

SEPA ENVIRONMENTAL CHECKLIST

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:

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:

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, if applicable:

North Fork Manastash Creek & Lower Umtanum Creek Wood Replenishment

2. Name of applicant:

Yakama Nation (YN) through the Yakima/Klickitat Fisheries Project (YKFP)

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

Primary

**Kelly Clayton, YN YKFP Habitat Biologist
PO Box 151
Toppenish, WA 98948
(509) 945-7195
clak@yakamafish-nsn.gov**

Secondary

**Melissa Babik, WDFW L.T. Murray Wildlife Area Manager
201 North Peral Street
Ellensburg, WA 98926
(509) 925-6746
melissa.babik@dfw.wa.gov**

4. Date checklist prepared:

May 14, 2018

5. Agency requesting checklist:

Washington Department of Fish & Wildlife (WDFW)

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

The project will be implemented for up to five years, beginning in August 2018.

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

This proposal is for wood staging and placement via helicopter in North Fork Manastash Creek and Lower Umtanum Creek using locally sourced wood from WDFW's Robinson Canyon Forest Restoration Project* to be completed during the summer and fall of 2018. Hand crews may access both project sites to adjust wood placement with manual winches and pulleys. Additionally, ground-based equipment and hand crews will access the North Fork Manastash in 2019 for upland thinning and wood placement. Field monitoring may occur for up to five years after the wood placement at both sites.

***The Robinson Canyon Forest Restoration Project has its own SEPA Checklist.**

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

- **Habitat Conservation Plan - WA-DNR**
- **Washington State Aquatic Habitat Guidelines Program, 2004. Stream Habitat Restoration Guidelines.**
- **Design Considerations for Large Woody Debris Placement in Stream Enhancement Projects (Hilderbrand et al 1998 North American Journal of Fisheries Management 18: 161-167)**
- **Haring, D. 2001. Habitat limiting factors: Yakima River watershed water resource inventory areas 37-39, final report. Washington State Conservation Commission.**
- **Yakima Basin Fish & Wildlife Recovery Board, 2009. Yakima Steelhead Recovery Plan. Extracted from the 2005 Yakima Subbasin Salmon Recovery Plan with Updates.**

- **Oregon Department of Forestry/Oregon Department of Fish & Wildlife, 2010. Guide to Placement of Wood, Boulders and Gravel for Habitat Restoration .**

9. Do you know whether applications are pending for governmental approvals of other proposals directly affecting the property covered by your proposal? If yes, explain.

No

10. List any government approvals or permits that will be needed for your proposal, if known.

- **Land Use License – WA-DNR**
- **SEPA – WA-DNR; WDFW**
- **Governor’s Executive Order 05-05- WDFW**
- **Section 106 of the National Historic Preservation Act – BPA & SRFB**
- **Fish Habitat Enhancement, Hydraulic Project Approval – WDFW**
- **Endangered Species Act– Programmatic Section 7 Consultation - Habitat Improvement Program (HIP)/Biological Opinion III (HIP BO III). US Department of Energy – Bonneville Power Administration – National Marine Fisheries Service (NMFS) and US Fish and Wildlife Service (USFWS)**

11. Give brief, complete description of your 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 North Fork Manastash Creek & Lower Umtanum Creek Wood Replenishment Project proposal is for wood enhancement in a ~10 mile reach of North Fork Manastash Creek, including the 100-year floodplain, and wood enhancement in a ~6 mile reach of Lower Umtanum Creek. On North Fork Manastash Creek work will begin at approximately 46.970685, -120.750274 and end at approximately 47.063607, -120.886644 and on Umtanum Creek work will begin at approximately 46.855275, -120.485377 and end at approximately 46.876378, -120.572535.

This project will entail using locally sourced wood from the Robinson Canyon Forest Restoration Project* on the LT Murray Wildlife Area as part of a Washington Wildlife and Recreation Program (WWRP) funded 830-acre thinning project aimed at improving ecological integrity ratings, habitat for multiple wildlife species and forest health. In addition, the project will improve the functional integrity of North Fork Manastash Creek and Umtanum Creek and associated riparian and upland habitat.

