



R & E Grant Application 17-19 Biennium

Project #: 17-024

Coquille Working Landscapes Project--C3P Tidegates

Project Information

Requested Cycle: 17-2
R&E Project Request: \$200,000
Other Funding: \$10,015,827
Total Project: \$10,215,827
Spending Start Date: 6/1/2017
Spending End Date: 10/31/2017
Project Start Date: 6/1/2017
Project End Date: 12/31/2017
Organization: Oregon Department of Fish and Wildlife

Applicant Information

Name: Michael Gray
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63538 Boat Basin Drive
Charleston, OR 97420
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Past Recommended or Completed Projects

This applicant has no previous projects that match criteria.

Authorized Agent

Name: Timothy Walters
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Authorized Agent

Name: Michael Gray
Address: PO Box 5003

Telephone: Charleston, OR 97420
541-888-5515 x230
Fax: 541-888-6860
Email: michael.e.gray@odfw.oregon.gov

Location Information

Where is it?

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

Landowner Information

Name: Fred Messerle, District Manager
Affiliation: Beaver Slough Drainage District
Address: 60196 Old Wagon Road
Coos Bay, OR, 97420
Phone: 541-267-7934
Cell: 541-404-6105
Email: fredm@uci.net; bsdd.bos@gmail.com

Site Description

Street Address, nearest intersection, or other descriptive location.

Project is located at the confluence of China Camp Creek and the Coquille River. The site is approx. 1.5 miles SW of the intersection of Hwy. 42 and North Bank Lane. The site is approx. 2.5 miles due W of the city of Coquille.

Directions to the site from the nearest highway junction.

The site is approx. 1.5 miles SW of the intersection of Hwy. 42 and North Bank Lane. Access is across farm pastures, on dike roads.

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

Limited 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.

Access to the specific site of the tidegate/infrastructure construction will be subject to the permission of landowners (individual members of the Beaver Slough Drainage District) and the Beaver Slough Drainage District (BSDD). This project is part of an overall Coquille Working Landscapes Project, which includes ODFW's Coquille Valley Wildlife Area (public land).

Dominant Land Use Type:

Range/pasture

Project Location

General Project Location.

County: COOS
ODFW Dist: Umpqua
Stream/Lake/Estuary Name: China Creek
Sub-basin: 17100305
Tributary of: Coquille River

Specific Project Location.

Latitude

Longitude

Project Summary

Project Summary

Please provide a couple sentence summary of the proposal.

This R&E funding will be a match to the BSDD's China Camp Creek (C3P) tidegate and associated infrastructure construction. The C3P, and ODFW's Winter Lake Restoration Project (WLRP) on the Coquille Valley Wildlife Area (CVWA) collectively make up the "Coquille Working Landscapes Project", a collaboration between Agriculture and Conservation organizations.

Overall Project Goals

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

Replacement of the tidegates and infrastructure (culverts, dikes, canal bridges) will save the BSDD from loss of land productivity from pending failure of the existing tidegates/infrastructure.

Replacement of the tidegates with muted tidal regulators (MTR) will include installation of state-of-the-art technology that will improve water management for drainage of agricultural lands for increased cattle production.

Replacement of the tidegates with muted tidal regulators (MTR) will include installation of state-of-the-art technology that will improve fish passage and allow greater overwinter fish use of the ag. lands that flood to form "Winter Lake", and year-round ingress/egress to new restoration channels in the WLRP.

This large-scale restoration on WLRP, and increased ingress/egress into the overall Winter Lake for juvenile Coho Salmon will contribute to Recovery of the OR Coast Coho ESU, leading to species/ESU persistence and future fishery opportunities.

Primary objectives of R&E funding

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

Contribute a match portion leading to the successful construction of the tidegates and associated infrastructure to maintain and enhance water control on agricultural lands of the BSDD. Completion by October 31, 2017.

Completion of the tidegates and associated infrastructure that will connect the newly-constructed tidal restoration channels of the ODFW's/TNC's WLRP to the Coquille River, in order to restore historic off-channel overwinter habitat to juvenile Coho Salmon, migratory habitat for juvenile Chinook.

Complete C3P and WLRP (Coquille Working Landscapes Project) by fall of 2017 in order to demonstrate a large-scale collaborative approach between agricultural production and conservation/watershed restoration.

