

SEPA ENVIRONMENTAL CHECKLIST

UPDATED 2014

Purpose of checklist:

Governmental agencies use this checklist to help determine whether the environmental impacts of your proposal are significant. This information is also helpful to determine if available avoidance, minimization or compensatory mitigation measures will address the probable significant impacts or if an environmental impact statement will be prepared to further analyze the proposal.

Instructions for applicants: [\[help\]](#)

This environmental checklist asks you to describe some basic information about your proposal. Please answer each question accurately and carefully, to the best of your knowledge. You may need to consult with an agency specialist or private consultant for some questions. You may use "not applicable" or "does not apply" only when you can explain why it does not apply and not when the answer is unknown. You may also attach or incorporate by reference additional studies reports. Complete and accurate answers to these questions often avoid delays with the SEPA process as well as later in the decision-making process.

The checklist questions apply to all parts of your proposal, even if you plan to do them over a period of time or on different parcels of land. Attach any additional information that will help describe your proposal or its environmental effects. The agency to which you submit this checklist may ask you to explain your answers or provide additional information reasonably related to determining if there may be significant adverse impact.

Instructions for Lead Agencies:

Please adjust the format of this template as needed. Additional information may be necessary to evaluate the existing environment, all interrelated aspects of the proposal and an analysis of adverse impacts. The checklist is considered the first but not necessarily the only source of information needed to make an adequate threshold determination. Once a threshold determination is made, the lead agency is responsible for the completeness and accuracy of the checklist and other supporting documents.

Use of checklist for nonproject proposals: [\[help\]](#)

For nonproject proposals (such as ordinances, regulations, plans and programs), complete the applicable parts of sections A and B plus the [SUPPLEMENTAL SHEET FOR NONPROJECT ACTIONS \(part D\)](#). Please completely answer all questions that apply and note that the words "project," "applicant," and "property or site" should be read as "proposal," "proponent," and "affected geographic area," respectively. The lead agency may exclude (for non-projects) questions in Part B - Environmental Elements –that do not contribute meaningfully to the analysis of the proposal.

A. background

1. Name of Proposed Project:

Indian Creek Floodplain Restoration Project – Teanaway River Basin

2. Name of applicant:

William Meyer, Washington State Department of Fish and Wildlife

3. Address and phone number of applicant and contact person:

Primary:

Scott Nicolai, Habitat Biologist
Yakama Nation
201 North Pearl Street
Ellensburg, WA 98926
(509) 962-6142
ykfphabitat@fairpoint.net

Secondary:

William Meyer, Fish and Wildlife Biologist
Washington State Department of Fish and Wildlife
201 North Pearl Street
Ellensburg, WA 98926
(509) 899-2587
William.Meyer@dfw.wa.gov

4. Date checklist prepared:

December 10, 2014

5. Agency requesting checklist:

Washington State Department of Ecology

6. Proposed timing or schedule (include phasing if applicable):

It is the intent of the Yakama Nation (YN), in collaboration with the Washington State Department of Fish and Wildlife (WDFW) and the Washington State Department of Natural Resources (WNDR) to restore fish habitat, groundwater storage capacity, and a more normative hydrograph in the headwaters of the Teanaway River at Indian Creek (Figure 1) by improving floodplain functions. This project could start as early as November 20th, 2014. The YN has developed a phased plan for restoration activities on Indian Creek, after the adoption of the Teanaway Community Forest (TCF) Management Plan (timeline goal for adoption is June 30th, 2015), project specific proposals will be evaluated in the context of the goals and objectives identified in the Management Plan and will have individual SEPA reviews, as required.

Indian Creek Floodplain Restoration Project

Statewide Locator Map

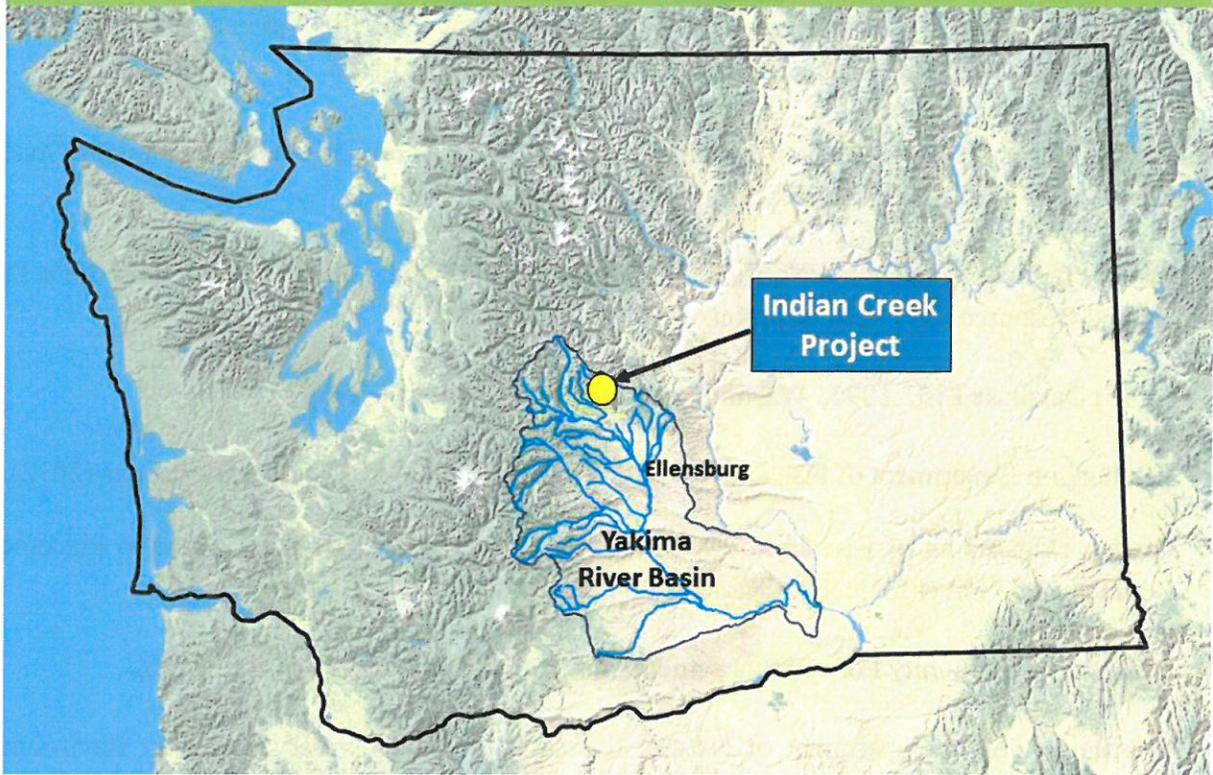


Figure 1. Location of the Indian Creek Project, Kittitas County, WA State.

