



2010

WASHINGTON STATE Joint Aquatic Resources Permit Application (JARPA) Form¹

USE BLACK OR BLUE INK TO ENTER ANSWERS IN WHITE SPACES BELOW.



US Army Corps
of Engineers®
Seattle District

AGENCY USE ONLY

Date received: _____

Agency reference #: _____

Tax Parcel #(s): _____

Part 1—Project Identification

1. Project Name (A name for your project that you create. Examples: Smith's Dock or Seabrook Lane Development) [\[help\]](#)²

Modrow Trap Upgrade

Part 2—Applicant

The person or organization responsible for the project. [\[help\]](#)

2a. Name (Last, First, Middle) and Organization (if applicable)

DeLaCruz, Michael; Washington Department of Fish and Wildlife

2b. Mailing Address (Street or PO Box)

600 Capitol Way N.

2c. City, State, Zip

Olympia, WA 98501-1091

2d. Phone (1)

(360) 902-8361

2e. Phone (2)

()

2f. Fax

(360) 902-2156

2g. E-mail

Michael.DeLaCruz@dfw.wa.gov

Part 3—Authorized Agent or Contact

Person authorized to represent the applicant about the project. (Note: Authorized agent(s) must sign 11b. of this application.) [\[help\]](#)

3a. Name (Last, First, Middle) and Organization (if applicable)

Turner, Daniel P.; R2 Resource Consultants, Inc.

3b. Mailing Address (Street or PO Box)

15250 NE 95th Street

¹Additional forms may be required for the following permits:

- If your project may qualify for Department of the Army authorization through a Regional General Permit (RGP), contact the U.S. Army Corps of Engineers for application information (206) 764-3495.
- If your project might affect species listed under the Endangered Species Act, you will need to fill out a Specific Project Information Form (SPIF) or prepare a Biological Evaluation. Forms can be found at http://www.nws.usace.army.mil/PublicMenu/Menu.cfm?sitename=REG&pagename=mainpage_ESA
- If you are applying for an Aquatic Resources Use Authorization you will need to fill out and submit an Application for Authorization to Use State-Owned Aquatic Lands form to DNR, which can be found at http://www.dnr.wa.gov/Publications/aqr_use_auth_app.doc
- Not all cities and counties accept the JARPA for their local Shoreline permits. If you think you will need a Shoreline permit, contact the appropriate city or county government to make sure they will accept the JARPA.

²To access an online JARPA form with [help] screens, go to

http://www.epermitting.wa.gov/site/alias__resourcecenter/jarpa_jarpa_form/9984/jarpa_form.aspx.

For other help, contact the Governor's Office of Regulatory Assistance at 1-800-917-0043 or help@ora.wa.gov.

3c. City, State, Zip			
Redmond, WA 98052			
3d. Phone (1)	3e. Phone (2)	3f. Fax	3g. E-mail
(425) 556-1288		(425) 556-1290	dturner@r2usa.com

Part 4–Property Owner(s)

Contact information for people or organizations owning the property(ies) where the project will occur. [\[help\]](#)

- Same as applicant. (Skip to Part 5.)
- Repair or maintenance activities on existing rights-of-way or easements. (Skip to Part 5.)
- There are multiple property owners. Complete the section below and fill out [JARPA Attachment A](#) for each additional property owner.

4a. Name (Last, First, Middle) and Organization (if applicable)			
4b. Mailing Address (Street or PO Box)			
4c. City, State, Zip			
4d. Phone (1)	4e. Phone (2)	4f. Fax	4g. E-mail
()	()	()	

Part 5–Project Location(s)

Identifying information about the property or properties where the project will occur. [\[help\]](#)

- There are multiple project locations (e.g., linear projects). Complete the section below and use [JARPA Attachment B](#) for each additional project location.

5a. Indicate the type of ownership of the property. (Check all that apply.) [help]
<input checked="" type="checkbox"/> State Owned Aquatic Land (If yes or maybe, contact the Department of Natural Resources (DNR) at (360) 902-1100) <input type="checkbox"/> Federal <input checked="" type="checkbox"/> Other publicly owned (state, county, city, special districts like schools, ports, etc.) <input type="checkbox"/> Tribal <input type="checkbox"/> Private
5b. Street Address (Cannot be a PO Box. If there is no address, provide other location information in 5p.) [help]
161 Modrow Road
5c. City, State, Zip (If the project is not in a city or town, provide the name of the nearest city or town.) [help]
Kalama, WA 98625
5d. County [help]
Cowlitz