Current Situation/Justification

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

Coquille Working Landscapes is a partnership between the BSDD, ODFW, The Nature Conservancy (TNC), China Camp Gun Club (CCGC), local landowners, and partner

organizations. This partnership was formed in 2009 and covers about 1,700 acres in the Coquille River Valley. The project will make critical improvements to BSDD infrastructure that have been deferred for many years. Tide gates, berms, and canals will be reconstructed to meet current fish passage criteria. The project is divided into three units – two will be agricultural emphasis areas and one will have habitat restoration emphasis (WLRP on ODFW's CVWA). Agriculture and natural resources will be improved on 1,700 acres within the BSDD. The Coquille Basin was once a prime area for salmon spawning, rearing, and angling, but today's salmon runs are a fraction of historic highs. Tidal wetlands – critical to the survival of salmon and birds – once covered most of the Coquille Valley. Today, just a small percentage of historic wetlands in the Coquille Valley remain, due to diking and drainage. This R&E match to multiple other grants and dedicated funding is crucial to implementing the C3P and WLRP--the Coquille Working Landscapes Project.

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.

Although the Coquille Working Landscapes Project will benefit other fish species and wildlife, the focus fish species benefit is this large-scale tidal wetland restoration's potential contribution toward Recovery of the ESA-listed OR Coast Coho. Benner (1992) estimated only 3% of over 14,000 acres of historic bottomland wetlands remaining in the basin. Nickelson (2012) estimated the current Coho population in the Coquille Basin to be at 6-12% of its historic levels, primarily due to loss of off-channel wetlands and concomitant reduction in over-winter Coho survival. Based on analysis of results from other restored wetlands in the Northwest, he estimated that between 11 and 17 adult Coho Salmon could be produced per acre restored, during average ocean survival years. This calculates to between 3,000 and 5,000 additional adult Coho for the 287 acre restoration of the WLRP, not counting additional Coho that could be produced by greater ingress/egress to the entire 1,700 acre BSDD land base that floods to form "Winter Lake". Large-scale restorations along the Oregon Coast that address major limiting factors for the OR Coast ESU Coho Salmon will be necessary to achieve the population gains necessary to gain Recovery, De-listing, Fishery benefits, species persistence, and other societal benefits.

Percent benefit split between Commercial and Recreational anglers:

- 25 % Commercial
- 75 % Recreational

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

This split was a rough attempt to allocate the benefits of increased numbers of Coho Salmon that could be produced by the WLRP and C3P, primarily considering more immediate vs. delayed benefits. The benefits to Recreational anglers could accrue more quickly, due to greater sport angling opportunity for wild Coho Salmon in recent years. Commercial harvest of wild Coho has been significantly restricted, and only through ESA Recovery/De-listing would this be expected to improve. Large-scale restorations that lead to Recovery and De-listing will also lead to greater fishery opportunity, both Sport and Commercial. Benefits to Chinook Salmon are also anticipated to accrue from this project, and will more directly contribute to increased harvest

opportunity for Sport and Commercial fisheries.

This project has been identified as an ODFW priority for:

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.

Oregon Coast Coho Conservation Plan for the State of Oregon, ODFW (2007)--ESU limiting factors, page 23. Stream complexity in the form of high-quality over-winter rearing habitat needed. (Attached to application)

Coquille Subbasin Plan; <http://www.coquilletribe.org/docbin/subbasinplan.pdf>; pages 59-60 describe floodplain development and loss of over-winter habitat ("depleted slow-water refugia" in winter) as a threat to Coho and other fish species. (Attached)

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

Cutthroat 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:

Wetland - restoration or creation

Flow and/or connectivity

Fish passage

Fish Passage

This fish passage project will:

This project will be an improvement in passage through tidegates, over existing tidegates on the BSDD. In addition, a new bank of tidegates will serve newly-created tidal channels on the WLRP, while allowing for continued agricultural production on adjoining properties. This is the Coquille Working Landscapes approach.

We have contacted or have been working with:

ODFW fish passage staff

The project has received approval

Project Description

Schedule

Activity	Date	RE Funding
Isolate site using sheet pile and other methods	June 2017	No
Demolition and removal of existing tidegates, culverts	July 2017	No
Installation of box culverts/infrastructure for new tidegate attachment	August 2017	No
Installation of tidegate frames and tidegates with Muted Tidal Regulators	September 2017	No

Permits

Permit	Secured?	Date Expected
USACE Nationwide permit NWP-2014-92 http://www.coquilleworkinglandscapes.com/c3p-and-wlrp-construction-information	Yes	June 2016
Coos County Planning ACU-16-004	Yes	March 2016
DSL 57054-RF	Yes	July 2016
ODFW Fish Passage Approval	Yes	May 2016

