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: [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 [help]

1. Name of proposed project, if applicable: [help]
   Oak Creek Habitat Restoration Project

2. Name of applicant: [help]
   Mid-Columbia Fisheries Enhancement Group

3. Address and phone number of applicant and contact person: [help]

Primary
Matt Dahlgreen
Mid-Columbia Fisheries Enhancement Group
413 North Main, Suites K & N
Ellensburg, WA 98926
509-885-6300
mdahlgreen@nwi.net

Secondary
Greg Mackey, Manager
WA Department of Fish and Wildlife
Oak Creek Wildlife Area
16601 US Hwy 12
Naches, WA 98937
509 653-2390
greg.mackey@dfw.wa.gov

4. Date checklist prepared: [help]
January 19, 2017

5. Agency requesting checklist: [help]
Washington Department of Fish and Wildlife

6. Proposed timing or schedule (including phasing, if applicable):[help]
Contract Bid Date: Proposed Spring 2017
Commence tree cutting late spring/early summer 2017
Commence instream wood placement and road work late summer 2017
Work completed by December, 2018

7. Do you have any plans for future additions, expansion, or further activity related to or connected with this proposal? If yes, explain.
Yes. The following components of this proposed project will be/have been implemented on adjacent land ownerships: **[help]**

A. **In-stream wood replenishment will be implemented, concurrently and as part of this project, on adjacent (sections 2, 8, and 10) National Forest land using the same methods as this proposed project. During late summer 2016, wood replenishment, as a separate project, was implemented on adjacent (section 9) The Nature Conservancy land.**
B. **Road regrading (rehabilitation of stream crossings and abandoned road, and roadbed revegetation will be implemented, concurrently and as part of this project on adjacent National Forest and The Nature Conservancy lands**.

8. List any environmental information you know about that has been prepared, or will be prepared, directly related to this proposal. **[help]**
WDFW Priority Species and Habitat Management Recommendations
Department of Natural Resources (DNR) TRAX (Threatened, Rare, and Endangered Species).
WDFW Heritage Database.
Slope stability review based on DNR GIS data and field review (2013-2016).
Endangered Species Act consultation.
Cultural Resource consultation.
Oak Creek (stream) Habitat Assessment (2013).
Geomorphic Road Analysis and Inventory (2013).
Aquatic Organism Passage Assessment (2013).

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. [help]

None known. However, this project shares a wood source with a project managed by Yakama Nation Fisheries. Activities associated with this wood source are covered by a Forest Practices Act Permit (FPA 2705750) issued to the Yakama Nation and a SEPA checklist submitted 7/8/14 by WDFW.

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

SEPA Determination--WDFW
Forest Practices Act Permit--WDNR
Hydraulic Project Approval—WDFW
Endangered Species Act consultation--USFWS
Department of Archaeological and Historical Preservation and Section 106 consultation with State Historical Preservation Officer. -- complete

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.) [help]

The goal of this project is to improve in-stream habitat for resident and anadromous salmonids by reducing road-related degradation, restoring in-stream channel complexity, and enhancing riparian condition along 4.5 miles of Oak Creek and South Fork Oak Creek.

Refer to the attached Site Plan Figures.

Road De-compaction and Re-contouring

Up to 2,600 linear feet of decommissioned Forest Service Raod (FSR) 1401 will be re-contoured, with the aim of returning the roadbed area to native topography. Additionally, approximately 2,600 feet of FSR 1401 and 1400, and an adjacent 0.07-acre staging area, will be de-compacted using an excavator, which will take scoops of road surface and replace the material in the same location. This will loosen up the top 2-3 feet of road base and roughen the surface. It will also improve seed germination and root penetration, and make material available for redistribution by the creek. No fill material will be brought in and no material will be hauled away. Native trees and shrubs will be planted in both the de-compacted and recontoured areas. Slash and logs will be placed on the road surfaces throughout the project area. This is a design-build project and field modification and fitting is expected.

