



R & E Grant Application 17-19 Biennium

Project #: 17-011

Archibald Creek Fish Habitat & Passage Restoration

Project Information

Requested Cycle: 17-1
R&E Project Request: \$18,426
Other Funding: \$409,028
Total Project: \$427,454
Spending Start Date: 1/1/2017
Spending End Date: 6/30/2017
Project Start Date: 7/1/2015
Project End Date: 9/30/2018
Organization: Upper Nehalem Watershed Council (Tax ID #: 721536873)

Fiscal Officer

Name: Maggie Peyton
Address: 1201 Texas Ave., Suite A
Vernonia, OR 97064
Telephone: 503-429-0869
Email: maggie@nehalem.org

Applicant Information

Name: Maggie Peyton
Address: 1201 Texas, Ave. Suite A
Vernonia, OR 97064
Telephone: 503-429-0869
Telephone 2: 503-396-2046
Email: maggie@nehalem.org

Past Recommended or Completed Projects

This applicant has no previous projects that match criteria.

Authorized Agent

Name: Troy Laws
Email: troy.s.laws@state.or.us

Location Information

Where is it?

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

Landowner Information

Name: Weyerhaeuser - Columbia Timberlands
Affiliation: Project Partner
Address: 10 International Way
Longview, WA, 98632
Phone: 360-442-4350
Email: joseph.currie@weyerhaeuser.com

Site Description

Street Address, nearest intersection, or other descriptive location.

Archibald Creek - From Confluence w Oak Ranch Creek near RM 2 at intersection of Apiary road at MP 17.5 and along Archibald Creek Road up to Weyerhaeuser Co. bridge at approximately MP 1.1

Directions to the site from the nearest highway junction.

Hwy 47 and Apiary Road

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

Full 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.

Recreation permit via Weyerhaeuser Co. Currently these are annual (1 year) permits.

Dominant Land Use Type:

Forest

Project Location

General Project Location.

County: COLUMBIA
ODFW Dist: North Coast
Stream/Lake/Estuary Name: Archibald Creek
Sub-basin: 17100202
Tributary of: Oak Ranch Creek

Specific Project Location.

Latitude	Longitude
45.94525	-123.12784

Project Summary

Project Summary

Please provide a couple sentence summary of the proposal.

Archibald Creek is an essential salmonid habitat tributary for Oak Ranch Creek (Nehalem R. Trib). This project reintroduces Large Wood Debris (LWD) at 15 strategic locations to improve natural stream/habitat functions & restores fish passage at two road/stream crossings. Ocean and in-river salmonid fisheries will benefit from this work.

Overall Project Goals

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

Add Large Wood Debris (30 trees/90 pieces meeting project specifications, w/ limbs & rootwads attached) to 15 strategic locations within Archibald Creek to:

- Increase in-stream habitat complexity within spawning/rearing habitat
- Reconnect floodplain attributes
- Improve hyporheic connectivity to better sustain cooler/late summer flow
- Provide access to off-channel habitat(s) for summer/winter

Restore Native Fish passage into historic habitat(s) by replacing the two stream/road crossings in this watershed and bringing them into compliance with State & Federal Fish Passage Standards.

Promote Healthy-Self Sustaining Riparian Habitat that provides:

- a long term coniferous tree source that provides self-replacing Large Wood debris resources for natural stream functions
- essential shade to help sustain optimal water quality for salmonids
- key allochthonous inputs that maintain highly productive habitat(s) and food webs for aquatic & terrestrial organisms.