5e. Provide the section, township, and range for the project location. [help]			
¼ Section	Section	Township	Range
SW	32	7N	1W
5f. Provide the latitude and longitude of the project location. [help]			
<ul style="list-style-type: none"> Example: 47.03922 N lat. / -122.89142 W long. (NAD 83) 			
46.04626 N lat. / -122.83844 W long. (NAD 83)			
5g. List the tax parcel number(s) for the project location. [help]			
<ul style="list-style-type: none"> The local county assessor's office can provide this information. 			
6089502			
5h. Contact information for all adjoining property owners. (If you need more space, use JARPA Attachment C.) [help]			
Name	Mailing Address		Tax Parcel # (if known)
LEDGETT RECA LAVERNE	PO BOX 400		60894
	Kalama, WA 98625		
JOHNSON JENNY M	457 Kalama River Road		6090102
	Kalama, WA 98625		
JOHNSON JENNY	457 Kalama River Road		60905
	Kalama, WA 98625		
5i. List all wetlands on or adjacent to the project location. [help]			
There is one small (0.15-acre), seasonally inundated, Palustrine shrub scrub wetland near, but not directly adjacent to, the project location. Specifically, this wetland is situated on the hydraulic right bank of the Kalama River, across from the existing Modrow Trap and just upstream and landward of the terminus of the existing weir (Photo 1, Appendix A).			
5j. List all waterbodies (other than wetlands) on or adjacent to the project location. [help]			
Kalama River			
5k. Is any part of the project area within a 100-year flood plain? [help]			
<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Don't know			
5l. Briefly describe the vegetation and habitat conditions on the property. [help]			

The property is characterized by two distinct areas: the Kalama River and an upland area on the hydraulic left bank of the river. The riverine habitat is characterized by cobble and gravel substrates and moderate depth and flow conditions and serves as a migration route for several salmonid species including: hatchery and wild spring and fall Chinook salmon, hatchery and wild early- and late-run coho salmon, hatchery and wild summer and winter steelhead, wild chum salmon, and wild coastal cutthroat trout. The upland area consists primarily of a gravel and dirt lot with relatively sparse grasses and herbaceous vegetation (Photo 2, Appendix A). There is single deciduous tree (Oregon ash) located in the upland area within the property boundary.

There is also vegetative cover on the steep, rocky hydraulic left bank of the river upstream and downstream of the existing trap. On the downstream side of the trap, bank vegetation consists of two deciduous trees (a willow and a big leaf maple) and herbaceous plants, such as willow shrubs, grasses, thistle, and blackberry (Photos 3 and 4, Appendix A). On the upstream side of the trap, the small amount of bank vegetation consists primarily of blackberry and other herbaceous grasses and plants (Photo 5, Appendix A).

The hydraulic right bank of the Kalama River within the property boundary is characterized by cobble, gravel, and silt substrates with sparse herbaceous vegetation, such as grasses, willow shrub, and thistle (Photo 1, Appendix A). A small portion of the shrub scrub wetland described in 5i above is located partially within the property boundary on the hydraulic right bank of the Kalama River.

5m. Describe how the property is currently used. [\[help\]](#)

The property is currently used as a fish trapping facility. From one to several times per day, salmon that enter Modrow Trap are crowded, hoisted into a fish transport truck, and transported to the Kalama Hatchery for sorting. Sorted fish are either held for broodstock or returned to the Kalama River. The trap is operated from August 15 through October 31.

5n. Describe how the adjacent properties are currently used. [\[help\]](#)

The adjacent properties are rural residential with some livestock grazing.

5o. Describe the structures (above and below ground) on the property, including their purpose(s). [\[help\]](#)

All structures on the property are associated with the operation of Modrow Trap. The structures include a picket weir, the trap, and hoist assembly system, as shown on Figure 2, Appendix B. The picket weir, which is installed annually by WDFW from August 1 to October 15, is approximately 135 ft in length and extends from the trap entrance on the hydraulic left bank of the Kalama River to the opposite bank. The fixed portion of the weir is composed of wooden pickets (2x4's) supported by a timber frame and weighted by precast concrete blocks. A 20-ft long floating weir section, consisting of parallel 1-inch diameter PVC pipes with 1-inch clear spacing, is positioned in the center of the channel. The floating weir is referred to as a "resistance barrier". It is hinged and anchored to the river bed at the upstream edge, allowing enough resistance and buoyancy to prevent fish passage upstream while at the same time allowing boats to pass downstream. The weir directs upstream migrants to the trap entrance. The base of the trap is concrete, which supports concrete columns and steel panels on the outside wall (45 ft in length, 16 ft in width). Fish enter into the trap and remain in the trap until they are crowded into a fish hopper located at the upstream end of the trap. Crowding is conducted using a manually operated steel crank system, which is mounted to the top of the concrete walls of the trap. The hoist framework assembly is constructed of steel. An electrically powered hoist lifts the fish hopper from the upstream end of the trap to the truck loading area.

5p. Provide driving directions from the closest highway to the project location, and attach a map. [\[help\]](#)

From I-5, take exit 32 and head east on Kalama River Road for approximately 1.3 miles. Turn right onto Modrow Road. Go for approximately 0.2 miles. Turn right onto the gravel access road and proceed to the site. See the vicinity map provided on Figure 1, Appendix B.

