EXHIBIT A

RIGHT OF ENTRY
RIGHT OF ENTRY and CONSTRUCTION AGREEMENT for WDFW LAND

THIS AGREEMENT (hereinafter "permit") is granted to _____ [INSERT CONTRACTOR], whose business address is INSERT, (collectively hereinafter "Permittee" or "Contractor"), in accordance with a Memorandum of Understanding with the Yakama Nation for habitat enhancement projects dated ____, 2013_ (MOU), by THE STATE OF WASHINGTON, THE DEPARTMENT OF FISH AND WILDLIFE (hereinafter "WDFW"). Pursuant to the authority set forth in RCW 77.12.210 and subject to the terms and conditions set forth below, WDFW hereby grants to Permittee the right to enter along existing roads to implement a construction project for habitat restoration using WDFW property located in _____[INSERT] County, Washington, as more particularly described in Exhibit A hereto (hereinafter "the Premises") for the sole purpose of a habitat restoration project , as more particularly described in the design drawings and other materials attached as Exhibit B hereto ("the Project Design"). Performance Measures for successful completion of the Project are set forth in Exhibit C hereto.

THIS PERMIT IS SUBJECT TO THE FOLLOWING TERMS AND CONDITIONS:

1. **Term**. This permit is effective as of the date the last party signs this permit. Permittee shall not commence work on the Premises until the Yakama Nation has established the escrow required under the MOU, insurance and the performance bond are in place, and the contractor has obtained all necessary permits. The right to operate under the permit shall cease if any of the above requirements lapses during the term of the permit.

2. **Legal Description of the Premises**. WDFW is the owner of record of certain real property known as the INSERT Wildlife Area in INSERT County, located in Section INSERT, Township INSERT North, Range INSERT East, W.M., as recorded in INSERT under INSERT County Auditor's File Number INSERT, of which approximately INSERT acres are the Premises for this Project. The legal description of the Premises is set forth in Exhibit A hereto.

3. **Limited Rights**. Permittee expressly recognizes that the Premises are located within lands owned and operated by WDFW for wildlife habitat and public recreation. WDFW makes no warranty of quiet enjoyment of the Premises. Interruption of public recreational use of the property can only occur by specific, prior written permission from WDFW. No provision of this permit is intended, nor may be deemed, to transfer any real property from WDFW to Permittee. WDFW retains jurisdiction over its property in all other respects. WDFW retains the right of access to the Premises at all times. This permit shall not be deemed or construed to be an exclusive right; it does not prohibit WDFW from granting rights to other entities, providing these agreements do not unreasonably interfere with the operations of Permittee during the term of this permit. WDFW expressly reserves the rights to any trees, minerals, oil and gas resources, or any other valuable materials on the Premises so long as such activities do not unreasonably interfere with construction of the Project. This permit does not convey the right to build

roads or store any materials, vehicles, or equipment on WDFW property, except as necessary during periods of construction. In the event a road is necessary for construction, the permittee shall restore the road area to its original condition, unless otherwise agreed by WDFW.

4. **Project Manager**. Contractor acknowledges the Yakama Nation is solely responsible for contracting with and paying the Contractor to complete the Project described in the Project Design. That separate contract between the Yakama Nation and the Contractor creates no legal obligations upon WDFW. By contrast, contractor does bind itself to WDFW to fulfill all the obligations of this Permit. Notwithstanding the foregoing, the Yakama Nation shall be the Project Manager for the Project, but shall at all times cooperate with WDFW in its role as property owner. Contractor agrees the Yakama Nation and the Contractor are solely responsible for: (a) all costs of the Project; (b) fulfilling all obligations imposed by the Project's funding sources and grants; (c) completion of the Project as set forth below; and (d) compliance with all of the terms and conditions of this document. The Project is not a joint venture of WDFW and Permittee. Permittee, its employees, and contractors are not employees or agents of WDFW and shall not hold themselves out at such.

5. **Project Design and Construction**: WDFW and Contractor have reviewed and approved the materials for the Project Design, which are dated _____[INSERT] and are attached as Exhibit B hereto. Contractor shall complete the Project in strict compliance with the design materials which are incorporated herein. All references to the Project Design are to these materials. Changes to the Project Design require mutual agreement of the parties. The Project includes certain post-construction obligations set forth in Exhibit D-Adaptive Management Plan. During construction, Contractor shall use its best efforts to implement general construction practices designed to minimize surface disturbance during construction; shall undertake specific measures to lessen construction impacts to soils, and to restore disturbed land to its pre-construction state. The Yakama Nation or the Contractor if so assigned in the contract between the Yakama Nation and contractor shall, under the terms of the Adaptive Management Plan, monitor and maintain mitigation control measures for three (3) years following completion of construction, for any site disturbed by construction, including, but not limited to roads, trails, parking areas, and construction sites.

