

# Public Notice of Application for State of Washington 401 Water Quality Certification

**Project Name:** Icicle Creek Boulder Field Fish Habitat Improvement Project

**Applicant:** Trout Unlimited

**Project Location:** Icicle Canyon Road; Icicle Creek river mile 5.5, Chelan County

**Project Description:** This is a multi-phase fish passage and fish habitat improvement project.

**Public Notice Date:** May 3, 2019  
**Comment Period Ends:** May 23, 2019

**Application available on Ecology's Federal Permit Website:**  
<https://ecology.wa.gov/Regulations-Permits/Permits-certifications/401-Water-quality-certification/non-hydropower-401-certifications/401-and-CZM-public-notice>.

Ecology is reviewing the proposed project to determine if an individual Clean Water Act Section 401 Water Quality Certification will be required.

Ecology is requesting comments from the public, state and local agencies, tribes, and other interested parties to evaluate the impacts of each proposed activity. Conventional mail or e-mail comments on this public notice will be accepted and made part of the record.

**Comments should be sent to:**  
Department of Ecology—SEA Program  
Federal Project Coordinator  
Post Office Box 47600  
Olympia, Washington 98504  
or  
Online - <http://ws.ecology.commentinput.com/?id=MSGKg>

*To obtain a hard copy of the project information, please call 360-407-6076.*



# WASHINGTON STATE

## Joint Aquatic Resources Permit Application (JARPA) Form<sup>1,2</sup>

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



US Army Corps  
of Engineers  
Seattle District

AGENCY USE ONLY

Date received:	8/30/2018 Electronic
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) <a href="#">[help]</a>
Icicle Creek Boulder Field Fish Habitat Improvement – Step-Pool Channel Construction and City of Leavenworth Water Line and Fish Screen Replacement

### Part 2–Applicant

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

2a. Name (Last, First, Middle)			
Aaron Penvose			
2b. Organization (If applicable)			
Trout Unlimited			
2c. Mailing Address (Street or PO Box)			
103 Palouse Street, Suite 13			
2d. City, State, Zip			
Wenatchee, WA 98801			
2e. Phone (1)	2f. Phone (2)	2g. Fax	2h. email
509.881.7689			apenvose@tu.org

- <sup>1</sup>
- Additional 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.

<sup>2</sup>To 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](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@ora.wa.gov](mailto:help@ora.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.) [\[help\]](#)

<b>3a. Name</b> (Last, First, Middle)			
Tyler, Marnie W.			
<b>3b. Organization</b> (If applicable)			
Ecolution, LLC			
<b>3c. Mailing Address</b> (Street or PO Box)			
1910 East 4 <sup>th</sup> Avenue, PMB 193			
<b>3d. City, State, Zip</b>			
Olympia, WA 98506			
<b>3e. Phone (1)</b>	<b>3f. Phone (2)</b>	<b>3g. Fax</b>	<b>3h. E-mail</b>
(360) 786-0174	(360) 480-5518	(360) 786-0174	marnie.tyler@ecolution.us.com

### 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 or 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.

<b>4a. Name</b> (Last, First, Middle)			
Tony Jantzer			
<b>4b. Organization</b> (If applicable)			
Icicle-Peshastin Irrigation District			
<b>4c. Mailing Address</b> (Street or PO Box)			
PO BOX 371			
<b>4d. City, State, Zip</b>			
CASHMERE, WA 98815-0371			
<b>4e. Phone (1)</b>	<b>4f. Phone (2)</b>	<b>4g. Fax</b>	<b>4h. E-mail</b>
(509) 782.2651	( )	(509) 433.4064	tony.iid.pid@nwi.net

## 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.

<b>5a.</b> Indicate the type of ownership of the property. (Check all that apply.) <a href="#">[help]</a>			
<input checked="" type="checkbox"/> Private			
<input checked="" type="checkbox"/> Federal			
<input checked="" 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 <a href="#">JARPA Attachment E</a> )			
<b>5b.</b> Street Address (Cannot be a PO Box. If there is no address, provide other location information in 5p.) <a href="#">[help]</a>			
ICICLE CANYON RD; Icicle Creek river mile 5.5 above the confluence with the Wenatchee River			
<b>5c.</b> City, State, Zip (If the project is not in a city or town, provide the name of the nearest city or town.) <a href="#">[help]</a>			
LEAVENWORTH, WA			
<b>5d.</b> County <a href="#">[help]</a>			
CHELAN COUNTY			
<b>5e.</b> Provide the section, township, and range for the project location. <a href="#">[help]</a>			
¼ Section	Section	Township	Range
	27, 28	24N	17E, WM
<b>5f.</b> Provide the latitude and longitude of the project location. <a href="#">[help]</a>			
<ul style="list-style-type: none"> <li>Example: 47.03922 N lat. / -122.89142 W long. (Use decimal degrees - NAD 83)</li> </ul>			
47.54436 N lat. / -120.71209 W long.			
<b>5g.</b> List the tax parcel number(s) for the project location. <a href="#">[help]</a>			
<ul style="list-style-type: none"> <li>The local county assessor’s office can provide this information.</li> </ul>			
Parcel # 241727311250	Property ID 29981 (Icicle-Peshastin Irrigation District)		
Parcel # 241727320050	Property ID 29985 (City of Leavenworth)		
Parcel # 241727320100	Property ID 29986 (US Forest Service)		
<b>5h.</b> Contact information for all adjoining property owners. (If you need more space, use <a href="#">JARPA Attachment C.</a> ) <a href="#">[help]</a>			
Name	Mailing Address		Tax Parcel # (if known)
United States of America	ICICLE RD, LEAVENWORTH, WA 98826		241728000000
U S FOREST SERVICE	ICICLE RD, LEAVENWORTH, WA 98826		241733000050
U S GOVERNMENT	ICICLE RD, LEAVENWORTH, WA 98826		241733000000
United States of America	ICICLE RD, LEAVENWORTH, WA 98826		241734000000
USA USDA FOREST SERVICE WNF	ICICLE RD, LEAVENWORTH, WA 98826		241727340050
United States of America	ICICLE RD, LEAVENWORTH, WA 98826		241727000150

**5i.** List all wetlands on or adjacent to the project location. [\[help\]](#)

None.

