



WASHINGTON STATE
Joint Aquatic Resources Permit
Application (JARPA) Form ^{1,2} [\[help\]](#)



AGENCY USE ONLY	
Date Received	Department of Ecology RECEIVED
Agency reference #	WJL 19 2016
Tax Parcel #(s)	Shorelands & Environmental Assistance Program

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

Part 1 - Project Identification

1. Project Name (A name for your project that you create. Examples: Smith's Dock or Seabrook Lane Development) [help]
Mission Creek Watershed Protection and Enhancement

Part 2 - Applicant

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

2a. Name (Last, First, Middle)			
Cruickshank, Pete			
2b. Organization (if applicable)			
Chelan County Natural Resources			
2c. Mailing Address (Street or PO Box)			
411 Washington St, Ofc 201			
2d. City, State, Zip			
Wenatchee, WA 98801-2854			
2e. Phone (1)	2f. Phone (2)	2g. Fax	2h. E-mail
(509) 667-6612		()	pete.cruickshank@co.chelan.wa.us

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/Missions/CivilWorks/Regulatory/PermitGuidebook/EndangeredSpecies.aspx>.
- Not all cities and counties accept the JARPA for their local Shoreline permits. If you need a Shoreline permit, contact the appropriate city or county government to make sure they 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 for Regulatory Innovation and Assistance at (800) 917-0043 or help@oria.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)			
Cruikshank, Peter			
3b. Organization (if applicable)			
Chelan County Natural Resources			
3c. Mailing Address (Street or PO Box)			
411 Washington St, Ofc 211			
3d. City, State, Zip			
Wenatchee, WA 98815			
3e. Phone (1)	3f. Phone (2)	3g. Fax	3h. E-mail
(509) 667-6612	(509) 669-1754	()	pete.cruikshank@co.chelan.wa.us

Part 4 - Property Owner(s)

Contact information for people or organizations owning the property(ies) where the project will occur. Consider both **upland and aquatic** ownership because the upland owners may not own the adjacent aquatic land. [\[help\]](#)

- Same as applicant. (Skip to Part 5.)
- Repair or maintenance activities on existing rights-of-way easements. (Skip to Part 5.)
- There are multiple upland property owners. Complete the section below and fill out [JARPA Attachment A](#) for each additional property owner.
- Your project is on Department of Natural Resources (DNR)-managed aquatic lands. If you don't know, contact the DNR at (360) 902-1100 to determine aquatic land ownership. If yes, complete [JARPA Attachment E](#) to apply for the Aquatic Use Authorization.

4a. Name (Last, First, Middle)			
Hill, Steve			
4b. Organization (if applicable)			
4c. Mailing Address (Street or PO Box)			
4d. City, State, Zip			
Cashmere, WA 98815			
4e. Phone (1)	4f. Phone (2)	4g. Fax	4h. E-mail
(509) 782-1303	()	()	

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"/> Private <input type="checkbox"/> Federal <input type="checkbox"/> Publicly owned (state, county, city, special districts like schools, ports, etc.) <input type="checkbox"/> Tribal <input type="checkbox"/> Department of Natural Resources (DNR) - managed aquatic lands (Complete JARPA Attachment E)			
5b. Street Address (Cannot be a PO Box. If there is no address, provide other location information in 5p.) [help]			
Mission Creek 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]			
Cashmere, WA 98815			
5d. County [help]			
Chelan			
5e. Provide the section, township, and range for the project location. [help]			
1/4 Section	Section	Township	Range
	06	22 N	19 E
5f. Provide the latitude and longitude of the project location. [help]			
<ul style="list-style-type: none"> Example: 47.03922 N lat. / -122.89142 long. (Use decimal degrees - NAD 83) 			
47.4884 / -120.483			
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. 			
221906420150			
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)	
Bob Stewart USDA (Forest Service)	655 Sand Creek Road, Cashmere, Wa, 98815	221906130050	
	215 Melody Lane, Wenatchee, Wa 98801	221906000000	
Russ Elliot	PO Box 414, Cashmere, Wa 98815	221906310050	
Robert Ratcliff	530 MISSION CREEK RD CASHMERE, WA 98815	2219064200100	