North Fork Manastash Creek is an important Yakima River tributary, which drains a 100-square mile watershed west of Ellensburg in Kittitas County, Washington. The project area lies within Washington Department of Fish & Wildlife and Washington Department of Natural Resources ownership. A large wood survey was conducted July 2015 to document baseline habitat conditions for effectiveness monitoring. The survey documented a deficiency of large wood: approximately 100 pieces counted in a 4 mile reach. The proposed large wood restoration work is expected to improve habitat for returning steelhead, and for resident Rainbow and Cutthroat trout. Large wood from the Robinson Canyon Forest Restoration Project will be transported and placed via helicopter due to limited access as a result of road decommissioning activities (unrelated to this project). The project will place up to 2,000 pieces of woody material with and

without rootwads attached, including small diameter trees and slash, instream and along adjacent floodplains to restore in-channel complexity, reverse channel incision and re-engage the creek with its floodplain. Additionally, ground-based equipment and hand crews will access the North Fork Manastash in 2019 to place up to another 1,000 pieces of woody material in the stream channel and adjacent floodplain.

Umtanum Creek is a Yakima River tributary that flows for ten miles through the Wenas Wildlife Area, south-west of Ellensburg in Kittitas County, Washington. The project area lies within land owned and managed by Washington Department of Fish and Wildlife. Instream wood is limited within the stream reach with no access. Large wood from the Robinson Canyon Forest Restoration Project will be hauled via log truck to nearby staging areas and placed in Umtanum Creek via helicopter. This project will improve habitat complexity in 6 miles of stream for Middle Columbia River Steelhead, spring Chinook and coho salmon by adding up to 1,000 pieces of woody material with and without rootwads attached, including small diameter trees and slash, instream and along adjacent floodplains to restore in-channel complexity, reverse channel incision and re-engage the creek with its floodplain.

There are five staging locations near the North Fork Manastash and three staging locations near lower Umtanum Creek that will be accessed via WDFW and WA-DNR access roads (see attached maps) starting July 1, 2018. All staging areas identified for this project are in previously disturbed areas, so access will be by established routes to minimize disturbance to native vegetation. Within the staging locations, individual logs will be laid out side-by-side and criss cross, with one edge up on bunk logs to allow helicopter logging chokers to be attached.

Wood will be placed using a Columbia Vertol 107-II helicopter and associated equipment between September 24, 2018 and October 12, 2018. Wood placement will occur during daylight hours via helicopter following guidelines outlined in WDFW's Habitat Stream Restoration Guidelines (2012) for Wood Replenishment. Large pieces of woody material will be placed unanchored in the active channel and 100-year floodplain in remote areas with little risk to downstream property, infrastructure or public safety.

During implementation, the helicopter will land for refueling and maintenance purposes, approximately every 70 minutes. The helicopter landing area for NF Manastash Creek is located at 46.997625, -120.777664 and Umtanum Creek is located at 46.893603, -120.565811. The helicopter will be in the North Fork Manastash watershed no more than four active flight days and the Umtanum Creek watershed no more than two active flight days. During this time, AmeriCorps staff will be used to enforce intermittent road closures while the helicopter is active within 100 ft. of any roads. All equipment will have an approved spill kit to contain and clean up spills if they should occur.

Additionally, ground-based equipment and hand crews will access the North Fork Manastash in 2019 for additional wood placement. Hand crews may access both project sites to adjust wood placement with manual winches and pulleys. Field monitoring may occur for up to five years after the wood placement at both sites.

***The Robinson Canyon Forest Restoration Project has its own SEPA Checklist.**

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 North Fork Manastash is a Yakima River tributary. The project reach is located on Washington Department of Fish & Wildlife and Washington Department of Natural Resources owned land in Kittitas County. The project is located in Water Resources Inventory Area 39, Upper Yakima River. The project area is located in T18N R16E Sections 7, 17, 19, 20, 21, 22, 26, 35; T17N R16E Sections 1, 2; T17N R17E Sections 6, 7, 8; T18N R15E Sections 13, 24. See attached maps.

