



UNITED STATES DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration
NATIONAL MARINE FISHERIES SERVICE
West Coast Region
1201 NE Lloyd Boulevard, Suite 1100
Portland, Oregon 97232-1274

Refer to NMFS No:
WCRO-2026-00435
<https://doi.org/10.25923/6e8a-q553>

August 10, 2026

Yamilee Volcy
Acting Division Administrator
Federal Highway Administration – Washington Division
711 Capitol Way South, Suite 501
Olympia, Washington 98501-1284

Re: Endangered Species Act Section 7(a)(2) Biological Opinion for the Eaton Bridge
Replacement Project; West Patit Creek HUC 170701020307; Columbia County,
Washington

Dear Ms. Volcy:

This letter responds to your March 16, 2026, request for initiation of consultation with the National Marine Fisheries Service (NMFS) pursuant to section 7 of the Endangered Species Act of 1973 (ESA) (16 U.S.C. 1531 et seq.) for the subject action.

We reviewed the Federal Highway Administration's (FHWA) consultation request and related initiation package including a biological assessment (BA) dated January 2026 (Thompson 2026). Where relevant, we have adopted the information and analyses you have provided and/or referenced but only after our independent, science-based evaluation confirmed they meet our regulatory and scientific standards. In our biological opinion (opinion), we indicate what parts of the documents we are incorporating by reference are explicitly stated in the sections below, where appropriate, in accordance with 50 CFR 402.14(h)(3).

The FHWA concluded the proposed action is likely to adversely affect (LAA) Middle Columbia River (MCR) steelhead (*Oncorhynchus mykiss*) and its designated critical habitat. After reviewing the initiation package, NMFS concludes that the proposed action is LAA this ESA-listed species and its critical habitat. We provide rationale for our conclusions in the Biological Opinion portion of this document.

Consultation History

The FHWA submitted a BA to NMFS on March 16, 2026.

On March 30, 2026, in *Center for Biological Diversity v. Burgum*, No. 24-cv-04651 (N.D. Cal.), the U.S. District Court for the Northern District of California vacated aspects of four provisions from the 50 CFR part 402 regulations governing interagency consultation under section 7 of the



Endangered Species Act and reinstated the provisions that were previously in effect. Consistent with the Court’s ruling, these are the governing provisions for this consultation:

“Destruction or adverse modification means a direct or indirect alteration that appreciably diminishes the value of critical habitat for the conservation of a listed species. Such alterations may include, but are not limited to, those that alter the physical or biological features essential to the conservation of a species or that preclude or significantly delay development of such features.” (50 CFR 402.02 (2018)).¹

“Effects of the action refers to the direct and indirect effects of an action on the species or critical habitat, together with the effects of other activities that are interrelated or interdependent with that action, that will be added to the environmental baseline. The environmental baseline includes the past and present impacts of all Federal, State, or private actions and other human activities in the action area, the anticipated impacts of all proposed Federal projects in the action area that have already undergone formal or early section 7 consultation, and the impact of State or private actions which are contemporaneous with the consultation in process. Indirect effects are those that are caused by the proposed action and are later in time, but still are reasonably certain to occur. Interrelated actions are those that are part of a larger action and depend on the larger action for their justification. Interdependent actions are those that have no independent utility apart from the action under consideration.” (50 CFR 402.02 (2018)).

50 CFR 402.14(g)(8): “In formulating its biological opinion, any reasonable and prudent alternatives, and any reasonable and prudent measures, the Service will use the best scientific and commercial data available and will give appropriate consideration to any beneficial actions taken by the Federal agency or applicant, including any actions taken prior to the initiation of consultation.” (50 CFR 402.14(g)(8) (2018)).

50 CFR 402.16(a): “(a) Reinitiation of consultation is required and shall be requested by the Federal agency or by the Service, where discretionary Federal involvement or control over the action has been retained or is authorized by law and” (50 CFR 402.16(a) (2023)).

NMFS requested additional information by email on April 3, 2026. The FHWA provided additional information on April 6, 2026. On April 10, 2026, NMFS sent a letter to FHWA confirming initiation of formal consultation.

¹ This definition includes the second sentence of the definition of “effects of the action.” That sentence provided the definition of “environmental baseline” in effect as of 2018. In the 2019 rule amending the 50 CFR part 402 regulations, the Services established “environmental baseline” as a stand alone definition. 84 Fed. Reg. 44976, 45016 (August 27, 2019). In the 2024 rule, the Services made minor revisions to the “environmental baseline” definition. 89 Fed. Reg. 24268, 24298 (April 5, 2024). The Court’s ruling did not touch upon that definition of “environmental baseline,” and it therefore remains valid. The definition is also fully consistent with the definition of “effects of the action” from 2018.

Proposed Action

Under the ESA, “action” means all activities or programs of any kind authorized, funded, or carried out, in whole or in part, by federal agencies (see 50 CFR 402.02). The FHWA proposed to fund replacement of the Eaton bridge. The proposed action is described in Section 1.4 Project Description (pages 3-10) of the BA. In summary, the Eaton Bridge Replacement Project will include: (1) replacement of an existing, restrictive 32-foot timber bridge with a new, wider, 70-foot single-span concrete bridge and abutments installed above the ordinary high water mark (OHWM); (2) installation of a temporary shoofly bridge to detour traffic around the construction area; (3) construction of new road bridge approaches; (4) channel protection riprap around new abutments; (5) vegetation replanting; and (6) dewatering and fish salvage of a 252-square-foot section of West Patit Creek. A number of minimization measures and best management practices (BMPs) will be implemented to prevent or minimize impacts to ESA-listed species and critical habitat. Those measures are described in Section 1.5 Impact Avoidance and Minimization Measures (pages 10-12) of the BA. Notable BMPs include implementation of erosion and sediment control measures and implementing spill prevention and control measures.