**5j.** List all waterbodies (other than wetlands) on or adjacent to the project location. [\[help\]](#)

Icicle Creek, LLID: 1206661475803

**5k.** Is any part of the project area within a 100-year floodplain? [\[help\]](#)

Yes     No     Don't know

**5l.** Briefly describe the vegetation and habitat conditions on the property. [\[help\]](#)

The project area is Icicle Creek RM 5.6 to RM 6.0 and the left bank up to USFS Road 7600. The surrounding land is vegetated with dry forest supporting ponderosa pine, western larch, and Douglas-fir. Underbrush is thin. A gravel access road owned by the Icicle-Peshastin Irrigation District lies on a terrace directly below USFS Road 7600 (see site layout attached). Below this terrace, the rock slope down to Icicle Creek is quite steep. Slope fill material from the existing road encroaches into the Icicle Creek channel.

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

The gravel road below USFS Road 7600 is used by the Icicle-Peshastin Irrigation District to access and maintain irrigation equipment. The City of Leavenworth water supply pipeline is buried beneath the Icicle-Peshastin gravel access road. The surrounding forest lands and federal wilderness area are used for passive recreation.

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

The project area is largely surrounded by the Okanogan-Wenatchee National Forest. Adjacent properties are used for outdoor recreation, primarily hiking and wilderness adventure. Some residential properties abut the eastern portions of the project area.

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

A 16-inch steel waterline owned by the City of Leavenworth is located approximately 5 feet below the surface. One element of this project is to partially replace and relocate this waterline further away from Icicle Creek.

A channel spanning weir and diversion access bridge owned by the Icicle-Peshastin Irrigation District is just upstream of the project area. A concrete valve house operated by the City of Leavenworth is adjacent to the access road. There are no other structures in the project area.

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

From the town center of Leavenworth, WA, follow US Route 2 west towards 9<sup>th</sup> Street, 0.8 mile, to the junction with Icicle Road. Proceed south on Icicle Road 4.3 miles (Note: Icicle Road becomes Icicle Creek Road before it becomes USFS 7600 Road). The gravel access road is on the north side of Icicle Creek Road and begins at the west end of the Snow Lakes Trailhead parking lot above the confluence of Snow Creek and Icicle Creek.

## Part 6–Project Description

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

This is a multi-phase fish passage and fish habitat improvement project. Several preliminary studies have been completed in earlier phases of work:

- 2013 Icicle Creek Fish Passage Assessment
- 2013 Geologic Assessment of the Icicle Creek Boulder Field Study Reach
- 2015 Leavenworth Waterline Assessment
- 2016 Fish Passage Alternatives Analysis and Design
- 2016 Geotech Assessment (Toth and Swanson)
- 2018 Geotech Assessment (Aspect Engineering)

Analysis, reports and drawings resulting from these studies can be found at the following link:

<https://1drv.ms/f/s!AvU38uOxQjXNgb81eL-ULgmeQo6LIQ>

In the current phase, the sponsor proposes to construct a step-pool channel to enhance fish passage to more than 23 miles of habitat in the upper reaches of Icicle Creek. In order to construct the step-pool channel, the City of Leavenworth water supply pipeline will need to be replaced and relocated. The City's new water line will incorporate a new fish screen and screen house as part of this project.

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

The overarching goal of the project is to improve fish passage for bull trout and steelhead at Icicle Creek river mile 5.6, locally known as the boulder falls, to enhance fish access to the wilderness headwaters. This will connect the lower reaches with over 23 miles of mainstem Icicle Creek. Additionally, the project will provide access to dozens of miles of tributary habitat for anadromous fishes and connect Upper Icicle Creek with the Wenatchee River Watershed. Icicle Creek is the major fish-bearing tributary to the Wenatchee River in WRIA 45. The project was originally identified by a 2013 Fish Passage Assessment. Fish passage at the boulder falls is identified as a priority by the 5-year status review (NOAA 2016), Upper Columbia Regional Technical Team (RTT 2013), and in the Draft Wenatchee Subbasin Plan (2004). Fish passage improvement at the boulder field has also been included in the Icicle Creek Working Group Master Scope of Work as contributing to the working group's objectives of improving fish passage and supporting tribal fisheries. The project has been reviewed and funded by the Salmon Recovery Funding Board, which implements a formal grant program established by the legislature for fish habitat enhancement and restoration.

Substantial work has been done in prior phases of work to scope and design alternative fish passage solutions. The preferred fish passage alternative, a step-pool channel, was selected by a group of local stakeholders and technical experts. At the boulder field, many different options to address fish passage were considered. The selection of Option 5 was a collaborative process described by Waterfall Engineering et al (2016). Waterfall Engineering, LLC drafted a final design, which is attached. The design process included detailed analyses of flow volume and velocity in the reach and the timing of bull trout and steelhead migration. A summary of the design parameters evaluated is included in Waterfall Engineering et al (2016).

