel Inlet	1	18000.00	0	18000	0	18000
LWM Structure - In-Channel Logs	23	3000.00	0	69000	0	69000
LWM Structure - Bank Rootwads	8	8000.00	0	64000	0	64000
LWM Structure - Sweeper Logs	11	5500.00	0	60500	0	60500
LWM Structure - Floodplain Roughness	36	1500.00	0	54000	0	54000
Willow Trench	716	12.00	0	8592	0	8592
Planting	2	12000.00	0	24000	0	24000
Seeding	2	3500.00	0	7000	0	7000
NF Irrigation Diversion - Roughened Riffle and Berm	1	75400.00	0	37900	37500	75400
SF Irrigation Diversion - Relocation and Roughened Riffle	1	427650.00	0	390150	37500	427650
Install Flow Measure Device on Existing Fish Screens	2	1750.00	0	3500	0	3500
Construction Staking	1	5690.00	0	5690	0	5690
Construction Observation	10	1300.00	0	13000	0	13000
		SUBTOTAL	0	1174672	75000	1249672
TRAVEL						
			0	0	0	0
		SUBTOTAL	0	0	0	0
SUPPLIES/MATERIALS						
			0	0	0	0
		SUBTOTAL	0	0	0	0
EDUCATION/OUTREACH						
			0	0	0	0
		SUBTOTAL	0	0	0	0
EQUIPMENT						
			0	0	0	0
		SUBTOTAL	0	0	0	0
FISCAL ADMINISTRATION						
			0	0	0	0
		SUBTOTAL	0	0	0	0
		BUDGET TOTAL	0	1174672	75000	1249672

Internal Review Results

Review Score: 1.5 out of 3

(0 = Do Not Fund, 1 = Strengthen Proposal, 2 = Recommend, 3 = Strongly Recommend)

Summary of Review Team Comments

Overall, the review team felt the justification for this project needed to be improved in the application. However, the team felt that even if the justification was improved the angler benefit, connection to fisheries, and priority level of this project were below the acceptable level for R&E funding. While improving water and habitat conditions in the Walla Walla is a good thing, the review team felt that other funding sources were more appropriate for this project. This project ranked in the “strengthen application” range with scores of four 1s and four 2s.

Specific Review Team Comments

Fish Passage approval is not yet in place for the two roughened riffles at the PODs. While you may have been coordinating with local ODFW staff, coordination with the ODFW Fish Passage is necessary to ensure the designs are consistent with the state's fish passage design criteria.

Please work on the budget tables:

- The budget mentions NF roughened riffle twice. Is one these supposed to be for the SF?
- Several budget items do not match unit costs.
- Are there any investments from the landowner or CTUIR?

The R&E program is funded by sport and commercial fishing license sales and projects need to provide a benefit for license buying anglers. The application currently does not clearly describe why angler dollars should be spent on this project and how it will benefit anglers.

- It is unclear how spring Chinook and summer Steelhead from the Walla Walla System contribute to Recreational fisheries in Oregon. Please describe how important these populations of fish from the Walla Walla are to anglers and if there is any known level of contribution to fisheries.
- There is currently no fishery on the Walla Walla and likely won't be in the near term, are they harvestable in Colombia River fisheries? What about harvest of Chinook by Oregon's commercial salmon fleet on the Colombia River or in the ocean. More information on how this project benefits non-tribal anglers would be helpful.

One way to improve a connection to anglers is by providing public access at project sites. This will be completed on private land and there is no mention of providing access.

Some of the benefits of the project appear to be overstated given the project affects a relatively small portion of the basin. The information should be revised to be commensurate with the projects footprint and fact that it is flood damage repair through habitat improvement, fish passage, and irrigation screening. While the project should have benefits for fish and habitat, the explanation and justification should be realistic.

The designer of the diversion riffle needs to have conversations with the installers of the drum screens to make sure the hydraulics of the drum are maintained. Drum screens have very finite depth variation for them to work correctly. Information on the hydraulics of the screen bypass outfalls was not included, those should not be flooded by the OHW for the system.

The application needs to be improved to justify the need and priority of this project and more clearly define what is being proposed and why.

- The diversions are not state priority passage barriers and the supporting plans mentioned are mostly generic.