Umtanum Creek is a Yakima River tributary. The project reach is located entirely on Washington Department of Fish & Wildlife owned land, within the Wenas Wildlife Area. The project is located in Water Resources Inventory Area 39, Upper Yakima River. The project area is located in T16N, R18E, Sections 3, 14, 15, 23 & 24; T16N, R19E, Section 19. See attached maps.

B. ENVIRONMENTAL ELEMENTS

1. Earth

a. General description of the site:

(circle one): **Flat**, rolling, hilly, steep slopes, mountainous, other _____

The North Fork Manastash Creek and Umtanum Creek wood placement reaches are relatively flat sections of stream; the wood staging areas are also relatively flat but are located on top of a ridge roughly 500-1000 vertical feet above the creek. The helicopter landing/refueling location is also a flat location.

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

N/A

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 agricultural land of long-term commercial significance and whether the proposal results in removing any of these soils.

Soils are generally gravelly sandy loam and ashy loam associated with the stream and riparian areas. The proposal will not result in the removal of these soils.

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

Soils appear stable. There are areas of channel incision due to erosional downcutting within the wood placement reaches; large woody debris should help to slow down the water and aggrade the channel bed.

e. Describe the purpose, type, total area, and approximate quantities and total affected area of any filling, excavation, and grading proposed. Indicate source of fill.

The project will not require any fill or excavation. The wood staging location will be accessed using existing WDFW and WA-DNR roads.

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

Minimal erosion of roads could result from delivery of wood to staging areas by logging trucks or from ground-based equipment used for wood placement in 2019. If erosion does occur, mitigation measures including installation of straw bales, straw wattles, water bars, drain dips, slash, and native grass seeding will be used as necessary.

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

None

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

Yakama Nation will be responsible for mitigation measures including installation of straw bales, straw wattles, water bars, drain dips, and grass seeding will be used as necessary. Provisions in the WA-DNR Land Use License will be followed. If necessary, the Yakama Nation will grade the roads used to access the wood staging locations after the project is implemented to bring them back to existing condition.

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.

There will be temporary emissions associated with the Vertol 107-II helicopter for placement of the wood in 2018 and the ground-based equipment used in 2019. There should be no significant impact to air quality.

The helicopter will be mobilizing from Portland, OR and will be active for approximately six flight day(s) during daylight hours. The helicopter, along with pickups, a refueling truck and a water truck driving to and from the work site will also cause temporary emissions. There will be no additional emissions to the air upon completion of the project.

b. Are there any off-site sources of emissions or odor that may affect your proposal? If so, generally describe.

Only emissions from transportation of vehicles to and from the project site, as described in the previous answer to question 2a.

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

Project personnel will carpool to the work areas as much as possible and vehicles will be turned off when not in use.

3. Water

a. Surface Water:

- 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, North Fork Manastash Creek and Umtanum Creek. The trees for in-stream and floodplain enhancement will be placed within the channel and floodplain of North Fork Manastash Creek and Umtanum Creek to naturally improve hydrology and aquatic habitat. Both creeks are tributaries to the Yakima River.

- 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, trees will be placed directly in or across North Fork Manastash Creek and Umtanum Creek following recommendations for wood replenishment in the Washington Department of Fish and Wildlife's Stream Habitat Restoration Guidelines (2012) and the Oregon Department of Forestry/Oregon Department of Fish & Wildlife, 2010, Guide to Placement of Wood, Boulders and Gravel for Habitat Restoration. Habitat biologists will determine the exact wood placement in the field based on site conditions. Trees will be placed in locations where 1) crews and equipment have access to the creek with little disturbance; and 2) at points in the stream where there are opportunities for good floodplain reconnection to benefit fish and wildlife habitat as well as riparian and wetland function.

- 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.