7. Do you have any plans for future additions, expansion, or further activity related to or connected with this proposal:

It is the goal of the YN to construct three (3) more restoration activities on Indian Creek within the TCF. There are also many other projects meeting the goals set forth in the TCF legislation that will be evaluated in the context of the Management Plan, when adopted. When specific projects are proposed, and evaluated in the context of the goals and objectives identified in the Management Plan, individual environmental reviews in compliance with SEPA will be conducted, as required.

The only future/further activity would be related to monitoring and adaptively managing restoration elements/response of Indian Creek to maximize project effectiveness and contribute to the success of subsequent phases.

8. List any environmental information that you know has been prepared, or will be prepared, directly related to this proposal:

The following is a list of documents that were used that are applicable to this document:

- Yakima River Basin Integrated Water Resource Management Plant. Programmatic Environmental Impact Statement. March 2012. U.S. Bureau of Reclamation & Washington State Department of Ecology.

- Habitat Limiting Factors: Yakima River Watershed Water Resource Inventory Areas pgs. 37-39, Final Report. 2001. Harling, D., Washington State Conservation Commission.
- Yakima Steelhead Recovery Plan. 2009. Extracted from the 2005 Yakima Subbasin Salmon Recovery Plan with Updates. Yakima Basin Fish & Wildlife Recovery Board.
- Yakima River Steelhead Radio Telemetry Study. 1995. Yakama Nation & Washington State Department of Fish and Wildlife, Yakima/Klickitat Fisheries Project.
- Forest Practices Application/Notification Alternate Plan Form. 2014. Washington State Department of Natural Resources & Yakama Nation.
- 303(d) Database List. 1996. Washington State Department of Ecology.
- Washington Department of Fish and Wildlife's Stream Habitat Restoration Guidelines (2012).
- Oregon Department of Forestry/Oregon Department of Fish & Wildlife. Guide to Placement of Wood, Boulders and Gravel for Habitat Restoration (2010).
- Teanaway Community Forest Management Plan, goal for adoption June 30th, 2015.
- Washington State Department of Natural Resources Habitat Conservation Plan Environmental Impact Statement (1996).
- Washington State Department of Natural Resources Habitat Conservation Plan (1997).
- Washington State Department of Fish and Wildlife Wolf Recovery Plan (2011).
- Unities States Department of Fish and Wildlife Revised Recovery Plan for the Northern Spotted Owl and Eastern Spotted Owl Emphasis Area (SOSEA).
- Washington State Department of Natural Resources – Policy for Sustainable Forests (2007).
- U. S. Department of Forest Service Spotted Owl Habitat Mapping (2011).

9. Do you know whether applications are pending for governmental approvals of other proposals directly affecting the property covered by the proposal:

A Land Use License between WDNR and WDFW is pending and will need to be approved prior to construction. All activities must be consistent and with WDNR Forest Practice Rules and data collected will be used to help inform subsequent restoration projects to maximize effectiveness.

10. List any government approvals or permits that may be required for the proposal:

- Ecology Concurrence on SEPA Determination

- USCOE Nationwide Permit(s)
- WDNR Forest Practices - WDFW Hydraulic Project Approval (HPA)
- Kittitas County Shoreline Permit and/or Exemption
- U.S. Department of Energy, Bonneville Power Administration, National Marine Fisheries Service (NMFS), and U.S. Fish and Wildlife Service (USFWS) Programmatic Section 7 Consultation (Endangered Species Act) – Habitat Improvement Program (HIP) Biological Opinion (HIP BO III).

11. Give brief, description of the proposal, including the proposed uses and the size of the project and site. There are several questions later in this checklist that ask you to describe certain aspects of your proposal. You do not need to repeat those answers on this page. (Lead agencies may modify this form to include additional specific information on project description.)

The Indian Creek watershed has been degraded from past land use including construction and management of a logging railroad in the 1920's, livestock grazing, farming, and tractor logging. The stream and associated meadows have lost the large trees and riparian shrubs that would provide roughness features during floods. As a result, the stream channel has cut deeper into the valley alluvium and high flows are now trapped in the incised, flume-like channel. This project proposes to selectively harvest suppressed sub-dominant trees from near-by uplands as a source for some of the restoration material (Figure 2). Additional logs will be imported for restoration material.

Improving groundwater storage in lower Indian Creek will contribute to a more normative flow regime in the mainstem Teanaway, will improve minimum stream flows, help moderate flood peaks, restore the density and species composition of riparian vegetation, increase pool habitat and cool water refugia during periods of high temperature, provide suitable habitat for beaver colonization, help stabilize channel and bank erosion, build up and reconnect the floodplain, increase water storage capacity across the floodplain, filter and store sediment inputs, and provide some overhead cover and shading on the stream.

Approximately 250 trees total will be harvested and 75 or fewer will include rootwads. The harvest of the trees will occur on approximately 70 acres of mature forest meeting nesting foraging habitat criterion for Northern Spotted Owls. The average DBH of trees selected for removal will be approximately 15" up to 24" DBH. Tree selection will be approved by a WDNR Forester to ensure that no gaps will be created, and that canopy closure will continue to exceed 60% after harvest is complete. Tree density will be maintained that is greater than 115 trees per acre (greater than 4 inches DBH), with dominant tree heights greater than 85 feet tall to maintain nesting roosting foraging habitat for the Northern Spotted Owl. The harvest will be completed with rubber tire skidders, and/or cable systems. In addition, approximately 750 logs of various sizes will be transported to the Indian watershed by Yakama Nation. This supplemental material is required in order to achieve desired floodplain and in channel roughness objectives; supplemental material cannot be harvested locally due to harvest restrictions related to northern spotted owls. During floods the wood distributed on the 1.3 miles of denuded floodplain provides the roughness that would normally be provided by riparian vegetation. The roughness slows the floodwater, which allows for fine sediment deposition that native seedlings later germinate upon.

