Exhibit "I" (Pre-Bid Tour Notes Upper Stillwaters Project Sites)

Signal Peak Side-Channel Site:

- Question: "Can the soil Pits Memo for the Signal Peak Side-Channel be made available?"
- Answer: "It had been included at the end of the notes."

- Question: "What size boulder will be used in the Signal Peak Side-Channel site?"
- Answer: "For the four type 4 large wood structures the boulders are 4.5' wide measured at B-Axis. These structures are designed to keep flows away from the Entiat River Road."

- Question: "Will the Contractor need to remove the PVC standpipes, three in all, along the alignment of the channel prior to construction.
- Answer: "Yes all three pipes need to be removed by the Contractor in a manner that allows them to be reusable."

- Question: "How much excavation will take place through the channel alignment?"
- Answer: "Excavation will occur at the inlet to the channel by removing the existing levy to floodplain height. The remainder of the channel will not require any excavation, but the intent is rather to preserve the natural alignment and channel form."

- Question: "How will the slash and trees that will be removed during construction to be used?"
- Answer: "Trees greater than 6" dbh are to be placed strategically in the margins of the channel and slash will be incorporated into the large wood structures." "In addition, Cedars are to be preserved whenever possible."

- Question: "How will the lower jams be constructed and from what location."
- Answer: "The lower wood structures will need to be constructed from the right-side of the channel avoiding using heavy machinery on the island adjacent to the mainstem Entiat River."

- Question: "If encountered during excavation can we use large boulders for some of the wood structures."
- Answer: "If large rock is excavated and they are of the correct size for the structures then yes they can be drilled and used for ballast, otherwise they will be placed off to the side and then as construction moves up the channel they will be strategically placed at engineer's discretion along channel alignment."

- Question: "Will turbidity be continuously monitored during in-water work?"
- Answer: "Yes, turbidity will be monitored at all sites during in-water activity at both upstream locations for background levels prior to construction as well as at downstream locations." This will be conducted by YNF project manager and exceedances over the DOE threshold will require additional BMPs at time of construction activity."

- Question: "Are there any additional access routes from the Entiat River Road down to the existing channel other than the upstream access already identified?"
- Answer: "No, the upstream access that has already been established during the groundwater and soil investigations is the only access and needs to remain that way. Additionally, upon project completion at this location the shoulders used for material and equipment staging on both sides of the Entiat River Road will need to be bladed out and straw placed over the entire area upon completion."

- Question: "Where can equipment be stored and refueled overnight."
- Answer: "Equipment may be stored along the two pullouts at the Signal Peak site as well as downriver at the school bus turnaround area. No equipment may remain on the Entiat River Road overnight. All fueling shall take place along the pullouts or at the school bus turnaround."

Rip-Rap Enhancement Sites A & B:

- Question: "How will the island be accessed in order to construct the island jam at Site "A."
- Answer: "The island jam will be constructed via access at the upstream end of Site "A" where there is a split flow condition that exists. A wet crossing with one piece of heavy equipment will take place. Once one excavator is on the island then materials will be handed from one excavator to another at the crossing location in order to minimize

disturbance. Upon jam completion then the excavator will need to blade out any signs of heavy equipment as he or she retreats. Once across the braided channel the access off of the Entiat River Road will need to be rehab. **Prior to the wet crossing block nets will be placed at both the upstream and downstream locations in order to keep the area clear of any fish that might be present during construction."**

- Question: "Will cofferdams be required for work along the rip-rap banks?"
- Answer: "No, a single cofferdam will be employed in constructing the island jam."

- Question: "What sort of pavement repair will be required at Sites A & B?"
- Answer: "Pictures will be taken prior to construction activities at these locations to document existing conditions; however some repair and patching will be unavoidable and may only be required in specific locations and not over the entire project area. The project manager will inspect the sites along with FS personnel prior to demobilizing equipment from each site to determine the appropriate level of repair, patching and/or complete resurfacing. **Road pavement and/or repair shall conform to WSDOT standard specifications current edition for hot mix asphalt (Section 5.04)." This translates to approximately 6" crushed rock and 3" Hot Mix Asphalt.**

- Question: "What is the statement in the bid packet about hog fuel delivery during construction?"
- Answer: "The project manager will coordinate delivery of hog fuel in two full bulk bags with the revegetation contractor and the construction contractor. It will be up to the construction contractor to haul hog fuel bulk bags over to island and placed close to structure location for installation at a later time by revegetation contractor."