None, there will be no 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, all of the trees will be placed within the 100-year floodplain of North Fork Manastash Creek and Umtanum Creek.

- 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.

No, there may be minor increases in turbidity from placing trees in the creek using a helicopter or equipment, but the project is not expected to result in measurable impacts to water quality.

b. Ground Water:

1) Will groundwater be withdrawn from a well for drinking water or other purposes? If so, give a general description of the well, proposed uses and approximate quantities withdrawn from the well. Will water be discharged to groundwater? 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.

None

c. Water runoff (including stormwater):

If necessary, a water truck will be on site during project implementation. This truck will be responsible for watering down the roads to mitigate fire risk and minimize dust from vehicles traveling in and out of the project area. Water runoff from the water truck will be minimal.

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.

This project is not likely to impact the amount or material associated with runoff, including storm water runoff events.

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

All refueling will occur at least 100 feet from the wetted width of streams. There is a remote chance that petroleum products could leak from the refueling truck, helicopter, equipment or other miscellaneous vehicles onto the ground. All equipment will be kept in good working condition to minimize this risk. All equipment will have an approved spill kit to contain and clean up spills if they should occur.

Columbia Helicopters, Inc. (CHI) has a fuel spill plan in place under which they agree to maintain and operate the job site to minimize unplanned sudden or non-sudden release of hazardous waste/material. A copy of the plan will be attached to this checklist.

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

No

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

The project is planned to enhance forest health, hydrology and aquatic habitat. Best management practices will be applied to eliminate adverse impacts to water quality.

The project will stimulate the natural stream processes associated with the recruitment of wood into the channel and the hydrologic changes that result from such large wood structures being placed within the stream. By increasing pool frequency and floodplain function, stream temperatures in North Fork Manastash Creek and Umtanum Creek will likely remain cooler during the warm, dry summer months. Placement of wood will also improve the hydrologic function by adding a roughness component to the channel and floodplain that will reduce peak streamflows and improve base streamflows.

4. Plants

a. Check the 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
- Orchards, vineyards or other permanent crops.
- 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?

Wood staging areas for the project are in previously disturbed locations, where vegetation is minimal or absent. These areas will be accessed using established routes to minimize new disturbance. However, minor disturbance to ground vegetation will occur due to delivery and staging of wood using heavy equipment at identified locations. Following project implementation, Washington Conservation Corps crews, which are under contract with the Yakama Nation, will be responsible for seeding any disturbed areas with native seed to prevent invasion of noxious weeds.

b. List threatened and endangered species known to be on or near the site.

Ute Ladies'-Tresses

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 create new braided channels, thereby enhancing the wetland/riparian buffer of North Fork Manastash Creek and Umtanum Creek.

e. List all noxious weeds and invasive species known to be on or near the site.

Potential noxious weeds/invasive species that may be on or near the project site include:

Canada thistle

Bull thistle

Chicory

Common mullein
Diffuse knapweed
Gypsy flower
Ventenata

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:** Northern goshawk; Northern spotted owl; flammulated owl; great horned owl; golden eagle; White-headed woodpecker; songbirds
- **Mammals:** elk; mule deer; bear; beaver; sooty grouse; gray wolf; bighorn sheep
- **Fish:** summer steelhead and rainbow trout; spring Chinook salmon; westslope cutthroat; coho salmon
- **Reptiles and amphibians:** Northern alligator lizard; western fence lizard; western rattlesnake; ring-necked snake; racer; common garter snake; Columbia spotted frog; rubber boa; western toad

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

Northern spotted owl: There is a stat 1 circle in the vicinity, but the project is outside the median home range and no timing restrictions apply due to distance and timing of operational period.

Gray Wolf

Middle Columbia River Steelhead

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

North Fork Manastash Creek and Umtanum Creek are migratory corridors for steelhead, Chinook and coho to reach their spawning grounds. Robinson Canyon is a migratory corridor for elk and mule deer.

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

Northern goshawks have been observed in the vicinity of the project area, however there are no known nesting goshawks that will be affected by the project due to distance. If operational period overlapped with nesting surveys will be performed.

