



R & E Grant Application 13 Biennium

**Project #:
13-092**

Rock Creek Hatchery - raceway replacement Phase II

Project Information

R&E Project Request: \$210,115.00
Match Funding: \$5,000.00
Total Project: \$215,115.00
Start Date: 3/1/2015
End Date: 6/30/2015
Project Email: Dan.H.Meyer@state.or.us
Project Biennium: 13 Biennium
Organization: ODFW - Rock Creek Hatchery

Applicant Information

Name: Dan Meyer
Address: 4192 N Umpqua Hwy
 Roseburg, OR 97470
Telephone: 541-440-3353 x224
Telephone 2: 541-580-5837
Fax: 541-673-0372
Email: Dan.H.Meyer@state.or.us

Past Recommended or Completed Projects

Number	Name	Status
03-028	Rock Creek Fish Passage Project	Completed
09-290	Rock Creek Maintenance Bundle	Completed
11-149	RCH Old Raceway Fall Protection / Predator Control	Completed
11-147	Rock Creek Hatchery Entrance Road Repair	Approved
13-067	Rock Creek Hatchery - raceway replacement	Approved

Project Summary

This project is NOT part of ODFW's 25 Year Angling Plan.

Activity Type: Hatchery Maintenance - ODFW
Summary: Rebuild 2 145'x20'x3' dilapidated raceways into 4 19'x70'x5' raceways. This is the second phase of a 3 phase renovation.
Objectives: The objective is to renovate failing raceways.
Fishery Benefits: There would be an improvement of renewing facilities used to rear fish for the sports fishing public, mainly rainbow trout and Umpqua steelhead. The capacity of

the targeted raceways would increase roughly 35%. The targeted raceways are utilized to rear 50% of the legal rainbow and Summer steelhead needed to stock in the Umpqua basin and Douglas County. Rock Creek Hatchery is responsible for 92% of the legal rainbow in the entire Douglas County and 100% of the Summer steelhead smolt plants for the North Umpqua river.

Watershed Benefits:

The project addresses hatchery fish environment by providing smoother concrete walls and floor enabling a more thorough cleaning. The rebuild design also increases the rearing capacity by 35% over the current raceways and 5.3% increase to the entire hatchery rearing capacity. There is a current need from fish propagation to rear more rainbow trout and a potential need to increase steelhead production. The OHRC is currently reviewing an imprinting study on young steelhead and may need to keep this group of fish in smaller segregated groups. Increasing raceway numbers will benefit this study and future studies alike.

Current Situation:

The raceways were built in the 1940's with washed river aggregate. The concrete has failed in many aspects. There are walls crumbling, floors with large cracks and exposed aggregate that is hard on nets and seines. There are numerous temporary patches and many have been repaired repetitively.

Alternatives:

None other than not pursuing renovation. Not doing anything has potential disease and production risks, safety risks, unpredictable catastrophic failure, and negative public perception we are not keeping our facilities in good working order.

Designer:

ODFW engineering.

Methods:

Engineer and design project. Put out for competitive bid on ORPIN. Award contract and complete project.

Inspector:

ODFW engineering.

Funding Elements:

Labor and material costs.

Partners:

Yes

Existing Plan:

ODFW will engineer.
Yes

This is not only on the hatchery priority list, but is one of the current top maintenance priorities of Fish Propagation and Scott Patterson. This project would be part ODFW's 25 Year Angling Plan "ODFW must upgrade our hatchery infrastructure, use the best available science and adopt emerging technologies to ensure hatchery production can meet future demands."

Affected Contacted:

Yes

Affected Yes

Supportive:

Affected

Comments:

Umpqua Steelhead Enhancement Derby board members have been contacted about a 10% \$20,000 match for Phase I. They are in favor of the proposed project through all 3 phases. The Umpqua Fisherman's Association is also in favor of the hatchery upgrades.

