



R & E Grant Application 13 Biennium

Project #:
13-077

Bandon Hatchery Spillway Repair

Project Information

R&E Project Request: \$22,969.40
Match Funding: \$50,922.00
Total Project: \$73,891.40
Start Date: 8/1/2014
End Date: 9/30/2014
Project Email: thomas.j.rumreich@state.or.us
Project Biennium: 13 Biennium
Organization: ODFW - Charleston Field Office

Applicant Information

Name: Tom Rumreich
Address: P.O. Box 5003
63538 Boat Basin Drive
Charleston, OR 97420
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Email: thomas.j.rumreich@state.or.us

Past Recommended or Completed Projects

Number	Name	Status
01-014	STEP Fish Food Program	Completed
11-111	Millicoma Interpretive Center Improvements	Completed

Project Summary

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

Activity Type: Hatchery Maintenance - ODFW

Summary: The Bandon Hatchery has been operating since 1925. Water is supplied to the hatchery from two reservoirs that are created by two earthen dams. Water from both reservoirs are needed to operate the hatchery. The Ferry Creek dam is nearly 100 years old and has provided invaluable water to the hatchery for decades. In the past several months, water has seeped under the concrete spillway causing it to be undermined. The reservoir can no longer be brought to the full pool because of the damaged spillway. Not having the spillway operation has compromised the fish production at Bandon Hatchery. Our proposed project is to reconstruct the spillway with concrete for a permanent solution.

Objectives: The objectives for this project are to demolish a portion of the spillway and reconstruct the structure. A large concrete apron will be added to the upstream side of the spillway to prevent any leaking and subsequent damage in the future. Once the spillway is reconstructed, the Ferry Creek reservoir will be able to be filled to its capacity and fish production will not be compromised. Bandon Hatchery can resume its full fish production. Another objective of the project is to reconstruct the spillway to meet or exceed the standards from the Water Resources Department for all spillways to be able to accommodate a 500-year flood flow. Reconstruction of the spillway will also protect not only the stream ecosystem downstream, but human life if in the event the dam fails because of a compromised spillway.

Fishery Benefits: Bandon Hatchery is the largest producing fish facility outside of the Columbia River Basin in Oregon. Over three million Chinook from two stocks are incubated and/or reared at the hatchery annually. Over 400,000 winter steelhead from four stocks begin at the hatchery. A large number of rainbow trout are reared at the hatchery as well. The fish production from this hatchery have a profound positive impact on recreational and commercial fisheries in Oregon. As an example, in 2011, approximately 11,000 fall Chinook were harvested in Coos Bay that were a product of Bandon Hatchery. Chinook from the programs at Bandon Hatchery have contributed very well to Oregon ocean fisheries. As many as 10,000 winter steelhead have been harvested annually as a direct product from the hatchery. Trout that are produced contribute substantially to anglers in local lakes. If the spillway is not reconstructed then some, if not all, of this production could be eliminated and the current benefits to recreational and commercial fisheries would be lost.

Watershed Benefits: The spillway in its current state could cause a catastrophic failure in the Ferry Creek dam that would result in severe damage to the stream below the dam. This failure of the dam could have a significant long-term impact on a valuable rearing stream for naturally produced salmon, steelhead, and trout.

Current Situation: Currently Ferry Creek Reservoir is operating at only a partial capacity. The reservoir has been drawn down several feet from its normal level to protect the damaged spillway and to reduce the risk of dam failure. A temporary repair was completed by volunteers and staff using bentonite. The temporary repair was conducted to protect the spillway and dam in the event of a significant flood flow. Water that has leaked under the spillway has eroded large voids under the structure. The voids have caused the spillway to crack and sink in some places. A Water Resources Dam Safety Engineer has inspected the spillway and has concluded that the spillway needs to be reconstructed. The Oregon Department of Fish and Wildlife has hired a geotechnical firm (Foundation Engineering, Inc.) to investigate the spillway. In their report they state "The voids beneath the spillway are likely to increase in size and length, further undermining the structure. We have concluded the spillway should not be operated until temporary repairs are completed." The temporary repairs that they are recommending is to pump urethane into the voids under the spillway. They recommended a contractor (Uretek Holdings, Inc.) that could do the urethane repair.