Upper Burns Site:

- Question: "How far out do the rootwads extend on the Type 3 wood structure?"
- Answer: "Rootwads extend out approximately 10 feet or to the submerged boulders in the pool."

- Question: "Will the existing access route need to be bladed out post construction?"

- Answer: "Yes, the existing route will need to be bladed out to pre-project conditions avoiding existing wetland areas that will be clearly flagged." **This access route is the only routes that will not receive any sort of hay or straw post construction since this route is used continuously by the local community and monitoring outfits.**

- Question: "What is the road jurisdiction at the Upper Burns site?"
- Answer: "The Entiat River Road at the Upper Burns site is owned by Chelan County and as such will require a Chelan County Right of Way Permit to be obtained by the Contractor prior to construction at this location. This permit is required to work in the County right of way. The Contractor will need to submit a traffic safety plan along with the applicable permit fee. **The contact person at Chelan County Public Works for this permit is: Jim Pierson (509)-667-6496. Jim will determine if your traffic safety plan is adequate to County standards." Pavement repair at this location will be per County standards and *NOT WSDOT SPECIFICATIONS.***

- Question: "Can the Upper Stillwaters sites be accessed after the pre-bid tour?"
- Answer: "Yes, since the FS is public lands there are no restrictions for the Upper Stillwaters project sites."

General Notes & Comments Upper Stillwaters Sites:

- Question: "What is the spec. for the backfill material in the wood structures?"
- Answer: "The spec. and be found in the stamped final plans on page 11 of 13. It reads backfill with imported gravel and cobble material and supplement with approximately 30% salvaged fines and topsoil. Some of the material can come from the excavated trench and will be directed by project engineer.

- Question: "What is the soil spec. for the wetland benches?"
- Answer: "The soil needs to be a mixture of certified weed free topsoil and compost spread to a depth of 9" over 760sq. ft. or approximately 21cy. yards."

- Comment: "Contractor will be responsible for cutting wood for the rip-rap treatment sites. Currently the logs are 40' rootwads and will need to be cut to 12' to obtain rip-rap treatment wood and bumper logs/sticks."

- Comment: "The rip-rap units will need to be constructed prior to the in-water work window. The Preston Pit site will be can and will be used for these pre-project activities."

- Comment: "The bulk bag material is currently located at Preston Pit near its entrance. This material is to be used to fill bulk-bags and can be spread in the mainstem Entiat River upon project completion at a controlled rate as directed by the project manager."

- Comment: "The specific gravity for the boulders at all sites at a minimum needs to be 2.65."

- Comment: "The Contractor is responsible for obtaining the appropriate waiver for the IFPL at time of and during construction. **If it appears that the in-water work window will not be able to be met in the allotted time of July 16-July 31st only as a result of a shutdown due to high fire activity then the project manager will discuss with the permitters about wrapping up the work in the fall. In the event that this happens then the project manager and the Contractor will work to obtain a solution to complete the project that is acceptable to both parties.**

- Comment: "There are no work hour restrictions for any of the sites."

- Comment: "All excess spoils will need to be hauled offsite and disposed of at an approved upland area at the Contactor's expense. Any leftover wood will need to be hauled to the Preston Pit location at the Contractor's expense."

- Comment: "A sheet pile line item should be included in your bid proposal as an alternative bid item. The unit of measure to use will be lineal feet (lf)." This line item if needed will be considered a change order in the event of high flow conditions."

- Comment: "Sub-contracting will only be allowed if the contractor submitting the bid lists all subs he or she will be using; **however please keep in mind that during the YNF in-house bid scoring sub-contracting will result in a lower score."**

- Comment: "**If you are a contractor who is not on the YNF qualified contractor list then you need to submit your qualifications, references and list of equipment and jobs completed along with your bid for this project. If your qualifications are not submitted along with your bid then your bid will be considered incomplete and may result in you not being considered for the job.**"

- Comment: "**If you wish to hand deliver your bid to Toppenish then you the Contractor are responsible for getting your bid submitted by Close of Business on May 4th, 2017. If the person you are submitting your bid to is not "Jackie Olney" then it is up to the Contractor to send me an email of who you submitted it to that includes all of the details on your submittal. The address for in-person submittal is: Yakama Nation Fisheries Bldg., Fort Road, Toppenish, WA."**

- Comment: "There are **no TERO fees associated with this project."**

Tech Memo

To: Chris Clemons, Yakama Nation UCHRP

Authors: Dan Miller

Date: November 11, 2016

Re: Upper Stillwaters – Signal Peak side channel soil pits and pump test.

