



# R & E Grant Application 17-19 Biennium

Project #: 17-034

## *Walcott Fish Passage Improvement Project*

### *Project Information*

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**Requested Cycle:** 17-4  
**R&E Project Request:** \$93,243  
**Other Funding:** \$174,800  
**Total Project:** \$268,043  
**Spending Start Date:** 3/1/2018  
**Spending End Date:** 12/30/2018  
**Project Start Date:** 3/1/2018  
**Project End Date:** 12/30/2018  
**Organization:** Central Point Screen Shop

### *Applicant Information*

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**Name:** Rich Kilbane  
**Address:** 1495 East Gregory Rd  
Central Point, OR 97502  
**Telephone:** 541-826-8774 x243  
**Telephone 2:** 541-601-0810  
**Fax:** 541-830-0365  
**Email:** rich.m.kilbane@odfw.oregon.gov

### *Past Recommended or Completed Projects*

Number	Name	Status
17-045	B-Bar-K Cascade Ranch - Lost Cr Fish Screen	Approved

## **Location Information**

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### **Where is it?**

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

### **Landowner Information**

**Name:** B-Bar-K - Cascade Ranch  
**Address:** 380 Lakecreek Loop Rd.  
Eagle Point, Oregon, 97524

### **Site Description**

*Street Address, nearest intersection, or other descriptive location.*

Site is on Little Butte Creek, approximately one mile downstream of the town of Lakecreek. The site is closest to 570 Lakecreek Loop Rd.

*Directions to the site from the nearest highway junction.*

From Medford, north on Hwy 62 to Hwy 140; east on Hwy 140 to Lakecreek Loop Rd; south on Lakecreek Loop Rd approximately 1/2 mile to address 570; through pasture to project site on Little Butte Creek. Site lat-long: 42.42797-122.63974

*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 will be created by this project.

*Dominant Land Use Type:*

Range/pasture

### **Project Location**

*General Project Location.*

**County:** JACKSON  
**ODFW Dist:** Rogue  
**Stream/Lake/Estuary Name:** Little Butte Creek  
**Sub-basin:** 17100307  
**Tributary of:** Rogue River

*Specific Project Location.*

Latitude	Longitude
42.42769	-122.63976

## **Project Summary**

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### **Project Summary**

*Please provide a couple sentence summary of the proposal.*

A concrete pool and weir fish ladder will be built by ODFW's Central Point Screen Shop at an

irrigation dam to address the lack of passage during the irrigation season, particularly for fall Chinook salmon. The result will be year-round volitional passage for all adult and juvenile native migratory fish.

### Overall Project Goals

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

Provide year-round passage at uppermost artificial barrier in mainstem Little Butte Creek below forks via concrete fish ladder designed/built by ODFW and maintained by water users. All native migratory fish species, particularly fall chinook will benefit through direct access to extensive amounts of spawning habitat upstream of the diversion dam.

Secondarily, this existing fish passage barrier (water diversion dam) is #24 on the ODFW 2013 Statewide Fish Passage High Priority Barrier List (currently #3 locally). Successful implementation of an ODFW criteria compliant fishladder at this passage barrier will remove this project from the state's high priority barrier inventory.

Though not a consideration for R&E funding, the ODFW-designed ladder will provide passage for native suckers, lamprey, and resident trout, as well as migratory salmonids.

### Primary objectives of R&E funding

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

Provide funds for construction materials and contracted services: steel & aluminum for concrete embeds and weirs, excavator and jack-hammer rental, equipment fuel, blasting services, fill material, concrete forming materials, rebar, concrete, concrete pumping services , etc..

### Current Situation/Justification

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

This agricultural point of diversion, established in 1912, uses a concrete stop-log dam to divert Little Butte Creek water into a screened gravity irrigation ditch. With the stop logs in place the irrigation dam prevents the upstream passage of fish, particularly Chinook salmon, and creates difficult conditions for smolts moving downstream. This passage barrier precludes resident and juvenile fish from accessing upstream cool water quality during the hot summer months. Upstream migration of Winter Steelhead, Klamath Smallscale Suckers and Pacific Lamprey is affected by this barrier. Fall Chinook upstream migration is delayed and fish cannot pass the diversion dam until the irrigation season is over and dam boards are removed.

This barrier is one of the Rogue Fish District's highest priorities for passage improvements (currently #3), ranking within the top 25 statewide passage priorities (ODFW 2013 Statewide Barrier Priority List). The water users are not required to provide passage and will not provide funding, but are supportive of the project, and will assume maintenance responsibility of the new fish ladder. The R&E funds, along with potential funding from ODOT's culvert mitigation funding, will help fulfill the match requirement of the ODFW Fish Passage Cost Share Funding Program.