Primary objectives of R&E funding

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

Purchase, harvest, and deliver 30 conifer trees/90 pieces meeting project specifications from nearby Oregon Department of Forestry Lands to 15 specified locations along Archibald Creek (2 whole trees/6 pieces per each site) for stream installation during 2017 in-water work

Contract, Mobilize, and Supervise 2 equipment operators who: will supply and operate a 350 class+ excavator with hydraulic thumb and a self loading log truck to harvest and deliver the 30 whole conifer trees (90 pieces) to the project

Current Situation/Justification

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

Archibald Creek crosses underneath Apiary road near mile post 17.5, just west of the Archibald/Airstrip road intersection. This 3rd order tributary ultimately feeds the upper/middle mainstem Nehalem River and supports listed Coho salmon, winter steelhead, & cutthroat trout. The subject stream is lacking adequate LWD (below ODFW habitat benchmarks for "key" pieces per 100m) needed for habitat complexity, gravel retention, and flood plain connectivity as verified in a recent ODFW survey conducted in February 2016. In addition to LWD deficiencies, Archibald Creek has two road/stream crossings that are significant fish passage impediments (one located near its confluence with Oak Ranch Creek and the other near RM 1). Two of our project partners (Weyerhaeuser Co. and Columbia County) are replacing their respective crossings to meet state & federal fish passage standards as their contribution to this

project. Weyerhaeuser Co. would also be the tree donor for this project, however their trees within reasonable distance of this project are too young to meet project specifications and thus we are in a position to have to purchase these trees from the neighboring ODF lands in order to keep costs reasonable to do this work.

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.

Substantial seasonal recreational fisheries occur throughout the Nehalem River basin, especially in the estuary and mainstem reaches of the Nehalem River proper. These streams naturally produced Coho salmon, winter steelhead, and cutthroat trout all contribute to these in-river fisheries and we assume, when allowed in the ocean, some of these same coho are harvested within commercial endeavors. Increased adult returns equate to more angler opportunity.

Percent benefit split between Commercial and Recreational anglers:

- 10 % Commercial
- 90 % Recreational

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

The salmonids from Archibald Creek are naturally produced and therefore not subject to being AD-clip marked for harvest in "mark selective fisheries". The 10% Commercial estimate is for "un-marked" coho caught either as bi-catch and/or when allowed for take in "un-marked" fisheries.

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 identify this as an ODFW priority.

Identify any plan or other document that identifies this priority.

NOAA Fisheries - Proposed ESA Recovery Plan for Oregon Coast Coho Salmon as identified in tables presented on pgs 6-47 to 6-50. (September 2015)

The Oregon Plan for Salmon and Watersheds Year 2000 Stream Habitat Conditions in Western Oregon

Report Number: OPSW-ODFW-2001-05 pgs 32-34

Coastal Coho Conservation Plan - Nehalem - unique Coho population recovery

UNWC Strategic Action Plan - 2014-2017 - salmon habitat restoration of high priority reaches in the upper Nehalem watershed.

Nehalem Conservation Action Plan - 2012 - restoration of freshwater habitats

Is this project part of an approved Salmon-Trout Enhancement Program (STEP) activity?
No

This project is intended to benefit the following species:

- Coho Salmon
- Lamprey
- Winter 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:

- In water structure, complexity, and habitat
- Flow and/or connectivity
- Fish passage

Fish Passage

This fish passage project will:

- Replace an existing fishway/passage structure

We have contacted or have been working with:

- Local ODFW staff
- ODFW has been contacted
- The project has received approval

Project Description

Schedule

Activity	Date	RE Funding
planning - scope of work	November 2016	No
field reconnaissance - permit	February 2017	No
contract bid	April 2017	No
tree harvest - tipping/haul/stage	June 2017	No
construct - LWD structures	July 2017	No
document - report - post project monitoring	August 2017	No
Weyerhaeuser road stream crossing replacement	August 2016	No
Columbia County Apiary road stream crossing replacement	August 2017/18	No

Permits

Permit	Secured?	Date Expected
ODF Notification of Operation within the guidelines of the Oregon Forest Practices Act.	No	May 2017

Project Design and Description

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

Large wood debris structure placement will be achieved as outlined in the ODFW guide

document "A Guide To Placing Large Wood In Streams". Project exceeds the protocol established in the Oregon Aquatic Habitat Restoration and Enhancement Guidelines for large wood placement. The project design achieves multiple objectives to provide adult and juvenile salmon cover, direct stream flow, protect infrastructure, sort gravels, create spawning beds, collect debris, filter, expand hyporhelic zone, accumulate bed load and reconnect mainstream to floodplain. ODFW Restoration Biologist Troys Laws is the principal designer with expertise in Rosgen Classification of Natural Rivers & Natural Stream Channel Design and 30 years of successful restoration field experience designing and implementing salmon habitat improvement projects.