Project Schedule/Participants/Funding

Activity	Date	Participants
Engineer construction plans	10/4/2014	ODFW engineering
Post project on ORPIN	12/6/2014	ODFW Engineering/Fiscal
Obtain permits	2/1/2015	Awarded contractor
Monitor construction	3/1/2015	ODFW engineering
Award contract	1/1/2015	ODFW Engineering/Fiscal
Complete construction project	6/30/2015	Awarded contractor
Begin construction project	3/1/2015	Awarded contractor

Affected

Species:

Chinook Salmon
Coho Salmon
Rainbow Trout
Steelhead

Project Permits

Name	Issued By	Secured?	Date Secured	Date Expected
construction permits	Douglas County	No	1/1/0001	1/1/2015

Project Monitoring

Organization	Address	Activity	Frequency
ODFW engineering	4034 Fairview Industrial Dr. Salem, OR 97302	Inspect construction	continuous

Project Maintenance

Organization	Address	Activity	Frequency
Rock Creek Hatchery	425 McCarn Ln Idleyld Park, OR 97447	Pressure wash and cleaning	annually

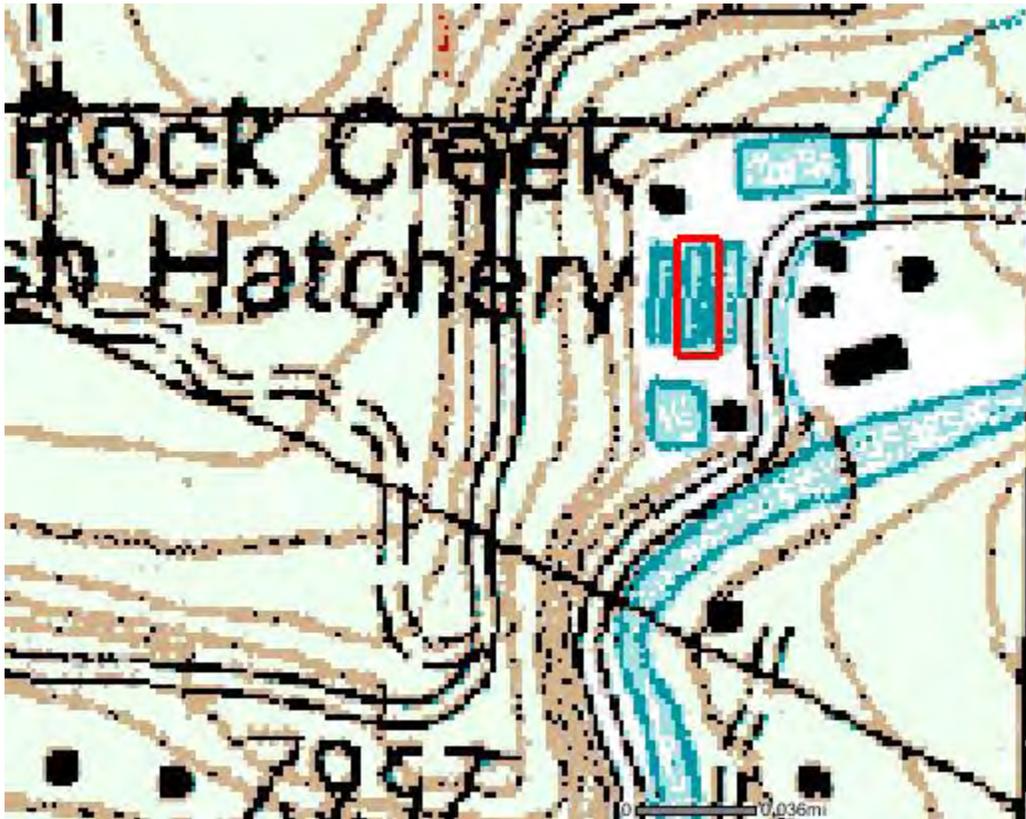
Project Match Funding

Funding Source	Cash	In-Kind	Other	Description	Total	Secured?	Conditions?	Comments
R&E Request	\$210,115.00	\$0.00	\$0.00		\$210,115.00	No	No	
ODFW engineering	\$0.00	\$5,000.00	\$0.00		\$5,000.00	Yes	Yes	
				Total Match Funding:	\$215,115.00			

