



R & E Grant Application 19-21 Biennium

Project #: 19-009

South Fk Little Butte Cr Flow Restoration Project

Project Information

Requested Cycle: 19-1
R&E Project Request: \$95,500
Other Funding: \$274,500
Total Project: \$370,000
Spending Start Date: 4/1/2019
Spending End Date: 6/30/2021
Project Start Date: 7/1/2018
Project End Date: 6/30/2021
Organization: Trout Unlimited (Tax ID #: 38-1612715)

Fiscal Officer

Name: Dawn Elzy
Address: 1453 Esplanade Ave
Klamath Falls, OR 97601
Telephone: 541-450-4678
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Technical Contact

Name: Jay Doino
Address: PO Box 2809
White City, OR 97503
Telephone: 541-554-1961
Email: jay.doino@tu.org

Applicant Information

Name: Chrysten Rivard
Address: 1777 N Kent St
Arlington, VA 22209
Telephone: 541-973-4431
Email: chrysten.rivard@tu.org

Past Recommended or Completed Projects

This applicant has no previous projects that match criteria.

Authorized Agent

Name: James Doino
Email: jay.doino@tu.org

Location Information

Where is it?

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

Landowner Information

Name: Carol M Ross Trust
Address: 100 6th Street
Ashland, OR, 97520
Email: cory.artdreaming@gmail.com

Site Description

Street Address, nearest intersection, or other descriptive location.

The water right to be transferred instream has an authorized POD near 16534 Dead Indian Memorial Road, Ashland, OR 97520

Directions to the site from the nearest highway junction.

From I5 exit 15, turn left onto Hwy 66. From there travel 0.7 miles to Dead Indian Memorial Road. Turn left. Travel 16.1 miles to the site.

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.

No angler access is proposed to occur as a result of this project. This project will provide benefit to anglers through enhanced water flow in summer, thus contributing to the sustainability of valuable commercial and sport fisheries in the Rogue River.

Dominant Land Use Type:

Range/pasture

Project Location

General Project Location.

County: Jackson
Town/City: Ashland
ODFW Dist: Upper Rogue
Stream/Lake/Estuary Name: SF Little Butte Cr
Sub-basin: Upper Rogue
Tributary of: Rogue

Specific Project Location.

Latitude		Longitude	
	42.272990		122.454047

Project Summary

Project Summary

Please provide a couple sentence summary of the proposal.

Funding will support streamflow restoration in SF Little Butte Creek (SFLB) in the Rogue Basin. 17 miles of stream habitat will be permanently enhanced. SFLB is dewatered from irrigation, reducing habitat quantity/quality for chinook, coho and steelhead. This is a widely acknowledged primary limiting factor to fish production.

Overall Project Goals

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

- 1) Enhance habitat quantity and quality in South Fork Little Butte(SFLB) for Chinook, Coho and Steelhead by creating an instream water right from an irrigation right
- 2) Enhance surface water connection b/n SFLB and its mainstem in a key 5500 foot stream reach that is currently severely dewatered in most years and can inhibit Chinook spawner passage
- 3) Increase over-summer survival and carrying capacity of juvenile salmon and steelhead in SFLB.

Primary objectives of R&E funding

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

Permanently transfer 168 acres (2.8 cfs) of irrigation rights to instream rights, maintaining the existing senior priority dates of 1858 and 1888. This will be completed through the Oregon Water Resource Department's water right transfer process prior to June 2021.

Enhance instream flow by at least 1.5 - 2.0cfs (up to 75% more over current conditions) at mouth of SFLB (measured at Lake Creek gauge). Benefits are expected to be realized by June of 2021 and are permanent.

Decrease water temperature over baseline conditions; evaluate impacts on water temperature as a result of project implementation using existing Lake Creek streamflow and temperature gauge.