### 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 is one of the rare projects that will directly increase Chinook production to benefit both recreational and commercial fisheries. The project will ensure annual access of Fall Chinook to high quality spawning habitat, which is presently very limited. Spring Chinook Salmon will similarly benefit by improved passage at this site. A more detailed quantification of additional chinook production will be provided in time for board review.

Winter steelhead production will also increase with improved access for spawning adults. Rogue winter steelhead contribute to the half pounder fishery in the lower river (catch and release on wild fish), and contribute to the Rogue fishery when returning as adults. Improved passage will increase the overall production of the Little Butte subbasin by enabling juvenile salmonids to seek out better habitat during the hot summer months and provide improved passage for downstream smolts, thereby increasing survival rates. By improving habitat access for spawning Chinook and Pacific Lamprey, nutrient input will be increased in the upper mainstem and tributaries which will maximize productivity of a very productive tributary of the Rogue River. The resulting increases in production will provide more opportunities for angler success.

*Percent benefit split between Commercial and Recreational anglers:*

20 % Commercial

80 % Recreational

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

This project is one of the rare projects that will directly increase Chinook production to benefit both recreational and commercial fisheries. The biggest beneficiary will be Fall Chinook Salmon that support the ocean troll fishery. Different from Chinook stocks produced in most coastal rivers, Rogue chinook rear predominantly off Oregon and California. This rearing distribution results in excellent contribution to fisheries off the Oregon Coast. Commercial anglers will benefit from this project.

Returning adult Fall Chinook provide a thriving fishery from Gold Beach through Gold Hill. Rogue Fall Chinook are almost all naturally produced wild fish. The only hatchery production is at a STEP facility located near Gold Beach. Additional natural production of Fall Chinook was accomplished with the recent dam removal projects at Fielder Dam and Wimer Dam on Evans Creek, and work at the Illinois Falls fish ladder. The Walcott fish passage restoration project is the next step at increasing production through restored habitat access as called for in the ODFW conservation plan. A more detailed quantification of additional chinook production will be provided in time for board review.

*This project has been identified as an ODFW priority for:*

Local/watershed

Basin/regional

Statewide

*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.*

Conservation Plan for Fall Chinook Salmon in the Rogue Species Management Unit; Action 1.16 calls for improvements for upstream passage to increase the amount of spawning habitat for fall chinook.

*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
- Other Species
- Klamath Smallscale Suckers
- Spring Chinook Salmon
- Coho Salmon
- Lamprey
- Winter Steelhead
- Summer Steelhead
- Cutthroat Trout

*This project will benefit anglers or fishery by providing:*  
Fish Passage

**Fish Passage**

*This fish passage project will:*  
Add a fishway/passage structure

*We have contacted or have been working with:*  
ODFW fish passage staff  
The project has been reviewed and is awaiting approval

**Project Description**

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**Schedule**

Activity	Date	RE Funding
Purchase steel, concrete forming materials, rebar, etc.	Mar 2018	Yes
Shop fabrication of steel embeds and aluminum weirs.	Apr/May 2018	No
On-site construction - de-water, excavation, blasting, form and pour concrete, etc.	July/Aug 2018	Yes

**Permits**

Permit	Secured?	Date Expected
Removal-Fill Permit - DSL	No	May 2018
Removal-Fill Permit - Army Corps	No	May 2018
In-stream Blasting Permit - ODFW	No	May 2018

**Project Design and Description**

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

The design of the fishway is similar to other concrete pool and weir ladders recently designed, approved, and constructed by ODFW, whose staff are considered by most to be experts in the fish passage design and construction field. Though not a consideration for R&E funding, the ladder will be designed to provide passage for native suckers and lamprey, as well as resident and migratory salmonids. Other than the need for blasting and jack-hammering to remove some

of the existing bedrock at the site, standard concrete construction methods and equipment will be used to fabricate components, de-water and excavate the site, construct forms and pour concrete, backfill and grade the area, and install the components. The water diversion owners have agreed to be responsible for maintenance of the new pool & weir fishway (ORS 509.610), with monitoring and technical assistance provided by ODFW as needed.

### Engineering

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

Yes

Part of an ODFW program like STEP

### Project Management and Maintenance

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

Based on similar fishways currently in service, the stop-logs used in conjunction with the steel weirs are expected to last at least 10 years. The steel trashrack and weirs are expected to last at least 25 years. The concrete structure itself is expected to last at least 50 years.