Uretek's estimate for the temporary repairs is \$86,750. Foundation Engineering, Inc. states, "The injection of grouting (urethane) is intended as temporary repairs (i.e. for the +/- 2 to 3-year period necessary to design, fund and construct a spillway structure."

We are proposing a permanent repair/reconstruction of the spillway at about one-quarter of the price of the proposed temporary repairs.

- Alternatives:** No other alternatives are being considered at this time.
- Designer:** The Dyer Partnerships Engineers & Planners, Inc.
- Methods:** The Dyer Partnerships Engineers & Planners, Inc. will engineer the spillway reconstruction and conduct the flood certification. Tenmile, Coos, Coquille, Fish District staff will complete and submit the Corps/DSL permit and will conduct all consultations with federal agencies. The City of Bandon will provide all the equipment and some staff that is needed to demolish the spillway and any other excavation needed. Volunteer contractors, volunteers, and ODFW staff will reconstruct the spillway prior to October 2014. The crew that are proposing to reconstruct the spillway have been constructing fish facilities in the fish district for over three decades.
- Inspector:** ODFW engineers.
- Funding Elements:** R&E funds will be used for engineering, purchasing concrete, rebar, and other building materials.
- Partners:** Yes
City of Bandon-Excavation work
Volunteers-From local STEP groups
Local contractors
Southport Lumber
Campbell Group
Roseburg Lumber
- Existing Plan:** No
- Affected Contacted:** Yes
- Affected Supportive:** Yes
- Affected Comments:** Bandon Hatchery is recognized as a critical tool in producing fish for invaluable fisheries that have a profound impact to the economy of Oregon and the local community. The Ferry Creek reservoir is the source of municipal water for the City of Bandon. If the dam fails the water for the city is lost.

Project Schedule/Participants/Funding

Activity	Date	Participants
Examine gaps and cracks in spillway	2/3/2014	ODFW staff, City of Bandon, Engineering
Temporary fix using bentonite	3/3/2014	ODFW staff and volunteers
Second addition of bentonite	3/7/2014	ODFW staff and volunteers
Dam investigation	3/11/2014	Foundation Engineering, Inc.
Demolition of spillway	6/2/2014	City of Bandon, volunteers
Reconstruct spillway	8/5/2014	Volunteers/ staff
Engineers design new spillway	8/1/2014	The Dyer Partnerships

Affected

Species: Chinook Salmon
 Rainbow Trout
 Steelhead

Project Permits

Name	Issued By	Secured?	Date Secured	Date Expected
404 Corps/DSL	Corps/DSL	No	1/1/0001	7/1/2014

Project Monitoring

Organization	Address	Activity	Frequency
ODFW Engineers	4034 Fairview Industrial Dr SE Salem, OR 97302	Plan Review and completion inspection	once

Project Maintenance

Organization	Address	Activity	Frequency
Bandon Hatchery	Fish Hatchery Rd Bandon, OR 97411	Inspection	Monthly