5i. List all wetlands on or adjacent to the project location. [help]		
NA		
5j. List all waterbodies (other than wetlands) on or adjacent to the project location. [help]		
Mission Creek		
5k. Is any part of the project area within a 100-year floodplain? [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]		
Where Mission Creek meanders through the property, flowing from South to North there is a narrow band of native riparian vegetation on either side of its bank. Vegetation within this riparian buffer is dense, and is made up of black cottonwood (<i>Populus balsamifera</i>), willow (<i>Salix spp.</i>), ponderosa pine (<i>Pinus ponderosa</i>), and maple (<i>Sapindaceae</i>). Some sections of the property have experienced clearing by past owners to build access, structures and a parking lot.		
5m. Describe how the property is currently used. [help]		
The property is currently being cleaned up by the new owner as it was previously maintained as a junkyard of sorts. The property is used as a recreational property and campsite for family of the owners but does not have any year round residents on site.		
5n. Describe how the adjacent properties are currently used. [help]		
The properties to the East and South are both owned by the US Forrest Service and left undeveloped in a state. Upland properties to the West are residential properties with single family dwellings and outbuildings. The downstream property to the North is maintained as a junkyard and commune encampment		
5o. Describe the structures (above and below ground) on the property, including their purpose(s) and current condition. [help]		
There are two cabins on the property and a third partial structure. There is also a shed that previously held horses for the past owner but currently is acting as covered storage. There had also been a wooden walking bridge across Mission Creek, but this structure was destroyed by this past winter and spring's high flow events.		
5p. Provide driving directions from the closest highway to the project location, and attach a map. [help]		

Drive to Cashmere, get onto Mission Creek road, drive up 7.5 miles, take the left when the road Y's (right goes up Sand Creek). The property is located on the left and is the 2nd driveway past the junkyard.

Part 6 - Project Description

6a. Briefly summarize the overall project. You can provide more detail in 6b. [\[help\]](#)

The project protects infrastructure and enhances Mission Creek near river mile 8 by adding wood structures on the right bank to promote bank stability, channel complexity, and habitat through bioengineering.

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

Project Background

On December 8th, 2015, a Pacific maritime winter storm event (Type IA rainfall distribution) passed through a portion of Chelan County beginning at about 0100 PST and continued for about a 24 hour duration. The USGS Station NOCW1 (Number One Canyon) near Wenatchee recorded 1.20 inches of precipitation during the 24 hour period, resulting in a storm runoff event in the Mission Creek sub-basin that according to the Washington Department of Ecology gage located at the mouth, peaked on December 9 at a flow of approximately 600 cfs. This watershed experienced a wildfire in the summer of 2012 which likely played into this high-flow runoff, which is the highest on record surpassing the previous 560 cfs which occurred in the 1972 flood.

In addition to this individual parcel in need of protection, Mission Creek as a whole needs direct improvement to its aquatic resource functions with regards to water quality, water quantity, aquatic habitat structure, channel complexity, and floodplain connectivity. The Appendix E of the Upper Columbia Salmon Recovery Board's Biological Strategy (2014) lists the following Ecological Concerns and (subcategories) in priority order:

1. Water Quantity (Decreased Water Quantity)
2. Peripheral and Transitional Habitat (Side Channel and Wetland Connections)
3. Sediment Conditions (Increased Sediment Quantity)
4. Channel Structure and Form (Instream Structural Complexity)
5. Riparian Condition (Riparian Condition)
6. Habitat Quantity (Anthropogenic Barriers)
7. Water Quality (Temperature)
8. Channel structure and form (Bed and Channel Form)

The Wenatchee Watershed Management Plan (2006) describes Mission Creek as having been purposefully channelized to transport flood-flows following flood events in the 1940's and 1950's that damaged downstream development. Additionally it suffers from limited water quantity, insufficient instream flows, and diminished quality that has led to numerous exceedances of Washington State Water Quality Standards and TMDL listings for DDT, fecal coliform, temperature, dissolved oxygen.

Chelan County Natural Resources Department (CCNRD) applied for and received funding from the Department of Ecology through their Water Quality, Watershed Planning Implementation, and Office of the Columbia River programs in 2015 specifically for Mission Creek. CCNRD has developed relationships with local landowners and began forming a Mission Creek Watershed Council, as well as developed a suite of community supported water quantity improvement projects and looks to implement a pilot study in the fall of 2016. CCNRD has concurrently reached out to local fish biologists and hydrologists from WDFW (Jeremy Cram & Ben Truscott), Chelan County PUD (Steve Hayes), USFWS (Jim Craig) and USFS (Pierre Dawson & Matt Karrer) soliciting input on how best to incorporate aquatic habitat dimensions to projects rooted in water quality and quantity improvements. The consensus has been that any project that incorporates additional in-stream cover, riparian shading, and/or channel complexity to break up the 8 miles of lower Mission Creek's straightened riffles would support the local population

of native Upper Columbia River Steelhead (*Oncorhynchus mykiss*) which WDFW has estimated at 72 spawning pairs within Mission Creek.

Purpose and Need Statement

The high flow event described above threatened infrastructure on the parcel in which this project is proposed; the outside bend of a creek meander experienced compounding avulsion, jeopardizing a dwelling and deck that reside up-gradient of the stream bank. CCNRD has applied for and received funding and technical support from the Natural Resource Conservation Service (NRCS) through its Emergency Watershed Protection Program for property protection; bioengineering techniques and wood structures will be employed for this project (and another downstream not associated with this JARPA) to combat further avulsion and sediment loading. While more traditional alternatives were considered, the design accompanying this project aims to take a step in addressing the watershed scale issues in water quality and habitat impairments through a localized small-scale project on private land.