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?

The conifer trees being purchased with R&E funds for the LWD structures have a life expectancy of 35-50 years, at which point the stream riparian trees will be of sufficient size and age where they will begin contributing naturally from there on going forward.

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

Weyerhaeuser Co. and Colombia County will each be responsible for the long term management, maintenance, and oversight of the stream/road crossings replaced on their respective properties on this project. Upper Nehalem WC and ODFW NCWD will be monitoring the habitat restoration portion of this project annually for the 1st 3 years and as needed thereafter. In all likelihood, based on many years of experience with LWD projects, maintenance of these LWD structures will not be necessary.

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?
No

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 Small Grant", "type": "Cash", "secured": "Pending", "dollarValue": 10000, "comments": "Submittal deadline is November 2016, funds will be awarded shortly thereafter ie; winter"}]

(2016/17)},{\"source\":\"Weyerhaeuser Co. (Company funds)Archibald Creek Road stream road crossing\",\"type\":\"Cash\",\"secured\":\"Secured\",\"dollarValue\":95000,\"comments\":\"This project aspect was completed during Summer 2016.\"},{\"source\":\"Columbia County (FEMA funds)Apiary Road - Archibald Creek stream road crossing\",\"type\":\"Cash\",\"secured\":\"Secured\",\"dollarValue\":300000,\"comments\":\"\"}]

Other Funding Source	Type	Secured	Dollar Value	Comments
OWEB Small Grant	Cash	Pending	10000	Submittal deadline is November 2016, funds will be awarded shortly thereafter ie; winter (2016/17)
Weyerhaeuser Co. (Company funds)Archibald Creek Road stream road crossing	Cash	Secured	95000	This project aspect was completed during Summer 2016.
Columbia County (FEMA funds)Apiary Road - Archibald Creek stream road crossing	Cash	Secured	300000	
		Total	405000	

Budget

Item	Unit Number	Unit Cost	In-kind or non-cash contributions	Funding from other sources	R&E Funds	Total Costs
PROJECT MANAGEMENT						
UNWC - field coordination - contracting/mou/documentation	60	35.00	0	1050	1050	2100
ODFW - implementation oversight	75	50.00	3750	0	0	3750
		SUBTOTAL	3750	1050	1050	5850
IN-HOUSE PERSONNEL						
			0	0	0	0
		SUBTOTAL	0	0	0	0
CONTRACTED SERVICES						
Heavy equipment w/operators to harvest & deliver conifer trees	30	265.00	0	0	7950	7950
Stream/Road Crossing Replacements (complete)	2	197500.00	0	395000	0	395000
Heavy equipment w/operator to install logs at 15 LWD sites	45	160.00	0	7200	0	7200
Equipment Mobilization for the LWD components above	2	1000.00	0	1000	1000	2000
		SUBTOTAL	0	403200	8950	412150
TRAVEL						
UNWC - project site (7)	24	0.55	0	66	26	92
ODFW - project site (7)	120	0.55	462	0	0	462
		SUBTOTAL	462	66	26	554
SUPPLIES/MATERIALS						
Whole Conifer Trees (ODF) meeting project specifications	30	240.00	0	0	7200	7200
		SUBTOTAL	0	0	7200	7200
EDUCATION/OUTREACH						
			0	0	0	0
		SUBTOTAL	0	0	0	0
EQUIPMENT						
			0	0	0	0
		SUBTOTAL	0	0	0	0
FISCAL ADMINISTRATION						
UNWC - expense tracking, reporting, contract administration	0	0.00	0	500	1200	1700
		SUBTOTAL	0	500	1200	1700
		BUDGET TOTAL	4212	404816	18426	427454

Internal Review Results

Review Score: 1.6 out of 3

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

Summary of Review Team Comments

While this proposal did score a 1.6 and is an acceptable effort with commendable objectives, the review team believes that this project provides minimal if any tangible benefit to the fishery or angler and that RE funds are not necessary to the success of the project. The applicant need to improve the justification/context of the value of this work to the angler and the risk to the fishery or larger project if RE funds are not approved. Scores included two 0s, two 1s, three 2s, and two 3s.

Specific Review Team Comments

Fish passage review and approval is required before any work occurs.

This is a small project with minimal benefits to the angler, at least it is not explained how this will benefit anglers other than to improve habitat thus population. It is a stretch to say this will provide a noticeable benefit to anglers and commercial fishermen. While restoration projects are beneficial to T&E and game species, the benefits are difficult to measure especially in terms of harvest or opportunity.

Upper Oak Ranch is a District Priority and this projects fits well within the other projects recently completed and those in the queue for restoration.

The best connection to the angler is some improvement to Coho population, mostly from passage improvements, but there will likely be no noticeable improvement to any fishery.

This is a small request with good funding from other sources. However, most of the other funds are for stream crossings that may already be completed. RE is being asked to pay \$2,276 for admin costs and \$8,950 for contracting to buy \$7,200 worth of trees. This does not seem like an effective use of funds given the expected benefits to anglers from this effort.

Specific Review Team Questions

30 trees are being cut into 90 pieces. will each tree be long enough to be cut into three lengths that still meet required length?

The project trees coming from ODF lands are large whole conifer trees with limbs and root wads attached that are 24" to 36" dbh and 100'+ tall. The stream bank full width for Archibald within the treatment reach is 16' avg., thus each whole tree processed into 1/3rd lengths will yield 3 - 35'+/- length logs (one log with the root wad attached and two additional logs w/ their associated limbs attached) and all 3 pieces being 2X more in length than the stream bank full width. Note: The protocol for LWD pieces to use in stream restoration and to be considered "KEY" pieces is to use logs that are a minimum of 2X bankfull width (1.5X bankfull for logs with rootwad attached) and 16" dbh minimum for streams that are 10 to 20' bank full width.

Why do we have to buy trees from ODF, if this is an Oregon Plan measure? In many cases ODF donates the trees as match? Are there any other timber sales locally that could provide harvest and delivery and reduce costs?

ODF can only donate trees for projects that occur on public lands, otherwise they are beholden to the State of Oregon to generate revenue coming from the public forest resource.

Weyerhaeuser has trees to donate meeting project specifications located near Seaside Oregon -

approximately 55 miles away, but the estimated cost to contract, process, and haul this material from that location surpasses the estimated cost to purchase, contract, process, and haul the same type of material from nearby ODF lands by nearly two fold.

Please set more context on this stream and its contribution to the larger system and fisheries in general. What species and life stages use it? What percentage of habitat, spawning, or other production in the basin occurs in this stream?

Archibald Creek is the largest tributary within the Oak Ranch Creek sub-basin and provides over two miles of essential spawning/rearing habitat (at all life stages) for Coho salmon, Cutthroat Trout, and Winter Steelhead. This stream constitutes approximately 15% of the overall habitat available within the Oak Ranch Creek watershed for these fish to reproduce in. Overall, Oak Ranch Creek is amongst the top 5 salmon producing streams in the Upper Nehalem River.

Explain whether or not the crossings have already been removed or completed. Are these crossings already funded (even if partially) by other grants?

One of the two crossings impeding fish passage along Archibald Creek has been replaced. Due to the December 2015 flood events, this past summer (2016) – the Weyerhaeuser property mainline crossing was replaced at the owner's expense (\$90,000.00) in order to keep the road open for forest operations. This was not the original plan, as the two crossings and LWD placements were all being packaged as cost share amongst multiple partners. Subsequently, as a result of the flood events, Columbia County (owner of the 2nd crossing located on Apiary Road) is the recipient FEMA funding (\$300,000+) to replace their crossing. As a result of the flood response we now are in a position to only seek the R&E funds for the LWD portion of project.

- Prior to the December 2015 flood events, UNWC was planning to apply for OWEB and ODFW funds in partnership with Weyerhaeuser and Columbia County Road Department for the 2 Archibald Creek stream crossing replacements and the LWD installations. We are fortunate that FEMA and Weyerhaeuser resources were made available as a result of the declared flood emergency.

It seems like this request is an add on to the larger project and may not be necessary to have a successful project. Worst case is only 90 pieces of wood would not be in the stream. Please explain the risks to the fishery, project, or watershed if RE funding was not provided?

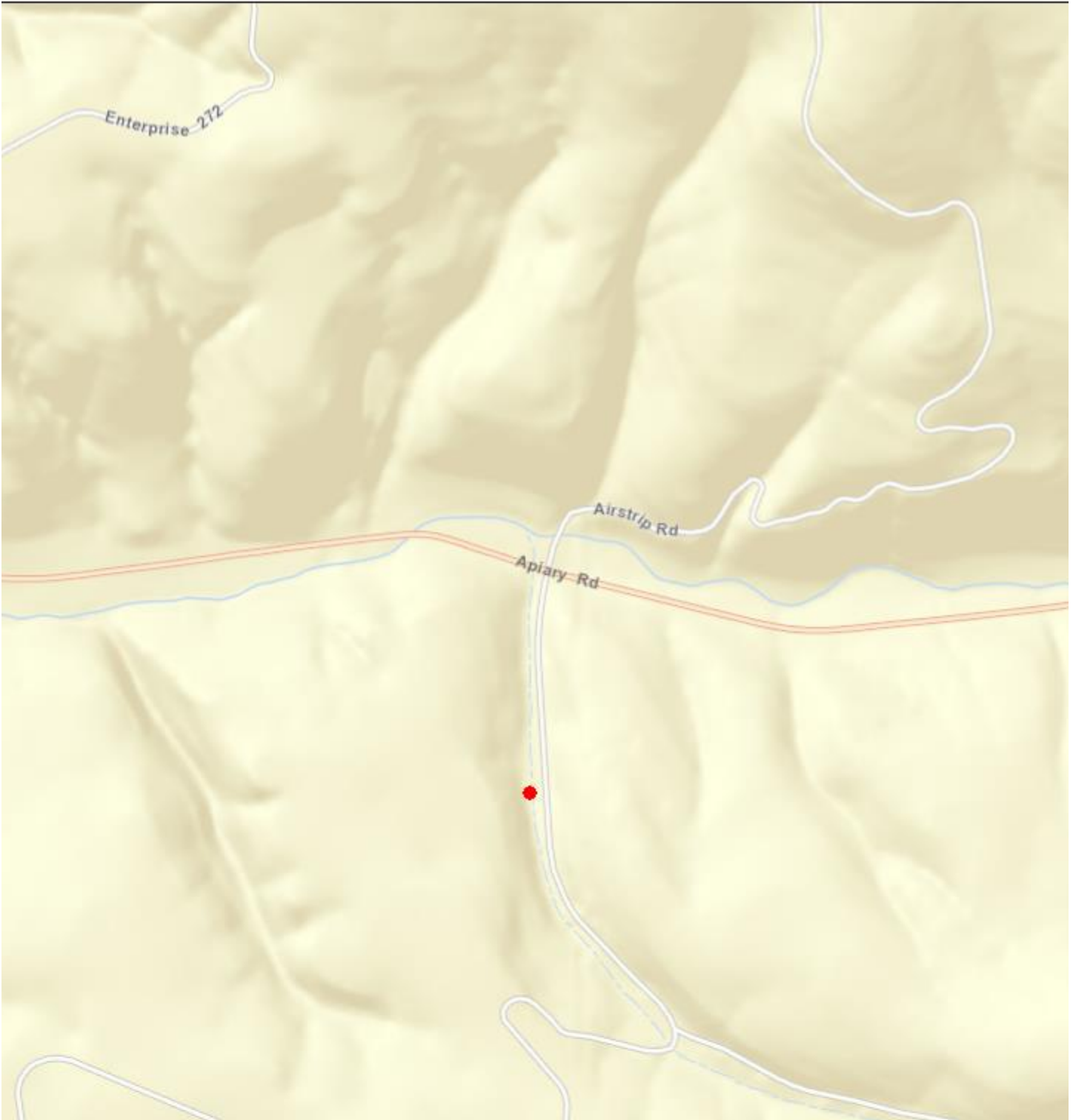
This project is an essential part of a holistic watershed enhancement approach that seeks to restore historical fish passage 100% and enhance stream/riparian habitat with large wood debris throughout the range of habitat that is currently below ODFW benchmarks for "key" large wood pieces. To put this in perspective, due to the lack of "key" large wood pieces in Archibald Creek, the December 2015 floods removed large quantities of stream bed materials out of the system, further incising the stream channel down to bedrock, degrading the stream/floodplain habitat, disconnecting the stream channel from the adjacent flood plain and associated off channel habitats, and compromising the two stream channel/road crossings to the point that both had/have to be replaced. Without the addition of the prescribed large wood treatments, the essential salmonid habitat in Archibald Creek will continue to degrade and become less productive for fish use. R&E funding is essential to the successful implementation of this project for the following primary reasons:

- o Nearby ODF trees are currently undervalued at current market prices of \$500.00 and thus the price is locked in now at the present rate of \$250 each. This price is subject to increase if the project has to be pushed out further into the future.
- o \$10,000.00 in OWEB Small project grant funds have been awarded for this project, and thus ensure the R&E funds used to purchase and deliver the materials before the June 30, 2017

deadline will be installed during the in-stream work window this summer 2017. The North Coast Small Grant team enthusiastically supports the project.

- o The Nehalem Strategic Action Plan team supports this type of salmon habitat improvement project in priority sub-basins to aid in assuring higher survival rates for juvenile salmon, steelhead and trout.
- o Increasing the quality of summer and winter spawning, rearing and refuge habitat with-in the Oak Ranch Creek basin directly benefits aquatic species affected by high sediment laden winter flows and extremely low temperature limited summer flows know to occur in the mainstream upper Nehalem. -----
- o Oak Ranch Creek including Archibald Creek provide excellent angling opportunities for Cutthroat Trout and Winter Steelhead (catch and release).

Project Map



Additional Files

Budget Information

Maps

[Archibald - LWD Site map w/photos](#)

[Project Map](#)

Map image of project location

Photos

[Archibald - crossing - after](#)

[Archibald - crossing - before](#)

Photo - Archibald Crossing - after

Photo - Archibald Crossing - before

Design Information

Management Plans and Supporting Documents

[Racial and Ethnic - sig](#)

Racial and Ethnic Impact - signature

Permits and Reviews

Partnerships

[UNWC - MOA - Weyerhaeuser](#)

UNWC/Weyerhaeuser - Memorandum of Agreement - Restoration -

Public Comment

[ODFW LOS Archibald](#)

ODFW Letter of Support

Administrative Documents

[UNWC - 501 \(c\)3 - Status](#)

Certification - IRS - UNWC - 501(c)3

Completion Report

A completion report has not been submitted for this project.