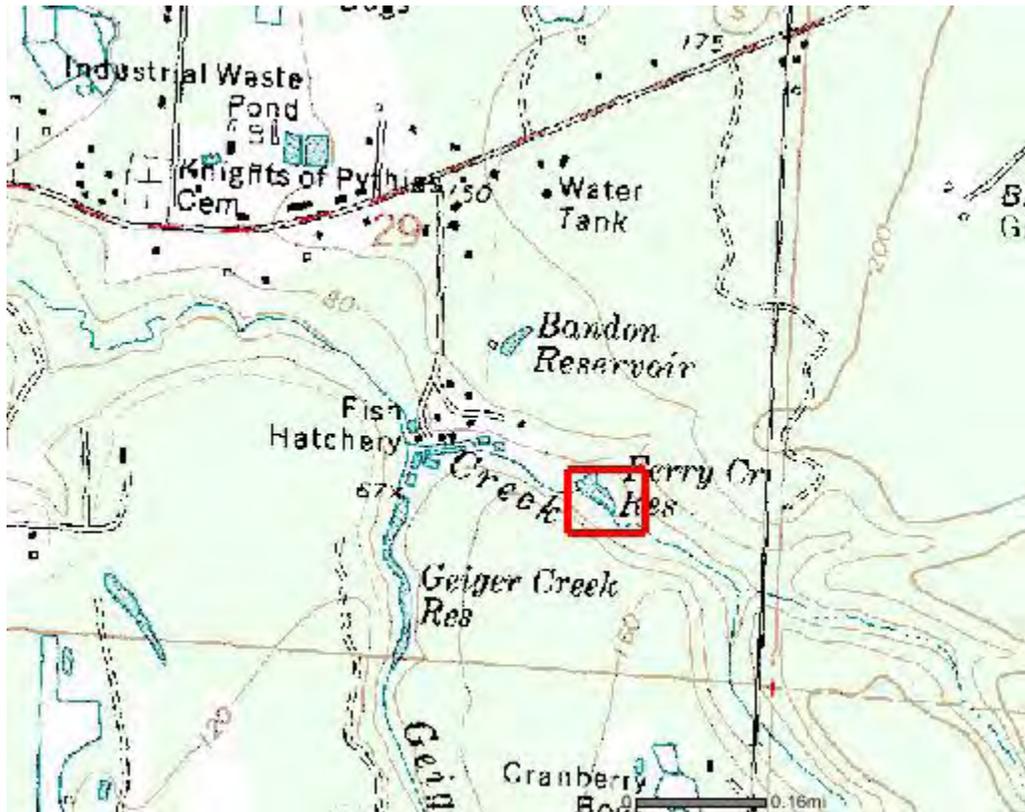
Project Match Funding

Funding Source	Cash	In-Kind	Other	Description	Total	Secured?	Conditions?	Comments
R&E Request	\$22,969.40	\$0.00	\$0.00		\$22,969.40	No	No	
City of Bandon	\$0.00	\$15,000.00	\$0.00	Excavation Equipent and personel	\$15,000.00	Yes	No	
Lumber companies	\$0.00	\$4,000.00	\$0.00	Lumber and plywood for concrete forms	\$4,000.00	Yes	No	
Volunteer contractors and volunteers	\$0.00	\$31,922.00	\$0.00	Volunteer time to do construction	\$31,922.00	Yes	No	
				Total Match Funding:	\$73,891.40			

Project Budget

Item	Item Type	Units	Unit Cost	R&E Funds	Match Funds	Total
Engineering design	Contracted Services	1	\$7,000.00	\$7,000.00	\$0.00	\$7,000.00
Excavation	Equipment	15	\$1,000.00	\$0.00	\$15,000.00	\$15,000.00
Volunteer time	Personnel	1451	\$22.00	\$0.00	\$31,922.00	\$31,922.00
Concrete, steel, snap ties, concrete pumping	Supplies/Materials /Services	1	\$15,969.40	\$15,969.40	\$0.00	\$15,969.40
Lumber / plywood for forms	Supplies/Materials /Services	1	\$4,000.00	\$0.00	\$4,000.00	\$4,000.00
					Total Budget:	\$73,891.40

Project Map



Additional Files

Click a link to view that particular file.

[sig page](#)

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: Bandon Hatchery Spillway Repair

Applicant Name: Tom Rumreich Title: STEP Biologist

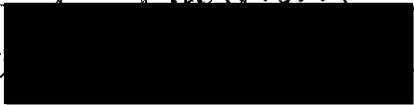
Applicant Signature:  Date: April 4, 2014

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: Scott D. Johnson Title: Fish Pop. Program Manager

Manager Signature:  Date: 4/17/2014