Project Design and Description

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

Construction documents and issued permits for this project are posted at the Coquille Working Landscapes website-- <http://www.coquilleworkinglandscapes.com/c3p-and-wlrp-construction-information>

A general description of the project design (C3P tidegate portion) is that the area will first be isolated from water in the drainage canals, using sheet pile and other isolation techniques. Existing tidegates and culverts will be removed, and the site excavated to receive the foundation/footing for the new tidegate infrastructure. Concrete box culverts will be installed to pass water to the existing canals, and a new bank of culverts serving the new WLRP restoration channels. Finally, the tidegate and lift frame hardware will be installed (R&E request will be part of this equipment and/or installation). The structure will be outfitted with conduit, cabling, and a control house which will allow for electronic control of the tidegates, and will also facilitate monitoring equipment installed by any of the Monitoring Group partners (incl. BSDD, ODFW, DEQ).

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 life expectancy of the tidegates, MTRs, and associated infrastructure are estimated at 50 years minimum, according to BSDD. This is information BSDD received from the engineers designing the project.

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

Long-term management, maintenance, and oversight will be the responsibility of the Beaver Slough Drainage District (BSDD). Operation and maintenance will be under BSDD's Water Management Plan (see www.Coquilleworkinglandscapes.com), to meet the water management needs of the District and the individual land/water management needs of the landowner members.

Will the project require ongoing maintenance?

Yes

Maintenance of the mechanical and electronic operation of the tidegates and associated infrastructure, meet water management objectives. Maintenance will be need to be responsive to immediate needs to restore water management, so as to protect agricultural lands, and meet other landowner needs. Regular/annual maintenance will occur during the summer "dry weather" period, including repairing damage to dikes that occurs during the winter.

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

Yes

BSDD, ODFW, and DEQ have formed a Monitoring Group to coordinate pre- and post-construction monitoring of water quality, groundwater levels, fish use of drainage canals and restoration channels, fish passage through tidegates, etc. BSDD has been conducting pre-project monitoring of water temperatures and groundwater levels. ODFW has been conducting pre-project fish monitoring to characterize fish use of the existing canals on the BSDD. Post-project fish monitoring will look at fish use of the agricultural canals and WLRP new restoration channels, fish passage through tidegates (PIT tags), growth during residence in the WLRP, and other anticipated benefits of the restoration habitat. Monitoring sampling design has been coordinated with ODFW's R.E.D.D. (Fish Research Evaluation Data & Decision Support) group.

Project Funding

Funding

Have you applied for OWEB funding for this project?

Yes

Received an award.

R&E money is needed as matching funds.

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

[{"source":"ODFW", "type":"Cash", "secured":"Secured", "dollarValue":1100000, "comments":"ODFW Commitment to C3P tidegate/infrastructure from Eel Lake land trade proceeds under IGA with BSDD."}, {"source":"OWEB/USFWS (NWCA) grant", "type":"Cash", "secured":"Secured", "dollarValue":1515000, "comments":"National Wetlands Conservation Grant; C3P"}, {"source":"NOAA Coastal Resiliency grant", "type":"Cash", "secured":"Pending", "dollarValue":1500000, "comments":"****NOTE:R&E request and the NOAA Resiliency grants are applied for to make up for shortfall as of March 2017."}, {"source":"Pacific Coast Salmon Restoration Fund grant (PCSRF)", "type":"Cash", "secured":"Secured", "dollarValue":387838, "comments":"From Coquille Tribe; C3P"}, {"source":"PCSRF grant", "type":"Cash", "secured":"Pending", "dollarValue":415000, "comments":"From Coquille Tribe, second grant application; C3P"}, {"source":"ODFW--Pittman-Robertson", "type":"Cash", "secured":"Secured", "dollarValue":338875, "comments":"P-R funds through Wildlife Division; C3P"}, {"source":"ODFW--Pittman-Robertson", "type":"Cash", "secured":"Pending", "dollarValue":860537, "comments":"P-R funds"}]