The proposed project will be constructed during one work season. Work at or below the OHWM will be completed during low flow conditions, and a plan for isolating the in-water work areas will be implemented to minimize impacts. In-water work would be completed during the approved in-water work window of July 15 through September 30, when West Patit Creek will be at low flow or dry. Washington Department of Transportation (WSDOT) protocols will be implemented for fish salvage operations. Best management practices, temporary erosions and sediment controls measures, and a spill prevention control plan will be implemented for the duration of construction.

The existing impervious surface area within the project area includes gravel roadways and bridge deck and totals 12,760 square feet. After the project is completed, impervious surfaces will be limited to the new bridge structure and 20-foot-long paved approaches, with a final impervious surface area of 19,600 square feet. This represents a net increase of approximately 6,840 square feet of impervious surfaces. Additionally, an approximately 2,400 square feet area (i.e. 290 cubic yards) of permeable riprap will be placed around the new bridge abutments. Approximately 70 square feet (10 cubic yards) of riprap will be placed below the OHWM and 2,330 square feet (280 cubic yards) of riprap will be placed above the OHWM. Runoff from the newly constructed impervious project surfaces will be allowed to sheet flow off the roadway and percolate into the ground at the roadway shoulders.

We considered, under the ESA, whether or not the proposed action would cause any other interrelated or interdependent actions. “Interrelated actions” are those that are part of a larger action and depend on the larger action for their justification. “Interdependent actions” are those that have no independent utility apart from the action under consideration (50 CFR 402.02). We determined there are no interdependent or interrelated activities associated with the proposed action.

BIOLOGICAL OPINION

This biological opinion includes both a jeopardy analysis and an adverse modification analysis. We use the following approach to determine whether a proposed action is likely to jeopardize listed species or destroy or adversely modify critical habitat:

- Evaluate the rangewide status of the species and critical habitat expected to be adversely affected by the proposed action.
- Evaluate the environmental baseline of the species and critical habitat.
- Evaluate the effects of the proposed action on species and their critical habitat using an exposure–response approach.
- Evaluate cumulative effects.
- Integrate and synthesize the status of the species and critical habitat, environmental baseline, effects of the action, and cumulative effects.

Rangewide Status of Species and Designated Critical Habitat

We examined the status of MCR steelhead and their critical habitat that would be adversely affected by the proposed action to inform the description of the species’ “reproduction, numbers, or distribution” as described in 50 CFR 402.02. We also examined the condition of critical habitat throughout the designated area and discuss the function of the physical or biological features (PBFs) essential to the conservation of the species that create the conservation value of that habitat. Section 2 Status of Species and Critical Habitat in the Action Area (pages 18-20) of the BA includes a description of the status of the species and critical habitat and is being adopted here. We also incorporate by reference the following most-recent 5-year review and recovery plan for the MCR steelhead and references cited therein:

- [2022 5-Year Review: Summary & Evaluation of Middle Columbia River Steelhead](#)
- [2009 Middle Columbia River Steelhead Recovery Plan](#)

Additional information that has become available since the most-recent 5-year review and recovery plan were published and the PBFs of critical habitat designated for MCR steelhead can be found on the NMFS website at [ESA Section 7 Consultations on West Coast NOAA Fisheries](#). We incorporate that information here by reference (NMFS 2025).

Together, the documents referenced here contribute to the best scientific and commercial data available for the ESA-listed species and designated critical habitat considered in this opinion.

Action Area

“Action area” means all areas to be affected directly or indirectly by the federal action and not merely the immediate area involved in the action (50 CFR 402.02). Section 1.6 Action Area (pages 13-17) of the BA describes the action area which is adopted here. In summary, the terrestrial and aquatic portions of the action area are described as follows:

- **Terrestrial Portion:** This area extends 2.4 miles beyond the project footprint due to the maximum conservative estimate of noise attenuation from heavy construction equipment.
- **Aquatic Portion:** This area includes West Patit Creek, 50 feet upstream from the project site extending up to 750 feet downstream to its confluence with Patit Creek.

Environmental Baseline

The “environmental baseline” refers to the condition of the listed species or its designated critical habitat in the action area, without the consequences to the listed species or designated critical habitat caused by the proposed action. The environmental baseline includes the past and present impacts of all federal, state, or private actions and other human activities in the action area, the anticipated impacts of all proposed federal projects in the action area that have already undergone formal or early section 7 consultations, and the impact of state or private actions which are contemporaneous with the consultation in process. The consequences to listed species or designated critical habitat from ongoing agency activities or existing agency facilities that are not within the agency’s discretion to modify are part of the environmental baseline (50 CFR 402.02). A description of the environmental baseline and species and habitat use are provided in Section 2.2 Presence of Listed and Proposed Species in the Action Area (pages 18-20) and Section 3 Environmental Setting (pages 24-30) of the BA, respectively. We incorporate that information here by reference and supplement with the following information.

Species in the Action Area

One population of MCR steelhead (Walla Walla River population) uses the action area. This population is part of the Umatilla/Walla Walla major population group (MPG). To achieve viable status in the Umatilla/Walla Walla Rivers MPG, the Umatilla River population and either the Walla Walla River or Touchet River population must achieve viable status. Currently, the Walla Walla River population meets the minimum recovery status of maintained. The Umatilla/Walla Walla Rivers MPG is below viable status because neither the Umatilla River nor Touchet River populations meet viability criteria (NMFS 2009, 2022). Adult MCR steelhead use the West Patit Creek action area for spawning and migration. Juvenile MCR steelhead use the action area for rearing and as a migration corridor.

Critical Habitat in the Action Area

The action area is designated critical habitat for MCR steelhead. All physical and biological features (PBFs) of the freshwater spawning, rearing, and migration sites are of high importance to the conservation of critical habitat in the action area (Table 1). The conservation value of critical habitat in the action area is degraded particularly with regard to water quality, water quantity, riparian condition, substrate, and floodplain connectivity/function due to agricultural development and seasonally variable flow regimes in West Patit Creek. The creek is often dry in the late summer and early fall months.

Table 1. The physical and biological features of critical habitat in the action area for Middle Columbia River steelhead and the corresponding life history events supported.