The project will increase the amount of large wood in the channel. Increased pool frequency and channel complexity, due to large wood placement, will greatly enhance instream habitat for salmonids. The wood enhancement project is designed as a habitat enhancement project and no long-term negative impacts to wildlife are anticipated.

e. List any invasive animal species known to be on or near the site.

No known invasive animal species are present.

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.

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

Not applicable; the project area is surrounded by public lands, unlikely to need solar energy capabilities. Regardless, the proposed project would not likely affect the potential use of solar energy.

- 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:

None. The placement of trees may be adjusted afterward using manual winches and hand-held pulleys.

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 a remote chance that petroleum products could leak from the refueling truck, helicopter, equipment or other miscellaneous vehicles onto the ground. All equipment will be kept in good working condition to minimize this risk. All equipment will have an approved spill kit to contain and clean up spills if they should occur.

Columbia Helicopters, Inc. (CHI) has a fuel spill plan in place under which they agree to maintain and operate the job site to minimize unplanned sudden or non-sudden release of hazardous waste/material. A copy of the plan will be attached to this checklist.

The contractor and crews will comply with WA-DNR Forest Practice requirements for fire suppression equipment and monitor and adhere to Industrial Fire Precaution Level (IFPL) regulations.

- 1) Describe any known or possible contamination at the site from present or past uses.

None known

- 2) Describe existing hazardous chemicals/conditions that might affect project development and design. This includes underground hazardous liquid and gas transmission pipelines located within the project area and in the vicinity.

None known

- 3) Describe any toxic or hazardous chemicals that might be stored, used, or produced during the project's development or construction, or at any time during the operating

life of the project.

There will be a fuel truck on site during project implementation for refueling of the helicopter. No toxic or hazardous chemicals will be stored on site after implementation.

4) Describe special emergency services that might be required.

Columbia Helicopters Incorporated (CHI), who will be under contract with the Yakama Nation and responsible for placing the wood using a helicopter, has a fuel spill plan in place under which they agree to maintain and operate the job site to minimize unplanned sudden or non-sudden release of hazardous waste/material. They have a field emergency command structure at all jobs sites and an adequate supply of absorbent pads, shovels, pumps, hoses, visqueen, fire extinguishers, and first aid equipment in their maintenance vans in the event of emergency. In the event of an emergency situation, the emergency coordinator on site must immediately notify all field maintenance personnel, visitors and contractors. Following an emergency, Columbia Helicopters will assess the incident and, if necessary, work with the National Response Center to appropriately respond to the incident.

In the event of spill, the Washington Department of Ecology and Washington Department of Fish & Wildlife will be notified immediately.

5) Proposed measures to reduce or control environmental health hazards, if any:

CHI has a fuel spill plan in place under which they agree to maintain and operate the job site to minimize unplanned release of hazardous waste/material. In the event of a release of hazardous waste/material, the emergency coordinator from CHI will respond following plan included in the contract. This may include diking or berming, or using absorbents. Once contained or controlled, they will put materials into approved storage devices such as metal or poly drums that are compatible with the spilled material(s). Personnel who cause or observe small localized fires or explosions may try to extinguish the fire using one of the available extinguishers. Immediately after, they will provide for the treatment, storage or disposal of the recovered waste, contaminated soil, surface water or any other material that results from a release, fire, or explosion at the job site. If the spill or release is determined to be larger than CHI personnel are able to handle or cleanup, an environmental contractor will be called to handle that portion of the remediation activities.

In the event of spill, the Washington Department of Ecology and Washington Department of Fish & Wildlife will be notified immediately.

b. Noise

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

There is minimal noise from recreational vehicle traffic; it will not affect the project.

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 wood placement includes a helicopter, hand-tools (winches, pulleys, etc.), and vehicles. The project will take place during daylight hours. There will be no long-term increase in noise due to this project.