6. **As-Built Plans**. Upon completion of a project, the Yakama Nation and the Contractor shall jointly be responsible to provide to WDFW as-built drawings and specifications for the Project in a form acceptable to WDFW. A Yakama Nation representative and Contractor representative will meet with WDFW on site for a post construction meeting prior to demobilization to discuss any issues related to completion and post construction follow-up. The Yakama Nation will not make final payment to a construction contractor until seven (7) days after as-built drawings were sent to WDFW. Issuance of "as-builts" shall be deemed Project Completion for purposes of this Agreement.

7. **Permitting**. With respect to all of its activities on the premises, Contractor shall, at its sole cost, meet all of the applicable governmental laws, rules, regulations, and permitting requirements, including, but not limited to, those for the State Environmental Policy Act

(SEPA), hydraulic projects, hazardous substances, cultural resources protection, and payment of prevailing wages for public works under RCW 39.12. This permit is not a substitute for SEPA, a Hydraulic Project Approval, or any other permit. This obligation includes causing all work to be performed in compliance with federal and state cultural resources protection laws and regulations. Before commencing any work that involves disturbing the ground, Contractor shall provide proof to WDFW that it has complied with the legal requirements involving cultural and archaeological resources and has received a clearance letter from the State Historic Protection Officer.

8. **Insurance**: Contractor shall, at its sole cost and expense, procure and maintain, or cause to be procured and maintained during the entire Term, the insurance described in this section (or if not available, then its available equivalent), issued by an insurance company or companies licensed to do business in the State of Washington satisfactory to WDFW. Contractor shall procure and maintain the following:

(a) Liability Insurance. Commercial general liability, contractual liability, and automobile liability insurance covering all claims with respect to injuries or damages to persons or property sustained in, or about, the Premises and the Project with minimum amounts of insurance no less than the following:

Bodily Injury and Property Damage Liability: Four Million Dollars ($4,000,000) each occurrence.

Such limits may be achieved through the use of umbrella liability insurance sufficient to meet the requirements of this section.

(b) Workmen's Compensation Insurance. Workmen's compensation and employer's liability insurance with respect to any work by employees of Contractor on or about the Property.

(c) The policies shall name WDFW as additional insured, and Contractor shall, upon request, provide promptly to State certificates of insurance and copies of policies obtained by Lessee hereunder.

(d) The policies shall be written as primary policies not contributing with and not in excess of coverage that State may carry.

(e) The policies shall contain an endorsement providing that such insurance may not be materially changed, amended or canceled with respect to WDFW except after forty-five (45) days' prior written notice from insurance company to WDFW.

(f) The policies shall contain an endorsement with an express waiver of any right of subrogation by the insurance company against WDFW, its elected officials, agents, and employees.

(g) The policies shall provide that the insurance proceeds of any loss will be payable notwithstanding any act or negligence of Contractor which might otherwise result in a forfeiture of said insurance.

(h) The policies shall expressly provide that WDFW shall not be required to give notice of accidents or claims, and that WDFW shall have no liability for premiums.

9. **Performance Bond**. The Contractor must deliver to WDFW a performance bond in an amount sufficient to complete the Project as set forth in the Project Design and the post-construction obligations set forth in Exhibit D prior to operation under the permit. This performance bond is for the purpose of guaranteeing completion of this Project. In the event that the Contractor does not complete this Project, the bond may be used by WDFW, in WDFW's sole discretion, to complete this Project, to return the Premises to its current condition, or to otherwise stabilize the Premises, as WDFW deems necessary. WDFW's rights and the Contractor's obligations shall survive suspension, cancellation, and termination of this permit and shall continue until Completion of this Project and performance of all post-construction obligations.

10. **Licensed and Bonded Contractors**. Contractor shall, at its sole cost, ensure that all contractors and subcontractors performing work under this permit are licensed and bonded.

11. **Completion of the Project**. Completion of the Project is defined as: (a) WDFW-approved completion of all elements of the Project Design; (b) WDFW-approved demonstration of the Performance Measures set forth in Exhibit C; and (c) delivery to WDFW of as-built drawings. Post-construction obligations under Exhibit D will be deemed the separate obligation of the Yakama Nation unless otherwise assigned to the Contractor. The post construction obligations are nevertheless subject to the bonding and escrow requirements. Upon completion, all improvements and all additions, alterations, and improvements thereto or replacements shall become the property of WDFW without cost to WDFW.

12. **Indemnification**. To the fullest extent permitted by law, Contractor shall indemnify, defend, and hold harmless WDFW, and its officials, agents, and employees, from and against all claims for injuries or death or property damage arising out of or resulting from the performance or non-performance under this Permit. "Claim," as used in this contract, means any financial loss, claim, suit, action, damage, or expense, including but not limited to attorneys' fees, attributable for bodily injury, sickness, disease, or death, or injury to or destruction of tangible property including loss of use resulting therefrom. To the extent the RCW 4.24.115 applies, this indemnity shall not apply to the sole negligence of the indemnitee, and, in the event of concurrent negligence, the indemnity shall apply only to the extent of the Contractor's negligence. Contractor waives its immunity under Title 51 RCW to the extent it is required to indemnify, defend, and hold harmless State and its agencies, officials, agents, or employees.