Physical and Biological Feature		Life History Event(s) Supported
Site Type	Site Attributes	
Freshwater Spawning	Substrate Water Quality Water Quantity	Adult spawning; Embryo incubation; Alevin growth and development
Freshwater Rearing	Floodplain Connectivity Forage Natural Cover Water Quality Water Quantity	Fry/parr/smolt growth and development
Freshwater Migration	Free of Artificial Obstruction Natural Cover Water Quality Water Quantity	Adult upstream migration and holding; Kelt seaward migration; Fry/parr/smolt growth and development

Effects of the Action

Under the ESA, “effects of the action” refers to the direct and indirect effects of an action on the species or critical habitat, together with the effects of other activities that are interrelated or interdependent with that action, that will be added to the environmental baseline. The environmental baseline includes the past and present impacts of all federal, state, or private actions and other human activities in the action area, the anticipated impacts of all proposed federal projects in the action area that have already undergone formal or early section 7 consultation, and the impact of state or private actions which are contemporaneous with the consultation in process. Indirect effects are those that are caused by the proposed action and are later in time, but still are reasonably certain to occur. Interrelated actions are those that are part of a larger action and depend on the larger action for their justification. Interdependent actions are those that have no independent utility apart from the action under consideration” (50 CFR 402.02 (2018)).

Section 4 Analysis of Effects (pages 36-48) of the BA provides a detailed discussion and comprehensive assessment of the effects of the proposed action and is adopted here (50 CFR 402.14(h)(3)). The FHWA proposes to authorize the replacement of the Eaton Bridge. The project will involve in-water work and ground-disturbing work within the riparian area of West Patit Creek. A description of the effects on MCR steelhead and critical habitat is provided below.

Effects to Species

All life stages of MCR steelhead may be affected by the permanent effects associated with the proposed action. Because in-water work will be conducted during the in-water work window, only low numbers of juvenile MCR steelhead will be present and exposed to in-water related work. Adult MCR steelhead may be present in the action area during construction in upland areas.

We concur with the FHWA's findings regarding the following pathways of effect to MCR steelhead:

- Temporary increases in suspended sediment and turbidity from installing and removing in-water work area isolation barriers, re-watering isolated areas, and installing riprap, may result in decreased water quality, decreased prey availability, increased substrate embeddedness, and decreased water quality. Project BMPs and the relatively small size of area affected, will result in short term localized adverse effects to rearing juveniles, including disrupting their feeding behaviors or displacing them from preferred feeding and resting areas.
- Equipment noise during construction, which, due to the project BMPs, will cause temporary and minor behavioral effects to rearing juveniles.
- Approximately 252 square feet of the channel will be temporarily isolated by sandbag cofferdams, potentially disrupting feeding and migration patterns.
- Adverse effects to MCR steelhead juveniles from fish handling activities during the dewatering of approximately 252 square feet of stream bed.

After our independent, science-based evaluation, we determined that the following additional information was needed to complete our analysis.

Noise Effects and Altered Light Regimes

Project construction noise is estimated to reach a maximum of 90 dBA. Construction disturbance can lead to behavioral changes resulting in indirect effects through altered feeding success, increased exposure to predators, and/or displacement into less suitable habitat. Several studies have shown that juvenile salmonids are sensitive to overhead movements and usually hide under cover when approached by observers (Chapman and Bjornn 1969, Hoar 1958). The key question is how long fish will be displaced and whether the displacement will be frequent enough to significantly alter normal behavior patterns (e.g., breeding, feeding, and sheltering). Grant and Noakes (1987) concluded that younger fish are less wary than older fish and thus take more risks while foraging to maximize growth. These authors also showed that smaller fish returned to foraging locations faster than larger fish, usually within about 10 minutes of the disturbance. These studies suggest that while smaller fish quickly move into adjacent habitat after each disturbance, they are more likely to remain in areas with limited cover to maximize forage. Smaller fish are also less wary of disturbances and return to foraging sites faster after each disturbance with no long-term displacement.

Daytime shading can disrupt juvenile and adult salmonid behaviors. Because these fish rely on visual cues, the light-dark interface created by shadows makes it more difficult for them to find food and increases their risk of being targeted by ambush predators (NMFS 2008). The project's shaded area from the bridge deck is approximately 32 feet wide and spans the width of West Patit Creek. There is available forage habitat upstream and downstream from the bridge that is not impacted by daytime shading.

Considering the low densities of MCR steelhead juveniles expected to be present in the action area (and thus, more available foraging space in the event fish are displaced from preferred

habitat) and the low risk of predation, we believe effects of project construction equipment noise and altered light regimes to MCR steelhead will be temporary and minor and, therefore, insignificant.

Water Quality Effects

The proposed action will create approximately 6,840 square feet of new pollution-generating impervious surface (PGIS) and replace approximately 12,760 square feet of existing PGIS. Under current conditions, none of the existing PGIS receives stormwater treatment. The FHWA concluded stormwater runoff from all new and replaced PGIS will infiltrate into adjacent ground surfaces and no direct release of stormwater into the creek is anticipated to occur (Thompson 2026).

As described in the BA, the project documentation states that all post-construction stormwater is anticipated to be handled by infiltration. This complete infiltration model is supported by the U.S. Department of Agriculture (USDA) Natural Resource Conservation Service's web soil survey, which confirms that the local soils within the action area are "well-drained silt loams" (Thompson 2026).