The proponent will use existing roads; no new roads will be constructed. An abandoned road will be temporarily re-opened to access the project. It will be abandoned at the completion of the project.

Trees will be placed in complex jams at 25 locations within the project stream reach and each jam will consist of approximately 40 logs, 8 of which will contain rootwads for stability during high water, and to promote greater complexity. Driven or pushed untreated pile may be used within the streambed and floodplain to provide additional stability to the trees. Pile will only be driven or pushed and excavation will not be used for placement to minimize disturbance. The 200 logs (not more than 75 with rootwads) will also be scattered randomly on the meadow to restore floodplain roughness to dissipate flood energy. Ditches that route surface water to the stream will also be filled with woody material to retard surface runoff to the stream, thereby reducing flood peaks and erosion and promote groundwater infiltration. Placing complex log jams in the stream is expected to cause the channel to attain a more natural configuration. This technique is referred to as large wood replenishment, and is described in WDFW's "Stream Habitat Restoration Guidelines" Manual.

A risk assessment was completed and included the following:

1. Hydrological regime (peak flow for flood events)
2. Channel morphology
3. Hydraulic characterization (including flow velocities for flood events and shear stress)
4. Evaluation of potential for log movement during various flood flows (stable log diameters with and without rootwads for flood events, and log travel time with average flow velocities)
5. Assessment of the risk of downstream log movement (large wood debris mobility analysis) to infrastructure
6. Recommendations for log amount (relative to stream size and project lengths) and placement, anchoring (or not), and other measures to mitigate risks.



Figure 2. Indian Creek, Teanaway River Watershed, Kittitas County, Washington State.

Proposed Project Reach – Indian Creek



Figure 3. Indian Creek Restoration site, WDNR Public Trust Lands.

Example of Pile logs - Typical installation

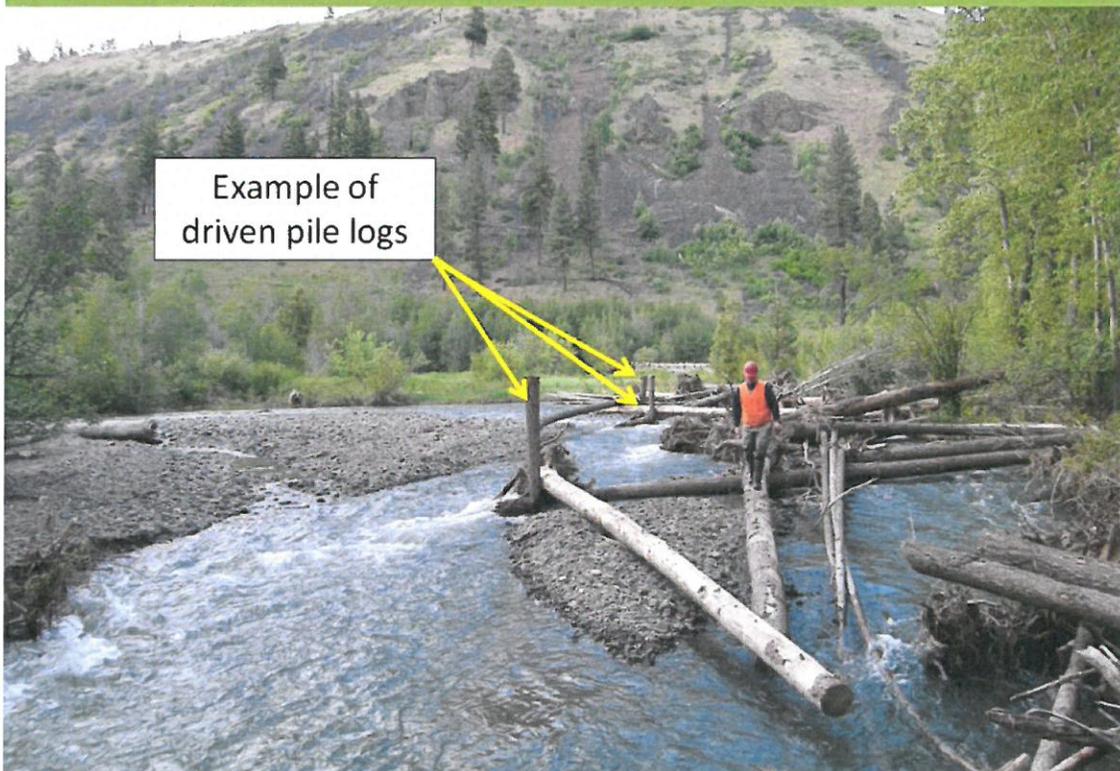


Figure 4. Typical pile long installation.

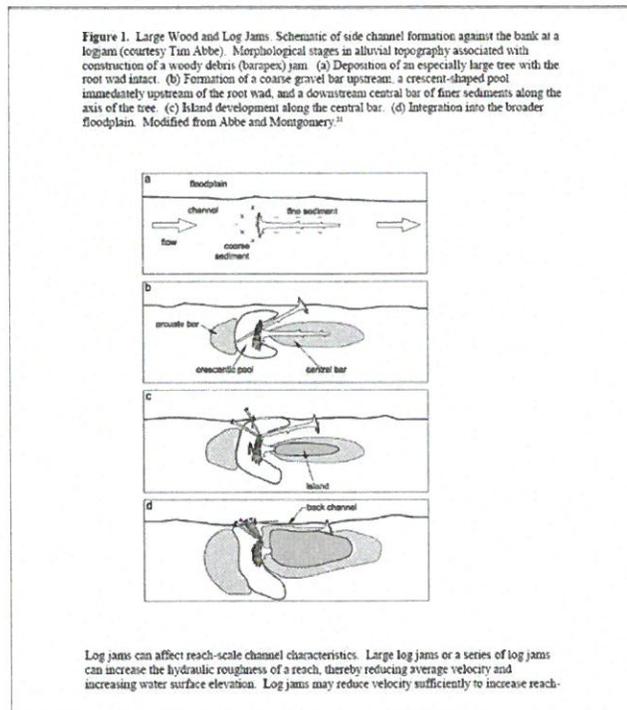


Figure 5. Typical log jam schematic.