Not only does this project aim to protect infrastructure through ecologically beneficial action, it will create a foothold on which to launch future projects that reside on the nexus of environmental improvement and anthropogenic function. The private landowner of this parcel has indicated that if this project can be implemented and is successful, he will be open to projects rooted entirely in habitat construction and floodplain connectivity across the whole 10 acres that straddles Mission Creek.

Project goals

- 1 – To provide property protection to a private landowner through installation of wood and bioengineering techniques
- 2 – To improve water quality, habitat, and stream functions within Mission Creek

Specific Objective for the Project Elements

Design objectives for the engineered log structures proposed on river right include:

- Slow flow velocity along the right bank, directing it to sweep to river left and away from exposed bank
- Create a margin of resting habitat for ESA listed adult and juvenile salmonids along the right bank through placement of structure and riparian plantings.
- Establish a long term robust and healthy riparian buffer at the right bank toe of the existing bank.
- Create low floodplain areas capable of retaining or recruiting soil suitable for riparian plant growth.

6c. Indicate the project category. (Check all that apply.) [help]

- Commercial
 Residential
 Institutional
 Transportation
 Recreational
 Maintenance
 Environmental Enhancement

6d. 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"/> Retaining Wall (upland) |
| <input checked="" type="checkbox"/> Bank Stabilization | <input type="checkbox"/> Dam / Weir | <input type="checkbox"/> Floating Home | <input type="checkbox"/> Road |
| <input type="checkbox"/> Boat House | <input type="checkbox"/> Dike / Levee / Jetty | <input type="checkbox"/> Geotechnical Survey | <input type="checkbox"/> Scientific Measurement Device |
| <input type="checkbox"/> Boat Launch | <input type="checkbox"/> Ditch | <input type="checkbox"/> Land Clearing | <input type="checkbox"/> Stairs |
| <input type="checkbox"/> Boat Lift | <input type="checkbox"/> Dock / Pier | <input type="checkbox"/> Marina / Moorage | <input type="checkbox"/> Stormwater Facility |
| <input type="checkbox"/> Bridge | <input type="checkbox"/> Dredging | <input type="checkbox"/> Mining | |
| <input type="checkbox"/> Bulkhead | <input type="checkbox"/> Fence | <input type="checkbox"/> Outfall Structure | |

<input type="checkbox"/> Buoy	<input type="checkbox"/> Ferry Terminal	<input type="checkbox"/> Piling / Dolphin	<input type="checkbox"/> Swimming Pool
<input checked="" type="checkbox"/> Channel Modification	<input type="checkbox"/> Fishway	<input type="checkbox"/> Raft	<input type="checkbox"/> Utility Line
<input checked="" type="checkbox"/> Other: Habitat construction through placement of Engineered Log Jams to create cover and stream complexity.			

6e. Describe how you plan to construct each project element checked in 6d. 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 floodplain.

Joe Lange, NRCS PE, has designed the project in a 6 page set of plans within Attachment B.

Access to the construction area will be from Mission Creek Road, and across Steve Hill's property via established driveway that leads directly to the work area on the creek. Site access and staging area are depicted within the site map within Attachment \$ and both make use of roads, a driveway, and a parking area that are already in existence and require no further disturbance.

All in-water work will not commence until September, when flows at the gauging station downstream are typically < 2 cfs and expected to be well below < 4 cfs on site (and possibly dry). All work will be completed by the end of the permitted in-water work window, which is anticipated to be no later than September 15. In actuality, the total work is expected to be completed within 2-3 days total, including mobilization.

A cofferdam will be installed and the contractor will use one of the following methods to ensure that the cofferdam bags will provide a tight seal with the river bed: shallow excavation prior to placement of bags, a dual layer of bags (using the first or outer layer to reduce flow velocity prior to installation of the inner layer), or a 4" thick layer of washed rounded river rock (size range 0-3" diameter) will be placed on the river bed underneath the cofferdam bags. The performance specification will be that the cofferdam will be sealed sufficiently to minimize turbidity released from work areas, the creek itself will likely be able to be fully captured and re-routed around the work site via gravity fed pipe.

