

WSDOT USFW Project Notification Form

Note: The proper version of this form must be submitted to either the National Marine Fisheries Service or the U.S. Fish and Wildlife Service (or both). See <http://wwwi.wsdot.wa.gov/Environment/FishWildlife/> for submittal procedures.

Project Name:

I-90 Yakima River Bridge East of Cle Elum - WB Deck Rehabilitation (XL4617)

Submittal Date:

March 23, 2017

Work Order:

XL4617

WIN:

E09013N

Project Location:

State Route 90, Mile Post 86.04 to 86.52

Geographical Coordinates: 47.18162900 / -120.90009700 to 47.17701300 / -120.89253500

Indicate Township / Range / Section

T20N-R16E-S31

Project Updates. All project updates should be recorded in this box. A project may have multiple updates. For each update include: 1) the date of the update, 2) an explanation of the update including the existing condition and the changed condition (e.g., the project originally had 0.2 acre of new PGIS and now has 0.5 acre new PGIS), 3) reference here any new figures, plans or maps (attach these at the very end of the form).

4/3/17: the EFH section was updated to document "Adverse Effect" in the amount of 7.2 acres (ensonified area).

4/12/2017: Updated multiple portions of the PNF in order to address questions submitted by Leslie Durham (USFWS).

Indicate the federal nexus for the project

FHWA

County:

Kittitas

Region:

South Central

Project Biologist:

Geoffrey Gray, grayg@wsdot.wa.gov, 509-577-1756

Reviewing Biologist:

Mark E. Bakeman, bakemam@wsdot.wa.gov, 360-705-7494
Mark Bakeman for Mark Norman

Signed March 23, 2017 @ 8:07 PM

Form Completed Date:
March 14, 2017

Form updated on:
April 12, 2017

WRIA:
39: Upper Yakima

6th Field Hydrologic Unit Code (HUC) Name
Crystal Creek-Yakima River

6th Field HUC number
170300010307

Site Visit Date:
August 31, 2016

Date of Early Coordination:
March 17, 2016

Explain and summarize Early Coordination activities with the Services:
Pre-BA meeting on March 17, 2016. Follow-up teleconference on July 27, 2016. Collaboration meeting on 12/15/2016.

For USFWS jurisdiction species and critical habitats, this is a:
Formal Consultation

Does the project meet the conditions of the NMFS programmatic biological assessment?
☒ **Yes** ☐ **No**

Does the project meet the conditions of the USFWS programmatic biological assessment?
☒ **Yes** ☐ **No**

Is this a reference biological assessment?
☐ **Yes** ☒ **No**

Is this an after the fact consultation for the USFWS?
☐ **Yes** ☒ **No**

Will this project be submitted Fast Track for the NMFS?
☐ **Yes** ☒ **No**

Will this project be submitted Fast Track for the USFWS?
☐ **Yes** ☒ **No**

Effect determinations for USFWS species and critical habitats that can occur in the project action area:

No Effect:

Marbled Murrelet
Northern Spotted Owl
Canada Lynx
Western Yellow-billed Cuckoo

Not Likely to Adversely Affect:

Gray Wolf

Adversely Affect:

Bull Trout
Bull Trout Critical Habitat

USFWS IPaC number for project

Consultation Code: 01EWF00-2017-SLI-0125

Event Code: 01EWF00-2017-E-00790

March 6, 2017

Check all project activities that apply (for both NMFS and USFWS projects)

Riparian and Wetland Vegetation Removal and Management
Bridge Construction, Repair, Maintenance and Demolition
In-Water Pile Removal
Heavy equipment operation
Cut and fill operations
Use of Artificial Lighting
Pile Driving
Riprap Placement

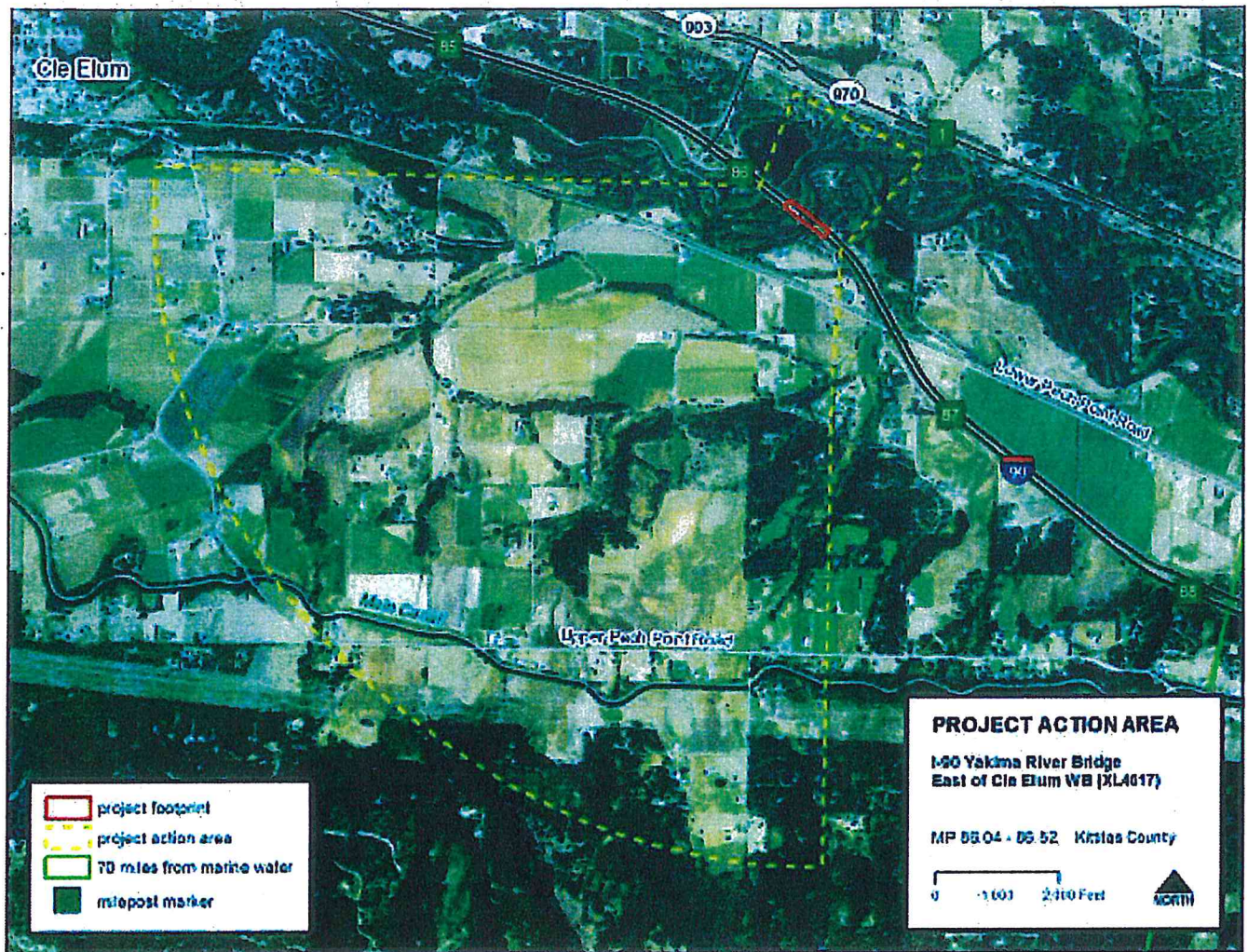
Check all project activities that apply (USFWS projects only)