Part 6–Project Description

6a. Summarize the overall project. You can provide more detail in 6d. [\[help\]](#)

The Modrow Trap is operated to collect fall Chinook salmon, coho salmon, and summer steelhead for use as broodstock in the Kalama Falls hatchery programs. This hatchery collection trap has been operated since circa 1960 and is in need of upgrades to improve the attraction, collection, handling, sorting, and transport conditions for fish. The proposed upgrades include an expanded trap with concentration flow to increase fish attraction, increased holding capacity, a new automatic crowder system, a fish pescalator to move fish from the trap to a new elevated sorting platform, and fish sorting tubes. The existing footprint and structure was used as the basis for the design in an effort to work within the space limitations of the site, to minimize in-river work for the upgrade, and to minimize cost. In addition to expanding the trap capacity, a fish lift vault adjacent to the existing trap will be constructed in order to accommodate the sloping angle of the pescalator from the trap to the sorting platform. Bank modifications and stabilization are also included as part of this project to create the hydraulic conditions necessary for the trap to function as designed.

6b. Indicate the project category. (Check all that apply) [\[help\]](#)

- Commercial
 Residential
 Institutional
 Transportation
 Recreational
 Maintenance
 Environmental Enhancement

6c. Indicate the major elements of your project. (Check all that apply) [\[help\]](#)

- | | | | |
|--------------------------------------------------------|-------------------------------------|----------------------------------------------|-------------------------------------|
| <input type="checkbox"/> Aquaculture | <input type="checkbox"/> Culvert | <input type="checkbox"/> Float | <input type="checkbox"/> Road |
| <input checked="" type="checkbox"/> Bank Stabilization | <input type="checkbox"/> Dam / Weir | <input type="checkbox"/> Geotechnical Survey | <input type="checkbox"/> Scientific |

<input type="checkbox"/> Boat House	<input type="checkbox"/> Dike / Levee / Jetty	<input type="checkbox"/> Land Clearing	Measurement Device
<input type="checkbox"/> Boat Launch	<input type="checkbox"/> Ditch	<input type="checkbox"/> Marina / Moorage	<input type="checkbox"/> Stairs
<input type="checkbox"/> Boat Lift	<input type="checkbox"/> Dock / Pier	<input type="checkbox"/> Mining	<input type="checkbox"/> Stormwater facility
<input type="checkbox"/> Bridge	<input type="checkbox"/> Dredging	<input type="checkbox"/> Outfall Structure	<input type="checkbox"/> Swimming Pool
<input type="checkbox"/> Bulkhead	<input type="checkbox"/> Fence	<input type="checkbox"/> Piling	<input type="checkbox"/> Utility Line
<input type="checkbox"/> Buoy	<input type="checkbox"/> Ferry Terminal	<input type="checkbox"/> Retaining Wall (upland)	
<input type="checkbox"/> Channel Modification	<input type="checkbox"/> Fishway		

Other: Fish Trap, Fish Lift Vault, and Fish Sorting Facility

6d. Describe how you plan to construct each project element checked in 6c. Include specific construction methods and equipment to be used. [\[help\]](#)

- Identify where each element will occur in relation to the nearest waterbody.
- Indicate which activities are within the 100-year flood plain.

Fish Trap and Fish Lift Vault

Construction of the fish trap and fish lift vault will occur mostly below the ordinary high water (OHW) line (elevation of 18 ft) within an area dewatered within a coffer cell constructed by the use of “super sacks”. The super sacks will be placed by a mobile crane with a boom length adequate to construct the coffer cell from the top of the bank. The top of the super sack coffer cell system will be at a minimum elevation of 16 ft, and the area dewatered within the coffer cell area will be approximately 2,700 sf (i.e., 20-ft wide by 135-ft long). Water within the coffer cell impoundment will be pumped out of the dewatered area to a sediment settling facility on the adjacent property or to a portable storage tank for offsite disposal at an approved facility. The fish lift vault is a precast concrete vault designed to be attached perpendicularly to the landside wall of the trap. The opening in the trap wall will align with the open end of the concrete vault. The excavation for and the placement of the vault will occur before the wall opening is constructed. Excavation for the vault will be completed using an excavator, front end loader, and dump truck. The perimeter of the trap wall opening will be saw cut, and the concrete removed and deposited in an approved facility. The fish trap expansion will be conducted by installing a large steel plate over the existing slab that extends downstream from the existing trap. Concrete will be pumped into the void below the plate and above the stream bed through holes in the plate after it is installed, and will be retained within the perimeter of the steel plate footprint.

Bank Stabilization

There will be excavation of the bank upstream and downstream of the trap for placement of the bank stabilization measures, all within the coffer cell dewatered area. The embankment work will most likely be completed by a tracked excavator with a reach sufficient to excavate and place material from the top of slope.

Fish Sorting Facility

The fish sorting facility will be constructed on the landside of the concrete trap wall. The work will most likely be completed with a mobile crane, track hoe, front end loader, and dump truck.