Project Budget

Item	Item Type	Units	Unit Cost	R&E Funds	Match Funds	Total
Design and engineering	Administration	1	\$5,000.00	\$0.00	\$5,000.00	\$5,000.00
6" concrete floor with rebar	Contracted Services	123	\$275.00	\$33,825.00	\$0.00	\$33,825.00
6" wall concrete w/ rebar	Contracted Services	65	\$750.00	\$48,750.00	\$0.00	\$48,750.00
alarm bypass panel	Contracted Services	1	\$6,000.00	\$6,000.00	\$0.00	\$6,000.00
alarm wiring	Contracted Services	1	\$6,000.00	\$6,000.00	\$0.00	\$6,000.00
demolition incl saw cutting	Contracted Services	1	\$7,500.00	\$7,500.00	\$0.00	\$7,500.00
drain piping	Contracted Services	1	\$20,000.00	\$20,000.00	\$0.00	\$20,000.00
expansion board installed	Contracted Services	2160	\$4.00	\$8,640.00	\$0.00	\$8,640.00
gaudrail and brackets	Contracted Services	325	\$60.00	\$19,500.00	\$0.00	\$19,500.00
header	Contracted Services	4	\$2,000.00	\$8,000.00	\$0.00	\$8,000.00
misc. metals	Contracted Services	1	\$6,500.00	\$6,500.00	\$0.00	\$6,500.00
moblization	Contracted Services	1	\$7,500.00	\$7,500.00	\$0.00	\$7,500.00
subgrade prep 3/4" minus	Contracted Services	1	\$4,500.00	\$4,500.00	\$0.00	\$4,500.00
supply line piping	Contracted Services	1	\$20,000.00	\$20,000.00	\$0.00	\$20,000.00
valves 4" butterfly cast iron	Contracted Services	16	\$500.00	\$8,000.00	\$0.00	\$8,000.00
water stop	Contracted Services	360	\$15.00	\$5,400.00	\$0.00	\$5,400.00
					Total Budget:	\$215,115.00

Project Map



Additional Files

Click a link to view that particular file.

[aerial photo](#)

[district support letter](#)

[existing_pond](#)

[existing_pond 2](#)

[existing_pond 2](#)

[old raceways](#)

[old raceways 2](#)

[repair estimate](#)

Project Estimate (per pond)		Location: Rock Creek Hatchery			
		Prepared By: JDF/RLM			
		Date Prepared: 03/19/2014			
Item	Units	Unit Price	Quantity	Price	
1	Mobilization	LS	\$7,500	1	\$7,500
2	Demolition incl sawcutting	LS	\$7,500	1	\$7,500
3	Subgrade Preparation 3/4" minus	LS	\$4,500	1	\$4,500
4	6" Concrete Floor With Rebar	CY	\$275	123	\$33,825
5	Expansion board installed	SF	\$4	2160	\$8,640
6	Waterstop	LF	\$15	360	\$5,400
7	Wall concrete with Rebar 6" wall	CY	\$750	65	\$48,750
8	Guardrail and brackets	LF	\$60.00	325	\$19,500
9	Alarm wiring	LS	\$6,000	1	\$6,000
10	Alarm by pass panel	LS	\$6,000	1	\$6,000
11	Drain Piping	LS	\$20,000	1	\$20,000
12	Supply line piping	LS	\$20,000	1	\$20,000
13	Valves 4" butterfly (Cast iron)	EA	\$500	16	\$8,000
14	Header	EA	\$2,000	4	\$8,000
16	Misc Metals	LS	\$6,500	1	\$6,500
17					
18					
19					
Total					210,115.00



9/17/2012



VISITOR
PARKING
←

9/17/2012



ROCK CREEK HATCHERY - 1997





Applicant Signature Page
Fish Restoration and Enhancement Program
(Oregon Department of Fish and Wildlife Applicants)

I hereby make an application for financial assistance under the terms and conditions of the Fish Restoration and Enhancement Program as described in my project application. I acknowledge that:

- This proposal is an identified priority at the district, region, and/or state level and has been identified as such in the application (check box for appropriate level).
- This proposal is consistent with any applicable goals, policies, rules, species or basin management plans adopted by the F&W Commission and this has been explained in the application.
- This proposal will not be used to cover, back fill, or fund shift elements that have been cut or defunded as part of agency budget reductions. Approved deferred maintenance or projects with division approval are exceptions.