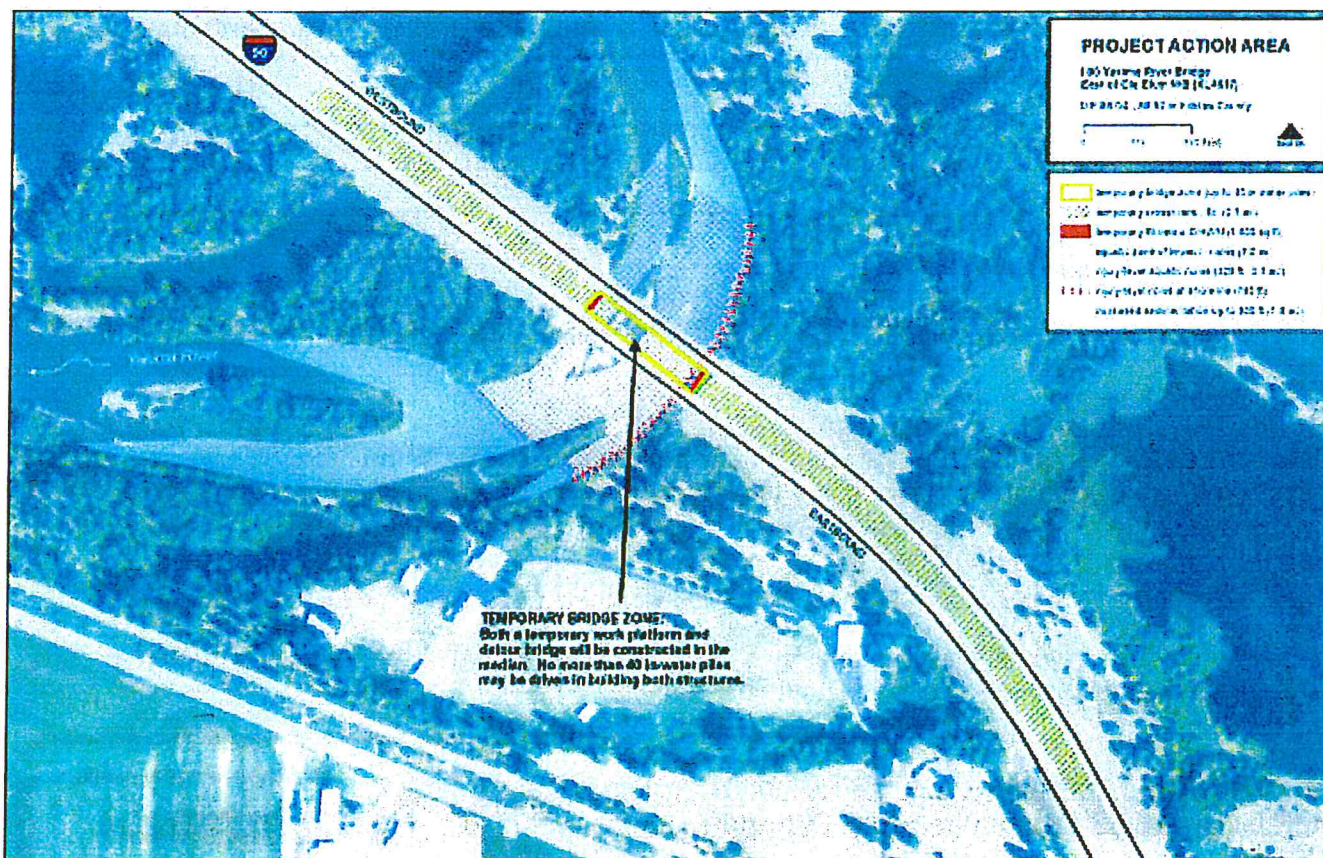
Pavement Preservation

Project action area:

The project footprint includes the eastbound and westbound pavement of I-90 from MP 86.04 - 86.52. The footprint also includes the WSDOT median between the bridges, including the bed, bank, and wetted width of the Yakima River. The project action area (PAA) includes both a terrestrial zone of impact (TZI) and an aquatic zone of impact (AZI). The TZI, delimited by elevated construction noise (pile driving) over baseline I-90 traffic disturbance, includes all terrestrial areas up to 10,300 feet of the footprint, except where construction noise is truncated by SR 10, I-90, and/or development. The AZI, delimited by in-water elevated noise and increased sedimentation, includes up to 7.2 acres within the wetted width of the river.

Attach map and photographs:





Project Description:

The project will be advertised under a contract, whereby the final design and construction will be the responsibility of the contractor. Since the bridge decks must be closed to traffic during work, it is expected that construction may require up to three seasons, with work potentially phased as follows:

(2018)

- build temporary crossovers in the I-90 median on both sides of the river, and
- drive up to 40 in-water piles between the EB and WB bridge decks to support a temporary work platform, temporary detour bridge, and bridge joint supports.

(2019)

- route WB traffic onto the detour bridge,
- grind and repave the WB bridge deck,
- open the WB bridge to traffic,
- route EB traffic onto the detour bridge,
- grind and repave the EB bridge deck, and
- open the EB bridge to traffic.

(2020)

- remove the work platform, detour bridge, and crossovers, and
- restore disturbed areas.

Construction may be scheduled for up to 24 hours per day from approximately March to November.

Project Equipment List

Pile driver, crane, excavator, dump truck, flatbed truck, paver, roller, traffic control vehicles, generator, pneumatic tools, hydromill, and vacuum truck.

Indicate equipment that will be working below the ordinary high water mark (OHWM)

Dump truck, front loader, excavator with thumb bucket, chain saw.

Is this an emergency project?

☐ Yes ☒ No

Does the project have any USFWS listed species or critical habitats on the county list? If no, then no effect for USFWS.