Section 3

This work area includes the confluence of the mainstem Oak Creek with South Fork Oak Creek, and the most significant road crossing of the project (Figure 2A). Figures 2B-G and 2H-L show cross sections of the floodplain for illustration of conditions. Decommissioned FSR 1401 crosses mainstem Oak Creek above the confluence (Figure 3).
The only portion of FSR 1400 road to be treated is along the switchback. The 1401 blocks a

significant secondary channel of Oak Creek adjacent to the abandoned stream crossing (Figure 3A). The portion of the road between this channel and the main channel will be removed, and its topography will be returned to native topography to the extent possible.
Work will begin on FSR 1401 about 800 feet above its Oak Creek crossing, near transect 43 (Figure 2A, Figure 9). The road and the adjacent staging area will be de-compacted as described above as the machine backs up. Nearly the entire length of the road crossing the Oak Creek floodplain will be de-compacted. The portion of FSR 1400 north of the crossing will be de-compacted after the earth moving at the crossing is completed. The portion of FSR 1400 to be de-compacted is the switchback, as the machine backs out of the site.
The earth moving details, associated with the recontouring, can be found on Figure 3A, and Transect A. 560 cubic yards of road fill will be removed to reconnect the blocked secondary channel of Oak Creek. In order to minimize disturbance to the surrounding area, fill material will be placed nearby onsite. One of the few locations where material was removed to build the 1401 road is immediately to the north of the portion of it to be removed, west of the road. The capacity of the location to receive material is expanded by the erosion of material in the roadside ditch. There is more than enough space to place the removed road material and return the area to native topography.

Section 8 and west end of section 9

Access to this part of the project area is from the south (Figure 4, Figure 10). Only portions of the 1401 road immediately adjacent to the channel, and confining the floodplain will be de-compacted or re-contoured. In locations where the impact of the road on flood stage hydraulics is negligible, no treatment is recommended. It is expected that the redistribution of road material, already in progress throughout the project area, will be enhanced by the LWD placement. Earthwork will begin at the easternmost point of equipment access, in the southwest corner of Section 9 (Figure 5, Figure 10). 590 cubic yards of fill at an old road crossing will be relocated from the streambanks to the toe of the northern slope. Streambanks will be re-contoured to match the slope up- and downstream of the road crossing. Moving west from the old crossing, the excavator will spot de-compact the FSR 1401 roadbed in areas indicated in Figure 4. In addition, up to 2,600 feet of spot re-contouring will be done. It may not be spatially coincident with the de-compaction. The area will be returned to native topography to the extent possible. The remainder of the work is to de-compact sections of the 1401 road in section 8 as indicated (Figure 4, Figure 9). This work will be done in sequential order as the excavator backs out of the site westward.

Tree cutting and yarding component.

Large wood will be added to SF Oak Creek and mainstem Oak Creek in five sections located in T14N, R15E, W.M. (Figure 8). The upstream extent of proposed restoration work in SF Oak Creek is located in Section 8, under FS ownership. Restoration work will continue downstream onto Section 9, under TNC ownership, Section10, FS ownership, and Section 3, WDFW ownership. Work on mainstem Oak Creek will be confined to Section 3, WDFW ownership, and Section 2, FS ownership.

WDFW section 3 and TNC section 9, Figures 9 and 10

Up to 121 live trees from the codominant and intermediate crown classes will be removed from 5 small patches on WDFW, section 3, and one patch on TNC, section 9. Patch sizes range from 0.1 to 1 acre and their total area is under 2 acres. An additional 100 trees will be removed from an off-site 8-acre patch. This patch is covered by previous environmental documents: FPA 2705750

and a SEPA Determination of Nonsignificance issued to WDFW March 9, 2012. Trees will be selectively cut within patches; no patches will be clearcut. For cutting to occur, patches must meet minimum pre- and post-treatment density thresholds which are described in the table below. Trees that are dead, fork-topped, dead-topped, or with signs of wildlife use will not be cut. Trees infected with dwarf mistletoe may be cut. If tree density is too low to meet the thresholds for tree cutting and down logs are present, they may be used in lieu of live trees.
Patches were selected according to these criteria:

- **characteristics of suitable wood replenishment sites as identified by the stream geomorphologist,**
- **adequate anchors for yarding felled trees to the channel, and**
- **adequate live tree density to meet pre- and post-treatment tree density thresholds.**