13. **No Liens**. Permittee may not allow any lien for work, labor, services, materials, or any other reason related to the Project to be recorded or filed as an interest against the Premises or WDFW. If any such lien is recorded or filed, Permittee shall obtain, at its sole cost, a complete release of such lien.

14. **No Hazardous Substances**. Permittee shall not allow in or around the Premises any substance now or hereinafter regulated by any governmental authority as hazardous, toxic, dangerous, or harmful (hereinafter "hazardous substance"), unless said hazardous substance is necessary to carry out the Project and is handled in compliance with all applicable legal requirements. Permittee shall reimburse WDFW immediately upon demand for any and all cleanup costs and any and all other charges, fees, costs, fines, and penalties (civil and criminal) imposed on WDFW by any governmental authority for hazardous substances related to the Project.

15. **Vehicle Parking**. Representatives of the Yakama Nation assigned to this project and the Contractor and its employees, subcontractors, and agents are not required to purchase the Discover Pass or obtain a Day Use Permit so long as they are operating under the terms of this Permit. The Permittee and its employees and subcontractors shall, nevertheless, obtain from WDFW and display in the vehicle window a WDFW issued contractors's placard.

16. **No Assignment**. Neither this permit nor the rights and obligations set forth herein, may be assigned or sublet by Permittee in whole or in part.

17. **Suspension**. In the event of an emergency during the term of this permit, WDFW may suspend this permit, including Permittee's right to enter the Premises. Reentry by Permittee shall be only by written permission of WDFW. Permittee's obligations and WDFW's rights concerning insurance, and liability, shall survive suspension of this permit.

18. **Cancellation**. WDFW may cancel this permit for Permittee's failure to comply with any of the terms and conditions of this permit, failure to receive timely payments of administrative costs under the MOU or when WDFW is required to do so by another governmental authority. Contractor shall have no further rights to enter the Premises in the event of cancellation. Contractor's obligations and WDFW's rights concerning insurance and liability shall survive cancellation of this permit.

19. **Termination**. Unless earlier canceled, this permit shall terminate upon performance of all Permittees obligation relating to the project including construction, monitoring, and restoration. Permittee shall have no further rights to enter the Premises at termination. Permittee's obligations and WDFW's rights concerning the performance bond and liability shall survive termination of this permit.

20. **Venue**. Jurisdiction and venue concerning this permit are proper in the County in which the work occurred.

21. **Scope of Relief**. WDFW shall be entitled to injunctive relief, both prohibitive and mandatory, in addition to other relief, including, without limitation, specific performance of the terms and conditions of this permit. These remedies are cumulative and shall be in addition to all remedies now or hereafter existing at law or in equity.

22. **No Waiver**. WDFW's forbearance to exercise its rights under this permit in the event of any default by Permittee shall not be deemed or construed to be a waiver by WDFW of

such term or condition or of any of WDFW's rights under this permit. No delay or omission by WDFW in the exercise of any right or remedy shall impair such right or remedy, or be construed to be a waiver.

23. **Severability**. If any covenant or provision of this permit shall be adjudged void, such adjudication shall not affect the validity, obligation, or performance of any other covenant or provision, or part thereof.

24. **Signatories**. Each person executing this permit represents that he or she is authorized to sign this permit on behalf of his or her respective party, and that this permit is a legal, valid, and binding obligation upon his or her respective party.

25. **Entire Agreement**. This instrument and, to the extent incorporated herein, the MOU contain the entire agreement between the parties and no other statement made by either party, or its respective officers, employees or agents shall be valid, binding or enforceable. To the extent there is an inconsistency between the MOU and this right of entry, the terms of this right of entry shall prevail.

IN WITNESS WHEREOF, the parties hereto have mutually agreed upon the terms and conditions of this instrument and have caused it to be executed as below subscribed:

CONTRACTOR

TO BE SIGNED AT DATE OF ISSUANCE

_____ _____

Date
By:

WASHINGTON DEPARTMENT OF FISH AND WILDLIFE

TO BE SIGNED AT DATE OF ISSUANCE

_____ _____

Date
By:_____
Lands Division Manager

Approved _____ Date _____
WDFW REGIONAL DIRECTOR

Exhibit A: Legal Description of the Premises
Exhibit B: Project Design
Exhibit C: Performance Measures for Completion
Exhibit D: Adaptive Management Plan

M2 Two Channels Large Wood Enhancement
Adaptive Management Plan

Introduction

This document lays out the monitoring necessary to adaptively manage the Yakama Nation M2 Two Channels Large Wood Enhancement Project. This project has been extensively evaluated during the design process, however due to its location within a dynamic river environment this action has the potential to result in unforeseen or adverse impacts to property or people. The primary purpose of this Adaptive Management Plan is to set forth predictable and reliable mechanisms for identifying, responding to, and mitigating conditions not anticipated as a result of project implementation.