12. **Location of the proposal.** Give sufficient information for a person to understand the precise location of your proposed project, including a street address, if any, and section, township, and range, if known. If a proposal would occur over a range of area, provide the range or boundaries of the site(s). Provide a legal description, site plan, vicinity map, and topographic map, if reasonably available. While you should submit any plans required by the agency, you are not required to duplicate maps or detailed plans submitted with any permit applications related to this checklist:

The project is located in Kittitas County in central Washington State. Indian Creek is a left bank tributary to the North Fork (NF) of the Teanaway River (Figure 6).

The project is located within: Township 21, Range 16, Section 16 WM. The access road into Indian is 11.1 up the Teanaway Road after turning north from SR 970. From 29 Pines Campground, the access road is south 1.8 miles on the NF Teanaway Road (Figure 6).

Indian Creek Floodplain Restoration Project

County/Regional Locator Map

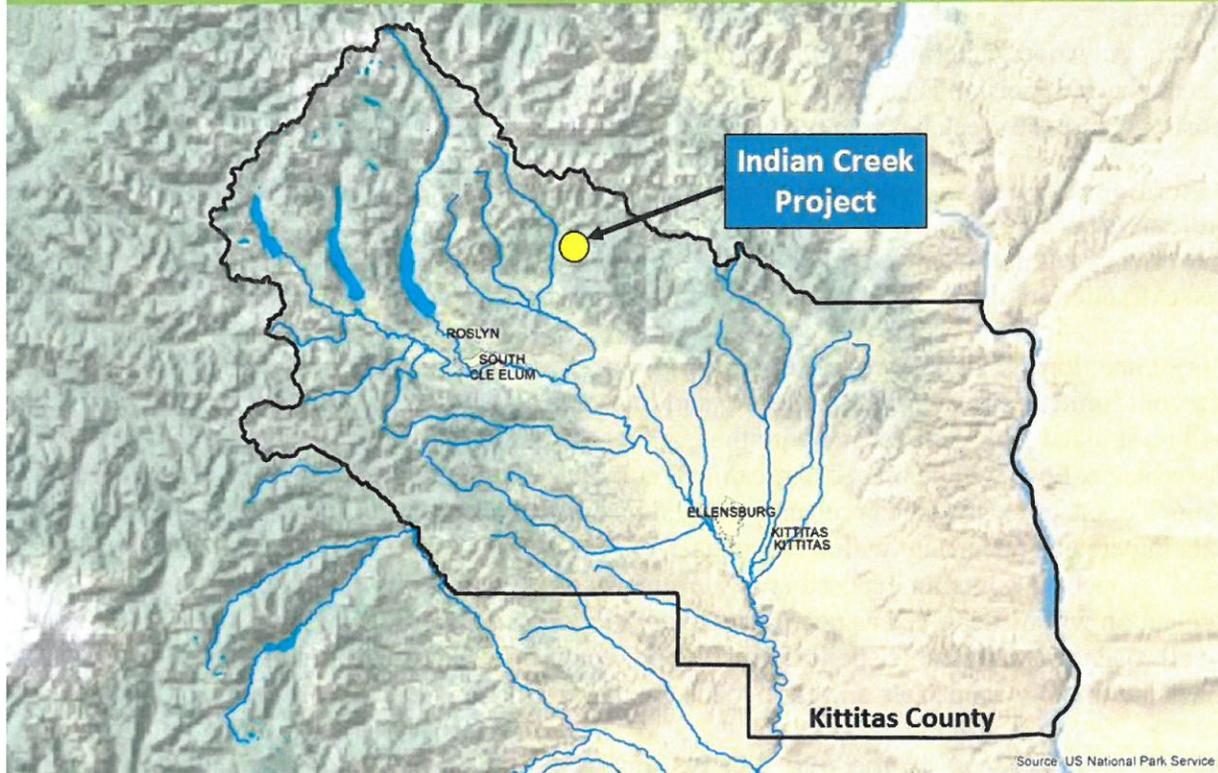


Figure 6. Central Washington, Kittitas County.

B. Environmental Elements

1. Earth

- a. **General description of the site (circle one):** Flat, rolling, hilly, steep slopes, mountainous, other

The topography along Indian Creek is generally hilly with some steep slopes and adjacent, flat meadow areas.

- b. **What is the steepest slope on the site (approximate percent slope)?**

Sloped topography is generally found within the Ordinary High Water Mark (OHWM) of Indian Creek which is incised (approximate slope = 90%); trees used for wood structures will not be gathered from slopes greater than a 70% slope.

- c. **What general types of soils are found on the site (for example, clay, sand, gravel, peat, muck)? If you know the classification of agricultural soils, specify them and note any prime farmland.**

A query of soil maps (NRCS, 2012) identified the following dominant soil types within the project area: 139-Nard ashy loam (0-3% slope); 144-Nard ashy loam (5-25% slope); 146-Nard ashy loam

(45-65% slope); 160-Cumulic Haploxerolls (0-3% slope); and 164-Nard ashy loam (25-45% slope).

d. Are there surface indications or history of unstable soils in the immediate vicinity? If so, describe.

Soils in the wood gathering area appear relatively stable. Soils within Indian Creek and adjacent where channel incision is occurring has resulted in a vertical stream bank. There are areas of erosion where the creek has removed the toe of the bank.

e. Describe the purpose, type, and approximate quantities of any filling or grading proposed. Indicate source of fill.

Dry ditches within the elevated floodplain will be filled with woody material. Holes created from tree extraction in upland areas will be backfilled with earth removed during extraction.

f. Could erosion occur as a result of clearing, construction, or use? If so, generally describe.

Yes, but limited. Erosion from gathering and transporting wood may occur but it is unlikely. Logs will be skidded to the project site with the leading end of the logs suspended to minimize earth disturbance. Logs will be placed instream either by hand using hand tools or by full suspension using a crane or excavator to prevent bank and bed disturbance. This project is designed to reduce existing erosion occurring within the incised channel. Applicable Best Management Practices (BMPs) such as covering exposed erodible soils, and replanting disturbed areas with native vegetation will be deployed as necessary. In addition, erosion control BMPs will be implemented on all roads and deliverable spoils during the project to limit and prevent road-related erosion or mass wasting. Storm patrols on active roads are part of this maintenance program.

g. About what percent of the site will be covered with impervious surfaces after project construction (for example, asphalt or buildings)?