While full infiltration of stormwater runoff is likely to occur for most storms, small amounts of runoff not captured by infiltration could occur during high intensity storms. Stormwater contaminants flushing from freshwater systems after storm events would be detectable within river systems but would disperse and dilute to non-detectable levels in water within days after the storm event (Overdahl et al. 2021, Peter et al. 2024). Even with treatment, stormwater runoff often contains residual chemicals, including copper, zinc, polycyclic aromatic hydrocarbons (PAHs), 6PPD-quinone, and a growing list of other chemicals harmful to fish, including ESA-listed salmonids (Peter et al. 2018; Tian et al. 2021; Kratz 2022). Specific examples include:

- Embryonic exposures to PAHs in the low parts per billion (ug/L) range can cause severe developmental abnormalities and delayed mortality (Incardona et al. 2015, Gardner et al. 2019).
- 6PPD-quinone has recently been shown to cause acute mortality in adult coho salmon (McIntyre et al. 2021) and varying degrees of mortality in juvenile coho salmon, Chinook salmon, and rainbow trout (Brinkmann et al. 2022, Chow et al. 2019, French et al. 2022, McIntyre et al. 2021, and Tian et al. 2021).
- Sub-lethal effects of copper include avoidance at very low concentrations (Hecht et al. 2007) and reduced chemosensory function at slightly higher concentrations, which in turn causes maladaptive behaviors, including inability to avoid copper or to detect chemical alarm signals (McIntyre et al. 2012).

Although the project directs both new and replaced PGIS to areas conducive to ground infiltration, it is possible that these and other road runoff pollutants will still enter downstream waterbodies, particularly during large storm events that produce runoff volumes exceeding the capacity of the soil within the action area. Pollutant levels will be diluted upon entering West Patit Creek; however, they will nonetheless introduce chronic low levels of contamination. Many stormwater runoff pollutants, including zinc and PAHs, can travel downstream as solutes,

molecules absorbed to suspended particles, or molecules retained in silt or clay sediments deposited in areas of reduced flow (Kratz 2022).

All life stages of MCR steelhead could be exposed to low levels of contaminated stormwater runoff from the project's PGIS. While the proposed action anticipates post-construction stormwater to be handled by 100 percent infiltration into well-drained silt loams within the action area, we expect small amounts of sporadic discharge to adversely affect a small number of all life stages of MCR steelhead that utilize the action area. These effects may manifest in several ways, ranging from a behavioral response to developmental disorders and weakened immune systems to death. Benthic invertebrates and other important salmonid prey species exposed to the various contaminants in stormwater may also be reduced in quantity, composition, and quality if they accumulate toxins and adversely affect rearing juveniles.

Effects to Critical Habitat

We concur with the FHWA's findings regarding the following pathways of effect to the PBFs of MCR steelhead designated critical habitat:

- Water Quality, Turbidity - Adverse effects to the water quality PBF of critical habitat from the temporary and minor increase in fine sediment up to 300-feet downstream from in-water activities. Due to sediment characteristics and river flow, we expect increased turbidity to last several minutes to an hour.
- Water Quality, Chemical Contamination from Construction Equipment - Very small, accidental spills of construction materials or petroleum products may affect the water quality PBF. Given implementation of the proposed BMPs, we believe an accidental spill reaching the stream is highly unlikely, and therefore, discountable.
- Substrate – The project will impact approximately 252 square feet of substrate below the OHWM, the footprint of the channel excavation and placement of 10 cubic yards of riprap placed below the ordinary high-water mark will have a permanent and adverse impact to 70 square feet. Riprap placed along the new bridge abutments will incorporate live stake willow plantings.
- Forage – Aquatic and terrestrial macroinvertebrate communities will be negatively impacted in localized areas as a result of construction below the OHWM and disturbance to riparian vegetation. These localized impacts will be temporary and we expect disturbed channel substrates to be quickly recolonized and terrestrial insects will return when replanted native vegetation becomes established. Given the availability of forage in upstream and downstream habitats, impacts to the forage PBF in the action area will be insignificant.
- Natural Cover - The removal of three mature trees (two black cottonwoods and one yellow willow) and 0.10 acre of riparian vegetation will temporarily reduce shade and terrestrial nutrient input until the replanted native vegetation becomes established within the disturbed riparian areas.

After our independent, science-based evaluation, we determined that the following adverse effect to the water quality PBF is likely:

- **Water Quality, Chemical Contamination from Stormwater Runoff** – As described in the Effects to Species section above, we disagree with the FHWA’s findings that all stormwater will infiltrate. Low levels of untreated stormwater discharge into West Patit Creek could degrade water quality and prey availability if complete infiltration of stormwater does not occur due to potential scenarios such as soil saturation during extreme flood or rain events, which could result in sporadic short-term adverse effects.

While construction activities cause temporary adverse impacts, the BA notes that the completed project will ultimately benefit channel conditions. Replacing the restrictive 32-foot timber bridge with a 70-foot single-span concrete bridge placed entirely outside the OHWM will significantly widen the hydraulic opening, lower stream velocity constriction, and facilitate a more natural conveyance of flood flows and floodplain connectivity (Thompson 2026).

Cumulative Effects

“Cumulative effects” are those effects of future state or private activities, not involving federal activities, that are reasonably certain to occur within the action area of the federal action subject to consultation (50 CFR 402.02). Future federal actions that are unrelated to the proposed action are not considered in this section because they require separate consultation pursuant to section 7 of the ESA. Section 4.3 Cumulative Effects (pages 45-46) of the BA describes any cumulative effects and is being adopted here. While specific projects were not identified, regional population growth and development continue in the region; therefore, new residential, commercial, or agricultural projects may occur in the action area. Therefore, NMFS expects the cumulative effects of future state and private activities will continue to have a negative effect on MCR steelhead and their critical habitat.

Integration and Synthesis

The Integration and Synthesis section is the final step in our assessment of the risk posed to species and critical habitat as a result of implementing the proposed action. In this section, we add the effects of the action to the environmental baseline and the cumulative effects, taking into account the status of the species and critical habitat, to formulate the agency’s biological opinion as to whether the proposed action is likely to: (1) reduce appreciably the likelihood of both the survival and recovery of a listed species in the wild by reducing its numbers, reproduction, or distribution; or (2) appreciably diminish the conservation value of designated or proposed critical habitat for the conservation of the species.

The FHWA proposes to authorize the replacement of the Eaton Bridge. The project will involve in-water work and ground-disturbing work within the riparian area of West Patit Creek. A description of the effects to MCR steelhead and critical habitat is provided below. Temporary effects of this proposed action will be from construction equipment operation during bridge removal/replacement and work area isolation. Construction equipment will increase noise and the temporary and permanent bridge structures will alter light regimes. Long-term effects of the proposed action will be permanent impacts from streambank riprap and water quality and forage.