Project Description

The Yakama Nation M2 Two Channels Large Wood Enhancement Project is a fisheries enhancement and salmon recovery related project meant to increase cover habitat for juvenile anadromous fish in the Middle Methow Reach of the Methow River. The intent of the project is to place large wood and tree root masses with complex interstitchal-space structure along and within the low flow margins of the main river channel where rearing and migrating juvenile fish can find velocity refuge and cover from predators.

Goals and Objectives of the Adaptive Management Plan

Goal 1: Improve rearing and cover habitat conditions for juvenile salmonids at low river stages

Objective 1A: Ensure installed root wads are at least partially submerged at low flows.

Goal 2: Protect public safety

Objective 2A: Ensure installed structures do not impinge the active channel in a manner that could increase risk of injury to river users
Objective 2B: Ensure structures do not accumulate large woody debris
Objective 2C: Ensure deflector logs maintain position

(Goal 2's objectives reflect the high importance that the YN and WDFW place on public safety. This area is used in summer by inexperienced boaters and tubers. Objective 2A is addressing the concern that the structure will deform such that elements of the engineered structure will reach into the main current vectors, increasing the boating risk above pre project conditions. Objective 2B ensures that the structure does not accumulate debris such that the boaters are at additional risk. As additional method to reduce public safety risk, the YN are installing deflector logs at the upstream side of the habitat wood structures to ensure any floating objects carried on the current will be propelled away from the structures. Objective 2C ensures these deflector logs maintain their function of pushing hydraulic forces away from the habitat structures.)

Goal 3: Do not negatively impact adjacent properties

Objective 3A: Do not cause or increase bank erosion rates on adjacent or downstream properties.
Objective 3B: Ensure the installed structures have no effect of flood rise.

Goal 4: Preserve riparian and upland habitat conditions

Objective 4A: Preserve and/or restore riparian and upland vegetation conditions within construction access and staging areas
Objective 4B: Prevent establishment of noxious weeds in areas disturbed by construction activities

Project Details

The Two Channels Large Wood Enhancement Project includes approximately 36 log placements along a large boulder riprap face and a partially buried constructed log structure composed of 29 logs near the downstream end of the riprap. Boulder ballasting will provide stability to all of the wood placed along the riprap face. In order to ensure that the existing riprap is not destabilized by attached wood, new boulders will be brought to the site and installed with the wood. Two boulders will be attached to each log by cable.

The partially buried constructed log structure will use 12 vertical pilings to ensure the structure can withstand significant movement or loss when subjected to the hydraulic conditions of a 100-yr flood. Stabilizing piles shall be driven to greater than 18 ft, so that at least 8 ft of pile remains embedded if 10 ft of scour occurs. Additional adjustments to pile quantity may be made depending on results of pull out resistance tests during construction.

This project was designed by a professional engineer with expertise in riverine restoration and licensed in Washington State. The design flood for stability calculations was the 100-yr flood. The installed materials have been designed to withstand significant movement or loss when subjected to the hydraulic conditions of the 100-yr flood. Each habitat log shall be cabled to either a pile or a boulder and shall not deform under hydraulic forces. Minor adjustments and changes are expected to occur. These changes include minor debris accumulations, loss of slash, minor shifting of logs, localized scour zones, and localized depositional areas.

The structures will be installed on a relatively straight reach of river with visibility from approximately 1,000 ft upstream. Moderately swift flow can occur along the same bank as the structures so to minimize hazard to river recreationists, the structures will be configured to not extend far into the waterway and the upstream side of each structure will have logs angled downstream to shed and deflect. Each log will be tagged with a metal marker stamped with a unique numerical identifier.

Rehabilitation of construction staging areas and off-road access routes will take place after all construction elements are completed and once any native plant restoration around the large wood structures has been completed. Rehabilitation will include ripping compacted soils as necessary, planting native grass plugs, native potted shrubs, spreading native grass seed mixes, and applying weed free straw mulch over bare ground spots. We will also re-apply the large woody material over the access route in a manner to replicate pre-disturbance conditions.

Adaptive Management Monitoring Plan

The Yakama Nation UCHRP conducts post implementation monitoring on all Accord funded instream restoration projects in the Upper Columbia region. Post implementation monitoring is carried out through an on-call contract with our restoration design firm, InterFluve, Inc. (IFI). The intent of our post implementation monitoring program is to have professional restoration engineers and habitat designers objectively track and document the performance of each restoration project in adhering to the project's design standards. For every restoration project the project engineer creates a post implementation monitoring plan which includes a discussion of site conditions that would trigger action items or interventions/adaptive management. Much of what is included in our programmatic monitoring program covers what may be necessary to provide for adaptive management monitoring under the site access agreement with WDFW. A copy of the contracted Scope of Work for the Upper Columbia Post Implementation Monitoring of Project Conditions for the Yakama Nation is provided as an attachment to this monitoring plan.