The following section provides additional design details for each project element constructed on creek right:

Two engineered log structures will be installed on the right bank, each structure consisting of two logs apiece. Both will be constructed in a similar manner. A portion of the eroding bank will be temporary removed and set aside to allow for the anchoring of the key member log, which will be approximately 8' long with a dbh of 18" and a rootwad. This rootwad will be installed waterward into the flow to rack debris and provide a roughened face to promote scour for creation of pools as well as add cover and complexity for fish. The second log will act as the vane and measure approximately 20' x 18" dbh and will be installed on top of the key log. The vane log will have its rootwad pointing bankward, for anchoring and will be set out into the channel pointing downstream at 30° angle. This intersection of two logs will be held down and in place by 1 boulder, each with an approximate diameter of at least 3'. The cutoff, non-rootwad end of the vane will be buried into the channel and anchored by two more boulders of similar size. In total, each structure will use 4 boulders, 2 below OHWM and waterward of the bank, 2 above OHWM or bankward. The conceptual drawing attached to this application shows twice as many boulders as described here, but with notes to delete upon the next round of design before construction.

Once the logs are placed and ballasted the portion of the bank that was removed will be put back as ballast: streambed material from onsite will be used below OHWM, and coir fabric-encapsulated soil lift (FESL) above OHWM. The FESL will run a total of 30 lineal feet from the upstream extent of the first structure, to the downstream extent of the second (downstream) structure. The FESL will be made up of onsite bank material that is to be re-sloped, as well as approximately 4 cu yards of earthfill to be imported. It will be held in place with 2"x4" wooden wedge stakes, as well as the installation of live willow cuttings to establish a network of root anchoring. All FESL will be installed above the OHWM.

Excavation of the bank and wood placement will be completed by tracked 20 Ton (example CAT 320) excavator with hydraulic fluid substituted out for vegetable oil. Hand tools such as picks, shovels and augers will be used as necessary to accomplish fine tuning, as well as the installation of riparian plants within the FESL and around the project site.

Once construction is completed, disturbed areas will be stabilized to ensure minimal sediment is released to Mission Creek during the next high water flow events. All work areas will be re-seeded and/or planted with native vegetation. Species specified include coyote willow (*Salix exigua*), Pacific willow (*Salix lasiandra*), red osier dogwood (*Cornus sericea*), and Ponderosa pine (*Pinus ponderosa*). The final plans may include some additional shrubs in the understory such as snowberry (*Symphoricarpus albus*), rose (*Rosa spp.*), service berry (*Amelanchier alnifolia*), and ocean spray (*Holodiscus discolor*). A more detailed planting plan will be developed for both the river left site restoration and river right upland area during the next stage of implementation that will occur under the Department of Ecology Water Quality grant, however, it will utilize the same species listed above. All non-aquatic disturbed areas will be re-planted with native trees and shrubs with the planting density is ~7 foot on center because some existing vegetation is likely to remain within the disturbance area.

6f. What are the anticipated 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: 09/10/2016

End Date: 09/15/2016

See JARPA Attachment D

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

\$10,000

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

- If yes, list each agency providing funds.

Yes

No

Don't know

Natural Resource Conservation Service (NRCS)

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

This project has been designed to avoid and minimize impacts to Mission Creek. See the detailed text description in section 8a below.

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

This project aims to be self-mitigating as the addition of fill will be < 5 yards total, and offer benefits that far outweigh the ecological costs incurred.

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

No mitigation plan is needed as this project will not have any adverse effects on Mission Creek or the riparian environment. The WRIA 45 Watershed Plan was a driving factor in coming up with this design as it outlines the need for water quality improvements, as well as complexity and habitat improvement. This design hits on each of those needs. (See attached pages of WRIA 45 Water Management Plan, and Direct Implementation Plan).

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)
NA						

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. [\[help\]](#)

NA No fill, excavation, draining of wetlands

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. [\[help\]](#)

NA No fill, excavation, draining of wetlands

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

Several alternative project designs were considered prior to selection of the proposed design. The following design changes to select a project that avoids and minimizes impacts to waterway.

- Access to river left construction considered using a narrow dirt road along the left bank. However, this road has several areas where the slope has failed so it would need significant improvements to be used for construction equipment access. Road improvements may facilitate future development of parcels in this area which is important mule deer habitat.
- Disturbance limits on left bank have been adjusted to save several large trees nearby both upstream and downstream
- The location of the structures on river right bank were selected to avoid tree removal (>8"DBH)
- Cable will not be used for anchoring large wood structures.
- The right bank structures were designed minimal fill material in the river (4 boulders total).
- Work will not start until September project site flows will likely be under 4 cfs (and perhaps dry)
- Work will be completed by September 15 to avoid and minimize impacts

The following best management practices will avoid and minimize impacts to waterways:

- The upland staging area on river right will be isolated by orange construction fence to limit staging and stockpile activities to the upland area.
- In-water work will occur during the approved in-water work period (July 15 – September 15)
- Any turbid water resulting from excavation for the habitat structures will be pumped into the grassy area parking area
- All work below Ordinary High Water will be completed by September 15
- Equipment shall be clean of mud, dirt, and other material that could temporarily degrade water quality.
- Construction equipment will be limited to the minimum access and construction footprint required for the construction
- The contractor will prepare a detailed spill prevention control and countermeasures plan which will identify all the contingencies in the event of an accidental spill of any hazardous material.
- Equipment will be refueled in a designated area with absorbent pads in place and spill containment equipment present to reduce the potential for contaminants to reach the water should any spill or leakage occur.
- All equipment used below bankfull stage will replace all hydraulic fluid systems with 'biodegradable' vegetable oil or other fish-friendly materials as authorized by WDFW.
- All heavy equipment will be inspected prior to operating each day during project construction. All heavy equipment shall be deemed clean and free of external oil, fuel, or other potential pollutants prior to operating and performing construction activities, particularly in water work.
- The contractor will have at least one employee designated as the Erosion and Spill Control Lead who is responsible for installing and monitoring erosion control measures and maintaining spill containment and control equipment.
- Project construction will be in compliance with the general conservation measures and conservation measures specific to ESA consultation. Final engineering plan sheets will include a sheet listing these conservation measures.
- Construction will cease if there is an active redd within 300' of work areas.
- Turbidity (water clarity) will be measured and recorded (in NTU's) using a turbidimeter. The turbidimeter will be calibrated once a week and samples will be taken at least twice a day. Samples will be collected 100' upstream and 300' downstream of each work area to document that any sediment released from the site does not increase stream turbidity levels. Readings will be consistent with the following DOE water quality standards:

During salmon spawning, rearing and migration turbidity shall not exceed:

- 5 NTU over background when the background is 50 NTU or less; or
- A 10 percent increase in turbidity when the background turbidity is more than 50 NTU.

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

This project aims to be self-mitigating as the addition of fill will be < 5 yards total, and offer benefits that far outweigh the ecological costs incurred. That said, a mitigation plan has been prepared in case the permitting agencies do not agree.

To mitigate for the small amount of fill, and possible turbidity bloom incurred during construction the applicant proposes to plant up to 19,000 sq feet of adjacent upland area with native riparian plants. The area of mitigation is located on site, and runs along the creek just outside of the margins of the existing thin riparian buffer. These areas were cleared by former landowners to make a parking lot, and "clean up" the land in order to store more materials and derelict vehicles. The current landowner has cleaned all said vehicles and material stock piles off the property and thus exposed them as the cleared riparian areas that they are.

While the applicant holds that the project itself is self-mitigating, if another determination is this plan to install roughly 760 riparian plants to increase stream shading, collect up gradient sediment from both the County road and the driveway, and biofiltrate contaminants should more than mitigate for the bank stabilization work proposed and the 3 day work period.

8d. Summarize what the mitigation plan is meant to accomplish. Describe how a watershed approach was used to design the plan. [\[help\]](#)

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

The WRIA 45 Watershed Plan was a driving factor in coming up with this design as it outlines the need for water quality improvements, as well as complexity and habitat improvement. This design hits on each of those needs. (See attached pages of WRIA 45 Water Management Plan, and Direct Implementation Plan). By improving riparian conditions as the main focus of the mitigation plan, there will be immediate water quality improvements through an improved biofiltration capability, as well as slower developing, long term water quality improvements via shading and eventual aquatic habitat improvements through wood recruitment.

As listed above and within the attachments, behind water quantity the main issues within Mission Creek are associated with water quality (TMDLs) and a lack of habitat. This mitigation plan directly addresses these issues.

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

Activity (clear, dredge, fill, pile drive, etc.)	Waterbody name ¹	Impact location ²	Duration of impact ³	Amount of material (cubic yards) to be placed in or removed from waterbody	Area (sq. ft. or linear ft.) of waterbody directly affected
Excavation for keying logs	Mission Creek	adjacent	Temporary (2 days)	20 yards (to be put back)	250 sq ft
Excavate for placement of toe of vane log in stream bed	Mission Creek	Channel	permanent	1 yard	10 sq ft
Cofferdamn rounded river rock	Mission Creek	Channel	Permanent	5 yards	50 Sq ft
Rock ballast for wood structures (fill)	Mission Creek	channel	permanent	5 yards	250 sq ft

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.

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.

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

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. [\[help\]](#)

The ballast rock (fill) material will be boulders measuring approximately 3' in diameter and will be used to directly ballast the wood structures. The impact will occur directly in the waterbody itself, and will be permanent. No additional fill below OHWM is necessary to complete the project.

Cofferdam fill material will consist of native material excavated from the site and will be replaced back in the channel with projection completion.

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. [\[help\]](#)

Excavating will be done by a 20 ton tracked excavator with a bucket and a thumb and be completed in the dry after placement of cofferdams. The material that will be temporary removed and put on the top of right bank, and will be put back as part of the construction project and regraded to conform with the wood structures.