1. Introduction

Yakama Nation, Inter-Fluve and Wildlands completed soil pits and a groundwater pump test at the Signal Peak side channel on October 27, 2016. Field investigations were completed to inform design for channel stability, groundwater levels and LWM installation. The USGS gage at Ardenvoir reported a flow of 368 cfs for the day of testing (http://waterdata.usgs.gov/nwis/uv?12452800).

Four test pits were dug by Wildlands with a rubber tracked Caterpillar 305.5 E2 CR excavator along the proposed Signal Peak side channel at locations shown on Figure 1. Pits were dug to 4 to 5 feet of depth below ground (BG). Four inch diameter PVC piezometers with hobo water level data loggers were installed in Pits 1, 2 and 3. An atmospheric hobo data logger was hung in a tree nearby. A pump test was completed on Pit 1 located at the downstream end of the investigation which had sufficient water to warrant the test.

The following sections describe and document work completed and the results.

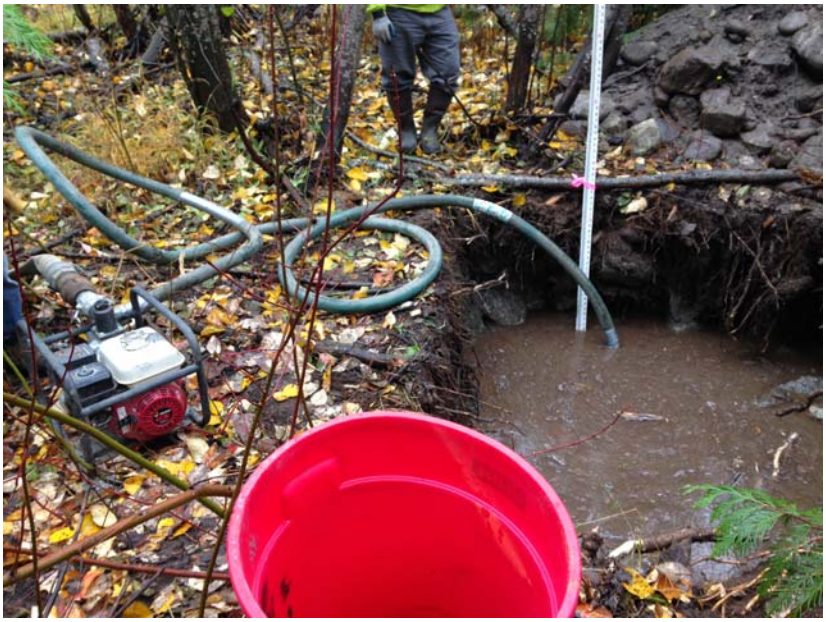
2. Soil pits and pump test

2.1. PIT 1

Soil Pit 1 was excavated to 4 ft BG where the excavator met refusal at either large boulders or bedrock across the footprint of the pit bottom. Water was encountered at 2.8 ft depth. As shown on the soil profile graphic in the attachments, soils from 0 to 1 ft BG were sandy silt with organics; from 1 to 2 ft BG was sand; and from 2 to 4 ft BG was gravel to boulder alluvium. The soil profile graphic includes photos of the pit and alluvial material.

A pump test was conducted on Test Pit 1 using a Honda GX160 2 inch trash pump (item number 106470B. S/N 1210 1941). A level rod was used as a temporary staff gage to record the water level during pumping. Pump outlet discharge location was selected in the field to prevent turbid water entering the Entiat River and or returning into the pit during pumping. The water level in Pit 1 was drawn down by 0.4 ft over approximately 22 minutes of pumping at a nearly constant rate. Flow rate was estimated by recording the time to fill a 32 gallon trash can; averaging two readings of 120 and 150 seconds for a flow rate of 14.2 gallons per minute (gpm, 0.03 cfs). After the pump was shut

off, the water level in the pit recovered 0.2 ft in 8 minutes. The pit was approximately triangular in shape, 8 ft on each side.