Current Situation/Justification

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

Water right certificate 17204 currently allows irrigation of 168 acres at a 2.8cfs rate and contributes to de-watering of fish habitat. This project permanently transfers Certificate 17204 to instream uses in SFLB helping to address de-watering, a widely acknowledged factor limiting fish production. SFLB's habitat has high intrinsic potential (NOAA) and is a stronghold for Rogue Coho.

The project will permanently benefit 17.7 miles of habitat in SFLB including approximately 11 miles of anadromous fish habitat for SONCC Coho Salmon (federally listed as threatened), Steelhead Trout, and Chinook Salmon. This 11 miles of anadromous habitat includes a key reach of approximately 5500 feet that's currently severely dewatered by a large irrigation diversion, thus limiting SFLB's connection to Little Butte's mainstem. Restoring flow will improve connectivity here, facilitating fish passage between the mainstem and SFLB.

Water rights are valuable and most right holders seek financial compensation for permanent instream transfer. Therefore, R&E funding is needed to match OWEB funding to compensate the holder of Cert. 17204 for permanent transfer of this water right to instream uses. Instream rights are held by the State of Oregon (OAR 690-077) and can be enforced by WRD and the local watermaster.

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.

This project will improve angler experience and success on the Rogue River; it's overall goal is to increase survival of juvenile fishes and recruitment into Rogue fisheries. Recruiting individuals into spawning populations will help maintain the viability of Rogue salmon and steelhead fishing.

This is a rare project that will increase Chinook production to benefit both recreational and commercial fisheries. Different from Chinook stocks produced in most coastal rivers, Rogue Chinook rear mostly off Oregon and California. This rearing distribution results in excellent contribution to commercial fisheries off the Oregon Coast. Recreational anglers in the ocean benefit as well. In the Rogue, Fall Chinook provide a thriving fishery from Gold Beach through Gold Hill and are almost all naturally produced wild fish.

Steelhead produced in SFLB contribute to catch and release angling opportunity as half pounders on the lower and middle Rogue River. Returning to the river to feed after only a few months in the ocean, these fish provide a very popular fishery in summer and fall.

Steelhead produced in SFLB also contribute to the river fishery as adults both as a catch and release fishery for Summer Steelhead with limited opportunity to harvest wild Winter Steelhead seasonally.

Percent benefit split between Commercial and Recreational anglers:

40 % Commercial
60 % Recreational

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

Summer and winter steelhead and Coho Salmon are the primary species that will benefit. These are very popular Rogue mainstem sport fisheries and, ultimately, this project leads to increased natural recruitment into fishable populations supporting multiple fisheries from Gold Beach to Little Butte Creek. These fisheries include adult Coho Salmon, adult Summer and Winter Steelhead and Half Pounder Steelhead Trout.

However, as discussed in Rogue District Biologist Dan VanDyke's support letter, this project most definitely benefits commercial ocean fisheries. Rogue Chinook rear off the coast of Oregon and California, unlike other Oregon Chinook stocks. Therefore, Rogue contributions to ocean

fisheries help support and increase the southern component and extent of Chinook distribution off the Oregon Coast, thus supporting commercial fisheries in these areas.

TU has estimated a 40/60 split (commercial/recreational) primarily due to the number of recreational fisheries that are supported in the freshwater mainstem Rogue (adult Coho, adult Summer and Winter Steelhead and half pounders Steelhead).

This project has been identified as an ODFW priority for:

Local/watershed

Basin/regional

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

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.

NOAA SONCC Coho Recovery Plan:

http://www.nmfs.noaa.gov/pr/recovery/plans/cohosalmon_soncc.pdf

The Recovery Plan specifically calls for flow restoration as a "critical action for recovery, including the development of water transaction programs"

Rogue Basin Partnership Restoration Action Plan (2015): "Increase in-stream flows to ecologically significant levels in all priority streams to support fish and water quality by 2025"

Flow Restoration Priorities for Recovery of Salmon in Oregon: Developed by Oregon Department of Fish and Wildlife and Oregon Water Resources Department

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

No

This project is intended to benefit the following species:

Fall Chinook Salmon

Coho Salmon

Lamprey

Winter Steelhead

Summer Steelhead

Cutthroat Trout

Rainbow Trout

This project will benefit anglers or fishery by providing:

Habitat Enhancements

Fish Passage

Habitat Enhancements

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

Flow and/or connectivity

Water quality

Fish passage

Fish Passage

This fish passage project will:

This project will help maintain flow in a key 5500 foot stream reach in South Fork Little Butte Creek(SFLB), thus enhancing fish passage. In most years, this reach is severely dewatered thus hindering, or precluding, fish passage. This reach is between a large irrigation diversion and SFLB's confluence with the North Fork, where it re-waters and becomes the Little Butte mainstem. Maintaining surface water connection in this key stream reach is important to allow native fishes to fully express their migratory life histories. It is especially important for adult spawning fall Chinook in September and outmigrating Chinook fry/smolts in May and June. The Restoration and Enhancement Program has already invested in fish passage Little Butte Creek by supporting fish passage improvements at the Walcott irrigation diversion – a project led by ODFW's Passage and Screens Program. Supporting the currently proposed project will compliment this effort.

We have contacted or have been working with:

Local ODFW staff
ODFW has been contacted
The project is being reviewed

Project Description

Schedule

Activity	Date	RE Funding
Contract with Water Right Holder: signed and recorded with Jackson County	September 2018	No
Fundraising; OWEB application due in December	Oct - Dec 2018	Yes
OWEB board decision on grant application; Submit water right transfer application to Oregon Water Resources Dept	March - May 2019	No
Water Resource Department Final Order on Transfer Application	October 2020	No
Payment to water right holder	December 2020	No
Instream benefit realized/ Project completion	April 2021	No

Permits

Permit	Secured?	Date Expected
Water Right Transfer Application to OWRD (these have a long turn around time from WRD)	No	October 2020

Project Design and Description

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

This project's objective is to transfer the entirety of water right certificate 17204 (2.8 cfs) from irrigation to instream use. Trout Unlimited (TU) is employing a common method to implement this flow restoration project – known as a water transaction. Virtually all of the steps to this transaction are outlined in the text: "Environmental Water Transactions: A Practitioners Handbook," (2013, Edited by Bruce Aylward; Ecosystem Economics, LLC). This text is used by Aylward in teaching the Environmental Water Transactions graduate level course at OSU.

In essence, this transaction is very simple: in exchange for the water right holder's commitment to permanently transfer their irrigation water right (Certificate 17204) to instream uses, they are paid a sum of money. This commitment is contractually obligated (contract has been signed by water right holder and TU) and will be executed in full when TU secures the agreed upon sum of money. This sum of money is determined by an appraisal of the water right. These appraisals

are expensive. Therefore, for the purposes of negotiating a selling price with the water right holder and for the development of project budgets, TU commissioned a preliminary valuation of the subject water right (attached to this application). A full appraisal will be commissioned upon receipt of OWEB funds (to be applied for in December 2018) and will be required by OWEB in exchange for their support of the project.

The legal mechanism that will change the water right's type of use from "irrigation" to "instream" is a water right transfer. TU will prepare and submit a water right transfer application to the Oregon Water Resources Department (OWRD). OWRD will review and rule on the application to transfer Certificate 17204 to instream uses. OWRD's review process for these kinds of applications is very long (up to 2 years), primarily because they scrutinize the applications very carefully as their outcomes are permanent. It is for this reason we are applying to R&E in the 7/1 cycle, so we can fund the necessary contracted services required for application submittal to WRD, including the application fees. Upon application approval, a new instream water right will be created and will be held in perpetuity by the State of Oregon. It's very important to understand that this new instream water right will retain the priority dates of the original water right (Certificate 17204). In this case, there are two priority dates associated with Certificate 17204, 1858 for 1.5 cfs and 1888 for 1.3 cfs. These are very old (called "senior") priority dates and this is excellent. These senior priority dates help protect the newly created instream water right from being diverted by other water users with junior water rights – or ones with more recent priority dates. However, it is also important to understand that the full right may not be protectable throughout the entire stream reach. Based on available information, we currently believe that between 1.5 and 2.0 cfs will be fully protectable to the mouth of South Fork Little Butte Creek. However, we are seeking to transfer the full 2.8 cfs allowable under Certificate 17204 and that rate will be identified in our application to WRD. Final transfer rates and volumes can only be determined through the water right transfer process.