☒ Yes ☐ No

Does the project have any USFWS listed species or critical habitats in the mapped project area on IPaC (you can use an unofficial list if you think you have a no effect project)? If no, then no effect. Fill in the remaining required fields and the minimization measures and print the USFWS no effect form. If yes, continue with the rest of the form.

☒ Yes ☐ No

Does the project have sensitive habitats (within 200 feet of wetlands or surface waters) where staging, refueling, or other activities should be restricted?

☒ Yes ☐ No

Indicate mileposts within project area where restrictions apply.

MP 86.04 - 86.52. The entire project footprint occurs within 200 feet of the OHWM of the Yakima River.

Will the project have construction equipment operating within the wetted channel of any waterbody?

☒ Yes ☐ No

Will detours be used?

☒ Yes ☐ No

Please describe:

Traffic will be detoured across the river on a temporary detour bridge, constructed between the bridge decks.

Will the project include work at night?

☒ Yes ☐ No

Will artificial lights be used over or adjacent to an aquatic area?

☒ Yes ☐ No

Will blasting occur?

☐ Yes ☒ No

Will impact pile driving occur?

☒ Yes ☐ No

Number of piles:

40

Indicate size of pile(s), diameter in inches

30

Will pile driving occur within the ordinary high water mark of a waterbody?

☒ Yes ☐ No

Describe the pile driving method:

Piles will be vibed, if the substrate will allow, and proofed via driving. If vibing is not effective, the piles will be impact-driven. It is estimated that pile driving will require, on average, up to 4,000 strikes per day (up to 40 piles in-water, possibly more outside water).

Will the project use a 12 hour rest period between pile driving periods? Please explain.

Yes. Timing of the rest period will be determined by the contractor. As such, the 12-hour rest period may take place during nighttime or daylight hours.

Total time pile driving will occur in hours:

540

What type of piles will be used?

Steel

Is underwater sound pressure monitoring required by the Service(s)?

☒ Yes ☐ No

Will a noise attenuation device be used for impact pile driving?

☒ Yes ☐ No

Indicate the specifications for the noise attenuation device

Bubble curtain (or other practicable attenuation method) for piles driven in water greater than three feet deep.

Will piles be removed on the project?

☒ Yes ☐ No

Indicate number and type of piles

Up to 40 (in-water) 30-inch steel piles will be direct-pulled, if possible. If not, they will be vibed out or cut off below the riverbed. Piles outside water will be direct-pulled or vibed out.

Pile removal method

Direct pull

Vibratory removal

Will a turbidity curtain be used during pile removal?

☐ Yes ☒ No

Indicate why not.

Flow in the river is too fast and voluminous to allow for pragmatic turbidity control with curtains.

Is the project for slide abatement and repair?

☐ Yes ☒ No

Will cutting or filling occur?

☒ Yes ☐ No

Indicate cut area (excavated area) above the ordinary high water mark (OHWM).

Area: 3,000 square feet (.069 acres)

Indicate cut area (excavated area) below the ordinary high water mark.

Area: 0 square feet

Indicate fill area above the ordinary high water mark (OHWM)

Area: 2.7 acres (117,612 square feet)

Indicate fill area below the ordinary high water mark (OHWM)

Area: 1,500 square feet (.034 acres)

Will cutting or filling occur within 300 ft of a water body that has listed aquatic species or their habitat?

☒ Yes ☐ No

Will any soils be exposed?

☒ Yes ☐ No

What is the erosion potential?

Low

Will bare soils be revegetated or hydroseeded after construction?

☒ Yes ☐ No

Describe the proposed methods.

Hydroseeding with native grass mix for disturbed soils above the OHWM.

Project Timing

Construction Start Date

March 1, 2018

Construction End Date

October 31, 2020

Total Working Days

960

Will the project need a Hydraulic Project Approval (HPA) or have an aquatic zone of impact requiring in-water work?

☒ Yes ☐ No

Will the project use a WDFW published in-water work window?

☒ Yes ☐ No

Begin of in-water work window

August 1, 2018

End of in-water work window
August 31, 2018

Will the project have daily limited operating periods? If yes, please explain. If no leave blank
A 12-hour rest period will be observed each day during pile driving. Exact timing of the rest period will be at the discretion of the contractor.

Project Aquatic Habitat Impacts

Elevated pollutant delivery (non-sediment)?

☐ Yes ☒ No

Will there be elevated sediment/turbidity?

☒ Yes ☐ No

Estimate the lineal extent of stream or shoreline that will be exposed to elevated turbidity (ft).
300

Explain

The only in-water work will be to drive and pull piles. Any sediment plume arising from the substrate during pile driving is estimated to be diluted and disperse within 300 feet downstream of the pile.

Will riparian habitat functions be altered?

☒ Yes ☐ No

Explain

Up to 200 feet of shoreline will be overshadowed by the temporary construction platforms and detour bridge. Several trees will be cut, but not grubbed. Although the shorelines in the median contain relatively little woody vegetation relative to the riparian corridor both upstream and downstream of the median, the presence of the temporary bridges will likely result in a temporary reduction in the suitability of the riparian zone as habitat for wildlife species.

Will there be elevated surface water temperature?

☐ Yes ☒ No

Will there be substrate disturbance?

☒ Yes ☐ No

Indicate disturbed area if known

Area: 200 square feet (.005 acres)

Explain.

This is a worst-case area of riverbed temporarily occupied by 40 piles.

Will substrate disturbance mobilize contaminants?

☐ Yes ☒ No

Will there be loss of benthic invertebrate habitat and potential food web effects?

☒ Yes ☐ No

Indicate area of benthic invertebrate habitat disturbance
Area: 200 square feet (.005 acres)

Explain.

This is a worst-case area of riverbed temporarily occupied by 40 piles.

Will there be elevated in-water noise from pile driving?

☒ Yes ☐ No

Estimated area of aquatic habitat subjected to sound above injury levels:

Area: 3.7 acres (161,172 square feet)

Lineal distance of shoreline or streambank affected (ft):

745

Fish harm or harassment from in-water work or handling?

☒ Yes ☐ No

Explain.

Up to 40 piles will be driven in water. Fish may be exposed to elevated noise in up to 7.2 ac of the inundated river as well as elevated turbidity up to 300-ft downstream of the piles.

Will there be effects on fish migration?

☒ Yes ☐ No

Will project actions reduce the channel width, or block a shoreline migration use area, and if so, how much of channel/shoreline area (%) is available for fish movement?

Worst-case scenario: a maximum of 40 in-water piles would impede up to 26% (at low-cfs spawning flows) of the 230-ft wetted channel width.

Will there be impacts to wetlands that have fish habitat?