In order to complete the boulder field fish habitat improvement element, it is essential to relocate a portion of the City of Leavenworth's water supply pipeline to make room for the step-pool channel. The City has agreed to the relocation in support of the fish passage improvement project. Rather than relocating the existing 16" steel pipeline, the City has opted to partially or completely replace the pipeline located on the left bank of Icicle Creek between its water intake structure (RM 5.8) and the Snow Lakes Trailhead parking lot (RM 5.6). The City will take advantage of this opportunity to also replace the fish screen, as the existing screen will not meet current state and federal standards on completion of the fish passage improvement project. Replacing the screen will reduce fish mortality in Icicle Creek resulting from water diversions for the City's drinking water.

The step-pool channel at RM 5.6 is intended to improve fish passage without any impact to the water diversion for the Icicle-Peshastin Irrigation District and City of Leavenworth. Implementing the fish passage improvement project at RM 5.6 will not affect the flows at the water diversion upstream at RM 5.8. Passage at the step-pool channel optimally functions at a flow of approximately 80 cfs in Icicle Creek. It is understood that based on historic flows in the reach below the current irrigation and municipal withdrawals, the step-pool channel may not fully function in late July and August and September. Given the timing of fish migration in Icicle Creek, the step-pool channel is expected to most benefit steelhead and bull trout. Consultation with agency representatives indicates that adult steelhead migration peaks in March and April and bull trout migration peaks in July.

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

- Commercial   
  Residential   
  Institutional   
  Transportation   
  Recreational  
 Maintenance   
 Environmental Improvement

**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 checked="" type="checkbox"/> Retaining Wall (upland) |
| <input type="checkbox"/> Bank Stabilization              | <input type="checkbox"/> Dam / Weir           | <input type="checkbox"/> Floating Home       | <input checked="" 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"/> Swimming Pool                      |
| <input type="checkbox"/> Bulkhead                        | <input type="checkbox"/> Fence                | <input type="checkbox"/> Outfall Structure   | <input type="checkbox"/> Utility Line                       |
| <input type="checkbox"/> Buoy                            | <input type="checkbox"/> Ferry Terminal       | <input type="checkbox"/> Piling/Dolphin      |   |
| <input checked="" type="checkbox"/> Channel Modification | <input type="checkbox"/> Fishway              | <input type="checkbox"/> Raft                |   |

Other:

**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.

There are three construction components to this project: 1) Construct Boulder Field Fish Passage Improvement; 2) Replace and Relocate City of Leavenworth Water Supply Pipeline, and 3) Replace City of Leavenworth Fish Screen and Screen House.

**1) Construct Boulder Field Fish Passage Improvement**

Fish passage at the boulder field will be enhanced through a step-pool channel occupying 150 lineal feet of the left bank of the reach and some of the existing channel. The design parameters to facilitate passage for a minimum fish size of 14 inches will include drops in the step-pool channel of 4 to 5 feet. The minimum and maximum design flows to provide passage are 80 and 1,000 cfs. Pools on average will be a minimum of 8 feet deep at low flow. In addition to the left bank construction, boulders will be removed in three areas to improve flow to the step-pool channel and reduce turbulence at the downstream end of the step-pool at high flow. Boulders will also be placed in the gaps of existing boulders in order to raise the tailwater in the deep plunge pool below the falls. Additionally, at least 20 to 30 large boulders greater than 500 cubic feet in volume will need to be shaped with rock breaking techniques (Toth and Swanson 2016). Typical step-pool geometry is detailed in the attached drawings, Sheet 15. Implementation of this design will include the following channel modifications, beginning at the upstream end of the project (see drawings, sheet 4):

- Increase flow into left side of split channel. To achieve this, Boulder 77 will be lowered two feet by removing approximately 5 cubic yards of rocks, which will be spoiled in the channel.
- Distribute more flood flows to the right bank away from the step-pool channel. Approximately 120 cubic yards will be removed to the right of the Anchor Rock to lower elevation in this area; rock will be spoiled in the channel.
- Remove rock from left floodplain/road and create a 120-foot long step-pool channel. Approximately 3,800 cubic yards of rock will be excavated and hauled off site. The step-pool channel will have drops ranging from 3 to 5 feet with pools a minimum of 8 feet deep. The design flow range for the channel to provide fish passage is 80 to 900 cfs.
- Improve backwater and reduce turbulence to step-pool channel at the downstream end. To achieve this, Boulders 50, 51, and 28 will be removed (approximately 300 cubic yards). The notch at Boulder 29 will be plugged to create a drop and backwater.

A combination of excavation and rock breaking will be necessary during construction. Some of the left bank slope material will be excavated to create space for the step-pool channel. Slope excavation will proceed from higher elevation areas to lower elevation areas to maximize slope stability. Within the channel pools, the proposed slope of the excavation is 1:1; this is extended to 1.4:1 along the slope between the ordinary high water mark (OHWM) and the 20-year peak flood level (see drawings, Sheet 16). Above the 20-year peak flood level, the designs specify construction of a 1:4 rock wall to reduce the cut and to match a stable grade below Icicle Creek Road. The least impactful method will be attempted for rock breaking and will advance to more forceful approaches only if needed. Two assessments were conducted in prior phases of work to evaluate the most effective and least impactful approaches for breaking rocks that will be encountered in constructing the step-pool channel. The four tools that were identified through these assessments for use in project construction are 1) hydraulic rock breaking hammers mounted on the end of an extractor arm, 2) the Boulder Buster™, a non-detonating rock-breaking tool that utilizes propellant technology, 3) expansive demolition grout (Toth and Swanson 2016), and 4) deflagrating low-velocity explosives may be applied if other methods have not been successful. In order to apply these tools, boulders may need to be excavated partially to have room for expansion. These techniques crack the rock and generate very little ground vibration, unlike high velocity explosives which create rock fly. Toth and Swanson (2016) describe these methods in detail and include photographs of the tools' application to boulders taken from the shoreline of Icicle Creek. Safety sheets for the compounds that may be used are attached. All instream work will occur during the work windows prescribed by WDFW, which typically begins on July 15. Cofferdams and silt curtains will be used to isolate the work area from flowing water and will be constructed of clean fill.