Due to water quality effects from stormwater discharge, the action area includes all affected habitats, starting where water enters West Patit Creek and is transported downstream to Patit Creek.

MCR steelhead are currently listed as threatened and remains at a moderate risk of extinction within the next 100 years. The MCR steelhead in this watershed belong to the Walla Walla River population which is part of the Umatilla/Walla Walla MPG. The population has a moderate risk of extinction and their recovery is threatened due to reduced or eliminated access to historically important habitats, compounded by degraded conditions in available habitats resulting from various land development activities.

The proposed action falls within the boundary of designated critical habitat for MCR steelhead. All PBFs of the freshwater migration, spawning, and rearing sites are of high importance to the conservation of MCR steelhead critical habitat in the action area. While the condition of designated critical habitat for MCR steelhead is likely improving in some areas as a result of habitat improvement actions and improved land use practices, habitat degradation continues across the range of MCR steelhead, and this degradation continues to negatively affect species abundance, productivity, spatial structure, and diversity.

The environmental baseline has been negatively impacted by loss of floodplain connectivity, loss of large wood, low baseflow discharge, high summertime water temperatures, reduced riparian cover, and decreased quantity and quality of pool habitats (Thompson 2026). The proposed action adds further effects to these existing conditions, but will also significantly widen the hydraulic opening, lower stream velocity constriction, and facilitate a more natural conveyance of flood flows and floodplain connectivity within the action area.

NMFS is not aware of any specific, future non-federal activities within the action area. However, as regional population growth and development continue, new residential, commercial, or agricultural projects may occur in the action area. Therefore, NMFS expects the cumulative effects of future state and private activities will continue to have a negative effect on MCR steelhead and their critical habitat.

Species

Adults and juveniles from the Walla Walla population of the Umatilla/Walla Walla MPG of MCR steelhead use the action area for spawning, rearing, and as a migration corridor. The Walla Walla population is considered maintained, with moderate risk ratings for abundance/productivity and spatial structure/diversity. Recovery criteria require either the Walla Walla or Touchet population to meet viability criteria (Ford 2022). Under current conditions, the Walla Walla River population is much closer to reaching viable status with its moderate risk rating because the Touchet River population remains not viable (high risk).

Based on the best available scientific data and the implementation of various BMPs designed to avoid and minimize effects, we anticipate some of the proposed action's effects to MCR steelhead will be extremely small, and, therefore, insignificant. These effects include: construction-related activities (i.e., use of heavy equipment near water bodies, and disturbance of

riparian areas). Additionally, potential effects associated with chemical contamination due to equipment spills or leaks are highly unlikely, and therefore, discountable. The proposed action will also significantly widen the hydraulic opening, lower stream velocity constriction, and facilitate a more natural conveyance of flood flows and floodplain connectivity within the action area, all of which are beneficial effects. While these effects of the action are not expected to have a discernible effect on any individual; we nevertheless consider them in reaching our conclusion.

The proposed action is expected to result in harm, harassment, injury, or death of a very small number of individuals from the Walla Walla population of the Umatilla/Walla Walla MPG of MCR steelhead within the action area as follows:

- Injury or death of juvenile steelhead through fish salvage and dewatering in up to 252 square feet.
- Behavioral changes of juvenile steelhead within 300 to 750 feet downstream to the confluence with Patit Creek due to channel rewatering through increased levels of turbidity, which will displace fish and disrupt feeding behaviors.
- Behavioral changes of juvenile steelhead due to dewatered work area temporarily disrupting feeding and migration patterns.
- Injury or death of adult or juvenile fish exposed to contaminants in untreated stormwater runoff from impervious surface in the action area over the life of the project.

NMFS has determined that the loss of a very small number of juvenile or adult MCR steelhead during project construction or over the life of the bridge and roadway approaches is not substantial enough to appreciably alter the abundance, productivity, spatial structure, or diversity of the Walla Walla population of MCR steelhead. Because the viable salmonid population parameters for the Walla Walla population will be maintained, we do not expect a change in the status of the Umatilla/Walla Walla MPGs as a consequence of the proposed action. Thus, it is NMFS' opinion that when the effects of the action and cumulative effects are added to the environmental baseline, and in light of the status of the species, the effects of the action will not cause reductions in reproduction, numbers, or distribution that would reasonably be expected, directly or indirectly, to reduce appreciably the likelihood of both the survival and recovery of MCR steelhead.

Critical Habitat

While critical habitat in the action area is degraded due to agricultural and residential development activities, all PBFs of the freshwater migration, spawning, and rearing sites are of high importance to the conservation of critical habitat in the action area. Based on the best available scientific data and the implementation of various BMPs designed to avoid and minimize effects, we anticipate some of the proposed action's effects to MCR steelhead designated critical habitat will be extremely small, and, therefore, insignificant. These effects include impacts to the natural cover PBF from removal of three riparian trees, impacts to the forage PBF from increased turbidity and channel disturbance. Additionally, potential effects associated with chemical contamination due to equipment spills or leaks are highly unlikely, and therefore, discountable. None of these effects are expected to exacerbate any of the adverse effects of the action.

The proposed action will have adverse effects to the function of critical habitat in the action area for the following PBFs:

- Water Quality, Sediment and Turbidity – Temporary and minor increases in suspended sediments will create adverse turbid conditions extending up to 300-feet downstream from in-water activities. This localized, negative impact to the water quality PBF is expected to last no more than a few hours.
- Substrate – The project will impact approximately 252 square feet of substrate below the OHWM, the footprint of the channel excavation and placement of 10 cubic yards of riprap placed below the ordinary high-water mark will have a permanent and adverse impact to 70 square feet.
- Water Quality, Chemical Contamination from Stormwater Runoff – low levels of untreated stormwater discharge into West Patit Creek could degrade the water quality and prey availability if complete infiltration of stormwater does not occur due to potential scenarios such as soil saturation during extreme flood or rain events, which could result in sporadic short-term adverse effects.