The Two Channels Large Wood Enhancement Project will be monitored for a number of years to track and document the performance of the project in adhering to the design standards described in the Engineer's post-construction monitoring plan, with qualitative post-construction performance and evolution of constructed features and associated physical habitats. A subset of the monitoring efforts at the site will focus on the adaptive management goals and objectives stated previously within this document. Some components of the monitoring will occur annually at low and high water levels, as noted in the attached Adaptive Management Matrix. Other monitoring components will occur based on timelines and frequencies prescribed in the Engineer's post-construction monitoring plan and will be evaluated by professional restoration engineers and habitat designers. The monitoring activities and the data collected under the post-construction monitoring plan include:

- record of peak flows that have occurred in interim since previous monitoring site visit,
- photo documenting of the project from photo points,
- measurements and sketches of zones of erosion, scour and sediment deposition,
- photographs and sketches of zones of plant species complexity and vigor,
- river discharge on dates of site visits.

Documentation will include a narrative description of field observations, photo album with captions, sketched graphics, hydrologic history, and discussion on project performance and observed changes relative to previous monitoring visit.

Following completion of each round of field monitoring, a report will be developed to present the assimilated monitoring notes and photos and provided to WDFW. The report will include a description of methods including any variation to the Engineer's post-construction monitoring plan and reasons for variation, site conditions at the time of monitoring, and a summary of preceding flow conditions characterized by the record from the Methow River USGS Winthrop

gage with a focus on peak events that may have occurred prior to monitoring. The report will include a brief section for each monitored feature including representative photographs from each photo point and a narrative describing the conditions of the habitat feature. The report will also include specific information for each objective, metric and action threshold, if reached.

Baseline monitoring will begin immediately following construction to establish baseline conditions. The Baseline Monitoring will be used for comparison to all future monitoring efforts and will allow for determination of the type and magnitude of change to features over time. Baseline monitoring will be completed after completion of construction and before high flows occur.

After baseline monitoring, successive rounds of monitoring will take place on a regular schedule and following any 5-year or greater recurrence flood event based on real time flows recorded at the Methow Winthrop USGS gage. Monitoring activities will occur at years 1, 2, 3, and 5. If minimal change is noted after year 3, or following one 5-year or greater flood event, the monitoring may be discontinued. No formal monitoring is proposed beyond year 5.

The project construction plans will be modified to show the as-built condition of each site. These plans will be used as base graphics for sketches that will include (as applicable):

- locations and extents of erosion,
- scour and deposition areas,
- deformation or absence of any project elements,
- presence and characterization of accumulation of debris, and comparison to previous monitoring observations and photos,
- adjacent river bed and bank conditions and their approximate dimensions relative to the constructed feature. Substrate sizes in scour and deposition zones will be estimated with a scale and ocular methods and noted on the sketch.
- Condition of riparian vegetation will be noted on the graphics as to zones of species complexity and plant vigor.

Decision making structure

To ensure timely review of monitoring information and execution of management actions, the Yakama Nation commits to notify and meet as soon as possible with WDFW staff after any report that a monitoring threshold has been crossed and before management actions are triggered. In determining appropriate Adaptive Management Actions, the Yakama Nation UCHRP staff will use a consensus model of decision making with appropriate WDFW staff that has four levels of consensus: accept, accept with reservations, don't accept but allow decision to proceed and finally, block. If either entity blocks, the entity must state how the concerns relate to project goals/objectives, ecological, legal or financial basis for the decision and shall continue to actively participate in looking for a solution. If consensus cannot be reached after 30 days, then WDFW as the landowner will be responsible for making the final decision. If requested, the Yakama Nation may assist WDFW in seeking financial support for the chosen action.