☐ Yes ☒ No

Will there be permanent or temporary fish habitat displacement?

☒ Yes ☐ No

Explain.

Up to 40 temporary piles will cover up to 200 square feet of riverbed (at OHWM-flow).

Will there be altered water quality delivery, such as a change to a stormwater conveyance structure?

☐ Yes ☒ No

Will there be streambank/shoreline habitat loss/modification or reduced habitat connectivity?

☒ Yes ☐ No

Explain.

Temporary disturbance to 100 linear feet of riparian vegetation will occur. Vegetation will be trimmed (and shaded by temporary bridges), but not grubbed. Regrowth of vegetation is expected to occur after the temporary bridges are removed. Habitat connectivity for wildlife during construction will be temporarily reduced by the temporary structures, noise, and visual disturbance, but not eliminated. If riparian vegetation is removed, or otherwise dies, riparian vegetation will be re-planted and monitored for three years.

Will natural stream processes and/or floodplains be altered?

☒ Yes ☐ No

Explain.

Up to 40 temporary piles will cover up to 200 square feet of riverbed (at OHWM-flows) and slightly alter natural stream processes via flow impedance and deflection.

Will the project have beneficial effects?

☐ Yes ☒ No

Fish Habitat Improvement

Will large woody material (LWM) be removed from the site?

☐ Yes ☒ No

Environmental Setting

Baseline Conditions. Document general baseline conditions in the action area as they relate to the proposed action and effects. Discuss surrounding land use if appropriate.

The Yakima River flows through a region predominantly converted to agriculture (hay), interspersed with rural residences, frontage roads, SR 10, and I-90. The river itself typically flows at a volume of 4,000 cfs at the start of August and drops to 2,800 cfs by the end of the month.

Describe the vegetation in the project action area:

Vegetation within the PAA ranges from agricultural fields (mainly hay production) to patchy ponderosa pine forest isolated along the river. Vegetation within the project footprint ranges from managed annual grasses on the raised fill prism of I-90 to woody and herbaceous riparian species along the Yakima River.

Habitat in the project action area

15% Riparian, 5% Coniferous Forest, and 80% Developed

Do streams, rivers, or other waterbodies occur in the project action area?

☒ Yes ☐ No

Stream name 1 in action area and describe spawning gravels, embeddedness, riparian cover, refuge area riffles, etc. Focus on areas where impacts may occur. If the stream is a tributary of a larger stream or river, indicate distance to nearest confluence.

Yakima River is the only water body within the aquatic zone of impact (AZ). According to the WDFW, this reach of the river provides habitat for salmonid foraging, migration, overwintering, and spawning (steelhead, Chinook, and coho). Bull trout utilize this reach for adult migration only.

Project Impacts to Streambank, Streambed, and Shoreline

Will there be riprap placement in the project area along streambanks or shorelines ?

☒ Yes ☐ No

Riprap will be used for (choose all that apply):

Other

Explain riprap use

Temporary rip rap may be used to facilitate access at the riverbanks. Total amount of temporary fill will not exceed 300 cubic yards. Some of the rip rap will be placed below the OHWM, but not all. No rip rap will be placed below the wetted perimeter.

Will there be replacement/reworking of existing riprap on streambanks or shorelines?

☐ Yes ☒ No

Will work on streambanks or shorelines improve fish habitat?

☐ Yes ☒ No

Indicate why there will be no fish habitat improvements.

The only streambank disturbance would be within the median where the steep banks are already hardened with riprap. When the temporary work platform and detour bridge are removed, the existing riprap will remain. Trimmed vegetation is expected to resprout.

Will the stream bed, lake bed or marine bed be disturbed?

☒ Yes ☐ No

What is the area of disturbance?

Area: 200 square feet (.005 acres)

Will all materials, such as riprap or gravel, placed within the water be free of rock fines, silt, soil, or other extraneous material? An exception to the presence of fines is permitted if they are required as part of channel bed reconstruction.

☒ Yes ☐ No

For fish passage projects with USFWS listed species, does the stream have an incised channel profile (longitudinal profile downstream from culvert is offset below upstream profile by 1 foot or more)

☐ Yes ☒ No

For fish passage projects with USFWS listed species, are there incision issues other than a localized scour hole at the outlet of an existing undersized culvert?

☐ Yes ☒ No

Pollution Generating Impervious Surface

Will the project create new PGIS?

☐ Yes ☒ No

Fish Handling

Will the project have fish handling?

☐ Yes ☒ No

If the project has in-water work but no fish handling, explain.

Up to 40 piles may be driven within the wetted width of the river. No dewatering of the work area is practicable.

Will an HPA be needed?

☒ Yes ☐ No

Number of days with in-water work

30

Project Terrestrial Impacts

Total temporary vegetation impact area (all vegetation types)

Area: .78 acres (33,977 square feet)

Total vegetation impact area (all vegetation types)

Area: .78 acres (33,977 square feet)

Will the project have riparian vegetation impacts?

☒ Yes ☐ No

Temporary riparian impact area

Area: 1,500 square feet (.034 acres)

Permanent riparian impact area

Area: 0 square feet

Total riparian impact area.

Area: 1,500 square feet (.034 acres)

If you are removing mature trees in the riparian zone, describe the species and approximate tree size and number removed

Several small cottonwoods. They will be trimmed, rather than grubbed, and are expected to resprout after construction is completed.

Area of on-site riparian restoration

Area: 1,500 square feet (.034 acres)

USFWS Listed Species/Critical Habitat Impacts & Effect Determinations

Only fill out the USFWS species that are on your IPaC list. Leave the others blank.

Marbled Murrelet

The programmatic will provide formal coverage for marbled murrelet

Is the project located in a county where marbled murrelet is on the USFWS species list?

☐ No ☒ Yes

After mapping your project in IPaC, was marbled murrelet on the species list returned by IPaC?

☒ Yes ☐ No

Is the project located within 70 miles of marine waters?

☒ Yes ☐ No

Is the project located within a covered mapped city boundary? If the project has multiple areas, all must be within municipal city boundaries to answer yes.

☐ Yes ☒ No

Does the project have suitable murrelet habitat either within the action area, or within 0.25 mile of disturbance activities, or 1 mile for blasting?

☐ Yes ☒ No

Comments

The project footprint lies 66 miles from marine water. The 1/4-mile-buffer murrelet project analysis zone (PAZ) falls within the riparian zone of the Yakima River, bordered to the north and south by I-90 and SR 970. A small patch of suitable habitat, per Davis et al., is identified within the PAZ (along the Yakima River) but this area is ruled out as habitat because it does not consist of at least 60% conifers.