I understand that if my project proposal is approved for Restoration and Enhancement (R&E) Program funding, the following will apply:

- Applicants must sign an agreement containing the terms and conditions for the project implementation, release of funds, and documentation of completion. Non-compliance may impact future funding opportunities.
- The R&E Program will not pay for expenses which occur before the approved start date or after the end date.
- Funding is available one biennium only without prior authorization by the R&E Board.
- Applicant agrees to notify the R&E Program of all funds not needed for the project upon determination.
- Any inappropriate expenses using R&E funds will be corrected by the applicant immediately. By the close of the biennium any expenses exceeding, or not identified in, the grant approval will be reverted to a local cost code.
- Copies of all landowner, monitoring and maintenance agreements must be submitted to the R&E Program.
- Educational products resulting from projects are public domain.
- Information collected is subject to Oregon Public Records Law.
- As applicable, the project will be consistent with all federal, state, and local regulations, including the State Land Use Planning Goals & Local Land Use Plans, prior to any on the ground work.

By signing this application, I certify to the best of my knowledge that the information contained in the application are true, complete and accurate. If awarded funding the applicant agrees to follow all terms and conditions outlined in the agreement.

Project Title: Rock Creek Hatchery Runway Repair Phase II

Applicant Name: Don Mauer Title: Manager

Applicant Signature:  Date: 07/08/14

Manager Certification:

To be completed by Watershed Manger, Hatchery Coordinator, Program Manager, or higher level manager.

- I concur with the statements above and the applicant has permission to request these funds.

Manger Name: John R. Thorpe Title: Hatchery Coordinator

Manager Signature:  Date: 7/8/2014

13-067 Rock Creek Hatchery - raceway replace

The scope of work for the Rock Creek raceway replacement has been completed by our ODFW engineer team. The design will also be performed by the same ODFW engineer team as an in kind grant funding. Constructing the rebuild of all 6 raceways simultaneously was deemed cost prohibitive and so it went forth broken into 3 separate projects or phases. The 3 phases of work are proposed to be constructed in 6 years' time or 3 biennium's, the first phase is this 13-067 grant proposal. Each phase in succession is a duplicate project less the water supply line for the upper raceways as the new line is included in this first phase, so it would be virtually the same cost plus inflation.

The current raceways allow the ability to create one long into two smaller raceways in series, but the out flow of the upper raceway is the inflow to the lower raceway. A poor design for segregating fish and pathogens. Consequently the upper and lower are used in conjunction although the fish favor the lower portion as it is deepest and provides more secure environment. The proposed design will provide a water supply and drain for the upper and lower portion of the raceways allowing for an optimum environment for species and pathogen isolation. The old raceways will provide the shell for forming the new 6" concrete and steel walls and floors. The old raceways are laid out in 3 sets of two 145' long units each two sharing a common wall. Each of the two long raceways will be converted into 4- 70'x 19'x 5' units. The existing fall protection from a previous R&E project will be utilized and have additional fall protection on the cat walks.

One advantage of having the more and smaller raceways is the flexibility to raise the many species and releases of those species reared at this hatchery, they are Spring Chinook fall and spring release, Fall Chinook, Coho, Summer Steelhead 1 year and 2 year smolts, Winter Steelhead 1 year and 2 year smolts, legal plant Rainbow, the high Cascades stock of Rainbow, and their brood fish . With the increase in groups of fish in recent years there had been more groups than raceways available. The 2 year Summer and Winter Steelhead were reared off station for several years allowing for the programs to go forward. With Butte Falls being closed and pathogen problems at Cole Rivers the 2 year program was brought back to Rock Creek. Just another example of more raceways needed.

Another advantage of more and smaller also will give biologists and researchers the ability to break these species groups into smaller groups for studies. A study Rock Creek hatchery has done in the recent past is a release study of Coho differentially marked for direct release and net pen acclimation. We were able to do this due to the unfortunate inability to successfully incubate Fall Chinook eggs at the Gardiner STEP facility for our smolt program. The point is studies such as this currently have to hinge on another programs misfortune.