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

All maintenance of the fishway will be the responsibility of the water users, who understand what that role entails, and are willing to take it on (ORS 509.610). ODFW staff, who periodically monitor and inspect fishways in the Rogue District, will contact the users if maintenance is needed, and be available for technical support as needed.

*Will the project require ongoing maintenance?*

Yes

Debris will occasionally need to be removed and wooden stop-logs will at some point need to be replaced.

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

Yes

ODFW has conducted some chinook spawning surveys in designated reaches of both forks of Little Butte upstream of the dam since 2014. The surveys have been conducted opportunistically between September and mid-Dec to collect information on relative abundance prior to the dam project. An effort was made to utilize help from volunteers in our STEP program but the survey on the North Fork is considered to be physically challenging. Surveys will be conducted post-project to help evaluate success.

### **Project Funding**

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#### 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": "ODFW Fish Passage Program", "type": "In-

Kind", "secured": "Secured", "dollarValue": 74800, "comments": "\$74,800 personal services - shop fabrication and on-site construction;"}, {"source": "ODOT Culvert Repair Mitigation Funds", "type": "Cash", "secured": "Pending", "dollarValue": 100000, "comments": "Funding will be requested now that program has been re-authorized;"}]

Other Funding Source	Type	Secured	Dollar Value	Comments
ODFW Fish Passage Program	In-Kind	Secured	74800	\$74,800 personal services - shop fabrication and on-site construction;
ODOT Culvert Repair Mitigation Funds	Cash	Pending	100000	Funding will be requested now that program has been re-authorized;
		Total	174800	

# Budget

Item	Unit Number	Unit Cost	In-kind or non-cash contributions	Funding from other sources	R&E Funds	Total Costs
<b>PROJECT MANAGEMENT</b>						
			0	0	0	0
		SUBTOTAL	0	0	0	0
<b>IN-HOUSE PERSONNEL</b>						
ODFW Screen Shop - shop fabrication of weirs, etc	240	40.00	9600	0	0	9600
ODFW Screen Shop - site prep, de-water, demolition, etc	600	41.00	24600	0	0	24600
ODFW Screen Shop - install base and bedding material	300	41.00	12300	0	0	12300
ODFW Screen Shop - form and pour concrete for floor	500	41.00	20500	0	0	20500
ODFW Screen Shop - form and pour concrete for walls	500	41.00	7800	12700	0	20500
ODFW Screen Shop - backfill structure, install weirs, etc	300	41.00	0	12300	0	12300
		SUBTOTAL	74800	25000	0	99800
<b>CONTRACTED SERVICES</b>						
Blasting of bedrock	1	70000.00	0	28507	41493	70000
Concrete pumping	3	1000.00	0	3000	0	3000
		SUBTOTAL	0	31507	41493	73000
<b>TRAVEL</b>						
ODFW mileage for fabrication and on-site construction	2950	0.54	0	1593	0	1593
		SUBTOTAL	0	1593	0	1593
<b>SUPPLIES/MATERIALS</b>						
Steel and aluminum - embeds, trashrack, weirs, painting	1	17300.00	0	0	17300	17300
Plywood and lumber - concrete forming & stop-logs	1	12750.00	0	0	12750	12750
Rebar (lbs)	21500	0.80	0	0	17200	17200
Concrete (cu yds)	130	150.00	0	19500	0	19500
Bedding and backfill material (cu yds)	170	20.00	0	3400	0	3400
Concrete forming materials - wire ties, snap-ties, dobies,	1	4500.00	0	0	4500	4500
Misc materials, fencing, fuel, supplies, etc.	1	4000.00	0	4000	0	4000
Equipment rental - excavator and jack-hammer	4	3750.00	0	15000	0	15000
		SUBTOTAL	0	41900	51750	93650
<b>EDUCATION/OUTREACH</b>						
			0	0	0	0
		SUBTOTAL	0	0	0	0
<b>EQUIPMENT</b>						
			0	0	0	0
		SUBTOTAL	0	0	0	0
<b>FISCAL ADMINISTRATION</b>						
			0	0	0	0
		SUBTOTAL	0	0	0	0
		BUDGET TOTAL	74800	100000	93243	268043

## ***Internal Review Results***

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**Review Score:** 2.2 out of 3

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

### ***Summary of Review Team Comments***

While the review team understands that this project is a high priority from an agency perspective (#24 on state list and #3 in Roque basin) the application was weak and did not adequately justify this project for RE funding. The applicant needs to better explain how and why this is a priority and what is being proposed. The applicant should try and find some additional funding from local sources. Review scores included one 0, one 1, three 2s, and five 3s.