All construction activities are within the 100-year floodplain.

6e. What are the start and end dates for project construction? (month/year) [\[help\]](#)

- If the project will be constructed in phases or stages, use [JARPA Attachment D](#) to list the start and end dates of each phase or stage.

Start date: 3/6/2012

End date: 8/1/2012

See JARPA Attachment D

6f. Describe the purpose of the project and why you want or need to perform it. [\[help\]](#)

The Modrow Fish Trap is operated for the attraction and collection of broodstock for Kalama Falls hatchery programs. Under current operation hatchery and wild fall Chinook salmon, coho salmon, and summer steelhead are captured in the trap, handled, and transported to Kalama Hatchery where they are held for sorting. At the time of sorting, broodstock are moved to holding ponds, and fish in excess of broodstock needs are transported back to the Kalama River for release. Surplus hatchery fish are sacrificed for nutrient enrichment of streams or food bank donations.

The existing trap is undersized with respect to broodstock collection needs; thus, up to five trips per day are needed to remove the fish from the trap and transport them to the hatchery. This has resulted in overcrowding both in the trap and in the hopper. Under these conditions fish may be delayed from entering the trap and some fish may jump or fall from the hopper during transition to the fish truck. In addition, resident fishes that are not to be held for broodstock may be inadvertently collected, handled, and transported to the hatchery and back to the river prior to release. These events are undesirable and have potential negative impacts on fish.

The purpose of the Modrow Trap Upgrade is to improve holding, sorting, and transport conditions for both hatchery and wild fish entering Modrow Trap. Specifically, the new facility will reduce impacts to both hatchery and wild fish associated with fish collection, handling, and transport. The expanded Modrow Trap will result in more optimal holding conditions. Trap upgrades also include an automated crowder with a vertical crowder floor that will encourage fish into a pescalator. Fish exiting the pescalator pass into a simple sorting facility that combines a DC electro-anesthesia system with hand-wand coded wire tag (CWT) detection and manual sorting. This onsite fish sorting facility eliminates the need for transporting all captured fish to the Kalama Falls Hatchery. Instead only fish intended for the hatchery are transported, thus reducing unnecessary negative impacts associated with fish transport. Sorting tubes will be used to: 1. move fish from the sorting platform to fish transport trucks, 2. return fish back to the Kalama River immediately upstream of Modrow Trap, 3. return fish back to the trap for additional holding if necessary, and 4. move excess hatchery fish into totes for surplus. Final destinations for the surplus fish include nutrient enrichment and food bank donation. The habitat available to upstream migrating wild salmon and steelhead will be increased by quickly releasing wild fish upstream of the trap. The Modrow Trap and sorter upgrades were developed based on WDFW hatchery protocols for handling and sorting, and using NMFS guidelines and criteria published in 2008.

6g. Fair market value of the project, including materials, labor, machine rentals, etc. [\[help\]](#)

\$1,270,000 (construction costs only; per the 30% design submittal)

6h. Will any portion of the project receive federal funding? [\[help\]](#)

- If yes, list each agency providing funds.

Yes No Don't know

Mitchell Act funding through NOAA Fisheries.

Not applicable.

Part 7–Wetlands: Impacts and Mitigation

- Check here if there are wetlands or wetland buffers on or adjacent to the project area.
(If there are none, skip to Part 8.) [\[help\]](#)

7a. Describe how the project has been designed to avoid and minimize adverse impacts to wetlands. [\[help\]](#)

Not applicable

The proposed project will be conducted in a manner that will avoid any impacts to the small wetland (as described in 5i above) on the hydraulic right bank of the Kalama River. Specifically, all project work will be confined to the hydraulic left side of the river, within 25 ft from the top of the left bank, and to the upland area adjacent to the left bank (Figure 3, Appendix B). Construction will be conducted in the dry through the use of a cofferdam that will isolate the project site from the hydraulic right bank and the existing wetland. All needed construction equipment will be able to access the project site from the left bank via Modrow Road. Cranes and excavators will work from the upland area on the land side of the existing trap. Excavators will work above the excavation with upslope digging. Additional construction details are provided in 6d above.

7b. Will the project impact wetlands? [\[help\]](#)

Yes No Don't know

7c. Will the project impact wetland buffers? [\[help\]](#)

Yes No Don't know

7d. Has a wetland delineation report been prepared? [\[help\]](#)

- If yes, submit the report, including data sheets, with the JARPA package.

Yes No

7e. Have the wetlands been rated using the Western Washington or Eastern Washington Wetland Rating System? [\[help\]](#)

- If yes, submit the wetland rating forms and figures with the JARPA package.

Yes No Don't know

7f. Have you prepared a mitigation plan to compensate for any adverse impacts to wetlands? [\[help\]](#)

- If yes, submit the plan with the JARPA package and answer 7g.
- If No, or Not applicable, explain below why a mitigation plan should not be required.