Two Channels Large Wood Project - Adaptive Management Matrix Exhibit

	Adaptive Management Priority	Monitoring Type	Project Objective	Adaptive Management Objective	Performance Metric	Monitoring Method	Adaptive Management Action Threshold	Adaptive Management Action	Who Monitors	When	Party Responsible for AM Action	Restarting of Performance Monitoring Period
Definitions	Numbered priorities to communicate what is most important	Implementation: Effectiveness: Validation:	High level goal of project. These are just a handful	Specific environmental conditions desired from project	What will be measured to know if adaptive management objective is achieved	How the performance metric will be measured	Project result that, if achieved, must be addressed with an action	Action that will be taken if threshold is reached	Person or organization responsible for adaptive management objective monitoring	When monitoring will occur	Person or organization responsible for implementing adaptive management actions including all elements of contracting and fiscal responsibility if threshold is reached.	Management Action that would reissue the adaptive management monitoring period as per Article 10.2 of the AMP
	1	Imp. And Eff.	**Goal 1: Improve rearing and cover habitat conditions for juvenile salmonids at low river stages**	**Objective 1A: Ensure installed root wads are at least partially submerged at low flows**	rootwads are in contact with river at low flows	Visual inspection and comparison to as-built plans (YN-IFI contract)	rootwads have no contact with river a low flows	Structure will be modified	YN	Low Flows - summer and winter	YN for first 5 years	Structure is modified to increase contact with river at low flows
	1	Imp. And Eff.	**Goal 2: Protect public safety**	**Objective 2A: Ensure installed structures do not impinge the active channel in a manner that could increase risk of injury to river users**	Imp: Extension of wood elements into main current vectors at typical recreation flows (2,000 to 500 cfs) and Eff: have the wood elements moved from the initially constructed positions	Visual inspection, photo points comparison, and comparison to as-built plans (YN-IFI contract)	IMP: Wood elements are not in main current vectors at typical recreation flows. Eff: Structure creates an unsafe or damaging situation for river users or adjacent landowners (racked debris extends into major flow paths)	Structure will be modified or removed	YN	As per YN-IFI Monitoring Protocol	YN for first 5 years	Structure is modified to ensure there is no impingement of the active channel in a manner that could increase risk of injury to river users
	1	Eff.		**Objective 2B: Ensure structures do not accumulate large woody debris**	Large wood racking and maintaining against installed structures	Visual inspection and photo points comparison for strainer type debris accumulation (YN-IFI contract)	Structure racks large woody debris causes increased recreational safety hazards	First, debris will be modified or removed and original structure will be left unchanged. If condition reappears, original structure will be modified or removed	YN	As per YN-IFI Monitoring Protocol	YN for first 5 years	Structure is modified to prevent accumilation of woody debris
	1	Eff.		**Objective 2C: Ensure deflector logs maintain position**	Have the deflector logs moved since being constructed?	Have the deflector logs moved since being constructed?	Deflector logs no longer operating as intended	Deflector logs will be repaired or replaced to original design specs, or to a spec agreed upon by YN and WDFW	YN	As per YN-IFI Monitoring Protocol	YN for first 5 years	Structure is modified to ensure deflector logs maintain position
	1	Eff.	**Goal 3: Do not negatively impact adjacent properties**	**Objective 3A: Do not cause or increase bank erosion rates on adjacent or downstream properties.**	New or increased bank erosion apparent on adjacent or downstream properties	Visual inspection, photo point comparison, communication with adjacent landowners, and comparison to historic aerial imagery	readily apparent increased or new erosion within the potenial zone of hydraulic effect of the structure	Structure will be modified or removed	YN	As per YN-IFI Monitoring Protocol	YN for first 5 years	Structure is modified to eliminate or reduce erosion rates on adjacent or downstream properties
	1	Eff.		**Objective 3B: Ensure the installed structures have no effect on flood rise.**	Flood staging locally increasing upstream of the structure	Visual inspection of river stage effects at average high flows	noticeable inundation of shoreline above the ordinary high water line during average high flows	Structure will be modified or removed	YN	High Flows	YN for first 5 years	Structure is modified to eliminate or reduce effect on flood rise
	1	Eff.	**Goal 4: Preserve and enhance riparian and upland habitat conditions**	**Objective 4A: Preserve and/or restore riparian and upland vegetation conditions within construction access and staging areas**	Is there a noticeable loss of riparian or terrestrial habitat based on vegetation conditions in disturbed areas from surrounding matrix habitats (<90% Survival of newly planted revegetation)	Plant survival tally by vegetation specialist	Survival is less than 90%?	areas will be replanted as needed to replicate adjacent vegetation community plant densities. Browse protection may be installed and/or a hand watering regimen begun if necessary	YN	annualy during growing season	YN for first 5 years	Areas restored in association with the original project are replanted and/or retreated to improve plant survival.
	1	Eff.		**Objective 4B: Prevent establishment of noxious weeds in areas disturbed by construction activities**	Are noxious weed populations establishing within areas effected by construction activities	Visual inspection by vegetation specialist - estimate of population size by species	the occurrence of any state listed noxious weeds within the construction impact areas	noxious weeds will be removed by hand, mechanical means, and/or herbicides	YN	Twice annualy during growing season	YN for first 5 years	Any year that a weed removal effort above handpulling of newly rooted weeds during routine maintenance will be subject to a restarting of the perfomance period.
	1	Eff.		**Objective 4C: Ensure fence effectively excludes deer**	Deer grazing or evidence of grazing in deer exclosure	Visual inspection by vegetation specialist	Deer browsing or evidence in deer exclosure	Install higher fence, fix fence, or remove fence if constant repairs prove to be necessary	YN	Monthly from May - September, once from October - December, and once from January - April	YN until fence is removed	This perfomance monitoring will be done until fence is removed
				Objective 4D: Beaver activity doesn't impact deer enclosure	Beavers damaging fencing	Visual inspection by vegetation specialist	Beaver activity compromises integrity of fence	Remove beaver debris and repair fencing as needed	YN	Monthly from May - September, once from October - December, and once from January - April	YN until fence is removed	This perfomance monitoring will be done until fence is removed
	1	Eff		**Objective 4E: Deer exclusion is actually allowing cottonwood canopy release**	cottonwood forest canopy is establishing	Canopy Height and % cover over ground	No increase in canopy height or % cover over ground	Remove fence	YN	Twice annualy during growing season	YN until fence is removed	This perfomance monitoring will be done until fence is removed