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
WDFW	Amanda Barg	(888) 8004	7/7/16
National Resource Conservation Service	Joe Lange	(509) 415-3687	7/7/16
Army Corps of Engineers	Debbie Knaub	(509) 682-7010	7/7/16
Department of Ecology	Heather Simmons	(509) 454-7207	6/17/16

9b. Are any of the wetlands or waterbodies identified in Part 7 or Part 8 of this JARPA 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

Department of Ecology 303(d) Listing for Mission Creek 2012

Listing ID	Waterbody Names	Medium	Parameter	2012 Category	Counties	WRIAs
34832	MISSION CREEK	Water	4,4'-DDD	4A	Chelan	45 - Wenatchee
34826	MISSION CREEK	Water	4,4'-DDE	4A	Chelan	45 - Wenatchee
34829	MISSION CREEK	Water	4,4'-DDT	4A	Chelan	45 - Wenatchee
11279	MISSION CREEK	Water	Ammonia-N		1 Chelan	45 - Wenatchee
8423	MISSION CREEK	Water	Bacteria	4A	Chelan	45 - Wenatchee
16832	MISSION CREEK	Water	Bacteria	4A	Chelan	45 - Wenatchee
41557	MISSION CREEK	Water	Bacteria	4A	Chelan	45 - Wenatchee
41559	MISSION CREEK	Water	Bacteria	4A	Chelan	45 - Wenatchee
41561	MISSION CREEK	Water	Bacteria	4A	Chelan	45 - Wenatchee
41562	MISSION CREEK	Water	Bacteria	4A	Chelan	45 - Wenatchee
41565	MISSION CREEK	Water	Bacteria		2 Chelan	45 - Wenatchee
41938	MISSION CREEK	Water	Bacteria	4A	Chelan	45 - Wenatchee
45799	MISSION CREEK	Water	Bacteria		2 Chelan	45 - Wenatchee
8958	MISSION CREEK	Water	DDT	4A	Chelan	45 - Wenatchee
41407	MISSION CREEK	Water	Dissolved Oxygen		2 Chelan	45 - Wenatchee
41409	MISSION CREEK	Water	Dissolved Oxygen		2 Chelan	45 - Wenatchee
41413	MISSION CREEK	Water	Dissolved Oxygen		2 Chelan	45 - Wenatchee
41858	MISSION CREEK	Water	Dissolved Oxygen		2 Chelan	45 - Wenatchee
11282	MISSION CREEK	Water	pH	4A	Chelan	45 - Wenatchee
34799	MISSION CREEK	Water	pH	4A	Chelan	45 - Wenatchee
34802	MISSION CREEK	Water	pH		2 Chelan	45 - Wenatchee
41257	MISSION CREEK	Water	pH		1 Chelan	45 - Wenatchee
41258	MISSION CREEK	Water	pH		2 Chelan	45 - Wenatchee
41260	MISSION CREEK	Water	pH		2 Chelan	45 - Wenatchee
41261	MISSION CREEK	Water	pH		1 Chelan	45 - Wenatchee
41263	MISSION CREEK	Water	pH		2 Chelan	45 - Wenatchee
41264	MISSION CREEK	Water	pH		2 Chelan	45 - Wenatchee
50689	MISSION CREEK	Water	pH		2 Chelan	45 - Wenatchee
8424	MISSION CREEK	Water	Temperature	4A	Chelan	45 - Wenatchee
11281	MISSION CREEK	Water	Temperature	4A	Chelan	45 - Wenatchee
34803	MISSION CREEK	Water	Temperature		2 Chelan	45 - Wenatchee
39374	MISSION CREEK	Water	Temperature	4A	Chelan	45 - Wenatchee
39375	MISSION CREEK	Water	Temperature	4A	Chelan	45 - Wenatchee
41140	MISSION CREEK	Water	Temperature		2 Chelan	45 - Wenatchee
41797	MISSION CREEK	Water	Temperature		2 Chelan	45 - Wenatchee
42837	MISSION CREEK	Water	Temperature	4A	Chelan	45 - Wenatchee
42838	MISSION CREEK	Water	Temperature	4A	Chelan	45 - Wenatchee
42841	MISSION CREEK	Water	Temperature	4A	Chelan	45 - Wenatchee

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.

17020011

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 #.

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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.htm> 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/fo_watertyping.aspx for the Forest Practices Water Typing System.

Shoreline Fish Non-Fish Perennial 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.

Yes No

Name of manual: **Stormwater Management Manual for Eastern Washington, 2004**

9i. Does the project site have known contaminated sediment? [\[help\]](#)

- If Yes, please describe below:

Yes No

9j. If you know what the property was used for in the past, describe below. [\[help\]](#)

It was previously used as a recreational property

9k. Has a cultural resource (archaeological) survey been performed on the project area? [\[help\]](#)

- If Yes, attach it to your JARPA package.