Effect Determination:

No Effect

Marbled Murrelet Critical Habitat

The programmatic will provide formal coverage for marbled murrelet critical habitat.

Is the project located within a critical habitat unit? If not, is it within 0.5 mile of suitable habitat that is also within a critical habitat unit?

☒ No ☐ Yes

Northern Spotted Owl

The programmatic will provide formal coverage for n. spotted owl

Is the project located in a county where n. spotted owl is on the USFWS species list?

☐ No ☒ Yes

After mapping your project in IPaC, was n. spotted owl on the species list returned by IPaC?

☒ Yes ☐ No

Is the project within the Western Washington lowlands province? If so, both disturbance and habitat effects will be informal or no effect, depending on the presence or absence of suitable habitat. If the project has multiple areas, all must be within the W. lowlands province to answer yes.

☐ Yes ☒ No

Is there potential n. spotted owl nesting/roosting/foraging or dispersal habitat within the action area, or for disturbance effects, within 0.25 mile of the activity, or 1 mile for blasting?

☐ Yes ☒ No

Comments

According to GIS data by Davis, et al., several isolated, small patches of potentially-suitable conifer habitat is present within 1/4-mile of the project footprint. However, these patches are within the riparian corridor of the Yakima River and are dominated by cottonwoods with conifers scattered amongst them. As such, no suitable habitat is present within 1/4 mile of the project footprint.

Effect Determination:

No Effect

Northern Spotted Owl Critical Habitat

The programmatic will provide formal coverage for n. spotted owl critical habitat.

Is the project located within a critical habitat unit, or adjacent to critical habitat?

☒ No ☐ Yes

Bull Trout

The programmatic will provide formal coverage for bull trout

Is the project located in a county where bull trout is on the USFWS species list?

☐ No ☒ Yes

After mapping your project in IPaC, was bull trout on the species list returned by IPaC?

☒ Yes ☐ No

Is there bull trout spawning/rearing, FMO habitat in your project area, or do bull trout have access to your action area through FMO or spawning/rearing habitat?

☒ Yes ☐ No

Will juvenile bull trout or eggs be exposed to elevated turbidity levels?

☐ Yes ☒ No

Will your project have new PGIS?

☐ Yes ☒ No

Will the project include pile removal in marine/estuarine or freshwaters?

☒ Yes ☐ No

Will the project have cut and fill activities adjacent to bull trout FMO or spawning/rearing habitat?

☒ Yes ☐ No

Cut and fill amount adjacent to FMO habitat above the ordinary high water mark (OHWM)

Area: 2.7 acres (117,612 square feet)

Cut and fill amount adjacent to FMO habitat below the ordinary high water mark (OHWM)

Area: 1,500 square feet (.034 acres)

Total Cut and fill amount adjacent to FMO habitat (below + above the OHWM)

Area: 2.73 acres (118,919 square feet)

Cut and fill area adjacent to spawning/rearing habitat above the ordinary high water mark (OHWM)

Area: 0 square feet

Cut and fill area adjacent to spawning/rearing habitat below the ordinary high water mark (OHWM)

Area: 0 square feet

Total Cut and fill amount adjacent to spawning/rearing habitat (below + above the OHWM)

Area: 0 square feet

Will the project affect either streambanks/shorelines or streambeds/lakebeds/marine bottoms in FMO habitat?

☒ Yes ☐ No

Indicate streambank/shoreline impacts in FMO habitat affecting subadult and adult bull trout

Area: 1,500 square feet (.034 acres)

Indicate streambed/lakebed/marine bottom impacts in FMO habitat affecting subadult and adult bull trout

Area: 200 square feet (.005 acres)

Will the project affect either streambanks/shorelines or streambeds/lakebeds/marine bottoms in spawning/rearing habitat?

☐ Yes ☒ No

Will there be streambank/shoreline hardening from placement of rock, rip-rap, concrete or other structural features in any bull trout habitat (FMO and/or spawning/rearing)?

☐ Yes ☒ No

Will there be riparian vegetation removal adjacent to bull trout habitat (FMO or spawning/rearing)?

☒ Yes ☐ No

Indicate total riparian vegetation removal (permanent + temporary removal) adjacent to FMO habitat.

Area: 1,500 square feet (.034 acres)

Indicate total riparian vegetation removal (permanent + temporary removal) adjacent to spawning/rearing habitat.

Area: 0 square feet

Will the project have in-water pile driving in any bull trout habitat?

☒ Yes ☐ No

Indicate the lineal feet of stream/shoreline habitat that will be exposed to elevated in-water noise.

2,400

Indicate the proportion of the channel cross section that will be ensonified (%)

100

Will the project have fish moving within bull trout habitat? If so, please report all bull trout handled to HQ via email.

☐ Yes ☒ No

Effect Determination:

Adversely Affect

Rationale

The project MAY AFFECT bull trout because 1) bull trout adults are known to migrate in this reach of the Yakima River and 2) in-water pile driving is proposed. The project is LIKELY TO ADVERSELY AFFECT bull trout because 1) 7.2 acres of aquatic habitat will be ensonified by pile driving and 2) up to 300 linear feet of the river will be exposed to downstream elevated turbidity during pile installation and removal.

Bull Trout Critical Habitat

The programmatic will provide formal coverage for bull trout critical habitat.

Is the project located within designated critical habitat?

☐ No ☒ Yes

Will the project result in impacts to one or more of the critical habitat PCEs?

☒ Yes ☐ No

Comments

Regarding PCE #2, piles will reduce the width of the river channel by up to 26%. Furthermore, the entire channel would be exposed to increased in-water noise during pile driving (some at injury levels), for up to 12 hours each day. This would act as a temporary barrier to fish migration.

As for PCE 3#, removal of several small cottonwoods would slightly, but temporarily, reduce the food base, including terrestrial organisms of riparian origin and aquatic macroinvertebrates.

Effect Determination:

Adversely Affect

Rationale

The project **MAY AFFECT** bull trout critical habitat because up to 40 temporary piles will be installed in water and the channel will be exposed to elevated in-water noise during pile driving. The project is **LIKELY TO ADVERSELY AFFECT** bull trout critical habitat because 1) PCE #2 will be affected via reduction of the migratory corridor width of the river by up to 26 percent (in-water piles), 2) PCE #2 will be further affected by blockage of the channel to fish migration by increased in-water noise (some at injury levels) during pile driving, and 3) PCE #3 will be affected by a reduction of the food base as a result of temporary removal of riparian vegetation.

Columbian White-Tailed Deer

The programmatic will provide informal coverage for Columbian white-tailed deer. Projects with adverse effects must do individual consultations on CWT deer.