Patch 2 is located within the Inner Zone of the Riparian Management Zone (RMZ) and meets the requirements of Chapter 222-30 WAC. The remaining patches are located outside the RMZ.
A hand powered "grip-hoist" winch will be used to yard and place logs from the stream adjacent patches. Although this method does not allow for suspension of the log's leading edge, the slow yarding speed allows crews to carefully maneuver the logs and limits ground disturbance.
A tracked excavator will be used to yard and place logs from the off-site unit. These logs will be placed along the de-compacted and re-contoured 1400 and 1401 roads and within the adjacent streams. The excavator has an about 35 foot reach and allows one-end or full suspension Placement of the trees at each site will vary depending on channel conditions, Figure 11. In some cases wood will be placed to jam and capture wood moved by future flood events. In others, it will placed as a wood source to be rearranged by future flood events. Wood placements will follow the guidelines for large wood replenishment described in the Washington Department of Fish and Wildlife's Stream Habitat Restoration Guidelines (2012) (http://wdfw.wa.gov/publications/01374/wdfw01374.pdf).

FS Sections 2, 8, and 10, Figures 9 and 10
North side of Oak Creek and SF Oak Creek (wood source units 1, 4, and 6): Five to 15 live trees from the codominant and intermediate crown classes will be removed from up to 35 patches ranging in size from 0.1 to 0.33 acres. Their combined area will be no greater than 11.5 acres, and no more than 300 trees in total will be cut from the patches. These patches will be located within an about 56 acre strip (located above the no cut buffer described below) along about 1.9 miles of stream—"FS Wood Source Areas". Trees will be selectively cut within patches; no patches will be clearcut. For cutting to occur, patches must meet minimum pre- and post-treatment density thresholds which are described in the table below. Trees that are dead, fork-topped, dead-topped, or with signs of wildlife use will not be cut. Trees infected with dwarf mistletoe may be cut. If tree density is too low to meet the thresholds for tree cutting and down logs are present, they may be used in lieu of live trees.
Patches will be selected according to these criteria:

- **characteristics of suitable wood replenishment sites as identified by the stream geomorphologist,**
- **adequate anchors for yarding felled trees to the channel, and**
- **adequate live tree density to meet pre- and post-treatment tree density thresholds.**

Patches will be located at least 30 feet upslope from the outer boundary of the Channel Migration Zone (CMZ).
MCF will use hand-powered "grip-hoist" winches to yard and place logs in the stream in sections

2 and 10. Although this method does not allow for suspension of the log's leading edge, the slow yarding speed allows crews to carefully maneuver the logs and limits ground disturbance.
In section 8, a tracked excavator will be used to yard and place logs in the stream. The excavator has an about 35 foot reach and allows one-end or full suspension. In some cases, felled trees may be beyond the reach of the excavator and will be cable yarded for up to 50 feet, with no suspension, to within the range of the excavator.
Placement of the 5-15 trees at each site will vary depending on channel conditions, Figure 11. In some cases wood will be placed to jam and capture wood moved by future flood events. In others, it will be placed as a wood source to be rearranged by future flood events. Wood placements will follow the guidelines for large wood replenishment described in the Washington Department of Fish and Wildlife's Stream Habitat Restoration Guidelines (2012) (http://wdfw.wa.gov/publications/01374/wdfw01374.pdf).

South side of Oak Creek and SF Oak Creek: No live trees will be cut from the south side, or right bank of either Oak Creek or SF Oak Creek. However, in some circumstances it may be infeasible to meet wood replenishment objectives with wood from the north sides of the streams. There may be inadequate tree density on the north side, inadequate anchors for yarding, and/or stream inaccessibility from the north side. When these conditions exist and when down wood is abundant on the south side of the creek, it will be taken from units 2, 3, and 5. These sites will be identified during implementation and are not expected to exceed 5-7 in number. The number of live trees cut and placed from the north side of the creek will be reduced accordingly. Examples of abundant down wood and the lower post-treatment threshold are shown in Figure 11.

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. [help]

The project is located in Yakima County, approximately 30 miles northwest of Yakima. Access from Yakima is west on US Hwy 12 to Oak Creek Road (Forest Service road 1400) for about five miles to the project area.
Legal description: Township 14 North, Range 15 East, sections 3 (WDFW ownership) and 9 (The Nature Conservancy ownership).
See attached site plan.