There are no impervious surfaces associated with this project.

h. Proposed measures to reduce or control erosion, or other impacts to the earth, if any:

As mentioned previously, erosion control BMPs will be deployed to prevent or control erosion in uplands, the floodplain, and during placement of trees instream. YN will assure that staging areas are located in areas previously disturbed to avoid impacts to existing habitat when available. In addition, YN will work with Conservation labor crews to place slash, and mulch for erosion control, and reseed, and build contours to minimize erosion. Ground disturbance is not expected to be significant because wood gathering will be conducted with the leading end of logs suspended to prevent plowing of earth. , Trees will be placed instream using hand tools or with full suspension using a crane or excavator to avoid dragging of the trees instream. Heavy equipment will operate from stable locations along the streambank but will not operate within the stream channel.

2. Air

a. What types of emissions to the air would result from the proposal during construction, operation, and maintenance when the project is completed? If any, generally describe and give approximate quantities if known.

It is expected that machines used to bring in crews, equipment, plants, and bank stabilization supplies will release CO² emissions into the air; however the levels would be minimal. Dust will be controlled through BMPs to avoid undo wind latent sediment.

- b. **Are there any off-site sources of emissions or odor that may affect your proposal? If so, generally describe.**
None are expected.

- c. **Proposed measures to reduce or control emissions or other impacts to air, if any:**

The following is a brief list of expected BMPs that will be implemented by the contractor:

- Avoid clearing vegetation and minimizing earth disturbance
- Use water to wet down dry, exposed soils (unlikely due to damp conditions during fall/winter)
- Wash vehicles when necessary to avoid transferring soil materials to roads and/or other locations
- Vehicles/pumps/equipment, etc. will be turned off when not in use
- Apply slash and/or mulch on loose, exposed soils
- Replant disturbed areas with native vegetation in consultation with WDFW staff.

3. Water

a. Surface

- 1) **Is there any surface water body on or in the immediate vicinity of the site (including year-round and seasonal streams, saltwater, lakes, ponds, wetlands)? If yes, describe type and provide names. If appropriate, state what stream or river it flows into.**

Yes. Wood/trees will be placed in and across Indian Creek, a tributary to the NF Teanaway River. In addition, there are intermittent streams within the proposed project area.

- 2) **Will the project require any work over, in, or adjacent to (within 200 feet) the described waters? If yes, please describe and attach available plans.**

Yes. The project proposed is intended to restore groundwater storage capacity and floodplain function within Indian Creek. Trees gathered from upland areas outside of the floodplain will be placed directly in or across Indian Creek following recommendations (WDFW's Stream Habitat Restoration Guidelines, 2012 & the Oregon Department of Forestry/Oregon Department of Fish & Wildlife, 2010 - Guide to Placement of Wood, Boulders and Gravel for Habitat Restoration). These large trees will be large key pieces that will be expected to remain stable at all flow conditions. Driven pile will also be selectively driven to provide added stability to the wood to preclude mobilization from the project site. YN habitat biologists, in coordination with WDNR and WDFW will determine the exact location of wood in the field, based on site conditions. The Channel Migration Zone (CMZ) Assessment completed by the YN indicated Indian Creek was an Avulsion Hazard Area and approximately 8000 linear feet of the creek has potential for channel migration across the valley floor to spread and dissipate flood energy.. Trees will not gathered from the channel migration zone or floodplain unless necessary to access the site or to promote healthy, riparian growth. Some of the the selective harvest area is within overstocked stands within 200 feet of typed waters but not closer than 100 feet from fish bearing streams and 50 feet from Np streams.

- 3) **Estimate the amount of fill and dredge material that would be placed in or removed from surface water or wetlands and indicate the area of the site that would be affected. Indicate the source of fill material.**

There isn't any fill or dredge material associated with this project.

- 4) **Will the proposal require surface water withdrawals or diversions? Give general description, purpose, and approximate quantities if known.**

No.

- 5) **Does the proposal lie within a 100-year floodplain? If so, note location on the site plan.**

Yes. This is a groundwater storage/floodplain restoration project and occurs in the 100-year floodplain; all wood structures will be placed in the stream or within geomorphic floodplain of Indian Creek to restore floodplain function.

- 6) **Does the proposal involve any discharges of waste materials to surface waters? If so, describe the type of waste and anticipated volume of discharge.**

It is anticipated that restoring groundwater storage capacity and placing wood structures will reduce discharge of eroded materials into Indian Creek overtime as energy and shear forces within the incised stream channel will be reduced; there will be no waste water generated from this project; a minimal amount increases in turbidity may result from placing wood and walking in streams.

Any discharge from cleaning equipment or reducing/controlling upland erosion will not be discharged to surface waters. Equipment will be staged in upland areas that do not slope toward surface waters. Trees, piles, or large wood will all be placed using full suspension (no dragging or plowing of wood within the streambed or banks) or by hand using hand-held equipment.

b. Ground

- 1) **Will ground water be withdrawn, or will water be discharged to ground water? Give general description, purpose, and approximate quantities if known.**

No.

- 2) **Describe waste material that will be discharged into the ground from septic tanks or other sources, if any (for example: Domestic sewage; industrial, containing the following chemicals. . . ; agricultural; etc.). Describe the general size of the system, the number of such systems, the number of houses to be served (if applicable), or the number of animals or humans the system(s) are expected to serve.**

N/A.

c. Water runoff (including stormwater)

- 1) **Describe the source of runoff (including storm water) and method of collection and disposal, if any (include quantities, if known). Where will this water flow? Will this water flow into other waters? If so, describe.**

It is not anticipated that waste material or sediment will enter ground or surface waters of the state; this project is designed to reduce shear and erosive velocities within the stream channel, including dissipating stormwater from runoff events. In addition, ground disturbance will be minimal and there will be no excavation or impervious surfaces that might impact runoff and/or stormwater management. Log and trees will be transported with the leading ends of the trees suspended to preclude plowing earth. Trees and logs will be placed by hand or with equipment using full suspension with an excavator or crane. Exposed soils with delivery potential will be covered with slash/mulch to provide short-term erosion control and will be seeded with natural grass mixes to provide long term erosion control.

Moreover, runoff in existing dry ditches within the floodplain will be decreased by placing wood and small slash strategically to delay runoff and infiltrate surface water. , Deployment of BMP's will further reduce the likelihood that waste materials from equipment, supplies, crew, and soil disturbance will enter the creek bed.

2) Could waste materials enter ground or surface waters? If so, generally describe.