### ***Specific Review Team Comments***

Describe why this project is a state priority and the fact that it is on the 2013 ODFW Statewide Fish Passage Priority Barrier Inventory as a high priority. Where does this project fit in on this list statewide and locally?

Please explain better how maintenance of this structure will be enforced or ensured over the long term. There are some concerns about whether the water users will be willing or able to maintain the structures over time given that they are not contributing to the costs of the project and may not know what they are getting into. It seems if the owner contributed to the project they may be more likely to help maintain it.

Please explain better the connection of this project to the benefits that anglers will see. As currently written the connection is weak even though the project is listed as very important. It appears that benefits to various life stages of sport species may be greater than specified in the application. The application assumes increased production over current with minimal support, please explain and expand.

Dam is a significant barrier to fish at all life stages and will provide some benefits to fish even if it they are hard to tie to angling, but this tie needs to be better explained.

Please update the application to reflect the most current design and budget. The current application does not include the longer 14 pool design or discuss how the pool and weir design will meet all fish passage requirements, especially those for suckers and lamprey.

### ***Specific Review Team Questions***

*Why is there no contribution from other funding sources such as the owner or irrigation district who are responsible for this? Why is OWEB funding not a part of this? The project shouldn't be 100% funded by ODFW as ODFW should not bear the full costs of fixing a problem we didn't create. Please explain why the water users are "...unable to provide funding for the project."*

Since purchasing the ranch several years ago, the landowner/water user has spent a substantial amount of money on projects benefitting fish and wildlife on their property, but has recently become frustrated by the continuing requests of various government agencies, resulting in an unwillingness to fund more projects (they will still allow projects, but the well has run dry). The structure is a barrier to fish, but because no "trigger" exists, the owners are under no legal obligation to fix the problem. However, because the Central Point Screen Shop has maintained a good working relationship with them, they are willing to assume the legal responsibility for operation and maintenance of a fish ladder (ORS 509.610). The reality is that if someone other than the owner doesn't fix the problem, it won't get fixed.

Because the Screening and Passage Program has always received a substantial portion of its funding through OWEB, they have discouraged our applying for additional funding, so we don't. Now that it has been reauthorized, we will apply for additional funding through the ODOT culvert mitigation program as well as look into funding from other local sources. Note that even though the ladder size has grown and the total cost of the project has increased since the application was first submitted, the amount of our initial R&E request has been reduced because of the recent re-authorization of the ODOT funding.

*Please explain why you are renting an excavator vs using existing equipment?*

The screen shop's mini excavator and backhoe are not large enough to break and remove the amount of bedrock that will still be left after blasting. However, the shop's equipment will be used to assist the project in other ways.

*Do winter steelhead really contribute to half pounders? Thought those were summers.*

Summers contribute more, but about half of the Rogue's winter steelhead (excluding the Illinois) come back as half pounders.

*Will there be monitoring upstream of the barrier to document fish use/spawning following fish passage installation?*

ODFW has conducted some chinook spawning surveys in designated reaches of both forks of Little Butte upstream of the dam since 2014. The surveys have been conducted opportunistically between September and mid-Dec to collect information on relative abundance prior to the dam project. An effort was made to utilize help from volunteers in our STEP program but the survey on the North Fork is considered to be physically challenging. Surveys will be conducted post-project to help evaluate success.

## Project Map

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## ***Additional Files***

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### Budget Information

#### Maps

[Project Map](#)

*Map image of project location*

#### Photos

[Walcott Diversion Dam](#)

*Photo looking upstream at Walcott Diversion Dam during the irrigation season.*

#### Design Information

[Preliminary Plans - Walcott](#)

*Preliminary plans for proposed fish ladder*

[Walcott Revised Plans 12-6-2017](#)

*Revised plans for additional pools/weirs*

### Management Plans and Supporting Documents

#### Permits and Reviews

#### Partnerships

[Maint Acknowledgement - Walcott](#)

*Water user acknowledgement of maint responsibility*

#### Public Comment

#### Administrative Documents

[R&E Appl Sig Pg - Walcott Passage](#)

*R&E application signature page*

[REI Form - Walcott Passage](#)

*REI form*

***Completion Report***

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A completion report has not been submitted for this project.