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

Log placement will be operational during normal working days and during daylight hours. Traffic noise will be reduced by carpooling as much as possible to the project sites and turning off equipment when it is not in use.

8. Land and Shoreline Use

a. What is the current use of the site and adjacent properties? Will the proposal affect current land uses on nearby or adjacent properties? If so, describe.

The project areas are in public land ownership and are used as fish and wildlife habitat, as well as recreational activities. The project will not affect the current land use at the sites.

b. Has the project site been used as working farmlands or working forest lands? If so, describe. How much agricultural or forest land of long-term commercial significance will be converted to other uses as a result of the proposal, if any? If resource lands have not been designated, how many acres in farmland or forest land tax status will be converted to nonfarm or nonforest use?

The surrounding land is a patch work of lands once owned by private timber companies prior to their purchase by the state of Washington. This land is currently managed by the Washington Department of Fish & Wildlife and Washington Department of Natural Resources. This project will not impact the current or long term status of these lands.

1) Will the proposal affect or be affected by surrounding working farm or forest land normal business operations, such as oversize equipment access, the application of pesticides, tilling, and harvesting? If so, how:

No

c. Describe any structures on the site.

No structures on site

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

No structures on site

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

Commercial Agricultural Zoning, Forest and Range Zoning, and Commercial Forest Zoning

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

Commercial Agriculture Land Use and Commercial Forest Land Use

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

N/A

h. Has any part of the site been classified as a critical area by the city or county? If so, specify.

Yes, North Fork Manastash Creek and Umtanum Creek and their associated wetlands are considered critical areas in Kittitas County. This streams provides habitat to fish and wildlife species that are of cultural and economic importance to the region. This project seeks to improve habitat for these species.

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

N/A

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:

The goal of this project is to improve ecological function and provide habitat to sensitive species of fish and wildlife that are of cultural, ecological and economic importance. This project is a collaborative effort between Mid-Columbia Fisheries Enhancement Group, Yakama Nation Fisheries, Washington Department of Fish & Wildlife, and Washington Department of Natural Resources.

m. Proposed measures to reduce or control impacts to agricultural and forest lands of long-term commercial significance, if any:

None

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?

It is unlikely that the tallest large wood jam would exceed 5 feet in height.

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

The view would be temporarily altered during project implementation when the helicopter is placing wood in the stream. There will be no long-term alteration or obstruction of the view.

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

There will be no structures constructed during this project. The goal of large wood placement is to mimic the natural recruitment of large wood to a stream. After decades of unnatural human alteration to the watershed, this project will help restore the historic aesthetics of Little Rattlesnake Creek.

11. Light and Glare

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

Additional glare and light will only occur during project implementation. The helicopter is equipped with lights to meet safety requirements and glare may come off the windows of the helicopter while placing wood in the stream. Trucks accessing wood staging areas will be equipped with normal lights to meet safety requirements. Crews on the ground may use flashlights if they are needed during hours of reduced visibility.

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

None

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

None

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?

Camping, hiking, hunting, pleasure driving, mountain biking, and other informal recreation regularly occurs in the immediate vicinity of the project.

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

The project will temporarily disrupt recreational activities, such as hiking, biking and camping. Project implementation will occur prior to modern firearm hunting seasons for deer and elk to ensure crew member safety and uninterrupted hunting opportunities for the public.

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

To reduce impacts associated with helicopters carrying large wood, public notification will occur. Staff will also be posted in logical areas to prevent the public from accessing the project area during implementation. Additionally, the dates of project implementation will occur prior to the beginning to modern firearm season for deer and elk to reduce potential impacts on hunters.

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 ? If so, specifically describe.

North Fork Manastash Creek

The Manastash Corral site, with its carved aspens, serves as a record of mid-20th century open-range livestock grazing in the Manastash watershed.

A saw mill site may represent a “gyppo logger” operation, possibly under contract to L.T. Murray’s West Fork Timber Company.

Two known pre-contact sites were previously recorded within the BPA APE: the Fromherz Site containing talaus pits and pre-contact artifacts and the Hooter Hollow Lithic Scatter.