It is unlikely that waste materials would enter into Indian Creek. Equipment will be staged in upland areas that do not slope toward surface waters and trees and wood will be placed using full suspension to preclude plowing of the streambed and banks. There is a chance that petroleum products could unexpectedly leak from chainsaws or vehicles or ruptured hydraulic line, an Ecology approved spill kit will be on-site. Refueling of any/all equipment will occur at a minimum of 150 feet away from the OHWM of Indian Creek.

3) Does the proposal alter or otherwise affect drainage patterns in the vicinity of the site? If so, describe.

One purpose of the project proposal is to restore more normative drainage patterns within the project floodplain which has been altered by a century of logging practices and road/ railroad construction. Old drainage ditches within the floodplain will have large wood/trees placed in and around them to reduce erosion potential and spread and dissipate flood energy across the floodplain, as well as infiltrate overland surface and flood flow. Thus, drainage patterns will be restored to an improved condition reducing delivery of sediment to surface water.

d. Proposed measures to reduce or control surface, ground, and runoff water impacts, if any.

The project is planned to enhance habitat, and best management practices will be applied to eliminate negative impacts to water quality. Erosion control measures to be applied include:

- Log and trees will be transported to the site from upland areas with the leading ends of the trees suspended above ground to preclude plowing earth.
- Vegetation will not be cleared or grubbed within the floodplain or streambanks during all work.
- Trees and logs will be placed by hand held equipment or with an excavator or crane using full suspension.
- Spinning and turning of equipment near the stream will be avoided when placing trees/wood/pile.
- Equipment placing wood/trees in the stream will be positioned and operating on firm or frozen soils out of muddy/wet or wetland areas.
- Exposed soils with delivery potential will be covered with slash/mulch to provide short-term erosion control and will be seeded with natural grass mixes to provide long-term erosion control.
- Any holes from upland areas associated with tree and rootwad removal will be backfilled with earth and "heeled in", compacted, and covered with a mulch as necessary to preclude deliverability top any surface water.

4. Plants

a. Check or circle types of vegetation found on the site

_____ deciduous tree: alder, maple, aspen, other

_____ evergreen tree: fir, cedar, pine, other

_____ shrubs

- grass
- pasture
- crop or grain
- wet soil plants: cattail, buttercup, bullrush, skunk cabbage, other
- water plants: water lily, eelgrass, milfoil, other
- other types of vegetation

b. What kind and amount of vegetation will be removed or altered?

It is anticipated that minimal, if any, native vegetation will be removed or altered. Approximately 250 Douglas Fir and/or true fir trees (less than 75 with rootwads) will be extracted from upland areas. The harvest unit is composed on Stands originating between 1890 and 1935. These are conifer dominated stands meeting nesting roosting foraging habitat definitions for the Northern Spotted Owl. The post harvest condition of the stand will continue to meet the habitat definitions for Northern-spotted owl by providing 115 trees per acre, at least 3 snags per acre, and canopy closure of 60percent. the selectively removed trees will be placed in the creek at various locations throughout the 1.3 mile stretch of Indian Creek, as approved by WDNR under a Forest Practices Application (per Forest Practice Rules). No vegetation will be grubbed or cleared within the riparian areas or floodplain. Equipment will walk around or over shrubs and brush to aces the stream. This vegetation is expected to spring back and recover quickly.

Exposed soils within skid routes will be mulched then reseeded in late winter or early spring and monitored periodically to ensure an 80% survival rate. In addition, staff will flag skid routes and staging areas to avoid adverse impacts to ground cover vegetation.

c. List threatened or endangered species known to be on or near the site:

Ute ladies'-tresses are federally listed as threatened, but are not known to be present in the Indian Creek watershed. Wenatchee mountain checker mallow are federally and state listed as endangered, but are not known to be present in the Indian Creek watershed.

d. Proposed landscaping, use of native plants, or other measures to preserve or enhance vegetation on the site, if any :

The addition of large wood to the creek channel will restore more normative floodplain and alluvial processes , thereby enhancing the wetland/riparian buffer around Indian Creek. Currently disturbed and/or un-vegetated areas are expected to be recolonized by native woody vegetation due to a higher groundwater table as a result of this project. Best Management Practices (BMPs) such as , covering/mulching loose soil, and replanting disturbed areas with native vegetation will be deployed as necessary. WDFW, in coordination with WDNR will restore any disturbed ground with native seed/plants appropriate for the area. , The old road that will be used for temporary access will be abandoned and seeded.

5. Animals

- a. **List any birds and other animals which have been observed on or near the site or are known to be on or near the site.**

Birds: hawk, heron, eagle, songbirds, other: owls

Mammals: deer, bear, elk, cougar, beaver, other: small mammals

Fish: bass, salmon, trout, herring, shellfish, other: native minnows, suckers, sculpin.

- b. **List any threatened or endangered species known to be on or near the site.**

Mardon skipper-butterfly-State listed as *Endangered*

Bull trout-fish-Federally listed as *Threatened*, State listed as *Candidate*

MCR Steelhead-fish- Federally listed as *Threatened*, State listed as *Candidate*

Northern leopard frog-amphibian-State listed as *Endangered*

Bald eagle-bird-State listed as *Threatened*

Northern Spotted Owl-bird-Federally listed as *Threatened*, State listed as *Endangered*

Western gray squirrel-mammal-State listed as *Threatened*

Fisher-mammal- State listed as *Endangered*

Gray Wolf-mammal-Federally listed as *Endangered*, State listed as *Endangered*

Grizzly Bear-mammal-Federally listed as *Threatened*, State listed as *Endangered*

Canada Lynx-mammal-Federally listed as *Threatened*, State listed as *Threatened*

All phases of the project have been designed to impacts to any threatened or endangered species known to be on or near the site. In addition, the YN will coordinate and consult with all resource agencies prior to implementation to avoid impacts; particularly when gathering trees in historical Northern spotted owl critical habitat

- c. **Is the site part of a migration route? If so, explain.**

Yes. Indian Creek support migratory birds and mammals that utilize the watershed for seasonal habitat (stop-over habitat). The surrounding public land ownership provides adequate habitat for a variety of animals throughout the year.