The bottom line is: once the transfer application is approved and OWRD issues a Final Order, diversion of the 2.8 cfs currently allowed for irrigation will no longer be legal. Rather, the State will hold an instream water right for the amount determined allowable by OWRD.

Engineering

Does the project involve capital improvement, engineering, site grading or other construction?
No

Project Management and Maintenance

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

No construction or maintenance activities are proposed. This project is a permanent flow restoration project and is maintenance free. Trout Unlimited will monitor the project annually, using existing water measuring infrastructure and with assistance from the Jackson County Watermaster to ensure flow enhancements are being realized.

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

This project as this is a permanent flow restoration project that requires no maintenance or management. Trout Unlimited will provide oversight necessary to ensure the newly created

instream water right is being fulfilled.

Will the project require ongoing maintenance?

No

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

Yes

Baseline data is already available. Two real time flow measuring gauges are already in place in the project reach – one at its approximate midway point, and one at the downstream end (mouth of SFLB).

These data can be found here:

- Midway Point: <https://www.usbr.gov/pn/hydromet/rtgraph.html?list=gilo q&daily=gilo qd>
- Mouth of South Fork Little Butte: <https://www.usbr.gov/pn/hydromet/rtgraph.html?list=sflo q&daily=sflo qd>

These gauges will be used to ensure that flow benefits are being realized to the fullest extent possible. The Jackson County Watermaster is tasked with regulating water rights in the Little Butte Creek watershed, and this includes instream water rights. Using the aforementioned gauges, TU will work cooperatively with the Watermaster to monitor flow in the project reach. In the event that the instream water right is not being met, TU will request the Watermaster regulate other water users with junior water rights as needed until the instream right is being met. Additionally, TU has secured access easements to the historic point of diversion of the subject water right and will make periodic observations at the site to ensure that water is not being diverted.

Project Funding

Funding

Have you applied for OWEB funding for this project?

No

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

[{"source":"OWEB (December 2018 application due date)","type":"Cash","secured":"Pending","dollarValue":274500,"comments":"TU is applying to OWEB's Water Grant offering due in December 2018. R&E funds will be used to match OWEB's funds."}]

Other Funding Source	Type	Secured	Dollar Value	Comments
OWEB (December 2018 application due date)	Cash	Pending	274500	TU is applying to OWEB's Water Grant offering due in December 2018. R&E funds will be used to match OWEB's funds.
		Total	274500	

Budget

Item	Unit Number	Unit Cost	In-kind or non-cash contributions	Funding from other sources	R&E Funds	Total Costs
PROJECT MANAGEMENT						
Jay Doino TU Project Manager (after July 1, 2019)	100	30.00	0	2500	500	3000
		SUBTOTAL	0	2500	500	3000
IN-HOUSE PERSONNEL						
			0	0	0	0
		SUBTOTAL	0	0	0	0
CONTRACTED SERVICES						
Transfer Appl. Fees to WRD; CWRE Mapping (Before June 30, 2019)	1	2500.00	0	0	2500	2500
Payment to Water Right Holder (After July 1, 2019)	0	90000.00	0	260000	90000	350000
Water Right Full Appraisal (After July 1, 2019)	1	12000.00	0	12000	0	12000
		SUBTOTAL	0	272000	92500	364500
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						
Bookkeeping; project management (after July 1, 2019)	0	0.00	0	0	2500	2500
		SUBTOTAL	0	0	2500	2500
		BUDGET TOTAL	0	274500	95500	370000