Two Channels Large Wood Enhancement Adaptive Management Plan Attachment 2

Upper Columbia Post Implementation Monitoring of Project Conditions for the Yakama Nation

Contracted SOW with InterFluve, Inc.

Overview

Yakama Nation Fisheries, Upper Columbia Habitat Restoration Project (UCHRP) (Owner) is conducting Post Implementation Monitoring of Project Conditions, phases 1 and 2, for the Methow, Entiat, and Wenatchee Projects. This contract is designed to monitor implemented structural projects for fish habitat for listed species within the three Watersheds.

Scope of Work

Create and Provide a Design Report

Contractor will prepare a Design Report for each project that gets installed. The Design Report will summarize project goals, field data collection, and technical design of the project including site survey, hydrology, hydraulics, grading, anchoring, and quantities/totals. A draft report will be provided for review, comment, and feedback. Revisions will be made to finalize the report.

Produce a Monitoring Plan

Contractor will develop a Monitoring Plan for each project that gets installed. The Monitoring Plan will document post-construction conditions and will outline future monitoring activities that will be completed. Documentation of post-construction conditions will include a description of the completed project, preparation of as-built drawings, and results of initial post-construction monitoring. This information will serve as a baseline for comparison to future monitoring data. The plan will also identify specific future monitoring activities and schedule; however, actual future monitoring activities will be conducted under a separate scope of work. Monitoring activities to be described in the plan may include photos, notes/sketches, measurements, ocular sediment data, and other activities depending on the project type and objectives. The monitoring schedule will describe the plan for regular scheduled monitoring as well as for monitoring in response to high water events. There will also be a discussion of site conditions that would trigger action items or interventions/adaptive management. The Monitoring Plan will be submitted to Yakama Fisheries staff for review, comment, and feedback. Revisions will be made as necessary to finalize the plan.

Monitoring

Completed projects will be monitored to track and document performance. Monitoring efforts at the site will focus on qualitative post-construction performance and an evolution of constructed features and associated physical habitats. The monitoring activities and the data collected include: repeat photographs from mapped locations, simple hand measurements and sketches of zones of erosion, scour and sediment deposition. Revegetation will be monitored and documented via photographs and sketches of zones of plant species complexity and vigor. Documentation will be a narrative description with representative photos and sketched graphics as needed to illustrate change.

Monitoring Phase 1- Site Investigation

Task 1 - Hydrologic history

River flows are recorded at USGS gages within each water shed the work was performed. A summary of maximum flows between monitoring events should be summarized in each report. Flows at the time of the monitoring effort should be summarized with a comparison to mean daily discharge. Effort will be made to conduct monitoring at similar flows to provide comparable observation efficiencies and photos.

Task 2 - Photo Points

Locations have been identified that will visually document individual features, overall condition and the associated physical habitat. Photo point locations are identified in the as-built reports. Photos will be taken at those approximate locations for each subsequent monitoring year.

Subsequent baseline monitoring efforts will include adjusting the photo locations and determining if a panoramic is preferred from the frontal view.

- Given the large areas, re-vegetated zone photo points can be less formal with photograph locations noted on project graphics during each monitoring event.

Notes should be taken of project feature, photo orientation and unique conditions or features the photographs are documenting. Efforts will be made to produce high resolution photos of similar magnification and framing to provide easy visual comparison of project changes for reports and presentations.

Task 3 -Field Sketches and Narrative

At each constructed feature, a field sketch and narrative of any changes from prior monitoring conditions will be completed. Photographs from prior monitoring events will be compared to field conditions to estimate changes. Sketches will be as detailed as possible based on observations and simple measurements and should include a plan and elevation sketch at each location. The as-built reports in Appendix A provide construction plans for use as base graphics for sketches of locations and extents of erosion, scour and deposition areas, accumulation of debris, adjacent river bed and bank conditions and their approximate dimensions relative to the constructed feature. Substrate sizes in scour and deposition zones will be estimated on the percent composition using the Wentworth scale metrics and noted on the sketch. Total number

of woody material will be summarized to identify projects are gaining / loosing material.