New feeds are constantly coming onto the market w/ great claims of efficiency leading to savings and fish growth. Other hatcheries that are trying these feeds can give us information to support their use, but feeds perform differently w/ different stocks and it is best to try a smaller portion of the stock of fish

you are targeting with a different feed before committing to using on the entire group in order to make a sound management decision. Undesirable results may occur if a prudent approach is not incorporated. More and smaller raceways satisfy this need.

There is a study coming up in the near future for the south Umpqua Winter Steelhead for early imprinting that will require another raceway to segregate the study group. As long as there are scientists in the field there will always be the need for extra raceway space.

A 35% capacity increase will also be realized for a production benefit. Fish propagation recently indicated a need to find space for more rainbows. Currently there is a preliminary proposal for an increase to the Winter Steelhead fish program. If the increased capacity is not filled with fish the lower density equates to healthier fish and higher survival during all life stages. Rock Creek is known for the pathogen load, it would be a welcome improvement.

It is a large investment, but we would be doing the fishers of Oregon a disservice by not keeping up our facilities. The return is for long term. These raceways will be out of commission in the not too distant future if we neglect them any longer and they rear 50% of the Umpqua basin fish propagated, 100% of the Legal Rainbow, Summer and Winter Steelhead are reared in these six raceways. As a facility manager for the State of Oregon I would be remiss to ignore this situation. These raceways have been around for 75 years and have been on the deferred maintenance list before I arrived here in 1986. The new raceways will be around for another 75 years. It would be prudent for us to rebuild a raceway that would best suit our needs into the future, especially if it can be done at a nominal cost compared to replicating status quo.



Oregon

John A. Kitzhaber, MD, Governor

Department of Fish and Wildlife

Umpqua Watershed District Office
4192 North Umpqua Highway
Roseburg, OR 97470
(541) 440-3353
FAX (541) 673-0372

March 26, 2014

Dear R & E Board

The Umpqua Fish District strongly supports the improvements and increase in capacity at Rock Creek Hatchery. The raceways targeted for improvement will enhance the district's trout and summer steelhead production. Both of these fisheries are very popular in the basin and dependent on Rock Creek's hatchery program.

There is no stocking of hatchery rainbow trout in the Umpqua's streams. However, Rock Creek is invaluable for producing rainbows for all 13 of the districts major lakes and reservoirs. In addition to providing legal sized fish from March through June, the hatchery is working hard to provide as many "Labor Day Lunkers" as possible for a fall fishery. This lunker program has been exceptionally popular with anglers and could be expanded. Rock Creek also provides a native Fishwich strain of trout for 8 of our High Cascade Lakes. These fish are used as predacious fish at Diamond Lake and are being tested as a potential native replacement to brook trout at some of our other lakes.

The summer steelhead produced at Rock Creek provides an excellent summer fishery for the Umpqua. Only fin-clipped steelhead can be harvested in the Umpqua basin, so the hatchery fish provide an opportunity for anglers to catch and retain a steelhead. This program requires additional rearing space since the hatchery is producing both 1 and 2 year old smolts.

Any improvements to Rock Creek's raceways and capacity have a direct positive impact on angling opportunity in the Umpqua basin. Douglas County is very outdoors oriented, and fishing is one of the more popular activities and provides a positive impact to the local economy. According to the 2006 National Survey of Fishing, Hunting, and Wildlife Associated Recreation for Oregon, state residents (over 16) enjoy over 1.5 million days of steelhead fishing and 3 million days of trout fishing. The Umpqua is one of only two basins in the state that offer summer steelhead fishing. According to the same report, in 2006 anglers also spend \$497 million for fishing related expenses.

Again, the Umpqua Fish District is supportive of the improvements to Rock Creek. These improvement will help the hatchery reach and increase its current production. The fish produced are popular with anglers and provide a positive economic impact for Douglas County.

Laura Jackson
District Fish Biologist
Umpqua Watershed