- d. **Proposed measures to preserve or enhance wildlife, if any:**

As proposed, the project will increase the amount of instream wood and will also increase the vigorous riparian thicket that is present along the streambanks, providing additional cover for many songbirds and other wildlife species. The increased pool frequency and channel complexity associated with wood placement will greatly enhance the instream habitat for threatened salmonids such as steelhead and bull trout. Beavers are expected to recolonize Indian as a result of this project. The project is designed as a habitat enhancement project and no long-term negative impacts to wildlife are anticipated.

Wood gathering techniques were developed to reduce disturbance to upland wildlife habitats. As mentioned previously, equipment routes will be flagged by WDFW biologists to protect sensitive riparian vegetation and upland habitats. Northern spotted owls nesting, roosting, and foraging

habitat will be maintained throughout the thinning activities. This project will occur outside of of the Northern Spotted Owl and Northern Goshawk nesting seasons (Northern Goshawk timing restrictions = 0.7 mile radius form the nest site detected near the proposal during nesting season).

There is a recorded wolf siting within the WDFW wolf database – the siting was within 8 miles of the proposal area. WDFW and WDNR are in the process of developing Gray Wolf plan, in consultation with USFWS to ensure impacts are minimized and/or avoided.

6. Energy and Natural Resources

- a. **What kinds of energy (electric, natural gas, oil, wood stove, solar) will be used to meet the completed project's energy needs? Describe whether it will be used for heating, manufacturing, etc.**

Upon completion, there will be no need for an energy source at the project site.

- b. **Would your project affect the potential use of solar energy by adjacent properties? If so, generally describe.**

N/A

- c. **What kinds of energy conservation features are included in the plans of this proposal? List other proposed measures to reduce or control energy impacts, if any:**

Upon completion, there will be no consumptive uses of energy or natural resources. Some of the trees will be placed using manual winches and hand-held pulleys. Diesel utility tractors are fueled with a combination of diesel and locally-produced biodiesel.

7. Environmental Health

- a. **Are there any environmental health hazards, including exposure to toxic chemicals, risk of fire and explosion, spill, or hazardous waste that could occur as a result of this proposal? If so, describe.**

There is potential that equipment could leak oil, gas, or other toxic fluids into the Indian Creek corridor or within upland staging areas. Crews will be required to clean equipment (gas powered augers, etc.) prior to use to reduce the likelihood that pollutants from entering the corridor.

There is a very slight risk of fire caused by use of the chainsaws to fall the trees. The chainsaws also pose a potential risk of a petroleum spill during refueling or if the gas tank leaks. All equipment will be kept in good working condition to reduce the risks of a chemical spill or sparks causing a fire. WDNR and WDNR will coordinate to assure compliant fire suppression methodologies are utilized and all fire safety protocols are in place prior to beginning the project. This project requires very little use of materials that would cause any environmental health hazards; there is no hazardous waste production that will occur.

- 1) **Describe special emergency services that might be required.**

Due to the nature of the activity, there is a chance that emergency personnel such as EMT, fire fighters, and sheriff's deputies may need to respond to the project area during implementation.

- 2) **Proposed measures to reduce or control environmental health hazards, if any:**

Equipment will be cleaned and checked for leaks prior to use. All crews will be required to have a spill kit on site. All equipment will be kept in good working condition to reduce the risks of a chemical spill or sparks causing a fire.

b. Noise

- 1) What types of noise exist in the area which may affect your project (for example: traffic, equipment, operation, other)?**

N/A.

- 2) What types and levels of noise would be created by or associated with the project on a short-term or a long-term basis (for example: traffic, construction, operation, other)? Indicate what hours noise would come from the site.**

The short-term noise associated with this project will include chainsaws and tree falling, small diesel tractors, heavy equipment, 2-5 vehicles daily bringing work crews to the project sites during implementation, and up to 50 truckloads driving from Yakama Nation lands to bring supplemental materials (approximately 750 logs) to the site. Noise from placing wood into the channel once they've been cut will be minor, consisting of breaking branches and crewmembers communicating over a distance up to 200 meters. There will be no long-term increase in noise due to this project. Noise levels are expected to be minimal, short-term, and within the hours of 6am-7pm.

- 3) Proposed measures to reduce or control noise impacts, if any:**

YN, in coordination with WDNR and WDFW will reduce noise impacts to wildlife by avoiding working near important breeding areas during breeding and nesting seasons and turning off equipment when not in use. Noise levels are expected to be minimal, short-term, and within the hours of 6am-7pm.

8. Land and Shoreline Use

- a. What is the current use of the site and adjacent properties?**

The project site is located on WDNR Public Trust Lands and a working forest. The current use of the adjacent properties is TCF.

- b. Has the site been used for agriculture? If so, describe.**

A majority of the project area is forested, however the floodplain meadows are leased for seasonal livestock grazing.

- c. Describe any structures on the site.**

There are not structures on the site

- d. Will any structures be demolished? If so, what**

No.

- e. What is the current zoning classification of the site?**

"*Forested Watershed*" is the current zoning classification.

- f. What is the current comprehensive plan designation of the site?**

The current comprehensive plan designation for the site(s) is *Forest Resource*.

- g. If applicable, what is the current shoreline master program designation of the site?**

Kittitas County's Shoreline Master Program designates the site as open space natural.

h. Has any part of the site been classified as an "environmentally sensitive" area? If so, specify.

No. However, the Indian Creek watershed supports a lot of wildlife and plant species; with floodplain restoration these attributes are expected to increase exponentially.

i. Approximately how many people would reside or work in the completed project

None.

j. Approximately how many people would the completed project displace?

None.

k. Proposed measures to avoid or reduce displacement impacts, if any:

N/A

l. Proposed measures to ensure the proposal is compatible with existing and projected land uses and plans, if any:

This project is consistent with WDNR Forest Practice Rules. WDNR is working collaboratively with the YN and WDFW to support the project. Additional project specific actions will not be implemented until the TCF Management Plan has been approved by WDNR and WDFW and is consistent with the provision of the YIP. After the adoption of the TCF Management Plan, specific projects will require approval from WDFW and WDNR; including environmental review under SEPA when required prior to permitting.

m. Proposed measures to ensure the proposal is compatible with nearby agricultural and forest lands of long-term commercial significance, if any:

N/A

9. Housing

a. Approximately how many units would be provided, if any? Indicate whether high, middle, or low-income housing.

N/A.

b. Approximately how many units, if any, would be eliminated? Indicate whether high, middle, or low-income housing.

N/A.

c. Proposed measures to reduce or control housing impacts, if any:

N/A.