The proposed action will also provide long-term benefits to the function of critical habitat in the action area for the following PBFs:

- Floodplain connectivity – removal of the old bridge abutments currently constraining the channel and installing a longer-span bridge will enhance floodplain connectivity and facilitate a more natural conveyance of flood flows

Because of the small scale and extent of the effects to PBFs, we do not expect a reduction in the conservation value of critical habitat in the action area. As we scale up from the action area to the designation area of critical habitat for MCR steelhead, the proposed action is not expected to appreciably reduce the conservation value of the designated critical habitat.

Conclusion

After reviewing and analyzing the current status of the listed species and critical habitat, the environmental baseline within the action area, the effects of the proposed action, the effects of other activities caused by the proposed action, and cumulative effects, it is NMFS' biological opinion that the proposed action is not likely to jeopardize the continued existence of MCR steelhead or destroy or adversely modify its designated critical habitat.

INCIDENTAL TAKE STATEMENT

Section 9 of the ESA and federal regulations pursuant to section 4(d) of the ESA prohibit the take of endangered and threatened species, respectively, without a special exemption. "Take" is defined as to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture or collect, or to attempt to engage in any such conduct. "Harm" is further defined by regulation to include significant habitat modification or degradation that actually kills or injures fish or wildlife by significantly impairing essential behavioral patterns, including breeding, spawning, rearing, migrating, feeding, or sheltering (50 CFR 222.102). "Harass" is further defined by interim guidance as to

“create the likelihood of injury to wildlife by annoying it to such an extent as to significantly disrupt normal behavioral patterns which include, but are not limited to, breeding, feeding, or sheltering.” “Incidental take” is defined by regulation as takings that result from, but are not the purpose of, carrying out an otherwise lawful activity conducted by the federal agency or applicant (50 CFR 402.02). Section 7(b)(4) and section 7(o)(2) provide that taking that is incidental to an otherwise lawful agency action is not considered to be prohibited taking under the ESA if that action is performed in compliance with the terms and conditions of this ITS.

Amount or Extent of Take

In the biological opinion, NMFS determined that incidental take is reasonably certain to occur as follows:

1. Harassment, harm, injury, or death of juvenile steelhead from isolation and fish handling activities.
2. Harassment, harm, or injury of juvenile steelhead from exposure to elevated suspended sediment.
3. Harm, injury, or death of juvenile or adult steelhead exposed to untreated stormwater runoff from PGIS.

Estimating the specific number of juveniles taken during work area isolation and fish salvage is not possible because of the range of responses that individual fish will have, the numbers of juveniles present at any time, and whether stream flows will be present at time of in-water work is highly variable. Therefore, NMFS uses the size of the isolated area as a surrogate for incidental take. This surrogate is causally linked to the take pathway because, for in-water work, the risk of injury or death increases with the amount or size of the area isolated and salvaged. That is, larger isolation areas are expected to impact more fish. Therefore, the extent of take will be exceeded if more than 252 square feet of West Patit Creek is isolated and salvaged.

Similarly, estimating the specific number of juveniles harassed, harmed, or injured as a result of exposure to elevated suspended sediment is not possible because of the range of responses that individual fish will have, the numbers of juveniles present at any time, and the ability of fish to find refuge from elevated turbidity. Therefore, NMFS uses the downstream extent of turbidity as a surrogate for incidental take. This surrogate is causally linked to the take pathway because the number of fish at risk of being harassed, harmed, or injured is directly related to the size of the turbidity plume. Therefore, the extent of take will be exceeded if turbidity extends beyond 300 feet.

Estimating the specific number of juvenile or adult steelhead harmed, injured, or killed from exposure to contaminants in stormwater is not feasible for the reasons mentioned previously. Therefore, NMFS will use the area of new PGIS as a surrogate for incidental take. This surrogate is causally linked to the take pathway because contaminant concentrations reaching the creek is directly related to the amount of new PGIS. Therefore, the extent of take will be exceeded if more than approximately 6,840 square feet of new PGIS is created.

Although these surrogates could be considered coextensive with the proposed action, monitoring and reporting requirements included in this ITS will provide opportunities to check throughout the course of the proposed action whether the surrogates are exceeded. For this reason, the surrogates function as effective reinitiation triggers.

Effect of the Take

In the biological opinion, NMFS determined that the amount or extent of anticipated take, coupled with other effects of the proposed action, is not likely to result in jeopardy to the species or destruction or adverse modification of critical habitat.

Reasonable and Prudent Measures

The reasonable and prudent measures listed below are measures that are necessary or appropriate to minimize and/or monitor the impact of the amount or extent of incidental take (50 CFR 402.02).

The FHWA shall:

1. Minimize incidental take of juvenile MCR steelhead associated with fish handling and site isolation.
2. Minimize incidental take associated with operational effects from post-construction stormwater.
3. Ensure completion of a monitoring and reporting program to confirm that the take exemption for the proposed action is not exceeded and the terms and conditions in this incidental take statement are effective in minimizing incidental take. The report will be submitted to NMFS no later than 60 days after the completion of construction.

NMFS believes that full application of conservation measures included as part of the proposed action, together with the use of the reasonable and prudent measures (RPMs) and terms and conditions described below are necessary and appropriate to minimize the likelihood of incidental take of listed species due to completion of the proposed action.

Terms and Conditions

In order to be exempt from the prohibitions of section 9 of the ESA, the federal action agency must comply (or must ensure that any applicant complies) with the following terms and conditions. The FHWA or any applicant has a continuing duty to monitor the impacts of incidental take and must report the progress of the action and its impact on the species as specified in this ITS (50 CFR 402.14). If the entity to whom a term and condition is directed does not comply with the following terms and conditions, protective coverage for the proposed action would likely lapse.