through Wildlife Division; C3P"}, {"source": "ODFW--Waterfowl Stamp funds", "type": "Cash", "secured": "Pending", "dollarValue": 25000, "comments": "C3P"}, {"source": "Beaver Slough Drainage District (BSDD)", "type": "Cash", "secured": "Secured", "dollarValue": 190209, "comments": "BSDD prior paid funding on engineering, permits, etc. ; C3P"}, {"source": "BSDD", "type": "Cash", "secured": "Secured", "dollarValue": 50000, "comments": "BSDD committed to C3P"}, {"source": "OWEB/USFWS (NWCA) grant", "type": "Cash", "secured": "Secured", "dollarValue": 1720000, "comments": "National Wetlands Conservation Grant; for Winter Lake Restoration Project (WLRP)"}, {"source": "NOAA 2016 Restoration Grant", "type": "Cash", "secured": "Secured", "dollarValue": 1210000, "comments": "For WLRP"}, {"source": "The Nature Conservancy (TNC)", "type": "Cash", "secured": "Secured", "dollarValue": 803368, "comments": "Transfers from TNC"}, {"source": "Stakeholder Monitoring Partnership", "type": "Cash", "secured": "Pending", "dollarValue": 100000, "comments": ""}]

Other Funding Source	Type	Secured	Dollar Value	Comments
ODFW	Cash	Secured	1100000	ODFW Commitment to C3P tidewater/infrastructure from Eel Lake land trade proceeds under IGA with BSDD.
OWEB/USFWS (NWCA) grant	Cash	Secured	1515000	National Wetlands Conservation Grant; C3P
NOAA Coastal Resiliency grant	Cash	Pending	1500000	***NOTE: R&E request and the NOAA Resiliency grants are applied for to make up for shortfall as of March 2017.
Pacific Coast Salmon Restoration Fund grant (PCSRF)	Cash	Secured	387838	From Coquille Tribe; C3P
PCSRF grant	Cash	Pending	415000	From Coquille Tribe, second grant application; C3P
ODFW--Pittman-Robertson	Cash	Secured	338875	P-R funds through Wildlife Division; C3P
ODFW--Pittman-Robertson	Cash	Pending	860537	P-R funds through Wildlife Division; C3P
ODFW--Waterfowl Stamp funds	Cash	Pending	25000	C3P
Beaver Slough Drainage District (BSDD)	Cash	Secured	190209	BSDD prior paid funding on engineering, permits, etc. ; C3P
BSDD	Cash	Secured	50000	BSDD committed to C3P
OWEB/USFWS (NWCA) grant	Cash	Secured	1720000	National Wetlands Conservation Grant; for Winter Lake Restoration Project (WLRP)
NOAA 2016 Restoration Grant	Cash	Secured	1210000	For WLRP
The Nature Conservancy (TNC)	Cash	Secured	803368	Transfers from TNC
Stakeholder Monitoring Partnership	Cash	Pending	100000	
		Total	10215827	

Budget

Item	Unit Number	Unit Cost	In-kind or non-cash contributions	Funding from other sources	R&E Funds	Total Costs
PROJECT MANAGEMENT						
Admin; Project management; compliance	0	0.00	0	1183356	0	1183356
Funding/Grant Development	0	0.00	0	30000	0	30000
Outside Project, Transfers, Contingencies	0	0.00	0	1238730	0	1238730
Post Construction Operation and Monitoring	0	0.00	0	118749	0	118749
		SUBTOTAL	0	2570835	0	2570835
IN-HOUSE PERSONNEL						
			0	0	0	0
		SUBTOTAL	0	0	0	0
CONTRACTED SERVICES						
Installation of tidegates and associated infrastructure--C3P	0	0.00	0	3464327	200000	3664327
District Infrastructure--berms and canals--C3P	0	0.00	0	372166	0	372166
Site Preparation--C3P and WLRP	0	0.00	0	72500	0	72500
Unit 2--Restoration--WLRP	0	0.00	0	1488155	0	1488155
Bridges	0	0.00	0	376160	0	376160
Infrastructure--berms and canals--WLRP	0	0.00	0	995445	0	995445
Interior tidegates and culverts--C3P	0	0.00	0	105000	0	105000
Unit 2--Restoration--C3P	0	0.00	0	22073	0	22073
		SUBTOTAL	0	6895826	200000	7095826
TRAVEL						
			0	0	0	0
		SUBTOTAL	0	0	0	0
SUPPLIES/MATERIALS						
Rock for tidegate infrastructure; roads;--C3P	0	0.00	0	542830	0	542830
		SUBTOTAL	0	542830	0	542830
EDUCATION/OUTREACH						
Outreach and Landowner Relations	0	0.00	0	6336	0	6336
		SUBTOTAL	0	6336	0	6336
EQUIPMENT						
			0	0	0	0
		SUBTOTAL	0	0	0	0
FISCAL ADMINISTRATION						
			0	0	0	0
		SUBTOTAL	0	0	0	0
		BUDGET TOTAL	0	10015827	200000	10215827

Internal Review Results

Review Score: 2.8 out of 3

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

Summary of Review Team Comments

This project was strongly supported by the review team. While there may be some question around how the request came about, this is an agency priority and is one of the stronger restoration proposals RE has seen in a while. It will provide tangible benefits to fish populations and increase opportunity. Review team scores included two 2s and six 3s.