Task 4 - Action triggers
The projects are located within dynamic river environments. If monitoring activities detect undesirable performance or change to the habitat work, a range of actions or responses may be initiated based on professional opinion.

- No action needed.
- For minor change in function, a flag may be placed in the monitoring report to watch and respond at a later time if the condition worsens.
- Moderate changes may require a recommendation for intervention based on professional opinion and work by YN to remedy the issue.
- Serious changes that would influence human safety or infrastructure may require design and contractor with heavy equipment to remedy the issue.

Recommendations will be discussed with YN staff to determine a course of action. The findings, recommendation, and decision will be documented in each report year as it becomes necessary.

Task 5 - Revegetation areas
Identify deficiencies in the revegetation efforts for each site, which may include:

- plant species complexity,
- plant vigor, and
- invasive species

The degree of deficiency would be based upon percent of total area, or area of specific problem item. Noted deficiencies in vegetation reestablishment may prompt action to improve site recovery, reduce sediment mobilization and invasive species propagation.

Monitoring Phase 2 – Reporting

Task 6 - Monitoring Report
Following completion of each round of in the field monitoring, a report will be developed to present the assimilated monitoring notes and photos. The report will include a description of methods including any variation to the monitoring plan and reasons for variation, site conditions at the time of monitoring, and a summary of preceding flow conditions characterized by the record from the USGS gage with a focus on peak events that may have occurred prior to monitoring. The report will include a brief section for each monitored feature including representative photographs from each photo point, narrative describing the conditions of the habitat feature. Making notes of any changes to the structures or physical habitats between monitoring years.

Monitoring Schedule
Monitoring should begin the subsequent year following construction to establish changed conditions. The as-built reports will be used for comparison for all future monitoring

efforts and will allow for determination of the type and magnitude of change to features over time.

Deliverables: Report of findings that will include drawing set, pictures, flow history, and recommendations for each site identified.

Project Performance Measures Exhibit

Introduction

The Confederated Tribes and Bands of the Yakama Nation (YN) have established the following procedures to ensure that the Middle Methow Two Channels Large Wood Enhancement Project (Project) is constructed according to engineered designs and specifications. These procedures include performance measures that are intended to ensure that the Construction Contractor (Contractor) methods, quantities, and quality meet the specifications of the Construction Contract (Contract) and the intent of the design at each stage of construction.

Documentation assembled during the construction period and at final inspection will serve as the baseline condition for the Adaptive Management Plan. Deviations, changes, or omissions from the original Project plans and specifications will be documented in final Project As-built drawings, which will become part of the Performance Measures package.

Project Performance Measures

Key Performance Measures have been identified for Project construction to monitor progress and identify any issues that might interfere with planned Project objectives or Project completion. These Performance Measures are listed below:

1. **Daily Construction Observation**: The Design Engineer or Engineer's Authorized Representative will be onsite during construction and will be present during the construction of major elements. The Engineer will be responsible for populating a daily log of construction activities. In terms of the Adaptive Management Agreement, construction observation and documentation provides a resource that can be reviewed to determine potential causes in the event an adaptive management concern is identified at a later period.

2. **Performance-Based Pay Schedule**: Contractor compensation will be based on the adequate completion of contracted work tasks. Requests for payment must demonstrate completion or owner established percentage completion for each defined task prior to payment. Satisfactory demonstration of completion or percent completion will be determined by the Engineer or Engineer's Authorized Representative.

3. **As-built Drawings and Survey Field Records**: The Contractor will be required to maintain two sets of full-size prints of the contract drawings on site throughout construction. During construction, the Contractor must mark up the drawings to show variations between actual construction details and the specifications, including any changes between actual existing conditions and those shown on the drawings, actual materials used when a choice of materials or methods is allowed, or where any variations in the scope and character of the work are authorized during construction. The Contractor must then provide marked and signed copies of the contract drawings to YN within two weeks of substantial completion of the Project. The Design Engineer or Engineer's Authorized Representative will provide certified As-Built drawings within six months of project completion. These drawings and field records, along with the daily observer reports, document the baseline condition of the Project following completion.

4. **Final Inspection and Acceptance**: The Contractor will not be authorized to demobilize until YN has completed a final site review. All design elements must be completed before the final site review will take place. Performance will be tracked on a project checklist that will document completion on each of the key project actions/elements. Final site approval is contingent on successful completion of all Project elements and tasks, site cleaning, removal of temporary access routes and staging areas, and restoration of areas disturbed by construction with areas to be re-vegetated left in a condition suitable for planting. YN must accept Project completion in writing. Once the Project has been inspected and accepted by YN, the Adaptive Management period will begin.

Performance Tracking Table – Individual project elements:

Project Element	Completion Date	Acceptance (YN Representative's Signature)	Performance Requirement
Construction Phase			
Bank Buried Engineered Log Structure			Built as designed
Riprap Large Wood Placements			Built as designed