B. ENVIRONMENTAL ELEMENTS [help]

1. Earth [help]

a. General description of the site: [help]

The project is at 3,000 feet in the bottom of a 700 foot deep canyon. Slopes above the canyon range from 50 to 70 percent along 80 percent of its length and 25 percent for the remainder. North aspects are dominated by dense, multi-layer Douglas -fir, grand fir, western larch, and ponderosa pine forests. South aspects are low density

single and two story ponderosa pine and Douglas-fir forest. Annual precipitation is about 25 inches.

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

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

The steepest stream gradient and canyon slopes are about 7 and 80 percent, respectively.

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. [help]

There are no agricultureal lands on the site. General soil types of the site are:

LOGY COBBLY SILT LOAM, 0 TO 5 PERCENT SLOPES
SIMCOE SILT LOAM, 5 TO 15 PERCENT SLOPES
WEIRMAN FINE SANDY LOAM
CLINT-RUBBLELAND COMPLEX, 8 TO 75 PERCENT SLOPES

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

The Oak Creek portion of the project (sections 2 and 3) is at the toe of a large, deep seated landslide. The landslide is not of glacial origin. There are no signs of activity on this landslide and it was deemed dormant by a DNR Engineering Geologist in 2014. Wood source areas located on the toe of this landslide are on planar slopes under 60 percent.

There is an about 3.5 acre rotational slump about 500 feet north of the south boundary of section 3 (150 ft southwest (upstream) of wood source unit 5). It is dormant and appears to have occurred over 2-300 years ago. It is adjacent to an area that was logged in the mid 1990's with no effect.

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. [help]

To reduce road-related channel constriction and sediment input, about 2,600 feet of de-compacting and up to 2,600 feet of re-contouring will be done on Forest Service Roads 1400 and 1401, which were decommissioned in the mid-1990s. Up to 600 cubic yards of road fill will be removed from each of two recontouring sites.

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

There will be a short-term increase in erosion caused by heavy equipment during road bed de-compaction and re-contouring.

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

None.

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

Erosion reduction is an objective of the project. Project components that will reduce future erosion include:

- **Sediment capture associated with revegetation and wood and slash placement on the roadbed,**
- **Reduce surface flow because of increased surface permeability associated with roadbed de-compaction,**
- **Rain and snow interception associated with revegetation, and**
- **The stream's increased ability to limit the power of peak flows due to wood replenishment within the stream.**

2. Air [help]

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. **[help]**

There will be minor emissions from internal combustion engines: chain saw, heavy equipment, and vehicles.

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

None known.

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

Equipment will be turned off when not in use.

3. **Water** [help]

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. [help]

Oak Creek—fish bearing
South Fork Oak Creek –fish bearing

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. [help]

Yes, trees will be placed directly in or across Oak Creek and SF Oak Creek following recommendations for wood replenishment in the Washington Department of Fish and Wildlife's Stream Habitat Restoration Guidelines (2004).

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. [help]

As part of the recontouring work, up to 590 yards of fill from an abandoned stream crossing will be removed and placed in historic borrow areas or along the toe of the adjacent slope. No material will be transported off site. FIGURE X

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

Water may be pumped from designated pump chances to allow for dust control.

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

All road road recontouring and decompaction activities are within the 100–year flood plain. Some tree yarding and all wood replenishment will take place within the 100–year flood plain.

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. [help]

No discharge is expected. Discharge of petroleum products from power equipment will be prevented by adherence to Best Management Practices such as maintaining equipment in good working order, refueling at designated locations above the channel migration zone, and readily accessible spill containment supplies.

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. [help]

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. [help]

NONE, NOT APPLICABLE.

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. [help]

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. [help]

There is a chance that petroleum products could leak from chainsaws or vehicles onto the ground. Discharge of petroleum products from power equipment will be limited by adherence to Best Management Practices such as maintaining equipment in good working order, refueling at designated locations above the channel migration zone, and readily accessible spill containment supplies.

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

The road regrading will increase the permeability of the road surface to water thus reducing runoff into the adjacent streams.