Yes No Currently scheduled by NRCS See attached Survey underway

9l. 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. [\[help\]](#)

The project area contains the following species listed for protection under the federal Endangered Species Act:

- Upper Columbia River steelhead (*Oncorhynchus mykiss*) (Threatened)

This reach of the Mission Creek supports steelhead habitat for migration, adult holding, and rearing. There is no current information whether steelhead actively spawn in this reach.

9m. 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. [\[help\]](#)

In addition to the species listed above, the following Priority Habitats and Species (PHS) are present near the site:

- Coho salmon (*Oncorhynchus kisutch*) (near the mouth at the confluence with the Wenatchee)
- Gray wolf (*Canis lupus*) occurrence
- Mule deer (*Odocoileus hemionus hemionus*) regular concentration winter range
- Rainbow trout (*Oncorhynchus mykiss*) 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.oria.wa.gov/opas/>.
- Governor's Office for Regulatory Innovation and Assistance at (800) 917-0043 or help@oria.wa.gov.
- For a list of addresses to send your JARPA to, click on [agency addresses for completed JARPA](#).

10a. Compliance with the State Environmental Policy Act (SEPA). (Check all that apply.) [\[help\]](#)
• For more about SEPA, go to www.ecy.wa.gov/programs/sea/sepa/e-review.html

A copy of the SEPA determination or letter of exemption is included with this application.

A SEPA determination is pending with _____ (lead agency). The expected decision date is _____

I am applying for a Fish Habitat Enhancement Exemption. (Check the box below in 10b) [\[help\]](#)

This project is exempt (choose type of exemption below).

Other: _____

Other: _____

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:

Substantial Development Conditional Use Variance

Shoreline Exemption Type (explain): _____
Fish Habitat Restoration WAC 173-27-040 (o) (i) (c)

Other City/County permits:

Floodplain Development Permit Critical Areas Ordinance

STATE GOVERNMENT

Washington Department of Fish and Wildlife:

Hydraulic Project Approval (HPA) Fish Habitat Enhancement Exemption - [Attach Exemption Form](#)

You must submit a check for \$150 to Washington Department of Fish and Wildlife, unless your project qualifies for an exemption or alternative payment method below. **Do not send cash.**

Check the appropriate boxes:

\$150 check enclosed. Check #: _____
Attach check made payable to Washington Department of Fish and Wildlife HPA processing is conducted by applicant-funded WDFW staff.

My project is exempt from the application fee. (Check appropriate exemption) Agreement # _____

Mineral prospecting and mining.
Project occurs on farm and agricultural land.

(Attach a copy of current land use classification recorded with the county auditor, or other proof of current land use.)

Project is a modification of an existing HPA originally applied for, prior to July 10, 2012.

HPA # _____

HPA # _____

Washington Department of Natural Resources:

Aquatic Use Authorization

Complete JARPA Attachment E and submit a check for \$25 payable to the Washington Department of Natural Resources.
Do not send cash.

Washington Department of Ecology:

Section 401 Water Quality Certification

FEDERAL GOVERNMENT

United States Department of the Army permits (U.S. Army Corps of Engineers):

Section 404 (discharges into waters of the U.S.)

NWP 37: NRCS Emergency Watershed Protection

Section 10 (work in navigable waters)

Document Attachments:

Attachment 1: Location and Access Route Map

Attachment 2: WDFW Application for streamlined processing through Fish Habitat Enhancement Project HPA Checklist

Attachment 3: SEPA Exemption letter under RCW 89.08

Attachment 4: Request Letter for Chelan County SMP exemption under WAC 173-27-040 (2)(o)(i)

Attachment 5: Site Photographs

Attachment 6: NRCS Project Eligibility Determination and subsequent DSR Report

Attachment 7: NRCS Cultural Resource Initiation

Attachment 8: Prepared Mitigation Plan (as necessary)

Attachment 9: Supporting document excerpts from WRIA 45 Watershed Management Plan, Appendix C Habitat Component, & figure

Attachment 10: NRCS Plan Sheets



REPLY TO
ATTENTION OF

DEPARTMENT OF THE ARMY
SEATTLE DISTRICT, CORPS OF ENGINEERS
P.O. BOX 3755
SEATTLE, WASHINGTON 98124-3755

Regulatory Branch

September 20, 2016

Mr. Pete Cruickshank
Chelan County Natural Resources
411 Washington Street, Office 201
Wenatchee, Washington 98801-2854

Reference: NWS-2016-706
Chelan County Natural
Resources

Dear Mr. Cruickshank:

We have reviewed your application to install a cofferdam and construct bank stabilization by installing two engineered instream Large Wood Structures, 30 lineal feet of Fabric Encapsulated Soil Lift (FESL), and revegetating the riparian area in Mission Creek, near Cashmere, Chelan County, Washington. Based on the information you provided to us, Nationwide Permit (NWP) 37, Emergency Watershed Protection and Rehabilitation, (Federal Register February 21, 2012, Vol. 77, No. 34), authorizes your proposal as depicted on the enclosed drawings dated August 17, 2016.