Internal Review Results

Review Score: 1.9 out of 3

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

Summary of Review Team Comments

While the team supported this concept and the idea of keeping more water in streams for fish, they thought the application needed some strengthening to further support the benefits for fish and the anglers. Review team scores included one 0, two 1s, three 2s, and three 3s

Specific Review Team Comments

Because this is a new type of project for the R&E board, the applicant should spend time to tell the story of 1) how instream acquisitions work within water law, 2) how fishing will be improved, 3) why this is a good investment. Many people are not familiar with exactly how water rights work and this information needs to be walked through explicitly. You can reach out to ODFW's Water Program to discuss this approach.

While the application speaks to water being held in Trust by the state (page 7) more explanation (and statutory reference) would be helpful explaining the transfer process and instream water rights in general. This will help make clear who holds the water right and how it functions with other water rights.

The applicant explains that the protected amount will be up to 2.8 cfs (page 7), more explanation on how WRD evaluates transfers amounts and the location (with map) of other PODs would help the board understand what these rights will actually provide. Are there any older rights upstream or downstream that will take this "new" water? how much water will remain in stream for how far with anticipated subbing and loss of water. Seems like TU should be able to provide project management as match. What funds have they been using to this point?

Need a better explanation as to why the full right couldn't be realized. If it is senior to all others it seems WRD could regulate to that when available, and cut others off if flows drop.

A description on how water rights are enforced would help frame how water instream can and will be provided in the future. Seems like this would need long term commitment to ensure compliance. Granted it is an OWRD responsibility but they are likely stretched thin. Are ODFW or TU committed to long term oversight to help ensure this is not just getting use by someone else.

Applicant should use the information provided by Dan and Anna to better describe the benefit to anglers, e.g. population level information would be valuable in determining uplift for anglers.

Strong support letters from Dan and Anna.

These opportunities are few and far between, may need to get in when we have an opportunity to meet priorities and not wait for the best or perfect water right to become available.

This will set precedent for R&E buying water, need to make sure this is the right project for R&E and that R&E can tell the story of how this project, and those to come, benefit anglers.

Specific Review Team Questions

What will the range of increase in the channel depth/width be for this stream by adding 2.8 cfs to the system?

This is not knowable over such a long length of stream and would require significant data

collection to accurately estimate. Also, since the amount of water that will be approved for transfer is uncertain, it is also uncertain what changes in width/depth will be. Understanding volumetric and rate changes in flow is a more reasonable way to evaluate this proposal. Expected instream rate changes are illustrated in the graphs attached to this application changes in the stream channel.

How much water depth/width is there now, and how much will be there after? Will this be enough to meet a minimum flow goal or will more acquisitions be needed to meet that?

This is not knowable over such a long length of stream and would require significant data collection to accurately estimate. More water acquisitions and instream transfers will always be needed in SFLB, in the Rogue Basin and statewide. Many fish bearing streams are over appropriated for irrigation uses making these kinds of projects necessary now and in the future. This project is not a silver bullet. It is one step in the right direction in an area where permanent water right transfer projects are needed and hard to come by. The Rogue basin is also an area where TU is working to develop a flow restoration program since 2015. TU currently has three pending projects in the Little Butte Basin. The current proposal is one of these three. Even if we are able to implement all three projects successfully, more flow restoration work will be needed.

Are there water rights senior to #17204 that could legally divert any "saved" water? Pg. 7--"...the full right may not be fully protectable to the mouth of (SFLBC)."