Yes No Not applicable

A mitigation plan is not necessary, because there will be no wetland impacts.

7g. Summarize what the mitigation plan is meant to accomplish, and describe how a watershed approach was used to design the plan. [\[help\]](#)

Not applicable.

7h. Use the table below to list the type and rating of each wetland impacted; the extent and duration of the impact; and the type and amount of mitigation proposed. Or if you are submitting a mitigation plan with a similar table, you can state (below) where we can find this information in the plan. [\[help\]](#)

Activity (fill, drain, excavate, flood, etc.)	Wetland Name ¹	Wetland type and rating category ²	Impact area (sq. ft. or Acres)	Duration of impact ³	Proposed mitigation type ⁴	Wetland mitigation area (sq. ft. or acres)
Not applicable.						

¹ If no official name for the wetland exists, create a unique name (such as "Wetland 1"). The name should be consistent with other project documents, such as a wetland delineation report.

² Ecology wetland category based on current Western Washington or Eastern Washington Wetland Rating System. Provide the wetland rating forms with the JARPA package.

³ Indicate the days, months or years the wetland will be measurably impacted by the activity. Enter "permanent" if applicable.

⁴ Creation (C), Re-establishment/Rehabilitation (R), Enhancement (E), Preservation (P), Mitigation Bank/In-lieu fee (B)

Page number(s) for similar information in the mitigation plan, if available: _____

7i. For all filling activities identified in 7h., describe the source and nature of the fill material, the amount in cubic yards that will be used, and how and where it will be placed into the wetland. [\[help\]](#)

Not applicable.

7j. For all excavating activities identified in 7h., describe the excavation method, type and amount of material in cubic yards you will remove, and where the material will be disposed. [\[help\]](#)

Not applicable.

Part 8—Waterbodies (other than wetlands): Impacts and Mitigation

In Part 8, "waterbodies" refers to non-wetland waterbodies. (See Part 7 for information related to wetlands.) [\[help\]](#)

Check here if there are waterbodies on or adjacent to the project area. (If there are none, skip to Part 9.)

8a. Describe how the project is designed to avoid and minimize adverse impacts to the aquatic environment. [\[help\]](#)

Not applicable

Impacts to the Kalama River that may occur as a result of project construction will be avoided and minimized by working within the existing facility footprint, by conducting all project work in the dry, and through the use of Temporary Erosion and Sediment Control (TESC) measures and other best management practices. A cofferdam will be used to isolate the project area in the river. The cofferdam, which will have a minimum elevation of 16 ft (Figure 2, Appendix B), will be completely sealed to prevent concrete or other deleterious materials from leaching into the river, and all cofferdam materials will be removed upon project completion. In addition, all waste materials (e.g., construction debris, silt) shall be deposited above the limits of floodwater in an approved upland disposal site. Wastewater from the project activities and water removed from the work area will be routed to an upland area above the OHW line to allow for the removal of fine sediment and contaminants from the water prior to discharge. Maintenance and fueling of construction equipment shall be performed in a manner that will minimize potential contamination of stormwater and adjacent waterways. Cranes and excavators will work from the upland area on the land side of the existing trap. Excavators will work above the excavation with upslope digging. Excavated material that will not be used for fill will be placed directly into trucks and hauled offsite. These and other TESC measures are described on Sheet 7, Appendix D. Additional detail regarding the required measures will be described in the contract specifications (01530 Protection and Restoration of Existing Facilities, 01560 Temporary Environmental Controls, 02140 Dewatering, and 02268 Erosion Control Barrier). Additional measures include requirements for control of runoff from the project site, proper treatment and disposal of the runoff, protection of existing facilities, design of erosion control barrier, and other best management practices.

In the long-term, the completed project will have beneficial impacts on the aquatic environment. The bank stabilization element of the project, as described in Section 6 above, will prevent stream bank erosion from occurring in the project vicinity, and operation of the upgraded trap will minimize impacts to fish utilizing the Kalama River, as described in the attached Biological Assessment (Appendix C).

8b. Will your project impact a waterbody or the area around a waterbody? [\[help\]](#)

Yes No

8c. Have you prepared a mitigation plan to compensate for the project's adverse impacts to non-wetland waterbodies? [\[help\]](#)

- If **yes**, submit the plan with the JARPA package and answer 8d.
- If **No, or Not applicable**, explain below why a mitigation plan should not be required.

Yes No Not applicable

A mitigation plan is not be required, because the project may, but is not likely to, adversely impact the Kalama River.

8d. Summarize what the mitigation plan is meant to accomplish. Describe how a watershed approach was used to design the plan.

- If you already completed 7g., you do not need to restate your answer here. [\[help\]](#)

Not applicable.