In order for this authorization to be valid, you must ensure the work is performed in accordance with the enclosed *NWP 37, Terms and Conditions* and the following special conditions:

- a. You must implement and abide by the Endangered Species Act (ESA) requirements and/or agreements set forth in the Biological Assessment for this proposal, in its entirety, and the consultation documents provided by the U.S. Fish and Wildlife Service (USFWS) and the National Marine Fisheries Service (NMFS). Both agencies will be informed of this permit issuance. Failure to comply with the commitments made in your ESA consultation documents constitutes non-compliance with the ESA and your U.S. Army Corps of Engineers permit. The USFWS/NMFS is the appropriate authority to determine compliance with ESA.
- b. In order to meet the requirements of Endangered Species Act (ESA) and/or the Magnuson-Stevens Fishery Conservation and Management Act (MSA) and Section 106 of the National Historic Preservation Act (NHPA), you must, prior to commencing construction, submit to the U.S. Army Corps of Engineers, Seattle District, Regulatory

Branch, documentation demonstrating that the requirements of the ESA, MSA, and NHPA have been met. All submitted documentation must prominently display reference number NWS-2016-706.

- c. In order to protect the listed threatened and endangered species in the project area, you may conduct the authorized activities in the work window as agreed to and documented in writing through consultation by the U.S. Fish and Wildlife Service and/or National Marine Fisheries Service (Services) in any year this permit is valid. If changes to the originally authorized work window are proposed, you must re-coordinate these changes with the Services and receive written concurrence on the changes. Copies of the concurrence(s) must be sent to the U.S. Army Corps of Engineers, Seattle District, Regulatory Branch, within 10 days of the date of the revised concurrence.

The Natural Resources Conservation Service must complete Section 7 Endangered Species Act (ESA) consultation and Magnuson Stevens Act essential fish habitat consultation (EFH) for its involvement in the proposed activity. By this letter we are advising you and the Services, in accordance with 50 CFR 402.07 and 50 CFR 600.920(b), that the Natural Resources Conservation Service has served as the lead Federal agency for the ESA and EFH consultation responsibilities for the activity described above. For the purpose of this Department of the Army authorization, we have determined this project will comply with the requirements of these laws provided you comply with all of the permit general and special conditions.

Your proposal requires individual Water Quality Certification (WQC) from the Washington State Department of Ecology (Ecology). Before you may proceed with the work authorized by this NWP, you must contact Ecology regarding these requirements at: Washington Department of Ecology, Federal Permit Coordinator, P.O. Box 47600, Olympia, Washington 98504-7660; telephone: (360) 407-6068; or email: ecyrefedpermits@ecy.wa.gov.

If more than 180 days pass from when you provide Ecology a copy of this letter and request your individual WQC review, your requirement to obtain an individual WQC becomes waived. You may then proceed to construction.

We have prepared and enclosed a *Preliminary Jurisdictional Determination (JD)* dated September 16, 2016, which is a written indication that wetlands and waterways within your project area may be waters of the United States. Such waters will be treated as jurisdictional waters of the U.S. for purposes of computation of impact area and compensatory mitigation requirements associated with your permit application. If you believe the Preliminary JD is inaccurate, you may request an Approved JD, which is an official determination regarding the presence or absence of waters of the United States. If one is requested, please be aware that we

may require the submittal of additional information to complete an approved JD and work authorized in this letter may not occur until the approved JD has been finalized.

Our verification of this NWP authorization is valid until March 18, 2017, unless the NWP is modified, reissued, or revoked prior to that date. If the authorized work has not been completed by that date and you have commenced or are under contract to commence this activity before March 18, 2017, you will have until March 18, 2018, to complete the activity under the enclosed terms and conditions of this NWP. Failure to comply with all terms and conditions of this NWP verification invalidates this authorization and could result in a violation of Section 404 of the Clean Water Act and/or Section 10 of the Rivers and Harbors Act. You must also obtain all local, State, and other Federal permits that apply to this project.

Upon completing the authorized work, you must fill out and return the enclosed *Certificate of Compliance with Department of the Army Permit* form. Thank you for your cooperation during the permitting process. We are interested in your experience with our Regulatory Program and encourage you to complete a customer service survey form. This form and information about our program is available on our website at www.nws.usace.army.mil select "Regulatory Branch, Permit Information" and then "Contact Us." If you have any questions, please contact me at deborah.j.knaub@usace.army.mil or (206) 258-1371.

Sincerely,

A handwritten signature in black ink, appearing to read "Debbie Knaub". The signature is fluid and cursive, with the first letters of the first and last names being capitalized and prominent.

Debbie Knaub, Project Manager
Regulatory Branch

Enclosures