Certificate 17204 has two priority dates - 1858 for 1.5 cfs and 1888 for 1.3 cfs. There are no rights senior to the 1858 portion of Cert 17204 and therefore no "saved" water could be diverted by other users. However, there are several rights senior to the 1888 portion. These senior rights are met in most years already. There also many rights junior to 1888 and the instream transfer of Cert 17204 will be senior to these junior users. Put another way: No users are senior to transfer of the 1858 portion of 17204 and that portion will be protectable instream. There are about 11 users senior to 1888 and dozens of users junior to 1888. Therefore, both the 1858 and 1888 portions of 17204 are senior to most users on Little Butte Creek. Speaking candidly: don't get hung up on the priority dates. They are senior enough to remain instream in almost all years. More important to the rate and volume WRD allows for transfer instream is the amount of water available (in this case that means the amount of water naturally produced) at the points of diversion for Cert 17204. Due to lack of data and a lack of regulation by WRD, this is not currently known and will be determined by WRD during the transfer process. Only that amount of water available will be allowed for instream transfer. TU estimates that to be 1.5 to 2.0 cfs.

What happens if full appraisal come in higher? Maybe the application is premature.

Water right sellers will not sign off on transfer applications to WRD without TU concurrently seeking grant funds. The transfer application and fundraising are usually done concurrently as is the case here. Doing otherwise would put the seller in a potentially risky position. Additionally, grant funding is needed for water transfer application submittal and to pay WRD for the requisite application fees and for CWRE mapping. Thus this application is not pre-mature. Regarding the appraisal: TU has already commissioned a water right valuation of the subject water right. This is a mini-appraisal, though not detailed enough to satisfy funders like OWEB, and a full appraisal will be required. The reason we don't go directly to full appraisals is that they are very expensive (up to 10K), and grant funds are needed to complete them. In the interim we rely on the valuation to craft our requests to funders and to negotiate with the seller. This is what we have done in this case. Due to the probability that the full 2.8 cfs currently allowed for irrigation will not be approved for instream transfer (expected 1.5-2.0 cfs anticipated), it is possible that the appraisal will be lower than the valuation. In this case, requests to funders will be reduced

commensurately. For now, the rates identified on the existing certificate are all we have to go on for valuation purposes.

What would happen if the transfer is not approved?

Nothing happens. Status quo is maintained. Certificate 17204 remains an irrigation certificate under the current ownership.

What outside groups will oppose this process?

For voluntary projects such as this, TU has faced little opposition. And none in the Rogue to date. We are currently working with a large cattle ranch in the Little Butte Creek watershed on another water transfer project demonstrating that some industrial agricultural users are willing to support such projects. In this case, I do not anticipate any protests.

How will adding 2.8 cfs to the channel make fishing better?

This project's overall goal is to increase survival of juvenile fishes and therefore recruitment of those fishes into downstream Rogue mainstem fisheries. It will also improve recruitment into spawning populations thus helping to maintain the future viability of salmon and steelhead fishing in the Rogue. While the benefit to fishing is indirect both spatially and temporally - there will be benefit to anglers in the lower, middle and upper Rogue. As adult fish produced and reared in SFLB migrate through approximately 120 miles of river on their return trip to SFLB, they are in some prime and heavily fished Rogue water. Also, please see the Recreation and Commercial Benefits in Project Summary section of this application which has been revised based on reviewer feedback.

Additional Files

Budget Information

Maps

[Instream Reach Map](#)

Photos

[Photo](#)

Dewatered 5500 foot reach just below large agricultural diversion that fall chinook spawning habitat

Design Information

Management Plans and Supporting Documents

[Charts Illustrating Benefits](#)

[NOAA SONCC Recovery Plan Excerpts](#)

Recovery Plan Excerpts

[Revised Response to Project Description Section](#)

[Rogue Basin Partnership Restoration Action Plan](#)

[Water Resource Dep't Flow Restoration Priority](#)

Permits and Reviews

[Water Right Cert 17204](#)

Partnerships

[Access Agreement with Water Right Holder](#)

[Contract with Water Right Holder](#)

Public Comment

[ODFW District Biologist Support](#)

[ODFW Water Program Support](#)

[Watershed Council LOS](#)

Administrative Documents

[IRS Determination Letter](#)

[R&E Signature Authorization](#)

Completion Report

A completion report has not been submitted for this project.