8e. Summarize impact(s) to each waterbody in the table below. [\[help\]](#)

Activity (clear, dredge, fill, pile)	Waterbody name ¹	Impact location ²	Duration of impact ³	Amount of material to be placed in or	Area (sq. ft. or linear ft.) of
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drive, etc.)				removed from waterbody	waterbody directly affected
U/S bank excavation	Kalama R	embankment below OHW line	3 days	102 cy	25 lf
U/S bank excavation	Kalama R	embankment above OHW line	1 day	44 cy	25 lf
D/S bank excavation	Kalama R	embankment below OHW line	3 days	234 cy	33 lf
D/S bank excavation	Kalama R	embankment above OHW line	1 day	135 cy	33 lf
Fish lift vault excavation	Kalama R	adjacent to river below OHW line	2 days	67 cy	N/A
Fish lift vault excavation	Kalama R	adjacent to river above OHW line	1 day	18 cy	N/A
Site grading excavation	Kalama R	adjacent to river (sorting/truck loading area) above OHW	8 days	736 cy	N/A
Total Excavation	Kalama R			1,336 cy total; 403 cy removed below OHW	
U/S bank backfill	Kalama R	embankment below OHW line	3 days	100 cy	25 lf
U/S bank backfill	Kalama R	embankment above OHW line	2 day	41 cy	25 lf
D/S bank backfill	Kalama R	embankment below OHW line	3 days	93 cy	33 lf
D/S bank backfill	Kalama R	embankment above OHW line	1 day	17 cy	33 lf
Fish lift vault backfill	Kalama R	adjacent to river below OHW line	2 day	44 cy	N/A
Fish lift vault backfill	Kalama R	adjacent to river above OHW line	1 day	6 cy	N/A
Site grading backfill	Kalama R	adjacent to river (sorting/truck loading area) above OHW	4 days	255 cy	N/A
Fill to support steel plate	Kalama R	in-river	1 days	5 cy	155 sf

Total Fill	Kalama R			319 cy total; 198 cy below OHW	
<p>Note: All impacts identified above will occur within 25 ft of the top of the hydraulic left bank and within the 100-yr floodplain.</p>					
<p>¹ If no official name for the waterbody exists, create a unique name (such as "Stream 1") The name should be consistent with other documents provided.</p>					
<p>² Indicate whether the impact will occur in or adjacent to the waterbody. If adjacent, provide the distance between the impact and the waterbody and indicate whether the impact will occur within the 100-year flood plain.</p>					
<p>³ Indicate the days, months or years the waterbody will be measurably impacted by the work. Enter "permanent" if applicable.</p>					
<p>8f. For all activities identified in 8e., describe the source and nature of the fill material, amount (in cubic yards) you will use, and how and where it will be placed into the waterbody. [help]</p>					
<p>The types of fill material to be used for this project include: gravel/soil mix, large rock, and precast concrete, and cast-in-place concrete. The gravel/soil mix will be obtained from the onsite excavation activities identified in 8e. Large rock will be obtained from a local quarry, precast concrete from a local manufacturer, and cast-in-place concrete from a local batch plant.</p> <p>The gravel/soil mix will be used as fill for all backfill activities identified in 8e (i.e., all fill activities with the exception of the in-river filling needed to support the large steel plate that will be installed at the downstream end of the upgraded fish trap). The total amount of gravel/soil mix to be used for backfill is 595 cy, with less than 193 cy of this being placed in the river (below OHW). A tracked excavator working from the top of the left bank will be used to place the gravel/soil mix.</p> <p>Large rock will be used for the upstream and downstream bank stabilization above and below the OHW line. The total volume of large rock to be used is approximately 262cy. The large rock will be placed using a tracked excavator working from the top of bank.</p> <p>Precast concrete interlocking ("ecology") blocks will be used for the top of the downstream bank stabilization and a precast concrete vault for the fish lift vault. The ecology blocks will be placed above the large rock to stabilize the steep bank downstream of the fish trap, while allowing adequate area for truck flow to the sorting area. The fish lift vault is a precast concrete box that will be installed by excavating around the vault walls while lowering it into place occur simultaneously, essentially "digging in" as done in pipeline construction with a trench box. The ecology blocks and vault will be placed using a tracked excavator. The total volume of precast concrete to be used for this project is 6 cy.</p> <p>Cast-in-place concrete will be pumped into the void between the bottom of the steel plate and the top of the stream bed to support the plate. The plate will become the floor of the trap at the downstream end. The amount of concrete fill needed to support the steel plate is 5 cy. The concrete fill will be placed in the dry area within the coffer cell. Approximately 5cy of concrete will be used for the floor of the fish lift vault.</p>					
<p>8g. For all excavating or dredging activities identified in 8e., describe the method for excavating or dredging, type and amount of material you will remove, and where the material will be disposed. [help]</p>					
<p>For all excavating activities identified in 8e, the type of material to be excavated is almost entirely gravel/soil mix. The existing large boulders on the bank upstream and downstream of the fish trap will need to be removed for the bank modifications, but will later be replaced for stabilization. The total amount of material to be excavated is 1,336 cy, with 403 cy of this being removed from below the OHW during bank excavation. Excavated material will be used as backfill (319 cy), with the remainder of the gravel/soil mix (1,017 cy) being hauled offsite to an approved upland disposal site. All excavating activities will be conducted using a tracked excavator, wheeled loader, and dump truck positioned at the top of the bank.</p>					

Part 9—Additional Information

Any additional information you can provide helps the reviewer(s) understand your project. Complete as much of this section as you can. It is ok if you cannot answer a question.