1. The following terms and conditions implement RPM 1:
 - a. Ensure that the dewatered area is as small as necessary to complete the in-water work.
 - b. If the amount or extent of take is exceeded, stop project activities and notify NMFS immediately via email: icbd.reports.wcr@noaa.gov, with the NMFS Tracking Number (WCRO-2026-00435), project name (Eaton Bridge Replacement), and “Take Exceeded” in the subject line.
2. The following terms and conditions implement RPM 2:
 - a. Ensure the project impervious surface area does not exceed design specifications and creates no more than 0.45 acres of total PGIS post-construction and that sheet flow runoff successfully drains into the designated soil infiltration areas.
3. The following terms and conditions implement RPM 3:
 - a. The FHWA shall ensure that the Columbia County Department of Public Works and their contractors provide a completion report within 90 days following project completion. The report shall contain the following information:
 - i. The number of ESA-listed salmonids handled during salvage activities include the species, life stage, condition upon release, number of fish injured or killed, and location of release.
 - ii. The extent and duration of visible turbidity plumes in West Patit Creek.
 - iii. The as-built report shall include the total area of both new and replaced PGIS.
 - b. The report shall be sent via email to NMFS at: icbd.reports.wcr@noaa.gov, with the NMFS Tracking Number (WCRO-2026-00435) and project name (Eaton Bridge Replacement) in the subject line.

Conservation Recommendations

Section 7(a)(1) of the ESA directs federal agencies to use their authorities to further the purposes of the ESA by carrying out conservation programs for the benefit of the threatened and endangered species. Specifically, conservation recommendations are suggestions regarding discretionary measures to minimize or avoid adverse effects of a proposed action on listed species or critical habitat or regarding the development of information (50 CFR 402.02).

The following conservation recommendations are consistent with this obligation and therefore should be carried out by the FHWA

1. Employ adaptive management if bridge runoff into the stream is detected to address lack of treatment effectiveness, new science, or contaminants of emerging concern.
2. Participate in a monitoring and reporting program, such as the Washington Department of Ecology Stormwater Action Monitoring (SAM), which monitors stormwater pollutants. Support data collection at locations reflective of rural settings and smaller streams to gain a better understanding on potential impacts of lower traffic use roads on water quality in various sized streams. This data would then inform the need for incorporating stormwater treatment BMPs, even in more rural settings.

Please notify NMFS if the FHWA carries out these recommendations that are intended to improve the conservation of listed species or their designated critical habitats.

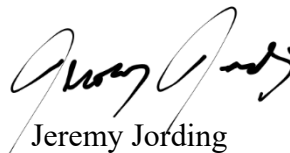
Reinitiation of Consultation

Under 50 CFR 402.16(a): "Reinitiation of consultation is required and shall be requested by the federal agency or by the Service, where discretionary federal agency involvement or control over the action has been retained or is authorized by law and: (1) if the amount or extent of taking specified in the incidental take statement is exceeded; (2) if new information reveals effects of the agency action that may affect listed species or critical habitat in a manner or to an extent not previously considered; (3) if the identified action is subsequently modified in a manner that causes an effect to the listed species or critical habitat that was not considered in the biological opinion or written concurrence; or (4) if a new species is listed or critical habitat designated that may be affected by the identified action."

This letter underwent pre-dissemination review using standards for utility, integrity, and objectivity in compliance with applicable guidelines issued under the Data Quality Act (section 515 of the Treasury and General Government Appropriations Act for Fiscal Year 2001, Public Law 106-554). The biological opinion will be available through NOAA Institutional Repository (<https://repository.library.noaa.gov/welcome>). A complete record of this consultation is on file at the NMFS Office in Boise, Idaho.

If you have any questions about this consultation, please contact Kimberly Murphy at 208-756-5180 or at kimberly.murphy@noaa.gov.

Sincerely,



Jeremy Jording
Acting Assistant Regional Administrator
Interior Columbia Basin Office

cc: Cindy Callahan, FHWA
W. Witucki, FHWA

REFERENCES

- Brinkmann, M., D. Montgomery, S. Selinger, J.G.P. Miller, E. Stock, A.J. Alcaraz, J.K. Challis, L. Weber, D. Janz, M. Hecker, and S. Wiseman. 2022. Acute Toxicity of the Tire Rubber-Derived Chemical 6PPD-quinone to Four Fishes of Commercial, Cultural, and Ecological Importance. *Environmental Science & Technology Letters*. *Environmental Science & Technology Letters* 2022 9 (4), 333-338. DOI: 10.1021/acs.estlett.2c00050
- Chapman, D. W. and T. C. Bjornn. 1969. Distribution of salmonids in streams, with special reference to food and feeding. Pages 153-176 in T.G. Northcote, editor. *Symposium on salmon and trout in streams*. Institute of Fisheries, The University of British Columbia, Vancouver, Canada
- Chow, M., J.I. Lundin, C.J. Mitchell, J.W. Davis, G. Young, N.L. Scholz, and J.K. McIntyre. 2019. An urban stormwater runoff mortality syndrome in juvenile coho salmon. *Aquatic Toxicology* 214 (2019). <https://doi.org/10.1016/j.aquatox.2019.105231>.
- Ford, M. J. (editor). 2022. *Biological Viability Assessment Update for Pacific Salmon and Steelhead Listed Under the Endangered Species Act: Pacific Northwest*. U.S. Department of Commerce, NOAA Technical Memorandum NMFS-NWFSC-171.
- French, B.F., D. H. Baldwin, J. Cameron, J. Prat, K. King, J. W. Davis, J. K. McIntyre, and N. L. Scholz. 2022. Urban Roadway Runoff Is Lethal to Juvenile Coho, Steelhead, and Chinook Salmonids, But Not Congeneric Sockeye *Environmental Science & Technology Letters* 9(9): 733-738 DOI: 10.1021/acs.estlett.2c00467
- Gardner, L.D., K.A. Peck, G.W. Goetz, T.L. Linbo, J. Cameron, N.L. Scholz, B.A. Block, and J.P. Incardona. 2019. Cardiac remodeling in response to embryonic crude oil exposure involves unconventional NKX family members and innate immunity genes. *Journal of Experimental Biology*, 222: jeb205567.
- Grant J. W. A. and D. L. G. Noakes. 1987. Movers and stayers: Foraging tactics of young-of-the-year brook charr, *Salvelinus fontinalis*. *Journal of Animal Ecology* 56: 1001–1013.
- Hecht, S.A., D.H. Baldwin, C.A. Mebane, T. Hawkes, S.J. Gross, and N.L. Scholz. 2007. An overview of sensory effects on juvenile salmonids exposed to dissolved copper: Applying a benchmark concentration approach to evaluate sub-lethal neurobehavioral toxicity. National Marine Fisheries Service, NOAA Technical Memorandum NMFS-NWFSC-83, Seattle, WA.
- Hoar, W. S. 1958. The evolution of migratory behavior among juvenile salmon of the genus *Oncorhynchus*. *J. Fish. Res. Board Can.* 15:391-428.
- Incardona, J.P., Carls, M.G., Holland, L., Linbo, T.L., Baldwin, D.H., Myers, M.S., Peck, K.A., Tagal, M., Rice, S.D., and Scholz, N.L. 2015. Very low embryonic crude oil exposures cause lasting cardiac defects in herring and salmon. *Scientific Reports*, 5:13499.