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

The project will affect these patterns as follows:

- **Slowed runoff associated with revegetation and wood and slash placement on the roadbed,**
- **Increased surface permeability associated with roadbed de-compaction,**
- **Rain and snow interception associated with revegetation, and**
- **The stream's increased ability to limit the power of peak flows due to wood replenishment within the stream.**

4. **Plants** [help]

a. Check the types of vegetation found on the site: [help]

__X__deciduous tree: alder, maple, aspen, other
__X__evergreen tree: fir, cedar, pine, other
__X__shrubs
__X__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? [help]

Approximately 2,000 native trees and shrubs will be planted on 3 – 5 acres disturbed by project activities.
As part of the wood replenishment work, conifers between about 6 and 20 inches in diameter will be cut and placed in the stream channel and its floodplain. Some shrubs will be uprooted as these logs are yarded to the stream.
As part of the the road regrading, herbs, shrubs, and small conifers will be uprooted.

c. List threatened and endangered species known to be on or near the site. [help]

Ute ladies'-tresses are federally listed as threatened, but are not known to be present in the Oak Creek watershed.
Wenatchee mountain checker mallow are federally and state listed as endangered, but are not known to be present in the Oak Creek watershed.
A thorough ground suvrey for rare plants was conducted in the spring of 2015, and no such plants were found.

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

Wood replenishment will increase and improve habitat for riparian vegetation which is expected to respond naturally. The road decompacting and recontouring will be followed up with plantings of native shrubs.

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

knapweed.

5. **Animals** [help]

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. [help]

Examples include:

birds: **hawk,** heron, eagle, **songbirds**, other: **owls ravens, vultures, woodpeckers**
mammals: **deer, bear, elk, beaver**, other: **small mammals**
fish: bass, **salmon**, **trout**, herring, shellfish, other **_native minnows, suckers and sculpin**_____

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

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

Northern spotted owl surveys were conducted during 2011, 2012, 2013, and 2014. None were found.

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

Yes. Steelhead are known to spawn in the lower reaches of Oak Creek. The general area is used by elk and mule deer migrating to and from winter range. This is also part of the Pacific flyway, but the area is not used extensively by waterfowl.

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

As proposed, the project will increase the amount of large wood in the channel 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 due to the large wood will greatly enhance the instream habitat for threatened salmonids such as steelhead and bull trout. The 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. [help]

None known.

6. **Energy and Natural Resources** [help]

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. [help]

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. [help]

No.

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: [help]

None.

7. **Environmental Health** [help]

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. [help]

Fuel/lubricant could spill during equipment operation and maintenance.
There is a minimal risk of wildfire from internal combustion engines.

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

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. [help]

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. [help]

None known.

4) Describe special emergency services that might be required. [help]

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.

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

The risk of petroleum discharge from power equipment will be controlled by adherence to Best Management Practices such as maintaining equipment in good working order, refueling at designated locations above the channel migration zone, and readily accessible spill containment supplies.

The risk of fire wildfire will be limited by compliance with DNR fire precaution regulations.

b. Noise [help]

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

None.

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. [help]

During the life of the project, there will be noise from heavy equipment and chainsaws. Other noise will be incidental and not differentiated from ambient noise in the area.

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

Equipment will be muffled and operators will wear ear protection.

8. **Land and Shoreline Use** [help]

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. [help]

Forest management and recreation (hunting, fishing, wildlife viewing, hiking, camping). This activity will not affect those uses.

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? [help]

Most of the project area is forested and prior to state ownership it was working forest lands. There will be no conversion of land as part of this project. All lands are in state ownership where PILT is paid by WDFW.

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: [help]

No.

c. Describe any structures on the site. [help]

None present.

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

No.

e. What is the current zoning classification of the site? [help]

Forest land/watershed.

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

Forest land emphasizing wildlife habitat.

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

Not applicable.

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

Yes, Oak Creek is a Type 2 stream under the Yakima County Critical Areas Ordinance. Oak Creek has a mapped 100-year floodplain. There is one mapped palustrine, forested wetland in Reach 3, just upstream of the confluence with Hoover Canyon. Additionally, the project area provides fish and wildlife habitat for several culturally and ecologically important species.

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

None.

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

None.

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

NOT APPLICABLE.

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

In addition to completing the proper review and obtaining the appropriate authorizations from the state and local government, WDFW's Oak Creek Wildlife Area Manager and District 8 Team support the project. There will be no change to the existing land use because of this project.