2.2. PIT 2

Soil Pit 2 was located along a dry existing high flow channel and excavated to 5 ft BG. Seeps were encountered at 3.5 ft depth. As shown on the soil profile graphic in the attachments, soils from 0 to 1.5 ft BG were slightly gravelly sand with minimal organics. From 1.5 to 5 ft BG alluvium including sand through 12 inch boulders with an occasional 24 inch boulder were encountered. The soil profile graphic includes photos of the pit and alluvial material.

There was insufficient inflow to conduct a pump test.

2.3. PIT 3

Soil Pit 3 was located along a dry existing high flow channel and excavated to 4.5 ft BG. No water or seeps were encountered. As shown on the soil profile graphic in the attachments, soils from 0 to 4.5 ft BG were all silt to 18 inch diameter subangular to subrounded stone. The soil profile graphic includes photos of the pit and alluvial material.

There was no water to conduct a pump test.

2.4. PIT 4

Soil Pit 4 was located at the inlet to a dry existing high flow channel and excavated to 5 ft BG. Water was encountered at 4.5 ft BG. As shown on the soil profile graphic in the attachments, soils from 0 to 5 ft BG were all sand and gravel with cobble and boulders up to 24 inch diameter. The soil profile graphic includes photos of the pit and alluvial material.

There was insufficient inflow to conduct a pump test.

Appendix-1

- Soils Profiles

ENTIAT UPPER STILLWATERS SIGNAL PEAK PROJECT

SOIL PIT AND PIEZOMETER LOCATIONS

0 60 120

SCALE IN FEET

LEGEND

- EXISTING ENTIAT RIVER CHANNEL
- PROPOSED SIGNAL PEAK SIDE CHANNEL
- CONTROL POINT
- 1 SOIL PIT/ PIEZOMETER LOCATION

SURVEY CONTROL

Point Number	Northing	Easting	Elevation	Description
105	335749.408'	1720656.997'	1937.463'	nail
204	335433.577'	1720912.078'	1918.847'	nail
801	335579.868'	1720773.694'	1923.388'	nail
802	335308.724'	1721013.726'	1920.162'	nail

SIGNAL PEAK - PIT 1

DEPTH, FT	SYMBOL	DESCRIPTION EG ELEV = 1903.60'	DEPTH, FT	NOTES
0'				
		SANDY SILT W/ORGANICS	1'	
		SAND	2'	
		GRAVEL TO BOULDER ALLUVIUM		WATER AT ~2.8' DEPTH
5'		4' BG. REFUSAL - BOULDER OR BEDROCK		
10'				
15'				

EXCAVATED MATERIAL

PIT

SIGNAL PEAK - PIT 2

DEPTH, FT	SYMBOL	DESCRIPTION EG ELEV = 1907.47'	DEPTH, FT	NOTES
0'		SLIGHTLY GRAVELLY SAND WITH MINIMAL ORGANICS	1.5'	
		ALLUVIUM: SAND TO 12" BOULDERS WITH FEW BOULDERS TO 24"	5'	SEEP AT 3.5' DEPTH
5'				
10'				
15'				

EXCAVATED MATERIAL

PIT

SIGNAL PEAK - PIT 3

DEPTH, FT	SYMBOL	DESCRIPTION EG ELEV = 1910.89'	DEPTH, FT	NOTES
0'		SILT TO 18" SUBANGULAR TO SUBROUNDED STONE.	4.5'	NO WATER DETECTED
5'				
10'				
15'				

EXCAVATED MATERIAL

PIT

SIGNAL PEAK - PIT 4

DEPTH, FT	SYMBOL	DESCRIPTION EG ELEV = 1913.91'	DEPTH, FT	NOTES
0'				
		SAND AND GRAVEL WITH COBBLE AND BOULDERS TO 24"	1'	
5'			5'	WATER AT 4.5' DEPTH
10'				
15				

EXCAVATED MATERIAL

PIT

TECHNICAL MEMORANDUM

To:	Chris Clemons, Yakama Nation
From:	Dan Miller
Date:	4/20/2016
Re:	Entiat River Upper Stillwaters: log-boulder restraint field test #2