10. Aesthetics

a. What is the tallest height of any proposed structure(s), not including antennas; what is the principal exterior building material(s) proposed?

The tallest structure will be the wood structures and are expected to exceed six feet above the OHWM.

b. What views in the immediate vicinity would be altered or obstructed?

No known views will be altered or obstructed.

c. Proposed measures to reduce or control aesthetic impacts, if any:

This project is expected to increase aesthetics of the area, expedite the natural processes of wood recruitment, and restore groundwater storage capacity, therefore measures to reduce or control aesthetic impacts are not proposed.

11. Light and Glare

a. What type of light or glare will the proposal produce? What time of day would it mainly occur?

There may be some glare from construction equipment during daylight hours.

b. Could light or glare from the finished project be a safety hazard or interfere with views?

No.

c. What existing off-site sources of light or glare may affect your proposal?

N/A.

d. Proposed measures to reduce or control light and glare impacts, if any:

None.

12. Recreation

a. What designated and informal recreational opportunities are in the immediate vicinity?

This project is located on WDNR public trust lands that are heavily used throughout most of the year. Hunters, anglers, hikers, birdwatchers, mountain bikers, and campers use the Indian Creek Wildlife Area and the Forest Service property upstream of the proposed project area throughout the year.

b. Would the proposed project displace any existing recreational uses? If so, describe.

No. The project will have no long-term impact on the existing recreational users. Noise associated with project implementation may impact wildlife movement during the short-term. Project implementation will cease during modern firearm hunting seasons for deer and elk to ensure crewmember safety and fair hunting opportunities.

c. Proposed measures to reduce or control impacts on recreation, including recreation opportunities to be provided by the project or applicant, if any:

The project is proposed for implementation during the time when there will be the least environmental impacts and the least impacts on recreational uses.

13. Historic and Cultural Preservation

a. Are there any buildings, structures, or sites, located on or near the site that are over 45 years old listed in or eligible for listing in national, state, or local preservation registers located on or near the site? If so, specifically describe.

There are 5 sites recorded within Department of Archaeology and Historical Preservation (DAHP) database that are located in the Area of Potential Effect (APE). YN archaeological staff will work directly with DAHP, WDNR, and WDFW to ensure impacts to any known cultural resources are avoided. In the event that any unknown archaeological resources are encountered, ground disturbing activities will be halted and a DNR Archaeologist will be contacted to survey the site and develop a Site Protection Plan.

- b. Are there any landmarks, features, or other evidence of Indian or historic use or occupation? This may include human burials or old cemeteries. Are there any material evidence, artifacts, or areas of cultural importance on or near the site? Please list any professional studies conducted at the site to identify such resources**

The APE has been identified as culturally sensitive location and there are 5 recorded sites with the APE. Due to the sensitivity of the area, YN archaeologists will monitor project activities and stop work if any evidence of Indian or historic use or occupation is revealed, including but not limited to human burials, cemeteries, artifacts, etc.

- c. Describe the methods used to assess the potential impacts to cultural and historic resources on or near the project site. Examples include consultation with tribes and the department of archeology and historic preservation, archaeological surveys, historic maps, GIS data, etc.**

The BPA, as the federal lead for this project, initiated Section 106 consultation with DAHP and the affected tribe(s). A cultural resource survey has been finalized. The YN will provide on-site cultural resource monitors to reduce any potential impacts to cultural resources as a result of this project.

- d. Proposes measures to avoid, minimize, or compensate for loss, changes to, and disturbance to resources: Please include plans for the above and any permits that may be required:**

Based on the information provided in the final cultural resource report, the 5 sites recorded within the APE, and the area designation of “culturally sensitive” the YN will flag areas that need to be avoided to protect known sites. In the event that any unknown archaeological resources are encountered, ground disturbing activities will be halted and a DNR Archaeologist will be contacted to survey the site and develop a Site Protection Plan. Additionally, the YN will provide on-site cultural resource monitors.

14. Transportation

- a. Identify public streets and highways serving the site or affected geographic area and describe proposed access to the existing street system. Show on site plans, if any**
Indian Creek Road (USFS 1400) is adjacent to Indian Creek and will be used to access this Project.

- b. Is the site or affected geographic area currently served by public transit? If so, generally describe. If not, what is the approximate distance to the nearest transit stop?**

No. The nearest transit stop is approximately 21 miles away and located Cle Elum, WA.

- c. How many parking spaces would the completed project have? How many would the project eliminate?**

N/A.

- d. Will the proposal require any new or improvements to existing roads, streets, pedestrian, bicycle or state transportation facilities, not including driveways? If so, generally describe (indicate whether public or private**

No.

- e. Will the project use (or occur in the immediate vicinity of) water, rail, or air transportation? If so, generally describe.**

No.

- f. How many vehicular trips per day would be generated by the completed project or proposal? If known, indicate when peak volumes would occur and what percentage of the volume would be trucks (such as commercial and nonpassenger vehicles). What data or transportation models were used to make these estimates?

There may be several vehicular trips per year (not day) to the site for monitoring and educational outreach.

- g. Will the proposal interfere with, affect or be affected by the movement of agricultural and forest products on roads or streets in the area? If so, generally describe

No.

- h. Proposed measures to reduce or control transportation impacts, if any

None.

15. Public Services

- a. Would the project result in an increased need for public services (for example: fire protection, police protection, health care, schools, other)? If so, generally describe.

No.

- b. Proposed measures to reduce or control direct impacts on public services, if any.

None.

16. Utilities

- a. Circle utilities currently available at the site: electricity, natural gas, water, refuse service, telephone, sanitary sewer, septic system, other.

N/A.

- b. Describe the utilities that are proposed for the project, the utility providing the service, and the general construction activities on the site or in the immediate vicinity which might be needed.

N/A.

C. Signature

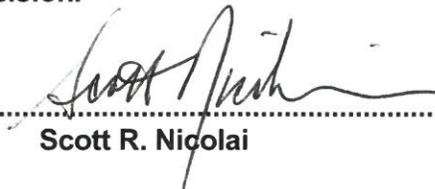
The above answers are true and complete to the best of my knowledge. I understand that the lead agency is relying on them to make its decision.

Signature:

Date Submitted:

12/15/14

1



Scott R. Nicolai

Signature:

Date Submitted:

12-15-14

1



William R. Meyer