Is the project located in a county where Columbia white-tailed deer is on the USFWS species list? CWTD are generally located in Wahkiakum, Clark or Cowlitz Counties.

☒ No ☐ Yes

Woodland Caribou

The programmatic will provide informal coverage for Woodland Caribou

Is the project located in Pend Oreille or Stevens Counties?

☒ No ☐ Yes

Pygmy Rabbit

The programmatic will provide informal coverage for Pygmy Rabbit

Is the project within the historic range of the pygmy rabbit (portions of Douglas, Grant, Lincoln, Adams, Franklin, or Benton Counties) or the current range (Douglas and Grant Counties)?

☒ No ☐ Yes

Canada Lynx

The programmatic will provide informal coverage for Canada Lynx

Is the project located in a county where Canada lynx is on the USFWS species list? These areas are located within the montane areas of the Okanogan highlands or the Cascade Mountains.

☐ No ☒ Yes

After mapping your project in IPaC, was Canada lynx on the species list returned by IPaC?

☒ Yes ☐ No

Will the project be within the developed limits of a city or town?

☐ Yes ☒ No

Is suitable spruce-fir habitat present within the action area?

☐ Yes ☒ No

Effect Determination:
No Effect

Canada Lynx Critical Habitat

The programmatic will provide formal coverage for Canada Lynx critical habitat.

Lynx critical habitat occurs on SR 20 between MP 157.4 to 167.04 and MP 214.34 to 214.70. Is there designated critical habitat within the project action area? If no, done

☒ No ☐ Yes

Gray Wolf

The programmatic will provide informal coverage for gray wolf

Is the project located in a county where gray wolf is on the USFWS species list?

☐ No ☒ Yes

After mapping your project in IPaC, was gray wolf on the species list returned by IPaC?

☒ Yes ☐ No

Will the project be within the developed limits of a city or town?

☐ Yes ☒ No

Will the project have noise disturbance at a wolf den or rendezvous site(s) during the sensitive time period from July 1 to March 14?

☐ Yes ☒ No

Will the project be within suitable habitat and have impacts to prey during the wintering period (December 1-March 31) or on calving/fawning/kidding grounds during the calving period (June 16-November 30)?

☐ Yes ☒ No

Comments

Approximately 90% of the PAA is managed for agriculture with rural development. The remaining 10% with conifer cover includes isolated conifer patches surrounded by agricultural development and rural residences. Given the distance of the PAA from the nearest wolf pack territory, separated from that territory by SR 970, I-90 and other disturbance (rural residential, roads, agricultural development), the probability that wolves are found within the PAA is discountable.

Effect Determination:

Not Likely to Adversely Affect

Rationale

The project MAY AFFECT gray wolf because elevated construction noise above baseline levels will result from construction and the PAA includes patches of conifer forest. However, the project is NOT LIKELY TO ADVERSELY AFFECT gray wolf because 1) the PAA is separated from the nearest wolf territory by SR 970 and I-90, 2) 90% of the PAA is under agriculture development, 3) 10% of the PAA is conifer stands isolated by agriculture and occupied by rural residences, and 4) the probability of wolf as present within the PAA is discountable.

Grizzly Bear

The programmatic will provide informal coverage for Grizzly Bear

Is the project located in a county where grizzly bear is on the USFWS species list?

☒ No ☐ Yes

Western Snowy Plover

The programmatic will provide informal coverage for W. Snowy Plover

Is the project located in Pacific or Grays Harbor counties?

☒ No ☐ Yes

Western Snowy Plover Critical Habitat

The programmatic will provide informal coverage for W. Snowy Plover Critical Habitat.

Does the project action area overlap with designated critical habitat in Grays Harbor or Pacific Counties?

☒ No ☐ Yes

Streaked Horned Lark

The programmatic will provide informal coverage for Streaked Horned Lark

Is streaked horned lark on the county list, or does the activity occur in Pierce, Thurston, Mason, Grays Harbor, Pacific, Wahkiakum, or Cowlitz Counties?

☒ No ☐ Yes

Streaked Horned Lark Critical Habitat

The programmatic will provide informal coverage for Streaked Horned Lark critical habitat.

Is streaked horned lark critical habitat on the county list, or does the activity occur in Pierce, Thurston, Mason, Grays Harbor, Pacific, Wahkiakum, or Cowlitz Counties?

☒ No ☐ Yes

Taylor's Checkerspot Butterfly

The programmatic will provide informal coverage for Taylor's Checkerspot Butterfly.

Is the Taylor's checkerspot butterfly on the county list, or does the activity occur in Island, San Juan, Clallam, Pierce, Lewis, Mason, or Thurston counties?

☒ No ☐ Yes

Taylor's Checkerspot Butterfly Critical Habitat

The programmatic will provide informal coverage for Taylor's Checkerspot Butterfly critical habitat.

Is Taylor's Checkerspot Butterfly critical habitat on the county list, or is the project in Thurston, Pierce, Skagit, Island or Clallam Counties?

☒ No ☐ Yes

Western Yellow-billed Cuckoo

The programmatic will provide informal coverage for Yellow-billed Cuckoo. This bird is listed in all of Washington State. There is no proposed or designated critical habitat in Washington State.

Is yellow-billed cuckoo on the IPaC county or project-specific list?

☒ Yes ☐ No

Does the project action area contain mature, wooded, non-coniferous riparian areas that are equal or greater than 50 acres in size?

☐ Yes ☒ No

Effect Determination:

No Effect

Oregon Spotted Frog

The programmatic will provide informal coverage for Oregon Spotted Frog.

Is the project in Whatcom, Skagit, Snohomish, Grays Harbor, Lewis, King, Pierce, Thurston, Clark, Skamania, Yakima, or Klickitat Counties?

☒ No ☐ Yes

Oregon Spotted Frog Proposed Critical Habitat

The programmatic will provide informal conferencing for Oregon Spotted Frog proposed critical habitat.

Is the project in Whatcom, Skagit, Thurston, Skamania, or Klickitat Counties?

☒ No ☐ Yes

Wenatchee Mountains Checkermallow

The programmatic will provide informal coverage for Wenatchee Mountains Checkermallow

Is the project within Chelan County along US 97 or US 2?

☐ Yes ☒ No

Bradshaw's Lomatium (Bradshaw's desert parsley)

The programmatic will provide informal coverage for Bradshaw's Lomatium (Bradshaw's desert parsley)

Is the project located in Clark County?

☐ Yes ☒ No

Golden Paintbrush

The programmatic will provide informal coverage for golden paintbrush

Is the project within Thurston, Pierce, Island, King, or San Juan Counties within suitable prairie habitat?