9a. If you have already worked with any government agencies on this project, list them below. [\[help\]](#)

Agency Name	Contact Name	Phone	Most Recent Date of Contact
Cowlitz County	Steve Zaske	(360) 577-3052 ext. 6674	10/14/2011
Cowlitz County	Nathan Takko	(360) 577-3052 ext. 6669	10/14/2011
WDFW	Steve West	(360) 906-6720	9/9/2011
WDFW	Bob Zigler	(360) 902-2575	9/9/2011
USACE	Danette Guy	(360) 906-7274	9/15/2011

9b. Are any of the wetlands or waterbodies identified in Part 7 or Part 8 on the Washington Department of Ecology's 303(d) List? [\[help\]](#)

- If **yes**, list the parameter(s) below.
- If you don't know, use Washington Department of Ecology's Water Quality Assessment tools at: <http://www.ecy.wa.gov/programs/wq/303d/>.

Yes No

Kalama River
 Temperature (Category 5)
 Fecal Coliform (Category 2)
 Ammonia-N (Category 1)
 pH (Category 1)

9c. What U.S. Geological Survey Hydrological Unit Code (HUC) is the project in? [\[help\]](#)

- Go to <http://cfpub.epa.gov/surf/locate/index.cfm> to help identify the HUC.

Lower Columbia-Clatskanie Watershed - 17080003

9d. What Water Resource Inventory Area Number (WRIA #) is the project in? [\[help\]](#)

- Go to <http://www.ecy.wa.gov/services/gis/maps/wria/wria.htm> to find the WRIA #.

WRIA #27 (Lewis)

9e. Will the in-water construction work comply with the State of Washington water quality standards for turbidity? [\[help\]](#)

- Go to <http://www.ecy.wa.gov/programs/wq/swqs/criteria.html> for the standards.

Yes No Not applicable

9f. If the project is within the jurisdiction of the Shoreline Management Act, what is the local shoreline environment designation? [\[help\]](#)

- If you don't know, contact the local planning department.
- For more information, go to: http://www.ecy.wa.gov/programs/sea/sma/laws_rules/173-26/211_designations.html.

Rural Urban Natural Aquatic Conservancy Other _____

9g. What is the Washington Department of Natural Resources Water Type? [\[help\]](#)

- Go to http://www.dnr.wa.gov/BusinessPermits/Topics/ForestPracticesApplications/Pages/fp_watertyping.aspx for the Forest Practices Water Typing System.

<input checked="" type="checkbox"/> Shoreline <input type="checkbox"/> Fish <input type="checkbox"/> Non-Fish Perennial <input type="checkbox"/> Non-Fish Seasonal
9h. Will this project be designed to meet the Washington Department of Ecology’s most current stormwater manual? [help] • If no, provide the name of the manual your project is designed to meet.
<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Name of manual: Not applicable.
9i. If you know what the property was used for in the past, describe below. [help]
The property has been used for trapping and transporting hatchery fish since circa 1960. The proposed activity is a facility upgrade with continuation of existing use.
9j. Has a cultural resource (archaeological) survey been performed on the project area? [help] • If yes, attach it to your JARPA package.
<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
9k. Name each species listed under the federal Endangered Species Act that occurs in the vicinity of the project area or might be affected by the proposed work. [help]
Eulachon, Southern DPS (<i>Thaleichthys pacificus</i>) – Threatened Chinook salmon, Lower Columbia River ESU (<i>Oncorhynchus (=Salmo) tshawytscha</i>) – Threatened Chum salmon, Columbia River ESU (<i>Oncorhynchus (=Salmo) keta</i>) – Threatened Coho salmon, Lower Columbia River ESU (<i>Oncorhynchus (=Salmo) kisutch</i>) – Threatened Steelhead, Lower Columbia River DPS (<i>Oncorhynchus (=Salmo) mykiss</i>) – Threatened The Columbia River DPS for bull trout are listed for Cowlitz County but the only existing population is in the Lewis River, thus we do not expect that bull trout will be potentially affected by proposed work.
9l. Name each species or habitat on the Washington Department of Fish and Wildlife’s Priority Habitats and Species List that might be affected by the proposed work. [help]
Chinook salmon, occurrence/breeding Chum salmon, occurrence/migration Steelhead, occurrence/breeding Coho salmon, occurrence/breeding Coast resident cutthroat, occurrence/migration

Part 10–SEPA Compliance and Permits

Use the resources and checklist below to identify the permits you are applying for.