Typical removal will occur using excavators with hydraulic breakers and buckets to scoop rock and load into trucks, and possibly cranes with clam shells and dump trucks to transport rock off site. Rock grouting may be required at the base of some rocks to maintain the desired pool depths. A coffer dam and silt curtain will be included as part of the dewatering and temporary sediment control measures (drawings, sheet 5). Access and staging will largely occur from the IPID gravel access road upslope from the boulder field. The project team is working with the USFS to minimize impacts to forest visitors. USFS is aware that a portion of the USFS Road 7600 shoulder will be unavailable for parking during construction and a temporary closure of the Snow Lakes Trailhead parking lot will be necessary.

Construction of the boulder field step-pool channel will be done over two summers to allow for an adaptive management approach to flow control and pool turbulence. In the first year of construction, two to three months will be required to complete the rock breaking, excavating, loading, and hauling. The first phase of construction before any in water work occurs will be to break rock and create a water bypass along the right of the anchor rock. For this work the area will be isolated from any flowing water and will be done in the dry. After the water bypass route is complete, sand bag cofferdams will be placed in the channel to block flow and raise the water so it will flow down the new bypass to the right of the anchor rock. Pumps will also be used in areas with seepage to lower the water. Pumped water if contaminated with sediment will be pumped to an upland site and allowed to infiltrate. Clean pumped water will be pumped downstream past the work area. In the lower part of the channel where the pools are deep and it will not be possible to dewater, a silt curtain will be installed to block any fine sediments from the construction. Fish exclusion screens will be used where they are feasible to place and



maintain given the flows at the time of construction. In areas where fish cannot feasibly be excluded from the area, work will be limited to rock breaking and placement. The rock breaking and placement will create minimal sediment disturbance. The second year of construction will also include rock breaking, excavating, loading, and hauling, but for a duration of two to three weeks to make relatively minor modifications based on how the channel has responded to the work completed in the first year of construction.

## **2) Replace City of Leavenworth Water Supply Pipeline**

Constructing the Icicle Creek boulder field fish passage improvement will impact a portion of the City of Leavenworth's 16-inch steel water supply pipeline located on the left bank of Icicle Creek. In support of the fish passage project, the City of Leavenworth proposes to partially or completely replace its water supply pipeline between its screen house (RM 5.7) and the Water Treatment Plant (RM 5.5). Partial replacement could involve as little as 150 lineal feet, the length of the proposed step-pool channel. Complete replacement would entail approximately 1,500 lineal feet. The current drawings (attached) depict complete replacement.

Full or partial replacement of the water main will entail the following work:

- Breaking of existing boulders within the pipe excavation boundary to a size manageable by tracked excavators and dump trucks. Breaking of the boulders would be by hydraulic rock breaking hammer mounted on a tracked excavator, or Boulder Buster™ method noted previously, or by use of deflagrating low-velocity explosives.
- Removal from the pipe excavation area of the broken boulders and native material to a stockpile location on-site near the screen structure, estimated total of approximately 1,800 CY of material, and cutting side slopes to approximate 1:1 slopes to allow excavation for pipe installation using tracked excavation equipment and dump trucks.
- Excavating pipe trench to install 16-inch ductile iron pipe, valves, fittings and appurtenances. Excavation to be approximately 7-foot depth, installing pipe and imported pipe bedding to 8-inches below and above pipe, and backfilling/compacting pipe trench with native material to result in installed pipe with generally 5-feet of earth cover using tracked excavation equipment and wheeled front loaders.
- Grading 12-foot wide access road generally centered over installed pipe along the length of the installed pipe between the screen structure and Snow Lakes Trailhead parking area and surfacing with imported crushed rock surfacing using tracked excavation equipment, wheeled loaders, dump trucks and drum rollers.
- Transfer broken boulders from temporary stockpile and machine place the broken angular boulders along the 1:1 cut slopes along the access road and pipe alignment to provide permanent slope stabilization and restoration using tracked excavation equipment, dump trucks and wheeled loaders.
- The work will include construction of a secondary access entrance to the construction site from the USFS road at the west end of the construction area near the existing screen structure. Secondary access entrance to be constructed from native materials and rocks excavated from the site for the pipeline installation work. Excavation, placing and compaction of the material by tracked excavation equipment, dump trucks, wheeled loaders and drum rollers. Temporary surfacing using imported crushed surfacing.
- Excavation area, slopes and other disturbed areas to be restored using either imported crushed surfacing, hydro seeded with native grasses and/or plantings and trees.

## **3) Replace City of Leavenworth Fish Screen and Construct New Screen House**

The City of Leavenworth intends to install a compliant fish screen for their municipal water supply intake when they relocate the water supply pipeline. The current screen will no longer meet state or federal criteria (WDFW 2009; NMFS 2011) for velocity, opening area, screen area, and lack of active cleaning on completion of the fish passage project. The City of Leavenworth seeks to reduce cost long-term by installing the screen at the same time they are upgrading their water supply pipeline. The current fish screen is located upstream at the diversion dam (RM 5.7).