- Kratz, K.W. 2022. National Oceanic and Atmospheric Administration (NOAA) Endangered Species Act 7(a)(2) Biological Opinion and Magnuson-Stevens Fishery Conservation and Management Act Essential Fish Habitat Response for 88th Street NE Corridor Improvement Project.
- McIntyre, J.K., D.H. Baldwin, D.A. Beauchamp, and N.L. Scholz. 2012. Low-level copper exposures increase visibility and vulnerability of juvenile coho salmon to cutthroat trout predators. *Ecological Applications*. 22: 1460–1471. <http://dx.doi.org/10.1890/11-2001.1>
- McIntyre, J.K., J. Prat, J. Cameron, J. Wetzel, E. Murdrock, K.T. Peter, Z. Tian, C. Mackenzie, J. Lundin, J.D. Stark, K. King, J.W. Davis, E.P. Kolodziej, and N.L. Scholz. 2021. Treading water: tire wear particle leachate recreates urban runoff mortality syndrome in coho but not chum salmon. *Environmental Science and Technology* 2021: 11767-11774.
- NMFS 2008. Impacts to Marine Fisheries Habitat from Nonfishing Activities in the Northeastern United States. NOAA Technical Memorandum NMFS-NE-209. Northeast Fisheries Science Center (US). February 2008. <https://repository.library.noaa.gov/view/noaa/3622>
- NMFS. 2009. Middle Columbia River Steelhead Distinct Population Segment Esa Recovery Plan. November 30, 2009. National Marine Fisheries Service, Northwest Region.
- NMFS. 2022. 2022 5-year review: Summary & Evaluation of Middle Columbia River Steelhead. <https://www.fisheries.noaa.gov/resource/document/2022-5-year-review-summary-evaluation-middle-columbia-river-steelhead>
- NMFS. 2024. Middle Columbia River Steelhead Status of the Species Update, July 2024. On file at the National Marine Fisheries Service, Snake River Basin Office, Boise, Idaho. Also available at: <https://www.fisheries.noaa.gov/s3/2024-08/status-species-middle-columbia-river-steelhead-july-2024.pdf>
- NMFS. 2025. Middle Columbia River Steelhead Species and Critical Habitat Summary Update, August 2025. On file at the National Marine Fisheries Service, Snake River Basin Office, Boise, Idaho. Also available at: <https://www.fisheries.noaa.gov/s3/2026-02/status-species-middle-columbia-river-steelhead-august-2025.pdf>
- Overdahl, K.E., R. Sutton, J. Sun, N.J. DeStefano, G.J. Getzinger, and P.L. Ferguson. 2021. Assessment of emerging polar organic pollutants linked to contaminant pathways within an urban estuary using non-targeted analysis. *Environmental Science Processes & Impacts*. 23: 429-445.
- PFMC. 2014. Appendix A to the Pacific Coast Salmon Fishery Management Plan, as modified by Amendment 18. Identification and description of essential fish habitat, adverse impacts, and recommended conservation measures for salmon.

- Peter, K.T., Z. Tian, C. Wu, P. Lin, S. White, B. Du, J.K. McIntyre, N.L. Scholz, and E.P. Kolodziej. 2018. Using high-resolution mass spectrometry to identify organic contaminants linked to urban stormwater mortality syndrome in coho salmon. *Environ. Sci. Technol.* 2018, 52, 10317–10327.
- Peter, K.T., A. Gilbreath, M. Gonzalez, Z. Tian, A. Wong, D. Yee, E.L. Miller, P.M. Avellaneda, D. Chen, A. Patterson, N. Fitzgerald, C.P. Higgins, E.P. Kolodziej, and R. Sutton. 2024. Storms mobilize organophosphate esters, bisphenols, PFASs, and vehicle-derived contaminants to San Francisco Bay watersheds. *Environmental Science Processes & Impacts*. 26: 1760-1779.
- Thompson, Carson. 2026. Eaton Bridge No. 42 Replacement Columbia County CRP 23-05 Biological Assessment. Prepared for Columbia County, Dayton, Washington. January 2026.
- Tian, Z., H. Zhao, K.T. Peter, M. Gonzalez, J. Wetzel, C. Wu, X. Hu, J. Prat, E. Mudrock, R. Hettinger, A.E. Cortina, R.G. Biswas, F.V.C. Kock, R. Soong, A. Jenne, B. Du, F. Hou, H. He, R. Lundeen, A. Gilbreath, R. Sutton, N.L. Scholz, J.W. Davis, M.C. Dodd, A. Simpson, J.K. McIntyre, and E.P. Kolodziej. 2021. A ubiquitous tire rubber-derived chemical induces acute mortality in coho salmon. *Science*. Volume 371, Issue 6525, pp 185-189. 10.1126/science. abd6951.