☐ Yes ☒ No

Ute Ladies'-Tresses

The programmatic will provide informal coverage for Ute Ladies'-Tresses

Is the project within Chelan County within suitable wet meadow or riparian habitat?

☐ Yes ☒ No

Water Howellia

The programmatic will provide informal coverage for Water Howellia

Is the project within Spokane, Pierce, Thurston, or Clark Counties within suitable pothole ponds or old river oxbow habitat, where the surface water feature has a firm, consolidated substrate and may be permanent or ephemeral?

☐ Yes ☒ No

Spalding's Catchfly (Spalding's Silene)

The programmatic will provide informal coverage for Spalding's Catchfly

Is the project within Adams, Asotin, Garfield, Lincoln, Spokane, or Whitman Counties within suitable bunchgrass grasslands, sagebrush-steppe, and to a lesser extent, open-canopy pine stands?

☐ Yes ☒ No

Nelson's Checkermallow

The programmatic will provide informal coverage for Nelson's Checkermallow

Is the project within Cowlitz or Lewis Counties and within Oregon ash swales, moist open meadows with depressions, or along streams?

☐ Yes ☒ No

Kincaid's Lupine

The programmatic will provide informal coverage for Kincaid's Lupine

Is the project within Lewis County and within native upland prairie and open oak woodlands?

☐ Yes ☒ No

Showy Stickseed

The programmatic will provide informal coverage for Showy Stickseed

Is the project within Chelan County and within granite or talus derived substrate, in cliff ledges, or within Tumwater Canyon?

☐ Yes ☒ No

Project Minimization Measures

Stormwater Quality and Quantity Minimization Measures

MM-1. All projects (except exempt activities as listed in section 3-2.2 of the Highway Runoff Manual (HRM, WSDOT 2014), are subject to minimum stormwater management requirements as outlined in Section 3-3 of the HRM. Non-exempt projects must address erosion control if > 7,000 ft² of soil will be disturbed or if there is > 2000 ft² of new, replaced, or new + replaced impervious surface. Erosion control requirements include: 1) a Temporary Erosion and Sediment Control (TESC) plan (see TESC Manual), and a project specific Spill Prevention, Control and Countermeasures (SPCC) Plan as required in Standard Specification 1.07-15(1).

☒ Yes ☐ No

MM-2. Projects within 200 feet of surface water will install and maintain Best Management Practices (BMPs) as stated in the Contract, to ensure that no foreign material, such as pavement slurry from asphalt grinding equipment, is sidecast, and to control and prevent sediments from entering aquatic systems.

☒ Yes ☐ No

MM-3. Projects will at a minimum comply with Washington Department of Ecology's State Water Quality Standards (WAC-173-201) or permit modifications. Permit modifications are limited to an extended temporary area of mixing granted by Ecology in a 401 Water Quality Certification.

☒ Yes ☐ No

MM-4 cont'd. 4) A qualitative or quantitative description of pre-and post-project mixing zones or dilution analysis, consistent with WSDOT stormwater effects analysis guidance. If exposure to listed fish species in the dilution zone cannot be discounted, a quantitative description is recommended. 5) Describe potential effects to hydrology (i.e., peak flows, base flows, flow durations, etc.) and in-stream conditions (i.e., bed and bank scour or erosion, channel stability, etc.) due to the proposed project.

☒ Yes ☐ No

MM-5. The project will not cause or contribute to bed or bank scour or erosion (channel instability), and will not measurably affect base, peak, or flow durations in any Threshold Discharge Area (TDA) or receiving waterbody.

☒ Yes ☐ No

MM-6. Stormwater will be infiltrated and/or dispersed when possible.

☒ Yes ☐ No

Aquatic Area Buffers Minimization Measures

MM-8. Temporary material storage piles consisting of erosive materials will be placed outside the 100-year floodplain during the rainy season (October 1 through June 1) except for emergency projects, or unless site specific review completed by the project biologist indicates that topography or other factors preclude runoff from entering waterbodies containing listed fish species or their prey. Such temporary storage piles will be stabilized with plastic sheeting, straw bales, or other BMPs, to prevent sediment delivery to these waterbodies. Material to be used within 12 hours of deposition will not be considered a temporary material storage pile.

☒ Yes ☐ No

MM-9. All excavated materials will be removed to an upland location where they cannot enter the water body.

☒ Yes ☐ No

Vegetation Removal Minimization Measures

MM-11. WSDOT Designer will minimize removal of riparian vegetation and contractors shall replant riparian vegetation. Replanting may not be possible in permanent impact areas, the roadway clear zone, or adjacent to or under bridges. However, potential replanting of riparian vegetation near the site should be evaluated. The PBA Determination Form will provide the justification for the removal of riparian vegetation and will include the proposed planting plans, if applicable.

☒ Yes ☐ No

MM-12. Vegetation will only be grubbed from areas undergoing permanent alteration. No grubbing will occur in areas slated for temporary impacts.

☒ Yes ☐ No

MM-13. Disturbance to riparian vegetation from the operation of heavy equipment will be minimized as practicable by straddling it with heavy equipment or by pruning it without damaging the roots. Existing riparian vegetation outside of the work area will not be removed or disturbed.

☒ Yes ☐ No

In-Water Work Minimization Measures

MM-14. Seasonal restrictions applied to work conducted within or below the OHWM or MHHW, will follow requirements within the HPA issued by the Washington Department of Fish and Wildlife, and Water Quality Standards for Surface Waters of the State of Washington (Chapter 173-201A WAC). In-water work duration will be minimized as practicable.

☒ Yes ☐ No

MM-16. Construction equipment will not enter any water body without authorization from the Washington Department of Fish and Wildlife, USFWS, and the NMFS. Equipment will be operated as far from the water's edge as possible.

☒ Yes ☐ No

Revegetation and Slope Stability Minimization Measures

MM-18. Erodible earth not being worked, whether at final grade or not, shall be covered within the specified time periods below, using an approved soil covering practice: Western Washington (west of the Cascade Mountain Crest) 1) from October 1 through April 30 erodible earth may be exposed without cover for a 2 day maximum, 2) from May 1 to September 30 for 7 days maximum Eastern Washington (east of the Cascade Mountain Crest) 1) from October 1 through June 30 erodible earth may be exposed without cover for a 5 day maximum, 2) from July 1 to September 30 for 10 days maximum

☒ Yes ☐ No

MM-19. Temporarily disturbed areas will be restored to pre-work conditions to the extent possible, including protecting existing root systems and allowing re-sprouting of herbaceous and woody plants. Native trees and shrubs will be used that are endemic to the project vicinity or region of the State where the activity is occurring.