Umtanum Creek:

A total of four previously documented lithic scatter sites are located within the Project.

Five historically mapped features were shown on GLO and USGS topographic maps. One historic Davis Jeep Trail (two track trail) was identified.

Three newly discovered lithic and isolate scatter sites were found. Four sites were discovered demonstrating historic ranching/ agricultural activitse. Sites consisted of historic wooden fence

cribs (rock-filled fence support structures), corrals, stock pond, and fence jacks. More specific information is available upon request.

- 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.

An Intensive Level Survey was conducted for both NF Manastash Creek and Umtanum Creek within the direct effects portion of the APE; a background review of historic maps and state records was conducted ahead of fieldwork. The lead agency (BPA) consulted with DAHP, land managers, and local tribes.

North Fork Manastash Creek:

In Section 13 of T18N, R15E, the northwestern-most segment of the project area, measuring roughly 0.33 miles, was surveyed by Archaeological and Historical Services, Eastern Washington University (Masten 1985a) and by Northwest Archaeological Associates, Inc. / International Archaeological Research Institute, Inc. (Burtchard and Miss 1998). In sections 7, 8, and 17 of T18N, R16E, an approximately one-mile segment of Murray Road was surveyed by Drayton Archaeological Research, LLC (Gill 2008). Within or adjacent to the current project area, the former survey identified sites 45KT1426, 45KT1434, and 45KT1435, while the latter survey found no cultural material.

Umtanum Creek:

No landmarks, known burials, or old cemeteries are in or near the project. See details from question A for information about precontact and historic era archaeological sites regarding areas of cultural importance. Five previous cultural resource investigations were conducted within one mile of the project; three previous survey areas are within the Project APE. Rice (1966) conducted survey within the Yakima Canyon and identified a surface lithic scatter near the confluence with Umtanum Creek; subsequent test excavations revealed significant intact cultural deposits. Additional excavation at the site was conducted by and Smith (1971). These activities were conducted outside of the current Project APE. Bicchieri (1999) conducted archaeological survey on BLM lands for a Central Washington University archaeological field school. The survey identified numerous precontact lithic scatters and isolates as well as lithic procurement areas and rock cairns on upland flats in Sections 18 and 19 within the APE. Punke (2006) conducted archaeological survey and shovel testing along a pipeline corridor segment within the floodplain in Section 15 (within the APE); the study identified several surface lithic scatters and sparse and mixed cultural subsurface archaeological deposits of low integrity along the right bank of the stream. Heidrich (2008) conducted archaeological survey for a fiber optic cable replacement project within the APE; only raw lithic material was observed and no new sites were identified as a result of the survey.

- 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.

An Intensive Level Survey was conducted for both NF Manastash Creek and Umtanum Creek within the direct effects portion of the APE; a background review of historic maps and state records was conducted ahead of fieldwork. The lead agency (BPA) consulted with DAHP, land managers, and local tribes.

d. Proposed 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.

North Fork Manastash Creek:

ASCC recommends the following:

- 1. A cultural resources survey of any newly proposed staging areas.**
- 2. No further archaeological investigation at the sites/isolates temporarily designated ASCC17594-BPA-HS 1, ASCC17594-BPA- IF 1, ASCC17594-BPA- IF 2, ASCC17594-BPA- IF 3, and ASCC17594-BPA- IF 4.**
- 3. Avoidance of any potentially ground-disturbing project impacts within a 30-meter (98-foot) buffer of site 45WF314 (the Manastash Milk Ranch), the associated North Fork Manastash Cabin, and Temporary Site No. ASCC17594-BPA-HS 2 (the Saw Mill Site). If avoidance of these properties is not feasible, the project may result in an adverse effect, which will require resolution through the execution of a Memorandum of Agreement (MOA), as stipulated in 36CFR800.6.**
- 4. A surficial field inspection of sites 45KT1434 (Manastash Corral and Carved Aspens), 45KT1426 (Hooter Hollow Lithic Scatter), and the Fromherz Site (45KT3184) to determine site conditions, verify site boundaries, and update site forms as appropriate. The results of these inspections will be described in a report addendum.**
- 5. On-going discussions with consulting parties (including affected Tribes) regarding treatment options for the resources listed in item 4. ASCC's preliminary recommendations are for avoidance of sites 45KT1434 and 45KT3184 and for permitted project activities to proceed within site 45KT1426, pending results of a site re-visit. Any proposed disturbance within site 45KT1434 and/or 45KT3184 will likely constitute an adverse effect, which will require resolution through the execution of a Memorandum of Agreement (MOA), as stipulated in 36CFR800.6.**
- 6. Regardless of effects to NRHP-eligible properties, ASCC recommends the preparation of an inadvertent discovery plan (IDP) to be followed during project activities throughout the BPE APE. In brief, this plan will include discovery protocols, contact information, and a review of all applicable local, state, and federal laws pertaining to archaeological resources and human remains.**