Specific Review Team Comments

Great project, but is the contribution of \$200,000 for a \$10,000,000 project needed?

This is an important type of project and has the potential to provide substantial benefits to fish, and subsequently to anglers. Probably a better tie to increased productivity than other habitat projects.

The R&E funded budget line items needs to have more detail. The funding is currently not designated for a specific item. While flexibility is needed on a project of this size the Board has preferred to have specific items or actions identified.

R&E component is relatively minor, although other ODFW funding is substantial. Should be contingent on other funds coming through.

The budget/match funding appears like funding is met, however the \$1.5M NOAA Resiliency application and this \$200k R&E application are requests to fill-in a funding gap that has recently been identified. This large, multi-partner, wetland restoration and tidegate replacement project was scheduled to implement in summer 2016, however permitting/contracting pushed late into the summer and beyond the "go/no-go" date. Once it got pushed to 2017, all entities proceeded with finalizing permits (now in place) and moved into putting out to bids and contracting. Bid prices and material prices went up from 2016 to 2017 implementation, and a funding gap was identified. BSDD has applied for the NOAA Resiliency grant, and ODFW (Watershed District) agreed to apply for \$200k R&E grant to try and fill-in this gap.

This is an agency and fish division priority with high value to sport fisheries.

Massive project with an excellent match. Very positive potential consequences for salmonids. Thorough application.

Using the high end of the range and assume 5,000 additional adult Coho per year from this effort. After 30 years that's 150,000 fish (assuming ocean conditions stay beneficial). Let's be optimistic and posit that \$10M is the total cost, there are no additional costs over time. Given that, each fish will cost \$67 to produce.

Specific Review Team Questions

There is a note that says these funds are needed to make up a shortfall. Please describe what the shortfall is and how it came about. What will happen to the project if NOAA funding doesn't occur? When will the outcome of the NOAA grant be known?

This is a large, complex project. The initial cost estimates from circa 2014 were developed prior to 100% engineering design completion and were based on similar projects. The scope of the project expanded as engineering design evolved, as earlier design levels did not meet fish passage standards. Also after the engineering design was completed, there were delays in

project implementation, and inflation of the component and contracting costs. Most recently, when the contract manager/general contractor (CM/GC) was awarded, the CM/GC noted that the site isolation plan was not adequate. The changes increased the necessary site isolation plan (keeping water out) for the construction of the tidegates/infrastructure by \$650,000. The outcome of the NOAA Resiliency grant application won't be known until June. Beaver Slough Drainage District, C3P project sponsor, has applied for alternate funding sources which may also contribute to filling portions of the shortfall: Nat'l. Coastal Wetland Grant (re-application); ODOT Mitigation Fund; OWEB fund transfer.

Have R&E funds been used as part of this effort in the past? If so, how much was granted? Will this be the last request for R&E funds for this project?

R&E Funds have not been used for this project in the past. The intent is that this would be the last R&E request for the Beaver Slough Drainage District's C3P Project (tidegates and infrastructure). The ODFW Umpqua Watershed District could potentially apply for R&E funding in the future for the operation/maintenance of the fish/angling resources on the Coquille Valley Wildlife Area, however there are no plans at this time to apply for any R&E funds.

Additional Files

Budget Information

Maps

[BSDD/CVWA map](#)

Map of CVWA and BSDD, showing units

[C3P--WLRP map](#)

C3P and WLRP map showing proposed restoration channels

Photos

[Photo BSDD existing failing tidegates](#)

Photo of existing tidegates

Design Information

[Schematic of tidegates and infrastructure](#)

C3P tidegates--box culverts--slide frame infrastructure

Management Plans and Supporting Documents

[Coquille Subbasin Plan--CIT](#)

Subbasin Plan from Coquille Indian Tribe

[OR Coastal Coho Plan--excerpt](#)

Coho Plan excerpt with limiting factors

Permits and Reviews

[C3P--WLRP Fish Passage Approval](#)

Fish Passage Approval for projects

Partnerships

Public Comment

Administrative Documents

[Racial Statement and Signature Authorization Forms](#)

forms

Completion Report

A completion report has not been submitted for this project.