- What direct support (reports, data, etc.) is there for this being a priority or able to move the needle on fish populations or recovery? What life stages and population sizes are served by this reach, how does this relate to the basin population?
- Some statements in the application lead to the conclusion that instream work could be "undone" to meet water needs. If this is true, then why invest in these improvements?
- The idea that this project is going to benefit fish throughout that system is clear however there is little information included about how the project how will directly benefit fish and fish populations.
- Please better explain how you are trying to improve water quality at this location while also building a hatchery upstream, as hatchery operations are generally additive in terms of nutrients in systems.
- Will this project primarily benefit hatchery salmon as part of the new hatchery operations or will it benefit native fish. The benefits to specific species are not well defined. Are Bull Trout even in that area?
- There is currently good habitat on Oregon side of the basin but on the Washington side water quality and quantity are severely degraded as water is removed for irrigation. While this project may alleviate some of the water issues it does not address the larger underlying problem. The applicant should identify better how this fits into past, current, and future restoration planning to address population recovery.
- These diversions are not currently priority barriers, this project is intended to address screening and bypass issues following the recent floods.

Specific Review Team Questions

It appears that one POD will be relocated, however there is no mention of coordination with the Water Resources Department related to obtaining approval to do so. Please explain when this will occur or if it has already.

CTUIR is currently coordinating with ODFW and OWRD staff to complete the transfer. We have our water transactions staff working on a POD transfer application now.

The application states the NF POD is proposed to be reconfigured in a way to "limit" the need for push up dams in the summer. This implies that push up dams may be need at other times. Please explain as this would seem to be contrary to the purpose of the project and also potentially could impact the roughened channel such that it doesn't function as intended.

We are under no illusion that in-stream irrigation diversions are without maintenance. The intent is to construct a reduced maintenance diversion that will not require a push up berm to deliver water to the user and will allow volitional fish passage for all life stages of fish at all times of the year. Oregon law allows for water users to construct in-stream structures to divert their water if necessary and we do not have the ability or desire to strip users of that right, but we and the landowner would like for that not to be the case, which is part of the reason why the landowners are supportive of the design.

Given that this request is for \$75,000 out of a \$1.25 million project, what would happen if R&E did not fund this? Are these funds being sought due to a shortfall or to provide additional buffer to other funding sources and rising costs?

We are specifically seeking dollars for the irrigation diversion modifications. Those portions of the project are less attractive to most funders, so we are reaching out to a wide range of funders to obtain cost share on those components specifically. Because both of the diversions have a direct impact on fish populations either through passage obstruction or direct mortality from a damaged bypass, R&E funds are being sought to support those components. When this

application was submitted, the grant program coordinator suggested the ODFW passage grant as an opportunity, so we have since submitted an application for that grant as well.

The riparian area does not appear to be in good condition. What is the riparian management in this area? Will the project area be protected from riverbank grazing, so that habitat enhancements can be effective?

The riparian areas are in acceptable condition, including relic groves of mixed alder and cottonwood forest. Riparian areas will be enhanced with riparian planting as part of this project as well. The agreements signed with landowners prohibit grazing within the project area and they will be/are fenced. Preliminary planting plans are shown in the design drawings.

What coordination or consultation has occurred with the ODFW district fish or habitat biologists?

CTUIR has discussed this project with the ODFW Interim District Fish Biologist and the ODFW John Day Screen Shop and continues to do so as the design progresses. The Interim Fish Biologist agreed that remedying the screening and bypass issues are a high priority within the context of the project.

Project Map



Additional Files

Budget Information

Maps

[Project Map](#)

Map image of project location

Photos

[Site Photos](#)

Design Information

[80% Design Drawings](#)

[Appendix C. Habitat Analysis Results](#)

Appendix C from the Basis of Design Report

[Basis of Design Report](#)

Basis of design report with no appendices

Management Plans and Supporting Documents

[Comment responses](#)

Responses to the comments provided by the application reviewers

Permits and Reviews

Partnerships

[OWEB funding](#)

Confirmation of OWEB funding

Public Comment

[Letter of Support](#)

Administrative Documents

[Internal Signature Page](#)

Agency approval to pursue funding

Completion Report

A completion report has not been submitted for this project.