Umtanum Creek:

YKFP Recommends the Following:

A total of four previously documented sites and five newly identified site are located within the Project (45KT0228, 45KT1529, 45KT2706, 45KT2707, YKFP-UM-2, YKFP-UM-3, YKFP-UM-4, YKFP-UM-5, YKFP-UM-6; Table 7).

Indirect Effects APE

Indirect Project effects potentially could include restored natural processes such as stream channel migration and floodplain inundation. It is recommended that the Project will have no adverse effect on all sites in this area.

- 45KT0228 is unevaluated for NRHP listing. It is recommended that the Project will have no adverse effect on the site.**
- 45KT2706 is unevaluated for NRHP listing. It is recommended that the Project will have no adverse effect on the site.**
- 45KT2707 is unevaluated for NRHP listing. It is recommended that the Project will have no adverse effect on the site.**

Direct Effects APE

Direct Project effects potentially could include surface disturbance from helicopter landing/refueling, vehicle access road use, and wood staging activities including log loading and skidding.

- 45KT1529 is unevaluated for NRHP listing. It is recommended that Project activities avoid the site by staying on the existing access road which bisects the site boundary; if this recommendation is followed then the Project will have no adverse effect on the site.**
- YKFP-UM-2 is unevaluated for NRHP listing. It is recommended that Project activities avoid the site by staying on the existing access road which bisects the site boundary and by working outside of a 30-m site**

boundary buffer; the avoidance boundary will need to be marked with flagging tape. If recommendations are followed the Project will have no adverse effect on the site. If the Project cannot avoid the site additional work will be required to assess NRHP eligibility.

• YKFP-UM-3 is unevaluated for NRHP listing. It is recommended that Project activities avoid the site by staying on an existing access road which bisects the site boundary; if this recommendation is followed then the Project will have no adverse effect on the site.

• YKFP-UM-4 is unevaluated for NRHP listing. It is recommended that Project activities avoid the site by staying on an existing access road which bisects the site boundary and by working outside of a 30-m site boundary buffer; the avoidance boundary will need to be marked with flagging tape. If this recommendation is followed then the Project will have no adverse effect on the site.

• YKFP-UM-5 is unevaluated for NRHP listing. It is recommended that Project activities avoid the site by staying on an existing access road which bisects the site boundary; if this recommendation is followed then the Project will have no adverse effect on the site.

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.

Log trucks and vehicles will be using county roads and WDFW and WA-DNR forest roads. There will be a temporary increase in traffic from these vehicles.

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.

c. How many additional parking spaces would the completed project or non-project proposal have? How many would the project or proposal 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 or proposal 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?

N/A

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:

N/A

15. Public Services

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

N/A

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

N/A

16. Utilities

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

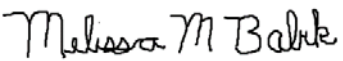
None

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.

None

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: _____  _____

Name of signee _____Melissa Babik_____

Position and Agency/Organization _____ L.T. Murray Wildlife Area Manager _____

Date Submitted: _____6/11/2018_____