☒ Yes ☐ No

MM-20. All exposed areas will be mulched and seeded with an approved native or noninvasive herbaceous seed mix following construction and/or planted with native woody vegetation and trees (if appropriate) during the first available planting season.

☒ Yes ☐ No

General Construction Minimization Measures

MM-21. Construction impacts will be confined to the minimum area necessary to complete the project.

☒ Yes ☐ No

MM-22. Boundaries of clearing limits will be clearly flagged to prevent disturbance outside of the limits. The contractor shall install high visibility fencing in accordance with WSDOT Standard Specifications.

☒ Yes ☐ No

Pollutant Protection Minimization Measures

MM-23. The Contractor will use BMPs, as stated in their Spill Prevention Control and Countermeasures Plan (SPCC), to ensure that no foreign material, such as oil or fuel from construction equipment, will enter any wetlands, flowing or standing water.

☒ Yes ☐ No

MM-24. All equipment will be fueled and maintained more than 200 feet from the nearest wetland, ditches, flowing or standing water, unless site specific review completed by the project biologist indicates that no impacts to the resource areas will result due to topography or other factors. Exceptions to this requirement are allowed for large cranes, pile drivers, and drill rigs if they cannot be easily moved.

☒ Yes ☐ No

MM-25. Equipment will be checked daily for leaks and will be well maintained to prevent lubricants and any other deleterious materials from entering waters of the State. Prior to entering the water or below the OHWM, all equipment will be free of any external petroleum products, hydraulic fluid, coolants, and other deleterious materials. Wash water will not be discharged to any water body without pre-treatment.

☒ Yes ☐ No

MM-26. All equipment entering waters that may be used by listed fish species and/or if the waters are critical habitat, will use vegetable oil or other biodegradable acceptable hydraulic fluid substitute, unless the project is an emergency action.

☒ Yes ☐ No

Concrete Work Minimization Measures

MM-27. For projects involving concrete, concrete truck chute cleanout areas will be established to properly contain wet concrete and wash water and prevent it from entering wetlands and other waterbodies.

☒ Yes ☐ No

MM-28. The contractor will protect all inlets and catchments from stormwater runoff from fresh concrete, tackifier, paving, or paint striping if inclement weather unexpectedly occurs.

☒ Yes ☐ No

MM-29. All concrete will be poured in the dry, or within confined waters not being dewatered to surface waters, and will be allowed to cure a minimum of 7 days before contact with surface water.

☒ Yes ☐ No

Access Roads and Bridges Minimization Measures

MM-30. The establishment and use of temporary access roads will meet the following conditions: 1) Existing roadways or travel paths will be used whenever they provide the needed access. 2) Where stream crossings are essential, the crossing design will accommodate reasonably foreseeable risks (such as flooding and associated bedload and debris) to prevent diversion of stream flow out of the channel and down the road in the event of a crossing failure. 3) Vehicles and machinery must cross riparian areas and streams perpendicular to the main channel unless site specific conditions require an alternate approach. 4) Vehicles and machinery will not cross within a wetted stream, unless necessary as part of an emergency action. The PBA Determination Form must state why avoidance of crossing a wetted stream is not possible if proposed as part of an emergency action.

☒ Yes ☐ No

MM-30 cont'd. 5) Temporary roads within 300 feet of streams will avoid, minimize, and mitigate soil disturbance and compaction by clearing vegetation to ground level, and placing clean gravel over geotextile fabric. 6) Vehicles and machinery operating below the OHWM (except if operating in the dry or during emergency actions) will use biodegradable hydraulic fluids and lubricants to reduce the potential impacts associated a potential oil spill or leak. 7) The number of stream crossings will be minimized.

☒ Yes ☐ No

MM-31. New stream crossing structures, including channel-spanning bridges, will not reduce the existing stream width.

☒ Yes ☐ No

Restrictions in Rainy Weather Minimization Measures

MM-32. No paving, chip sealing, or stripe painting will be initiated in rainy weather.

☒ Yes ☐ No

Bridge Work Minimization Measures

MM-33. Bridge construction will take place from the adjacent streambanks, existing bridges, barges, or temporary work bridges. Some work may be allowed within a dewatered channel or on a dry gravel bar with WDFW, NMFS and USFWS approval, but no equipment or vehicle staging will be allowed in these areas.

☒ Yes ☐ No

Bank Protection Minimization Measures

MM-50. Installation of riprap and other materials will occur from the banks or outside the wetted perimeter as much as possible.

☒ Yes ☐ No

MM-52. All materials, such as riprap or gravel, placed within the water will be free of rock fines, silt, soil, or other extraneous material. An exception to the presence of fines is permitted if they are required as part of channel bed reconstruction.

☒ Yes ☐ No

Cutting and Filling Minimization Measures

MM-66. Fill material will only be placed in specified and permitted locations. Fill placement may be permanent or temporary and will be located in a way that minimizes impacts to sensitive areas.

☒ Yes ☐ No

MM-67. Temporary fills must be entirely removed and the site restored to pre-existing contours.

☒ Yes ☐ No

Pile Installation/Removal Minimization Measures

MM-68. Installation of steel piles with an impact hammer in-water requires the use of a bubble curtain or other approved sound attenuation method(s) to minimize impacts within waterbodies that may be used by listed species, including marine mammals.

☒ Yes ☐ No

MM-69. No creosote-treated wood will be used below the OHWM.

☒ Yes ☐ No

MM-70. Any removed piling or other materials, including their waste water, will be fully contained and disposed of at a location with regulatory approval.

☒ Yes ☐ No

MM-71. For pile removal, direct pulling, vibratory removal, or cutting the piles below ground level will be prioritized to minimize localized turbidity. If use of a clamshell bucket is necessary due to pile breakage, turbidity curtains will be employed if site specific conditions support their use. Limiting factors for silt curtain use include tidal influence and currents.

☒ Yes ☐ No

MM-74. Sound pressure will be monitored per the approved WSDOT Hydroacoustic Monitoring Protocol for in-water pile driving to determine ambient conditions and the sound pressure generated during in-water impact pile driving of steel piles, including H-piles, and sheet piles. Sound pressure monitoring will occur for in-water work where listed fish species may be present. Monitoring results will be provided to the Service within 90 days following completion of pile driving.

☒ Yes ☐ No

Minimization Measures Documentation

Will the project use all applicable minimization measures?

☐ Yes ☒ No

Indicate which required minimization measures will not be used and why

MM-76. If the contractor chooses to drive piles at night, lighting must necessarily be directed at the water. However, the contract will include the requirement for the contractor to minimize lighting on the surface of the water while performing night work other than pile driving.