OVERVIEW

The Upper Stillwaters Signal Peak and Upper Burns projects include a proposal to place Riprap Enhancement Wood on existing riprap protecting the Entiat River Road embankment to provide habitat complexity. The large woody material (LWM) would be placed on top of existing riprap to minimize risk to the existing riprap and road embankment. Site access is difficult – a crane or long reach excavator operating from the two lane paved road to place pre-assembled ballasted log units is the only workable solution for placing wood for habitat enhancement. Wood would be ballasted by attaching ballast boulders in a staging area prior to placement, hauling the wood to the site and placing with crane or long reach excavator. Given limitations on use of cable and chain, a field trial was completed to test the efficiency of attaching boulders to logs with fully threaded rod (FTR) and the feasibility of hauling and placing pre-assembled units.

TESTING

A scenario of preassembling log:boulder connections using FTR was assembled at Pipkin Construction's yard on March 30, 2016 and tested on April 12, 2016. Yakama Nation's Chris Clemons and Inter-Fluve's Dan Miller led the testing with assistance from Pipkin Construction crews using an excavator, boulders, logs and typical fastening materials with the following steps.

1) Considering access and manipulation of logs, boulders, FTR and equipment - the test log was placed on the ground, wedged between three boulders to hold horizontal position and propped on a log to hold vertical position.

2) The log was then drilled cleanly. The ballast boulder was positioned a sufficient distance from the log to prevent damaging the log drill bit on the boulder as it clears the log.

3) Following log drilling, the boulder is moved into position a few inches from the log and manipulated to sit solidly. A rock drill bit 36inch long is used to pass through the hole in the log to drill the ballast boulder on one continuous alignment.

4) The boulder is cleaned by air or water using a wand or extension to pass through the hole in the log to access the hole in the boulder. Following cleaning, epoxy is injected in the hole in the boulder using a flexible plastic tube as an extension on the epoxy gun to pass through the hole in the log to access the hole in the boulder. To prevent air pockets, epoxy is injected with the tip at full depth of the hole and retreating as the hole fills.

5) The FTR is passed through the hole in the log. Having cleanly drilled the log, wood particles were not observed on the threads as they cleared the log. This would be verified during field construction with threads cleaned as necessary before embedding into epoxy. The FTR is then twisted into the epoxy to fully wet ridges and valleys of the threads and seated to full depth of the hole in the boulder. The assembly is then left to cure per the epoxy manufacturer's requirements.

6) Manipulation and destructive testing was performed on April 12, 2016. A plate washer and heavy hex nut were installed and wrenched tight. The assembled unit was then lifted, swung and set down approximately 5 times to mimic handling from staging area, hauling and placement.

7) Then the unit was gripped by the log and rotated to move the boulder to about horizontal to the log and manipulated. Deformation of the wood resulted from the FTR bending. The FTR was remarkably malleable and durable. The log was then gripped about 6 feet from the boulder, rotated to position the boulder about horizontal to the log and roughly manipulated, bouncing the boulder vertically about 6-8 times. The log split at about the same time the FTR sheared cleanly at the log face closest to the boulder.

8) Following testing the boulder was weighed with Inter-Fluve's tensiometer at 2,500-lbs.

FINDINGS.

Preassembled boulder ballasted log units using FTR to connect boulders to the log is feasible. Preliminary design indicates that two boulders will be required on each log. Each boulder will be connected to the boulder by its own FTR connection. Multiple log units could be prepared concurrently in an appropriate staging area for efficient use of time and materials.

The FTR is malleable and durable but has limits. Handling should emphasize suspending the boulder below the log. A heavy eye-nut would facilitate handling in this manner as shown on the left in the photo below. Lifting the unit by the eye nut attached to the FTR will also aid in tightening

the heavy hex nut. The eye nut can then be removed after the unit is placed. A heavier FTR than the 7/8inch tested is recommended. A 1-1/8 or 1-1/4in FTR is recommended.

For ballast requirements, two boulders are attached to each log by their own FTR connection. Given handling recommendations, the two boulders should be located on the same side of the log. By shingling adjacent units during placement, boulders placed on the prior log would provide some restraint against rotation by buoyancy. The preliminary project plans will be updated to show this detail.

End of memo.