To facilitate all construction and future maintenance of City of Leavenworth infrastructure, a secondary access point to the site will be constructed. USFS has requested that this access point come off of Forest Road 7600 from the existing kiosk just upstream of the boulder falls.

**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.

The work will occur over one to two months between:

Start date: April 1, 2019 End date: 12/31/2020  See JARPA Attachment D

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

\$2,000,000

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

- If **yes**, list each agency providing funds.

Yes  No  Don't know Salmon Recovery Funding Board

## 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

A field survey by a wetland biologist has confirmed that wetlands or buffers are not present on or adjacent to the project area.

**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

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

**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 <sup>1</sup>	Wetland type and rating category <sup>2</sup>	Impact area (sq. ft. or Acres)	Duration of impact <sup>3</sup>	Proposed mitigation type <sup>4</sup>	Wetland mitigation area (sq. ft. or acres)

<sup>1</sup> 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.

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

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

<sup>4</sup> 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. [\[help\]](#)

**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. [\[help\]](#)

## 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

- Existing paved and gravel roads provide access to the site.
- A temporary erosion and sediment control plan including coffer dams and silt curtains will be in place to minimize turbid water inputs to Icicle Creek. Construction activities will be isolated from any flowing water and will be done during low flows, following prescribed WDFW work windows. When pumps are used to lower the water, pumped water contaminated with sediment will be pumped to an upland site and allowed to infiltrate. Fish exclusion screens will be used where they are feasible to place and maintain given the flows at the time of construction. In areas where fish cannot feasibly be excluded from the area, work will be limited to rock breaking and placement. The rock breaking and placement will create minimal sediment disturbance.
- The least impactful method will be attempted for rock breaking and will advance to more forceful approaches only if needed.
- Disturbed slopes will be seeded and mulched.
- Any spoils temporarily piled on site will be covered with plastic. The excavated areas will be backfilled and stabilized to pre-project conditions.

**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

The proposed work will result in a functional lift in habitat for steelhead and bull trout. Some of the excavated material to be removed is fill generated by the construction of Forest Road 7600. Negative impacts to water quality will be small in magnitude and short in duration.

**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. [\[help\]](#)

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

Activity (clear, dredge, fill, pile drive, etc.)	Waterbody name <sup>1</sup>	Impact location <sup>2</sup>	Duration of impact <sup>3</sup>	Amount of material (cubic yards) to be placed in or removed from waterbody	Area (sq. ft. or linear ft.) of waterbody directly affected
Step-pool channel construction: <b>Fill</b>	Icicle Creek	In	Permanent	500 CY	150 LF <sup>3</sup>
Step-pool channel grout: <b>Fill</b>	Icicle Creek	In	Permanent	20 CY	150 LF
Water main installation and access road: <b>Fill</b>	Icicle Creek	Adjacent	Permanent	1,800 CY	1,500 LF
Water main installation rock retaining wall: <b>Fill</b>	Icicle Creek	Adjacent	Permanent	180 CY	130 LF
Fish screen bypass: <b>Fill</b>	Icicle Creek	In	Permanent	60 CY	1,500 sq. ft.
Fish screen bypass: <b>Fill</b>	Icicle Creek	Adjacent	Permanent	235 CY	1,500 sq. ft.
Screen house: <b>Fill</b>	Icicle Creek	Adjacent	Permanent	1,950 CY	4,000 sq. ft.
2 <sup>nd</sup> Construction Access: <b>Fill</b>	Icicle Creek	Adjacent	Permanent	1,240 CY	3,200 sq. ft.

<sup>3</sup> Note that the same area directly affected is often included for more than one entry, e.g., the 150 LF affected by fill from the step-pool channel is the same 150LF of stream affected by grout.

Step-pool channel construction: <b>Excavation</b>	Icicle Creek	Adjacent	Permanent	3,400 CY	150 LF
Step-pool channel construction: <b>Excavation</b>	Icicle Creek	In	Permanent	500 CY	150 LF
Water main installation: <b>Excavation</b>	Icicle Creek	Adjacent	Permanent	700 CY	1,500 LF
Fish screen bypass: <b>Excavation</b>	Icicle Creek	In	Permanent	60 CY	1,500 sq. ft.
Fish screen bypass: <b>Excavation</b>	Icicle Creek	Adjacent	Permanent	240 CY	1,500 sq. ft.
Screen house: <b>Excavation</b>	Icicle Creek	Adjacent	Permanent	2,200 CY	4,000 sq. ft.
<b>TOTAL Fill</b>	<b>Icicle Creek</b>	<b>In</b>		<b>580 CY</b>	
<b>TOTAL Fill</b>	<b>Icicle Creek</b>	<b>Adjacent</b>		<b>5,405 CY</b>	
<b>TOTAL Excavation</b>	<b>Icicle Creek</b>	<b>In</b>		<b>560 CY</b>	
<b>TOTAL Excavation</b>	<b>Icicle Creek</b>	<b>Adjacent</b>		<b>6,540 CY</b>	

<sup>1</sup> 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.

<sup>2</sup> 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.

<sup>3</sup> 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. [\[help\]](#)

**1) Boulder Field Fish Passage**

The fill placed within the channel in this task will be native rock that has been excavated from the channel to modify flows. Implementation of this design will include the following channel modifications, beginning at the upstream end of the project (see drawings, sheet 4):

- Spoil approximately 5 cubic yards of native rocks in the channel, which will be excavated to lower Boulder 77 by two feet.
- Spoil approximately 120 cubic yards of native rock in the channel, which will be excavated from the right of the Anchor Rock to lower elevation in this area.
- Up to 20 CY of rock grouting may be required to fill voids at the base of some rocks in order to maintain the desired pool depths.
- Cofferdams and silt curtains will be used to isolate the work area from flowing water and will be constructed of clean fill.

**2) Replace City of Leavenworth Water Supply Pipeline**

This work will occur adjacent to the waterbody, above the 100-year flood elevation. The length of disturbance will be up to 1,500 linear feet and will occur at a horizontal distance of approximately 50 feet from the waterbody. Activities involving fill include:

- Grading 12-foot wide access road generally centered over installed pipe along the length of the installed pipe between the screen structure and Snow Lakes Trailhead parking area and surfacing with imported crushed rock surfacing using tracked excavation equipment, wheeled loaders, dump trucks and drum rollers.
- A rock retaining wall will be constructed below the new access road to provide stability. The retaining wall will be constructed of approximately 180 CY of native rock materials which will be excavated in order to place the new water main.

**3) Relocate and Replace the Fish Screen and Construct Screen House**

All work is located on the river-left bank. Fill placed below OHWM to backfill the fish bypass chute for the fish screen will be sourced from native material excavated from the creek for the installation of the pipeline or roughened channel. The armor material on the bank will be oversize boulders from the excavation of the screen house, pipelines, or roughened channel.

Fill placed adjacent to the waterbody and above OHWM will be used as base material for the re-aligned IPID access road and the secondary access road entering the site from the west. The source for this road base material will be native materials and rocks excavated from the site for the pipeline installation work. A layer of crushed rock 4 inches deep (approximately 40 CY) from a commercial source will be placed and compacted on the road.

Concrete and debris associated with the demolition of the existing screen house will result in removal of approximately 200 CY, of which approximately 60 CY will be concrete.

**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. [\[help\]](#)

**1) Boulder Field Fish Passage**

A combination of excavation and rock breaking will be necessary during construction. Some of the left bank slope material will be excavated to create space for the step-pool channel. Slope excavation will proceed from higher elevation areas to lower elevation areas to maximize slope stability. The least impactful method will be attempted for rock breaking and will advance to more forceful approaches only if needed. Two assessments

were conducted in prior phases of work to evaluate the most effective and least impactful approaches for breaking rocks that will be encountered in constructing the step-pool channel. The four tools that were identified through these assessments for use in project construction are 1) hydraulic rock breaking hammers mounted on the end of an extractor arm, 2) the Boulder Buster™, a non-detonating rock-breaking tool that utilizes propellant technology, 3) expansive demolition grout, and 4) deflagrating low-velocity explosives may be applied if other methods have not been successful. In order to apply these tools, boulders may need to be excavated partially to have room for expansion. These techniques crack the rock and generate very little ground vibration, unlike high velocity explosives which create rock fly. Toth and Swanson (2016) describe these methods in detail and include photographs of the tools' application to boulders taken from the shoreline of Icicle Creek. Much of the native rock material will be spoiled in the channel as noted above. Material excavated for removal per the designs will be taken off-site to an approved location. Specific excavation volumes are as follows:

- Approximately 3,400 CY of material will be excavated from the slope above the boulder field between OHWM and the approximate elevation of the 100-year flood (elevation 1,370') to make room for the 120-foot step-pool channel. The excavated material will be hauled off site.
- In the channel, Boulder 77 will be lowered two feet by removing approximately 5 cubic yards of rocks, which will be spoiled in the channel.
- Approximately 120 cubic yards will be removed to the right of the Anchor Rock to lower elevation in this area; rock will be spoiled in the channel.
- Boulders 50, 51, and 28 will be removed (approximately 300 cubic yards). The notch at Boulder 29 will be plugged to create a drop and backwater

## **2) Replace City of Leavenworth Water Supply Pipeline**

Replacement of the water main will entail the following work involving excavation:

- Breaking of existing boulders within the pipe excavation boundary to a size manageable by tracked excavators and dump trucks. Breaking of the boulders would be by hydraulic rock breaking hammer mounted on a tracked excavator, or Boulder Buster™ method noted previously, or by use of deflagrating low-velocity explosives.
- Removal from the pipe excavation area of the broken boulders and native material to a stockpile location on-site near the screen structure. Estimated total of approximately 1,800 CY of material removed above the 100-year flood elevation (elevation 1,370'), and cutting side slopes to approximate 1:1 slopes to allow excavation for pipe installation using tracked excavation equipment and dump trucks.
- Excavating pipe trench to install 16-inch ductile iron pipe, valves, fittings and appurtenances. Excavation to be approximately 7-foot depth, installing pipe and imported pipe bedding to 8-inches below and above pipe, and backfilling/compacting pipe trench with native material to result in installed pipe with generally 5-feet of earth cover using tracked excavation equipment and wheeled front loaders.
- Transfer broken boulders from temporary stockpile and machine place the broken angular boulders along the 1:1 cut slopes areas along the access road and pipe alignment to provide permanent slope stabilization and restoration using tracked excavation equipment, dump trucks and wheeled loaders.
- The work will include construction of a second entrance to the construction site from the USFS road at the west end of the construction area near the existing screen structure. Second entrance to be constructed from native materials and rocks excavated from the site for the pipeline installation work. Excavation, placing and compaction of the material by tracked excavation equipment, dump trucks, wheeled loaders and drum rollers. Surfacing using imported crushed surfacing.
- Excavation area, slopes and other disturbed areas to be restored using either imported crushed surfacing, hydro seeded with native grasses and/or plantings and trees.

## **3) Relocate and Replace the Fish Screen and Construct New Screen House**

Material will be excavated by hydraulic excavator whenever possible. When rock breaking is required, it will be done at the contractor's discretion by mechanical breaking with a hydraulic impactor, chemical expansion, or "boulder buster" as described above. The least impactful method will be attempted for rock breaking and will

advance to more forceful approaches only if needed. Earth and rock will be moved via dump truck. It is probable that the majority of the material will be staged and re-used on site. If there is a surplus of material following the installation of the second access road, the material will be spoiled off site.

- a. Work tying into the existing water line will likely commence at the junction of the existing and proposed lines and work landward up out of OHWM. A hydraulic excavator and dump trucks are the anticipated heavy equipment to accomplish this work. 3,300 CY of native soil and rock will be removed and replaced. Imported crushed will be used to bed and surround the pipe. The proposed line is an 18-inch ductile iron pipe. Temporary spoils will be staged adjacent to the trench and/or near the proposed screen house location. Those spoils will then be used to backfill the excavation. 1H:1V side slopes and the use of trench boxes for safety and to reduce the amount of excavation are anticipated. The depth of excavation ranges from 4 to 17 feet in depth with an average of 13 feet. Disturbed material within OHWM will be topped with native streambed material from the excavation of the line and/or the roughened channel. Streambank material will be hydroseeded/seeded and mulched and planted. The majority of the upland disturbance will be within the footprint of the second access road and will be covered by fill and/or road surfacing (see drawings, sheet 3).
- b. Work for the bypass and sluice lines will occur in the direction of the contractor's discretion. A hydraulic excavator and dump trucks are the anticipated heavy equipment to accomplish this work. 300 CY native soil and rock will be removed and replaced in conjunction with the installation of these lines. The bypass and sluice lines are 12 and 18-inch PVC or HDPE respectively. Depth of installation ranges from 16 feet at the screen house to 5 feet burial depth at the stream bank. The pipes will be enveloped and bedded with crushed and after being backfilled with native material. 1H:1V side slopes and the use of trench boxes for safety and to reduce the amount of excavation are anticipated. Spoils will be staged in the vicinity of the proposed screen house. A portion of the upland disturbance will be within the footprint of the secondary access road and will be covered by road surfacing. A portion of the backfill at the bank will be armored to protect against erosion in conjunction with the existing screen house removal. The disturbed portion will be hydroseeded/seeded and mulched and planted.
- c. Removing the existing screen house concrete will occur from equipment operating with tracks on land. At the contractor's discretion, a hydraulic impactor or concrete saw may be used to reduce the building into manageable sized pieces. A hydraulic excavator and dump trucks are the anticipated heavy equipment to accomplish the majority of this work. 200 CY volume of building will be removed comprised of 60 CY of concrete rubble once broken down. Concrete will be disposed with a licensed facility or transfer station off-site. 140 CY boulders will be used to protect the bank from scour. The bank protection boulders will be native boulders sourced from the excavation of the pipelines and roughened channel. Constructed fill slopes will be 1.5-2H:1V and contoured to match existing native side slopes.
- d. The screen house will be excavated with excavators with assistance from rock breaking equipment as needed. 2,200 CY will be excavated and 1,950 CY of native backfill will be replaced. Concrete will be formed and poured on-site or precast elements will be used at the Contractor's discretion. Spoils will be incorporated in the access road fill construction and staged in that vicinity or along the route of the proposed pipeline. A crushed envelope will be placed and compacted around the concrete and then native material used for the remainder of the backfill. 1H:1V side slopes and the use of trench boxes for safety and to reduce the amount of excavation are anticipated. The depth of excavation is 16 feet. Disturbed soils outside the access road and building footprint will be hydroseeded/seeded and mulched and planted.
- e. The second access route will be constructed with 1,200 CY suitable native spoils from the pipeline, screen house, and roughened channel. It will be topped with a course of crushed rock sourced from a commercial operation. The work will be accomplished with hydraulic excavators, dump trucks, drum roller compactors, and other equipment the contractor selects. The outside of the fill may be treated



with boulders or hydroseeded/seeded and mulched depending on the material surplus nearing the conclusion of the work. Constructed fill slopes will be 1.5H:1V. Fill heights range from a match at grade of 0 ft up to 20 ft where it meets the paved edge of Forest Road 7600.

## 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
Chelan County Planning	Lilith Yanagimachi	509.667.6586	4/26/17
Chelan County Planning	Maggie Boles	509.667.6586	2/14/18
City of Leavenworth	Arnica Briody	509.548.5275	4/20/2016
City of Leavenworth	Cheryl K. Farivar	509.548.5275	9/9/2014
WDFW	Gary Bell	360.902.2412	1/22/2015
WDFW	Carmen Andonaegui	509.754.4624	4/26/17
WDFW	Jeremy Cram	509.664.3148 x 16	1/22/2015
WDFW	Amanda Barg	509.429.9285	5/6/18
WDNR	Cindy Preston	509.925.0969	5/3/18
WDOE	Andrea Jedel	509.454.4260	5/18/18
WDOE	Wendy Neet	509.575.2490	5/24/18
USFS	Kevin Smith	509.548.2585	8/23/18
USFWS	Robes Parish	509.548.2983	3/15/18
USFWS	Kate Terrell	509.548.7573	5/8/18
NOAA/NMFS	Justin Yeager	509.962.8911	4/15/2018
USACE	Jess Jordan	206.316.3967	6/5/18

**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

This portion of Icicle Creek is on the 303d list for temperature (Listing #42827; a Category 4A stream reach).

**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.

Wenatchee Watershed – 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 #.

WRIA #45 – Chelan

**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](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](http://www.dnr.wa.gov/BusinessPermits/Topics/ForestPracticesApplications/Pages/fp_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: 2012 Stormwater Management Manual for Western Washington (SWMMWW)

**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]

Historical use of the project site was explored in a 2013 study. A brief summary of prior use is described below; the full report can be found online: *Dominguez, L., P. Powers, E. S. Toth, and S. Blanton. 2013, Icicle Creek Boulder Field Fish Passage Assessment. Prepared for Trout Unlimited – Washington Water Project. Wenatchee, WA.*

<http://www.ecy.wa.gov/programs/wr/cwp/images/pdf/ICBoulderField6-7-13.pdf>

The original Icicle Creek road was built in 1934. The surrounding Okanogan-Wenatchee National Forest was established in 1908. The earliest historical records include 1905 General Land Office surveys of township and section boundaries. The 1905 map shows a trail on the south side of Icicle Creek, but no other signs of human disturbance. In 1914 topographic profiles were surveyed along Icicle Creek just prior to construction of the irrigation infrastructure. Again, no sign of human disturbance is noted in the study area.

The road currently used to access the irrigation diversion is a portion of the original Icicle Creek Road. The current Forest Road 7600 was constructed during 1964 to 1966 along the same route as the old Icicle Creek Road, except in the study area where the new road was built just upslope from the old road. Portions of Icicle Creek were filled with blasted rock boulders during the 1960s construction.

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

- If Yes, attach it to your JARPA package.

Yes  No

Per consultation with DAHP, with the consideration to the attached correspondence between the Confederated Tribes of the Colville Reservation and the cultural resources specialist of the Cascadia Conservation District, an archaeological monitor will be on site during excavation activities. The letter from the tribes outlines conditions for addressing inadvertent discoveries.

**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 following salmonids are listed as threatened or endangered by NOAA National Marine Fisheries Service:

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

Upper Columbia River spring-run Chinook (*Oncorhynchus tshawytscha*); **Endangered**

The US Fish and Wildlife Service identifies the following listed species in Chelan County:

Bull trout (*Salvelinus confluentus*) – Columbia River DPS; **Threatened**

Dolly Varden (*Salvelinus malma*); **Proposed-Threatened**

Canada lynx (*Lynx canadensis*); **Threatened**

Gray wolf (*Canis lupus*); **Endangered**

Grizzly bear (*Ursus arctos horribilis*); **Threatened**

Greater sage-grouse (*Centrocercus urophasianus*); **Candidate**

Marbled murrelet (*Brachyramphus marmoratus*); **Threatened**

Northern spotted owl (*Strix occidentalis caurina*); **Threatened**

Western Yellow-Billed Cuckoo (*Coccyzus americanus*); **Threatened**

Hackelia venusta (*showy stickseed*); **Endangered**

Wenatchee Mountains checkermallow (*Sidalcea oregana* var. *calva*); **Endangered**

Ute ladies' tresses (*Spiranthes diluvialis*); **Threatened**

Showy stickseed (*Hackelia venusta*); **Endangered**

Whitebark pine (*Pinus albicaulis*); **Candidate**

**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]

The following species and habitats are listed in WDFW's PHS database as potentially occurring within ½ mile of the project area. The species listing status, if listed, is included in bold. A conversation with WDFW's Gary Bell revealed that the agency has reviewed existing location data on the listed species identified below and does not expect project activities to impact any of the listed species. Except for in-water work windows, no restrictions are expected for the work from WDFW.

Species:

- Rainbow Trout (*Oncorhynchus mykiss*)
- Bull Trout (*Salvelinus malma*); **Federal: Threatened**
- Westslope Cutthroat (*Oncorhynchus clarki lewesi*)
- Mountain Goat (*Oreamnos americanus*)
- Golden eagle (*Aquila chrysaetos*); **State Candidate species**
- Grizzly bear (*Ursus arctos*); **Federal: Threatened; State: Endangered**
- Little brown myotis (*Myotis lucifugus*)
- Yuma myotis (*Myotis yumanensis*)
- Northern spotted owl (*Strix occidentalis*); **Federal: Threatened; State Endangered**

Habitats:

- Cave-rich areas

## 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/opas/](http://apps.ecy.wa.gov/opas/).
- Governor's Office for Regulatory Innovation and Assistance at (800) 917-0043 or [help@ora.wa.gov](mailto:help@ora.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 information about SEPA, go to [www.ecy.wa.gov/programs/sea/sepa/e-review.html](http://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: Chelan County

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).

Categorical Exemption. Under what section of the SEPA administrative code (WAC) is it exempt?

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): \_\_\_\_\_

**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](#)

Effective July 10, 2012, 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.

Charge to billing account under agreement with WDFW. Agreement # \_\_\_\_\_

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

HPA processing is conducted by applicant-funded WDFW staff.

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 # \_\_\_\_\_

**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.)

Section 10 (work in navigable waters)

**United States Coast Guard permits:**

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. \_\_\_\_\_ (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. \_\_\_\_\_ (initial)

Aaron Penvose

Applicant Printed Name

Applicant Signature

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.

Marnie Tyler

Authorized Agent Printed Name

Authorized Agent Signature

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.

Tony Jantzer- IPID Manager

Property Owner Printed Name

Property Owner Signature

Date

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 for Regulatory Innovation and Assistance (ORIA) at (800) 917-0043. People with hearing loss can call 711 for Washington Relay Service. People with a speech disability can call (877) 833-6341. ORIA publication number: ENV-019-09 rev. 08/2013