- Online Project Questionnaire at <http://apps.ecy.wa.gov/opus/>.
- Governor’s Office of Regulatory Assistance at (800) 917-0043 or help@ora.wa.gov.
- For a list of agency addresses to send your application, click on the “where to send your completed JARPA” at <http://www.epermitting.wa.gov>.

10a. Compliance with the State Environmental Policy Act (SEPA). (Check all that apply.) [\[help\]](#)

- For more information about SEPA, go to www.ecy.wa.gov/programs/sea/sepa/e-review.html.

<input type="checkbox"/> A copy of the SEPA determination or letter of exemption is included with this application.
<input checked="" type="checkbox"/> A SEPA determination is pending with <u>WDFW</u> (lead agency). The expected decision date is _____.
<input type="checkbox"/> I am applying for a Fish Habitat Enhancement Exemption. (Check the box below in 10b.) [help]
<input type="checkbox"/> This project is exempt (choose type of exemption below). <input type="checkbox"/> Categorical Exemption. Under what section of the SEPA administrative code (WAC) is it exempt? _____
<input type="checkbox"/> Other: _____
<input type="checkbox"/> SEPA is pre-empted by federal law.
10b. Indicate the permits you are applying for. (Check all that apply.) [help]
LOCAL GOVERNMENT
Local Government Shoreline permits: <input type="checkbox"/> Substantial Development <input type="checkbox"/> Conditional Use <input type="checkbox"/> Variance <input checked="" type="checkbox"/> Shoreline Exemption Type (explain): <u>Cowlitz County's Fish Habitat Enhancement Exemption</u>
Other city/county permits: <input type="checkbox"/> Floodplain Development Permit <input type="checkbox"/> Critical Areas Ordinance
STATE GOVERNMENT
Washington Department of Fish and Wildlife: <input checked="" type="checkbox"/> Hydraulic Project Approval (HPA) <input type="checkbox"/> Fish Habitat Enhancement Exemption
Washington Department of Ecology: <input checked="" type="checkbox"/> Section 401 Water Quality Certification
Washington Department of Natural Resources: <input checked="" type="checkbox"/> Aquatic Resources Use Authorization
FEDERAL GOVERNMENT
United States Department of the Army permits (U.S. Army Corps of Engineers): <input checked="" type="checkbox"/> Section 404 (discharges into waters of the U.S.) <input checked="" type="checkbox"/> Section 10 (work in navigable waters)
United States Coast Guard permits: <input type="checkbox"/> General Bridge Act Permit <input type="checkbox"/> Private Aids to Navigation (for non-bridge projects)

Part 11—Authorizing Signatures

Signatures are required before submitting the JARPA package. The JARPA package includes the JARPA form, project plans, photos, etc. [\[help\]](#)

11a. Applicant Signature (required) [\[help\]](#)

I certify that to the best of my knowledge and belief, the information provided in this application is true, complete, and accurate. I also certify that I have the authority to carry out the proposed activities, and I agree to start work only after I have received all necessary permits.

I hereby authorize the agent named in Part 3 of this application to act on my behalf in matters related to this application. MD (initial)

By initialing here, I state that I have the authority to grant access to the property. I also give my consent to the permitting agencies entering the property where the project is located to inspect the project site or any work related to the project. MD (initial)

Michael DeLaCruz, WDFW
Applicant Printed Name Michael A. DeLaCruz
Applicant Signature 11/3/2011
Date

11b. Authorized Agent Signature [\[help\]](#)

I certify that to the best of my knowledge and belief, the information provided in this application is true, complete, and accurate. I also certify that I have the authority to carry out the proposed activities and I agree to start work only after all necessary permits have been issued.

Daniel P Turner, R2 Resource Consultants, Inc
Authorized Agent Printed Name Dan P. Turner
Authorized Agent Signature 11/4/2011
Date

11c. Property Owner Signature (if not applicant). [\[help\]](#)
Not required if project is on existing rights-of-way or easements.

I consent to the permitting agencies entering the property where the project is located to inspect the project site or any work. These inspections shall occur at reasonable times and, if practical, with prior notice to the landowner.

MICHAEL A. DELACRUZ
Property Owner Printed Name Michael A. DeLaCruz
Property Owner Signature 11/3/2011
Date
For WASHINGTON DEPT OF FISH & WILDLIFE

18 U.S.C §1001 provides that: Whoever, in any manner within the jurisdiction of any department or agency of the United States knowingly falsifies, conceals, or covers up by any trick, scheme, or device a material fact or makes any false, fictitious, or fraudulent statements or representations or makes or uses any false writing or document knowing same to contain any false, fictitious, or fraudulent statement or entry, shall be fined not more than \$10,000 or imprisoned not more than 5 years or both.

If you require this document in another format, contact The Governor's Office of Regulatory Assistance (ORA). People with hearing loss can call 711 for Washington Relay Service. People with a speech disability can call (877) 833-6341.
ORA publication number: ENV-019-09