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

There is no agricultural land in the area and the project will have no impact on forested lands.

9. **Housing** [help]

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

None.

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

None.

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

Not applicable.

10. **Aesthetics** [help]

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

The tallest wood replenishment structure would not be likely to exceed six feet above the ordinary high water line.

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

None, tree thinning is not likely to affect views because trees will only be cut in areas of dense vegetation and stream shading will not be reduced.

b. Proposed measures to reduce or control aesthetic impacts, if any: [help]

Wood replenishment will increase the natural appearance and function of the stream. Regrading and revegetation the road will render it more inconspicuous.

11. **Light and Glare** [help]

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

Not applicable.

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

No.

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

None.

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

None. Not applicable.

12. **Recreation** [help]

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

The project area is within public lands that are heavily used throughout most of the year. Hunters, anglers, hikers, birdwatchers, mountain bikers, and campers use the Oak 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. [help]

No.

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

None needed.

13. **Historic and cultural preservation** [help]

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. [help]

None known.

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. [help]

Reiss-Landreau Research, LLC conducted a forest archaeological survey in the spring of 2016. In "A Reconnaissance Survey of the Proposed Oak Creek Habitat Enhancement Project near Naches Washington"(RLR Report 2016-361-02, May 2, 2016), Landreau concluded: "After thorough examination of the entire APE via close order surface examination, no cultural resources were located within the right-of-way of this project, RLR believes that no cultural resources are present within the APE of this project, and recommends that the project proceed as planned." The Okanogan-Wenatchee National Forest contacted the Yakama Nation in July of 2016 with project information, and hearing no concerns in reply, submitted this report and its determination of "No Historic Properties Affected" to the Washington Department of Archaeological and Historic Preservation (DAHP) On September 15, 2016. DAHP concurred with the determination of September 16, 2016.

A survey of the section 3 offsite-8 wood source area was conducted and no sites were found.

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. [help]

Refer to b, above.

Central Washington University executed a contract to conduct an archaeological survey of the area adjacent to the project, including off-site wood source 8, refer to the attached site plan. The results were provided to the Department of Archaeological and Historic Preservation, the Yakama Nation was consulted, and section 106 consultation with the State Historic Preservation Officer was completed.

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. [help]

Mid-Columbia Fisheries staff and contractors will follow our Inadvertent Discovery Plan, which requires staff and contractors to stop activity and consult with the Okanogan-Wenatchee National Forest archaeologist, the Yakama Nation, or the Yakima County Sheriff's Department, depending on the nature of resource inadvertently uncovered.

14. **Transportation** [help]

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. [help]

The area is accessed from US Highway 12 (about 8 miles west of Naches) by Forest Service Road 1400. Access to the project is via closed WDFW roads that will be reclosed after the 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? [help]

No.

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

None, not applicable.

e. 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). [help]

The currently closed road, OC302, accessing the project in section 3 will be temporarily improved to allow vehicle travel. These improvements will be eliminated when the project is complete.

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

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? [help]

None, not applicable.

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. [help]

No.

h. Proposed measures to reduce or control transportation impacts, if any: [help]

Not applicable.

15. **Public Services** [help]

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. [help]

No.

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

Not applicable.

16. **Utilities** [help]

a. Circle utilities currently available at the site: [help]

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. [help]

None.

C. Signature [help]

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: Gregory Mackey

Name of signee Greg Mackey

Position and Agency/Organization Oak Creek Wildlife Area Manager, WDFW

Date Submitted: 4/3/17

D. supplemental sheet for nonproject actions [help]

(**IT IS NOT NECESSARY** to use this sheet for project actions)

Because these questions are very general, it may be helpful to read them in conjunction with the list of the elements of the environment.

When answering these questions, be aware of the extent the proposal, or the types of activities likely to result from the proposal, would affect the item at a greater intensity or at a faster rate than if the proposal were not implemented. Respond briefly and in general terms.

1. How would the proposal be likely to increase discharge to water; emissions to air; production, storage, or release of toxic or hazardous substances; or production of noise?

Proposed measures to avoid or reduce such increases are:

2. How would the proposal be likely to affect plants, animals, fish, or marine life?

Proposed measures to protect or conserve plants, animals, fish, or marine life are: